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MACROECONOMIC CONTEXT, SOCIAL ASSISTANCE & PENSIONS

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Acknowledgments

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Abbreviations and Acronyms

ACA	Administrative Control Authority
ALMP	Active Labor Market Programs
ATM	Average Time to Maturity
BI	Business Intelligence
CBE	Central Bank of Egypt
CCT	Conditional Cash Transfers
CEQ	Commitment to Equity
CIT	Corporate Income Tax
COVID-19	Corona Virus Disease 2019
DA	Data Analytics
DB	Defined Benefit
DC	Defined Contribution
EALB	Egyptian Arab Land Bank
EEHC	Egyptian Electricity Holding Company
EGP	Egyptian Pound
EGPC	Egyptian General Petroleum Corporation
EOS	End of Service
ETA	Egyptian Tax Authority
FAO	Food and Agriculture Organization of the United Nations
FIA	Fiscal Incidence Analysis
FINDEX	Global Financial Inclusion Index
FM	Financial Management
FY	Fiscal Year
GASC	General Authority for Supply Commodities
GBI-EM	Government Bond Index-Emerging Markets
GDP	Gross Domestic Product
GSIF	Government Social Insurance Fund
HDB	Housing and Development Bank
HH	Household
HIECS	Household Income, Expenditure and Consumption Survey
HR	Human resources
ICT	Information Communication Technology
ICTD	International Centre for Tax and Development
ID	Identity Document
IFPRI	International Food Policy Research Institute
IFS	International Financial Statistics
ILO	International Labour Organization
IMF	International Monetary Fund
IPC-IG	Policy Centre for Inclusive Growth
LIPW	Labor Intensive Public Works
LMIC	Lower Middle-Income Countries

MENA	Middle East and North Africa
MHUUC	Ministry of Housing, Utilities and Urban Communities
MIS	Management Information System
MOF	Ministry of Finance
MOSIT	Ministry of Supply and Internal Trade
MOSS	Ministry of Social Solidarity
NA	Not Available
NFA	Net Foreign Assets
NIB	National Investment Bank
NOSI	National Organization of Social Insurance
NSPO	National Service Projects Organization
NUCA	New Urban Communities Authority
OADS	Old age, Disability, and Survivorship Benefits
OECD	Organization for Economic Cooperation and Development
PER	Public Expenditure Review
PIT	Personal Income Tax
PKH	Family Hope Program
PMT	Proxy Means Test
PPP	Purchasing Power Parity
PPP	Public–private partnership
PPT	Percentage Points
PROST	Pension Reform Options Simulation Toolkit
PSIF	Public Social Insurance Fund
PWD	People Living with Disabilities
SA	Social Assistance
SAPER	Social Assistance Public Expenditure Review
SCA	Suez Canal Authority
SHMFF	Social Housing and Mortgage Financing Fund
SIF	Social Insurance Funds
SNAP	Supplemental Assistance Nutrition Program
SP	Social Protection
UNR	Unified National Registry
US	United States
USA	United States of America
USAID	United States Agency for International Development
USD	United States Dollar
USDA	United States Department of Agriculture
VAT	Value Added Tax
WB	World Bank
WTO	World Trade Organization

CHAPTER 1. IS THERE FISCAL SPACE FOR HUMAN DEVELOPMENT SPENDING?

A. Overview of the Macro-Fiscal Context

Good progress has been achieved in addressing the root causes of fiscal pressure, but public finances are still over-stretched, constraining the ability to scale up spending on the social sectors.

1. **Fiscal consolidation reforms have been at the forefront of Egypt's efforts to stabilize the macroeconomic environment, after years of economic and political turmoil**. Important fiscal reforms were undertaken to ease the longstanding pressures on the budget, including from the untargeted and distortionary energy subsidies and the ballooning public sector wage bill, together with boosting public revenue. These reforms have helped reverse the chronic primary deficit into a surplus and brought down the overall budget deficit and government debt-to-GDP ratios[1] (Figure 1. 1 and Figure 1. 2). Together with monetary policy measures, energy sector and business environment reforms, they have contributed to an improvement in the overall macroeconomic environment and allowed the country to enter the severe global crisis caused by the COVID-19 pandemic with improved fiscal and external accounts.

2. **Yet, public finances are still over-stretched, constraining the country's ability to scale up spending on the social sectors and narrowing the scope for counter-cyclical fiscal policy.** The reforms implemented since 2016 helped sustain the fiscal consolidation momentum through the pandemic. The fiscal year (FY) 2021 - which witnessed the full impact of the COVID-crisis - saw a further decline of the overall deficit to 7.4 percent of GDP. However, the government debt-to-GDP ratio remains quite elevated and has increased further to 92.4 percent. Gross financing needs - defined as the sum of the budget deficit and the value of debt maturing in the course of the year - also remain high at an estimated 40 percent of GDP (World Bank, 2021). Contingent liabilities (estimated at 18.4 percent of GDP during FY2020) pose additional fiscal risks.

3. **The relatively high government financing requirements entail broader macroeconomic implications, as well as an adverse effect on the working and role of the financial sector.** Credit extended to the government remains the largest component of total domestic credit. While the banking sector maintains relatively ample liquidity, the large government financing needs affect commercial banks' incentives to lend to the private sector (especially to the small and medium segment of businesses). High financing requirements may also push the government towards the use of most distortionary type of taxation to finance the additional debt burden in the future (see Section C on tax performance).

[1] During the course of preparation of this PER, the Ministry of Planning and Economic Development has revised the nominal GDP series starting FY2016-17. This PER uses the old definition to ensure consistency and comparability with historical series.

Figure 1. 1. Overall and Primary Budget Balances

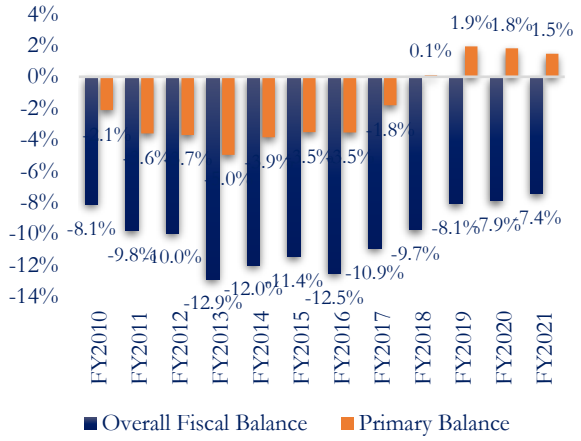
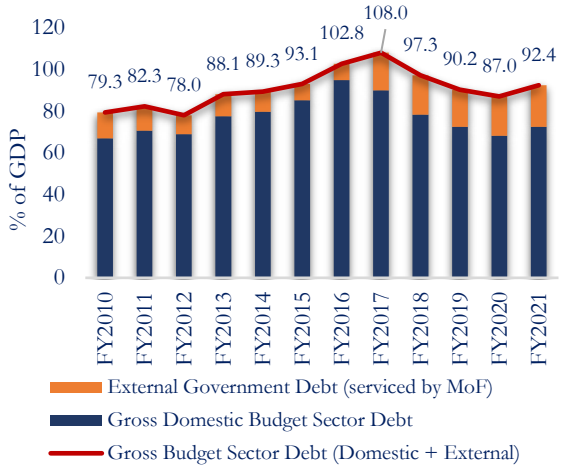


Figure 1. 2. Government Debt



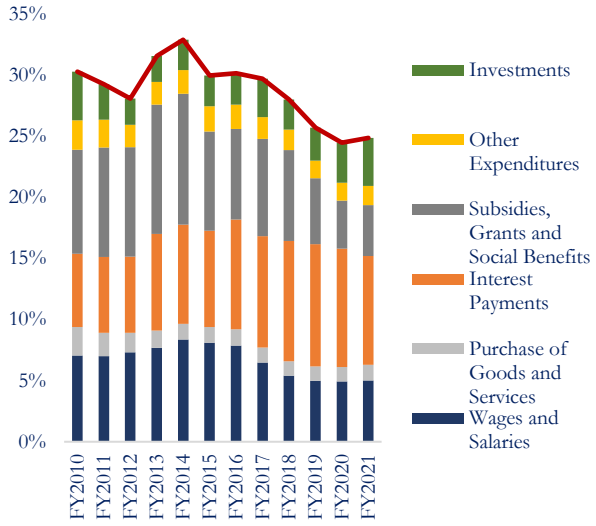
Source: Ministry of Finance

B. Recent Trends in Government Expenditure: A Focus on Social Sectors

Interest payments stand out as the single largest expenditure item, absorbing significant budget resources. SOEs and Economic Authorities are another source of pressure, stemming from imbalances in their financial position.

4. **The fiscal consolidation program of recent** years **focused primarily on bringing down the expenditures-to-GDP ratio.** Government expenditures decreased to 24.9 percent of GDP in FY2021, from 32.9 percent in FY2014,[2] mainly through containing the wage bill and energy subsidies (Figure 1. 3). Both have witnessed significant declines worth 3.4 percent of GDP and 6.2 percent, respectively.[3] Spending on key social protection programs have absorbed some of the freed-up resources, by expanding the monetary value and the number of beneficiaries from these programs. In real terms, however, freed-up resources from lower spending on energy subsidies contributed almost entirely to reduce the deficit, while social protection spending – excluding energy subsidies – has remained stable at an average of 4.1 percent of GDP since the reforms.

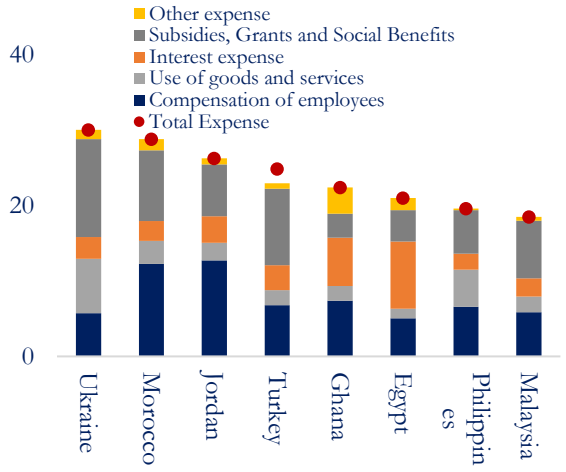
Figure 1. 3. Government Expenditures (% of GDP)



Source: Ministry of Finance (MOF)

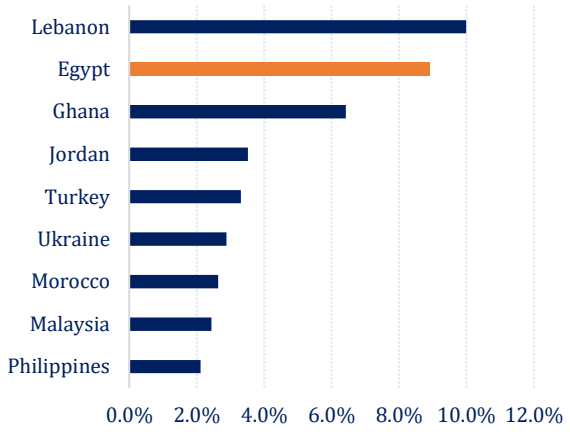
[2] The reference to FY2014 as a benchmark here is because it was a year that witnessed a large fiscal slippage, as the overall deficit excluding grants had surged to 16.5 percent of GDP. It also marks the beginning of the fiscal consolidation efforts.
[3] It is worth noting that energy subsidies declined by 1.6 percent of GDP in FY20 alone, mainly due to the collapse in international oil prices which thus reduced the cost of the imported portion of energy.

Figure 1. 4. Current spending, Central Government Egypt vs. Peers (% of GDP)



Source: IFS

Figure 1. 5. Interest Payments Egypt vs. comparators (% of GDP)



Note: Figures displayed are for FY2021 for Egypt and latest av
for other countries, except for Lebanon which reflects 2019 da
last year before the default on foreign debt and the fav
arrangement with Banque du Liban on its holdings of Treasury
Source: IMF Government Finance Statistics and Egypt MOF

5. **Interest payments stand out as the single largest expenditure item, absorbing significant budget resources.** In FY2021, interest payments in Egypt are well above comparator countries, reaching 8.9 percent of GDP (Figure 1. 5). Despite the positive development of bringing down interest payments from 10 percent of GDP in FY2019 to 8.9 percent of GDP in FY2021, they still account for 35.8 percent of total expenditures, and 67.8 percent of tax revenues. As such, they crowd out important productive and social spending, and pose key risks to fiscal sustainability.

6. **This large burden results from an unfavorable debt position, with elevated levels and yields among the highest in emerging markets.** On the positive side, the government has managed to place the debt on a downward path, gradually bringing it down from 108 percent of GDP in FY2017 to 87.0 percent of GDP in FY2020 (a net consolidation of 21 percent of GDP). The consolidation in the debt-to-GDP ratio is the outcome of (i) fiscal consolidation efforts that converted the primary balance from a deficit to a surplus starting FY2018, (ii) the one-off cancellation of the debt owed by the government to the Social Insurance Funds (SIF) equivalent to a 6.3 percent of GDP (EGP371 billion);[4] and (iii) nominal GDP growth rates that exceeded growth in the stock of government debt. In tandem with this decline, the Average Time to Maturity (ATM) increased to 3.2 years in June 2020 compared to 2.8 years in June 2017, signaling materialized government efforts to elongate the debt tenure.

[4] See section I.II on the Pensions system.

Yet, similar to the global trend, the pandemic's repercussions have taken their toll on the government debt driving the debt-to-GDP ratio up to 92.4 percent of GDP in FY2021 due to unfavorable debt dynamics resulting from positive real interest rates on debt (which surpassed real GDP growth) and debt-issuance that exceeded the amount needed to finance the overall budget deficit (World Bank, 2021). Yields on government debt instruments remain high. As of February 2022, Egypt is the second highest yielder in the GBI-EM index, which it has officially entered in 2022 (Table 1. 1). Despite a stable level of official international reserves, the banking system's net foreign asset (NFA) position has continued to deteriorate since July 2021, signaling some pressure on the local currency and adding more risks to the country's high exposure to debt markets dynamics.

Table 1. 1 GBI-EM Global index

Country	Sum of Weight % - FOM	Average of Yield
BR	6.34	11.61
CL	1.11	6.09
CN	44.80	2.66
CO	2.18	8.66
CZ	2.53	3.23
DO	0.07	7.21
EG	0.44	14.40
HU	1.89	4.69
ID	8.39	5.83
MX	5.94	7.77
MY	4.70	3.31
PE	1.18	5.84
PH	0.07	5.25
PL	3.77	3.56
RO	1.69	4.90
RS	0.16	3.38
RU	3.68	10.56
TH	4.90	1.71
TR	0.58	20.02
UY	0.07	8.06
ZA	5.52	9.34
Grand Total	**100.00**	**6.451819256**

Source: JP. Morgan, as of February 21, 2022

7. **State-owned enterprises (SOEs) and Economic Authorities (EAs) are another source of pressure on public finances, emanating from chronic imbalances in their financial position.** According to the latest available information, SOEs – at the aggregate level - had a negative net relationship with the Treasury, as the sum of transfers (subsidies, loans and contributions) they received is higher than the taxes and dividends paid to the Treasury (Table 1. 2). As of FY2019, this was strongly influenced by a number of large SOEs, including the Egyptian Electricity Holding Company (EEHC) which received 74 percent of the total transfers to SOEs,[5] followed by the Drinking Water and Sewage Holding Company (7.4%), the Cotton, Spinning, Weaving and Clothes Holding Company (6.8%) and the Agricultural Bank of Egypt (4.3%). Meanwhile, entities that were able to maintain a positive net relationship with the Treasury include, but are not limited to, Banque Misr, Misr Insurance Holding Company, Holding Company for Maritime and Land Transport, Metallurgical Industries Holding Company, the National Bank of Egypt, the Egyptian Holding Company for Airport and Air Navigation and Telecom Egypt. The negative burden of economic authorities is even higher, with the net negative position of 48 EAs being almost 3 times the negative contribution of 280 SoEs. A third of economic authorities (16 out of a total of 48) were incurring losses and another 10 percent (5 out of 48) were breaking-even.[6] Moreover, the central government may also need to issue additional debt to onlend, or to cover financial obligations for these entities. This constitutes an additional burden on the budget, suggesting a need to revisit the financial position of these entities, their pricing strategies, operating cost plans and management of resources.

