



Special Series on Fiscal Policies to Respond to COVID-19

This is one of a series of notes produced by the Fiscal Affairs Department to help members address the COVID emergency. The views expressed in this paper are those of IMF staff and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

Digital Solutions for Direct Cash Transfers in Emergencies¹

Experiences during previous pandemics and economic crises have shown that a range of transfer programs and modalities can be effective in protecting vulnerable households, including those in the informal sector and poorer regions.² In the wake of the COVID-19 pandemic, many governments are considering direct cash transfers to protect vulnerable households. In several developing countries, the scale of these payments is unprecedented.³ For people living in extreme poverty, such cash support can be a lifeline. However, low-income developing countries (LIDCs) and emerging market economies (EMEs) often have large informal sectors,⁴ which make it more difficult to deliver support effectively and securely.

This note focuses on how digital solutions can help governments deliver cash transfers efficiently and quickly to their intended beneficiaries, including those in the informal sector. The note offers suggestions on (i) the scope for using digital technologies to identify and validate recipients of direct cash payments; (ii) mechanisms for delivering cash payments efficiently; and (iii) streamlining public financial management (PFM) procedures for delivering these benefits/transfers fast, while ensuring transparent reporting and adequate control to prevent serious financial irregularities.⁵ Table 1 provides a summary of the key measures suggested. A separate note focuses on policy issues related to cash transfers.⁶

Please direct any questions and comments on this note to cdsupport-macrofisc@imf.org

¹ Prepared by Gerardo Una, Richard Allen, Sailendra Pattanayak and Gwenaelle Suc, with inputs from Claude Wendling, Suhas Joshi, Raju Sharan (FAD) and the Digital Advisory Unit of the IMF's Information Technology Department (ITD).

² See D. Coady, March 2020. "Managing the Impacts of Coronavirus: Guidance on Good Public Spending Practices" (See at <https://www.imf.org/en/Publications/SPROLLS/covid19-special-notes>).

³ For example, in Argentina, Pakistan and Peru, new support programs cover one-third of the population; in the Philippines, over 70 percent of households will receive emergency transfers (see World Bank blog at <https://tinyurl.com/y7pw5mx2>).

⁴ International Labour Organization (ILO), 2018. "Women and Men in the Informal Economy: A Statistical Picture (third edition)". Also, the World Bank's Identification for Development Initiative (ID4D) collects data across 198 countries to estimate the number of people who are without legal identity (e.g., no birth certificate). In many LIDCs, notably in Africa, up to 50 percent (or even 77 percent in Somalia) of the population are unregistered.

⁵ For example, a 2006 study by the U.S. General Accounting Office (GAO) of the Federal Government's Disaster Relief for Hurricanes Katrina and Rita estimated that 16 percent of payments were improper and potentially fraudulent because of invalid registrations (<https://www.gao.gov/assets/120/114055.pdf>). Crisis-related support has also been associated with financial scandals elsewhere, e.g., the Ebola epidemic in DRC in 2019, or the security crises in Mali in 2010 and 2015.

⁶ See D. Prady, 2020. "Reaching Households in Emerging and Developing Economies: Citizen ID, Socioeconomic Data, and Digital Delivery" (See at <https://www.imf.org/en/Publications/SPROLLS/covid19-special-notes>).

I. KEY PFM OBJECTIVES AND CHALLENGES IN DELIVERING CASH TRANSFERS

Digital solutions can help improve the PFM aspects of a cash transfer scheme: making regular and timely payments to beneficiaries, reaching the correct beneficiaries, improving the accounting and reporting of cash transfer transactions, and strengthening accountability by providing a reliable audit trail. However, the cost and feasibility of cash transfers will depend on their intended frequency (one-off or recurring), duration (temporary or ongoing) and geographical coverage (a few specific locations or a much wider area), as well as the existing digital infrastructure and payment systems.

