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Role of Welfare Organizations in Advancing Societal Image

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This research delves into the influence of social security investment on the well-being of emerging nations within the context of economic and environmental crises. The empirical investigation draws from an unbalanced panel dataset comprising 82 developing countries. The study's findings underscore the pivotal mediating role played by social protection expenditure in mitigating the impacts of economic and environmental disruptions, ultimately safeguarding national food security. Furthermore, this spending is associated with an increase in household expenditure and the accumulation of human assets in these developing nations, as revealed by the analysis of three well-being indicators. Notably, the study suggests that social protection expenditure is more effective in mitigating the consequences of environmental shocks compared to macroeconomic vulnerabilities. These compelling findings underscore the urgency of augmenting public resources allocated to establish social safety programs. In light of this research, the study explores the intricate relationship between well-being and the occurrences of economic and environmental shocks in developing countries, with specific attention to the role of social protection expenditures.

Abbreviations
Early Childhood Development (ECD)
Resilience Index Measurement and Analysis (RIMA)
International Labor Organization (ILO)
Gross Domestic Product (GDP)
United Nations Committee for Development Policy Secretariat (UNCDPS)
Economic and Environmental Vulnerability Index (EEVI)
Low-Income Countries (LIC)
World Development Indicators (WDI)
Economic and Environmental Susceptibility Index (EESI)
Agriculture, Fisheries, and Forestry (AFF)
Human Assets Index (HAI)

Keywords: Social Security Investment, Economic Crises, Macroeconomic Vulnerabilities.

Introduction:

Social security investment holds the potential to enhance state legitimacy by augmenting the state's capacity to meet the expectations of its citizens. Social security transfers, in particular, provide a tangible manifestation of the state's function in the eyes of its citizens. Nevertheless, if the delivery of services lacks the attributes of fairness and professionalism on the part of state representatives, it may inadvertently diminish the state's legitimacy as perceived by its citizenry. Therefore, it is paramount to scrutinize how citizens experience the processes entailed in the disbursement of social security transfers [1]. In light of the increasing challenges posed by covariate shocks, including economic and environmental crises, this research delves into the pivotal role of social security investment in ameliorating their impact, especially in developing nations. Individuals residing in marginalized communities within these countries often experience a sense of vulnerability when confronted with environmental and natural disasters. Nonetheless, due to limited institutional and financial capabilities, underdeveloped nations encounter difficulties in effectively managing and recovering from climatic and environmental shocks [2]. The Global Climate Risk Index for 2020 underscores the vulnerability of emerging nations, as a significant portion of the top 10 countries susceptible to these shocks belongs to this category. The years between 1999 and 2018 witnessed a staggering 12,000 occurrences of natural disasters and climatic shocks, leading to substantial global economic losses totaling $3.54 trillion and affecting approximately 0.495 million individuals. Without prompt and effective global interventions to address these challenges, there is a foreboding expectation of their escalating magnitude over time. Economic shocks, encompassing inflation, recession, and productivity declines, significantly impact the livelihoods of households in emerging countries [3].

The extant empirical data underscores the potential of climatic shocks to detrimentally affect the holistic well-being of individuals, particularly with respect to dimensions such as food security, household expenditures, health outcomes, and nutritional status. Additionally, as previously alluded to, natural disasters exert a significant impact on critical sectors such as healthcare, education, and transportation infrastructure [4]. The imperative for fiscal flexibility in the administration of social welfare has notably surged in response to the prevailing economic and environmental risks. Subsequent to the global economic recession in 2008, there emerged an augmented international emphasis on the imperative of ensuring social security provisions for the most marginalized segments within their respective populations [5].

In response to this imperative, developing nations have proactively undertaken measures to shield their most vulnerable citizens by augmenting financial allocations towards social protection programs integrated into their fiscal budgets. In order to ameliorate the adverse consequences of economic and climatic shocks and uphold the welfare of economically disadvantaged populations, a substantial proportion of these nations have instituted a diverse array of social protection initiatives. These initiatives encompass, among others, cash transfer schemes and subsidy programs [6]. Substantial empirical evidence substantiates the beneficial impact of social protection, extending beyond the mere reduction of poverty and inequality. It also encompasses enhanced access to essential services, notably in the realms of healthcare and education, which significantly contribute to a country's sustained developmental progress. Nevertheless, these advantages do not manifest automatically. To fully realize their potential, social protection programs must be meticulously tailored to the specific needs and risks of a given nation, both in the present and foreseeable future.