[5] This may have changed with recent reforms in electricity prices, which have currently reached cost recovery.
[6] MOF report on Financial Indicators of Economic Authorities FY2017-FY2019

Table 1. 2 Net relation between Treasury and EAs/SOEs (Percent of GDP)

Economic Authorities	FY18	FY19
Transfers to MoF	**4.1%**	**3.5%**
Dividends	0.7%	0.5%
Income Tax	0.8%	0.7%
Income Tax from previous years and other	0.2%	0.1%
EGPC Foreign partner tax	0.6%	0.6%
EGPC Royalties and Somed fees	0.4%	0.4%
EGPC Customs	0.1%	0.1%
VAT on petroleum products	0.9%	0.8%
Taxes and fees	0.3%	0.3%
Transfers from MoF	**6.0%**	**4.4%**
Contributions[7]	0.2%	0.3%
Subsidies	5.8%	4.1%
Net Relation with MoF	**-1.9%**	**-0.9%**

SOEs	FY18	FY19
Transfers to MoF	**0.1%**	**0.1%**
Dividends	0.1%	0.1%
Income Tax	0.0%	0.0%
Transfers from MoF	**0.8%**	**0.4%**
Contributions	0.1%	0.1%
Subsidies	0.7%	0.4%
Loans	0.0%	0.0%
Net Relation with MoF	**-0.7%**	**-0.3%**

Source: MOF

8. **On the sectoral side, the allocation of spending shows that a limited share of resources is allocated to key social sectors.[8]** Spending on health, education and scientific research are low by international standards, and have been declining in real terms (Figure 1. 6), despite the country's aspirations as spelled-out in their respective constitutional mandates.[9] Spending on social protection has declined according to the functional classification due to the drop in spending on energy subsidies. However, real spending on social protection -excluding energy – has been stable in recent years (see Chapter 2 on Social Assistance).

9. **On the administrative side, spending on the social sectors shows a varying degree of decentralization.** While for Health and Education, a large share of spending is undertaken through local government (34 percent and 56 percent, respectively in FY2020), this share is negligible for social protection and housing spending (1 percent). In social protection, almost the entirety of spending is allocated through the central administration (99 percent) while public service authorities play a large role in housing and public utilities, absorbing 71 percent of the sector spending (Figure 1. 8).

10. **Expenditure on other non-social sectors has gradually increased, driven by the General Public Services sector,[10] largely directed towards the interest payments.** The share of this sector alone has increased from 25 percent of total spending to 46 percent between 2009-2020, of which interest payments constitute 85 percent of the sector's spending in FY2020. The remaining non-social spending is split between economic affairs sector[11] (6 percent of total spending), public order and public security (5%), Youth, culture and religious affairs (3%) and defense (5%). Overall, non-social spending increased from 45 percent to 65.7

[7] Reflects capital injection into EAs and SoEs; usually recorded under chapter 7 of the expenditures (Acquisition of financial assets), where the Treasury increases its own share in the EAs or SoEs.

[8] Within the rest of this chapter, the term "key social sector" encompasses health, education, higher education, social protection and housing.

[9] According to articles 18, 19, 21 and 23 from the 2014 Egyptian Constitution, the government spending on education, health and scientific research should be at least 6%, 3% and 1% of the gross national product, respectively. These allocations shall gradually increase to comply with international standards.

[10] Includes spending by executive, legislative, financial, fiscal and external affairs bodies, foreign economic aid and spending on R&D and public debt transactions.

[11] The economic affairs sector covers general economic, commercial, and labor affairs, agriculture, forestry, fishing, hunting, fuel, energy, mining, manufacturing, construction, transport, and communication

percent during the same period, while that of the combined social sector has declined during the same period (Figure 1. 7).

Figure 1. 6. Public Expenditure by sector (% of GDP)

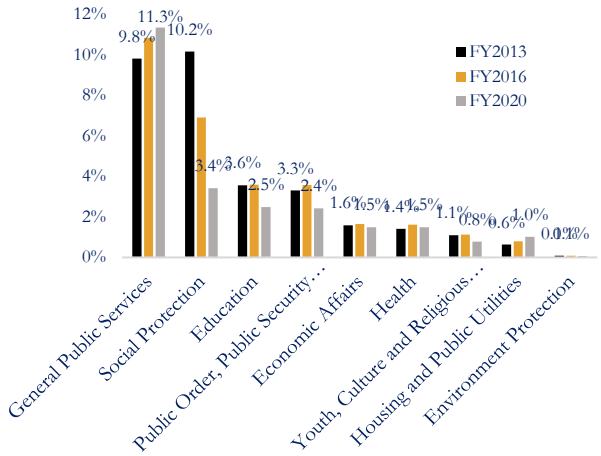
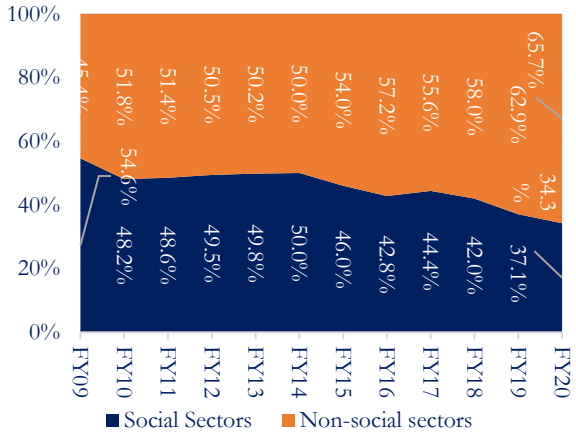
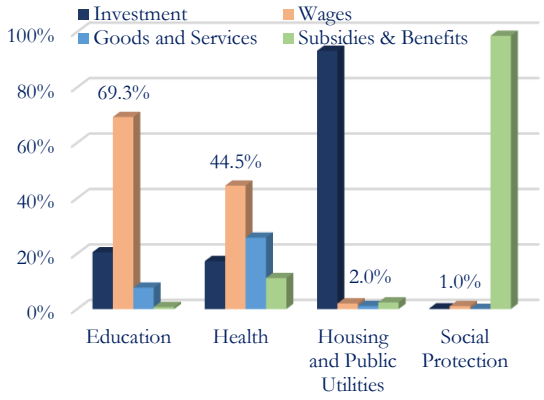


Figure 1. 7. Spending on social* vs. non-social sectors (% of total)

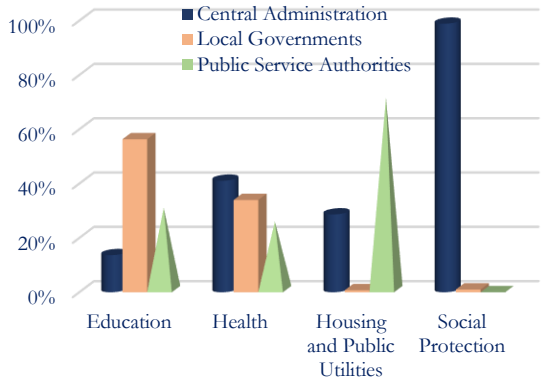


Note: Official actual spending by functional classification experience significant delays. As of Q3-FY2022, data for FY2021 are not publicly available. Social sectors comprise spending on health, education, social protection and housing and public utilities. Source: Ministry of Finance

Figure 1. 8. Distribution of Social Sectors Spending (% of total)



Economic Classification



Administrative Classification

C. Recent Trends in Government Revenues: Focus on Tax performance

Domestic revenues are not sufficiently mobilized. Tax revenues are low, dominated by indirect taxation, and a proliferation of taxes on visible activities.

11. **Egypt's commitment to redressing its public finances means that any increased spending must be met with enough resources to preserve the government fiscal consolidation path.** The challenge of improving social spending must be addressed in a context of competing priorities and trade-offs, and in line with government priorities to spend its resources on programs that yield the highest social return. This also means that more efforts need to be done to mobilize domestic resources and generate enough revenues to meet the developmental spending needs.

12. **Despite recent reforms, government revenues remain below potential and insufficient to meet the funding requirements of the social sectors.** The government revenue-to-GDP ratio remains low and has decreased in recent years. Revenues declined to 17.5 percent of GDP in FY2021, from 21.4 percent in FY2014. Taxes revenues, the largest component of government revenues (75.2 percent in FY2021) reached its highest level in more than a decade - 14.2 percent of GDP in FY2018, before declining to 12.6 percent in FY2020, reflecting the impact of the COVID-19 crisis. Contrary to expectations, the FY2021 saw a quick reversal of trend, with tax revenues increasing to 13.2 percent in FY2021 (Figure 1. 9), boosted by VAT on goods and services (which increased by 0.4% of GDP) and PIT (which increased by 0.3% of GDP), while CIT saw a decline. Regardless of the marginal fluctuations witnessed in recent years, tax revenues at their best performance remain well below the country's potential and those of peer countries (Figure 1. 10), and below the threshold of 15-18 percent conventionally cited as necessary to finance development spending requirements in developing countries.

Figure 1. 9. Total and Tax revenues (% of GDP)

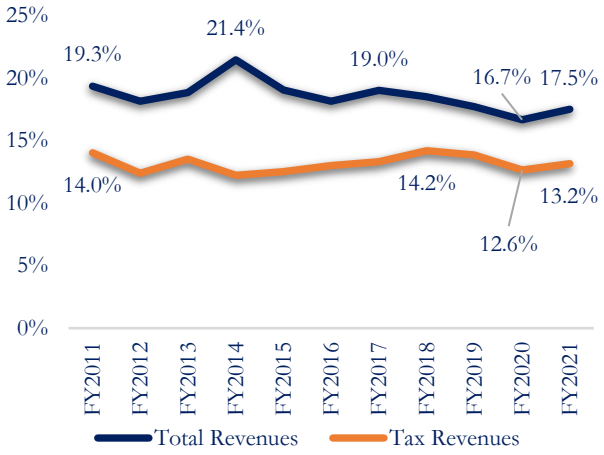
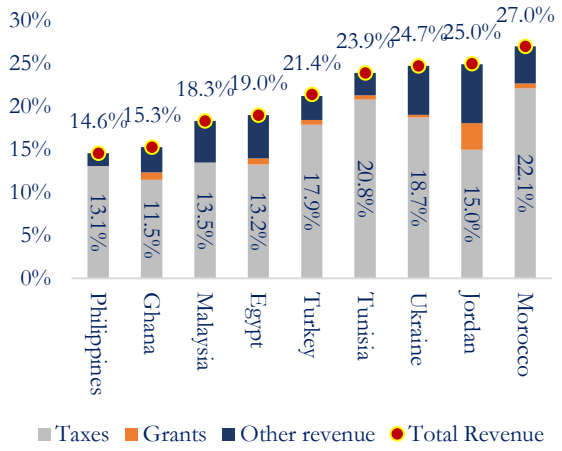


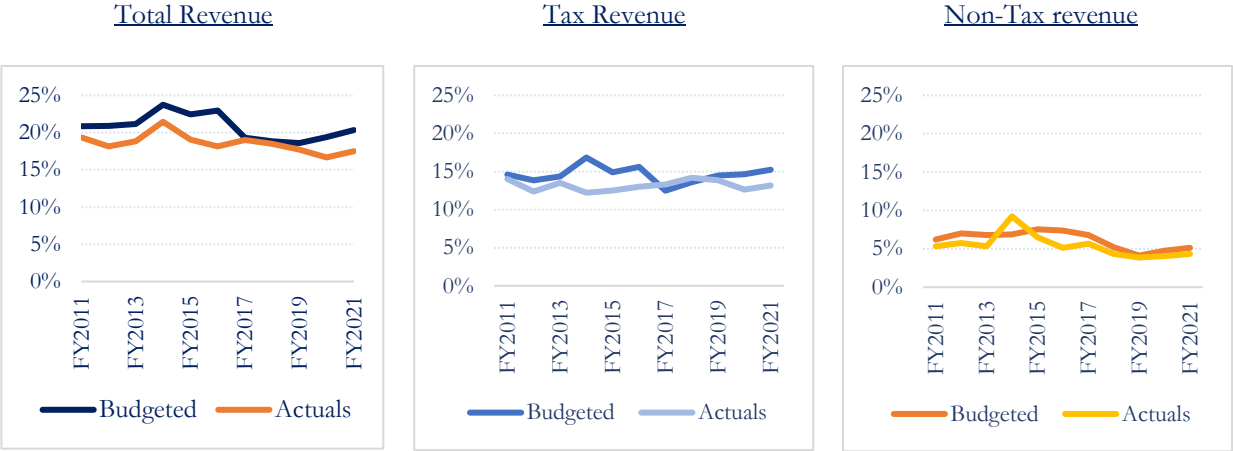
Figure 1. 10. Revenues in Egypt and peers (Average 2010-2020, % of GDP)



Source: Staff calculations based on MOF data, World Development Indicators (World Bank) and IMF Government Financial Statistics (budgetary central government data)
Note: FY2021 figures correspond to the preliminary actual figures.

13. **Revenue forecasting is a persistent challenge, as actual revenue outturns have consistently fallen short from achieving their targeted levels.** Figure 1. 11 shows a pattern of persistent overestimation of revenues, both tax and non-tax revenues. Except for a couple of years (FY2017 and FY2018) where tax revenues actually exceeded their targets, the gap between revenue collection and targeted levels has been rather wide and the undershooting has been increasing in recent years. This overestimation of revenue and inability to formulate accurate projections challenges the proper budget execution and can have negative repercussions for managing the fiscal deficit and debt.

Figure 1. 11. Revenues, Actuals vs. Budgeted (% of GDP)



Source: MOF data

14. **The structure of tax revenues has changed over time, with VAT revenues gaining importance and income tax losing ground**. Since the introduction of the VAT in 2016, it has been playing a central role in revenue generation. VAT share in total tax revenues increased from 34 percent to 42 percent between FY2016 and FY2019, before dropping to around 41 percent in FY2021, possibly affected by the COVID-19 and its impact on consumption. This is equivalent to an increase from 4.4 to 5.8 percent of GDP during the same period, before dropping to 5 percent in FY2020 (affected by the Covid-crisis) and recovering to 5.4 percent in FY2021. On the other hand, this increase was partially offset by a decline in income tax from 5.3 to 5.1 percent of GDP during the same period, with its share in total tax revenues dropping from 41.1 to 38.5 percent during the same period (Figure 1. 12).

