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Poverty Alleviation through Benazir Income Support Programme: An Overview

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Abstract

Reducing poverty is one of the sustainable development goals of the United Nations (UN). Concerns regarding poverty in Pakistan have intensified following a surge in inflation during the fiscal year 2023-2024, following erratic inflation trends after Covid-19 and the 2022 floods. In this context, the Benazir Income Support Programme (BISP), a large social safety net, has played a significant role in cushioning the economy against poverty. This study analyzes the impact of BISP's unconditional cash transfer program on poverty alleviation. Literature indicates that these transfers positively affect health, social well-being, women empowerment, household wealth and political participation. However, these benefits often diminish time due to several factors discussed herein. A comparison with India's social safety programs informs recommendations for improvement. This study suggests that BISP could increase its impact by raising stipends and expanding coverage, alongside re-evaluating beneficiary eligibility. Encouraging beneficiaries' participation in formal financial platforms could stimulate savings and broader financial activity. Investments in human capital, particularly through enhanced youth employment programs, could accelerate long-term poverty eradication while BISP is active.

Introduction

Globally, unequal development exacerbates disparities between rich and poor, deepening social conflict, and inequality. The UN established poverty reduction as a key sustainable development objective in 2015. Although historical data indicates

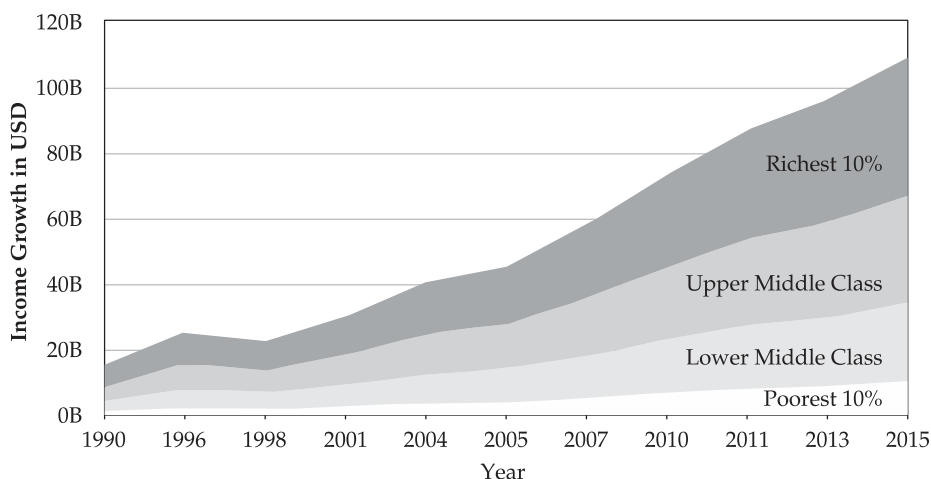
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a decrease in Pakistan's poverty rate from 61.6% in 1998–1999 to 21.5% in 2018–19 (PIDE, 2021), 40% of the population remains impoverished (World Bank, 2024). Concerns have heightened due to spikes in food and transportation costs, driving consumer price inflation to a record 35.37 percent in March 2023 (Pakistan Bureau of Statistics, 2023), followed by sustained price increases rendering necessities unaffordable (Monthly Economic Update and Outlook, March 2024).

In Pakistan the rate poverty reduction has not been consistent. Figure 1 illustrates that over the past 20 years, there has been minimal change in the income levels of the poorest groups. According to the World Bank, nearly 47 million people were lifted out of poverty between 2001 and 2018. Unfortunately, two million people fell into poverty as a result of the Covid-19 pandemic (World Bank 2021a), and an additional 8.4 to 9.1 million were affected by the 2022 floods (World Bank 2022b). Recently, data presented by World Bank representatives at the conference titled "Time for a Brighter Future: Time to Decide" indicated that the poverty rate increased from 34.2 percent in 2022 to 39.4 percent in 2023, resulting in an additional 12.5 million people living in poverty (Ibrahim, 2023).

Figure 1: Income Distribution in Pakistan, sourced from: "Evaluation: Benazir Income Support Program (BISP)" by Khan (2021).



The increase in poverty rates in Pakistan can be attributed to inflation, lackluster economic output, and a limited export base, preventing the economy from capitalizing on its abundant resources. Additionally, with 1.4 million more people entering the labor market annually, the total labor force reached 74.41 million in 2022–2023. Of these, 67.23 million were employed, resulting in a total employed population of 7.18 million and an unemployment rate of 9.6%. This figure is only a

preliminary estimate, as job mobility is low across the country, particularly in smaller cities and rural areas.

While economic growth is often seen as a determinant of poverty reduction, Pakistan's economic activity during the first half of the fiscal year 2024—primarily driven by robust agricultural output—has not been sufficient to lower poverty levels. Although this growth aids the recovery of other industries, rising debt and depleting foreign exchange reserves contribute significantly to persistent macroeconomic risks and inadequate poverty alleviation.

The current state of human development indicators in Pakistan

With a Human Development Index (HDI) score of 0.540, Pakistan ranks 164th out of 193 countries, placing it in the "low" human development category according to the 2023-2024 Human Development Report titled "Breaking the Gridlock: Reimagining Cooperation in a Polarized World," released in March 2024 by the United Nations Development Programme (UNDP).

Improvements in the Human Capital Index (HCI) in Pakistan have been achieved by investments in wealthier households, rather than targeting the poorest segments of the population (Agha & Williams, 2016). According to the World Bank (2020a), a child born in Pakistan is expected to achieve only 59% of their potential productivity as an adult due to limited access to quality education and healthcare. This disparity highlights significant gaps in human capital development, particularly among marginalized groups.

Pakistan ranks 135th out of 166 countries on the Gender Inequality Index (GII), maintaining the same position as the previous year (UNDP, 2024). Societal and cultural norms continue to restrict women's participation in the labor force, limit their educational attainment and literacy, and reduce access to healthcare, making female-headed households particularly vulnerable. According to the Global Nutrition Report (2024), Pakistan is "on course" to meet its two targets for maternal, infant, and young child nutrition (MIYCN). However, progress in improving the health of women of childbearing age remains limited, with 41.3% of women aged 15 to 49 suffering from anemia. Additionally, there is insufficient data to evaluate Pakistan's progress toward achieving the low birth weight target. Encouragingly, 47.8% of infants aged 0 to 5 months are exclusively breastfed, indicating that Pakistan is on track to meet its breastfeeding goal. While significant strides have been made in reducing stunting, 37.6% of children under five remain stunted—well above the Asia-Pacific region's average of 21.8% (Global Nutrition Report, 2024).

The role social safety nets and the beginning of BISP

Historically, Pakistan's social protection initiatives have primarily focused on formal sector social security. Notable programs include the Employees' Social Security Scheme (1970), the Workers' Welfare Funds (1971), the Government Servants' Pensions-cum-Gratuity Scheme (1954), the Public Sector Benevolent Fund and Group Insurance Scheme (1969), and the Employees' Old Age Benefits Institution (1976). However, these programs are exclusively available to workers in the formal sector, despite the fact that the majority of employment in Pakistan lies within the informal sector, which predominantly comprises individuals in the lowest income quintiles. Consequently, a large portion of the workforce—vulnerable and impoverished individuals—remains excluded from such protections. This limited coverage significantly undermines the outreach and effectiveness of these social safety net initiatives.

The two primary social safety programs currently operating in Pakistan are Pakistan Bait-U-Mal (PBM), established in 1991, and Zakat & Ushr, founded in 1980. Guided by the Ministry of Religious Affairs, local Zakat committees identify the most vulnerable and marginalized Muslims through informal channels including discussions with local authorities. The PBM oversees the primary government-run cash distribution program, formerly known as the Food Support Program (FSP). It provides a fixed amount of financial assistance and operates under the Ministry of Social Welfare and Special Education.

However, the financial crisis (2008) exposed significant shortcomings in both PBM and Zakat & Ushr, highlighting issues such as poor coverage, lack of accountability, and insufficient transparency within their bureaucratic and administrative processes. Both programs relied on manual cash delivery methods, which proved inefficient and time-consuming. Additionally, most benefits were one-time payments, resulting in recipients not receiving ongoing, reliable assistance.