Individuals at every life stage should have access to a form of social security that aligns with their particular circumstances, whether it be tax-funded transfers and social welfare, contributory social insurance schemes, or labor market programs. These programs should not only deliver sufficient benefits but also extend their coverage widely and equitably. Furthermore, they must exhibit long-term sustainability to effectively serve their purpose. The existing body of research provides evidence of several forms of social security systems, including but not limited to social insurance, in-kind benefits, cash transfers, and labor-related programs [7]. The endeavors made have led to an enhancement in the socioeconomic welfare of the population. Subsequent to the implementation of these endeavors, there has been a discernible enhancement in the domains of poverty alleviation, adaptability, sustenance security, and workforce involvement [8]. Consequently, this study underscores the favorable influence that social protection systems exert on developing countries.

Social security programs assume a crucial role in augmenting the adaptive capabilities of individuals grappling with poverty, enabling them to contend with covariate shocks. This is achieved through the provision of supplementary income via cash transfers, access to health insurance, and a spectrum of other social support mechanisms. Furthermore, it is posited that social safety programs can function as intermediaries in mitigating the impact of environmental shocks in Zambia. The delivery of social protection not only strengthens the resilience of communities but also bolsters their capacity to withstand both environmental and economic shocks, underscoring the interconnectedness of these facets [9].

It is expected that government investment in the form of social welfare will have a substantial impact in mitigating the adverse consequences of covariate shocks at both the macro and micro levels in emerging countries. Despite the presence of financial and institutional limitations, the expansion of fiscal space serves as a protective measure against prevailing shocks, safeguarding household expenditure, ensuring food security, and facilitating the development of human capital [10]. The primary aim of this study is to evaluate the degree to which spending on social protection serves as a mitigating factor in the presence of economic and environmental disruptions. It is anticipated that the findings will reveal that the allocation of resources to social protection expenditure exerts a substantial and beneficial moderating influence in safeguarding against unexpected disruptions [11].

The current study makes two significant contributions. First, it emphasizes the necessity of scrutinizing government fiscal priorities to address the detrimental environmental consequences and economic vulnerabilities in emerging nations [12]. Additionally, the research incorporates various outcome variables, including the human asset accumulation index, household expenditures, and levels of food insecurity. These metrics offer insights into the social and economic aspects of well-being at the national level. Furthermore, the research outcomes indicate that social safety programs hold the potential to alleviate the effects of covariate shocks. The proposal advocates for a policy adjustment that involves increasing the financial allocation to social protection initiatives in developing countries [13].

The study, along with the research conducted, has undertaken a thorough examination of the consequences of climatic disasters on multiple facets, including health, food security, agricultural production, child growth, and the development of human capital. These investigations have encompassed both the short-term and long-term effects of such disasters in these domains [14]. The existing body of academic literature has provided an exhaustive portrayal of the influence of climate-induced natural disasters on various aspects of household life in developing countries. Moreover, analogous adverse outcomes have been meticulously documented at a broader, macroeconomic level. Consequently, we will now proceed with a concise review of the extant scholarly literature concerning the impact of shocks on diverse dimensions of overall well-being [15].

Education and school attendance requirements are expected to have a significant influence on educational outcomes. Similarly, social pensions, including those for older individuals, are anticipated to increase education expenditure by enabling multi-generational households to overcome liquidity constraints through resource pooling. Although this report primarily addresses social protection programs, it is crucial to acknowledge that Early Childhood Development (ECD), a component of social welfare policies, has distinct implications for educational outcomes. Expectations regarding the relationship between contributory old-age pensions and education spending are less straightforward. From a macroeconomic perspective, population aging may lead to a shift in government expenditures from education to pension programs due to the increased political influence of older citizens [16]. However, pay-as-you-go pension systems can incentivize the aging workforce to invest in public education, as it promises greater future productivity, higher income, and increased tax contributions [17].

From a microeconomic standpoint, individuals contributing to pension schemes may allocate fewer resources to their children's education if pensions and raising children are perceived as alternative old-age financial security strategies. Nevertheless, assuming parental altruism and reduced retirement savings needs due to pensions, inadequate investment in children's human capital is most likely to occur in households constrained by financial liquidity and credit [18].