Figure 1. 12. Structure of Tax Revenues

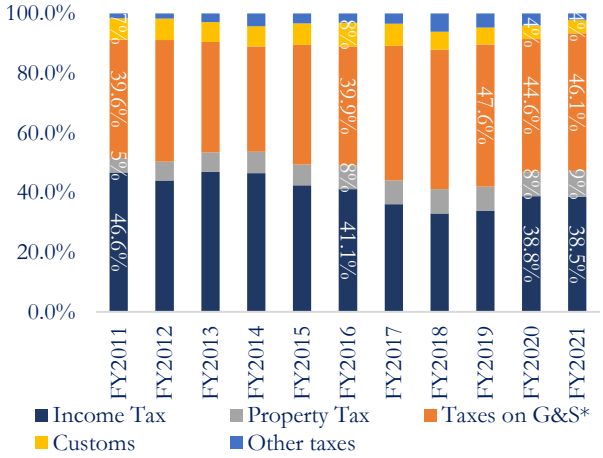
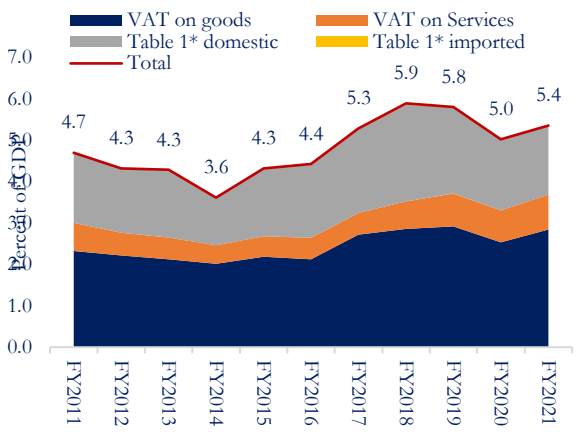


Figure 1. 13. Composition of VAT



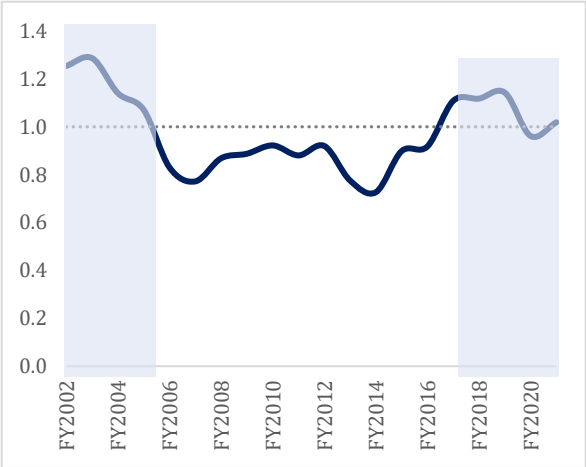
* Taxes on G&S = VAT + Taxes on specific services + Stamp tax (excluding stamp tax on salaries) + Development fees + Taxes on use of goods and on permission to use goods or perform activities. Source: MOF

15. **More generally, indirect taxation is increasingly generating the larger share of revenue.** Two episodes can be identified where the ratio of indirect-to-direct taxation exceeds 1, including since 2016 and

after the introduction of the VAT (Figure 1. 14 and Figure 1. 15).[12] Taxation of income remains weak, as in the case of much of the developing world. Collection of personal income taxes, for instance, is much lower than the levels found in OECD countries (Figure 1. 16).

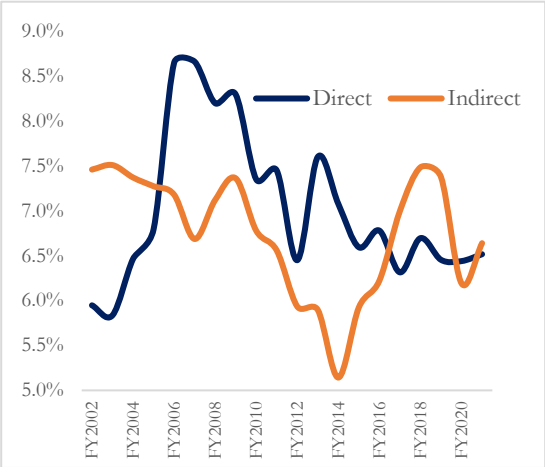
16. **Moreover, the range of indirect taxation is complex, consisting of many types of taxes on goods and services.** Different types of taxes are included under the main umbrella of taxes on goods and services: the VAT on goods, on services, taxes on "goods in Table 1-domestic and imported",[13] taxes on special services, stamp duties, development fees and licenses and permits fees (Figure 1. 17). This proliferation and duplication of taxes may have been the result of ad hoc decisions to add additional taxes on visible activities, and suggest they may not have benefited from due attention in their design and in their administration. Many of these are not included in the tax law (which should be the reference for all types of taxes) but are rather referenced in other laws. The labeling of these taxes also causes confusion, as some of these fees are actually taxes (as non-tied to the cost of the rendered service).

Figure 1. 14. Indirect/direct taxation ratio



Source: Staff calculations based on MoF data

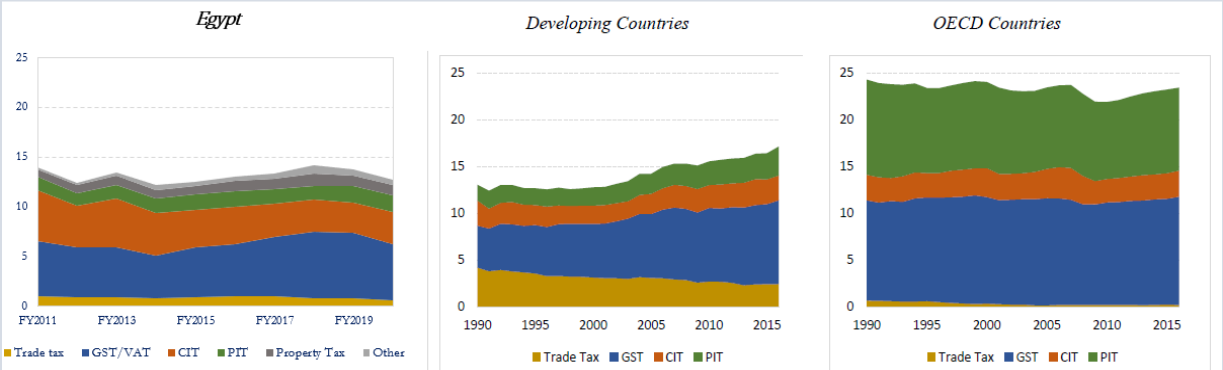
Figure 1. 15. Direct and indirect taxation (% of GDP)



[12] The predominance of indirect taxes over direct taxes is a common characteristic of developing countries. Direct taxes are those that will depend on the characteristics of the taxpayer, while indirect taxes are imposed on the transaction, regardless of the characteristics of the taxpayer. The latter include sales tax, VAT, customs, excises while the former include different types of corporate and personal income tax, social security contributions and property taxes.

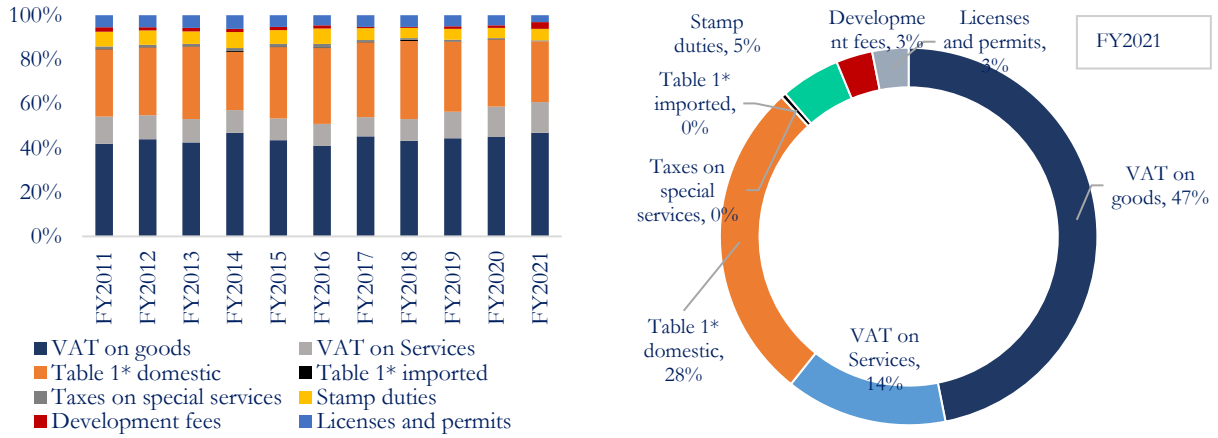
[13] Table 1 goods refer to the list of goods and services in the first table attached to the VAT law, which are subject to excise taxes stated explicitly in this table. This list includes, among others, tobacco and cigarettes, petroleum products, cement, construction services and contracting services.

Figure 1. 16. Composition of tax revenue in developing and OECD countries



Source: ICTD /UNU-WIDER Government Revenue Dataset and Egypt MOF.

Figure 1. 17. Composition of Taxes on G&S



Source: Staff calculations based on MoF data

17. **Corporate income tax (CIT) remains the main source of income tax revenues, but its share has been declining in favor of personal income tax (PIT) on employment** (Figure 1. 18). Within CIT, there has been distinct trends between sovereign sources (of which the Central Bank of Egypt, EGPC and SCA form the big bulk) and non-sovereign sources. In recent years, sovereign sources of income tax are experiencing a declining share, notably from the CBE – from which income tax revenue have totally disappeared since FY2018 - and to a lesser extent from EGPC (Figure 1. 19). Box 1. 1 provides a snapshot on selected quasi-fiscal activities, and their implications for the State budget. Incentives come mainly through two legislations, namely the Income Tax Law (91, 2005), and the Investment Law (72, 2017) and its amending Law (141, 2019), with nine key provisions granting some form of exemption. For instance, Article 11 of the investment law 72 of 2017 grants tax incentives to priority sectors (including manufacturing, banking, financial services sector, agriculture and others) and lagging regions. The amending Law 141 of 2019 expands these exemptions to existing projects. While tax incentives are traditional tools to encourage investment, recent results in the economic literature suggest that they are not the most important determinant of attractiveness to investors while at the same time, they can trigger substantial amounts of forgone revenue. Efforts are underway to quantify these amounts, as a first step to enable a comparison with the potential positive impact on investment and job.

Figure 1. 18. Composition of Income Tax, % of total

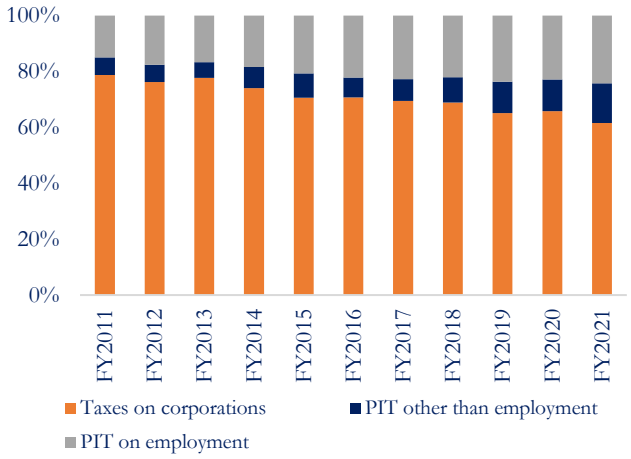
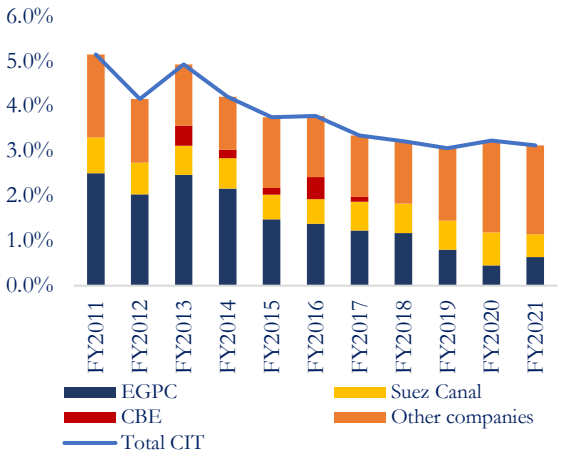


Figure 1. 19. Composition of CIT, % of GDP



Source: Staff calculations based on MOF data

Box 1. 1 Quasi-Fiscal Activities of Public Financial Institutions

Public institutions – including Central Banks - involvement in fiscal policy through "quasi-fiscal" operations and activities can affect the overall public sector balance without affecting the budget deficit as conventionally measured (IMF, 1996). These activities can introduce taxes, subsidies, and other types of expenditures, and may hence have important allocative, macroeconomic and financial unintended effects. Their introduction outside of the budget may also pose fiscal risks.

The Central Bank of Egypt (CBE) has been launching several quasi-fiscal initiatives in support of various categories sectors and socioeconomic objectives. Within this context, significant financing was availed to various categories of beneficiaries (by sector, by income group and by size of activity, etc.) at interest rates lower than prevailing market rates, with the CBE compensating banks for the interest rate differential. The aim of those initiatives is to incentivize banks to lend selected target groups and facilitate their access to credit.

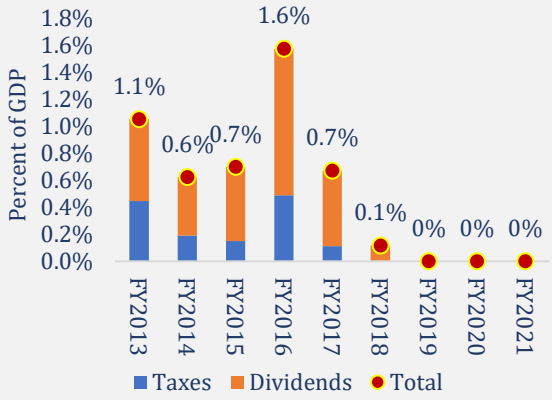
From 2016 till present, several initiatives worth EGP 610.5 billion were announced. The initiatives are wide in their sectoral scopes, covering the social housing mortgage finance initiatives, SMEs initiatives providing financing for already-established or newly established companies in the industrial, agricultural and new and renewable energy sectors, and sector-specific initiatives to alleviate the pressure on workers in the tourism sector that was affected by numerous shocks in the past decade (see Table B.1. 1 and Annex 1. 1).

A possibility of the associated cost being passed on to the State budget may induce nebulous consequences for the country's fiscal balances. Whether the Treasury ends up bearing the cost of these subsidized schemes is left undetermined, and the unclear quantification of actual cost of these financing initiatives might blur government's vision on their efficiency and effectiveness, and hinders the assessment of their impact on market dynamics and market players decisions to enter or exit markets.

Table B.1. 1. CBE Initiatives (2016-2021)

Sector	Size of initiative in EGP Billion
SMEs	215.0
Housing	170.0
Industrial Sector	100.0
Modern and smart irrigation methods initiative	55.5
Tourism	55.0
Dual-fuel vehicles initiative	15.0
Total	**610.5**

Figure B.1. 1. Transfers from CBE to the treasury



Source: WB staff compilation based on CBE and MOF data

18. **When assessing tax performance, tax buoyancy is a key indicator of the efficiency of a tax system.** By measuring the responsiveness of tax revenues to GDP growth, tax buoyancy[14] is essential to understand to what extent economic growth reflects positively on government revenue, and is hence a crucial element for tax policy formulation and design. A tax which is buoyant is one whose revenues increase by more than one percent for a one percent increase in national income or output. Knowing which factors are likely to affect buoyancy helps improving the tax system response to economic activity and anticipating how all the considerations above would change as the economy develops.

19. **Egypt total tax revenue buoyancy has been negative for the majority of period under consideration, except for a short period between 2008 and 2012.** (Figure 1. 20). As tax buoyancy should normally be a positive number signaling a positive relationship between tax revenue as a percent of GDP and GDP, a negative tax buoyancy implies that tax revenues are not a close function of the domestic economy.

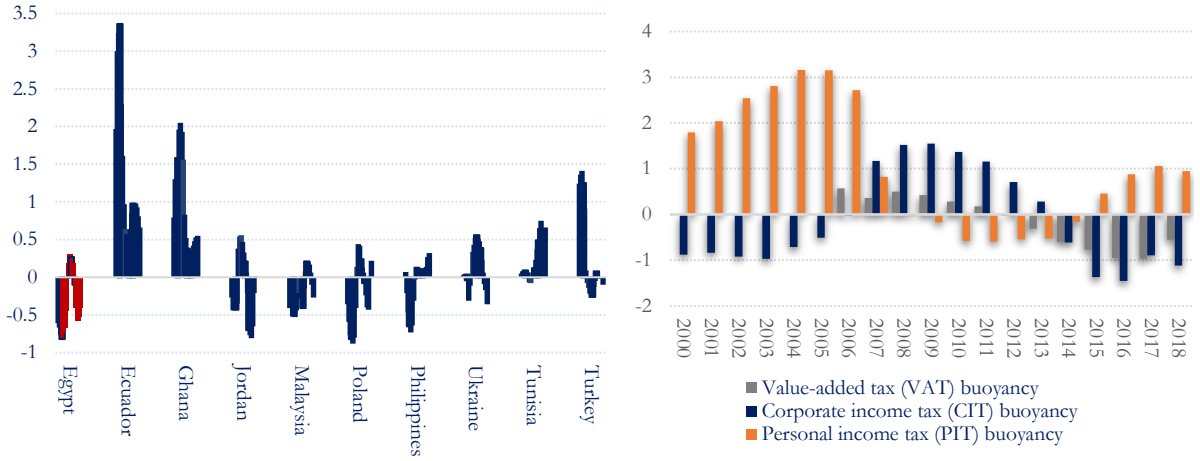
20. **Estimating specific-tax buoyancies also helps identifying the weak and strong spots of the revenue system, and direct revenue mobilization efforts towards taxes that better respond to income increases.** In Egypt, PIT buoyancy moved in an opposite direction compared to CIT and VAT buoyancies. Over the period 2015-2018, VAT and CIT buoyancy were negative whereas PIT buoyancy has been positive and gradually improving (Figure 1. 20). Yet, PIT buoyancy recent levels are still below their mid-2000s performance. The declining CIT buoyancy can be indicating an erosion in the tax base through the tax incentive schemes. The latter schemes represent a constraint to the efficiency and equity of the tax system in Egypt and this is especially evident for the case of Free Zones. The CIT tax base can

[14] Tax buoyancy is calculated as the percentage change of tax revenue divided by the percentage change of the tax base or GDP. This indicator is calculated by regressing the log of tax revenue on the log of GDP. The coefficient on the log of the base (GDP) is the measure of tax buoyancy. In measuring buoyancy, no attempt is made to control for discretionary changes in the tax system or administration. Consequently, buoyancy reflects both discretionary changes and automatic revenue growth.

be at risk depending on how broadly this Free Zones regime is applied (number and size of firms covered), and how successful authorities are in protecting the CIT base from profit stripping (OECD, 2020).