The Benazir Income Support Programme (BISP) was introduced in 2008 as a response to the declining purchasing power of low-income households, providing an unconditional cash transfer (UCT) of PKR 1,000 per month. This initiative demonstrated the government's commitment to establishing a safety net program grounded in international best practices and leveraging technology to enhance accountability, efficiency, and transparency. Although BISP reached 1.74 million individuals in its inaugural year, it fell short of its initial target of assisting 3 million of Pakistan's poorest families. In 2010, BISP was formalized as an organization through the BISP Act, with a mandate to "reduce poverty and promote equitable redistribution of wealth; formulate and implement comprehensive policies and targeted programs for the uplift of underprivileged and vulnerable people." Over time, the funding and scope of BISP Kafaalat have expanded, reflecting a policy shift from short-term solutions to long-term safety nets (Guven et al., 2024).

The Benazir Income Support Programme (BISP) operates through six regional offices located in the provincial capitals of Azad Jammu Kashmir and Gilgit Baltistan, alongside 385 Tehsil offices, which function similarly to local parish councils, and 33 divisional offices across the country. Its headquarters are situated in Islamabad, the federal capital of Pakistan. The program is overseen by a board that includes non-government members, a secretary, and cabinet members from the ministries of finance, economics, and foreign affairs, in addition to a nominated chairman and executive committee members (BISP, 2023).

Small, regular, and consistent financial transfers to impoverished households help them escape poverty in the long run by promoting investment in human capital, such as health and education, while also alleviating immediate hardship (Loeser et al. 2021). Over time, the government significantly expanded the funding and scope of BISP; increasing its reach from 1.74 million households in 2008 to 9.3 million households in 2023 (BISP annual report FY 2022-2023). Currently, BISP beneficiaries are distributed across all provinces and regions of Pakistan. However, notable regional disparities in coverage indicate potential exclusion errors.

Reliable data for identifying vulnerable and deserving individuals was lacking when the BISP launched the UCT program in 2008 (Durrani, 2014). In the absence of such data, lawmakers were responsible for identifying eligible individuals, a process referred to as Phase 1 targeting. Parliamentarians received an equal number of application forms for this purpose, regardless of party affiliation. NADRA subsequently verified these forms. To enhance the program's efficacy and transparency, BISP adopted the World Bank's poverty scorecard (PSC), which identifies the most impoverished households using Proxy Means Testing. A 2009 poverty census was conducted in association with the World Bank, collecting comprehensive socioeconomic and demographic data from 27 million households. To evaluate eligibility for cash assistance, BISP analyzes survey data to generate welfare scores based on 23 verifiable variables in the PMT algorithm. The welfare score ranges from 0 (the poorest) to 100 (the richest).

Cash Disbursement Mechanism of BISP

The BISP has diligently developed a payment disbursement system that ensures access to cash for economically disadvantaged women while promoting transparency. Initially, payments were distributed via Pakistan Post from 2008 to 2012. Although Pakistan Post delivered stipends directly to recipients, this method had several drawbacks, including a manual system, deductions by postmen, the financial illiteracy of beneficiaries, and limited control over the cash after disbursement due to potential transfers to male household members. Consequently, administrative challenges restricted beneficiary outreach when financial grants were provided through this traditional approach. Nevertheless, the extensive nationwide branch network of Pakistan Post played a significant role in BISP's initial cash

payments, particularly in areas where over 700 union councils—or roughly 6,700 in total—lacked access to banks or bank branches.

In 2010, BISP underwent a significant transformation with the adoption of digital social cash payments. This shift was made possible by the 2008 Branchless Banking Regulations of the State Bank of Pakistan, which established a framework for banks to collaborate directly with BISP or through mobile carriers to distribute grants via mobile banking. This innovation allowed BISP to extend its reach to unbanked individuals in rural areas. Consequently, BISP partnered with several financial institutions, including United Bank, Summit Bank, and Alfalah Bank, as well as mobile operators, including Telenor/Easypaisa and Ufone, to facilitate digital payments for beneficiaries. Female recipients collected these payments from various payment locations such as banks, retail shops, ATMs, or point-of-sale (POS) systems. Initially piloted in five regions, mobile phone banking began transitioning to debit (ATM) cards in 2014. The Pakistan Telecommunication Authority (PTA) played a crucial role in regulating mobile transactions in areas where mobile banking was implemented as a digital platform for distributing electronic funds (BISP, 2019).

Payment disbursement transitioned to debit cards until 2016, allowing women the flexibility to collect cash at designated touch points. However, this system was not without challenges, as approximately 90% of recipients were illiterate and required assistance from others to navigate the use of their debit cards. Additionally, high card replacement rates—exceeding 20%—were observed, likely due to issues such as password loss or theft and loss of the cards themselves.

In 2016, the BISP launched the biometric verification system (BVS), a card-less payment method, designed to streamline the disbursement process. Under this system, payments are made directly to beneficiaries at designated ATMs and points of sale (POS) after live biometric verification against the national database. Between 2016 and 2019, all beneficiaries were gradually transitioned to the BVS system. To utilize digital currency, BISP required women to obtain their computerized national identity cards and register their biometric data with NADRA, leading to the removal of fraudulent beneficiaries from the program. Even women who traditionally adhered to purdah left their homes to have their biometric data captured and photographs taken in order to access digital social cash. This technology was implemented with the organization's goal of promoting social inclusion and empowering women. Additionally, possessing biometric identity cards enabled women to participate in national elections.

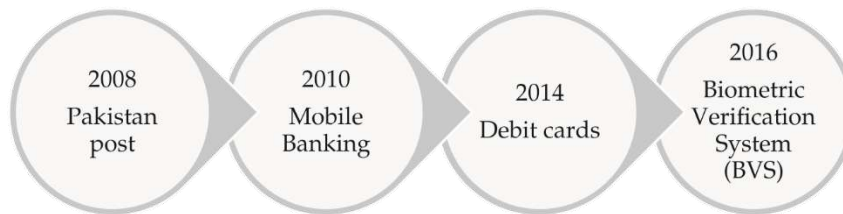
It was found that beneficiaries were provided with limited purpose accounts by banks and cell operators (in the mobile banking space), restricting their ability to withdraw only BISP payments. This indicated that the type of accounts offered had limited functionality, preventing access to other banking services such as credit,

fund transfers, savings deposits, and payment processing. Although these low-value mobile accounts constrained banks' income sources, they still generated "float balance" from the substantial volume of payments processed by BISP. Additionally, banks received monthly commission fees and achieved economies of scale due to the high transaction volumes associated with BISP disbursements. Consequently, this created a compelling business incentive for financial institutions to engage with the program.

BISP has implemented various payment distribution methods, which currently include the following categories:

- i. Money Orders
- ii. Smart Card System
- iii. Mobile Banking System
- iv. Debit Card System
- v. Biometric Verification System

Figure 2: Evolution of BISP payment technology (source: Authors' own work)



However, the impact of biometric payment systems, a more recent initiative, on women's lives may require further time to fully materialize. The availability of both debit cards and biometric verification system provides women with options for accessing their payments, potentially leading to greater empowerment.

Beneficiaries verify their identities at payment locations under the new system by presenting fingerprints that are compared to the national ID database. This system replaces the previous method, which required debit cards and PIN entries. Since fingerprints are essential for authentication, beneficiaries must appear in person to receive payments; previously, many women would send male family members or neighbors to withdraw cash on their behalf. While many beneficiaries formerly used ATMs, most of these machines are not equipped for biometric verification and are therefore excluded from the new system. Instead, the majority of beneficiaries now collect their benefits through agents operating biometric scanners at point-of-sale (PoS) locations. The implications of the transition to BVS

encompass both the immediate effects of the biometric technology itself and changes in who collects funds and how they do so.