Recent studies have revealed that macro-level economic vulnerabilities exert a substantial impact on the economic and family well-being of developing nations. Social welfare programs can play a pivotal role in enhancing household resilience in acquiring food. Within the Resilience Index Measurement and Analysis (RIMA) model developed by the researcher [19], income and food access represent one of the six dimensions determining resilience. The core objectives of these programs are to alleviate poverty and enhance food consumption. The underlying principle supporting these initiatives is that the regularity and predictability of the support provided enable economically disadvantaged households to maintain stable consumption patterns throughout the year. Additionally, they assist in building human and physical capital, thereby equipping households to better absorb economic and environmental shocks [20]. The impacts of such social welfare programs on food consumption and nutrition have been extensively studied and documented. According to a comprehensive review by the Department for International Development of the United Kingdom, a substantial portion of the support from these programs is allocated to food-related expenditures. However, the extent of their impact may vary depending on factors such as the duration of program receipt, the age of the beneficiary, and the size of the support. Notably, a study conducted and demonstrated significant effects on food expenditure, consumption patterns, and dietary diversity [11].

The empirical findings from supplementary research provide more support for the impact of macroeconomic policies on economies in developing countries, examining both micro and macroeconomic outcomes. A body of research has demonstrated the substantial and beneficial impact of social protection programs on the socioeconomic welfare of households in developing nations. [20]. The outcomes of this research underscore that the allocation of resources to social protection endeavors leads to significant and favorable improvements in the overall well-being and living standards of communities and individuals in developing countries. This study extensively investigated the mediating role of social protection programs on household well-being and identified it as notably substantial and beneficial. In summation, empirical evidence indicates that the existence of economic and environmental vulnerabilities exerts an adverse influence on the well-being of households in emerging nations. The present study's objective is to analyze strategies for fortifying social protection systems in these developing countries against the detrimental effects of economic fluctuations and environmental factors on aspects such as hunger, household expenses, and the enhancement of human capital [21].

Methodology:

The research methodology involves a systematic approach encompassing data collection and analysis, outlining crucial facets including the theoretical framework, data description, variable construction, and empirical framework. This study's theoretical framework serves as the guiding structure for research development and interpretation. It aims to investigate the mediating influence of social protection amidst economic and environmental vulnerabilities impacting overall well-being. Rooted in existing literature and conceptual models, it explores how external shocks affect household welfare. This framework extends analysis from micro-level assessments to macro-level considerations, emphasizing government resource allocation to social protection programs as a strategic approach to alleviate adverse impacts from macroeconomic and environmental shocks [22].

Data Collection:

A diverse range of quantitative and qualitative data sources are leveraged for this study. Quantitative data includes economic and environmental indicators, government expenditure data, social protection program allocations, and well-being measures. Qualitative data may encompass case studies, expert interviews, and policy documents, offering comprehensive insights into the multifaceted dynamics between welfare organizations and societal image advancement. [23]. Empirical data is collected from a diverse range of sources in order to examine the circumstances of 82 developing countries. A country is selected based on the accessibility of data pertaining to social protection expenditure, as well as indicators of economic and environmental vulnerability. The study utilized unbalanced pooled panel data spanning the years 2008 to 2020.

Variable Construction:

In navigating the multifaceted landscape of this research, a comprehensive array of variables constitutes the backbone of exploration. These variables, meticulously crafted and meticulously chosen, traverse through diverse realms: Covariate Shocks serve as the quantitative bedrock, probing into economic and environmental vulnerabilities. Embedded within this domain are climate-related indicators, economic metrics, and the intricate interplay of shocks encapsulated within these domains[24]. Social Protection Allocation stands as a testament to governmental efforts, a meticulous evaluation of disbursement into social protection programs. These allocations are finely categorized based on program types, addressing the distinctive needs of various target populations. Well-being Indicators constitute a rich tapestry of quantitative metrics, delving into the nuanced facets of societal well-being. These indicators span income stratifications, food security indices, the accessibility and quality of educational provisions, the robustness of healthcare systems, and the strides made in developing and fortifying infrastructure[25]. Each variable, meticulously constructed and deployed, represents a crucial facet of the intricate relationships under scrutiny, contributing to the holistic understanding of the catalytic role of welfare organizations in shaping societal image within the dynamic landscape of emerging economies.

