Auxílio Emergencial

Lessons from the Brazilian experience responding to COVID-19

Pedro Lara de Arruda
Marina Lazarotto de Andrade
Tiago Falcão
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<td>ACP</td>
<td>Ação Civil Pública (Public Civil Suit)</td>
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<tr>
<td>ACT</td>
<td>Acordo de Cooperação Técnica (Technical Cooperation Agreement)</td>
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<tr>
<td>AE</td>
<td>Auxílio Emergencial</td>
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<td>AECI</td>
<td>Assessoria de Controle Interno (Internal Control Advisory Unit)</td>
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<td>AGU</td>
<td>Advocacia Geral da União (Office of the General Counsel to the Federal Government)</td>
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<td>AM</td>
<td>Amazonas State</td>
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<td>AER</td>
<td>Auxílio Emergencial Residual</td>
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<td>BA</td>
<td>Bahia State</td>
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<td>BEm</td>
<td>Benefício Emergencial para Manutenção do Emprego e da Renda (Emergency Benefit for Employment and Income Maintenance)</td>
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<td>BESE</td>
<td>Benefício Emergencial de Suporte ao Emprego (Emergency Benefit to Support Employment)</td>
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<td>BNDES</td>
<td>Banco Nacional do Desenvolvimento Econômico e Social (National Bank for Economic and Social Development)</td>
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<tr>
<td>BNMP</td>
<td>Banco Nacional de Monitoramento de Prisões (National Bank for Prison Monitoring)</td>
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<tr>
<td>BPC</td>
<td>Benefício de Prestação Continuada (Continuous Provision Benefit)</td>
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<tr>
<td>Cadastro Único</td>
<td>Cadastro Único para Programas Sociais do Governo (Single Registry for Social Programs of the Federal Government)</td>
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<tr>
<td>CAIXA</td>
<td>Caixa Econômica Federal (Federal Savings Bank)</td>
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<tr>
<td>Capes</td>
<td>Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (Higher Level Staff Improvement Coordination)</td>
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<tr>
<td>CG</td>
<td>Comitê Gestor (Management Commission)</td>
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<td>CGU</td>
<td>Controladoria Geral da União (General Controller's Office)</td>
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<tr>
<td>CNIS</td>
<td>Cadastro Nacional de Informações Sociais (National Social Information Registry)</td>
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<td>CNJ</td>
<td>Conselho Nacional de Justiça (National Council of Justice)</td>
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<td>CNPq</td>
<td>Conselho Nacional de Desenvolvimento Científico e Tecnológico (National Council for Scientific and Technological Development)</td>
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<td>Correios</td>
<td>Empresa Brasileira de Correios e Telégrafos (Brazilian Postal and Telegraph Company)</td>
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<td>CPF</td>
<td>Cadastro de Pessoas Físicas (Individual Taxpayer Registry)</td>
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<td>DECAU</td>
<td>Departamento do Cadastro Único (Single Registry Department)</td>
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<td>DEPEN</td>
<td>Departamento Penitenciário Nacional (National Prison Department)</td>
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<td>DIRPF</td>
<td>Declaração de Imposto sobre a Renda da Pessoa Física (Individual Income Tax Return)</td>
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<tr>
<td>DPU</td>
<td>Defensoria Pública da União (Public Defender’s Office of the Federal Government)</td>
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<tr>
<td>EC</td>
<td>Emenda Constitucional (Constitutional Amendment)</td>
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<td>ECP</td>
<td>Estado de Calamidade Pública (State of Public Calamity)</td>
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<td>ESPIN</td>
<td>Emergência em Saúde Pública de importância Nacional (Public Health Emergency of National Importance)</td>
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<td>Público Beneficiário do Auxílio Emergencial fora do Cadastro Único (Public not Registered within the Single Registry)</td>
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<td>FAQ</td>
<td>Frequently Asked Question</td>
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<td>Fundo de Amparo ao Trabalhador (Workers’ Support Fund)</td>
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SGFT – Secretaria de Gestão de Fundos e Transferências (Secretariat for Fund and Transfer Management)
SIAPE – Sistema Integrado de Administração de Pessoal (Staff Administration Integrated System)
SP – São Paulo State
STI – Subsecretaria de Tecnologia e Informação (Under Secretariat for Technology and Information)
STJ – Supremo Tribunal de Justiça (Supreme Court of Justice)
SUAS – Sistema Único de Assistência Social (Single Social Assistance System)
TCU – Tribunal de Contas da União (Federal Court of Auditors)
TED – Transferência Eletrônica Disponível (Available Electronic Transfer)
TIC – Tecnologia da Informação e Comunicação (Information and Communication Technology)
TJSP – Tribunal da Justiça de São Paulo (São Paulo Court of Justice)
TRF1 – Tribunal Regional da 1ª Região (Regional Court First Region)
TRF4 – Tribunal Regional da 4ª Região (Regional Court Fourth Region)
TSE – Tribunal Superior Eleitoral (Higher Electoral Court)
Executive Summary

Introduction

• The Auxílio Emergencial (AE) was one of the most agile, robust, and extensive social protection programs implemented by developing countries.

• Having reached up to 55.6 percent of the population, considering both direct and indirect beneficiaries, the program has shown impacts in improving the average income and reducing the prevalence of poverty and inequality (as measured by the Gini index1), compared to immediate pre-pandemic levels.

• The success of the program can be attributed both to its robustness and to its complex architecture, marked by innovations which should be analyzed by their integration potential in relation to regular social protection policies and measures to increase adaptation to the social protection system, both in Brazil and in other countries.

Social and epidemiological context

• The pandemic fell over the country when it was still suffering from the socioeconomic consequences of a fiscal crisis initiated in 2014–16, which had a negative impact on the gross domestic product (GDP), public debt, and income and raised unemployment and poverty levels.

• Except for its vaccination rate, which has registered remarkable advances since the end of the first half of 2021, Brazil remained among the most affected countries throughout the entire pandemic, considering the main epidemiological indicators of spread, mortality, and ability to impose social isolation measures.

• Despite this structurally unfavorable context, the country experienced an improvement in its expectations of its economic recovery, with the AE being one of the leading forces that motivated this reassessment of expectations.

Classification of the AE in the context of other crisis-response policies

• The AE law was approved by Congress within only six days and was enabled because of a legislation which made Brazilian fiscal rules more flexible to deal with the COVID-19 crisis.

• Extraordinary expenditure to combat the pandemic reached BRL 541.1 billion (equivalent to USD 103.46 billion or approximately one-third of regular expenditures by the Federal Government in 2020), with social assistance responsible for 63 percent of these extraordinary expenses, of which 87 percent was allocated to the AE.

1 Possible conclusions about inequality reduction demand even more caution: as globally illustrated by Piketty (2013) and with greater focus on the Brazilian case by Souza (2016), an inequality analysis based on domicile self-declaratory surveys introduces an underreporting bias on the part of the wealthier population, compared to analyses based on income tax information. Souza (2016), for example, shows that even during the first 10 years of the 2000 decade, when information based on Pesquisa Nacional por Amostra de Domicílios (National Survey by Domicile Sampling, PNAD) indicated a reduction in inequality, concentration of income proved to be so significant that, after being aggregated, neutralized the equalizing effect observed among other income distribution extracts.
• The AE benefit does not allow accumulation with other social transfers and it is mainly focused on protecting the chronically and temporarily poor who are not covered by the social insurance system nor by labor-related guarantees in the country.

• The Programa Bolsa Família (PBF) beneficiaries eligible for the AE automatically began to receive the AE benefit instead of PBF’s, whenever this substitution proved to be more advantageous to them.

• It was not necessary for the AE program to adopt specific policies targeted at the poor elderly and at persons with disabilities once the Benefício de Prestação Continuada (Continuous Provision Benefit, BPC) already had specific mandate and structure to cover those groups. During the pandemic, the BPC’s eligibility rules were made more flexible to facilitate access to the program.

• Additionally, due to uncertainties regarding the continuity of social assistance care provided by the Sistema Único de Assistência Social (Single Social Assistance System, SUAS) in states and municipalities during social isolation periods, the AE was not able to formally utilize that structure to establish contact between the program and its target population.

Institutional composition and general aspects

• Launched in April 2020, the AE program aimed at mitigating the social and economic impacts caused by the COVID-19 pandemic, under the expectations that the crisis would be quickly resolved.

• Under the assumption that social and economic effects related to the pandemic would cover a limited temporal horizon, the AE was originally established to last for three months only. However, it ended up being extended throughout three phases (AE1, AE2, and AE3), each one observing different regulations. By the end of September 2021, the AE will have accumulated 16 months of operation, only interrupted between January and March 2021.

• The AE implementation was led by the Ministério da Cidadania (Ministry of Citizenship, MC) –the former Ministério do Desenvolvimento Social (Ministry of Social Development, MDS)– which, since 2004, emerged as a leader in the Executive for the social protection agenda.

• The Social Security Technology and Information Company (Dataprev), historically responsible for managing the labor and social security-related data processing, was responsible for the AE eligibility verification.

• Caixa Econômica Federal (Federal Savings Bank, CAIXA), a public commercial bank with branches present throughout the country and the traditional social transfer payment agent, was in charge of developing the application for benefit request and subsequent payments.

• Additionally, the AE formed a Management Commission, composed of high-level members of the MC and participants from auditing agencies, such as the Tribunal de Contas da União (Federal Court of Auditors, TCU) and the Controladoria Geral da União (General Controller’s Office, CGU) of the Federal Government, to improve the selection and eligibility procedures during the implementation phase of the program.

Targeting and amounts provided

• The AE became less generous across phases in terms of coverage and amounts, as well as regarding the rigidity of procedures to select the beneficiaries and maintain the payments. This trend also explains the challenge in discontinuing a program which had become so central to maintaining social well-being.

2 Formally, what we call here AE1 was known as Auxílio Emergencial (AE), while AE2 received the name of Auxílio Emergencial Residual (AER). What we call AE3 concerns the program formally called Auxílio Emergencial 2021 (AE21). In the text, though, whenever AE is mentioned, we will refer to all three program phases.
• AE1 guaranteed five BRL 600 (USD 114.72) installments for up to two adults per family (the payment was doubled for female heads of single-parent families with children). AE2 reduced individual benefits in 50 percent and discontinued the double amount payments for women who were heads of single-parent families with children, living in families contemplated with two beneficiaries. AE2 also introduced a permanence rule based on monthly eligibility assessments. AE3 restricted the benefit payment to one person per family and reduced the benefit amount to BRL 250 (USD 47.80), with additional BRL 125 (USD 23.90) for female heads of single-parent families with children, and a further reduction of BRL 100 (USD 19.12) for single-member families with no children. In addition, the income criteria became more restrictive, establishing that both the Renda familiar mensal per capita (per capita family income, RFPC) and Renda familiar mensal total (total family income, RFT) remained below the program income thresholds (respectively BRL 522.50 and BRL 3,315.00 per month, equivalent to USD 99.90 and USD 633.84).

• Eligibility verification protocols became more robust as the program advanced, starting 17 major administrative registries and reaching a total of more than 40 databases included in the cross-verification process. In some cases, the great complexity of the selection and payment maintenance procedures introduced an exclusion bias, resulting from using records and eligibility prediction factors marked by ambiguities.

• The AE1 requirement window was active from April 2 to July 2, 2020, and 134 million requests were analyzed over that period (77 million of which concerned people previously registered in the Cadastro Único para Programas Sociais do Governo (Single Registry for Social Programs of the Federal Government, Cadastro Único).

• Among the 57.2 million candidates enrolled via the application (mobile phone app), 32.8 million were considered eligible. Among the 33.1 million individuals enrolled in the Single Registry who were not PBF participants, 10.5 million were automatically considered eligible to the AE. Of the 43.7 million people registered with the Single Registry who were PBF beneficiaries, 19.5 million were automatically considered eligible to the AE.

• Although no official data are available on the number of families covered by the AE disaggregated by beneficiary groups, there are signs that PBF public, which comprehends up to 95 percent of families having at least one AE beneficiary, comprise the group with more families contemplated by the temporary benefit, albeit indirectly.

• The large difference between coverage rates expressed according to different units of analysis (family or individual) reflects a duality that is characteristic of the program itself: while benefits, on one hand, cover families as a whole, they are, on the other hand, provided to individuals, based on individual ownership and even limited to a maximum number of direct beneficiaries per family.

• Only people who were receiving AE1 in December 2020 remained eligible for AE2 and AE3.

Program access channels

• In general, the AE utilized three entry channels: (a) automatic selection of PBF beneficiaries who would be eligible to receive more significant benefits through the AE program; (b) the automatic selection of people registered in the largest administrative registry of Brazilian social programs (the Single Registry - Cadastro Único or CadÚnico) who were not beneficiaries of the PBF; (c) passive selection based on requests submitted through the app developed by CAIXA for this purpose, which led to the creation of a new temporary registry, the Público Beneficiário do Auxílio Emergencial fora do Cadastro Único (Public not Registered within the Single Registry, ExtraCad).

• The existing trust that Grupos Populacionais Tradicionais e Específicos (Traditional and Specific Populational Groups, GPTES) would be covered by the program exempted the AE from developing a specific active search strategy for most of these groups, including
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indigenous, ex-slave descendent groups (*quilombolas*), and other traditional communities. Street dwellers were the only group who, for a brief period and without significant take-up, could register through the assisted registration process offered by *Empresa Brasileira de Correios e Telégrafos* (Brazilian Postal and Telegraph Company, Correios).

- For operational convenience, the AE worked only based on a static extract of the Single Registry of April 2, 2020, facing a subsequent risk of exclusion error resulting from changes in family composition and family income, which were not reflected in that specific period’s extract. People in this situation could request the benefit through the app, as long as they declared the same family composition as in their registration within the Single Registry. This, however, would not allow access to those whose family composition in the Single Registry might indicate that they already belonged to families that reached the maximum number of beneficiaries allowed by each phase of the program.

- Requests via the app were used by a little more than 50 percent of program beneficiaries, representing a pioneer innovation in the Brazilian social policy. It however uncovered exclusion biases generated by the exclusivity of this channel of request used by people not previously registered in the Single Registry.

- The limitation of people not previously registered in the Single Registry being only able to register in the AE program by digital means had to do with the option of not including SUAS in the AE operation, a traditional partner of federal social programs which carries on the contact with the populations at the local level.

- Although motivated by an initial interruption of the SUAS services due to the advent of the pandemic, the social assistance service institution soon resumed its activities. This leads to the conclusion that, apparently, the exclusion of SUAS from the AE was likely due to its inability to promptly agree on the program participation terms.

**Selection Process**

- Unlike regular social income transfer programs, as the PBF, the AE verification of eligibility was fully determined by comparing administrative records, which achieved a degree of interoperability and complexity never experienced in a Brazilian social program.

- Taking advantage of the structure of the *Cadastro Nacional de Informações Sociais* (National Social Information Registry, CNIS) to the analysis of social insurance and labor data, the more than 40 administrative registries used by the AE were organized in an Analytical Database, where CNIS records were interlinked by a Master Data Manager (MDM), helping the Analytical Database make intelligent choices among records containing the most adequate predictors for each eligibility check carried out by the program’s search engine.

**Payment System**

- For the payment of benefits, CAIXA created –without costs to beneficiaries– a new type of bank account: the *Poupança Social Digital* (Digital Social Savings Account, PSD). This new bank account included possibilities for digital banking operations without the need of physical cards.

- The payment routine for PBF public was maintained according to the regular practice established by the program. Other AE beneficiaries, however, had to observe a time interval between the deposit of the benefit into their bank accounts (which only allowed for digital transactions) and the possibility to withdraw the cash.

- The program’s incentive to use digital transactions (as a way to avoid physical agglomeration of people) took advantage of a new modality of instantaneous transfers, with no operational costs: the PIX. It was introduced in the country in November 2020 and soon became a widely accepted payment method in the market.
• The successful experience of using PSD in the payment of the AE led to the adoption of that tool for the payment of other social transfers as well, resulting in a coverage of more than 100 million people over a period of nine months.

**Passive and active communication channels**

• Passive communication channels with society (Relationship Centers, Ombudsman’s Office Services, and units providing access to information) demanded constant efforts from the MC, CAIXA, and Dataprev to delimit the responsibilities of each agency and to update the program’s logical matrix at the pace of changes that were happening during the implementation.

• As a way to mitigate the saturation experienced by traditional passive communication channels, digital solutions were developed, such as processing and answering of emails via artificial intelligence, the creation of chatbots, and the inclusion of instruction recordings for telephone callers while awaiting answers from human operators.

**Management of complaints, solution of errors and fraud, and recovery of amounts**

• The AE provided an automatic dispute mechanism through the website and the program’s application. This was capable of debugging minor errors involving temporality of the administrative records used to determine eligibility to the program.

• For AE1 and AE2, an extrajudicial complaint channel was established at the Defensoria Pública da União (Public Defenders’ Office of the Federal Government, DPU, an institution which provides free legal advice and defense services to low-income population) for cases of overlapping administrative information. Documental evidence was analyzed in face-to-face meetings with public defenders, in cases previously determined by the program legislation. This partnership, nevertheless, ended before AE3 went into operation, due to the limited coverage of the service.

• The AE’s inability to satisfactorily resolve all complaints led to a spike of more than 225,000 individual lawsuits between April and July 2020 and more than 60 public civil actions. Although most of the lawsuits were rejected, they contributed to promote improvements in some aspects of the program.

• The AE established a few ways to recover unduly paid amounts: coordinating with investigative agencies to dismantle organized fraud; offering behavioral incentives for the voluntary reimbursement of funds unduly received; and, in some cases, conditioning the return of unduly paid amounts as a requirement to enable individuals to submit their Declaração de Imposto sobre a Renda da Pessoa Física (Individual Income Tax Return, DIRPF).

**Program coverage profile**

• In all AE phases, the ExtraCad group dominates the coverage profile in absolute number of individuals, followed by the PBF group and then the Single Registry’s non-PBF group.

• All phases mainly covered the working-age population (especially those ages 25 to 34), with a higher prevalence of women, mainly from the PBF and non-PBF Single Registry groups.

• Between 2020 and 2021, the AE’s direct coverage rate was reduced by more than 40 percent, without experiencing significant changes in the distributive profile of its coverage.

• The program reached all 5,570 Brazilian municipalities, although with some heterogeneity. The program’s relative coverage was approximately 32 percent and average standard deviation of 7 percentage points.
• The largest absolute coverage of the program is in the Southeastern and Northeastern regions, while the largest relative coverage is in the Northeast and North regions.