The main objective of digital solutions for cash transfers is to ensure that they are made in a timely and secure manner and are adequately controlled and reported. Sound PFM systems can play a key role in:

- Identifying accurately and validating the information on intended beneficiaries by cross-checking data from different sources to ensure a comprehensive coverage of the targeted population and to prevent leakage of funds and duplication of payments;
- Streamlining cumbersome government procedures for processing benefits;
- Ensuring the timely transfer of payments by utilizing available digital mechanisms and platforms (e.g., electronic fund transfer, and mobile money);
- Providing user-friendly interfaces between the government and beneficiaries; and
- Ensuring transparency and accountability in administering the cash transfers scheme by publishing relevant and timely data.

Governments in many countries, however, face challenges to achieve these objectives, due to lack of data on potential beneficiaries in the informal sector, poor PFM information systems, connectivity weaknesses, and a low level of preparedness to respond to large shocks. They are likely to face a difficult trade-off: either to adopt tight eligibility criteria to ensure that no “undeserving” beneficiary receives support, thus running the risk of excluding some eligible people; or to cast the net wider so that most of the poor are taken care of at the risk of including many “undeserving” cases among the beneficiaries. Loose criteria will also increase the risk of fraud. If the COVID-19 crisis persists, it may also rapidly change eligibility (e.g., more citizens become unemployed), and “underserving” people may become eligible by the time the country has collected the data. In order to expand the potential reach of social safety nets, governments in some developing countries have started to establish citizen registries and integrated these with public socio-economic information databases and improved benefit delivery mechanisms.⁷ The better the interconnections of databases and automated controls the lower the risk, but it cannot be avoided. In several developing and emerging countries core PFM systems, such as the financial management information system (FMIS) and the procurement system, are insufficiently strong.⁸

⁷ See D. Prady, 2020 (See at <https://www.imf.org/en/Publications/SPROLLS/covid19-special-notes>). The note cites the example of the Union Government of India which has integrated these three components in the delivery of broad income support: a universal ID system linked to socioeconomic data on households and to a mode of benefit delivery.

⁸ An IMF survey of 46 countries shows that weaknesses in the FMIS's core functions, its institutional coverage, the information technology platforms, and the ease of sharing data with other IT systems, are present in many across Africa, Central and South Asia, Latin America and the Caribbean, the Pacific Islands, and Southeast Europe. See “[How to Design a Financial Management Information System—A Modular Approach](#)”. Una, Allen, and Botton, FAD/IMF (2019).

There are three groups of issues/challenges that need to be addressed:

- *How should beneficiaries be identified and enrolled?* The specific challenges include: (i) the absence of a defined database of intended beneficiaries;⁹ (ii) target groups that are widely geographically dispersed; and (iii) migrant labor that comprises a large share of the informal sector workforce.
- *How should cash transfers be made to reach the beneficiaries in a timely and secure manner?* The specific challenges result from: (i) the potentially large number of intended beneficiaries who do not have bank accounts and for whom electronic direct deposits are not possible; (ii) beneficiaries who do not have access to the banking network, e.g., because they live in remote areas where bank branches have not been established; and (iii) low levels of adoption of digital financial platforms by different payment service providers (PSPs)—commercial banks, other deposit-taking institutions, and specialized entities such as money transfer operators and electronic money issuers—and/or poor coverage of the cell phone/internet network.
- *How should the payments be recorded in the budget, controlled and reported?* Challenges include: (i) slow and complex procedures for incorporating spending on cash transfers in the budget; (ii) the need for streamlining budget execution and treasury processes and adjusting FMIS or other digital solutions; (iii) finding the right balance between making payments efficiently and transparently while complying with relevant laws and regulations; and (iv) the need for enhancing the reporting of cash transfers to the public, International Financial Institutions (IFIs) and other development partners, and other stakeholders.

II. IDENTIFYING AND REGISTERING BENEFICIARIES

Key Enablers

The first step is the identification of beneficiaries, especially in the informal sector, and digitization of their enrolment in a beneficiary database (i.e., including the details of beneficiaries on an IT platform). The beneficiary enrolment process should be smooth with clear communication about the prerequisites and a good grievance redressal system. Ideally, there should be a unified beneficiary database which is available securely to all relevant ministries and departments, and which allows an exchange and aggregation of information with other levels of governments.