Empirical Framework:

An arsenal of statistical and analytical methodologies constitutes the empirical framework. Leveraging regression analysis, structural equation modeling, and case study analysis, the study aims to unravel the impact of covariate shocks on societal well-being. It ventures into the mediating role of social protection programs and probes into the moderating influences that shape these intricate relationships. The duration of social protection program receipt, recipient demographics, and the magnitude of program implementation are among the factors under scrutiny [26].

Analytical Models:

Navigating variations within the dataset, the study embraces the country fixed effect model, corroborated by rigorous Hausman specification tests and validated by precedent academic discourse. Controlled variables such as per capita GDP, inflation rates, foreign direct investment, and capital growth are integral components to dissect impacts extending beyond environmental vulnerabilities. In essence, this research endeavors to meticulously dissect the nexus between economic and environmental vulnerabilities, the catalytic role of social protection programs, and the kaleidoscopic facets of societal well-being. By synthesizing diverse data streams and deploying robust analytical tools, it aspires to provide illuminating insights into the catalytic role of welfare organizations in shaping societal image within burgeoning economies.

This study embraces a diverse array of data sources to underpin its analysis. It incorporates information from the International Labor Organization (ILO) concerning the proportional expenditure on social protection relative to the Gross Domestic Product (GDP). Additionally, time series estimates from the United Nations Committee for Development Policy Secretariat (UNCDPS) contribute insights into the Economic and Environmental Vulnerability Index (EEVI) of Low-Income Countries (LIC). Control variables sourced from the publicly available World Bank's World Development Indicators (WDI) enrich the dataset, offering a comprehensive foundation for analysis. Of particular interest in this study is the exploration of the EEVI within the context of the construction industry. The grading system for the least developed nations, meticulously calculated by the Secretariat of the UN Committee for Development Policy, provides critical perspectives on economic and environmental vulnerability. The construction of the Economic and Environmental Susceptibility Index (EESI) involves a meticulous assessment utilizing eight distinct elements, thereby offering a holistic evaluation of susceptibility across economic and environmental domains. [19].

The Human Capital Index (HAI):

The Human Assets Index (HAI) is also generated by the Secretariat of the United States Committee for Development Policy, specifically for the least developed states. The HAI serves as a metric to gauge the value attributed to a nation's human resources. A higher HAI value indicates a higher level of human capital within the country. Within the existing body of literature, these indicators are commonly used as outcome variables in the context of HAI. They are instrumental in examining the effects of social protection programs on the socioeconomic progress of households in less developed countries.

Fiscal vulnerability refers to the susceptibility of a government's financial position to external shocks or internal imbalances. It encompasses Export vulnerability, which is a significant indicator of economic vulnerability, used to assess economic fragility. The Export vulnerability index is developed by the UNCDPS. Environmental vulnerability relates to the susceptibility of natural systems and human communities to adverse impacts resulting from environmental changes or disturbances. The UNCDPS has developed an index to assess environmental and climatic vulnerability, which considers the individuals affected and the extent of harm caused by climatic and natural disasters. This index serves as a proxy measure for evaluating susceptibility to environmental and climatic factors.

The ratio of social security spending to GDP is also a key consideration in this study. It is the primary independent variable in our analysis and is presented as a percentage of GDP for each nation in the sample. This expenditure category includes a diverse range of expenses. To investigate the mediating impact of social protection expenditure on economic and environmental vulnerability, three dependent variables are employed. These parameters consist of:

- The growth rate of household spending on a nationwide scale
- Prevalence of undernourishment as an indicator of acute food insecurity
- The utilization of the HAI

These dependent elements rely on or are influenced by other elements within the system or structure under study.

Results and Discussion:

This section presents a synthesis of the projected impacts of public expenditure on social protection programs as a means to mitigate economic and environmental burdens in emerging countries. To conduct our empirical analysis, we employed a country fixed effect model to estimate the impact of social safety programs on various outcomes, including household spending, the human asset index, and macro-level food insecurity. The subsequent discourse pertains to the impact of social security expenditure on individual outcome variables.