21. **VAT efficiency and compliance has been declining and it is underperforming compared to peers.** The VAT efficiency ratio is the ratio of actual VAT collections in a country to the potential VAT revenues, which are derived from applying the standard VAT rate to GDP (referred as VAT efficiency ratio) or total consumption expenditure (referred as C-VAT efficiency ratio). In principle, a VAT with no exemptions, a single rate, and full compliance should result in efficiency ratios of close to 1. Efficiency and compliance have been declining since 2009, and it lags behind most of the comparators (Figure 1. 21). Despite some progress in collection made since the introduction of VAT,[15] it is till hampered by the multiple rates and exemptions. While certain goods and services are subject to excise tax (known in Egypt as schedule tax) only, others are subject to the excise tax in addition to the general VAT rate. Other variations in the tax rate exist: machinery and equipment used in producing taxable or non-taxable goods or services are subject to a 5 percent VAT rate; exported goods essential commodities (like basic foods), as well as newsprint, papers and magazines, and some other services are exempted from the tax. The VAT applies equally to imported and domestic goods and VAT registration is obligatory for all persons or legal entities selling goods or services with gross sales equal or higher than EGP 500,000 in the 12 months preceding the date of enactment of the law (WTO, 2018).

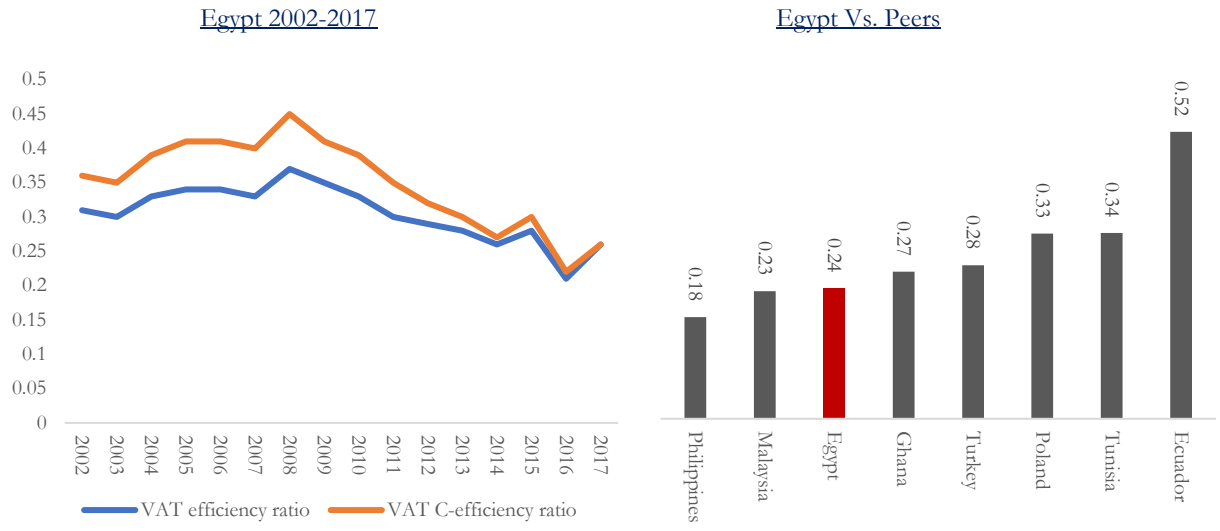
Figure 1. 20. Tax Buoyancy in Egypt and Peers -2000-2018



Source: Collecting Taxes Database, USAID

[15] Egypt introduced the VAT in September 2016 at a rate of 13 percent (14 percent as from July 2017) thereby replacing the 10 percent general sales tax. Egypt also applies excise taxes, which were introduced in 2010, on some products.

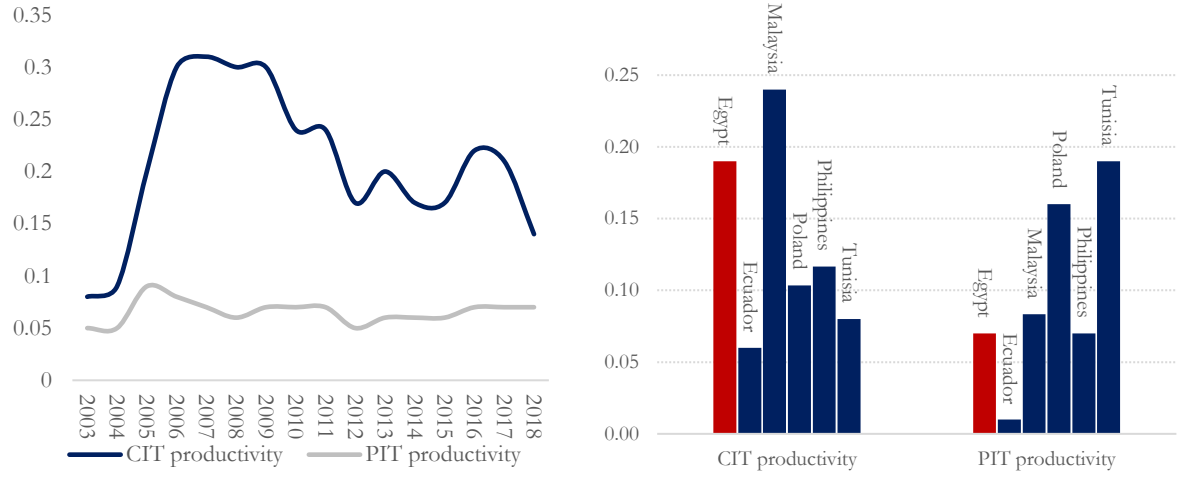
Figure 1. 21. VAT efficiency ratio



Source: Collecting Taxes Database, USAID

22. **Egypt's CIT productivity is higher than its PIT productivity.** Tax productivity can be measured by how much revenue is collected at a given tax rate. Higher tax productivity allows authorities to collect more revenue with the same tax rates.[16] CIT productivity has been performing well compared to peer countries, whereas the PIT productivity has been on the lower end, reflecting the country's low tax coverage and poor compliance (Figure 1. 22). Compliance is low because of the large informal sector (for example farmers and professionals including lawyers, doctors, private teachers…etc) and the absence of withholding for professional income.

Figure 1. 22. CIT and PIT productivity in Egypt and Peers



Source: Collecting Taxes Database, USAID.

[16] CIT revenue productivity is calculated as the ratio of CIT revenue (as a percentage of GDP) to the CIT rate. PIT revenue productivity is calculated as the ratio of PIT revenue (as a percentage of GDP) to the weighted average PIT rate. The weighted average PIT rate is the weighted average of the lowest and highest marginal personal income tax rates, given the income level at which each rate kicks in.

D. On The Role of Facilitation and Trust in the Tax System

Increasing taxpayers' trust that taxes are collected fairly and spent wisely is of critical importance for tax compliance. Concrete government action can increase trust, expand compliance, and broaden support for tax reform.

23. **Many reforms have taken place in recent years to enhance domestic resource mobilization through stronger enforcement and increased facilitation of the tax system.** These reforms consisted mainly of replacing old tax schemes with new ones to raise efficiency (for example the introduction of the VAT), and developing technical measures to strengthen enforcement through increased monitoring of taxpayers, as well as other measures to improve tax collectors' performance.

24. **More recently, a special focus was put on the facilitation aspect, recognizing the role of the tax administration in encouraging compliance.** While enforcement measures focus on raising the cost of non-compliance, facilitation aim at reducing the (time and financial) cost of compliance, and ensuring taxpayers understand their obligations through easy access to the information, hereby recognizing that taxpayers are more likely to comply when the burden of doing so is lowered. The most obvious aspect of facilitation -which Egypt has already started undertaking - is by reducing the cost of compliance through simplified policies, filing and payment requirements. For instance, the Egyptian Tax Authority (ETA) introduced the electronic tax filing system for the submission of income tax returns and for value added tax returns in December 2018 and January 2019, respectively. Later in October 2020, Egypt adopted a unified tax procedures law (Law No. 206 of 2020) establishing the legal basis to transform tax procedures to the new tax e-system.

25. **Recent global trends in tax reforms put greater emphasis on trust, with taxpayers' views on the fairness, equity, reciprocity, and accountability of tax systems becoming a critical determinant of tax compliance.**[17] These four concepts reflect the extent to which taxpayers believe that the tax system is fairly designed and administered (fairness), tax burdens are equitably distributed (equity), tax revenues will reflect on reciprocal publicly provided goods and services (reciprocity), and that the government governing the tax system is accountable to taxpayers (accountability). The first two elements (fairness and equity) are specifically related to the tax system while the other two elements (reciprocity and accountability) are related to the use of tax revenues by the government. In this view, increasing taxpayers' trust that taxes are collected fairly and spent wisely is of critical importance to generate a substantial positive impact on tax compliance, strengthen political support for reform, and build a broader social/fiscal contract. Ultimately, it should reflect positively on the amount of domestic revenue being generated.

26. **The three aspects of tax reforms, Enforcement-Facilitation-Trust (E-F-T), are complementary strategies to raise tax compliance and revenue and should be mutually reinforcing.** For instance, a key component of trust in the fairness of the tax system is a belief that everyone pays their fair share and is punished if they don't, which depends on the strength of enforcement measures. Another key component of trust in the equity of the tax system is to what extent it caters for the need and capacity of smaller taxpayers, which depends on how easy for them is it to file their tax returns and pay their tax dues. Facilitation efforts may also expand to include higher transparency, better taxpayer information and education to understand tax obligations, and thus increase trust in the tax system. This more holistic approach to reform is likely to result in more adequate reforms strategies.

27. **Egypt does not undertake taxpayers' surveys to identify challenges related to each of the three E-F-T aspects.** The last available cross-country surveys, however, suggest there are issues with several aspects of the tax framework, reflected in respondents' perception and understanding of the system (Figure 1. 23). For instance, on enforcement, only a minority think it is easy to avoid paying taxes. Yet, while the majority believe

[17] For a comprehensive presentation of this analytical framework and related literature review, see Dom *et al*, 2021.

that people must pay taxes, more than the third think it is wrong but understandable for people not to pay taxes they owe on their income. Moreover, more than a third have no or very little trust in the tax department, and another third think that tax officials are involved in corruption. Trust in the reciprocity of the tax system seems also to be weak, as 40 percent would oppose a decision to increase taxes or user fees even if to increase spending on public health care. These perceptions, while not recently updated, may indicate some structural challenges in the tax system.

28. **Regularly measuring taxpayers experience through surveys is a potentially powerful and empirically rigorous way of recognizing the most challenging aspects of the tax system and identifying actionable reforms.** This review could not find such recent surveys, yet preliminary policy recommendations distilled from international best practices suggest a number of principles should guide the tax reforms efforts.

29. **Strengthening enforcement through measures to increase monitoring of taxpayers**. This could be achieved by improving access to - and sharing of - information on income, wealth and economic transactions, including data that is already possessed by the governments or by different divisions within tax administrations, as well as the access and use of third-party data. In this context, tax authorities are encouraged to shift to a customer-focused agency, and away from treating taxpayers as potential criminals. Expanding audit capacity could help achieve this shift, notably through the higher use of risk-based audits.

30. **Improve tax collectors' performance.** Improving the performance of tax administrations is typically done through salary increases to provide performance incentives, but other successful measures may focus on reducing the scope for harassment and abuse by tax officials. This could be achieved by reducing face-to-face interactions between taxpayers and tax collectors, notably by expanding the use of electronic platforms, as well as minimizing tax officials' discretion.

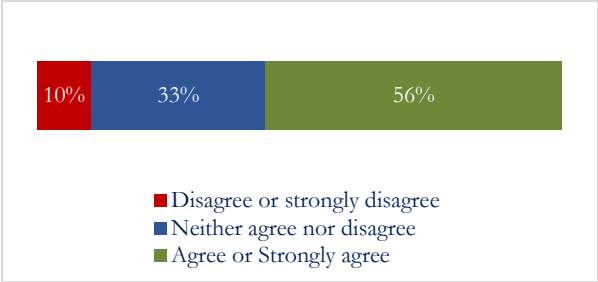
31. **Addressing difficulties in understanding tax liabilities and making payments**. From this perspective, tax policy makers and tax administrations are encouraged to reduce unnecessary regulations and reduced the (sometimes large) number of taxes businesses must pay, especially for small businesses.

32. **Shift tax reform programs towards a greater focus on building trust**. Since taxpayers are often asked to bear a heavier burden of taxation now with a promise of more effective service provision in the future, what is often missing is some meaningful measures to build taxpayers' trust. This, in turn, would require a commitment to transparency, and for fiscal authorities to create forums for reciprocal engagement between taxpayers and governments around how those revenues are collected and used. In Egypt, anecdotal evidence points to the presence of a wide perception of unfairness and inequity of the tax burdens, together with a widespread use of informal taxes, fees and levies collected from small businesses and lower-income taxpayers.

33. **Successful implementation of this comprehensive framework requires a whole-of-government approach.** This is because elements that are related to the use of tax revenues by the government (reciprocity and accountability) depend on the broader government commitment - beyond tax agencies - to deliver reciprocal services or reinforce political accountability.

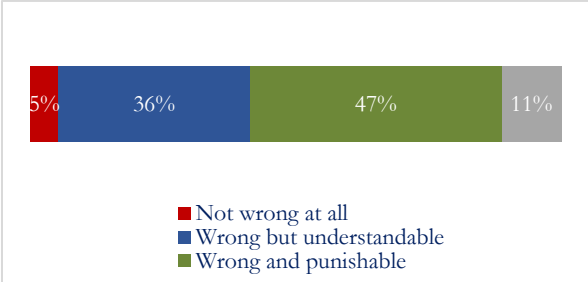
Figure 1. 23. Perceptions and understanding of the Egypt tax system

A. People must pay taxes



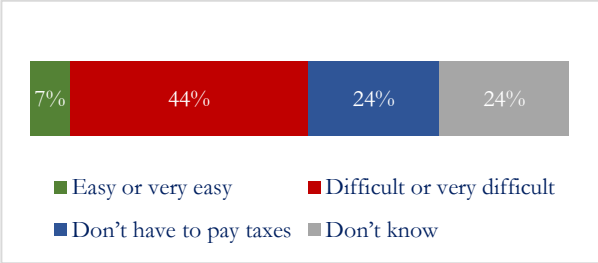
Survey question: "Please tell me whether you agree or disagree: The tax authorities always have the right to make people pay taxes.