**Benefit adequacy and program impact estimates**

• Compared to policy responses implemented by other developing countries, the AE became known by the generosity of its coverage and by the amounts involved in the benefit, for its efficacy, rapid implementation, and the duration of the program.

• The AE benefit was also generous relative to national benchmarks. For example, AE1 provided a monthly benefit about three times higher than the PBF’s benefit and equivalent to two-third of the average monthly income from work earned by PBF beneficiaries in prior years. This amount also corresponds to about 50 percent of the national minimum wage and to approximately half of the average amount received by **Seguro Desemprego** (Unemployment Insurance, SD) beneficiaries.

• Although the data currently available might not be enough for a definitive impact evaluation of the program, assuming that the program is well targeted, the literature seems to converge in agreement to the fact that there was a positive impact on improving income, poverty rates, and inequality levels (as measured by the Gini index), even considering the least generous phases of the program, and based on parameters observed in the immediate pre-pandemic period.

• It is quite concerning to realize that even with the possible improvements in income conditions, there are still signs that food insecurity in the country may have increased, even during the operation of the program.

**Main innovations presented by the AE and considerations about its future use in Brazil (and in other contexts)**

• The AE introduced at least 20 operational innovations never before used in social assistance programs in Brazil.

• Many of these innovations depend on prior structural facilitating factors not necessarily available in other countries, but several others resulted from timely efforts which might be readily adaptable in other contexts.

• AE innovations that may potentially be quickly adopted even in different contexts are concentrated in the payment phase, which involves a more heterogeneous picture for program administration measures, while actions to analyze demands and select beneficiaries result from historical legacies of social protection in Brazil.

**Final Comments**

• The AE is one of the most vigorous international responses to the COVID-19 pandemic and is Brazil’s flagship social response to the socioeconomic crisis resulting from the pandemic. Estimates assuming a well-targeted program suggest that the AE was responsible for improvements in income and reduction in poverty and inequality, compared to the period immediately before the crisis. These possible effects are due both to the volume of resources as well as to the program’s well-designed architecture.

• IT solutions and the use of Big Data should become better integrated to traditional procedures and actors of social assistance, and it may be interesting to organize crisis protocols that would enable the engagement of federal and subnational agencies in future emergency efforts.
• In the administrative sphere, it would be interesting to have controller agencies balancing the combat against inclusion errors and measures to overcome them, fostering other interests expressed by program beneficiaries.

• Excessive control measures such as the monthly revalidation as a condition to maintain payments, limitations in requesting windows, and the utilization of static record extracts to determine family compositions are perhaps not the most recommended options to deal with crises of continued effect. This is particularly true when the deterioration of living conditions extends for prolonged periods and when the predictability and continuity of benefits tend to have a similar relevance as the one occupied in the theory of change which informs regular programs against chronic poverty.

• Income calculation based on DIRPFs from previous years is also not an ideal option in a context of covariate shocks, which is precisely characterized by an abrupt change which can force into situations of vulnerability people who are not usually in that condition (and who were not vulnerable before the shock). Thus, the previous year income of program candidates has little to say about their actual income status at the time the initiative is implemented.

• In addition to guaranteeing the social and economic well-being of the population during the pandemic, the AE became a laboratory which produced deep institutional learning. Its bottlenecks were revealed as secondary compared to the efficiency at which primary objectives were achieved. To a large extent, bottlenecks resulted from the false assumption that the program would only last for “a few more months.”

• Going forward, it is desirable that the regular Brazilian social protection structure could incorporate more shock adaptation and response elements to reduce the effect of false perceptions about the extension of new crises in the design of its responses. Efforts along these lines might also strengthen a more adaptive social protection system, capable of ensuring a diligent response to less dramatic crises than the one recently faced, for which the government may perhaps be unable to react with a prompt and efficient ad hoc response, as the one we saw during the COVID-19 pandemic crisis.

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3 Grosh et al. (2008) define covariate shocks as those events that bring uncertainty about the consequences, duration, and final outcomes, and impact of which many or even all members of a group or community, as it happens in cases of droughts, earthquakes, and macro-economic crises.
1. Introduction

Although Brazil has been one of the countries hit the hardest by the epidemiological effects of COVID-19, the Auxílio Emergencial (AE) stood as a strong social protection response targeted to the protection of the chronic and temporary poor not covered by social insurance system nor by the country’s labor-related guarantees. The Brazilian social assistance, which historically received approximately 1.5 percent of the gross domestic product (GDP) (World Bank 2021a), received almost 5 percent of the GDP in 2020, of which 87 percent was allocated to the AE (GoB, CGU 2021b). The initiative consisted of temporary and unconditional income transfer program, conceived ad hoc to cover adults (or teenage mothers) with no active formal employment, informal workers, and individual micro-entrepreneurs with Renda familiar mensal per capita (per capita family income, RFPC) below half of a minimum wage (BRL 522.50 or USD 99.90) and/or Renda familiar mensal total (total family income, RFT) no higher than thrice the minimum wage (BRL 3,315.00 or USD 633.84). Additionally, the program was limited to individuals whose declared income in the Declaração de Imposto sobre a Renda da Pessoa Física (Annual Income Tax Returns, DIRPF) of the previous fiscal year did not surpass BRL 28,559.70 (USD 5,460.74) and who were not recipients of social insurance benefits and/or labor-related benefits. The program was also restricted to individuals who did not receive other social programs benefits financed by the Federal Government, except for the Programa Bolsa Família (PBF). PBF beneficiaries were automatically enrolled to receive AE benefits whenever the latter proved to be more generous. The AE also automatically included eligible individuals enrolled in the Single Registry until April 2, 2020, who were not beneficiaries of PBF. The program also covered eligible persons who requested access through the app developed for this purpose (Bartholo et al. 2020; GoB, CGU 2021b; GoB, Min. Citizenship 2021j, 2021k; Lara Ibarra 2021a; Yamasaki and Rodopoulos 2021).

The AE was one of the fastest, most robust, and long-lasting emergency social protection programs offered in developing countries, in some instances covering up to 55.6 percent of the population, considering direct and indirect beneficiaries. It presented possible spillover effects in terms of improvements in income and prevalence of poverty and inequality, even considering levels immediately before the crisis. As indicated in a study comparing COVID-19 social protection responses throughout the world, AE1 covered more than 68 million beneficiaries and it ranks as the fifth largest response in the world in terms of absolute coverage of beneficiaries. In a study comparing more than 1,400 COVID-19-related social protection responses initiated in a total of 215 countries, Gentilini, Almenfi, and Dale (2020) underscore that the AE benefit, when compared to PBF average benefits, represented the fourth largest vertical expansion of a social program. The same comparative study also states that the difference between the desired public and those effectively covered by both AE1 and AE2 was marginal, of around 5 percentage points. Another comparative paper looking at the timeliness of COVID-19 responses, including 53 countries and a total of 85 initiatives, shows also that AE1 was the sixth fastest response in the world, with first benefits being paid just 27 days after the first social isolation measure was announced (Beazley, Marzi, and Steller 2021). Although there is still no consensus on the order of magnitude of its effects, everything points to the fact that even the less generous phase of the program may have improved average
Auxílio Emergencial

income and reduced poverty, and even the Gini index, if compared to conditions immediately before the pandemic (Cereda, Rubião, and Sousa 2020; Gonzales and Barreira 2020; Gonzales and Oliveira 2021; Lara Ibarra 2021a, 2021b). These effects are possibly not only the result of the gross volume of resources invested but also of the wise decisions taken on the program’s design.

The AE was originally intended to be a temporary program, although it ended up being re-edited in three versions that share the same operational structure, even though each reserves significant differences in terms of both rules and procedures. Approved by the National Congress on March 30, 2020 (Law Nr. 13982/2020) and regulated by Presidential Decree on April 2 of the same year (Decree Nr. 10316/2020), the first version of the Auxílio Emergencial (AE1) offered a basic benefit of BRL 600 per month (USD 114.72) and made its first payment on April 8, 2020. It was initially designed to last for three months, from April to

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1 Brazil is a bicameral country. Legislative power is divided in two houses: a lower house (the Chamber of Deputies) and an upper house (Federal Senate).

Source: Author’s comments based on legislative records and congressional procedures mentioned.

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BOX 1.

Six days that changed Brazil: The AE1 legislative process

AE1 did not follow from a monocratic act of the Federal Executive Branch, as it had to be approved by specific legislation examined by the Legislative Power. The legislative procedure was remarkably rapid, although marked by disputes that significantly affected the final design of the program.

A totally new bill would normally have to navigate through several commissions in both legislative houses, a process that would most certainly take significant time. In urgent cases, it is usual in Brazil that instead of submitting petitions for new bills, requests are presented to include additional contents to existing bills already advanced in the legislative processes. This is possible provided that the legislative leaders understand that such additions would not require reconsideration by the commissions which might have already evaluated and approved the first proposal.

In case of the AE, this ‘legislative ride’ was made possible because of a proposal submitted by Representative Marcelo Aro (PP-MG) on March 25, 2020, after being appointed rapporteur of a bill of law that had been undergoing appreciation since 2017 (PL 9236/2017). The original bill included in PL 9236/2017 aimed at modifying the Social Assistance Organic Law (Law Nr. 8,742 of December 7, 1993) to relax the criteria used to characterize vulnerability and the selection criteria of Benefício de Prestação Continuada (Continuous Provision Benefit, BPC). PL 9236/2017 was approved on November 19, 2019, by the last of three commissions to which it had to be submitted, and the only step pending was its approval by the Plenary of both Legislative Houses (House of Representatives and the Federal Senate). As the new rapporteur, Representative Marcelo Aro (PP-MG) began, as of March 25, 2020, to edit the text of PL 9236/2017 by adding rules that would establish the AE discipline. The Chairman of the House approved a request for regime of urgency for the consideration of the bill by the Plenary, which culminated in the approval of the text. It was immediately submitted to the Federal Senate, on March 27, as PL 1066/2020, approved under the regime of urgent on the March 30, and subsequently sanctioned by the President of the Republic the same day (Law 13982/2020). Although the legislative rite still required a new veto opportunity to specific clauses by the National Congress (which occurred on April 2) and subsequent final adjustments before issuing the Presidential Decree (which occurred on April 7, by Decree 10316/2020), on March 30, 2020, the main characteristics and legal premises for the implementation of the program had already been secured.

4 See note number 1.
June, but it was extended for two more months, until August 2020. Between September and December 2020, a new phase of the program (Ayílio Emergencial Residual, AER or AE2) was launched by Medida Provisória (Provisional Measure, MP) 1000 on September 2, 2020, and later regulated by Decree Nr. 10488 of September 16, 2020. AE2 introduced changes in eligibility rules, along with a drastic 50 percent reduction in the benefit amount, establishing an eligibility monthly reassessment as a condition for beneficiaries to remain in the program. The initiative was discontinued between January and March 2021. As a result of the aggravation of the crisis caused by the second wave of the pandemic, AE3 (or Ayílio Emergencial 2021, AE2021) was launched in April 2021 by Presidential Provisional Decrees Nrs. 1037, 1038, and 1039 of March 18, 2021, and subsequently regulated by Decree 10661 of March 26, 2021. With expected duration of four months (later extended for three more months), AE3 offered a base benefit of BRL 250 (USD 47.80) with additional BRL 125 (USD 23.90) for women who were heads of single-parent families with children and observed a reduction of BRL 100 (USD 19.12) in case of single-person families without children (Ibid).

Figure 1. Timeline and main characteristics of the three AE phases

<table>
<thead>
<tr>
<th>AE1</th>
<th>AE2</th>
<th>AE3</th>
</tr>
</thead>
<tbody>
<tr>
<td>• RS 231 bi total spent</td>
<td>• RS 64 bi total spent</td>
<td>• RS 43 bi total spent (from April to end July 2021)</td>
</tr>
<tr>
<td>• Coverage peak of 68,2 mi individuals</td>
<td>• Coverage peak of 56,8 mi individuals</td>
<td>• Coverage peak of 39,3 mi individuals (from April to and July 2021)</td>
</tr>
<tr>
<td>• RS 600 benefit value for up to two members of the same household with doubled benefit in cases of women who were heads of single-parent families with children</td>
<td>• RS 300 benefit value for up to two members of the same household OR doubled benefit in cases of women who were heads of single-parent families with children</td>
<td>• Base benefit of BRL 250 per household with additional BRL 125 for women who were heads of single-parent families with children and observing a reduction of BRL 100 in case of beneficiaries living in single-person families without children</td>
</tr>
</tbody>
</table>

Source: Prepared by the authors based on Bartholo et al. (2020); GoB, CGU (2021b); GoB, Min. Citizenship (2021j, 2021k); Lara Ibarra (2021a); Yamasaki and Rodopoulos (2021); and Valor Econômico/Valor Data (2021).

Note: Court-determined payments may have occurred after the period of reference indicated here for each phase of the program.

To catalog and analyze innovations introduced by the AE, the Foreign, Commonwealth & Development Office of the Government of the United Kingdom (FCDO) funded a research agenda developed by the World Bank, titled ‘Sharing and Institutionalizing Lessons Learned from Brazil’s Social Protection Response to COVID-19’. This Summary Note presents the main research findings, organizing and discussing the main characteristics of the program in each of its main operational phases. Along with this Summary Note, the project ‘Sharing and Institutionalizing Lessons Learning from Brazil’s Social Protection Response to
COVID-19 also includes the preparation of the following technical notes, resulting from interests expressed by the FCDO, the Brazilian government, and social policy managers in African countries participating in the Mini-CoP on June 22, 2021.

- **Technical Note 1**: Validation of eligibility criteria, beneficiary selection, and use of administrative registries and data crossing from different databanks as part of the AE.

- **Technical Note 2**: The payment system used by the AE, introduction of the Digital Social Savings Account and opening bank accounts to more than 100 million previously ‘unbanked’ people in 9 months.

- **Technical Note 3**: Advantages and challenges in the implementation of emergency social policies in a decentralized arrangement: considerations about the AE in Brazil.

- **Technical Note 4**: Specific measures for inclusion and adequacy of the AE for vulnerable groups.

To prepare this research agenda, 585 bibliographic references were reviewed. They were either identified through screening by the authors or suggested during the 36 semi-structured interviews held between April 8 and July 30, 2021. The selection of groups and focal points to be interviewed for this study resulted from an initial triage by the authors, who expanded the sample using a snowball methodology, according to which interviewees suggested other people and institutions to be interviewed. In this process, fundamental suggestions were offered by the team at the Secretaria Nacional do Cadastro Único (Single Registry National Secretariat, SECAD) and, specifically, by Secretary Nilza Yamazaki and the Coordinator-General for Registration Management and Procedures, Ana Gabriela Sambiase.

The interviews allowed an exchange of ideas with 66 people working in AE operations and management, from 11 different institutions (and seven different units of the Ministério da Cidadania [Ministry of Citizenship, MC]). A remarkable absence in the list of interviewees is institutions representing Sistema Único de Assistência Social (Single Social Assistance System, SUAS), who declined our invitation with the argument that they had not been formally involved in the AE’s design or implementation.

In addition, the team who produced this Summary Note maintained constant dialogue with project managers and FCDO specialists throughout the preparation of the text and have also participated in the Mini-CoP with African country social program managers, held on June 22, 2021. This last event helped identify topics of major interest for this public and ensure that these were approached in this text and in the Technical Notes.

5 175 of the main references used in this research agenda can be found in the project’s online library through this link: [https://www.zotero.org/groups/4504692/auxlio_emergencial_library_for_public_access_world_bank_project/library](https://www.zotero.org/groups/4504692/auxlio_emergencial_library_for_public_access_world_bank_project/library).
Lessons from the Brazilian experience responding to COVID-19

Similar to the rest of the world, in Brazil the COVID-19 pandemic triggered an unprecedented crisis, affecting the health of the population and socioeconomic well-being. After the first case recorded on February 26, 2020, Brazil became a protagonist in one of the most dramatic trajectories in terms of the spread of the disease and its subsequent incidence of mortality. Having adopted mobility restriction policies (stringency index) with an average score of 65 percent (with 80 percent peaks observed only in April 2020), the country appeared from the very beginning of the pandemic among the most affected countries in the world, regarding both absolute and relative general aspects. The country experienced some relief after the first wave of the epidemiological outbreak in November 2020; nevertheless, the second wave initiated less than one month later and proved to be even more infectious than the first, maintaining a growing trend until June 24, 2021. With the advent of the vaccine and the beginning of the immunization efforts in January 2021, the situation in Brazil started to gradually improve. Even at 45 percent of the population vaccinated with the first dose by the end of July 2021, the country remains among the most affected countries in the world, in terms of weekly moving average of confirmed new cases and deaths.

The pandemic struck Brazil in a moment of extreme economic fragility, a consequence of the fiscal crisis that started in 2014–16. As illustrated in Figure 3, the Gross Public Debt of The Federal Government (DPGG) at the end of 2014 was 62.3 percent and reached 87.7 percent in December 2019 (IMF 2021a). Extreme poverty⁶, which observed a prevalence of 2.7 percent in 2015, continuously grew and reached 4.6 percent by the end of 2019. The unemployment index, which was 6.7 percent in 2014, reached the historical peak of 12.8 percent in 2017, falling to 11.9 percent by the end of 2019 (World Bank 2021d).

Despite a catastrophic combination of fiscal and epidemiological crises, the recovery expectations for Brazil have been gradually improving, and it is possible that the AE and other social protection responses have induced this process. After having experienced a decreasing trend since 2013, Brazil’s GDP initiated a timid recovery between 2016 and 2019, registering a 4 percent drop in 2020, which was also a result of impacts caused by the pandemic. World Bank expectations in January 2020 regarding the pandemic effects in Brazil that year were initially catastrophic, estimating an 8 percent retraction. Nevertheless, in June 2020, expectations were adjusted to a 4.5 percent retraction, which was closer to what was truly observed. More recent estimations of the World Bank (2021c) for 2021, in turn suggest an expected growth of 4.5 percent. According to what will be discussed in Chapter 12, the AE will probably appear among the engines of this possible economic recovery of the country, considering that the initiative—which covered as much as 55.6 percent of the population, considering direct and indirect beneficiaries—may have fostered an increase in the average income of its beneficiaries, even considering pre-pandemic standards.