Suggested Measures

- For beneficiaries in the formal labor market and/or those covered by the social security network, the government should utilize available social security and tax administration databases to identify people who meet the required benefit criteria.
- Where the government does not have access to data that provide reasonable information about beneficiaries in the informal sector, it could adopt an incremental approach. In a first stage, the scheme would cover as many potential beneficiaries as possible and provide a small amount of immediate relief. In a second stage, applicants would be required to undertake a full enrolment process including the validation of know-your-client (KYC) requirements, which also helps to prevent fraud and corruption.¹⁰ This incremental approach

⁹ The number of beneficiaries can be large, e.g., 54 million people in Brazil and 12 million poor families in Pakistan are being targeted by the respective governments.

¹⁰ Côte d'Ivoire adopted this strategy for some social safety net programs. The process also could include the possibility of rectifying the information provided by the beneficiaries or even cancelling the application, as is being adopted in Thailand.

would allow the government to provide support during the emergency while developing a strong database of the beneficiaries in the informal sector.

- For beneficiaries, particularly in the informal sector, it may be possible to identify and gather information via simple automated processes such as a request for information from official and publicly available database, utilizing sources such as: (i) databases relating to current or former poverty reduction strategy programs (PRSPs) enacted by the government; (ii) social security and tax administration databases (e.g., informal sector paying a “presumptive tax” as in Francophone Africa); (iii) beneficiaries of public utilities’ “social tariffs” or subsidized tariffs (electricity, gas, water); (iv) databases of students attending schools in low-income areas; (v) databases of health service beneficiaries in low-income areas (including information collected by healthcare agencies in the context of the COVID-19 pandemic); (vi) data available from firms/companies that employ workers in the unorganized sector; (vii) data on the informal sector collected by local government entities, NGOs and not-for-profit organizations, and (viii) data from the voter registration databases (e.g., Togo opted to use their voter registration database, after determining that it was the most complete database in the country). Mobile network operators can also complement official databases.
- Governments should utilize the strong incentives for potential beneficiaries to self-enroll and register/apply for benefits, using a simple webpage/mobile app or even a call center, and an extensive public awareness campaign. In some developing countries, local authorities (e.g., village chiefs in Côte d’Ivoire), and police commissioners take part in the identification of beneficiaries in the informal sector. It should be noted, however, that some individuals in the informal sector may choose not to register to avoid paying taxes and complying with other government regulations. Such challenges can best be managed by a clear communication strategy by the government that cash payments are intended as a lifeline during the crisis without impacting on citizens’ other benefits or obligations.
- After identification/registration of possible beneficiaries, to the extent possible, the authorities should validate and cross check the information provided from the different sources noted above, as well as from other potential sources, if available (e.g., credit cards databases, and the real estate properties registry). As far as IT systems allow it, Application Programming Interfaces (APIs) and Robotic Process Automation (RPAs) should be used to accelerate the checking process.
- Clear procedures should be established by the ministry of finance to authenticate beneficiaries and their bank accounts or other payment modalities. Line ministries responsible for health and other social issues could also play a useful role in validating potential beneficiaries. Preferably, a central unit in the ministry of finance should oversee this work and coordinate with other government agencies and PSPs (e.g. banking sector and mobile network operators). Essential checks should validate not only that individuals meet the benefit criteria, which should be clearly established by the government, but also avoid duplicates (one person receiving benefits multiple times) and ghosts (non-existent people receiving benefits). The government should ensure that data protection standards are applied to the operation of the scheme and the use of its databases.

III. REACHING THE INTENDED BENEFICIARIES AND EXECUTING THE CASH TRANSFER

Key Enablers

Direct deposits of cash transfers through bank accounts are the ideal mechanism for government-to-person (G2P) payments, but it could be supplemented with simple digital solutions. Ideally, beneficiaries should have bank accounts to receive cash transfers. However, this may not be the case for all beneficiaries in the informal sector. Adjustments to PFM laws, regulations, processes and information systems (and/or use of government

emergency powers)¹¹ may be necessary to make payments on an accelerated basis, using alternative channels such as prepaid cards¹² and other digitally enabled methods (e.g., e-transfer and mobile-money¹³). If digital solutions are used for payment, it will be important that countries have reasonable coverage of their mobile phone network and utilize apps that are compatible with low-cost phones.