B. Right or Wrong: not paying taxes



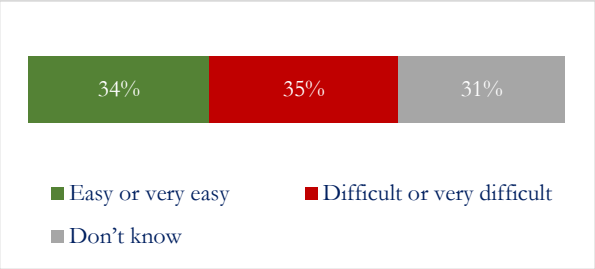
Survey question: Please tell me whether you think that not paying the taxes people owe on their income is not wrong at all, wrong but understandable, or wrong and punishable?

C. Difficulty to avoid paying taxes



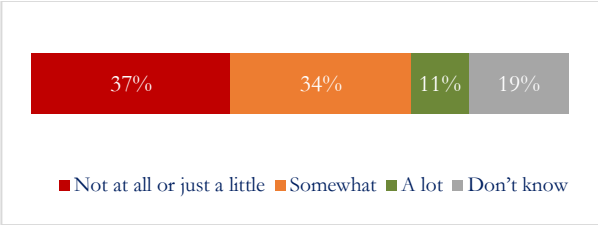
Survey question: "Based on your experience, how easy or difficult is it to avoid paying the income or property taxes that you owe to government?"

D. Difficulty to find out what taxes or fees to pay



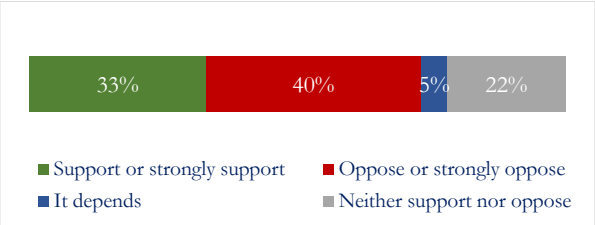
Survey question: "Based on your experience, how easy or difficult is it to find out what taxes and fees you are supposed to pay to the government?"

E. Trust tax department



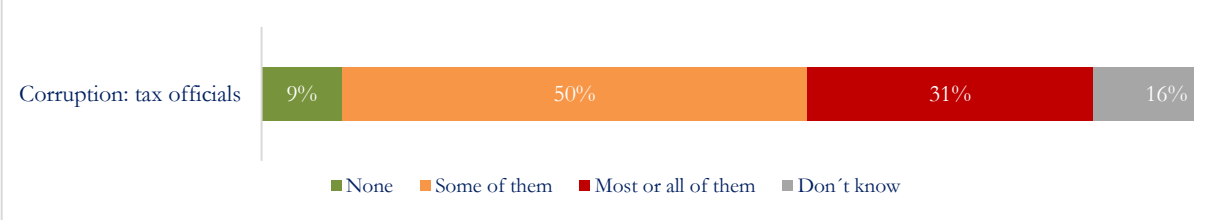
Survey question: "How much do you trust the Tax Department, or haven't you heard enough about them to say?"

F. Pay more taxes to increase health spending



Survey question: "If the government decided to make people pay more taxes or user fees in order to increase spending on public health care, would you support this decision or oppose it?"

G. Corruption of tax officials



Survey question: How many of the following people do you think are involved in corruption, or haven't you heard enough about them to say? Tax Officials, like Ministry of Finance officials or Local Government tax collectors

Source: Afrobarometer (R6 2014/2015).

Annex 1. 1. Quasi-Fiscal Operations of the CBE

#	Initiative	Date	Details	Size (EGP Billion)	Rate	Prevailing lending rate	Complete disbursement of dedicated funds
	Total			**610.5**			
1	SMEs financing initiative	Jan-2016	CBE launches a comprehensive program to incentivize banks to finance SMEs, aimed at providing financing over 4 years for 350K company, **and** creating 4 million job opportunities through increasing the ratio of loans granted to SMEs to no less than 20% of the total banks' loan portfolio.	200	5% (declining)	10.25%	
2	Medium-sized companies operating in the industrial and agricultural sectors	Feb-2016	Providing financing for established or newly established companies in the industrial and agricultural sectors to finance machinery, equipment or new production lines for a maximum period of 10 years.	5	7% (declining)	10.25%	Jan-20
3	Tourism Initiative	Feb-2016	Possibility to carry over all existing debt obligations (for long-term and/or short-term facilities) in addition to capitalizing the interest on the principal and not charging interest on the postponed installments for a maximum of 3 years.		NA	10.25%	
4	Low and Middle-Income Mortgage Finance Initiative (An adjustment to the original initiative announced in 2014)	Feb-2016	Banks to allocate real estate financing equivalent to EGP 10 billion (at lower interest rates) for 20 years.	10	1. 5 and 7% for Low-income beneficiaries 2. 8% for Middle-income beneficiaries 3. 10% for Above Middle-income beneficiaries	10.25%	
5	Tourism Initiative	Dec-2016	Extension of initiative #3 for one additional year and extension of the retail loans initiative for workers in the tourism sector (announced in December 2015) for a period of 6 months.		NA	15.75%	
6	Replacement and renewal of residence hotels, floating hotels, and tourist transport fleets	Feb-2017	Banks to lend a total of EGP 5 billion to support the tourism sector whereby the maximum loan-term is of 10 years. The bank finances a maximum of 75% of the total cost of replacement and renewal, provided that the beneficiary bears the remaining 25%.	5	10% (declining)	15.75%	

7	Amendment of the SMEs initiatives (#1 and #2)	Mar-2017	1. Adding the new and renewable energy sector to initiative #2 2. Avail additional EGP 10 billion (in tranches) through banks to grant short-term credit facilities to finance working capital for companies and SMEs in the industrial, agricultural, and new and renewable energy sectors especially those who export or work on providing import substitutes.	10	12%	15.75%	Mar-18
8	Amendment of the SMEs initiative (#1)	May-2017	Amending initiative #1 to include microfinance		NA	17.75%	
9	Low and Middle-Income Mortgage Finance Initiative (An adjustment to the original initiative announced in 2016)	Jun-2017	Revising eligibility criteria for the program and revising interest rate on the loans.		5 and 7% for Low-income beneficiaries (declining) 8% for Middle-income beneficiaries (declining) 10.5% for Above Middle-income beneficiaries (declining)	17.75%	
10	Retail loans initiative for workers in the tourism sector (An adjustment to the original initiative announced in 2015)	Jun-2017	Extension of the initiative till end of December 2017. The initiative was first announced in December 2015 allowing banks to postpone collection of the obligations on workers in the tourism sector (consumer loans and real estate loans).		NA	17.75%	
11	Amendment of the SMEs initiative (#1)	Jul-2017	CBE revised the minimum threshold for benefiting from initiative #1 from EGP 1 million to EGP 250K, for companies with annual sales lower than EGP 1 million. The vast majority of companies operating in the agribusiness sector (agro-industrial, dairy, fodder, fish, poultry and livestock...etc.) belongs to that category.		5% (declining)	19.75%	

12	Low and Middle-Income Mortgage Finance Initiative (An adjustment to the original initiative announced in 2016)	Oct-2017	Increasing the amount that banks should grant to beneficiaries at lower interest rates from EGP 10 billion to EGP 20 billion.	10	5 and 7% for Low-income beneficiaries (declining) 8% for Middle-income beneficiaries (declining) 10.5% for Above Middle-income beneficiaries (declining)	19.75%	Jan-19
13	Retail loans initiative for workers in the tourism sector (An adjustment to initiative #10)	Dec-2017	Extension of the initiative till end of December 2018			19.75%	
14	Retail loans initiative for workers in the tourism sector (An adjustment to initiative #10)	Dec-2018	Extension of the initiative till end of December 2019			17.75%	
15	Amendment of the SMEs initiative (#1)	Mar-2019	Adding agricultural cooperatives to the beneficiaries of initiative #1		5% (declining)	16.75%	
16	Industrial private sector initiative	Dec-2019	1. Granting credit facilities to regular companies operating in the industrial private sector, with annual revenues ranging from EGP 50 million - 1 billion. 2. The initiative grants credit facilities for financing working capital, machinery and equipment.	100	10% (declining)	13.25%	
17	Low and Middle-Income Mortgage Finance Initiative	Dec-2019	To grant beneficiaries of the initiative mortgage loans equivalent to EGP 50 billion over 20 years.	50	10% (declining)	13.25%	
18	Industrial private sector initiative (An adjustment to initiative #16)	Dec-2019	1. The initiative to provide financing for the purchase of raw materials, production requirements, working capital and machinery and equipment. 2. Adding non-regular customers to the beneficiaries of the initiative based on credit assessment studies provided by banks.		10% (declining)	13.25%	

19	Retail loans initiative for workers in the tourism sector (An adjustment to initiative #10)	Jan-2020	Extension of the initiative till end of December 2020			13.25%	
20	Replacement and renewal of residence hotels, floating hotels, and tourist transport fleets	Jan-2020	Banks to lend a total of EGP 50 billion to support the tourism sector with the following conditions: 1. Maximum loan-term of 15 years 2. The bank finances a maximum of 75% of the total cost of replacement and renewal, provided that the beneficiary bears the remaining 25%. Banks to lend a total of EGP 50 billion to support the tourism sector whereby the maximum loan-term is of 10 years. The bank finances a maximum of 75% of the total cost of replacement and renewal, provided that the beneficiary bears the remaining 25%.	50	10% (declining)	13.25%	
21	Adjusting the ratio of real estate financing to the total loan portfolio	Feb-2020	Adjusting the ceiling for mortgage loans in banks to 10% of the total banks loan portfolio (up from 5% earlier) with the exception of Egyptian Arab Land Bank (EALB) and Housing and Development Bank (HDB)			13.25%	
22	Replacement and renewal of residence hotels, floating hotels, and tourist transport fleets (An adjustment to initiative #20)	Mar-2020	1. Adjusting interest rate to 8% instead of 10% 2. Granting credit facilities to facilitate paying salaries, wages, outstanding obligations of specific tourism activities. Those credit facilities are to be repaid over a maximum period of two years, in addition to a grace period of 6 months (from the date of granting the financing) during which the interest will be capitalized.		8% (declining)	10.25%	
23	Industrial private sector initiative (An adjustment to initiative #16)	Mar-2020	1. Adjusting interest rate to 8% instead of 10% 2. Adding agricultural companies to beneficiaries of initiative #16		8% (declining)	10.25%	
24	Industrial private sector initiative (An adjustment to initiative #16)	Apr-2020	Granting credit facilities to regular companies operating in the industrial private sector, the agricultural and agricultural processing sectors with annual revenues greater than EGP 1 billion.			10.25%	
25	Industrial private sector initiative (An adjustment to initiative #16)	May-2020	Allow companies operating in the contracting sector whose annual revenues are EGP 50 million or more to benefit from the initiative of the private industrial sector and the agricultural sector.		8% (declining)	10.25%	

26	Industrial private sector initiative (An adjustment to initiative #16)	May-2020	The initiative to provide financing for wages and salaries and electricity, gas and diesel bills in addition to the purchase of raw materials and production requirements, working capital financing as well as financing machinery and equipment.			10.25%	
27	Low and Middle-Income Mortgage Finance Initiative	May-2020	Adjusting interest rate to 8% instead of 10%		8% (declining)	10.25%	
28	Tourism Sector Salaries	Jun-2020	The Ministry of Finance to issue a guarantee, equivalent to EGP 3 billion to be used to provide more support to the tourism sector and its workers (Within the EGP 50 billion - initiative #20). 85% of the loans granted under this guarantee are allocated to pay the salaries and wages of insured workers while the remaining 15% is allocated to finance maintenance and operating expenses.		5% (declining)	10.25%	
29	Industrial private sector initiative (An adjustment to initiative #16)	Jun-2020	Including the following in initiative #16: 1. Newly established companies that are categorized as "Medium Companies" based on their capital until income statements are availed to be able to classify the companies' size. 2. "Small companies" affiliated to large corporations or clients with higher solvency ratios.		8% (declining)	10.25%	
30	Retail loans initiative for workers in the tourism sector (An adjustment to initiative #10)	Dec-2020	Extension of the initiative till end of December 2021			9.25%	
31	Dual-fuel vehicles initiative	Jan-2021	Banks to avail EGP 15 billion of loans at an interest rate of 3% (Fixed) to individuals wishing to replace their vehicles with vehicles that run on dual fuel. The term of the loans ranges from 7 to 10 years.	15	3% (fixed)	9.25%	
32	Amendment of the SMEs initiative (#1)	Feb-2021	Increasing SMEs financing to 25% of the total banks' loan portfolio (instead of 20%) till end of December 2022.			9.25%	
33	Amendment of the SMEs initiative (#1)	Apr-2021	Allowing bakeries المخابز البلدية that aim to transition to use of natural gas to benefit from the initiative.		5% (declining)	9.25%	
34	Low and Middle-Income Mortgage Finance Initiative	Jul-2021	Banks to allocate real estate financing equivalent to EGP 100 billion with an interest rate of 3% (declining) for a maximum term of 30 years.	100	3% (declining)	9.25%	
35	Modern and smart irrigation methods initiative	Nov-2021	The total funding allocated to this initiative amounts to EGP 55.5 billion (US$ 3.53 billion), guaranteed by the Ministry of Finance. The farmers benefiting from the initiative pay the cost of switching to modern irrigation systems in installments over 10 years without bearing any interest costs.	55.5	0%	9.25%	

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CHAPTER 2. SOCIAL ASSISTANCE: MEETING THE RISING NEEDS AND ENHANCING EFFECTIVENESS

A. Overview of the Social Assistance (SA) Programs: Scope, Definitions and Institutional Framework

Social protection programs have evolved significantly in the last decade, yet the efficient and effective allocation of public social assistance spending, as well as some of the programs' design and implementation remain a challenge.

34. **Social protection policies vary widely in their design and are implemented by governments across the world to help achieve development objectives**. Social protection policy can be defined broadly as a set of programs that aim to foster equitable, sustainable and long-term economic growth by alleviating poverty, protecting against risk and uncertainty, assisting planning over the life cycle and helping households in making investments in health and education.[18] Within social protection, social assistance programs are those that provide non-contributory benefits in cash or in-kind whilst social insurance programs provide benefits based on contribution. Skills development and productive inclusion programs provide services to increase the productive capacity of people to compete more fairly in labor markets. In this report, the focus is on social assistance programs where the primary function is to protect livelihoods through direct support whilst also promoting human capital investment, particularly for the poor and vulnerable.

35. **Well-designed and implemented social assistance programs can play an important role in mitigating welfare loss from unexpected shocks to livelihoods, such as those attributable to the COVID-19 crisis.** In response to COVID-19, governments across the world have launched unprecedented social protection responses. Social protection responses totaled more than 3,856 initiatives as of March 2022; 61 percent of which were social assistance programs). About a quarter of the data on these programs include budget information which suggests SP expenditures accounted for 18 percent of the total fiscal package spent – nearly five-fold the level seen during the 2008 monetary crisis. (Gentilini et al, 2022).

36. **The response scope however is linked, to some degree, with delivery system capabilities.** Countries that were able to leverage both digital ID and different databases to allocate COVID-19 response benefits expanded coverage 39 percentage points more than those that could not (Barca, 2021). In MENA, cash transfer program responses in Djibouti, Iraq, Jordan, Morocco, and Tunisia were anchored in comprehensive social registries. Similarly, Egypt leveraged the beneficiary management operation system of the Takaful & Karama transfer program (TKP-MIS), as well as the Unified National Registry (UNR), to respond to crises in times of need. For instance, the TKP was expanded to 411,000 additional households in response to the COVID-19 crisis and the ensuing income losses. In April 2022, an additional 450,000 households were included in the program to promote inclusion and help mitigate the impacts of the local currency depreciation and the Ukraine-Russia war. Later in July 2022, the government announced a number of measures in response to the macroeconomic pressures. In terms of food subsidies, these include a temporary increase of 100 EGP on ration cards for a period of six months to help alleviate the pressure of soaring inflation on poor and vulnerable households who are either recipients of T&K, pensioners with less than 2,500 EGP, or government employees earning less than 2,700 EGP per month, this was then raised to EGP 300 in August. The government has also announced the expansion of coverage for the TKP beneficiaries by 1 million additional households.