⁶ Considering the USD 1.90 per day line and the 2011 purchasing power parity.
Figure 2. Epidemiological indicators of the COVID-19 pandemic in Brazil and in selected countries

Accumulated cases, deaths (absolute and relative figures), percentage of the immunized population (partially and completely), and rigor index of social isolation (stringency index).

Source: Our World in Data (2021). Note: As a comparative measure, graphs include the 10 most populous countries in the world and, whenever it is relevant, include global, South American, middle-income countries, low-income countries and high-income countries averages.
Lessons from the Brazilian experience responding to COVID-19

Figure 3. Social and economic indicators, extreme poverty, public debt, unemployment rate, and GDP variation

A. % of popul living below extreme poverty line (US$ 1,90 PPP2011 per capita per day)

B. Fed Gov Public Debt

C. % of unemployed labor force

D. Annual GDP variation(%)
3. Positioning the AE in the context of other policies’ responses to the crisis

Beyond health-related responses (including more flexible commercial and custom rules for availability of inputs), policies designed to protect the social and economic well-being of the population during the pandemic may be classified according to five major groups, as illustrated in Table 1.

Table 1. Main public policies responses to social and economic impacts caused by the pandemic

<table>
<thead>
<tr>
<th>Group of Measures</th>
<th>Programs and actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preservation of strategic services</td>
<td>• Service delivery through remote modality.</td>
</tr>
<tr>
<td></td>
<td>• Suspension of requirements and face-to-face processes.</td>
</tr>
<tr>
<td></td>
<td>• Simplified procurement of individual protection equipment.</td>
</tr>
<tr>
<td></td>
<td>• Suspension of obligatory updating and verification processes of the Single Registry through Ordinance n. 335/GM/MC of March 20, 2020, and later by Ordinance n. 443/GM/MC of July 17, 2020; Ordinance n. 591/GM/MC of January 15, 2021; and Ordinance n. 624/GM/MC, of March 31, 2021, in force until September 2021. Currently, a new directive is being published to maintain these processes until January 2022.</td>
</tr>
<tr>
<td></td>
<td>• Authorization to the remote provision of Single Registry services, by telephone or any other digital means, through Ordinance n. 337/GM/MC of March 24, 2021, accompanied by procedures established by Operational Instruction number 4 of the same date.</td>
</tr>
<tr>
<td></td>
<td>• Suspension of conditionality monitoring of the PBF.</td>
</tr>
<tr>
<td>Aid to states and municipalities</td>
<td>• Direct transfer of funds (transfer of BRL 88.2 billion to states and municipalities according to Provisional Presidential Decree nr. 828, of March 23, 2020).</td>
</tr>
<tr>
<td></td>
<td>• Extraordinary Budget of BRL 2.4 billion (USD 458.9 million) for SUAS (largest in history) to complement the ordinary budget of BRL 1.4 billion (USD 267.7 million) (smallest in history).</td>
</tr>
<tr>
<td></td>
<td>• Postponement of 6 months in complying with commitments with the Federal Government.</td>
</tr>
<tr>
<td></td>
<td>• Re-negotiation of debts with public banks in a total amount of BRL 9.6 billion (USD 1.83 billion) and additional credit offer up to a total of BRL 40 billion (USD 7.64 billion).</td>
</tr>
<tr>
<td>Credit, debts and mandatory contributions from corporations and families</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td></td>
</tr>
<tr>
<td>• Temporary suspension of mandatory contributions to FGTS¹ and Simples Nacional² and 50% reduction in contributions due to Sistema S³</td>
<td></td>
</tr>
<tr>
<td>• Supply of a credit line (a) to micro and small-size companies who are beneficiaries of the FAT⁴ program (BRL 5 billion or USD 956 million); (b) to companies in the health sector, credit by Banco Nacional do Desenvolvimento Econômico e Social (National Bank for Economic and Social Development, BNDES) (BRL 2 billion or USD 382 million); and (c) to the Santa Casa de Misericórdia Network, by CAIXA</td>
<td></td>
</tr>
<tr>
<td>• Renegotiation of debts</td>
<td></td>
</tr>
<tr>
<td>• Suspension of public debt collection (for example, from housing financing programs by CAIXA)</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Preservation of work and formal employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Permission to withdraw funds from the Fundo de Garantia do Tempo de Serviço (Guarantee Fund for Length of Service, FGTS) (up to BRL 1,045.00 per taxpayer, or USD 199.80)</td>
</tr>
<tr>
<td>• Peak of SD⁵ payments (the number of requests rose from 483,145 to 960,308 between February and May 2020)</td>
</tr>
<tr>
<td>• Rules to discipline remote work and salary renegotiation (MP 927, March 22, 2020)</td>
</tr>
<tr>
<td>• Creation of the Benefício Emergencial de Suporte ao Emprego (Emergency Benefit to Support Employment, BESE) by MP 924 of March 27, 2020, offering subsidized credit to employers who committed to not dismiss their employees, which resulted in the preservation of over 12 million formal jobs.</td>
</tr>
<tr>
<td>• Creation of the Benefício Emergencial para Manutenção do Emprego e da Renda (Emergency Benefit for Employment and Income Maintenance, BEm) by MPs 935 and 936 of April 1, 2020, which allowed salary and work hour reduction with partial coverage of the loss of income by the Federal Government if employers committed to not dismiss employees during the six following months. The effort preserved more than 12 million formal jobs in 2020, which led to a new edition of the measure on April 27, 2021, by Medida Provisória (Provisional Measure, MPV) 1.045.</td>
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</tbody>
</table>

<table>
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<tr>
<th>Guarantee of income the vulnerable and informal population</th>
</tr>
</thead>
<tbody>
<tr>
<td>• MPV 929, of March 25, 2020, processed the entire waiting line for the PBF, including 1.22 million families who were in this situation.</td>
</tr>
<tr>
<td>• Directive number 330/GC/MC of March 18, 2020, which suspended for 120 days the mandatory enrollment or updating of the Single Registry for candidates for the Benefício de Prestação Continuada (Continuous Provision Benefit, BPC) and for the maintenance of their benefits.</td>
</tr>
<tr>
<td>• Creation of the AE by law number 13982 of April 2, 2020 (which also determined more flexible eligibility criteria for BPC, although still pending provisions for the full operationalization of some aspects related to the more flexible BPC requirements).</td>
</tr>
</tbody>
</table>

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¹ The Fundo de Garantia do Tempo de Serviço (Guarantee Fund for Length of Service, FGTS) is a mandatory monthly protection contribution fund to protect formal workers. It includes employers depositing 8 percent of salaries paid to workers every month to a CAIXA account in the names of employees. The amount accumulated protects workers in case of dismissal and may also be with broad in special conditions, as in the case of purchase of real estate, serious diseases, or retirement.

² Created in 2006, the Simples Nacional, represents a tax regime for micro and small-size companies which include the individual micro-entrepreneur category. Created with the objective of simplifying and removing red tape from the collection process, the Simples Nacional regime is optional.

³ The S System (Sistema S) is formed by a group of corporate entities focused on the inclusive training of skilled labor, which offers social and technical assistance to professional training centers.

⁴ The Fundo de Amparo ao Trabalhador (Workers’ Support Fund, FAT) is fed by contributions made by companies and employers and by contributions over imports and serves to fund a variety of activities related to the promotion of work and jobs, as the Seguro Desemprego (Unemployment Insurance, SD) and the Salary Bonus.

⁵ The SD was created in 1986 as a contribution-based pension for formal workers funded by the FAT, which offers 3–5 installments after dismissal.

Source: Prepared by the authors, based on Ministry of Economy (2021b) and Instituto de Pesquisa Econômica Aplicada (Institute for Applied Economic Research, IPEA) (2021).
The AE was the most relevant social protection response to the COVID-19 crisis in Brazil, covering the greatest number of individuals and receiving the largest funding. Its design was influenced by the limitations of service delivery due to the pandemic, in coordination with other measures adopted by the government. Formally launched on April 2, 2020, the AE’s design and operation were affected by other measures which also offered benefits that could not be accumulated with the AE itself or which could affect the means by which the AE would be structured. Regarding the coordination among programs to avoid double dipping (overlapping coverage), it was decided to restrict AE eligibility only to those who did not receive benefits from other federal social programs, except for PBF beneficiaries, who ended up receiving the AE benefit whenever it was more advantageous (the case of over 96 percent of PBF beneficiaries during the AE1 cycle, for example) (Gob, Ministry of Economy 2020).

Regarding implications of other COVID-19 responses for procedures adopted by the AE, the most relevant fact was related to the decision to suspend the obligation of some activities that required interaction with the population, carried out by SUAS, at the beginning of the pandemic. That contributed for the AE to start operating without the participation of SUAS. Consequently, the AE resorted to technological solutions and other partnerships to mitigate the absence of the decentralized service points of the program in states and municipalities. An additional consequence was that the program had to carry out its eligibility verification procedures based on administrative records. Since practically all Single Registry services depend on SUAS to be fed and updated, and considering the possibility of SUAS being paralyzed at the beginning of the pandemic, another consequence was that AE eligibility verification depended on a static statement of the Single Registry, which potentially led to exclusion bias.

According to Figure 4, the AE and BEm were the most vigorous financial measures in their respective fiscal years. Of BRL 541.1 billion (USD 103.46 billion) committed by the Federal Government to fight the pandemic in 2020, 63 percent was allocated to social assistance efforts, of which 68 percent was allocated to AE1, 19 percent to AE2, and 12 percent to BEm. Between January and July 2021, the budget committed to responses to the pandemic was BRL 127.4 billion (equivalent to USD 24.35 billion and approximately one-fourth of the amount spent in the same period of 2020). On the other hand, the distribution of this budget in 2021 follows a similar profile to that of 2020, with the main difference being a larger proportion of resources targeted to the health sector, mainly committed to the purchase of vaccines (GoB, CGU 2021b).

To make resources available for the implementation of the AE, as well as for other policies listed above (Table 1), a complex and heterodox fiscal architecture was built, of which seminal pillars were the declaration of Emergência em Saúde Pública de importância Nacional (Public Health Emergency of National Importance, ESPIN) and the subsequent Estado de Calamidade Pública (State of Public Calamity, ECP). The following measures were of fundamental importance for practically all policies designed by the Federal Government to face the situation: the declaration of ESPIN, by Ordinance n. 188 of the Ministry of Health on February 3, 2020 and the subsequent adoption of Law n. 13,979 of February 6 of the same year, dealing with extraordinary prerogatives to face the ESPIN (including more flexible public procurement tender laws and other forms of public contracting). Another fundamental measure adopted was the declaration of the ECP by Legislative Decree nr. 6 of March 20, 2020, that allowed the request of extraordinary credits for measures to fight the crisis, including the AE.
Beyond its own measures that granted more flexibility in budgetary rules (for example, in terms of public procurement), the ECP and ESPIN declarations opened up routes for the timely approval of Constitutional Amendments that introduced more flexibility in major fiscal rules such as the ‘Golden Rule’ (Regra de Ouro) and the ‘Expense Ceiling’ (Teto de Gastos), which, if not complied with, result in responsibility crime and may culminate in impeachment procedures. According to Constitutional Amendment 95 of 2016, also known as the Expense Ceiling Rule, the growth of primary expenses from one year to the following may not exceed the accumulated inflation for the same period, exception made to extraordinary expenses in the event of ECP. According to this rule, primary expenses for 2020 would be limited to BRL 1.45 trillion (USD 277.24 billion). With the ECP characterized, it became possible to allocate additional BRL 524 billion (USD 100.19 billion) to cover expenses to mitigate the 2020 crisis, as extraordinary credits not included in the Expense Ceiling calculation. As Brazil persisted in a situation of public calamity, an additional BRL 56.62 billion (USD 10.82 billion) was released between January and July 2021 as extraordinary credits, which will also not be included in the Expense Ceiling calculation for this year (limited to BRL 1.48 trillion or USD 283 billion) (GoB, Agência Brasil 2021b; GoB, CGU 2021b; GoB, National Treasury 2021a, 2021b).
Another important measure was the promulgation of Constitutional Amendment 106, on May 7, 2020, which became known as the War Budget. It relaxed other important rules associated with public spending control, specifically allowing the Golden Rule not to be observed. The so-called Golden Rule refers to a set of legal provisions that prohibit financial funds generated by indebtedness (credit operations) to be larger than the capital expenditures (investments, financial inversion, and debt amortization). In simpler words, the rule forbids taking new credits that exceed the amount of deductions made in the liabilities of previously acquired credit. As this rule was suspended, Federal Government credit operations in 2020 exceeded capital expenses by 28.56 percent. After the 2020 War Budget expired, Emenda Constitucional 109 (Constitutional Amendment 109, EC 109) approved a new version of that measure, hence regularizing credit operations which, by June 2021, had already exceeded capital expenses by 7.45 percent (GoB, National Treasury 2020).

Figure 5. Timeline of measures that enabled funding the COVID-19 response (in gray) along the AE temporal horizon

Source: Prepared by the authors, based on Bartholo et al. (2020); GoB, CGU (2021b); GoB, Ministry of Citizenship (2021j, 2021k); Lara Ibarra (2021a); Valor Econômico/Valor Data (2021); and Yamasaki e Rodopoulos (2021).

Note: Court-ordered payments may have occurred, in each program phase, after the periods of reference indicated here.
4. Institutional composition and general aspects of the AE

As illustrated in Figure 6, the AE was led by the MC in partnership with public agencies such as CAIXA, Dataprev, Advocacia Geral da União (Office of the General Counsel to the Federal Government, AGU), Defensoria Pública da União (Public Defender’s Office of the Federal Government, DPU), Conselho Nacional de Justiça (National Council of Justice, CNJ), Ministério Público Federal (Federal Prosecution Office, MPF), and Polícia Federal (Federal Police, PF), in addition to the voluntary support offered by SUAS. In the beginning, the MC’s internal competence structure had more flexible arrangements to manage such a large and complex program, along with its various institutional partnerships. The first operational flows to be duly disciplined by Ordinance n. 52 of April 7, 2020, included the designation of the Executive Secretariat as program expenditure authorizing officer, and required that Secretaria Nacional de Renda de Cidadania (National Secretariat for Citizenship Income, SENARC) should discontinue PBF payments for those beneficiaries covered by the AE, as that was a more significant benefit. Decree nr. 10,357 was issued on May 20, 2020, reforming the administrative structures of the MC, elevating the former Departamento do Cadastro Único (Single Registry Department, DECAU), under Secretaria de Avaliação e Gestão da Informação (Secretariat for Information Assessment and Management, SAGI) since 2018 and mainly responsible for the Single Registry management) to the status of Secretariat, SECAD (GoB, Ministry of Citizenship 2021). Ordinance n. 394 was issued only on May 29, 2020, determining the program’s flows and processes, according to Figure 6 and described below.

The Caixa Econômica Federal (Federal Savings Bank, CAIXA) is a public commercial bank traditionally responsible for offering technological solutions to support the PBF operation and for executing the payments of Federal Government assistance benefits. Mainly due to its unique capillarity throughout the country, it also performed the same role for the AE. In the AE, CAIXA also accumulated the role of developer and maintainer of the app for applicants not registered with the Single Registry and, subsequently, was the manager of these data in a database specifically created for this purpose, the so-called Público Beneficiário do Auxílio Emergencial fora do Cadastro Único (Public not Registered within the Single Registry, ExtraCad). As we will see in Chapter 8, the AE payment operation was different from that of PBF and of other benefits traditionally paid by CAIXA, as it included the role of opening a completely digital savings account (Poupança Social Digital, PSD) for the program beneficiaries.

The Social Security Technology and Information Company (Dataprev) is a public company responsible for developing data management and processing systems, with a traditional history of cooperation with the agency responsible for the Brazilian social security regime (Instituto Nacional do Seguro Social, INSS). In the case of the AE, Dataprev was responsible for developing and managing an Analytical Database that includes more than 40 administrative registries to validate information submitted by the program applicants. More than comparing data, the Analytical Database includes a search engine and a Master Data Manager (MDM), which consist of procedures to deal with temporality problems of the database and to determine, based on the characteristics of each applicant, the set of databases with available information that must prevail to characterize each eligibility prerequisite for the program.
Figure 6. Organizational chart of the common operations in AE1, AE2, and AE3

As the program advanced, Dataprev also became responsible for improving its own protocols, according to guidance issued nearly every week, and for adding direct channels to (a) automatically challenge, via the app, denials of eligibility and of benefit cancellation; (b) evaluate more complex requests received through the Defensoria Pública da União (Public Defender’s Office of the Federal Government, DPU); and (c) promote timely internalization of ex officio court decisions.

The Secretaria Executiva (Executive Secretariat, SE) of the MC is responsible for leading the AE implementation in accordance with its legislation, assigning responsibilities to other ministry agencies, and signing technical agreements with partners outside of the ministry. It is also responsible for the articulation with justice agencies and with the Office of the Controller General to guarantee best practices in the program management. The SE set up a Management Commission for the AE, which also included representatives from other agencies, and held meetings almost every week to discuss measures to improve the program management that would affect the adopted operational routines. Besides this leadership and oversight role, the SE offered specific contributions to the AE, being the institutional locus to which the Ombudsman’s Office of the AE was subordinated, along with the Subsecretaria de Tecnologia e Informação (Under Secretariat for Technology and Information, STI).

The Subsecretaria de Tecnologia e Informação (Under Secretariat For Technology and Information, STI) was assigned a major role, providing technical assistance to all ministry areas, becoming responsible, for example, for establishing programs to ratify Dataprev eligibility verification for non-PBF ExtraCad Single Registry individuals, according to SECAD instructions. At the beginning of the program, when there was a lot of dynamism and adjustment needs in its procedures, the STI also became responsible for applying post-selection filters to Dataprev preselected batches of candidates. These additional filters applied by the STI included comparison with administrative records received by the MC not yet added to Dataprev’s Analytical Database. Additionally, the STI became responsible for tabulating data to subsidize reports requested by other Dataprev departments. Other important STI roles included the consolidation and formal delivery of payment rosters to CAIXA and the periodic organization of operational rules and protocols (commonly known as Business Rules) for Dataprev’s selection process. As part of this process, the STI should be responsible for blocking (temporarily or not) beneficiaries selected by Dataprev challenged by the program Management Commission, based on recent protocols still not added to Dataprev’s search engine, as well for identifying signs of undue payments informed by control agencies.