In 2011, the BISP also established the National Socio-Economic Registry (NSER), a comprehensive data repository that contains information about the socioeconomic status of households (HH) participating in the data collection process. For the first time, in 2010, door-to-door data was collected from 27 million families across the country. During its implementation phase, NSER served as a platform for all social protection programs—both public and private—to enhance overall targeting efficiency. This dataset has been utilized by BISP and other social assistance programs for the past decade. To improve targeting effectiveness, BISP decided to upgrade the NSER survey questionnaire and methodology in 2016, resulting in an updated registration database. This decision aimed to recertify existing beneficiaries, include new ones, and serve as a foundation for other social protection initiatives. The updated data is now shared with various national and international organizations for research and program design purposes, in accordance with data sharing protocols.

The Unconditional Cash Transfer Program (BENAZIR KAF AALAT PROGRAMME)

The flagship initiative of BISP is the Unconditional Cash Transfers (UCT) program, branded as the "Benazir Kafaalat Programme," which was inaugurated in 2008. Since its inception, the UCT program has undergone remarkable expansion, evolving into the largest cash transfer program in Pakistan's history. The program's immediate objective was to shield economically marginalized households, especially women, from the detrimental effects of inflation, food insecurity, and sluggish economic growth by providing financial assistance. Its broader, long-term aspirations include fostering women's empowerment and addressing entrenched and chronic poverty, aligning with the Sustainable Development Goals (SDGs). At present, approximately 9.3 million families benefit from BISP through the Benazir Kafaalat program (BISP Annual Report FY 2022-2023).

By 2024, eighty transgender individuals have been incorporated as beneficiaries under the BISP, receiving PKR 7,000 in Kafaalat payments for the first time. Furthermore, in 2022, the government introduced a targeted petroleum subsidy of PKR 2,000 under the same program to alleviate economic pressures on vulnerable populations. This targeted petroleum subsidy aims to protect households from escalating fuel prices in the economy. Between July and December of FY2023, PKR 16.35 billion was distributed to about 8.67 million recipients under this initiative. Additionally, the program's Board approved a policy to extend support specifically for transgender people. BISP has also allocated PKR 69 billion to assist 2.76 million families affected by the 2022 floods. Furthermore, a wheat seed subsidy was

approved to support impoverished farmers, with PKR 2.94 billion disbursed to 122,687 farmers by 31st March 2023.

The BISP Kafaalat programme also has a 'Next of Kin' policy in effect to provide ongoing financial support to the families of deceased recipients. This policy allows the legal heirs of the deceased beneficiaries to become program recipients through a structured appeals process. In the event of a beneficiary's death, their family must submit the necessary documentation to the nearest BISP Tehsil Office, including the deceased's CNIC, a CNIC cancellation certificate from NADRA, a death certificate from the union council, and the CNICs of any surviving family members. Payments are subsequently disbursed to the next-of-kin as specified by the BISP policy after processing.

In addition to its regular initiatives, BISP manages the distribution of emergency programs under shock response initiatives. These include the Harnai Earthquake Relief Program, the Emergency Cash Assistance Program for Affected Parties of Covid-19 (Phase I & II), the Special Relief Package for populations living along the LOC in Azad Jammu & Kashmir, and the Emergency Relief Package for Tirah Valley in Khyber District, KPK. Among these efforts, 2.76 million families affected by the 2022 floods received payments totaling PKR 69 billion from BISP.

Criteria of eligibility for the Benazir Kafaalat Programme:

Beneficiaries of the "Benazir Kafaalat Programme" are identified and selected through the National Socio Economic Registry (NSER) survey and the scientific Proxy Means Test (PMT). The PMT assesses the household's welfare level on a scale from 0 to 100. The BISP Board determines the PMT cut-off score for eligibility based on the available budgetary constraints. Cash support is provided to all households that fall within the approved PMT cut-off score through the Benazir Kafaalat Program. In its 52nd meeting, which took place on September 23, 2021, the BISP Board approved the current PMT cut-off score of 32. However, a higher PMT cut-off score of 37 is required for eligibility for households that include a member with disabilities.

The BISP Board recently approved a policy to include transgender individuals in the Benazir Kafaalat Program, enabling them to receive financial assistance. To be eligible, transgender individuals must obtain CNICs from NADRA, explicitly stating their gender identity. A survey conducted at Benazir Registration Centers, established in every BISP Tehsil Office, is mandatory. However, the PMT cut-off restrictions are relaxed, allowing all transgender individuals who complete the survey to apply for inclusion in the program. Following data validation and verification by NADRA, transgender individuals are officially recognized as beneficiaries and can begin receiving financial aid from BISP partner banks. Benazir Kafaalat financial assistance is disbursed to eligible beneficiaries after Biometric

Verification System (BVS) through two partner banks: HBL in Punjab, Sindh, and Baluchistan, and Bank Alfalah in KP, GB, and AJK.

Conditional Cash Transfer Programs

A number of conditional cash transfer programs are integral components of the BISP program. One such program is the Benazir Taleemi Wazaif, which aims to provide basic education to families enrolled in the BISP Kafalat program. Initially launched as a pilot in five districts in 2012, the Waseela-e-Taleem Programme has since expanded to encompass secondary and postsecondary education as of 2021. For male students in primary school, the quarterly stipend is PKR 1,500, while female students receive PKR 2,000. At the upper secondary level, the stipends are PKR 4,000 for female students and PKR 3,550 for male students. Additionally, the Benazir Undergraduate Scholarship initiated in the academic year 2019-2020, covers tuition fees and provides a stipend of PKR 40,000 per year for programs at 135 public sector universities. To date, PKR 29.254 billion has been allocated for eligible students.

All applicants from low-income families are encouraged to apply for undergraduate programs at public universities. Selection will be based on need and merit, i.e., specifically considering the student's CGPA and family income (up to PKR 45,000). In addition to tuition fees, other incidental charges such as registration fees, examination fees, and library fees are covered. Each scholarship awardee also receives a monthly living stipend of PKR 4,000. Importantly, fifty percent of the scholarships are reserved for female students, with an additional 2 % allocated for individuals with disabilities. So far, 102,003 students have been awarded scholarships across three batches under this initiative.

The Pakistani government has recognized the importance of nutrition-sensitive social safety nets in promoting healthy diets and improving access to nutrient-rich food for impoverished populations. In August 2020, the "Benazir Nashonuma" Conditional Cash Transfer (CCT) program was launched to enhance the use of nutrition and health services among beneficiaries. Its primary goals are to prevent low birth weight, reduce anemia and micronutrient deficiencies, improve weight gain in expectant mothers, and prevent stunting in children under two years old. The Benazir Nashonuma Programme (BNP) is being implemented through a partnership between the World Food Programme (WFP) and the Benazir Income Support Programme (BISP), Pakistan's largest safety net.

The goal of the conditional cash transfer program Benazir Nashonuma is to encourage participants to utilize nutrition and health services more frequently. The main objectives of this intervention are:

- a) To prevent stunting in children under two years of age

- b) To promote improved weight gain among pregnant women during their pregnancy
- c) To reduce micronutrient deficiencies and anemia
- d) To enhance awareness of nutrition, maternal health, and early child health
- e) To decrease the burden of disease through better utilization of available nutrition and health services
- f) To prevent low birth weight

According to the Benazir Nashonuma initiative, pregnant and lactating women (PLW) and their children of under-2-years of age receive additional funding of PKR 2,000 quarterly for a boy child and PKR 2,500 quarterly for girl child from BISP. In exchange, expectant mothers are required to attend routine prenatal health examinations and educational seminars, consume specialized nutritious food (SNF), and ensure their children receive regular checkups and vaccinations.

The Nashonuma Program is currently operational in 158 districts across Pakistan, supported by a network of 512 Nashonuma Centers, including mobile sites. As of 2024, BISP has provided nutrition and health services to approximately 1,025,271 women and children under this initiative. This total includes 503,918 children and 521,353 PLW who have benefited from the program. According to official sources, these recipients have received care from over 488 Nashonuma Centers nationwide.