Suggested Measures

- The level of development of the banking sector is a major consideration when governments decide on payment modalities. Making direct transfers to bank accounts from the state treasury through the central bank electronic payment network is the best and most cost-effective option when the intended beneficiaries, both in the formal and informal sector, have such accounts and the government has enough information to facilitate proper identification. Line ministries responsible for direct cash payment programs should also participate in the generation of the information required to make payments.
- If some potential beneficiaries have easy access to the banking network, they should be encouraged to open bank accounts—in some countries this could be a pre-condition to receive the benefit—so that cash transfers can be made electronically. For example, Brazil and Chile are making payments through state-owned banks (*Caixa Econômica* and *Banco Estado* respectively). Both countries encourage the beneficiaries to open bank accounts just with the national ID number.
- Subject to the legal framework, commercial banks in some cases might also act as government cashiers by reimbursing them for payments they have been authorized to make to beneficiaries. Such a process, of course, should be established in consultation with the central bank and would require appropriate service-level agreements between the state treasury and the concerned banks.
- Beneficiaries who do not have access to the banking network could be encouraged to use the post office network. In many countries, post offices can validate addressees and make payments/money transfers. For example, Zambia adopted this channel of payment for a social program focused on women. Prepaid cards also could be an option. For example, Mercy Corps—a global team of humanitarians—delivered cash assistance through prepaid cards to over 16,000 refugees, asylum seekers, and other vulnerable people in Greek islands during 2016-2018.
- Another option would be to engage private agencies that provide money transfer services¹⁴ as “banking correspondents” to make cash transfers in places where formal bank branches do not exist. Such arrangements should be agreed with the central bank.
- If digital platforms are available, they could be used for G2P cash transfer payments, using solutions such as e-transfers and mobile money. For example, Chile, Peru and Thailand are using G2P networks efficiently to make cash transfers to vulnerable groups.¹⁵ Mobile banking applications are also used in several emerging

¹¹ In some countries such emergency powers are well established and are already being used in the present crisis.

¹² Prepaid cards are issued by a bank (or similar entity). They allow program participants to withdraw cash from an ATM and/or make purchases at vendors equipped with point-of-sale (POS) devices that accept the cards.

¹³ Mobile money (MM) systems are usually operated by local mobile network operators and rely on a network of registered transfer agents. These agents—often the same types of small business owners who sell airtime—have a contract with the MM operator allowing them to register MM clients and disburse and accept MM. Because MM systems assume some banking functions, they are subject to local banking and anti-money laundering (AML) regulations.

¹⁴ E.g., Western Union, which is present in many African countries, or money changers/foreign exchange bureaus, etc. In some Latin America countries, for example Peru, retail shops deliver this type of financial services.

¹⁵ See World Bank blog cited in footnote 3.

and developing countries, e.g., Kenya, India, Cambodia and Colombia.¹⁶ Analog solutions based on Unstructured Supplementary Service Data (USSD) platforms, which are used in some Sub Saharan African countries, could also be utilized. A review of the digital financial platforms, including analog mobile money platforms, that are in place should be made quickly by the Treasury, the central bank and representatives of private financial service providers to identify the most agile, secure and suitable solutions. The cost of mobile payments is often lower than other disbursements methods, and mobile payments generally have a wide reach¹⁷ and can bring other long-lasting benefits (e.g., by incentivizing households to allow women to open a mobile account thus reducing the gender gap related to financial inclusion, building credit scores, allowing peer-to-peer remote payments, and promoting e-savings).