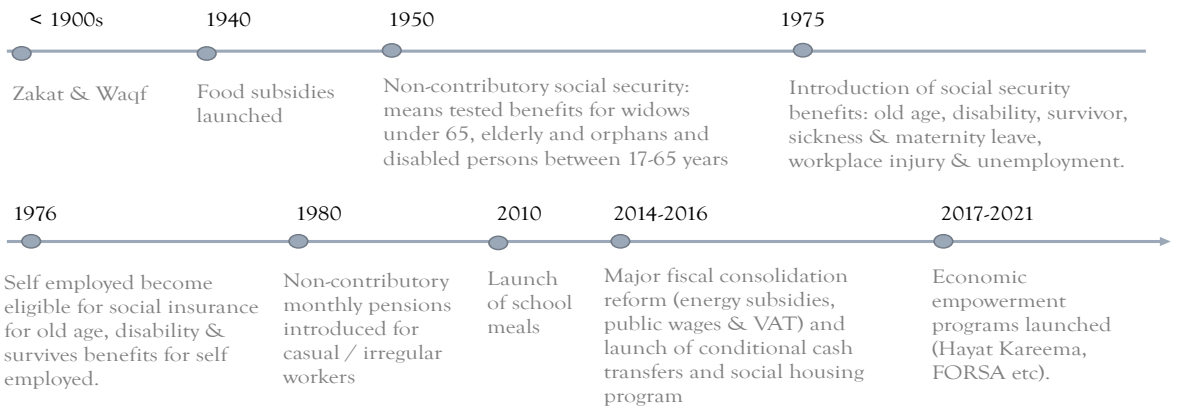
37. **Since the 1940s, Egypt has implemented a range of social protection programs that aim to protect people from shocks and lifecycle risks.** In the earlier years, the main risks governments sought to address were food insecurity through the provision of food subsidies in the 1940s (Figure 2. 1). This initiative was soon

[18] World Bank (2019)

followed by the protection of risks for old age, disability and other types of risks and vulnerabilities through both non-contributory schemes (with social assistance programs for vulnerable groups initiated in the 1950s) and contributory schemes (with social security benefits launched in 1975 and onwards). In the last decade however, other programs have emerged to cover additional risks such as learning deficits faced at school due to poor nutrition, leading to the launch of the school feeding program in 2010.

38. **Social protection programs have evolved significantly in the last decade, notably with the introduction of conditional cash transfers.** Between 2014 and 2016, major adjustments to economic policy took place, including the phasing out of the energy subsidies. This period also saw the launch of conditional cash transfers programs Takaful & Karama (TKP) and a new social housing initiative. The former, in particular, marks an important departure from previous policy. In this new approach to social assistance, the use of poverty targeting to direct public spending to the poorest households, and the use of conditions tied to the receipt of cash transfers, both sought to address the human capital deficit faced by the poor. More recently, recognizing that direct support through in-kind of cash transfers cannot reduce poverty alone, productive inclusion/economic empowerment programs (such as FORSA) as well as comprehensive village level development (Hayat Karima) were launched by the government. At the same time, existing major programs underwent several adjustments, notably the food subsidy system.

Figure 2. 1. Evolution of social protection programs in Egypt



Source: Ameta, D & Shafie, H. (2015)

39. **These reforms have garnered significant - though declining - budget allocations.** In FY2013, public expenditure on social protection was absorbing about one-third of total government spending. A steep decline in spending occurred between FY13 and FY20, following the phasing out of energy subsidies. The large budget savings generated by this important reform however did not translate into real increases in spending on major SA programs.[19] While spending on social assistance programs (excluding energy subsidies) grew in nominal terms with the launch of TKP and social housing, spending on major SA programs in real terms has remained stable at around 2.1 percent of GDP in FY20. This level of spending is well above the global average of 1.5 percent, the MENA average of 1.0 percent and the high-income country average of 1.9 percent.[20]

[19] These include Takaful & Karama, food subsidies and school feeding.
[20] World Bank (2018)

40. **Despite these reforms, poverty reduction and human capital acquisition have been slow.** In 2020, close to one-third of Egyptians are still poor (29.7 percent) and another third of the population lives just above the poverty line and are considered vulnerable to becoming poor.[21] The World Bank's Human Capital Index indicates that a child born in Egypt is estimated to be only 49 percent as productive when she grows up as she could be if she received full education and health services – the global mean comprises 56 percent with index values ranging between 37 percent and 70 percent for low and high-income countries respectively. These outcomes are low for the overall population in Egypt but are lower for the poorest households, by 13 percentage points versus the human capital index for households in the richest 20 percent of the population.

41. **Though impressive progress in the Egyptian social protection sector have occurred, challenges remain.** As this chapter will develop, some of these challenges are anchored in the efficient and effective allocation of public spending on the sector whilst others relate to the design and implementation of programs themselves. These challenges and some options for reform are further detailed in the rest of the chapter.

42. **This Social Assistance Public Expenditure Review (SA PER) is structured as follows.** After defining key concepts and discussing methods used, an overview of the institutions that govern social assistance program implementation is provided. This is followed by an analysis of spending trends on social protection, subsidies, and social assistance programs, which is also discussed in light of a recent fiscal incidence analysis that is used to ascertain fiscal efficiency and effectiveness. For each major social assistance program, design elements, technical and allocative efficiency and effectiveness are analyzed where data is available, alongside challenges and reform opportunities. Following an overview of key delivery systems in which these programs are anchored, a range of options and scenarios for reforming food subsidies and cash transfers, as well as key findings and recommendations, are presented.

43. **Given the diverse range of challenges faced by different groups in the population, SA programs vary in the types of support provided through different - yet interrelated - objectives**. These objectives include poverty alleviation, protecting against risk and uncertainty, assisting planning over the life course and investing in health, education and skills. Depending on the social contract and overall government objectives, some SA programs can aim to cater to different segments of the income distribution, including the poor and vulnerable but also to other population groups in need of support (widows or those living with disabilities, for instance). Poverty alleviation being a primary goal of most SA programs, determining the relationship between spending and the impact of social assistance is a primary focus of this review and is analyzed for each program where household survey data is available. Impacts on the human capital acquisition were estimated rigorously for TKP and are presented in the cash transfers section.

44. **The SA-PER follows a simple analytical framework that develops the performance of social assistance according to several concepts**. As set forth in Figure 2. 2, adequacy and effectiveness, distributional and technical efficiency are reviewed for each of the major SA programs included in this review (Table 2. 1). Key concepts that are used to ascertain each of these include *coverage* which indicates the share of a population group receiving a program (disaggregation is often done along with the welfare distribution so that coverage among the poorest 10, 20 or 40 percent is developed. A measure of targeting[22] efficiency is *beneficiary incidence* is a key concept that shows the share of total program benefits across the aforementioned groups (or others such as quintiles). *Adequacy* is an estimation of the value of benefits that programs deliver to beneficiaries, this is often denominated against a consumption or income aggregate and viewed for target beneficiary groups. These indicators are established through HIECS survey data analysis.

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[21] GoE (2020) CAPMAS launch of the 2019/2010 Household Income Expenditure and Consumption Survey. Summary file. Unpublished.

[22] Targeting is a process within beneficiary eligibility determination and often synonymous with poverty targeting which is the practice of selecting beneficiaries based on their position in the welfare distribution. As developing economies have high informality income cannot easily be measured and so proxy means tests (PMT) are used to predict welfare based on a range of socio-economic conditions.

Figure 2. 2. Analytical framework

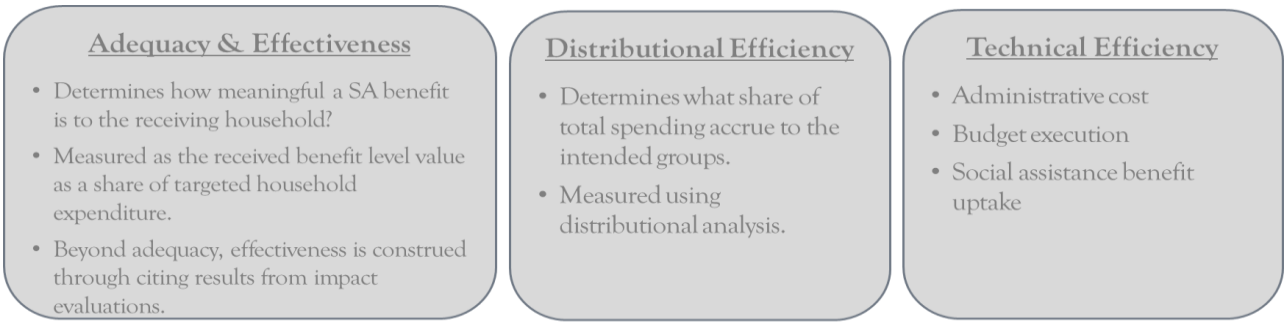


Table 2. 1. SAPER scope

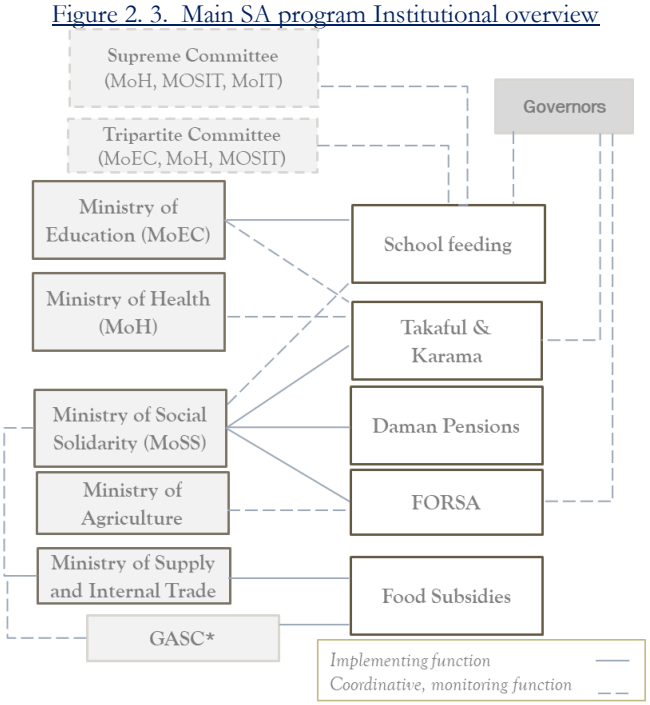
SA program	Budget FY2021 (Percent of GDP)	Coverage (2021)	Target Population	Fiscal Analysis	Distributional Analysis
Food subsidies	1.3 percent	69.7 mn individuals (bread) 63.5 mn individuals (ration cards)	General population	Yes	Yes
Takaful & Karama	0.2 percent	3.37 million HH	Poor households with children, elderly, disabled or orphans.	Yes	Yes
Daman (old social pension)	0.1 percent	390,000 HH	Elderly and vulnerable groups (orphans, widows, persons with disabilities) not covered by contributory schemes	Yes	No
Social housing program	0.3 percent	313,500 HH*	Income earners of EGP 2,500 - 5,700E per month, reviewed periodically; Age of 18-50 years;	Yes	No
School feeding	0.03 percent	16.6 million children	Children aged 4-12 years attending public or community school	Yes	Yes
FORSA	<0.01 percent	50,000 HH	Takaful & Karama beneficiaries (70 percent) and non TKP beneficiaries (30 percent) that are poor.	No	No

* Reflects coverage until end of FY2020.

Source: MoF (2021), MPED, SHMFF, MoF FY2021 Budget Statement, and MOSS

45. **TKP and school feeding are robustly institutionalized with actors supporting these programs across multiple levels of government.** See Figure 2. 3 The Ministry of Social Solidarity (MOSS) is the main entity in charge of implementing of social assistance programs. TKP conditionality achievement is however monitored and reported by schools and health units at the governorate levels to the Ministry of Health (MoH) and Ministry of Education and Technical education (MoETE), which shares this with MoSS. For the school feeding program, there are two committees providing oversight, with involvement from local governments. An inter-ministerial Committee for Social Justice, with MOSS as the main Rapporteur of this Committee, is mandated with the task of coordinating among key ministries to ensure an integrated vision of social protection. However, the Committee is not meeting regularly although they can play a great role to outline an integrated Social Protection Strategy for the country in the coming years.

Figure 2. 3. Main SA program Institutional overview



Note: The General Authority for Supply Commodities (GASC) is affiliated with the Ministry of Supply and Internal Trade and is responsible for procuring and costing subsidies commodities

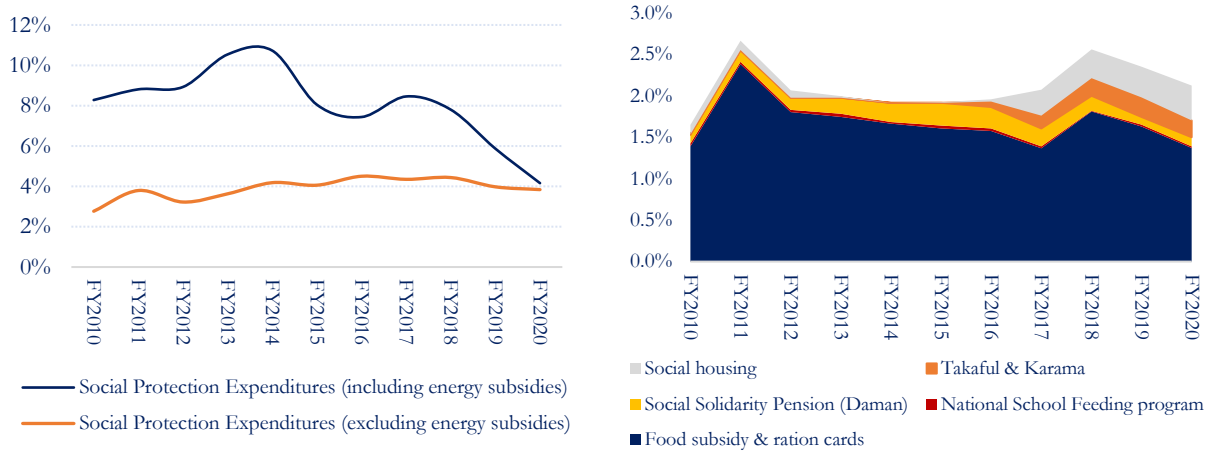
B. SA Spending: Trends, Effectiveness and Efficiency

An overall positive impact from fiscal policy on poverty as Egypt's main SA programs trigger a 6.5 percentage point reduction in poverty. The impacts are a function of beneficiary coverage and incidence amongst the poor and benefit level received

46. **In recent years, Egypt has completed a significant reform of energy subsidies.** Between 2017 and 2020, spending on energy subsidies declined from 4 percent to 0.3 percent of GDP. This was allowed by a combination of energy subsidies removal and declining global oil prices. This has created some space for increases in spending on several social programs, partially to mitigate the impact of subsidy removal on the most vulnerable groups. Despite these nominal increases in budget allocations to SA programs, spending on main programs remains unchanged in real terms, compared to pre-reform levels. Hence, resources freed-up from lower spending on energy subsidies contributed almost entirely to fiscal consolidation, with minimal redirection towards social spending. As such, social protection spending – excluding energy subsidies – has remained stable at an average of 4 percent of GDP since the reforms (Figure 2. 4).

47. **Spending on cash transfers also increased in nominal terms though remains stable at 0.3 percent of GDP (Figure 2. 5),** with the expansion in TKP partially happening through shifting Daman beneficiaries to TKP in light of the consolidation of the two programs. Since 2014, the social housing program has gained more weight, reaching 0.4 percent in FY2020, although a large part of it is classified as capital spending while the social assistance part remains modest at 0.03 percent of GDP.