Table 1: BISP programs

Program type	Program name	Launch Year	Target Beneficiaries	Number of beneficiaries	Total amount disbursed (PKR)
Unconditional cash transfer	Benazir Kafaalat	2008	Families	8.96 million (2022-23)	128.9 billion (July-March FY2023)
	Targeted Petroleum Subsidy	2022	Families	8.67 million (July-December FY2023)	16.35 billion (July-December FY2023)
	Flood Relief Programme	2022	Families	2.76 million	69 billion (July-December FY2023)
	Subsidy for Wheat Seed Rabi	2023	Families	122 687 (until 31 st March 2023)	2.94 billion (until 31 st March 2023)
	Transgender Policy		Transgender people	80 (to date)	7000 (to date)
	Indexation of Cash Transfer		Families		9000 (for the April-June FY2023 quarter)

Program type	Program name	Launch Year	Target Beneficiaries	Number of beneficiaries	Total amount disbursed (PKR)
Conditional cash transfer	Benazir Taleemi Wazaif (Education Programme)	Primary education – 2012 Secondary education – 2021 Higher secondary education – 2021	Males and females	11.8 million (to date)	63.3 billion
	Benazir Nashonuma (Health & Nutrition Programme)	2020	Women and Children	375 150 (July-March FY2023)	1.26 billion (July-March FY2023)
	Benazir Undergraduate Scholarship Project	FY2019-2020	Males and females (with 50% scholarships reserved for females)	92000 (until the end of FY2022)	29.254 billion (to date)

Source: Authors' own research

Table 2: Funds transfer by BISP

Funds transfer to cash grants (PKR billions)					
Year	Released	Conditional cash transfer	Unconditional cash transfer	Total (conditional + unconditional)	Number of beneficiaries (millions)
2008-09	15.32	0.04	15.81	15.85	1.76
2009-10	39.94	2.89	31.94	34.83	2.58
2010-11	34.42	5.30	29.66	34.96	3.10
2011-12	49.53	4.28	41.60	45.88	3.68
2012-13	50.10	3.17	43.30	46.47	3.75
2013-14	69.62	1.20	65.11	66.31	3.64
2014-15	91.78	0.45	88.59	89.04	5.05
2015-16	102.00	1.88	96.65	98.53	5.21
2016-17	111.50	2.27	102.10	104.37	5.46
2017-18	107.00	3.20	99.00	102.20	5.63
2018-19	116.50	4.01	104.60	108.61	5.78
2019-20	243.71	3.70	228.67	232.37	9.10
2020-21	194.29	5.57	169.40	174.97	7.06
2021-22	235.63	25.35	193.74	219.09	7.74
2022-23	312.39	23.48	241.94	265.42	9.00
Total	1773.73	86.79	1552.11	1638.90	

Source: World Bank and BISP website

Program effectiveness

BISP cash transfers have demonstrably improved women's empowerment in beneficiary households, evidenced by increased mobility, political participation, and decision-making abilities. This positive impact on women's empowerment holds true regardless of whether debit cards or biometric payment methods are used. While the financial assistance provided through BISP has encouraged male household members to involve women in decision-making processes and has facilitated women's social mobility, challenges persist, preventing women from making independent decisions. Biased behavior from men continues to impede women's ability to gain bargaining power within the household (Iqbal et al., 2022). Paradoxically, the 2017–18 Demographic Health Survey indicates that working women experienced higher rates of domestic abuse compared to women outside the labor force.

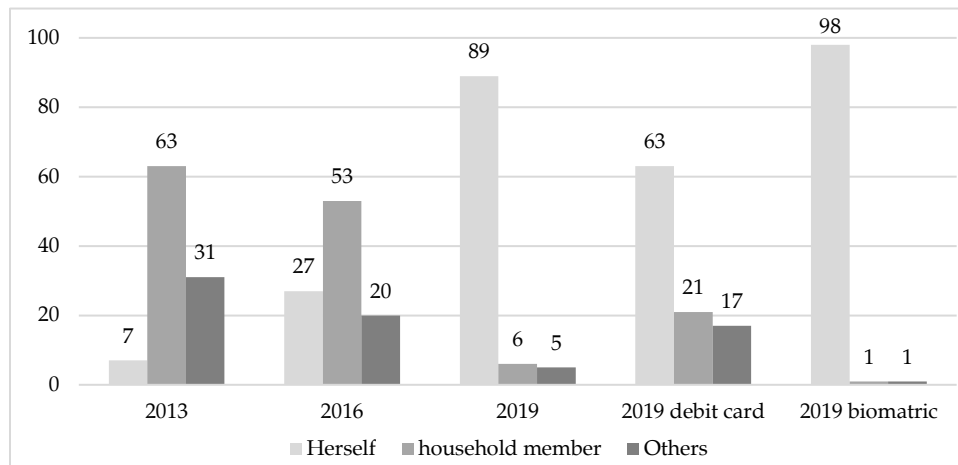
Iqbal et al., (2022) found that financial aid through BISP led to an 8% decrease in positive attitudes toward marital abuse among clients. However, this aid had a negligible impact on the frequency of emotional or physical violence. While payment methods (debit cards or biometric payments) did not significantly differ, biometric payments may lead to greater female empowerment. This could be because the impact of biometric payment, a more recent initiative, may take time to materialize, and both payment instruments allow women to retrieve their own payments. Additionally, compared to non-benefiting households, women's visits to local markets saw an overall welfare improvement of 7% during 2011–2016, increasing to 11% during 2011–2019. The effect on trips to health facilities significantly increased from 10% (2011–2016) to 12% (2011–2019).

Two possible explanations for the greater impact in 2019 compared to previous years are as follows: First, an increase in the cash stipend over time may have contributed to women's empowerment by providing them with more financial resources and opportunities to manage their finances independently. Second, the introduction of biometric payment methods in 2016 has enabled women to access cash on their own, further empowering them. Additionally, literature indicates that BISP faced minimal challenges when transitioning beneficiaries from debit cards to biometric payments in tribal areas with strong cultural norms, such as the FATA region and district Kohistan. It is noteworthy that women's status in these areas is particularly poor, limiting their access to education, employment, and mobility. However, the financial stipend has helped overcome some cultural restrictions, allowing women to collect cash independently.

According to beneficiaries, control over cash among beneficiaries improved significantly over time in 2013, rising from 63% in 2013 to 89% in 2019. Remarkably, individuals receiving cash through biometric payments in 2019 exhibited greater financial autonomy compared to those using debit cards.

According to the ID4D report by the World Bank Group in 2022, the average amount that beneficiaries took home was not significantly altered by the introduction of BVS. While some beneficiaries did receive higher cash amounts due to the transition from debit card to fingerprint authentication, this was counterbalanced by an increased reliance on human retail agents, which led to additional payments that offset any potential benefits.

Figure 3: Control over BISP cash transfer among beneficiaries (% distribution)



Source: Estimated from various rounds of the BISP's Impact Evaluation Panel Survey

Research indicates that the UCT program has significantly influenced food consumption among beneficiaries, increasing monthly food consumption per adult equivalent by PKR 69, primarily due to enhanced access to higher-quality protein (GoP, 2020a). Nayab & Farooq (2020), further highlight that BISP alone contributes an increase of PKR 81 in food consumption. The food security index for BISP cash transfer recipients improves on average as their food consumption rises (Ghulam Mustafa, 2022). Beneficiaries closer to the threshold point exhibit comparatively greater levels of food security, and the daily calorie intake is positively and significantly impacted by the BISP transfer. ideal bandwidths. Long-term effects suggest that BISP cash transfers boost calorie intake by 13% to 30% compared to non-beneficiary households. Overall, the BISP cash transfer program appears to be an effective social assistance initiative that ensures household food and dietary requirements over the long term.

The BISP has a positive effect on women's empowerment, according to UNDP and UN Women (2023). These effects include increasing women's freedom of movement within their community, their involvement in household decision-making, their ability to decide how to use the transfer, their participation in political

processes (including voting) and reducing the number of women who experience certain forms of gender-based violence, such as husbands' controlling behavior (African-Asian Rural Development Organization, 2021). BISP significantly increases voting participation across all regions of Pakistan (Guven et al., 2024). Conversely, as poverty declines, so does women's empowerment (Patoli & Lal, 2024).