Secretaria Nacional de Renda de Cidadania (National Secretariat for Citizenship Income, SENARC) of the MC is responsible for providing PBF beneficiary information access to Dataprev, including Single Registry’s records. Although Dataprev is responsible for selecting PBF beneficiaries to receive the AE, SENARC validated the selection, continuing to manage the few PBF beneficiaries who had not migrated to the AE.

Secretaria Nacional do Cadastro Único (National Secretariat of the Single Registry, SECAD) of the MC is responsible for providing information access to Dataprev to Single Registry non-PBF beneficiary and candidates enrolled via the app (ExtraCad). Although Dataprev selects beneficiaries among this population, SECAD had to validate the selection. As the public under its control was more frequently subject to operational revisions relating to underlying protocols for Dataprev selection, SECAD was deeply involved in this activity.

Secretaria de Avaliação e Gestão da Informação (Secretariat for Information Assessment and Management, SAGI) of the MC, in the past responsible for monitoring and evaluating MC policies, performed, for the AE, a role specifically focused on detecting potential fraud schemes, to be subsequently referred to the PF and the MPF for investigation. Another major
role of SAGI was to create mechanisms to recover unduly paid amounts. In cases of fraud, this strategy was based on supporting police operations and, in cases of undue payments and other irregularities, actions included communication with undue beneficiaries to demand the non-obligatory return of the amounts, through a system specifically developed for this purpose.

Secretaria de Gestão de Fundos e Transferências (Secretariat for Fund and Transfer Management, SGFT) of the MC monitors compliance with budget obligations of the program (guaranteeing that CAIXA receives due transfers, compensating Dataprev for services provided, and so on). Its responsibilities also include providing favorable opinions before releasing payment rosters to CAIXA and monitoring amounts to be reimbursed by CAIXA.

The Assessoria de Controle Interno (Internal Control Advisory Unit, AECI) of the MC performs internal audit procedures and provides best practice guidance, including contacts with external control agencies. Besides facilitating Management Commission meetings, AECI worked with the STI to prepare monitoring reports, provided support to SAGI efforts to identify organized fraud and to recover unduly paid amounts, and provided support to use and improve challenge mechanisms of the program.

Controladoria Geral da União (General Controller’s Office, CGU) and Tribunal de Contas da União (Federal Court of Auditors, TCU) are public management control agencies which, along with their independent monitoring of the AE, also participated in the AE Management Commission as guests, discussing complex issues (mainly concerning eligibility verification and payment maintenance rules and procedures) subsequently improved during the execution of the program.

Defensoria Pública da União (Federal Public Defenders’ Office, DPU) includes all defense services provided by the Union7 free of charge to citizens unable to pay for counsel costs. For the AE, the DPU naturally offered legal defense to those wishing to submit complaints against the program to the court system. To limit the number of court suits, though, an Acordo de Cooperação Técnica (Technical Cooperation Agreement, ACT) was also established with the MC, describing specific situations when document analysis performed by public defenders might substitute eligibility verification by Dataprev based only on administrative records. Consequently, the DPU became a channel for administrative or extra-court challenges. Also, the DPU developed a relevant role working with the Federal Prosecution Office (MPU)8, filing class actions (mostly Ação Civil Pública [Public Civil Suits, ACPs]) whenever a significant number of individual actions challenging the same aspect were identified or whenever the understanding was that a practice in question might give rise to implications for large groups of people.

Advocacia Geral da União (Office of the General Counsel to the Federal Government, AGU) is traditionally the agency responsible for the legal defense of the Union, its policies, and programs. With the drastic increase of individual and collective court actions challenging AE rules and operation, the AGU was forced to set up a specific task force to deal with this demand. The AGU routinely has arms inside ministries, acting as legal consultancy departments (Conjur). During the pandemic, this AGU arm became extremely busy, not only defending legal procedures against the program but also providing counsel to management centers regarding decisions with less potential to lead to excessive judicialization.

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7 Union (União) is the Public Law legal person representing the Federal Government internally and the Federative Republic of Brazil externally.

8 MPU is the agency responsible for representing the interests of society to exercise investigation direction abilities regarding facts that are considered crimes, victim and witness protection, and public criminal suit support and ownership.
Lessons from the Brazilian experience responding to COVID-19

**Conselho Nacional de Justiça (National Council of Justice, CNJ)** is a public institution to improve the work performed by the Brazilian judicial system, mainly concerning administrative and procedural control and transparency. According to an ACT established with the MC, the CNJ became responsible for facilitating information flows between Dataprev and the court system dealing with individual litigation suits related to the AE, fundamentally allowing timely access of judges to detailed information about reasons for benefit denial. Also, the CNJ coordinated the understanding of the five Regional Federal Courts (TRFs) about program guidelines and how to deal with litigation arising from them.

**Empresa Brasileira de Correios e Telégrafos (Brazilian Postal and Telegraph Company, Correios)** is a public company for transporting mail, with a consequent extensive network throughout the country. In principle, the intention was to enable the institution to request the program on behalf of ultra-vulnerable groups who faced difficulties in accessing Tecnologia da Informação e Comunicação (Information and Communication Technologies, TICs), as, for instance, street dwellers not enrolled in the Single Registry. Nevertheless, the low volume of requests submitted through the Postal Service, totaling only 14,554, indicated the limited population action to seek support from the Post Office and also a lack of training on the part of the institution to provide this type of service.

**Sistema Único de Assistência Social (Single Social Assistance Service, SUAS)** is a federative structure performing integrated action of the Federal Government, states, and municipalities to provide social assistance services, which has a major role in face-to-face services to social policy target population members. The AE did not formally using this structure for activities it routinely develops as part of the PBF and Single Registry operations, as beneficiary registration, social and assistance service referrals, and controversy resolution. Considering the strong flow of some of the most vulnerable members of the population looking for help at SUAS facilities, the structure ended up –although informally– having an important role disseminating information about the program. Additionally, several reports exist about informal solutions offered by members of this network to request benefits on behalf of those digitally excluded individuals who had not been previously included in the Single Registry, as registration drives which included instructions to request the benefit and suggestions for those available to help with this service on behalf of those who did not have access to mobile telephones.

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9 Regional Federal Courts (TRFs) are the second level of the Brazilian federal justice. Created by the 1988 Constitution, presently there are five Regional Federal Courts, with the main responsibility of judging decisions made by federal judges and judges of Law, as part of their federal competence obligation. They are also competent to process certain demands, as decisions by federal judges. Their decisions may be appealed through the Supremo Tribunal de Justiça (Supreme Court of Justice, STJ) and the Supremo Tribunal Federal (Supreme Federal Court, STF).
5. Targeting and benefit amounts

The AE became less generous when each new phase was initiated, both in terms of its coverage and number of benefits offered. Requests to AE1 were open from April 2 to July 2, 2020; after that, beneficiary selection to AE2 and AE3 was limited to people who had been considered eligible to AE1 (even retroactively, through court decisions) (Bartholo et al. 2020; GoB, CGU 2021b; GoB, Min. Citizenship 2021j, 2021k; Lara Ibarra 2021a; Yamasaki and Rodopoulos 2021). Besides limitations imposed by the narrow request window, the law established more restrictive rules to decide program eligibility for every phase of the program. During AE1 and AE2, for example, eligibility was conditioned to RFPC or RFT, while AE3 began to require that beneficiaries had both income levels below the eligibility threshold. For AE1, eligibility was determined just through direct income, while for AE2 and AE3, some assets began being considered as income indicators (as luxury cars and boats appearing in their own records and financial market investments declared in the previous fiscal year income tax returns). In AE1, two people per family were able to receive program benefits, including a double payment for women who were heads of single-parent families with children. In the case of AE2, the fact that a woman who was the head of a single-parent family with children received a double amount represented an impediment for a second quota to be received by that family. And for AE3, it was established that only one person per family might get the benefit. As already mentioned, individual benefits began at BRL 600 (USD 114.7) for AE1, were reduced to BRL 300 (USD 57.4) for AE2, and were lowered to BRL 250 (USD 47.8) for AE3, with an additional BRL 125 (USD 23.9) for female heads of single-parent families with children and a BRL 100 reduction (USD 19.1) for beneficiaries in single-person families without children (Bartholo et al. 2020; GoB, CGU 2021b; GoB, Min. Citizenship 2021j, 2021k; Lara Ibarra 2021a; Yamasaki and Rodopoulos 2021). Allegedly, the reduction in program generosity may also reflect concerns with the central position the program occupied with regard to social well-being and the subsequent concerns with possible difficulties in case of its discontinuation whenever adequate.

Besides changes in eligibility criteria, procedures adopted to verify eligibility also became more rigid. As can be seen in Figure 7, at each new phase of the program, apart from eligibility rules, new reasons for ineligibility came into force, also expanding the group of valid predictors to establish eligibility or ineligibility characteristics. In this process, eligibility verification procedures began to include more administrative bases used to compare data, some of which displayed heterogeneous and questionable quality, as, for example, armed-force personnel registers (containing outdated information and lacking income-related data), data about politicians elected (including non-remunerated substitutes), the population convicted by the justice system (without including information about sentence regimes), lists of Brazilians having left the country by land (without much information about returns), among others, which in most times exposed the program to exclusion biases (GoB, Dataprev 2020a, 2020b, 2021a; GoB, Min. Citizenship 2021g).
Lessons from the Brazilian experience responding to COVID-19

**Table 2. General Characteristics of AE1, AE2 (AER), and AE3 (AE2021)**

<table>
<thead>
<tr>
<th></th>
<th>AE1 (April to August 2020)</th>
<th>AE2 (September to December 2020)</th>
<th>AE3 (April to October 2021)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefit base amount</td>
<td>5 × BRL 600 (5 × USD 114.72)</td>
<td>Up to 4 × BRL 300 (4 × USD 57.36)</td>
<td>Up to 7 × BRL 250 (7 × USD 47.80)</td>
</tr>
<tr>
<td>Maximum number of beneficiaries per family</td>
<td>2 (considering the possibility of one being a single mother with right to double benefit)</td>
<td>2 (limited to two individual benefits or just one doubled benefit in cases of single mothers who have this right)</td>
<td>1</td>
</tr>
<tr>
<td>Additional benefits for women</td>
<td>Women have priority regarding other family members. Women who are heads of single-parent families with children received doubled benefit and have priority compared to other members of the family who would also wish to receive the benefit.</td>
<td>Women have priority regarding other family members. Women who are heads of single parent families with children received doubled benefit and have priority compared to other members of the family who would also wish to receive the benefit.</td>
<td>Women have priority regarding other family members. Additional payments of BRL 125 given to women who are heads of single-parent families with children, while there is a BRL 100 reduction in case of beneficiaries without children, characterizing single-member families.</td>
</tr>
<tr>
<td>Eligibility criteria</td>
<td>Adults, age 18 or more (except teenage mothers), who comply with Microempreendedor individual (individual micro-entrepreneur, MEI), self-employed, or unemployed workers not receiving other federal benefits (for example, BPC, SD, or INSS pension) except PBF, whenever AE benefits are larger. Additionally, beneficiaries must have declared income below BRL 28,559.70 (USD 5,460.74) on income tax return for the previous year...</td>
<td>... with RFPC of up to 0.5 MW (BRL 522.50 or USD 99.90) OR RFT of up to 3 MW (BRL 3,315.00 or USD 633.84)</td>
<td>... with RFPC of up to 0.5 MW AND RFT up to 3 MW</td>
</tr>
<tr>
<td>Total budget</td>
<td>BRL 231 billion (USD 44.16 billion)</td>
<td>BRL 64 billion (USD 12.23 billion)</td>
<td>BRL 43 billion (USD 8.22 billion)</td>
</tr>
<tr>
<td>Monthly coverage peak (individuals)</td>
<td>68.3 million</td>
<td>56.8 million</td>
<td>39.4 million¹</td>
</tr>
</tbody>
</table>

¹ Several government sources began to express AE3 coverage in terms of families covered instead of individuals. As AE3 allows just one beneficiary per family, values for covered expressed for individuals are equivalent to those expressed in terms of families. For comparison with AE1 and AE2, throughout the text we will prioritize reporting AE3 coverage in terms of individuals. Both in terms of families and in terms of individuals, AE3 coverage was 39.4 million by the end of July 2021.

Figure 7. Evolution of AE eligibility criteria (AE1, AE2, AE3)

6. The three access channels to the program and their limitations

As illustrated in Figure 8, three different program entry channels existed: two with automatic selection based on the Single Registry (preexisting) and one based on requests submitted through the app specifically developed for this purpose. The first of these AE channels for entry consisted in the automatic selection of PBF beneficiaries whose AE benefits would be better (responsible for covering 19.5 million beneficiaries in 2020 and 10 million by the end of July 2021). The second channel consisted in the automatic selection of people registered with the Single Registry who were not PBF beneficiaries (responsible for covering 10.5 million beneficiaries in 2020 and 5.2 million by the end of July 2021). The third and last channel involved selection based on requests submitted through the CAIXA-developed app which led to the creation of a new temporary register, ExtraCad (responsible for covering 38.2 million beneficiaries in 2020 and 23.8 million by the end of July 2021) (GoB, CGU 2021b; GoB, Min. Citizenship 2021j, 2021k; Lara Ibarra 2021a; Yamasaki and Rodopoulos 2021). The first two access channels stemmed from the quality and broad coverage offered by the Single Registry as an administrative type of record utilized by main Brazilian social policies for practically 20 years, mandatorily used by those implemented by the Federal Government and optionally employed for subnational government initiatives (GoB, Min. of Social Development 2017).

In absolute numbers of direct beneficiaries (individuals), the ExtraCad public was the largest among AE beneficiaries, but it must be underscored that up to 95 percent of the families had at least one of their members covered by the AE. As illustrated in Figure 9, in all three AE phases, the ExtraCad public represented slightly over half of the direct program beneficiaries. Figure 10 indicates that AE1 received 57.2 million candidacies through the app, of which 38.2 million were selected. Of the total of 33.1 million individuals enrolled in the Single
Although official data about the number of families covered by the AE are not available yet, suggestions indicate that the PBF population, which had 95 percent of its families including at least one beneficiary, may have been the program whose families took more advantage of, even if indirectly. Unlike the AE, which is an individual benefit program establishing a maximum number of beneficiaries per family, the PBF focuses on families (even offering variable benefits according to family compositions). Thus, the AE and PBF family coverage varies significantly according to the analysis unit utilized. Among individuals who are part of families covered by the PBF, 24.2 million ended up not being included as direct beneficiaries of the AE, mainly because some of these families included several children (who are not eligible for direct benefits) and because of the rule limiting the number of eligible people in the same family. This phenomenon is reflected, for example, in the fact that during the AE1 period, 95 percent of PBF beneficiary families had at least one of their members as a direct AE beneficiary (GoB, Min. of Economy 2020). When this paper was being prepared, no family coverage data were available for all program groups\(^\text{10}\), although it was known, for example, that when all AE1 groups are aggregated, the program provided benefits to 55.6 percent of the Brazilian population, considering all family members (indirect beneficiaries), together with direct beneficiaries. (Ibid).

The major difference between coverage rates expressed according to different units of analysis (family or individual) reflects a duality which is characteristic of the program, whose benefits –although covering families as a whole– include individual ownership, although limited to a maximum number of direct beneficiaries per family. AE1 and AE2 offered individual benefits limited to a maximum of two beneficiaries per family. When AE3 began, only one beneficiary per family received a benefit, and in this case, the analysis unit used becomes less important for coverage estimation according to different analysis units, as each beneficiary corresponds to one beneficiary family.

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\(^{10}\) Considering that the MC was still fully involved in the AE program operation when this study was being developed and that the data secrecy management protocol used by the program imposed far from trivial requirements for de-identification of these data in case of possible leakage, our team could not access program microdata or generate coverage information using all analysis units, disaggregation degrees, and temporal biases that might have been employed, including family coverage estimates for all beneficiary groups.
Trust deposited in Grupos Populacionais Tradicionais e Específicos (Traditional and Specific Population Groups, GPTEs) coverage by the Single Registry released the AE from developing an active search specific strategy for most of these groups, including indigenous tribes, descendants of ex-slaves (quilombolas), and other traditional communities. Considered as the best record to monitor and reach people in situation of chronic poverty in the country, the Single Registry (Cadastro Único) also provides a past story of active search for the inclusion of GPTEs11 (Amaral 2014), and its credibility has been underlined by AE managers to base their choices on not needing to implement specific actions to actively look for GPTEs that perhaps have not been included in the Single Registry. An effort was made to prepare instruction material specifically targeted to GPTEs, as in the case of manuals published in May 2020 and 2021 (GoB, Min. Citizenship 2020c, 2021h), and a series of podcasts available since May 2020 (GoB, Min. Citizenship [s.d.]). But no specific efforts were implemented by mobile teams with local knowledge visiting the homes of these people, as a way to guarantee that program requests were submitted, had they not already been automatically included for having been previously registered with the Single Registry.

For operational convenience, the AE worked only with static extracts of the Single Registry (Cadastro Único) from April 2, 2020, involving subsequent risks of inclusion errors resulting from possible changes in family composition that might not be reflected in that day’s extract. Brazil has only two administrative registers covering the entire country that can be used to rebuild family links between individuals: the one in charge of the Brazilian Internal Federal Revenue agency (Receita Federal do Brasil) (of universal scope) and the Single Registry (which is limited to the 75 million individuals enrolled in the database) (Paiva et al. 2021). To ensure data secrecy, Receita Federal would only share binary income-related information of individuals with the AE program, according to the prior year Annual Tax Return. Consequently, AE candidacies included via the app were not able to validate applicant-declared family compositions. On the other hand, for the public selected based on the Single Registry, links could be confirmed. In the opinion of program managers, the frequent updating effort of Single Registry extracts to identify family links would result in major difficulties for this selection process of the program, which might compromise its speed, with subsequent damage to the population. Additionally, the general opinion was that updating these links during the program execution period might result in agglomeration in Single Registry municipal service posts located in SUAS (responsible for this type of register updating of people enrolled with the register). Considering these circumstances and assuming that the AE would only last for a few more months, program managers ended up choosing to use the Single Registry static extract of April 2, 2020, to characterize family links in the group. Managers were aware that their choices would involve inherent exclusion risks for those who had their family composition outdated in the Single Registry or who had experienced changes after April 2. But the final decision was that these cases would be only marginal if compared to the much greater impact of compromising the speed of the selection process when attempting to update family links in a more dynamic fashion.

Requests via the app were the entry channel chosen by a little over 50 percent of beneficiaries, representing a pioneer innovation in the Brazilian assistance policy, although exposed to exclusion biases, regarding exclusivity through this means for people who were not previously enrolled in the Single Registry (Cadastro Único).