- When digital cash transfers would take more time to set-up than traditional cash distributions, governments may consider planning for two parallel delivery mechanisms: one to work on the physical distribution of cash-over-the-counter and the other to establish the digital cash transfer program. This approach may be particularly appropriate in rapid-onset emergencies like the COVID-19 pandemic, where the first goal is to meet immediate needs. The benefits of a digital cash transfer program can be incorporated in later response efforts.
- In countries and areas where digital transfers cannot be made and cash payment is the only option, regional treasury offices, other government service delivery units, and/or on-site or mobile branches of financial institutions could be used. They could receive the funds transferred electronically to their bank accounts and disburse the required amounts to beneficiaries.¹⁸
- If none of the above options are available, governments could explore the use of NGOs, community groups/workers, etc., for implementing the cash transfer scheme for beneficiaries in the informal sector. They could be paid a fee, e.g., in the form of honorarium.
- When banks, banking correspondents, other financial institutions or post offices are engaged by the government to implement cash transfers, they will need to be compensated to meet their administrative costs thus increasing the relative cost of these options compared to making direct transfers to bank accounts. The compensation could be given in two parts: (i) a transaction fee payable for each transaction; and (ii) a cash incentive to promote last mile delivery of the benefit/cash payment to the beneficiary—this second payment would be relevant in cases where formal banking channels are not used to make the transfers. The benefits and costs of each option would need to be assessed.

IV. PROCESSING, CONTROLLING, RECORDING, AND REPORTING CASH TRANSFERS

Key Enablers

Given the need for rapid response, the emphasis should be on (i) streamlining some of the usual control procedures and audit requirements, and (ii) adapting or modifying existing IT systems and digital platforms

¹⁶ In small island countries, the mobile coverage is generally good, and populations are smaller; thus, a mobile banking would be viable.

¹⁷ There may be challenges in building such digital platforms in some countries, e.g., people in the informal sector may not have a valid ID which enables them to hire a mobile phone.

¹⁸ These types of solutions were adopted in Western Africa during the Ebola crisis when it was not possible to adopt digital platforms (See “[Harnessing digital technology for cash transfer programming in the Ebola response](#)”, United States Agency for International Development (USAID) / The Cash Learning Partnership (CALP), September 2017).

rather than building new ones. Transparent reporting procedures and strong ex post audit and review of the transfers would compensate for lighter ex ante controls. They also foster trust by the population.

Suggested Measures

- Utilize, and where necessary adjust, the PFM legal framework to allocate budget resources flexibly and quickly to deliver cash transfers. For example, in francophone countries, legal provisions allow in specific emergency circumstances for supplemental appropriation decrees (*décrets d'avances*).
- Earmarking procedures provided for by the legal framework could be used to dedicate some funds (e.g., voluntary contributions, donor grants) for targeted cash transfers.¹⁹ When the legal framework does not include any provisions for earmarking resources, a new regulation or decree may be needed to prevent agencies from using COVID-19 funds for other purposes. Another (or additional) option would be to adjust the existing budget classification (and the chart of accounts) to identify and track this spending. Specific programs or actions and associated indicators can be created in program budgeting systems, or a new “institution” could be included in the administrative classification for control and reporting purposes. Under both options, agencies should be prevented from using these funds for other purposes.
- Measures to streamline PFM procedures and controls temporarily should be introduced. For example, procedures to register all budget execution stages—commitments, payments, and accounting—of emergency response expenditures, such as cash transfers, at the same time could be adopted, thus avoiding repetitive sequential reviews and authorization. Many countries adopt such processes for registering and paying certain types of expenditures (e.g., public utility bills). Another option is to register and account for several identical transactions related to emergency response as a single bulk entry. These initiatives should be reflected in amendments to the PFM legal framework or emergency decrees. In France, for example, public accountants have been ordered to bypass controls to expedite the payment of expenditures associated with COVID-19, using a provision of the PFM legal framework applicable to *force majeure* which may also apply in francophone Africa.
- In countries that have established a Treasury Single Account (TSA) in the central bank, direct cash payments could be centralized at the treasury and delivered by utilizing the central bank’s national electronic payment system. Payments could then be delivered using the channels noted above, including bank transfers, mobile money, or direct cash payments. When government is relying on intermediaries (private banks, moneychangers, community groups) to make the transfers, cash should leave the TSA at the end to avoid any accumulation of idle balances in the payment channels outside the TSA.
- Mechanisms to prevent fraud and corruption should be adopted as a cash transfer scheme would be vulnerable to abuse. Relaxing ex ante and upstream controls²⁰ requires strengthening ex post controls, especially the role of a country’s supreme audit institution, but also the legislature and civil society. Control and audit institutions should be involved in the design and implementation of the streamlined PFM procedures used to accelerate payments. For example, to monitor the regularity and control the emergency payments under the recently approved “Coronavirus Aid, Relief, and Economic Security (CARE) Act”, the US Treasury Department has created a new high-level Inspector General position to be nominated by the President and approved by the Senate. Targeted audits could also be conducted soon after the first wave of payments is completed, to provide an initial assessment and possible recommendations for improvements.