Initially, until 2015, BISP beneficiary households faced significant deprivations in housing quality, particularly in sanitation, cooking fuel and flooring (O'leary et al., 2015). Recent literature indicates that these households have improved their living standards due to BISP cash transfers, enabling them to invest in clean toilets and other assets, such as computers (Nawaz & Hussain, 2024). This improvement may be linked to the UCT program's ability to increase savings; however, these savings are often accumulated informally and do not stimulate financial sector activity (Churchill et al., 2024). Consequently, despite the circulation of cash, substantial long-term improvements in national poverty reduction do not appear evident.

According to Nawaz & Hussain (2024), beneficiary households experienced greater economic welfare, indicating that BISP cash transfers are pivotal in poverty alleviation. The study also found that the ownership of livestock among recipient households increased significantly as a result of BISP cash transfers, reflecting a noteworthy improvement in this area of their economic activity. Over time, this increase in livestock assets may enhance household income and contribute to economic stability.

Children from families receiving UCTs through BISP are now eligible for elementary, intermediate, and higher secondary education under the extended Benazir Taleemi Wazaif (BTW) program. Impact studies indicate notable improvements in reducing grade repetition and increasing school enrollment, with a more significant effect on female students compared to males (Guven et al., 2024). The initiative has successfully enhanced school enrollment, attendance, and graduation, particularly benefiting female students.

BISP cash transfers have been found to negatively and significantly impact social cohesion. One explanation for this is that the monthly payment of Rs. 2,000 is insufficient for beneficiaries to participate in social events such as children's birthday celebrations and marriage ceremonies, which are important for communal harmony.

Historical data indicates a 19 percentage point decrease in poverty among BISP beneficiaries up until 2014, with Balochistan showing the most significant improvement (Impact evaluation report, 2015). The percentage of beneficiaries reporting that they had to pay a "fee" to receive their transfer dropped from 35% to 17%, likely due to a shift to the BISP Debit Card scheme in 2014 which reduced

leakage. By 2016, BISP contributed to a 7% reduction in poverty based on the Food Energy Intake (FEI) poverty line, a 3% decline in poverty gap according to the Cost of Basic Needs (CBN) poverty line, and a 10 % increase in school enrollment (Impact evaluation report, 2016). The recent impact evaluation report of 2019 highlights impressive poverty reduction with real improvements in welfare due to BISP, however the effects appear to diminish for current beneficiaries.

Cause of diminishing benefits of BISP

The BISP was designed to support the poorest 20 percent of the population but welfare gains since its inception have led to a diminishing to produce further gains for current beneficiaries. This reduction in effectiveness may be attributed to the presence of some wealthier beneficiaries who continue to receive support without significant improvements in their well-being (Nawaz & Hussain, 2024).

The BISP cash transfer's actual value has decreased by 9% since 2011 due to high inflation, despite efforts to raise the nominal value of the transfer regularly (Guyen et al., 2024). This decline in real value may contribute to the limited effect on poverty alleviation. When BISP was first introduced in 2008, the monthly payment was PKR 1,000 (or PKR 3,000 quarterly), which remained unchanged until 2018, despite economic changes and inflation. In 2018, the benefit level was increased by 66% to PKR 5,000 quarterly (PKR 1,667 per month). . However, the adequacy of this benefit—measured as a proportion of the lowest quintile households' average monthly consumption—declined from 9.8% in 2008 to 4.2 percent in 2017, with only a slight increase to 6.6% in 2018. Nayab and Farooq (2020), concluded that this increase was insufficient; for BISP UCT to effectively reduce poverty, the benefit value should account for at least 15% of these households' total consumption.

Beneficiaries in FATA and Khyber Pakhtunkhwa receive the fewest payments, and the infrequency of payments burdens them. These regional disparities in benefits create obstacles to national level poverty reduction efforts. Consequently, high poverty gaps persist in Balochistan, Gilgit Baltistan and FATA. Conversely, a positive impact on the proportion of beneficiaries who personally save money has been observed, but this effect is limited to beneficiaries in Punjab and Sindh.

The Benazir Income Support Programme (BISP) UCT program has minimal impact on both financial and multidimensional poverty due to its meager stipend. The total amount beneficiaries receive contributes only 5.3% to household expenditures (GoP, 2020a; Nayab & Farooq, 2020). Despite efforts to alleviate poverty, the program's limited financial adequacy restricts its effectiveness in significantly improving the economic well-being of households.

The 2015 impact evaluation report highlighted that 49% of girls and 64% of boys were enrolled in school, illustrating a persistent gender gap. In 2016, there was a 10%

increase in enrollment among children aged 5-12, surpassing the global average. BISP contributed to a decrease in the Multidimensional Poverty Index (MPI) measure of school attendance deprivation, which fell from 56% in 2013 to 49% in 2016. The Conditional Cash Transfer (CCT) for education has led to impressive gains, including lower grade repetition rates and higher enrollment rates, with both boys and girls benefiting. However, the impact diminishes as boys age (Uddin, 2021). One reason for this diminishing effect is that members of the beneficiary households may lack motivation to invest adequately in human capital for employment. Therefore, new programs should focus on youth skills relevant to the market. Combining these skills with interest-free loans could help impoverished families become less reliant on handouts and create sustainable livelihoods, especially since only 4-5% of the recipients' households' members are over 60.

Figure 4: Change in the real and nominal value of BISP UCT program sourced from World Bank Group report- “The evolution of Benazir Income Support Programme’s Delivery Systems”

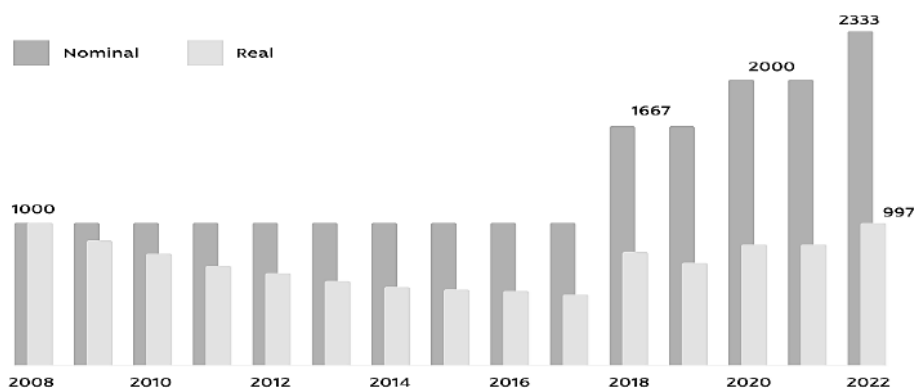
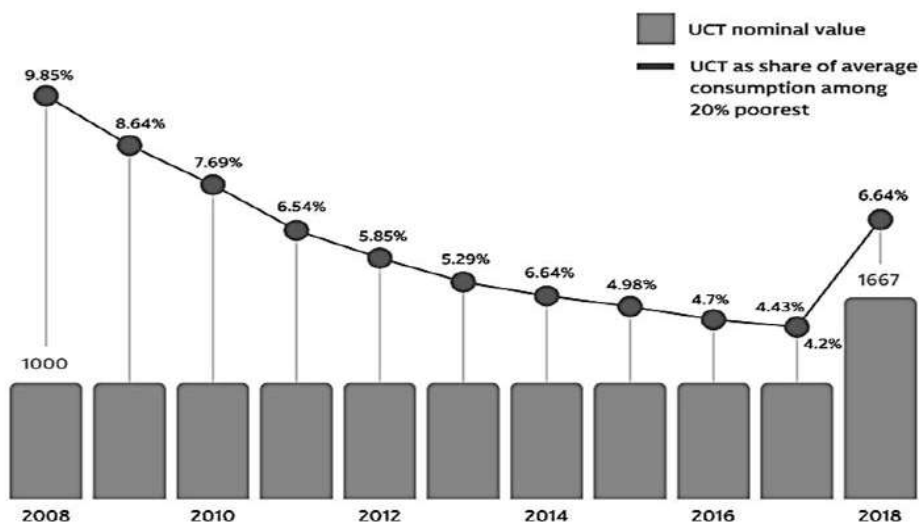


Figure 5: Change in Adequacy of BISP UCT program sourced from World Bank Group report- “The evolution of Benazir Income Support Programme’s Delivery Systems”



Source: Authors' calculations based on HIES 2011, 2014 and 2019.