11 GPTEs include the following vulnerable groups: indigenous tribes, descendants of ex-slaves, gypsies, traditional religious communities, extractivism workers, artisanal fishermen, riverine populations, groups settled by land reform processes, rural camp dwellers, family agriculture farmers, beneficiaries of the National Program for Land Credit, people affected by infrastructure projects, inmates of the prison system, recyclable material pickers, and street dwellers.
Simplicity of the AE via the app and the challenge of keeping temporary poor in precarious situations under the radar of social protection in Brazil over the medium and long terms

One of the major virtues of the AE’s request app was its simplicity. Citizens only needed to key in the 9 sets of information listed below for the program to query other administrative records and validate their eligibility to the program.

1. Declaration of adequacy to six major program eligibility criteria, declaration of awareness about statements made, and declaration of authorization for the use of personal data for eligibility criteria validation purposes
2. Submission of personal identification data: name, CPF, date of birth, and mother’s name
3. Information about applicant’s mobile phone number and phone service carrier
4. Inclusion of authentication code received by SMS message
5. Declaration of income, professional activity, state, city of residence and Postal Code (Código de Endereçamento Postal, CEP)
6. Declaration of number of family members and their respective CPFs, name, and applicant’s CPF information for family heads.
7. Indication of bank account for benefit transfer (in case applicant already had an account in his/her name)
8. Civil identification document information (ID or driver’s license) for opening the PSD account
9. Verification of information summary and declaration of consent to program terms.

This apparent simplicity in requests contrasts with the intense verification of information through comparing more than 40 major administrative registers to estimate the adequacy of each person to selection criteria of the program.

Data declared when requests were submitted were stored with ExtraCad and could easily be transferred to the MC, to be used, for example, in public policy strategic planning. More comprehensive profiles of applicants, built based on comparisons of data informed during the application process and other administrative records used by the program had a much more limited access, not only for reasons of secrecy but also because of the complexity of these comparisons. Consequently, a relevant concern when we think about the legacy of the AE experience to improve Brazilian social protection over the medium and long terms is the risk that the country may leave the crisis behind without more complete information about a class of people facing temporary poverty and precarious conditions which do not appear in chronic poverty monitoring efforts.

An important measure to stop this class from becoming ‘invisible’ again must include establishing its social and economic profile beyond information captured by ExtraCad, ideally by having access to its profile to verify AE eligibility. Along the same lines, it would be even more interesting for the ExtraCad population to be included in the Single Registry, which involves a much more robust set of social and economic data and which is already a traditional instrument, not only to manage programs but also to develop strategic plans for public policies. One of the greatest challenges for the integration of registers would be to establish register update mechanisms to include these transient poor and workers facing precarious conditions, as, unlike the chronic poor who are already monitored by the Single Registry, they are not covered by regular social programs requiring them to update information in the Single Registry as a counterpart measure. So, it is plausible to consider that this part of society is only going to be duly monitored through administrative records if some type of social benefit is created as a counterpart.

Source: Prepared by authors based on interviews and screenshots of AE requests submitted through the app and registered by Universidade Federal de Santa Maria (2020).
sending of one request per SIM card and Cadastro de Pessoas Físicas (Individual Taxpayer Registry, CPF)\(^\text{12}\). But this requirement resulted in criticism and fear of the potential digital exclusion of the program (as it limited the use of third-party mobile phones to submit requests for people who did not have their own device).

**For people not previously enrolled with the Single Registry (Cadastro Único), a request submitted via the app was the only point of entry for the program.** This was actually a contrast with the situation of digital exclusion which, in 2019, characterized approximately 21 percent of the population (CETIC 2020a) comprehending even more than 40 percent of the population, if we consider specific use of the internet by mobile phones (CETIC 2020b, 2020b), and a possibly even larger number if we were able to calculate the percentage of people who are not familiar enough to be able to perform complex operations over mobile telephones.

In an attempt to mitigate this probable access barrier, the program even developed a mechanism for assisted registration for ultra-vulnerable individuals and families, which might have been operated by the Post Office (Correios) (GoB, Min. Citizenship and GoB, Correio 2020). Despite its capillarity, the Correios does not seem to have been able to satisfactorily channel demands for assisted registration, as the initiative launched late, on June 5, 2020, was only responsible for 14,554 records before being discontinued on July 6, 2020 (GoB, TCU 2020b).

A limitation for requests entered by digital channels for people not previously registered with the Single Registry had to do with the option of not including in the AE operation a traditional partner in federal social programs when contacting municipal level populations—the SUAS network. SUAS is an inter-federative network of social and assistance facilities and traditionally supports the population in its effort to have access to social programs, including by registering people with the Single Registry, besides supporting the dissemination of information about social policies and managing controversies related to those programs (Couto et al. 2014; Jaccoud, Licio, and Leandro 2018). The decision not to include SUAS (or other state or municipal-sphere agencies) was based on narratives underlining the intention to avoid agglomeration in SUAS service posts as well as on difficulties involved in negotiating terms for its participation with the speed necessary to implement the program, along with uncertainties about the continuity of services in the context of the pandemic.

Independently from its formal exclusion of the program, SUAS ended up providing major informal support for the AE. Whatever may have been the reasons not to formally include SUAS, something that must be recognized is that the network provided informal support to the program anyway, funding active search campaigns and information dissemination supported by other sources of funds, and, in some cases, organizing drives to provide information to community members who would like to know more about the possibility of submitting requests for third parties using a different SIM card inserted in their own devices for each request (Campo Grande Mayor’s Office 2021; Ibitinga Mayor’s Office 2020; Rio Grande Mayor’s Office 2020; São João Batista Mayor’s Office 2020; Taquari Mayor’s Office 2020; Ubatuba Mayor’s Office 2020; Vitória da Conquista Mayor’s Office 2020; GoB, Min. of Citizenship 2020b).

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\(^{12}\) As explained in chapter 10, CPF is a register of individuals maintained by the fiscal authority in Brazil, Receita Federal (RF), necessary for compliance with fiscal obligations (for people who receive certain levels of income) and for financial transactions (including opening bank accounts). Its mandatory use to mediate access to the AE was even legally challenged, considering that it is not a civil identification record which is mandatory for many low-income people who have no access to banks. The challenge was eventually not accepted by the courts; besides compromising links that allowed the interoperability of administrative records based on which the AE program selected its beneficiaries, its mandatory nature was supported by the fact that benefit payment would necessarily require access to banks.
7. Selection process

The main AE operation was led by the MC, with Dataprev embracing a central role verifying eligibility and CAIXA taking responsibility for referring requests submitted via the app to Dataprev and for program payment operations. Program coordination by the MC involved more directly the SENARC – responsible for PBF beneficiaries; SECAD – responsible for other beneficiaries; and the STI – monitoring Dataprev’s selection process and, at the beginning of the program, when there was a lot of dynamism and adjustment in its procedure, was also responsible for applying posterior selection filters to groups of preselected candidates from Single Registry and ExtraCad public by Dataprev. The same procedure was applied to the PBF public by SENARC. An important instance which had a significant impact on program adjustments throughout its duration was the AE Management Commission, which included members of different MC departments involved in the operation of the program and with the non-binding participation of the TCU and the CGU. Since being established by Directive 408 of June 8, 2020, the Management Commission introduced changes in eligibility rules and procedures for application during the entire program.

Unlike what happens to regular assistance programs such as the PBF, AE eligibility verification was totally determined by comparing administrative records, reaching an unprecedented level of interoperability and complexity for a Brazilian assistance program. In the PBF, for example, the income criterion is merely self-declaratory, and every once in a while, the program verifies registers by comparing information declared for the Single Registry against other administrative records with compositions that also vary every year. But the PBF adds to its register a physical visit of citizens to Single Registry service points, to introduce information to the system operated by CAIXA. This addition of information to the system is based on data declared by citizens, which requires submission of documents proving housing and family composition, to monitor conditionalities imposed by the program (which is also a potential opportunity for possible fraud identification). Also, the PBF requires municipalities to periodically visit randomly chosen households corresponding to at least 20 percent of beneficiary families (GoB, Min. Social Development 2011).

For the AE program, there was no formal participation of SUAS or any other partner at the municipal level to verify any eligibility criterion. Instead investments were made in a vigorous system to verify eligibility using administrative records. Although requests submitted via the app were self-declaratory, nobody received benefits without having their eligibility information verified by Dataprev against administrative records. Considering its experience in the operation of eligibility verification procedures for social security programs, Dataprev was retained to perform the same role for the AE. It was given initial access to the 17 administrative records that form the Cadastro Nacional de Informações Sociais (National Social Information Registry, CNIS) (under its control), to which other records were gradually added on the request of the Management Commission and observing norms of each phase of the program, resulting in more than 40 major registers used for selecting AE3 beneficiaries (as illustrated in Table 3).
In practical terms, the effort resulted in queries of more than 100 different administrative registers, considering that subnational government civil servant databases, for example, were truly a compilation of different files received from various subnational administrations without the necessary standardization between them.

Table 3. Evolution of databases used in the AE program

<table>
<thead>
<tr>
<th>AE1 (P1)</th>
<th>AE1 (P2 a P5) e AE2</th>
<th>AE3</th>
</tr>
</thead>
<tbody>
<tr>
<td>CadÚnico</td>
<td>BEM</td>
<td>CNPq / MCT Fellows/Grantees</td>
</tr>
<tr>
<td>CNIS Social Security Benefits &amp; LOAS</td>
<td>BNMP/CNJ</td>
<td>Payer: commitment allowance</td>
</tr>
<tr>
<td>CNIS CPF</td>
<td>DEPEN/MJ (National)</td>
<td>Payers: Pension for death</td>
</tr>
<tr>
<td>CNIS eSocial</td>
<td>DEPEN/MJSP</td>
<td>Medical residents / Capes / ME</td>
</tr>
<tr>
<td>CNIS GFIP</td>
<td>DEPEN/MJSP – Imprisoned</td>
<td>Civil servants, trainees and interns – National Council of Justice</td>
</tr>
<tr>
<td>CNIS GPS</td>
<td>Members of the Armed Forces – Ministry of Defense</td>
<td>Civil servants, trainees and interns – Higher Military Court</td>
</tr>
<tr>
<td>CNIS intermittent</td>
<td>Politically exposed</td>
<td>Civil servants, trainees and interns – Higher Electoral Court</td>
</tr>
<tr>
<td>CNIS Unemployment Insurance</td>
<td>Prisoners in closed prisons/SP</td>
<td>Civil servants, trainees and interns – State Courts of Justice</td>
</tr>
<tr>
<td>DIRPF/RFB</td>
<td>Persons sought by the Courts</td>
<td>Civil servants, trainees and interns – State Military Courts of Justice</td>
</tr>
<tr>
<td>ExtraCad</td>
<td>Residents abroad/DPF</td>
<td>Civil servants, trainees and interns – Regional Labor Courts</td>
</tr>
<tr>
<td>PBF Payroll</td>
<td>SEEU/CNJ</td>
<td>Civil servants, trainees and interns – Regional Electoral Courts</td>
</tr>
<tr>
<td>TSE Elective Terms of Office</td>
<td>Municipal, state, and district civil servants - CGU</td>
<td>Civil servants, trainees and interns – Federal Regional Courts</td>
</tr>
<tr>
<td>MEI</td>
<td></td>
<td>SIAPE - Trainees, interns, and residents</td>
</tr>
<tr>
<td>RAIS (2018 &amp; 2019)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIAPE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIRC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SISOBI</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Family composition was the only information declared through the request app for the AE that could not be validated by comparing administrative registers (except in the case of family members of citizens enrolled in the Single Registry). Apart from the Single Registry (Cadastro Único), of coverage limited to low-income individuals, the only other major administrative register which allows for the identification of family links in Brazil is the one
controlled by the national tax authority, Receita Federal. For data secrecy, the agency did not allow full access to its database to the AE program. The agency only provided a binary base to determine adequacy of citizens to income criteria declared in tax returns of the previous year. Consequently, only individuals registered with the Single Registry had their family composition verified as part of the AE eligibility verification process.

**Eligibility decisions resulted from a complicated integration and smart choice system including the most adequate predictors to verify each criterion, formed by an Analytical Database integrated with the MDM of CNIS records and a search engine specifically developed for the AE program.** The AE has a data environment which is able to reconcile a huge amount of different administrative records, establishing links between them and allowing frequent updates to extracts of these records to produce a permanent updating effort for analysis based on this integrated environment. A difference between the Analytical Database developed for the AE program and the CNIS Transactional Base of the Social Security agency is that it is not updated automatically, thus demanding manual routines to collect and insert more recent extracts from administrative records that form this environment. This means significant effort for updates observing the intended regularity, to minimize differences between record temporality every time the Analytical Database is updated. As gathered during interviews with Dataprev specialists, the choice of an Analytical Database instead of a Transactional Base reflected a greater number of records used by the AE compared to the ones forming the CNIS, as well as limitations involved in submitting some not very robust records used by the AE to a kind of treatment that would demand a certain level of regularity and minimum standardization (GoB, Dataprev 2020a, 2020b, 2021a; GoB, Min. Citizenship 2021g).

**To facilitate operations with information gathered in this Analytical Database, records from the CNIS also involved an MDM, which inspired similar programs to choose the best eligibility predictors for other records.** The MDM includes a smart app which, based on so-called program business rules, manages to determine which records would serve as priority sources to predict each eligibility (or ineligibility) criterion for the program. In association with programs applied to the Analytical Database itself, this smart choice not only considers transversal criteria but also prioritizes most recent predictors, considering the peculiarities of each case being analyzed and each administrative record. For example, the tool allowed a smart choice process which considered the traditional delay of employers informing end of employment in labor-related records. In this case, for example, the existence of employment was only characterized for program selection purposes when a concomitant income record was also found in recent months (GoB, Dataprev 2020a, 2020b, 2021a; GoB, Min. Citizenship 2021g).

**From this smart choice process, the Analytical Database would proceed to codify applicant eligibility according to each eligibility or ineligibility criterion, and the search engine would then simply select those people meeting all criteria.** The Analytical Database would then generate binary variables for each eligibility or ineligibility criterion of the AE program, to then allow the AE search engine to proceed with the final selection of beneficiaries, filtering only those whose binary characteristics in each of the 38 criteria necessary for the program would indicate eligibility (GoB, Dataprev 2020a, 2020b, 2021a; GoB, Min. Citizenship 2021g).

**Throughout the program, a SAS Analytics solution was also contracted, to accelerate processing of these operations.** With only 20 employees dedicated to this selection operation, Dataprev also contracted a technological solution from the SAS Analytics Institute, which resulted in accelerating the processing of operations described above by 3.6 times (GoB, Dataprev 2021b).
Many of the changes in procedures used to verify eligibility explicitly established in the AE2 and AE3 laws were first tested or proposed during a preliminary phase of the program, having been approved by control agencies that were part of the AE Management Commission. Most of these procedural changes ended up introducing exclusion biases in the program. During the first months of the program, the Management Commission expressed points interpreting provisions which were not always explicit in the AE1 law. Some of them, as the one suspending benefits for prison inmates, for example, were readily challenged and were later explicitly returned to the text of the law for other program phases, although considering an additional type of qualification, indicating that restrictions should be limited to inmates submitted to closed regimes. Other types of guidance, as, for example, the one regarding monthly eligibility reassessments, were not internalized during the AE1 operation, and the suggestion was only accepted after explicit inclusion in AE2 and AE3, after determination of the TCU.

The involvement of control agencies in program management was positive, although it did include some challenges. It provided security to managers who had to make major urgent decisions and with the assumption that the program would only last for a few more months. Also, institutions made databases available to verify administrative data eligibility, to which the MC on its own would not have had easy access, which allowed systematic inclusion error debugging (as, for example, bases listing subnational government employees and members of the judiciary, besides interns and other workers who would not be available in more traditional employment bases) (GoB, Agência Brasil 2021c; GoB, Federal Prosecution Office 2021). Nevertheless, the participation of these control agencies may have been responsible for the strong exclusion bias which marked Management Commission decisions, not only due to the centrality of the physical control in these institutions’ mandates but also because of the heterogeneous nature of many administrative records which became part of the AE selection mechanism.

Finally, we must observe that an extremely simplified benefit request procedure has exposed applicants to intense scrutiny through an analysis of administrative data. As illustrated in Box 2, requests submitted to the program via the app were limited to some basic information, without any need of submitting documents as evidence. Mere data extracts from ExtraCad were not sufficient for a robust social and economic characterization of its public, which might, for example, inform those groups about public policies targeted to them. But by sharing CPF numbers, Dataprev managed to have a significant amount of information about individuals, contained in several administrative records of the public sector.
8. The payment system

For the payment of benefits, CAIXA offered a new mode of bank account free of costs to beneficiaries, involving cardless digital banking operation possibilities, until then unknown in the country. Benefit payments were centralized by CAIXA, a public bank with extensive capillarity in Brazil, which already had experience in paying other social benefits such as the PBF. For the AE, CAIXA offered a free payment channel via a Poupança Social Digital (Digital Social Savings Account, PSD) which until then had only been operating as a pilot project, with only 30,000 account holders. From the good experience with the AE, it was then expanded to other social and security benefits, to the extent that in December 2020, 100 million account holders were already using that modality (GoB, Caixa Econômica Federal 2020b). Compared, for example, to Caixa Fácil (a social account offered before to PBF beneficiaries), the PSD offered fewer fee-less withdrawals and transfers, but the maximum limit of amounts moved per month was increased from BRL 3,000 (USD 573.61) to BRL 5,000 (USD 956.02). Through a pioneer initiative, the PSD introduced in the country the use of digital cards in more modern card data processing machines (maquinhas), capable of generating QR codes which could be read by mobile phone cameras, for direct payment via the app (GoB, Caixa Econômica Federal 2020a, 2021a; GoB, Min. Citizenship 2020h).

Nevertheless, the most significant advantage of the PSD was the concomitant launching of a new type of bank transfer, the PIX, which was extremely easy to use and became popular as a payment instrument broadly accepted in the retail market. As it is free and simple to use, PIX mitigated limitations involved in traditional transfers while also becoming popular as a purchase means, considering that sellers could immediately check amounts received, with the only condition of both purchasers and sellers having accounts in any bank with the PIX option activated (GoB, Caixa Econômica Federal 2020a, 2021a; GoB, Min. Citizenship 2020h).