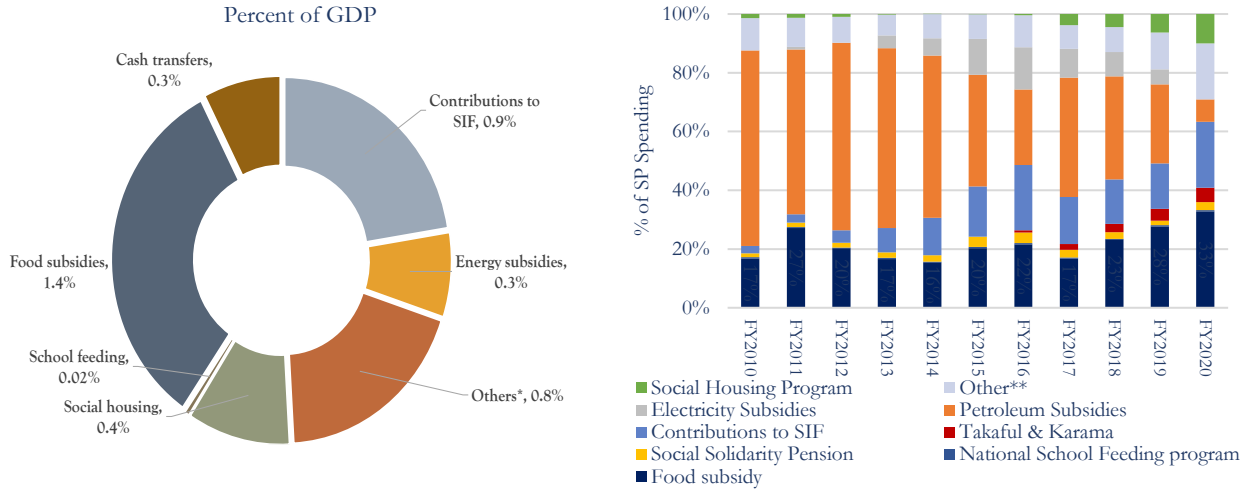
Figure 2. 4. National SP and core SA program spending, FY2010-FY2020 in percent of GDP



Note: Social protection spending includes food subsidies, cash transfers, school feeding, social housing, Contributions to SIF and other smaller programs (supporting exports and industrial zones, provision and rehabilitation of housing and slums (excluding the social housing program), Upper Egypt development, child's pension, grants and subsidies to farmers, transportation, water companies, natural gas grid extension, training, and healthcare.
Source: MoF Data and World Bank staff calculations.

48. **The decline in energy subsidies is a positive step and their phasing out has shifted the broad relative composition of social protection expenditure.** Whilst food subsidy spending still absorbs the majority of SA spending, cash transfers are gaining more weight but remain small (6 percent of total social protection spending in FY2020, compared to 2 percent in FY2017) (Figure 2. 5). Major social assistance programs (food, cash transfers, social housing and school feeding) under the scope of analysis receive 2.1 percent of GDP. In FY2020, spending on social housing exceeds spending on all cash transfer programs (including TKP and Daman). Besides high spending on food subsidies and social housing, contributions to social insurance funds (SIF) remain substantial. The analysis on social insurance/pensions expenditures is covered in Chapter 3 of this review.

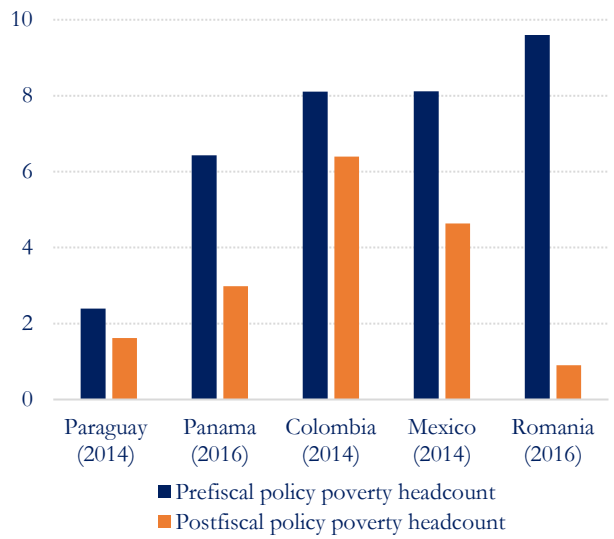
Figure 2. 5. FY2020 share and 10-year composition of SP and SA spending



Note: ** Others comprises spending that is mixed between social protection spending and other themes including: supporting exports and industrial zones, provision and rehabilitation of housing and slums (excluding the social housing program), Upper Egypt development, child's pension, grants and subsidies to farmers, transportation, water companies, natural gas grid extension, training, and healthcare. Several of the social assistance programs in this category were not included due to programs being small in size and/or there being limited data available to analyze them. Source: MoF Data and World Bank staff calculations.

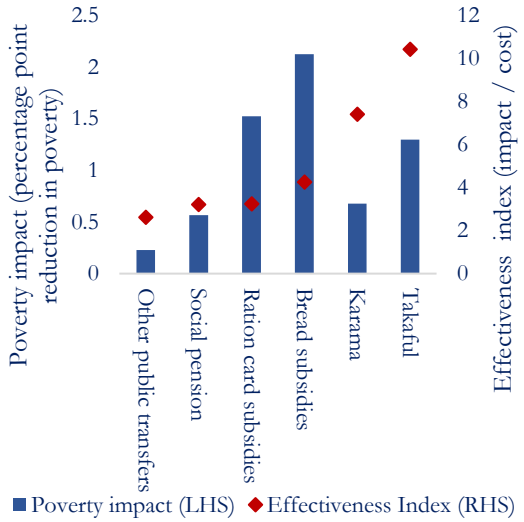
49. **Social assistance can directly reduce poverty as part of a progressive fiscal policy package.** Depending on the set of taxes and transfers enacted under a fiscal policy regime, countries can reduce poverty and inequality to different degrees (Figure 2. 7). For example, in the absence of fiscal policy (including both spending and taxes), extreme poverty in Romania in 2016 would have been over 9 percent; through its fiscal policy package, the government reduces the extreme poverty rate ($1.9 PPP per day) by an estimated 8 percentage points.

Figure 2. 6. Changes in poverty due to fiscal policy



Source: CEQ analyses

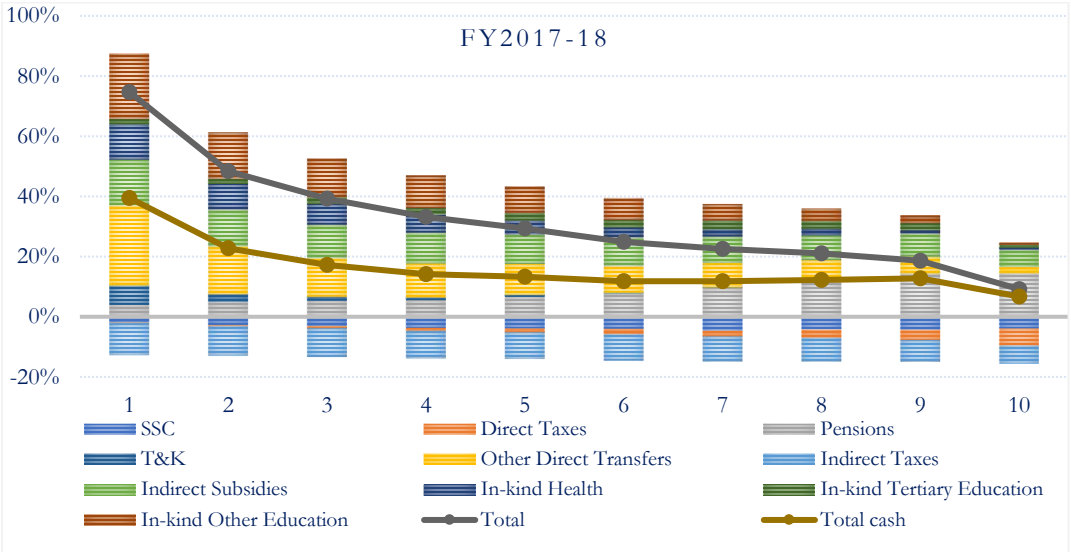
Figure 2. 7. Changes in poverty and effectiveness index in Egypt, decomposed by major SA programs

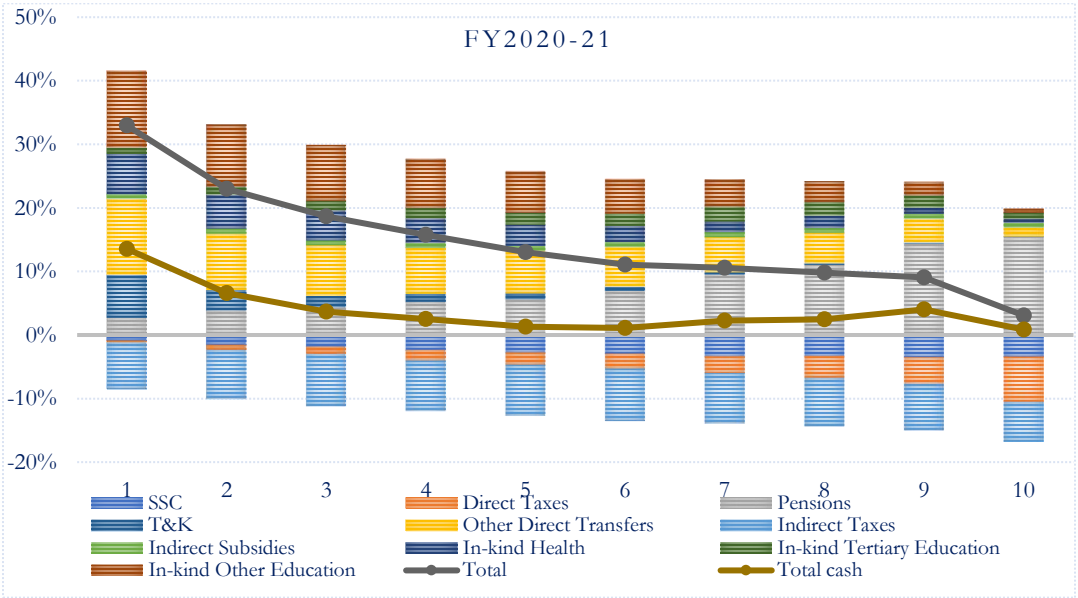


50. **In Egypt, the impact of fiscal policy on poverty and inequality was recently estimated.**[23] Figure 2. 7 presents impacts that were generated from the household survey (HIECS 2017/2018), Egypt's main SA programs trigger a 6.5 percentage point reduction in poverty; the net impact from overall fiscal policy (excluding spending on health and education) is 2.4 percentage points as direct and indirect taxes lower the share of income that is consumable. Food subsidies and TKP trigger the largest reductions in poverty. These impacts are a function of beneficiary coverage and incidence amongst the poor (30 percent of the population) and benefit level received (adequacy). The effectiveness index expresses poverty impacts over total spending allocated to each program. Whilst food subsidies have the highest impact on poverty reduction, they also attract the largest budget (1.4 percent of GDP). TKP yield lower impacts though these are achieved at much lower spending (0.3 percent of GDP). To attain a higher effectiveness in reducing poverty through SA, increased spending should be allocated toward targeted cash transfers that bear more impact at lower costs.

[23] World Bank and MOF (2022). See Annex 2. 4. for a summary of the methodology and results.

Figure 2. 8. Fiscal incidence of transfers and taxes





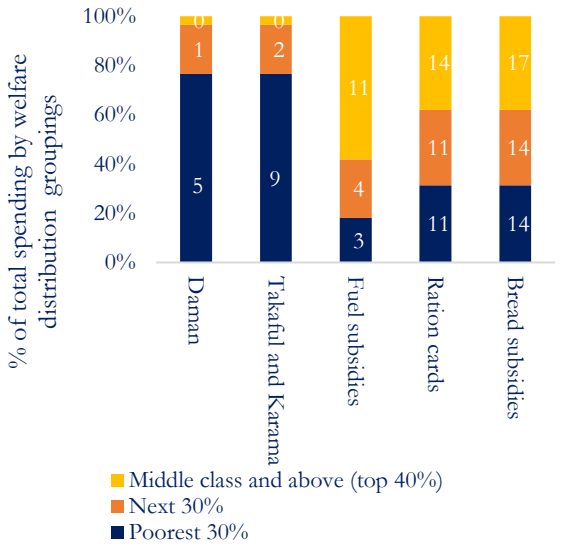
Note: Results represent the net cash positions as of FY17/18 and FY20/21. Budgetary support to pension is expected to be regressive since they are linked to past earnings. The total cash trend combines only direct transfers whilst the total series represents the sum of cash and in-kind services, net of taxes.
Source: World Bank & MoF (2022) Fiscal Incidence Analysis Tool for Egypt

51. **In comparison to the incidence of Egyptian fiscal policy in 2017, benefits net of taxes fell for each decile**. This decline is largely on account of reduction in energy subsidies which were not compensated fully as Takaful and Karama coverage increased. Figure 2. 8 show transfers received (direct and in-kind) and taxes paid as a share of pre-fiscal income, for each decile. Spending on TKP is progressive, as are direct taxes. Ration card benefits and bread subsidies are progressive in relative terms but mostly net neutral in their incidence across the welfare distribution. Furthermore, indirect taxes are regressive because they are based on consumption. In

both years, the bottom three deciles benefit the most from spending on direct transfers such as food subsidies, TKP and energy subsidies and also participates less in social security schemes. In the 2020-21 budget, the middle deciles are nearly net neutral and gain little support from direct transfers. Net direct benefits, shown as "Total cash" (net impact of all transfers-taxes except for in-kind transfers) from direct social spending and taxes as a share of own income fell between 2017-18 and 2020-21 budget for all but the bottom 3 deciles.

52. **Poverty targeted programs are far more progressive than untargeted subsidies.** Viewing the incidence of social assistance transfers amongst the poorest 30 percent, next 30 percent and middle and upper classes (top 40 percent) (Figure 2. 9), it is clear that poverty targeted programs are strongly pro-poor in their distribution. Assuming a constant beneficiary incidence once Daman is consolidated within TPK and using its targeting methodology, it would display a similar incidence to the poorest groups in the population. Programs and subsidies that are not poverty targeted have a lower incidence for the poor by design. The broad-based and untargeted food subsidy scheme is distributed equally across the population. Fuel subsidies still comprise nearly 19 billion EGP of which most is received by the top 30 percent of the population.

Figure 2. 9. Share of program/subsidy scheme spending in FY2020 across welfare distribution groupings (percent of total spending and in EGP billion)



53. **While SA coverage correlates with the incidence of poverty, large coverage gaps are apparent.** Though food subsidy coverage is high across the country, TKP coverage is correlated with poverty rates as it uses poverty and geographic targeting. In all areas, TKP and school feeding coverage rates are far below the poverty rate - the largest gaps are in metropolitan areas.

54. **In summary, several conclusions emerge from the fiscal and broad effectiveness and efficiency analysis.** SA programs attract large budget allocations, but spending remains stable in real terms even after the phasing out of energy subsidies**.** Energy subsidy reform and tax reform have increased fiscal space though this has not translated to increased net final income among the poor. Spending on social housing has substantially increased in recent years, outweighing spending on cash transfers. Food subsidies appear to trigger the largest reductions in poverty, but cash transfers have the highest efficiency (more poverty reduction for every EGP spent). For non-poverty targeted programs, the majority of spending accrues to the middle- & upper-income groups. Because it is poverty targeted, TKP displays strong incidence to the poorest 30 percent. Yet, in all geographic areas, TKP coverage is far below the poverty rate indicating under coverage by design.

C. Program-focused analysis

55. **The following section focuses on the four main existing social assistance programs.** Key data on program design, coverage, spending, eligibility criteria, benefit levels, budget execution rates, allocative efficiency and direct / indirect effectiveness are used to discuss the performance of each program, where data is available.

1. Cash transfers – Takaful & Karama, Daman

The increased spending on cash transfers has been efficiently allocated, benefitting the poor and vulnerable most. Yet, many poor and eligible households do not receive TKP. At the current coverage level, expanding coverage is more cost effective than raising benefit levels.