Note: Adequacy is defined as the total transfer amount received by all beneficiaries in a quintile as a share of the total welfare of beneficiaries in that quintile.

The current BISP conditional cash transfers should be expanded to secondary education, as funding currently only reaches the primary level, while secondary education is more significant in determining the level of poverty a household faces during economic shocks and other unexpected circumstances (Amjad, 2017). Therefore, this program mainly helps in short-run smoothening of consumption in impoverished families instead of contributing towards long-term development of their human capital (Saeed & Hayat, 2020).

In 2024, as required by the International Monetary Fund (IMF), the government has raised the monthly payment for Benazir Income Support Programme (BISP) recipients by 20%, increasing the unconditional cash grant was increased by PKR 831. However, the scheme did not fully meet IMF requirements as Pakistan was expected to declare a rise in the monthly stipend on January 1st, that matched the inflation rate.

Way forward- Data analysis and recommendations

The 2024 IMF World Economic Outlook has forecasted values of economic growth, current account balance (as percent of GDP), investment, inflation and

unemployment for the time period 2024-2028. The forecasted values are provided in *Table 3: Forecasted values of Economic growth rate, investment, current account balance, inflation rate and unemployment rate forecasted by IMF for Pakistan*

The annual percentage change in constant prices, representing economic growth rate shows that following a decline in 2022, Pakistan's GDP (expenditure based) is anticipated to increase in the post-Covid period. It is predicted to rise gradually at a decreasing rate until stabilizing around 2027-2028 (Figure 6). Investments, defined as the total value of changes in inventories, acquisitions, and disposals of valuables less total gross fixed capital reached a low of 13.32 percent in 2023 and a maximum of 18.96 percent in 1993 (Figure 7: Investment rate estimated by IMF (1980-2028)). As of 2028, the most recent figure stands at 15.29 percent. The current account includes all transactions outside those involving capital and financial goods, categorized into income, current transfers, and goods and services. Pakistan's current account percentage ranged from a minimum of -6.82 percent in 2008 to a maximum of 3.62 percent in 2003, with an average of -1.87 percent over that time (Figure 8). The most recent figure is -1.7 percent from 2028. Pakistan's unemployment has varied from 3.07 percent in 1987 to 8.5 percent in 2023, with an average of 5.79 percent (Figure 7). The most recent figure for unemployment is 5 percent in 2028.

Table 3: Forecasted values of Economic growth rate, investment, current account balance, inflation rate and unemployment rate forecasted by IMF for Pakistan

Year	Economic Growth rate	Investment	Current Account Balance	Inflation rate	Unemployment rate
2024	2.50	14.52	-1.80	17.54	8
2025	3.60	14.46	-1.59	9.34	7.50
2026	4.50	15.14	-1.59	6.50	6.50
2027	5	15.32	-1.57	6.50	5.50
2028	5	15.29	-1.70	6.50	5

Source: IMF, unit of measurement: percent

Inflation is defined as year-on-year percentage changes in consumer prices ranging from a minimum of 1.92 percent in 2003, to 29.4 percent in 2023 as the highest (Clandinin et al., 2024). The most recent figure is projected at 6.5 percent for 2028 (O'Neill, 2024) (Figure 10).

Figure 6: Growth rate estimated by IMF (1980-2028)

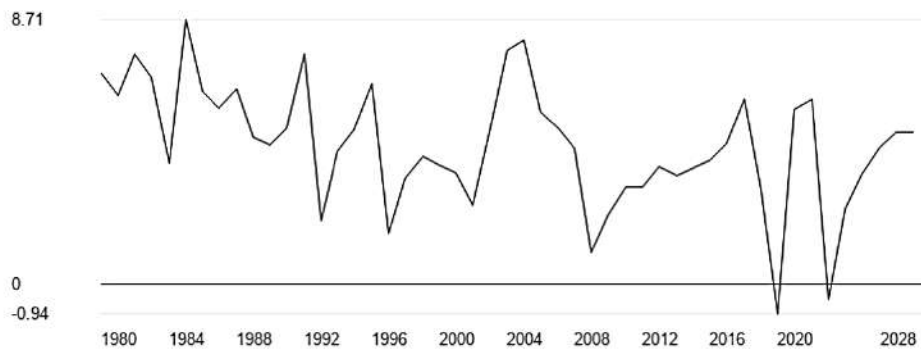


Figure 7: Investment rate estimated by IMF (1980-2028)

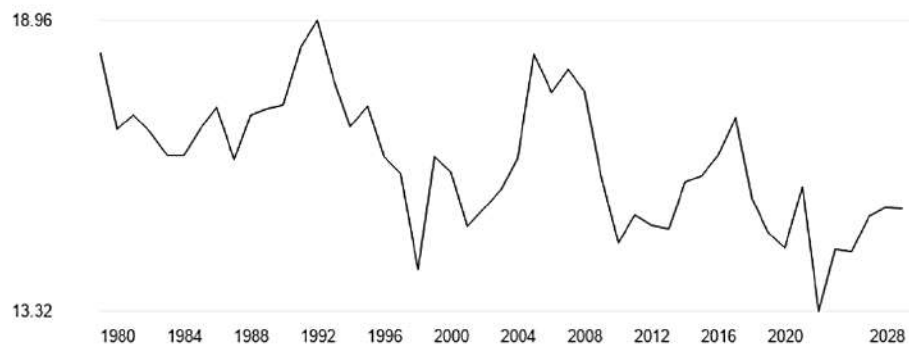


Figure 8: Current Account balance, percent of GDP, estimated by IMF (1980-2028)

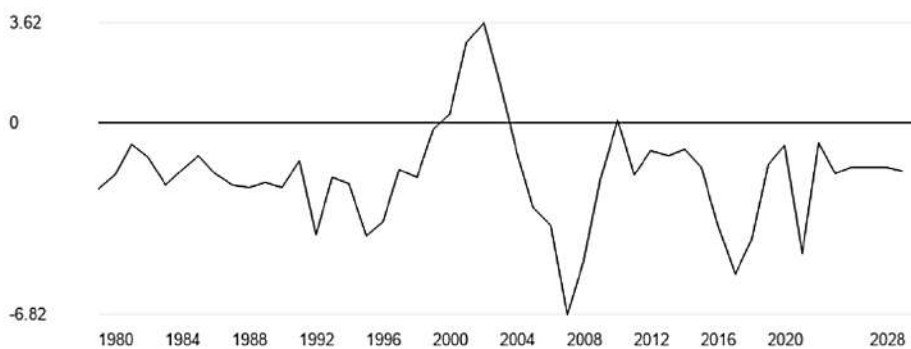


Figure 9: Unemployment rate estimated by IMF (1980-2028)

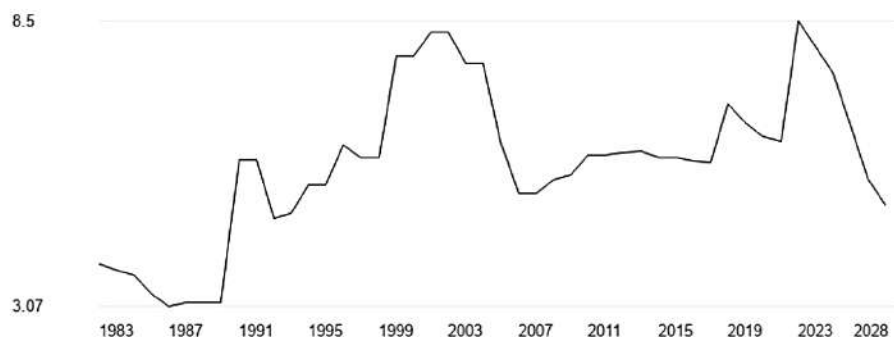
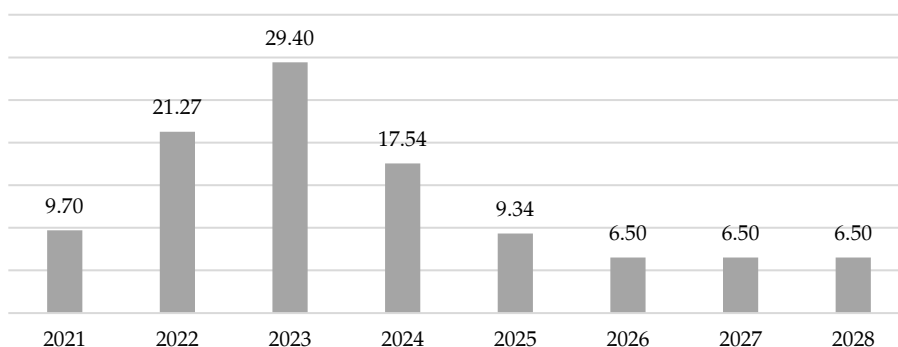


Figure 10: Inflation rate estimated by IMF (1980-2028)



Given the forecasting of all macro-economic indicators, it is expected that the interaction of these variables with the performance of BISP UCT program may impact poverty alleviation in the future. As political stability fluctuates over time, this study intends to make suitable recommendations based on the anticipated effects on poverty. To support these forecasts, the study will utilize values of cash disbursements under the BISP program (Table 4).