Right in the beginning of the AE, the ExtraCad and non-PBF Single Registry public did not have PSD accounts automatically opened and were subject to regulations which imposed some weeks between benefit credit and cash withdrawal during the whole program. After being selected, AE beneficiaries had their PSD accounts created automatically, and amounts received as benefits could not be withdrawn to pay debts. Single Registry beneficiaries who did not receive PBF funds and ExtraCad individuals received PSD accounts as soon as the program was installed and were subject to a rule establishing time intervals between benefit credit (which only allowed digital operations) and withdrawal of amounts in cash (GoB, Caixa Econômica Federal 2020a, 2021a, 2021b; GoB, Min. Citizenship 2020h; Hellman 2015).

To avoid confusion for the public coming from the PBF, already used to their own payment routine, they were submitted to a payment routine that was different from the other programs. Up to the end of November 2020, this group went on receiving benefits through the same PBF channels: 5 million had Caixa Mais accounts, while 9,000,000 only had the PBF card, not related to any bank and which only allowed for the full withdrawal of benefits accumulated for periods of up to 3 months. Between December 2020 and March 2021, though, PSD accounts were automatically opened for these beneficiaries, and they began receiving
their benefits using those accounts, which was also convenient as they began using physical cards they already had to operate their new accounts. Another peculiarity related to individuals coming from the PBF is that they were able to withdraw their benefits in cash as soon as they were credited. Also, the scaling of payment days for the PBF public went on being conditioned by the last digit of the Número de Identificação Social (Social Identification Number, NIS) of the people responsible for families, as already established in the PBF payment calendar, while other beneficiaries had their payment dates scaled based on their birth months (GoB, Caixa Econômica Federal 2020a, 2021a, 2021b; GoB, Min. Citizenship 2020h; Hellman 2015).

The potential confusion resulting from the change in payment days every month was overcome through strong social communication campaigns to inform the population about calendars to be observed for each set of months. Benefit payment dates were not fixed for the same day every month. Until July 2021, for example, the MC had already published 15 directives13 with different payment calendars, each one covering periods of a few months and reflecting different program processing capacities throughout their extension. Although there was potential to generate confusion among beneficiaries, these ‘ad hoc’ calendars were widely publicized through MC and CAIXA campaigns, both being strongly and informally supported by SUAS and local governments.

Table 4. Comparison between Caixa Fácil, PDS, and Regular Accounts offered by CAIXA

<table>
<thead>
<tr>
<th>PBF Social Card</th>
<th>Savings account</th>
<th>Digital social savings account (CAIXA)</th>
<th>Savings account integrated to other bank accounts (CAIXA)/regular</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adherence costs and annuity</td>
<td>No cost</td>
<td>No cost</td>
<td>No cost</td>
</tr>
<tr>
<td>Place for opening account</td>
<td>Card delivered by postal service, without involving checking account.</td>
<td>Lottery shop</td>
<td>Digital</td>
</tr>
<tr>
<td>Balance and statement consultation</td>
<td>Non existent</td>
<td>Free of charge</td>
<td>Free of charge</td>
</tr>
<tr>
<td>Withdrawal</td>
<td>Free of charge, but the entire monthly benefit amount must be withdrawn at once.</td>
<td>Limited to 12 free withdrawals per month in service points, ATMs, and lottery shops.</td>
<td>Limited to 2 free withdrawals per month in service points, ATMs, and lottery shops.</td>
</tr>
<tr>
<td>Transfers (TED)</td>
<td>Not possible</td>
<td>Limited to 8 free transfers per month to other CAIXA accounts. Limited to 1 free transfer per month to accounts held in other banks.</td>
<td>Free and unlimited to CAIXA. Limited to 3 free transfers to other banks.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Service</th>
<th>Bill payment</th>
<th>Access to savings account</th>
<th>Access to debit card</th>
<th>Operation limits</th>
<th>Digital platform</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not possible</td>
<td>Free of charge</td>
<td>Free of charge</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Bill payment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Free in service points, lottery shops, branches, and digital.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Free in service points, lottery shops, branches, and digital but limited to a daily maximum amount of BRL 1,200 (USD 229.44), one BRL 1,200 for bill payments, and BRL 600 (USD 114.72) for other payments and transfers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to savings account</td>
<td>Not possible</td>
<td>Free of charge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to debit card</td>
<td>Not possible</td>
<td>Free of charge</td>
<td>No physical card (just digital)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to debit card</td>
<td>Not possible</td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation limits</td>
<td>Card only allows entire monthly benefit amount withdrawn at once (accumulation of no more than 3 months before funds are returned to Treasury).</td>
<td>BRL 3,000 (USD 573.61)</td>
<td>BRL 5,000/month (USD 956.02). App: BRL 600 (USD 114.72) per transaction – transfer or payment – and limited to BRL 1,200/day (USD 229.44).</td>
<td>No limit</td>
<td></td>
</tr>
<tr>
<td>Digital platform</td>
<td>No</td>
<td></td>
<td>CAIXA Tem App</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Internet Banking CAIXA</td>
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<td></td>
<td></td>
<td>App Bolsa Familia CAIXA for consultation by PBF public</td>
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<td></td>
<td></td>
<td></td>
<td>Caixa Tem</td>
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<td></td>
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</tbody>
</table>

Source: Caixa and Ministry of Citizenship (GoB, Caixa Econômica Federal 2020a, 2021a; GoB, Min. Citizenship 2020h).
9. Passive and active communication channels

The AE offered several passive communication channels with the population, through the MC, CAIXA, and Dataprev, besides a more general channel established by the CGU, the *Fala.BR*, which referred demands and opinions to federal public institutions in general, including AE managers and operators. Most communication demands targeted the MC, followed by CAIXA (traditionally having more communication channels available to contact the population). Dataprev, as it did not provide direct services to the population, had fewer channels and received fewer demands, referring a vast majority of those to the MC.

Schematically, the AE program offered three main forms of passive communication with the public: Relationship Centers, Ombudsman’s Office Services, and units to provide access to information. Relationship Centers provided operational instructions for users and for whoever wished to have access to the program. Ombudsman services included suggestions, claims, information, complaints, praise, requests for measures, and demands for simpler public services. Units established to provide access to information in general intermediated requests for more elaborate data about the program, such as data extraction or information concerning administrative costs, tender procedures, and so on, generally necessary for analysis more than as guidance for users and citizens interested in the program.

AE passive communication channels and their operational agents experienced intense saturation, resulting from the great number of people interested in the program. The Relationship Center of the MC, for example, received 143,000 attempted calls, generating peaks of 20,000 calls per minute, of which only 8.4 percent were answered (representing an 10-fold increase in the no-response rate compared to previous years) (GoB, Min. Citizenship 2021d, 2021e). The Ombudsman’s Office of the MC received more than 350,000 demands (an increase of 1,400 percent compared to previous years), peaking in June 2020, mainly involving complaints. CAIXA registered a more than 80 percent growth in complaints received through their Ombudsman’s Office channels compared to previous years. Dataprev received more than 70 times the number of demands registered in previous years, 65 percent of which were directly related to the AE program.

Technological solutions were fundamental to mitigate the saturation of traditional service channels. Common technologies were developed for demands submitted by email and chat rooms to be grouped by content and to be answered in blocks and, in some cases, even automatically, based on artificial intelligence programs, to reduce the burden on human operators. For telephone interactions, recordings were developed containing the most relevant information, to be played while people waited for human operators to answer their calls.

Forums and other spaces were established for people to submit suggestions. Besides their own evaluation systems offered by each channel of contact with the population, Public Service User Councils were broadly used (established since 2017, according to Law 13,460/2017 and subsequent Decree number 10,228/2020), mainly through an online platform over which
beneficiaries wishing to register with the program might offer opinions in improvement forums and vote during surveys (GoB, CGU 2021a; GoB, Min. Citizenship 2021d, 2021e).

A strong coordination between program operators and their different passive communication channels was necessary to offer coherent information aligned to the rapid changes the program went through. Major arrangements were created so that different institutions could clearly establish which demands and manifestations would be under their responsibility and which should be referred to other agencies and also to update information matrices about programs, following the rhythm at which operational adjustments were internalized by the AE program. Additionally, measures were adopted to allow teams responsible for coordinating these relationship channels to work from their own homes, because of the ongoing pandemic, and also to mirror demands directly received by agents and program managers in the more transversal system managed by the CGU (GoB, Min. Citizenship 2021d, 2021e).

Besides passive communication channels, institutions involved in the AE program invested in active communication efforts. Among actions led by the MC, some deserve mention (GoB, Min. Citizenship 2021i):

• 191 instruction articles posted on the MC site during 2020.
• Development of a specific web page for active accountability, with updated coverage data, spending, and contracts executed to operationalize the program.
• Development and maintenance of a site specifically prepared for the program, with quick access and containing essential information, including the following topics:
  • Basic rules
  • Eligibility queries
  • Access to Chatbot
  • Link for challenging (Dataprev)
  • Tutorial video
  • Calendar of payments
  • Access to service channels
  • Link to return payments
  • Frequently asked questions (FAQs)
• Guides and manuals posted on the MC site and also sent by email and WhatsApp to Single Registry and PBF managers and operators, including SUAS teams and state and municipal administrations. Many of these resources were specifically formatted to be disseminated via WhatsApp, which –although not being an official communication network of operators– proved to have a significant network, mainly regarding SUAS professionals, whose participation, although informal, proved to be fundamental to mitigate program bottlenecks;
• 46 frequently updated FAQs on the MC site and on the program specific site, which also served as inputs for Ombudsman’s and Relationship Centers.
• Postings in social networks containing instruction material for both beneficiaries and managers.
• Provision of Chatbot on Facebook (artificial intelligence software which automatically interacts with the population via chat and provides instructions based on its information matrix).
• Communication of relevant information to beneficiaries included in bank statements.
• Preparation of reports for managers periodically posted on the MC site and sent by email and WhatsApp mailing lists to more than 70,000 recipients—from April 2020 to April 2021, 34 reports were sent.
• Preparation of press releases and answers provided to 2,922 demands from the press concerning the program.
• Production of audiovisual content such as video tutorials and podcasts posted on the MC portal, on the program site, and through social networks.

Finally, communication specifically prepared for GPTEs consisted of instruction material in a more accessible language (a written manual and a series of podcasts), underlining aspects of more relevance for those groups and with the subsequent effort to disseminate the material using traditional institutional contact points of the government and civil society. In May 2020, a guide about the AE was published for GPTEs, with an updated issue in May 2021 reflecting AE3 rules. Fundamentally, the guide stressed orientation available in the many media types and channels already listed above, besides the law of the program, using a pedagogical and accessible type of language. However, the guide was not translated into the more than 150 languages spoken by the Brazilian indigenous ethnic groups considered as GPTEs. It is also worth mentioning that along with the written material, a series of six podcasts were specifically prepared for GPTEs, covering topics such as (a) who has the right to the program, (b) how to deal with critical points, (c) documentation/CPF, (d) other benefits, (e) operation of CAIXA access platforms, and (f) address and validity of installment information.
10. Complaint management, error and fraud debugging, and recovery of amounts

Another area where the AE displayed innovative solutions was in complaint and redress management, for which it established options to challenge via the app or site or even visits to the DPU. Recognizing that errors in eligibility verification recurred because of slight temporality differences in feeding record extracts in the Analytical Database every term, to those who had their candidacy denied or benefit canceled by monthly reviews or control agency audits the program made available an option to challenge decisions via the app or site. This would automatically process the eligibility verification again, expecting that more recent extracts from bases used to verify eligibility might reflect characteristics still not updated when the first request was processed. Although quite prevalent, these errors resulting from base temporality were not the only ones to which the population was submitted; the program established a partnership with the DPU, so that whenever sets of foreseen possibilities happened, federal public defenders might request from Dataprev the overlapping of some information based on the analysis of documents they would perform, instead of disagreeing administrative records (GoB, Min. Citizenship 2020f, 2020j). Although quite ingenious, this solution –known as extra-court challenge– suffered from insufficient coverage, as the DPU itself is limited to only 30 percent of the Brazilian territory, and for this activity the institution was only able to station 46 of its 471 public defenders. Also, several DPU units had been closed down, with defenders working from home, and citizens needed to send requests and documentation for evidence by digital means, which restricted extra-court challenges. Consequently, only approximately 5,000 challenge cases could be processed during the entire period of AE1 and AE2 implementation, and the initiative was discontinued before AE3 was launched (DPU 2021). To expand coverage of the initiative, the government considered involving Notary’s Offices, although an agreement could not be reached. Had the program been open to more partnerships with subnational administration and federative agencies, even the SUAS network may have provided support in this area.

The number of challenges not duly addressed by controversy management mechanisms of the program resulted in a peak of individual disputes being filed to courts, which led the program to establish partnerships with the judicial sector for more agile procedures. The program was subject to more than 225,000 individual actions between April and July 2020 (GoB, CNJ 2020), with more than 25 percent represented by the DPU (GoB, DPU 2021), and the MC and Dataprev cooperated with the CNJ to standardize the understanding of cuts based on program rules and corresponding bases, to create channels for rapid access of judges to administrative data collected by the AE program, and to speed up program execution of court decisions (GoB, CNJ 2020).

The AE was targeted with more than 60 ACPs by the DPU and by the Federal Prosecution Office (MPU) questioning its operational rules, most of which were rejected, as they compromised program execution and speed. Most recurring ACPs challenged aspects such as the alleged lack of special mechanisms for indigenous peoples, quilombolas, migrants,
and street dwellers, urging the MC to find more technical solutions for difficulties related to program limitations concerning benefit request and decision challenging. These ACPs also questioned procedures used to determine program eligibility (mainly resulting from protocols adopted without explicit base on program laws). Other ACPs demanded more organization for face-to-face cash withdrawal or service request activities.

One ACP was even accepted as an injunction but was eventually rejected by the collegiate body, as it did not deal with mandatory civil identification documents. The CPF (taxpayer identification number) is an individual mandatory document only for people whose income level and banking status result in fiscal and tax-related obligations (which excludes several people in situations of vulnerability who were part of the program target public). Considering the nonexistence of an identification document which may allow the verification of links provided by the CPF, though, the eligibility verification operation would be gravely compromised had the ACP been accepted. In formal terms, the rejection of the ACP questioning the mandatory nature of the CPF also argued that the program was requesting the creation of bank accounts for people who did hold CPFs, and that was an obligation.

ACPs granted contributed to improvements to the program, which led to more time to withdraw benefits for indigenous peoples, definition of new time limits for eligibility verification procedures and for challenges, and greater transparency with regard to requests rejected. As part of ACPs granted, we must observe those that allowed more time for funds to remain in bank accounts belonging to Indians in the Amazon states of Acre and Amazonas before being returned to the National Treasury, extending this period from 90 to 270 days for AE1. Subsequently, Decree 10,398 of June 16, 2020, extended this greater flexibility to all the PBF public who received the AE benefit and allowed 90 days for other citizens. For AE2 and AE3, the withdrawal limit is four months before funds are returned to public vaults. Decisions determining deadlines for the analysis of requests and challenges also deserve attention, including with respect to cases that had not had formal conclusion, as they awaited more access to administrative records.

Another important improvement of the program was a decision to force the request app to offer more information to those who had their requests denied, indicating, as much as operationally possible, specific reasons for denial as well as the administrative base used by the program to characterize the ineligibility status. Although Dataprev conclusion process layouts did not always allow for the identification of this type of information (GoB, Dataprev 2020a, 2020b, 2021a; GoB, Min. Citizenship 2021g), after the second half of 2020 a court decision was issued, which resulted in more details provided to several cases where denials might have been explained to citizens through the request app itself (GoB, Min. Citizenship 2021a, 2021b). We must emphasize that, apart from guaranteeing rights to citizens, this last improvement also includes a positive externality, when people began adjusting imprecise data in other administrative records, thus contributing to improve databases.

Another AE characteristic that deserves attention had to do with ways used by the program to recover amounts unduly paid. This effort was implemented through three main strategies: (a) action coordinated with the MPF and the PF to impede organized fraud, (b) behavioral incentives for whoever received undue funds to voluntarily return amounts received, and (c) partnership with the Receita Federal so that people responsible for dependents who omitted this link to receive benefits had to reimburse the Treasury in the following year’s tax return.

14 For AE2 and AE3, deadlines were revised to 120 days.
The action to discourage organized fraud consisted of feeding a database that would be common to all program operators (MC, CAIXA, and Dataprev), indicating suspicious cases to be investigated in more detail by the PF and the MPF (GoB, Agência Brasil 2021c; GoB, Federal Prosecution Office 2021). Suspicion indicators were based on aspects such as cases where the IP used to request benefits and to operate bank accounts had nothing to do with CPF owner’s residential addresses. It is quite worrisome that attempted frauds against the program seemed to be fed by personal data necessary for candidacy procedures being leaked, many of which should have been better protected by different public agencies (Ágape 2021). In this context, the effort to simplify the volume of information and procedures to request benefits and subsequent withdrawal revealed a vulnerability in the program.

In case of beneficiaries receiving undue payments being revealed during program operation, benefits were discontinued and campaigns stimulating voluntary returns were started. Besides organized fraud, there were also several cases where improved program selection procedures revealed state government employees, military and other groups not eligible for the program receiving benefits, mainly during the first months of the program. In these cases, besides discontinuing benefits after errors detection, the MC also developed a website to allow for voluntary return of funds, as the program had no legal means to impose fines or force mandatory return. Where the military was involved, an agreement was established with the Ministry of Defense, according to which Services would reimburse the Treasury for unduly paid benefits to its personnel who perhaps had not voluntarily returned the funds, with posterior deduction of the amounts from their monthly salaries. For other cases of unduly paid benefits, the MC triggered SMS messages prompting people to return funds (GoB, Min. Citizenship 2020g). By December 2020, around BRL 218 million (USD 41.68 million) had already been returned to public vaults through this mechanism (GoB, Min. Citizenship 2020i).