¹⁹ In francophone systems, “*fonds de concours*” could be a mechanism for earmarking external financial support.

²⁰ For example, ex ante controls could be relaxed for payments below a certain threshold but maintained for larger payments.

- Regular and timely reports on the disbursement and utilization of cash transfers should be published, ideally on a real time or on a weekly, bi-weekly or monthly basis. It may be necessary to “tag” these resources in the FMIS. Each transaction related to the emergency should be tracked through the chart of accounts, and specific reports on crisis-related spending should be published for different stakeholders.²¹
- To the extent possible, existing control and approval procedures built into the FMIS should be modified or adapted to reflect the lighter controls (including different thresholds) required by the cash transfer scheme. There will be insufficient time for governments to develop new IT systems or to introduce major changes.
- When digital solutions are to be utilized progressively for cash transfers, there will also be a need to strengthen the capacity of the IT department of the Ministry of Finance to improve the government's cybersecurity policies and procedures. In many LIDCs, establishing a “task force” comprising IT teams from the treasury, the revenue collection authority, the social security agency, and the central bank could be an option to achieve this objective in a short period of time.

²¹ The reports should provide enough information to build trust with citizens, while complying with data privacy laws. For a more detailed analysis of fiscal transparency related to COVID-19 response, see the blog post [“Fiscal Transparency in Times of Emergency Responses: Reflections for the Time of COVID-19”](#) by L. Rivera del Paso, Global Initiative on Fiscal Transparency (GIFT).

Table 1. Emergency Cash Transfers: Summary of Main Measures

Identifying and Registering Beneficiaries

For the formal labor market, utilize available social security and tax administration databases.

For other beneficiaries, utilize other available databases (e.g., social security, tax, public utilities).

Validate enrolments with other data sources using APIs and RPAs where possible.

Consider an incremental approach—initially small amounts of relief followed by formal enrolment.

Establish a unit in the ministry of finance to oversee the scheme and coordinate with other government agencies, the banking sector, and mobile network operators.

Ensure through validation both that individuals meet the benefit criteria and avoid duplicates (one person receiving benefits multiple times) and ghosts (non-existent people receiving benefits).

Ensure that data protection standards are applied for the scheme and its databases.

Reaching Intended Beneficiaries and Executing the Cash Transfers

Making direct transfers through the central bank electronic payment network is the most cost-effective solution when intended beneficiaries have bank accounts.

Commercial banks, post offices and prepaid cards may be other payment options.

When digital cash transfers would take more time to set-up, consider two parallel delivery mechanisms: (i) physical distributions of cash over-the counter, and (ii) digital cash transfers.

Where cash payments are the only option, regional treasury offices, other government service delivery units, and/or on-site or mobile branches of financial institutions could be used.

Banks, other financial institutions or post offices engaged in implementing the cash transfer scheme would need to be compensated to meet their administrative costs.

Processing, Controlling, Recording and Reporting Cash Transfers

Adjust where necessary finance laws and regulations to deliver the scheme flexibly and quickly.

Use earmarking to dedicate some funds (e.g., donor grants) for targeted cash transfers.

Streamline controls and approvals for registering, accounting and paying COVID-related expenditure, and make necessary adjustments to a country's FMIS.

For countries with a Treasury Single Account, centralize direct cash payments at the treasury by utilizing the central bank's national electronic payment system.

Adopt strong mechanisms to prevent fraud and corruption through ex post audits and inspections.

Publish regular reports on the disbursement and use of cash transfers, ideally on a real time basis.

Strengthen the capacity of the finance ministry's IT department to apply the government's cybersecurity policies and procedures.