Table 4: Forecasted values for funds transfer to cash grants

Year	Released	Conditional cash transfer	Unconditional cash transfer
2023-24	264.63	14.53	225.36
2024-25	287.00	15.94	243.67
2025-26	312.20	17.76	263.48
2026-27	336.17	20.09	282.16
2027-28	361.03	22.52	301.08

Year	Released	Conditional cash transfer	Unconditional cash transfer
2028-29	384.43	24.96	318.44
2029-30	408.35	27.18	336.60
2030-31	433.24	29.20	356.16
2031-32	457.38	31.22	375.16
2032-33	480.02	33.06	392.69

BISP is undertaking new projects to enhance the impact of financial aid on the underprivileged, including:

- Financial Inclusion and Financial Literacy Programmes
- Hybrid Social Protection Programme
- New Payment Model

This study forecasts cash disbursement values for Conditional Cash Transfer (CCT) and Unconditional Cash Transfer (UCT) programs to depict the performance of the existing BISP program in the next few years. It suggests that BISP may increase its coverage by around 51 percent on average, with an 8 percent increase in UCT and 12 percent increase in CCT cash disbursements. The International Monetary Fund (IMF) predicts that, on average until 2028, growth will increase by 20 percent, inflation will decrease by 19 percent and unemployment to decrease by 11 percent. However, if BISP expands its coverage by 51 percent while increasing cash disbursements only by 8 percent (considering that unemployment decreases only by 11 percent), the program may not sufficiently alleviate poverty. Handouts alone will not enable the impoverished to flourish; opportunities cannot be replaced by financial transfers. Exclusion from opportunities may explain why no significant impact has been observed on poverty levels.

Therefore, BISP is recommended to enhance the effectiveness of its rather than solely focusing on expanding coverage, while also addressing regional disparities. The social safety net is administered by multiple federal and provincial administrations, leading to some deserving individuals being excluded and duplicate efforts being made. The newly established Poverty Alleviation and Social Safety (PASS) Division should consolidate these programs and create a social protection framework that clearly defines the roles and responsibilities of both federal and provincial governments to make a meaningful impact.

Conditional cash transfers have gained popularity alongside UCTs and have shown impressive results in countries such as China, Brazil, India, and Mexico. As social safety nets become more prevalent globally, it is crucial that these programs target the appropriate focus group to maximize resource efficiency and effectively reduce poverty. One of the most successful examples of cash transfer programs in India is the National Rural Employment Guarantee Act (NREGA) in India, which

has demonstrated significant impacts on poverty alleviation by providing guaranteed employment and income support to rural households.

The National Rural Employment Guarantee Act (NREGA) provides volunteer households with 100 days of waged manual labor. Applicants can withdraw their unemployment benefits if they are not hired within 15 days of applying. This program serves as a significant model for Pakistan to address urban-rural income disparities, particularly as poverty in rural areas increased at nearly twice the rate of urban areas between 2011 and 2014. Despite having more earners per household, rural household income remains lower due to harsh working conditions, long hours, low pay, and unstable employment (Mahmood, 2006).

The National Social Assistance Program (NSAP) in India provides targeted, unconditional cash transfers to widows and the elderly, focusing on efficiency and reducing leakages compared to India's Public Distribution System (PDS). NSAP has been shown to be more effective (Dutta, Howes, & Murgai, 2010). Under this program, cash transfers are available to the elderly (60 years of age and older) who fall below the federal poverty threshold. Additionally, benefits can be tiered based on age, allowing an 80-year-old to receive more assistance than a 65-year-old.

In a similar vein, widows below the federal poverty level may receive unrestricted funding up until the age at which they become eligible for the pension plan, ensuring that participants are not duplicated (Afzal et al., 2019). Additionally, disabled individuals below the poverty line may qualify for unconditional cash transfers. Given the effectiveness of CCTs in targeting health and education outcomes, these components could be beneficial. Although conditional cash transfer components were previously added to BISP, they were removed due to inadequate design and ineffective monitoring. Enhancing and re-implementing these components could promote human development and reduce poverty based on the data presented in the study (Afzal et al., 2019).

Recommendations

BISP should increase its cash transfer program's coverage and aid amounts to effectively contribute to the Sustainable Development Goals (SDGs), particularly the first goal of eradicating poverty in all its forms. Given Pakistan's commitment to the 2030 agenda for sustainable development, expanding the cash transfer program is essential to address poverty and social exclusion. Additional conditional initiatives targeting education, nutrition, and productive resources could yield better results than unconditional cash transfers alone. The government is advised to pay attention to focus on enhancing human capital development (Afzal et al., 2023).

While conditional cash stipend can enhance education nationwide, programs to decrease unemployment and generate youth employment opportunities are

essential. A consistent policy framework revolving around skill enhancement, vocational training, and technological advancement is important for poverty reducing human capital development. All this could help eradicate poverty while maintaining macroeconomic and political stability.

The limited amount provided by BISP hinders its ability to significantly reduce poverty. Increasing the transfer amount could lead to improved socioeconomic outcomes. Additionally, household eligibility must be re-evaluated to prevent unnecessary leakages and ensure that more deserving and vulnerable households are included in the coverage.

Cash Disbursement under BISP, financial inclusion and digital finance.

Access to formal financial platforms is crucial for enhancing financial sector activity through the circulation of cash. Currently, the wealth increase from BISP's UCT program does not translate into greater financial sector activity as savings are often accumulated through informal channels. Increasing awareness and access to formal financial institutions for savings could stimulate financial activity and contribute to long term poverty alleviation.

The persistent gender gap in financial access remains a significant issue. According to the IMF's (2023) Financial Access Survey while account ownership for both men and women increased slightly between 2021 and 2022, men still own 55 percent more deposit accounts than women and hold substantially higher outstanding deposit values. The disparity widens further when considering loan account ownership and outstanding loan values. Monitoring developments in financial access is crucial to addressing these disparities effectively.

Pakistan has long struggled with low levels of financial inclusion, with only 21% of adults financially integrated in 2021, compared to a global average of 69% (Qadoos, 2022). Women are disproportionately affected, as they face a significant gender gap in access to financial services. To address this, the government implemented the National Financial Inclusion Strategy (NFIS) as part of its 100-day goal, aiming to open 20 million digital transaction accounts owned by women by 2023. The NFIS seeks to enhance women's financial inclusion and reduce the existing disparities in access to formal financial services.

The "Branchless Banking Savings Account" has significant potential, but the government must recognize that many beneficiaries are too impoverished to save. The main barriers to accessing formal financial institutions are low income and a lack of digital literacy. Simply transitioning from traditional savings accounts to branchless ones and offering affordable options will not suffice to include the underprivileged, especially women. A thorough analysis of beneficiaries' financial behavior is essential to provide suitable products. Research indicates that

integrating financial literacy and digital training components into cash transfer programs significantly enhances financial inclusion and economic empowerment (Arner et al., 2020; Noreen et al., 2022).