The arrangement with Receita Federal was, on the other hand, devised to mitigate a situation widely disseminated by the media, involving middle-class youngsters hiding their tax return dependent status to receive benefits. In their DIRPFs submitted by the end of April 2021 and referring to fiscal year 2020, parents or guardians ended up having to reimburse the Treasury as a necessary measure to comply with their fiscal obligations (GoB, TCU 2020a), thus allowing for the recovery of over BRL 5 million (USD 956 million) unduly received (GoB, Agência Brasil 2021a). Although the amount recovered may seem small compared to the volume operated by the program, this was an interesting partnership, as it inaugurated a whole era of possibilities to establish collaboration between social programs and Receita Federal.
The Individual Annual Income Tax Return (DIRPF) is obligatory for all Brazilians who have revenues and assets above a maximum threshold. The exercise consists of reporting all sources of income, profits, and dividends received each fiscal year, as well as recording property valuation observed during the period. Based on these statements, the Tax Authority (Receita Federal) establishes if taxpayers have any liability concerning not duly taxed entries. In specific situations, the exercise also establishes if taxpayers have a right to any liability discounts or even to receive amounts paid as taxes during the year. Taxpayers with dependents, for example, have the right to deductions or to receive up to BRL 2,275.08 (USD 435) per year. The list below shows details of who is eligible to be considered as a dependent for DIRPF purposes. We must emphasize that the dependency link for this purpose is not necessarily provided by cohabitation.

1. Partners with whom taxpayers have children or have lived for more than five years or spouse
2. Children or stepchildren up to 21 years of age, or who, at any age, are physically or mentally disabled for work
3. Children or stepchildren still attending higher education institutions or high school-level technical schools up to 24 years of age
4. Siblings, grandchildren, or great grandchildren who have no support from parents and whose guardianship has been awarded to the taxpayer, up to 21 years of age or of any age whenever physically or mentally disabled for work;
5. Siblings, grandchildren, or great grandchildren who have no support from parents, up to 21 years of age or 24 years of age if still attending higher education institutions or high school-level technical schools, if taxpayer has been awarded guardianship until 21 years of age
6. Parents, grandparents, and great grandparents who in 2020 have received taxable or untaxable income up to BRL 22,847.76 (USD 4,368.59)
7. Poor minors up to 21 years of age raised and educated by taxpayer who was awarded guardianship
8. Totally disabled person of whom taxpayer is a tutor or curator.

As already discussed in Chapter 7, for reasons of data secrecy, Receita Federal did not share access to its records with the AE program, which would have allowed it to establish family links of all applicants, thus being able to deny eligibility to dependents who hid their dependency links in situations configuring ineligibility reasons for the program. This apparent gap was explored by many dependents supported by parents or guardians, who obtained access to the AE only declaring their individual incomes while hiding dependency links with parents or guardians whose income would configure ineligibility to the program after having RFPC and/or RFT calculated.

To reduce this gap, an agreement was executed according to which the MC shared its list of beneficiaries with Receita Federal, and in the DIRPF submitted after the AE was launched Receita Federal was able to identify program beneficiaries declared as dependents of taxpayers who would not qualify for the AE to demand that they reversed the amounts received unduly by their dependents if they wished to use the right of deduction or to receive amounts resulting from that relationship.

In terms of AE coverage profile, Figure 11 illustrates that in 2020 the program provided benefits for a 20 percent higher number of women than men, and that this difference was reduced to 10 percent in 2021. As was revealed in the MC report (2021c), in 2020 a greater share of women was observed in all beneficiary groups, except for ExtraCad, which suggests that the historical focus of Single Registry active search for women and other vulnerable groups may explain this difference. In case of the PBF, for example, women account for 57 percent of beneficiaries and for approximately 90 percent of heads of families (GoB, Min. Citizenship 2021j, 2021k, 2021c, 2021f).

The AE public was marked by people in working age and ExtraCad groups predominated in all phases of the program, followed by PBF and non-PBF Single Registry (Cadastro Único) public, respectively. In terms of demographic coverage, all phases mainly covered working-age populations (mainly those ages 25 to 34) (GoB, Min. Citizenship 2021j, 2021k). According to an MC report (2021c), this trend was kept constant in 2020 also for the disaggregated analysis of each beneficiary group (ExtraCad, PBF, and non-PBF Single Registry), showing a slightly broader coverage of people older than 50 in the case of the non-PBF Single Registry public.

From 2020 to 2021, the AE program limited its direct coverage rate in more than 40 percent but without experiencing significant changes in the coverage distribution profile. In 2020, the program provided direct benefits to 32 percent of the Brazilian population, totaling 55.6 percent of the population, if we include other family members as indirect beneficiaries. Nevertheless, considering AE3 restrictions, these direct and indirect coverage rates fell to 18 percent and 36 percent, respectively. For AE3, it is also observed that most beneficiaries (46.7 percent) fall in the category of single-person families, who receive benefits of lower amounts (BRL 150.00 or USD 28.68) (GoB, Min. Citizenship 2021j, 2021k).

At the regional level, besides the general reduction of coverage of the program, no significant change was observed in the distribution profile of coverage from 2020 to 2021. In absolute values, largest coverage rates were observed in the Southeastern and Northeastern Regions. On the other hand, in terms of relative coverage, (expressed as the percentage of population in each region benefiting from the program) the North and Northeast Regions rank, respectively, first and second.

At the state level, absolute and relative coverage distribution profiles also proved to be practically the same from 2020 to 2021, with the states of Piauí, Maranhão, Paraíba, and Acre registering most significant drops in their relative coverages from one year to the other and the states of Sergipe, Amapá, and Alagoas observing lesser reductions.

For municipalities, the benefit reached all 5,570 Brazilian municipalities and—despite results—relative coverage corresponded to approximately 32 percent, observing a standard deviation of 7 percent. Municipalities with less relative coverage were São João do Oeste (SC) (9 percent), Santa Tereza (RS) (9 percent), and Balbinos (SP) (6 percent). Five of the municipalities with the largest coverage, Severiano Melo (RN), Campos Verdes (GO), Maetinga (BA), Japurá (AM), and Amapá (AP), exceeded the estimated size of their populations. These isolated phenomena can be explained by migratory movements and also by possible differences between the IBGE estimated municipal population and the real size of the population. Except for these cases, municipalities with the largest coverage were Altamira do Paraná (PR) and Jacareacanga (PA), both with 85 percent relative coverage.

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15 IBGE = Instituto Brasileiro de Geografia e Estatística (Brazilian Institute of Geography and Statistics).
Figure 11. Coverage indicators - AE1, AE2, and AE3

AE1 provided one of the most generous benefits in the world, as well as one of the quickest responses, while AE2 and AE3 became remarkable for their comprehensive coverages. As indicated by a study comparing social protection responses to the COVID-19 crisis throughout the world, AE1 covered more than 68 million beneficiaries and is regarded as being among the five most generous responses in the world, both in terms of its coverage (as a percentage of the national population) and the variation between benefits offered and the reference of the most traditional assistance program before the pandemic (PBF in Brazil). The comparative study also underscores the fact that the difference between the expected public and the public truly covered by AE1 and AE2 was only marginal, in the order of 5 percentage points (Gentilini, Almenfi, and Dale 2020). Another comparative document focused on the timeliness of COVID-19 responses also indicates that the AE was the sixth quickest response in the world, with first benefits being paid just 27 days after the home isolation measure was announced in the country (Beazley, Marzi, and Steller 2021).

The AE1 benefit was also generous according to national parameters. Its individual benefit corresponded to approximately three times the average family benefit of the PBF and to two-thirds of the average monthly income received by its beneficiaries in prior years. The benefit amount also represents around 50 percent of the national minimum wage and approximately half of the average amount received by unemployment insurance beneficiaries (Falcao and Morgandi 2020).

As illustrated in Table 5, although there is a significant heterogeneity in the intensity estimates of emergency program effects, it seems clear that the impacts were vigorous and desirable concerning average income, Gini16, and poverty indexes, having potentially improved beneficiaries’ income status, compared to levels recorded at the end of 2019. More complex studies about emergency policy main effects are the ones organized by the World Bank, combining PNAD-COVID-1917 data with several others in the BraSim simulation platform (Cereda, Rudião, and Sousa 2020; Lara Ibarra 2021a, 2021b). Findings of these studies are displayed below, always considering perfect targeting scenarios.

In July 2020, looking at AE1’s first months, the BraSim tool suggested that the impact of the pandemic over income in the absence of emergency policies might be of the order of 7.6 percent, but that the combined effect of AE, BEm, and SD might limit this reduction to 2.2 percent only. In case of the Gini index, expectations of this study indicated that there would be a 3.3 percentage point increase in the absence of emergency policies, while with such measures, expectations indicated a 3 to 11 percentage point reduction. Along the same lines,
Lessons from the Brazilian experience responding to COVID-19

Early expectations of effects related to the crisis over poverty in 2020 indicated a 12.2 percent increase, while with emergency policies, poverty might be reduced by 2.3 percent (Cereda, Rubião, and Sousa 2020).

Later, in January 2021, the tool was employed ex post for April to December 2020, suggesting that the combined effect of these policies may have led to a 4 percent increase of individual average income, while –had it been absent– there would have been a 2.9 percent drop. According to the study, combined effects of these policies may have reduced the prevalence of poverty in up to 43 percent (Lara Ibarra 2021a).

Table 5. Potential variation of selected indicators (average income, Gini, and poverty) resulting from social programs responding to COVID-19, different periods, and studies

<table>
<thead>
<tr>
<th>Studies</th>
<th>Scenarios</th>
<th>Average income variation</th>
<th>Gini variation</th>
<th>Poverty variation (0.5 MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>World Bank micro-simulation, potential biannual variation from December 2019 to 2021, with and without the AE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lara Ibarra (2021), ex post AE1 + AE2 and ex post AE3, individuals</td>
<td>Without AE</td>
<td>-1.8%</td>
<td>3 p.p.</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>With AE</td>
<td>-2 p.p.</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>World Bank micro-simulation, potential biannual variation from December 2019 to 2021, with and without emergency social policies (AE + BEm + SD)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cereda et al. (2020), ex post AE1, families</td>
<td>Without emergency policies</td>
<td>-7.6%</td>
<td>3.1 p.p.</td>
<td>18.2%</td>
</tr>
<tr>
<td></td>
<td>With emergency policies</td>
<td>-2.2%</td>
<td>-3 p.p. to -11 p.p.</td>
<td>-2.3%</td>
</tr>
<tr>
<td>Lara Ibarra (2021), ex post, individuals</td>
<td>Without emergency policies</td>
<td>-2.9%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>With emergency policies</td>
<td>4%</td>
<td>-</td>
<td>-43%</td>
</tr>
<tr>
<td>FGV/Ibre comparisons, utilizing usual income in 2019 and income during pandemic with and without the AE in 2020, among occupied beneficiaries</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gonzales and Barreira (2020), ex post, families</td>
<td>Without AE</td>
<td>-18%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>With AE</td>
<td>24%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>FGV/Ibre comparisons, utilizing usual income in 2019 and income during pandemic with and without AE in 2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gonzales and Oliveira (2021), ex ante, households</td>
<td>Without AE</td>
<td>-24.5% (-20% for men and -29% for women)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>With AE</td>
<td>18% (17% for men and 19% for women)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Prepared by authors based on (Cereda, Rubião, and Sousa 2020; Gonzales and Barreira 2020; Gonzales and Oliveira 2021; Lara Ibarra 2021a, 2021b).

Note: All results presented in this table and in paragraphs referring to it use estimates of scenarios considering perfect targeting. FGV = Fundação Getúlio Vargas; p.p. = percentage point.
In March 2021, a preliminary study combining ex post impact estimates of AE1 and AE2 to ex ante estimates concerning the recently approved AE3 (considering the four-month implementation period) suggested that from December 2019 to 2021, these interventions would have a potential combined final effect of limiting poverty increase to 1 percent (when without these policies this increase would have been 6 percent) and reducing Gini by 2 percentage point (while in the absence of the AE, the trend would indicate a 3 percentage point increase) (Lara Ibarra 2021b).

Besides World Bank simulations, studies were developed by FGV comparing income received by PNAD-COVID-19 in similar moments of 2019, 2020, and 2021 to estimate potential variation resulting from the AE. For example, in an article published in July 2020, Gonzales and Barreira (2020) analyze possible AE effects over the occupied population and suggest that the reduction in family income without AE1 in 2020 would have been 18 percent, while, with the program, the estimate is a 24 percent increase. In April 2021, ex ante analyses comparing average income in 2019 to the one expected because of the pandemic would undergo a 24.5 percent reduction had the program not existed, while with the program the indicator might present an 18 percent increase (Gonzales and Oliveira 2021).

In general, different AE impact estimates indicate that the program’s desirable effects were reduced in their intensity, with subsequent reductions of benefits and restrictive measures applied to AE2 and mainly to AE3. Studies also reveal an even more meaningful heterogeneity of these impacts, with less intense effects in case of African descendants and people receiving only BRL 150 (USD 28.68), in the case of AE3. Even considering the more generous benefit offered by AE1, Cereda, Rubião and Sousa (2020) estimate that despite a possible average effect reducing poverty throughout the nation, around 4 million people would be pushed below the poverty line, largely reflecting family arrangements for which the benefit would not already be enough at that time to cover the loss of labor-generated income.

As illustrated in Figure 12, Lara Ibarra (2021a) estimates that after the reduction of the benefit brought by AE2, the total per capita income of the 20 percent most poor and of the rural population probably receded to levels lower than the ones verified in May 2020. In the case of people of African descent, the estimated recession in November had still not reached pre-May 2020 levels, although they were advancing in this direction, with a reduction trend. In the case of AE3, Gonzales and Oliveira (2021) estimate that, despite the average positive effect over income considering all beneficiaries, those in single-person families receiving only BRL 150 (USD 28.68) would still face around 3 percent income reductions (while this loss would be 24.5 percent in the absence of the benefit).

![Figure 12. Variation in monthly income, May to November 2020, different groups](source: Lara Ibarra 2021a.)
Finally, we must examine a curious incongruence between apparent AE positive impacts over income and the deterioration of food security conditions of the population as a whole and of the more specific AE beneficiary subgroup. As shown in Box 4, this phenomenon may possibly be explained by the combination of several factors, including the heterogeneity of the effect over income caused by the AE for different groups, the incompatibility between surveys to estimate AE impacts over poverty and those that size food insecurity, besides structural effects caused by acute food inflation experienced by the country in 2020.

BOX 4.

The mystery of reduced food security in a context of increased average income

Food security studies based on surveys of November (Galindo et al. 2021) and December 2020 (PENSSAN 2020) show that 20% of the population became food insecure since 2018, and that 65.6% of AE beneficiaries were characterized as facing mild (37.6%) or serious (28%) food insecurity situations. This finding contrasts with estimates that suggest the possibility of the AE having had strong effect over direct and indirect beneficiary average income. Although there is no conclusive empirical evidence about the nexus between these two findings, it is possible that explanations include some of the hypotheses characterized below.

First, it is possible that this lack of nexus between findings reflects methodological differences between studies. On one hand, AE effect estimates over income are based on parameters that may have been altered during the pandemic, and in general assume perfect program targeting - which probably did not happen, with AE effects over income being actually significantly smaller than was estimated. On the other hand, surveys on food security do not have samples compatible with surveys used for most AE impact simulations (PNAD Contínua e PNAD-COVID19). Also, such food security surveys indicate an AE coverage distribution which is significantly different from the one suggested by program administrative data. Additionally, questions to characterize the situation of food insecurity include a subjective component, which may have been affected by the context of crisis during the pandemic. And it is possible that even with an increased average income, the cost of purchasing food may have gone up even more, and that both these phenomena have occurred in an extremely heterogeneous way between specific groups. Although all simulation of AE effects recalled in this paper have worked with real values indexed to the IPCA¹ (which varied 4.5% in the 2020 accumulated figure), the fact is that food inflation during that period was much higher (with accumulated IPAB² around 14.8%) (Gob, Min. Economy 2021a). Also, the main driver of food inflation shifted from food consumed out of the household (mostly affecting wealthier persons) towards increases of prices at the food shops. Although the gap between IPCA and IPAB is not new (it exists since 2007), in 2020 it became worse, due to a radical exchange devaluation (of around 30%, lower only then what was experienced in Angola, Argentina and Zambia, in this order). Subsequently, local food prices have increased following export oriented preferences from food productors (Baccarin and Oliveira 2021; World Bank 2021b).

¹ The National Wide Consumer Price Index (IPCA) is produced by the IBGE National Consumer Price System. The purpose of IPCA is to measure inflation through a set of products and service present in personal consumption patterns of Brazilian families.

² The Food and Beverage Price Index (IPAB) is one of the components to calculate the IPCA. The index measures price variation of food products, including 17 sub-categories, as cereals, flour, beverages, and meat.

Source: Prepared by authors, based on studies mentioned.
13. Main innovations brought about by the AE and ideas about their future use in Brazil (and in other contexts)

Our analysis identified at least 20 major innovations experienced by the AE program, which are listed in the Figure 13, to summarize their potential integration to regular social protection systems and in response to shocks which may happen not only in Brazil but also in other countries. The list found below (as, well as Figure 13, which summarizes its main points) underlines 20 of the main innovations created by the AE, discussing potential points for improvement, the inclusion of these innovations in the context of regular programs, and possible measures for each experience to improve the adaptation capacity and response to shocks in the Brazilian social protection system. To contribute to the South-South learning and considering eventual adjustments to some of these measures in other contexts (mainly in the African situation), the list also establishes a distinction in terms of which measures would depend on prior structural facilitating agents not necessarily available in other countries and which might be developed in a timelier fashion, as a result of more specific efforts.

In general, innovations concerning the verification of eligibility seem to be the ones that most depend on prior structural facilitators, followed by innovations regarding the program management structure, while innovations added to payment systems seem have timelier implementation (and those with greater potential to become integrated to the regular social protection structure, even after the pandemic). Most innovations included in eligibility verification actions appear to be those that most depend on prior structural facilitators, as is the case of the security and labor-related information consolidation by means of records like the CNIS, as well as the consolidation of social and economic information about the poorest individuals made possible by the Single Registry (Cadastro Único).

For countries having more active judicial and control agencies, the experience of involving them in the management effort seems to be a type of innovation that may be relatively quick to implement (although fine adjustments may possibly require more time). The Brazilian experience, when it brought judicial and controller institutions closer to management, suggests that on one hand the practice may entail a certain exclusion bias, but on the other hand it provides more tranquility to managers responsible for making rapid decisions, which may lead to significant fiscal implications in periods of crisis.

Many of the innovations for recovering amounts unduly paid may be established on a timely basis without necessarily depending on significant prior structural facilitators, as in the case of behavioral stimuli for the voluntary reimbursement and partnerships with investigation agencies to combat organized fraud. On the other hand, the organization with tax authorities to establish mandatory collection of funds unduly received may be more complicated if fiscal and tax-related records do not imply wide coverage or if they are not consolidated. Also, data secrecy protection efforts normally are quite rigid in the case of fiscal and tax data.
This is a type of measure to be adopted with great care, focused on major operational gaps of the program only, considering risks of introducing an exclusion bias, leading to a potential indebtedness of the already vulnerable population.