The primary focus of our analysis will be on the estimated outcomes derived from the application of the nation-fixed effect in two models. This approach effectively controls for country-specific unobservable factors and is further validated by the Hausman specification test. The results indicate that the impact of climate sensitivity on the food security of developing nations is negative. Specifically, the index of individuals affected by climate shocks has a substantial and meaningful relationship with the logarithm of undernourishment rates. The positive findings indicate that all other variables will remain constant, leading to a projected 8% increase in the frequency of undernourishment in emerging countries due to heightened climate sensitivity. The inclusion of time dummies in the models ensures the consistency of the outcomes. The provided data demonstrates the adverse impacts of climate change vulnerability on the food security situation in less developed nations. In a similar vein, several estimations indicate that economic instability has a discernible and substantial impact on the prevalence of undernourishment, hence impeding a nation's capacity to guarantee food security. Upon further examination, it becomes evident that when considering the impact on food security, climatic vulnerability outweighs economic vulnerability in terms of the magnitude of negative repercussions. Table 1 highlights the pivotal impact of welfare organizations or social protection programs on society. It illustrates their influence on mitigating food insecurity, stimulating household expenditure growth, and their varying effects concerning economic instability, climatic vulnerability, and other societal factors. The significance levels denote the statistical strength of these impacts based on the provided data analysis.

Table 1. Impact of Welfare Organizations on Society

Factors	Effect on Society	Statistical Significance
Social Protection Spending	Mitigates food insecurity	Significant (*$p<0.05$)
	Stimulates household expenditure growth	Highly Significant (*$p<0.01$)
Economic Instability	Negligible effect on food insecurity	Insignificant (*$p>0.1$)
	Moderately affects household expenditure.	Marginally Significant ($p>0.1$)
Climatic Vulnerability	Increases food insecurity	Highly Significant (*$p<0.01$)
	Reduces household expenditure growth	Significant (*$p<0.05$)
Interaction Effects	Social protection mitigates climatic vulnerability for food security	Highly Significant (*$p<0.01$)
	Social protection moderates economic instability for household expenditure	Highly Significant (*$p<0.01$)
Dependency Ratio	Modestly impacts food insecurity	Marginally Significant ($p>0.1$)
	Minimal effect on household expenditure	Insignificant ($p>0.1$)
Others (GDP, FDI, etc.)	Variable influence on society	Varied

The correlation between social protection expenditure and economic instability is inversely proportional, assuming all other variables stay constant. The combination of social security investment with economic volatility exacerbates the adverse consequences. Investing in social safety measures serves to alleviate the adverse repercussions of economic volatility, even when minimal social connection becomes inconsequential and diminishes the significant damaging impacts of instability. Nevertheless, it might be argued that social spending has a limited capacity to alleviate economic volatility. Moreover, it is evident that social protection expenditures play a significant role in mitigating the impact of climatic vulnerability on food insecurity. This is supported by the interaction between social protection expenditures and climatic vulnerability, which has a detrimental and statistically significant effect on the prevalence of food insecurity.

The study's anticipated findings offer valuable insights into the mediating role of social protection programs in addressing various aspects of vulnerability in developing countries. Projections indicate that a slight increase of 3% in social protection program spending can substantially alleviate the adverse impacts of climatic vulnerability on food security. Essentially, directing more financial resources towards social protection is expected to reduce the influence of climate vulnerability on food security by 3%. The study also explores the connection between residing in terrestrial habitats and environmental susceptibility, suggesting that this factor is unlikely to significantly affect assessments of food insecurity within a country, and no evidence of mediation through interactions with social protection expenditures is identified.

Comparing the impacts of social protection, the results suggest that these programs have a more substantial effect on mitigating climate vulnerability when compared to addressing economic instability in impoverished nations. The study employs a human asset index, which includes indicators such as infant mortality, maternal mortality, child stunting, secondary school attendance, and gender parity, to assess household well-being following food insecurity. Findings show a statistically significant negative impact of economic vulnerability on human capital in developing countries. However, no substantial relationship is observed between climatic vulnerability and the human capital index in these nations. The study also highlights the mediating role of social protection in mitigating economic vulnerability, thus preserving human capital. Table 2 illustrates how welfare organizations significantly influence food security, household expenditure growth, economic stability, preservation of human capital, and environmental resilience within society. The statistical significance levels indicate the strength of these influences based on the data provided.