Researchers found that for cash transfer programs to achieve complete financial inclusion, it is essential to provide financial inclusion trainings and seminars that teach women fundamental financial literacy and business skills. To ensure meaningful results, these training components should be tailored to the current mental and skill levels of the poor. The mobile phone, particularly smartphones with internet connectivity, represents a powerful technological advancement capable of revolutionizing society and progress. Research indicates that this technology has the potential to significantly advance the financial sector and contribute to achieving each of the SDGs.

Role of Fintech

Fintech applications have been successfully integrated into some Public Financial Management (PFM) activities, demonstrating their potential to expedite transactions and enhance citizen-government engagement, particularly in government-to-person (G2P) payments. The types of payments and G2P schemes are mentioned in Table 5. These applications aim to address issues in traditional payment systems, such as limited access to bank offices. Internet-based payment schemes can automate payments and facilitate large transactions outside regular business hours (Afzal et al., 2024). Overall, fintech can improve the payment system significantly, as summarized in Table 6.

Table 5: Types of fintech payment methods and suitable G2P payment schemes

Fintech Payment Type	Payment Scheme
Mobile Money	Cash Transfer Programs
Internet-based Fintech Payments	Salaries and pensions
Digital Money	E-vouchers for health services; cash transfers (G2P)

Table 6: Benefits of Fintech in Public financial payments

Benefits of Fintech in G2P payment programs	
Greater fiscal transparency	Creation of dependable, frequent data that may be made available to the public via fiscal transparency portals; improved payment data traceability and accountability
Improved Budgetary Planning and	Improved budget execution, particularly

Management	for cash transfer social programs by using fintech applications for payments distribution; better data for resource allocation during project planning
Enhanced cash handling	Enhanced daily cash management and stronger treasury single account operations based on more accurate and timely data

The integration of fintech in public finance is influenced by factors such as the creation of government financial management information systems (FMIS), digital infrastructure, and a government's digitalization strategy. To maximize benefits, governments must develop a digitization strategy tailored to their specific contexts. Digital identification represents another revolutionary advancement, crucial not only for digital finance but also for broader empowerment. Formal identification is a key component of the SDGs and is the focus of a significant World Bank-led initiative called ID4D.

Over a billion people have received digital biometric identification through India's Aadhaar system, which has had a transformative effect. Aadhaar demonstrates the potential of such systems to directly achieve the SDGs and increase financial resources available while highlighting risks related to data protection and other abuses. Effectively planned and executed digital identification programs can enable fundamental transformations in achieving SDGs and promoting financial development. Operated by the Unique Identification Authority of India (UIDAI), Aadhaar involves voluntarily assigning each resident a 12-digit random number. Since its launch, it has increasingly been used to access government services, social services, banking, and insurance. Enrollment is free, and a biometric deduplication mechanism ensures that each person receives only one number. When integrated with other components of the India Stack strategy, Aadhaar facilitates easier access to financial accounts, digitizes government payments and services, and enhances efficiency while reducing costs. However, despite its benefits, Aadhaar raises concerns about privacy and data protection.

Cryptography technologies play a crucial role in safeguarding the confidentiality, integrity, and accessibility of content transmitted over networks. They ensure that only authorized individuals can access their SSP information that is stored. Furthermore, assaults on information availability, such as denial of service, can hinder even verified biometric users from accessing their SSP records (Alsmadi et al., 2018). To mitigate these risks, technologies like firewalls can be implemented to block stop malicious network and application traffic, enhancing overall security (Caballero, 2017).

The growing reliance on Point of Sale (PoS) agents can have several consequences. In areas with low competition among retail agents, it may strengthen their exclusive authority, allowing them to demand side payments (illegal fees) in exchange for cash disbursement. Conversely, PoS agents can assist beneficiaries with withdrawals, making the process easier for those who are illiterate compared to using ATMs. To mitigate potential issues with human involvement, technologies like iris recognition technology (IRT) could be beneficial. (IRT)-based authentication systems offer a viable alternative to fingerprint scanners, such as the elderly and manual laborers. This shift toward biometric applications could enhance accessibility and security in financial transactions.

IRT uses ocular scan technology to identify and verify individual's identity at automated teller machine (ATM), teller desk, or contactless payment systems. The device scans the colored part of the eye, providing significant security benefits by preventing fraud scenarios such as impersonation. Additionally, IRT enhances customer experience by eliminating the need for bank account cards and personal identification numbers (PINs). Its contactless nature also limits the spread of infectious diseases, making it a hygienic option. Since 2016, the UN, particularly the World Food Programme, has utilized the EyePay platform from IrisGuard to provide financial aid. With iris recognition technology, beneficiaries can make cash withdrawals, and obtain food vouchers without needing a bank account or credit card. This method simplifies the ATM cash withdrawal process by reducing tedious steps like plug-in cards and entering passwords while ensuring convenience and safety for users.

Voice recognition technology was planned for South Africa's 2012 grant payment reform to replace fingerprint scans. However, despite collecting large quantities of voice samples during beneficiary re-registration, the system was never implemented.

The IMF has supported Costa Rica in implementing fintech applications to enhance financial inclusion, particularly for women, and to improve its government-to-person G2P payment system for cash social programs. In 2019, digital prototypes for centralizing cash transfer payments were developed during a "hackathon." Subsequently, digital payment methods, such e-wallets and mobile banking, were introduced to ensure payment tracking. By late 2021, Costa Rica began using the digital platform SUPRES to deliver cash transfer payments directly to beneficiaries' bank accounts. This new platform, linked to the Costa Rica Payment System (SINPE), enabled nearly 300,000 recipients to receive payments in the first quarter of 2022. The implementation of this system has improved treasury operations' efficiency, reduced travel expenses, and provided access to a variety of financial services offered by SINPE's e-wallet.

For G2P payments, treasuries should lead the implementation of fintech applications in order to maintain and expand the coverage of Treasury Single Accounts (TSAs). Modern cash management relies on the TSA, which creates a uniform framework for government bank accounts, enabling centralized control over financial resources (Pattanayak and Fainboim, 2011). Effective government banking arrangements are essential to ensure timely collection of tax and non-tax revenues and to manage cash balances efficiently, minimizing borrowing costs or maximizing returns on excess cash.

The use of machine learning algorithms to analyze atypical data from mobile phones (Blumenstock et al., 2015; Blumenstock, 2018), satellites (Jean et al., 2016; Chi et al., 2018), and other nontraditional sources (Sheehan et al., 2019; Fatehkia et al., 2020) is creating a new paradigm for evaluating living standards in low- and middle-income countries (LMICs). These estimates are appealing because they can be generated quickly for large populations at a far lower cost than conventional surveys. Policymakers are increasingly using these data sources for targeting. For example, the governments of Togo and the Democratic Republic of the Congo identified cash transfer recipients using phone-based wealth estimates (Aiken et al., 2022b; Mukerjee et al., 2023), and the government of Colombia incorporated digital financial records into an aid package.

The Novissi initiative in Togo provided underprivileged individuals with five monthly cash payments totaling about USD \$14 during the COVID-19 pandemic. Operated by the Togolese Ministry of Digital Transformation and the non-profit GiveDirectly from November 2020 to August 2021, the program supported 138,589 rural residents. Eligible men received 7,450 FCFA (USD \$13), while women received 8,620 FCFA (USD \$15.50) for six months. Registration required a working voter ID number, a SIM card, and access to a cell phone through a short USSD form and toll-free mobile shortcode.

Qualifying beneficiaries received their benefits every month, using mobile money. If a subscriber did not already have a mobile money account, one was automatically created for them. Eligibility was determined using pre-program mobile phone records to identify individuals living on less than \$1.25 per day, targeting the lowest 29% of subscribers) However, these criteria created systematic exclusions from the program.

To register for Novissi, beneficiaries needed a valid voter ID as a unique identifier and must have access to a mobile phone to complete registration via the unstructured supplementary service data (USSD) platform. Additional requirements included having completed previous mobile network transactions for poverty estimation, being aware of the program's existence, possessing basic digital literacy to navigate the USSD process, and identifying any errors from the phone-based machine-learning algorithm.

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