Finally, the introduction of digital request and payment channels appear as initiatives that may be established on a timelier basis, although other major aspects of payment operations depend on prior capacity involving payment agents, with extensive capillarity throughout the national territory. For payment systems, probably besides being timely, innovations established by the AE are now here to stay, as they are already broadly utilized to support regular program operations.

Figure 13. Main innovations tested by the AE program, per operational phase and second-degree dependence of prior structural facilitators

1. Demand analysis
   - Use of existing registries (Single Registry and CNIS) to estimate the number of beneficiaries and to automatically select them.

2. Registration and selection
   - Quick development of a light and intuitive app to submit requests, capable of adding improvements without needing to be updated, to be used without mobile internet data consumption by users.
   - Establishment of a Management Commission with consultative participation of controller agencies (CGU and TCU) to mitigate selection errors (mainly exclusion errors).
   - Validation of candidacies and beneficiary selection through an Analytical Database, an MDM, and a search engine, which would result in a quicker, more precise, and intensive use of administrative records.
   - Monthly eligibility verification.

3. Benefit payment
   - Automatic creation of a free social account for beneficiaries, which would allow banking operations via mobile phone apps, to include possibilities of payment by way of virtual debit cards.
   - Introduction of intervals between the credit of benefits (limited to digital transactions) and withdrawals in cash, to avoid agglomeration in withdrawal venues (and to stimulate digital transaction utilization).
   - Prohibition of amounts credited to program beneficiary accounts from being used to pay eventual pending debts.
   - To prevent errors and fraud, benefits credited to accounts and going untouched for 90 days would be automatically returned to the Treasury, although this deadline might be extended for PBF beneficiaries, indigenous peoples in Acre, Amazonia and indigenous peoples registered with the Single Registry.
   - Strategic integration of PSDs to the new form of cash transfers introduced in Brazil, the PIX, as an additional option for routine purchases without needing to physically withdraw money or to use sellers’ machines.
   - Strategic identification of withdrawal points more frequently used by beneficiaries who need to travel long distances, as a way of guaranteeing cash availability.
4. Program Management

- Changes in the MC administrative structure, to allow more autonomy to units responsible for supervising main program operations, at the same time allowing PBF public beneficiary management to continue in the hands of the unit traditionally responsible for operating the program.

- Possibility of challenging eligibility included in the request app, with increments during program operation to complement the denial message with information about records that characterize each situation of ineligibility.

- Partnership with the DPU to manage extra-court challenges.

- Partnership with the CNJ to standardize and assign more dynamism to the access of judges to administrative data regarding judicial disputes involving the program.

- Partnership with the CNJ to establish a special court decision notification system contesting denials, which would have a significant effect over the speed in which these decisions become internalized.

- Preparation of a simplified mechanism for people to voluntarily return unduly paid amounts.

- Preparation of databases with indication of possible frauds included by the several program operations, to subsidize actions to fight against organized crime led by the MPF and by the PF.

- Intense social communication campaign for program promotion, disseminating its rules and underlining its legacy considering operational problems sometimes amplified by the press.

Source: Prepared by authors.

Innovations in demand analysis

Measures depending on prior structural facilitators

1. **Use of Single Registry (in operation for 20 years and presently undergoing its 7th version)** for the automatic identification and selection of practically half of AE beneficiaries, including most vulnerable groups and GPTEs who had been objects of active search for years.

   **Suggestions:** Even considering that, looking back, the Single Registry active search was good, a specific effort of the program in this area might have guaranteed a wider inclusion of GPTEs, who perhaps had still not been covered by the register. Additionally, it would be interesting to develop capacity so that, even in emergency conditions, Single Registry might continue registering new individuals (perhaps through its own app) and adjusting the register, which would have had an effect over selection procedures (instead of having its use limited to static extracts collected on the date the emergency program was created). Another point to be underscored is that the use of preexisting records includes a tradeoff concerning outdated records (not updated for more than two or four years): although on one hand they would limit potential inclusion errors, on the other hand they made request processing, and mainly family recomposition analyses, much more difficult. For people with outdated records, perhaps the best option would be to rechannel requests as if they had no prior registration.
2. **CNIS use by Single Registry (undergoing improvement processes for more than 10 years), allowing integrated access to administrative, labor-related, and social security records, which were crucial for AE targeting.**

**Suggestions:** The CNIS must follow its improvement trajectory, including more bases with social security and labor-related records, mainly for the inclusion of relationships into subnational administration and other sectoral registers. It would also be advisable for the system to develop more interaction with Single Registry. An ideal environment would involve full interoperability, with CNIS records able to develop more incentives to reduce employer delays in their obligation to register changes in labor-related relationships.

### Innovations in registration and selection

#### Measures possible to implement on a timely basis

3. **Quick development of a light and intuitive app to submit requests, capable of adding improvements without needing to be updated, to be used without mobile internet data consumption by users.**

**Suggestions:** Considering the significant part of the population without access to the internet or lacking familiarity with smartphones, no target public of the program should have its access limited to that means, which should become integrated to traditional presential registration forms, without representing a limitation.

4. **Establishment of a Management Commission, with consultative participation of controller agencies (CGU and TCU), to mitigate selection errors (mainly inclusion mistakes), by improving protocols and records available in the Analytical Database and its search engine.**

**Suggestions:** The Commission’s mandate might be broader, also covering agendas which might reflect greater concern with limiting exclusion errors and guaranteeing data secrecy and quality of services provided to users in general.

#### Measures depending on prior structural facilitators

5. **Validation of candidacies and beneficiary selection through an Analytical Database, an MDM, and a search engine, which would result in a quicker, more precise, and intensive use of administrative records.**

**Suggestions:** Currently, the Analytical Database requires all its records manually updated at every new cycle, as these records do not include a standardized date for updating, and many of them do not work according to given patterns. Along with improving these record bottlenecks feeding the Analytical Database, record updates would become automated (which would reduce program operational stress) and would occur during a more homogeneous temporal window (reducing selection errors resulting from time differences between extracts of each register used to process program access requests).

**Suggestions:** This may be an interesting capacity, in the context of emergency programs having to deal with abrupt shocks which are not so long-lasting as they proved to be in the case of the COVID-19 crisis. For regular programs or emergency programs devised to deal with shocks causing continued effect for long periods, the predictability of benefits may have a major effect in the management of risks for the population.

**Innovation in benefit payment**

**☑️ Measures possible to implement on a timely basis**

7. **Automatic creation of a free social account for beneficiaries, which would allow banking operations via mobile phone apps, to include possibilities of payment by way of virtual debit cards.**

**Suggestions:** Similar future efforts may consider ways to better explain to the population that automatic requests for the program would result in the creation of associated bank accounts. Whenever the program is discontinued, it is important that beneficiaries are informed about potential costs incurred if they decide to keep their accounts open, and they must be given a simplified option to close their accounts if they wish to. It would also be interesting to develop means for payments to occur directly into prior accounts of beneficiaries, in case they prefer this option. Depending on the generosity of the payment, regular income transfer programs might develop mechanisms so that part of the amount would be deposited to savings accounts, which would allow beneficiaries to mitigate shocks suffered in future crises.

8. **Introduction of intervals between the credit of benefits (limited to digital transactions) and withdrawals in cash, to avoid agglomeration in withdrawal venues (and to stimulate digital transaction utilization).**

**Suggestions:** This measure would prove to be even better if days for benefit crediting were the same every month, to avoid potential confusion and possibly reduce the demand for program ombudsman services.

9. **Prohibition of amounts credited to program beneficiary accounts from being used to pay eventual pending debts.**

**Suggestions:** This measure might potentially be extended to other regular programs such as the PBF.

10. **To prevent errors and fraud, benefits credited to accounts but untouched for 90 days would be automatically returned to the Treasury, although this deadline might be extended for PBF beneficiaries; indigenous peoples in Acre, Amazonia; and indigenous peoples registered with the Single Registry in general.**

**Single Registry – Suggestions:** This measure could be extended to all GPTEs and people living in other Amazon regions or other areas with difficult access to withdrawal points and/or with poor Internet signal coverage. In general, the mechanism determining amounts not moved being returned may work to discourage savings.
Measures depending on prior structural facilitators

11. Strategic integration of PSDs to the new form of cash transfers introduced in Brazil, the PIX, as an additional option for routine purchases without needing to physically withdraw money or to use sellers’ machines.

Suggestions: This type of combination might potentially redefine payment operations, as it does not demand a great level of acceptance by business owners of any type of specific and costly payment system. Countries that face difficulties to perform payments should approach their central banks and suggest that they consider the introduction of the PIX system or similar forms of immediately transferring amounts free of charge.

12. Strategic identification of withdrawal points more frequently used by beneficiaries who need to travel long distances, as a way of guaranteeing cash availability.

Suggestions: This is a type of practice which demands specific monitoring during the operation of regular programs, so that the information can be used in the context of emergency programs, when distribution of cash may be a challenging task.

Innovations in program management

Measures possible to implement on a timely basis

13. Changes in the MC administrative structure, to allow more autonomy to units responsible for supervising main program operations (SECAD), at the same time allowing PBF public beneficiary management to continue in the hands of the unit traditionally responsible for operating the program (SENARC), also as a way to preserve the structure that is going to be necessary for the full operation of the PBF when the AE is discontinued.

Suggestions: This type of choice will depend on the analysis of capacities on a case-by-case basis. In Brazil, the conclusion was that the division of responsibilities, although it would make management more complex, could happen with subsequent benefit to the PBF public, which remained under the responsibility of the agency already familiar with specific needs of that group.

14. Possibility of challenging eligibility included in the request app, with increments during program operation to complement the denial message with information about records that characterize each situation of ineligibility.

Suggestions: Information about which information and administrative record caused beneficiaries to be disqualified is important, as it may allow beneficiaries to remove possible administrative errors existing in the agency responsible for each record. Ideally, a new version of the mechanism might allow documents to be challenged through the app, and possible errors in bases used might be directly corrected by the app itself.

15. Partnership with the DPU to manage extra-court challenges.

Suggestions: The mechanism suffered from a lack of scale, and other agencies such as SUAS, for example, might have participated in the operation. In the hypothesis
of including partners that might radically expand the capacity to analyze individual cases, it would be interesting to allow some challenge possibilities to be submitted directly through the app, by sending pictures of documents providing evidence.

16. **Partnership with the CNJ to standardize and assign more dynamism to the access of judges to administrative data regarding judicial disputes involving the program.**

**Suggestions:** Something to be discussed would be the possibility of granting this type of access to the accusing party also, in disputes involving the program.

17. **Partnership with the CNJ to establish a special court decision notification system contesting denials, which would have a significant effect over the speed in which these decisions become internalized.**

**Suggestions:** This type of system might also be guaranteed to regular programs such as the PBF.

18. **Preparation of a simplified mechanism for people to voluntarily return unduly paid amounts and a subsequent strategy to stimulate this practice (requests via SMS) and integration with Receita Federal to recover benefits unduly paid by occasion of the Annual Tax Return Statement.**

**Suggestions:** The recovery of amounts in partnership with Receita Federal might also be applied to other recurring cases among those that characterize undue payments, as was the case of subnational administration employees. The use of tax returns to recover amounts should happen with care, only in more explicit cases, or eligible people might hesitate to request benefits, or vulnerable individuals in situations which may lead to reasonable doubt about their eligibility may incur debts, even after submitting their candidacy in good faith.

19. **Preparation of databases with indication of possible frauds included by the several program operations, to subsidize actions to fight against organized crime led by the MPF and by the PF. Also, trails were defined which might indicate possible fraud based on the analysis of request and benefit access metadata.**

**Suggestions:** As part of the effort to improve the guarantee to individual data secrecy for programs using administrative records so intensely, it is advisable that investigation efforts involved the participation of representatives from agencies responsible for guaranteeing data secrecy.

20. **Intense social communication campaign for program promotion, disseminating its rules and underlining its legacy considering operational problems sometimes amplified by the press. The MC responded to almost 3,000 demands of the press, prepared 34 reports about the program, and introduced almost 200 postings about the program in its website.**

**Suggestions:** Although it has been less emphasized by the literature, this type of action is fundamental to defend program legitimacy whenever sensational narratives are disseminated, informing municipal service networks and also stopping the program from adopting drastic measures to defend its legitimacy whenever faced with anecdotic problems.
14. Final considerations

Because of its huge volume of funds and robust architecture, the AE program became a successful initiative, having reached broad and inclusive national coverage, which configured it as an international landmark in response to COVID-19, including potential effects of improving conditions of life, even considering the period immediately before the crisis as a reference and specific effects caused by less generous phases of the AE. During its more generous phase, AE1 offered individual benefits of BRL 600 (USD 114.72), equivalent to three times the amount of average family benefits provided by the PBF, two-thirds of the monthly labor-related average income received by beneficiaries in prior years, half of the national Minimum Wage and of the average amount received by SD beneficiaries (Falcao and Morgandi 2020). Globally, the program was recognized as one of the quickest, most generous, and uninterrupted responses (Beazley, Marzi, and Steller 2021; Gentilini, Almenfi, and Dale 2020). Although we still do not have consensus about the order of magnitude of its effects, everything points to the fact that even the less generous phase of the program may have increased average income and reduced poverty and even the Gini index, if compared to the immediate prepandemic situation (Cereda, Rubião, and Sousa 2020; Gonzales and Barreira 2020; Gonzales and Oliveira 2021; Lara Ibarra 2021a, 2021b). A possibility exists that these effects were not only results of the gross volume of funds invested but also of correct decisions made during the program design phase.

More than mitigating impacts of the crisis for the population, the AE was also an opportunity to experiment with new social policy options. It is important that these experiences can be duly identified and assessed with regard to their adequacy for continued use in the context of regular programs and to strengthen adaptive capacities of the Brazilian and international social protection systems. For example, the AE was the first experience involving information and communication technology (ICT) for registration and benefit payment in Brazil. It was also the first experience of selecting beneficiaries only based on the analysis of administrative records, resulting from an unprecedented access to these types of bases provided by the program. In terms of management, the AE was a pioneer in the number of institutions involved in its operation, with special note given to the various cooperation channels with the judiciary and control agencies, with the creation of a Management Commission to facilitate program governance, besides the national tax authority itself. Something remarkable was the experience of managing a program and at the same time allowing adjustments to its selection protocols without the necessary revision of its legislation and also the pioneer experience in Brazil with an eligibility rule processing monthly revisions.

Of innovations introduced by the program, the most remarkable ones concern the use of Big Data to validate requests through administrative records, as well as the use of digital channels for citizens to request program participation, challenge decisions, and receive benefits. Although innovations related to the intensive use of ICTs and administrative data may still be open to criticism because of their possible exclusion bias, these solutions proved to be effective. To a large measure, what seems to be missing for a broader acceptance of these innovations are complementary measures to associate them to traditional ways of
operating social assistance projects, as well as more robust efforts to guarantee privacy rights to the population and the right to challenge negative decisions about eligibility through the submission of documents for evidence. The more distinct association between technological innovations introduced by the AE and more traditional ways of providing social assistance might have been reached if SUAS facilities and other subnational institutions had been formally engaged in the program, which would also have brought relief to operations marked by saturation, as was the case of controversy management. In this sense, our suggestion is that the experience gathered with the AE may lead to the establishment of protocols of action for future emergencies, to preserve the participation of social protection players of the three federal levels without affecting the speed of responses or subjecting this partnership to more conjunctural aspects and to political preferences among the three administrative levels.

In the field of administrative innovations, the involvement of control agencies in the management of the program was considered positive although charged with an exclusion bias. For the future, the program’s role may also be expanded, to develop more strong action in areas such as mitigating barriers of access to the program, identifying possible exclusion errors based on its procedures (besides inclusion errors), having more active search efforts for specific groups, and improving challenge and complaint management mechanisms along with measures to protect the right to privacy, considering the new role of ICTs and the intense interoperability of administrative records inaugurated by the AE.

The most notable fragilities of the AE were from fiscal contention measures which imposed exclusion biases throughout the program, as well as choices made based on false assumptions that the program would only last for a few months (longer). Because of these aspects, the program internalized certain measures that compromise the predictability of the benefit, as, for example, the use of outdated income and family composition records in selecting beneficiaries, changes in eligibility verification procedures during the program, monthly eligibility reassessments to maintain payment, and a limited window to receive requests. According to Grosh et al. (2008), one of the main mechanisms through which this type of program may have an impact on overcoming poverty and mitigating crises is exactly related to predictable monetary aids, which –despite being small– end up being predictable for beneficiaries. When paid with predictability, income transfer programs, besides covering deficiencies in consumption, may have effects to build savings, expanding the access to credit and increasing tolerance to risk in a search for more return.

Although the sui generis nature of the COVID-19 crisis has made political support possible for an efficient and well-organized fundamentally ad hoc program, it is desirable that lessons and learning opportunities brought by the AE inform emergency protocols to mediate responses to future crises. With this in mind, it would be interesting, for example, that social protection efforts developed their own mechanisms to analyze potential crises and their expected impacts, which would allow the AE program to work with more realistic expectations regarding the true period during which an emergency program would have been necessary, even considering more optimistic epidemiological perspectives. Under the leadership of the African Union, for example, the African Risk Capacity already accumulates an 8 year experience forecasting and estimating impacts caused by climate-related crises, and recently the institution also began to develop an analogue mechanism to analyze epidemiological risks (Arruda 2021). Social protection systems that have this type of capacity might also play a fundamental role in the decision of approving or not the implementation of emergency programs during future crises which may perhaps not cause the same commotion brought about by the COVID-19 epidemic. This type of capacity might also instrumentalize more localized actions in the event of crises which perhaps affect only certain parts of the
national territory. In Pakistan, for example, a protocol was established for COVID-19 response programs which allowed to activate emergency measures only in those regions experiencing more acute forms of the epidemic.

**Besides contributing to the efficiency of future responses, the establishment of a specific capacity to analyze covariate shocks might offer possibilities of social protection programs looking for forms of funding that could mitigate fiscal costs of developing action in future crises.** Such possibilities include, for example, the creation of specific funds for this type of action, the participation in assuring mechanisms in case of catastrophes, or even previous approval of credits for the management of disasters.
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