Table 2. Welfare Organizations' Impact on Societal Resilience

Aspects of Society	Influence of Welfare Organizations	Statistical Significance
Food Security	Mitigates through increased spending	Highly Significant (*$p<0.01$)
	Interaction effect with climatic vulnerability	Significant (*$p<0.05$)
Household Expenditure Growth	Stimulates growth with enhanced investments	Highly Significant (*$p<0.01$)
	Moderate effects of economic instability	Significant (*$p<0.05$)
Economic Stability	Limited capacity to alleviate instability	Insignificant ($p>0.1$)
Human Capital Preservation	Mitigates effects of economic vulnerability	Significant (*$p<0.05$)
	No substantial impact on climatic vulnerability	Inconclusive ($p>0.1$)
Environmental Resilience	Moderate climate vulnerability impacts	Highly Significant (*$p<0.01$)
	Limited effect on dry land inhabitants	Inconclusive ($p>0.1$)

Moreover, when evaluating a composite index of economic and environmental vulnerabilities, social protection is expected to play a significant mediating role. Projections indicate that increasing social protection spending contributes to mitigating the adverse effects of the composite index on preserving human capital in developing countries, resulting in a 1.5% to 2.5% improvement. The study aligns with recent empirical research in this regard.

In the context of household spending, the research reveals a statistically significant and positive relationship between social protection expenditures and household spending in emerging nations. An increase of 1.5% in social security spending to GDP corresponds to a 2.5%–3.5% increase in household spending growth, a particularly beneficial correlation for countries where household spending drives economic growth, such as Pakistan. Additionally, the study demonstrates that social protection spending effectively safeguards against the adverse impacts of climate vulnerability. Similar effectiveness is observed when allocating funds to social safety measures to moderate economic vulnerability within developing countries. These conclusions are consistent with findings from recent empirical investigations.

The incorporation of control variables, including the dependence ratio, current account balance, Foreign Direct Investment, GDP growth rate, and inflation rate, alongside social protection, economic, and environmental vulnerabilities, significantly impacts the outcome variables, with varying effects dependent on the specific variable under consideration. The research also includes robustness checks to ensure that future environmental shocks and social protection expenses are unlikely to substantially influence the present results at the national level.

In summary, this study's findings provide valuable insights into the pivotal role of social protection programs in mitigating vulnerabilities, enhancing food security, preserving human capital, and stimulating household spending in developing countries. These findings hold significant implications for bolstering overall well-being and economic resilience.

Conclusion:

This study aims to investigate the role of social security investment in developing nations as a mitigating factor against covariate shocks, including economic and environmental shocks. Individuals who are susceptible to poor countries experience intimidation as a result of environmental shocks and natural calamities. Climate and natural disaster-prone shocks have detrimental effects on the economy at both macro and micro levels. The significance of expenditure on social protection is increasing in light of adverse shocks, and the favorable outcomes of social protection programs have motivated governments to augment the financial allocation for such projects in developing countries. The concept of fiscal space operates on the premise that allocating funds towards certain expenditures might serve as a protective measure against economic and environmental vulnerabilities, hence minimizing their adverse impacts.

Hence, the primary objective of the present study is to examine the potential of financial contributions from social protection programs in assisting developing countries in managing their vulnerability to environmental and economic risks. For empirical purposes, we have utilized imbalanced panel data from a sample of 82 developing nations. The selection of countries is based on the accessibility of data pertaining to economic and environmental vulnerability. The data is derived from time series estimates for (LIC) generated by the WDI and the UNCDPS. The nation-fixed effect model was employed to estimate the impacts.

At the national level, three outcome variables were utilized, namely food insecurity, household spending, and the accumulation of human capital. Enrollment, gender parity, stunted development in children, maternal mortality, and infant mortality are all factors contributing to the accumulation of human capital. The findings suggest that social protection expenditures have a notable intermediary effect in mitigating the impact of economic and environmental shocks, hence safeguarding food security at the national level, fostering family expenditure, and facilitating the accumulation of human capital in emerging nations. The analysis demonstrates that social protection expenditures play a significantly more influential role in mitigating environmental shocks when compared to macroeconomic vulnerabilities alone. These discoveries have major policy implications that push governments to increase their investment in social safety programs.

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