56. **The Takaful & Karama program, and the social solidarity pension (*Daman*) are the primary cash transfer programs active in Egypt.** Takaful and Karama (TKP) consist of conditional and unconditional cash transfers providing cash benefits, with the conditions being tied to health and education behaviors of recipients. The programs provide income support to households with children under 18 years of age (Takaful), the elderly poor, orphans, widows and people living with disabilities (PWD) (Karama). *Daman* is an old age social pension program that provides unconditional cash transfers, currently being dissolved and merged with TKP to move towards a unified cash transfer program that uses the same targeting criteria. The remaining beneficiaries of the Daman program will be reassessed to join TKP once the law on unified cash transfers is issued. All three programs are implemented by MoSS (Table 2. 2).

57. **Overall spending on cash transfers TKP and Daman has increased between FY12 and FY18.** Spending on Daman kept increasing until FY2018; thereafter it has been reduced to 81 percent of that level of spending and is set to be phased out through FY22. With the launch of the Karama program however, the Daman program started to reduce in coverage, which is intuitive as the two programs have the same eligibility criteria – thus motivating the ongoing merger of Daman and TKP (Figure 2. 10).

Table 2. 2. Takaful & Karama, Daman key program information and full TKP benefit levels

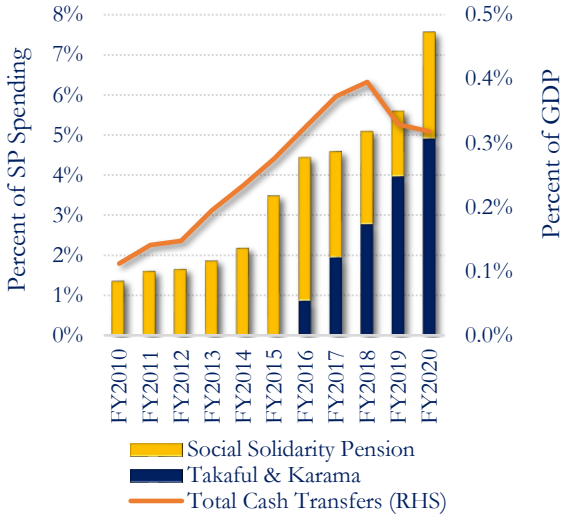
Program	Coverage (FY2020)	Percent of GDP (FY2020)	Eligibility	Benefit levels (Administrative data)
Takaful & Karama	3.37 million HH (Takaful: 2.1m, Karama: 1.26)	0.2	Households with children <18 (Takaful) elderly poor, orphans, widows and PWD (Karama). Selection of beneficiaries done through geographical and categorical criteria, with proxy means testing	*See detailed Takaful & Karama benefit levels table
Daman	390,000 HH	0.1	Elderly, orphans, widows, PWD who are not covered by contributory social security	EGP 320-450 for up to four individuals in the household.

Benefit level: Takaful	
Mother with Children	**Monthly Payment (in EGP)**
Base	325
0-6 years	60
Primary School Child	80
Preparatory (Middle) School Child	100
High School Child	140
Other parameters: Capped at 2 Children (Highest Education Level) & paid to female head of the HH.	

Benefit level: Karama	
No. of Persons who are elderly or living with disability	**Monthly Payment (in EGP)**
Persons living with disability transfer value	450
Elderly transfer value	450
Orphan transfer value	350
Other parameters: Capped at 3 Eligible Members per HH & paid to each individual separately.	

58. **Despite the positive trend in cash transfer spending, it has declined then stabilized in recent years and remains low in international comparison.** In FY2020, cash transfer spending reached 0.3 percent of GDP. This is less than half of the global average (0.9 percent), and lower than the MENA regional average (0.42 percent) (Figure 2. 11). It is also below the lower middle-income country average of 0.94 percent. Egypt's cash transfer spending is on par with that of several flagship programs in Asian countries (e.g., China Indonesia, and the Philippines); however, it is well below that of Latina American countries such as Mexico, Brazil and Argentina. As shown by recent impact evaluation evidence from Egypt (Figure 2. 14 & Figure 2. 15), cash transfers have proven effects in reducing poverty directly and promoting human capital accumulation for its beneficiaries helping to break the intergenerational cycle of poverty.

Figure 2. 10. Evolution of spending on TKP and Daman, FY2010-2020 percent of GDP and percent of SP spending.



Source: MoF (2021)

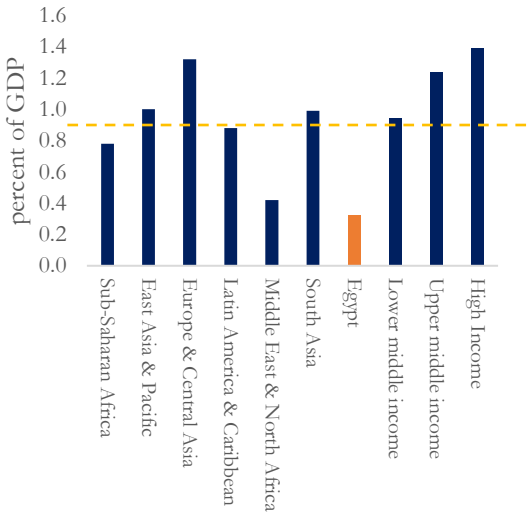
59. **The increased spending on cash transfers in Egypt has been efficiently allocated, benefitting the poor and vulnerable most.** Using the latest available household survey evidence, a fiscal incidence analysis[24] shows high program beneficiary incidence to the poor (Figure 2. 12). The analysis estimates that 86 percent of Takaful & Karama beneficiaries are amongst the poorest 40 percent of households. This signifies strong targeting performance complementing strong impacts on welfare relative to other major conditional cash transfer programs around the world (Figure 2. 13 & Figure 2. 16).

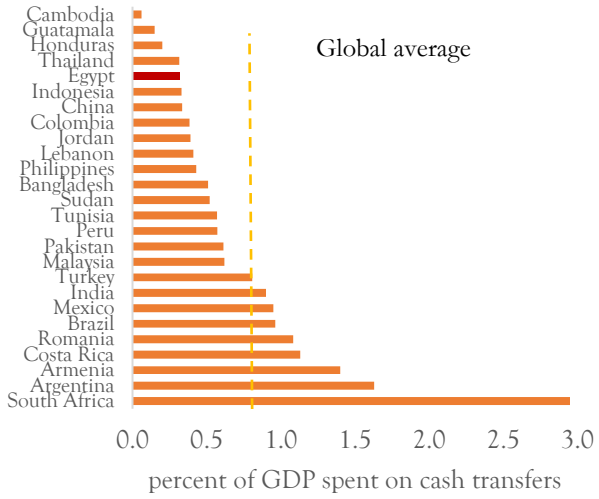
60. **Yet, many poor and eligible households do not receive TKP.** Notwithstanding strong targeting performance, exclusion errors remain due to the size of the program relative to the poverty rate, and because of errors inherent to the use of PMT in targeting practices. Whilst about 30 percent of Egyptian households are poor, the program covers only 15 percent of the population, resulting in approximately half of the eligible poor not included in the program (Figure 2. 14). As such, expansion of the program could help reduce exclusion errors, and raise poverty and human capital impact through the use of conditionalities tied to health and education.

61. **Technical efficiency of TKP is high, reflected in part through high budget execution rates.** The ability of the program to deliver benefits is high, as reflected in high budget execution rates of 115 percent in FY2018 and 100 percent in the following fiscal years. The TKP benefits from well-developed and automated monitoring and evaluation systems throughout the delivery chain. The program also has strong beneficiary outreach, support, grievance redress and social accountability systems across all governorates. Beneficiaries are selected based on their relative welfare from a database containing 8 million households (around 31 million people); this database is also used to allocate beneficiaries from other programs and initiatives.

[24] Since September 2020, the Poverty GP has been working closely with the Economic Justice Unit of the Ministry of Finance to build a Fiscal Incidence Analysis Tool customized to Egypt, following the CEQ approach. This tool has been used evaluate the impact of social spending and revenues on the Egyptian population and to test scenarios of how changes to social spending or revenue mobilization can affect people. Following requests from the Government of Egypt, the team has simulated a potential expansion of the coverage and/or benefits of national cash transfer program (Takaful and Karama), an expansion of the Education budget for basic education, as well as the effect of the recent reform of the personal income tax.

Figure 2. 11. Global spending on social assistance cash transfers





Source: World Bank (2020a) World Bank (2021d)

Figure 2. 12. Takaful & Karama beneficiary incidence HIECS 2019/2020

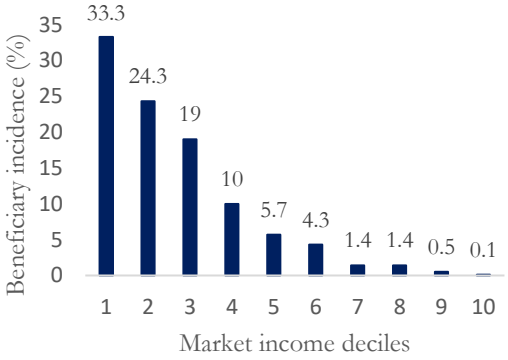
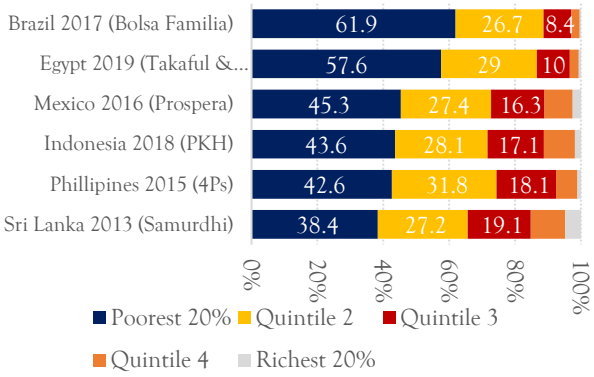
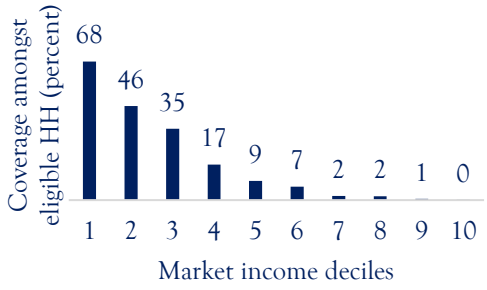


Figure 2. 13. Beneficiary incidence of major cash transfer programs



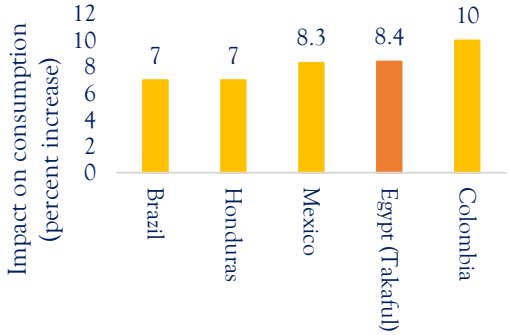
Source: World Bank & MoF (2021. World Bank calculations from Central Agency for Public Mobilization and Statistics (CAPMAS) HIECS 2019/2020. & World Bank (2021b) Expressed in pre-transfer welfare quintiles.

Figure 2. 14. Takaful & Karama Coverage 2019/2020



Source: World Bank staff calculations from CAPMAS HIECS 2017/2018. Survey coverage inflated to 2021 coverage level.

Figure 2. 15. Impact on consumption of Takaful in comparison to major CCT



Source: IFPRI (2018)

62. **The delivery of benefits has become more efficient through the roll out of digital payments, but the e-payments services are concentrated in a few entities**. Transfers of allocations are made through the electronic system provided by E-Finance[25] and the Post Offices, involving charges per transaction estimated in aggregate at 1 percent of the program cost in FY2020. E-Finance implements the central government's e-payment transactions, and the transaction cost is deducted from beneficiaries' allowances. Additionally, a system of interest rate float is in place to partially cover the costs of payment delivery, whereby the allocations are being transferred two weeks in advance to the Post agency so as to allow it to earn interest before processing the payment. More recently, the Takaful and Karama financial support cards are being replaced by *Meeza* cards to allow beneficiaries to withdraw cash from ATMs and conduct e-purchases.

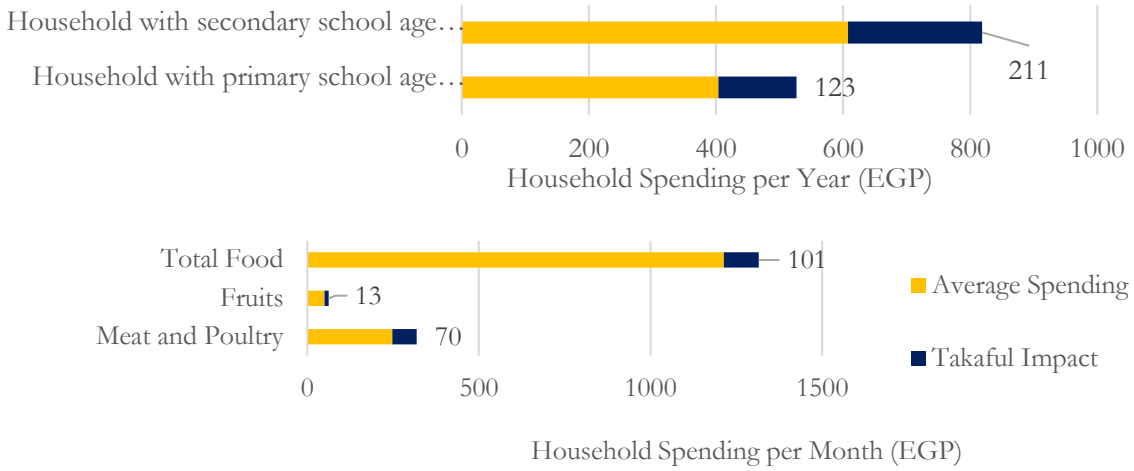
63. **Administrative costs, which typically covers the cost of staffing, technology and information devices and cards issuances, could not be fully estimated.** International experience indicate that administration costs vary widely depending on the targeting, size and maturity of the program. As programs expand, the administrative costs may rise in absolute terms but decline relative to the overall cost of the program. As programs mature, they may also manage to reduce administrative costs through process improvements, for example by shifting conditionality monitoring to line ministries, or by harnessing digital payment and monitoring systems. For TKP, the administrative cost of the program (excluding the cost of transfers via E-Finance & Post Offices and, IT equipment, and HR/personnel cost) was estimated by MoSS as being around 0.5 percent out of total program costs. To put it in perspective, Indonesia's PKH CCT administrative costs were just over 10 percent of total program costs in 2016, of which more than two-thirds were allocated to cover wages of program implementers at national and sub-national levels.

64. **TKP's effectiveness in achieving its goals is significant.** Supported by a solid program design and strong allocative efficiency, the TKP impact at the household level is in line with the program goal to support welfare and raise access to education and health services. An impact evaluation published by IFPRI in 2018 found that the program increased overall consumption of beneficiary households by a range of 7.3-8.4 percent, and reduced the probability of being below the extreme poverty line by 11 percent. The impacts on consumption are also well in line with other CCT implemented around the world such as Brazil's *Bolsa Familia* and Colombia's *Familias en Accion* (Figure 2. 15). It follows that expanding the coverage of the program would extend these impacts to existing but uncovered poor households, as well as to new households who are falling into poverty.

65. **Positive program impacts were also noted on food, nutrition and education.** The IFRI impact evaluation has shown improved nutrition/diet and more spending on education and some improvements in health outcomes. The evaluation finds an increase in food consumption by 8.3 to 8.9 percent, in addition to increases in expenditure on fruit and meat (Figure 2. 16), in weight-for-height z-scores for children under 2 and a decline in treatment for malnourishment for children under 6 by 3.7 percent. As the program was not yet enforcing health and education conditionalities, attendance or enrollment impacts on education were not estimated. However, recent administrative data suggests compliance to education conditionalities is high as all children under Takaful are enrolled in school. As with the impacts on welfare, these impacts on food, nutrition and education could be provided to other poor households through coverage expansion.

[25] E-Finance is a joint-venture company between the Ministry of Finance represented by NIB (70 percent), National Bank of Egypt (10 percent), Banque Misr (10 percent) and Egyptian Banks Company (10percent), in turned owned by CBE, MOF and a group of national and commercial banks.

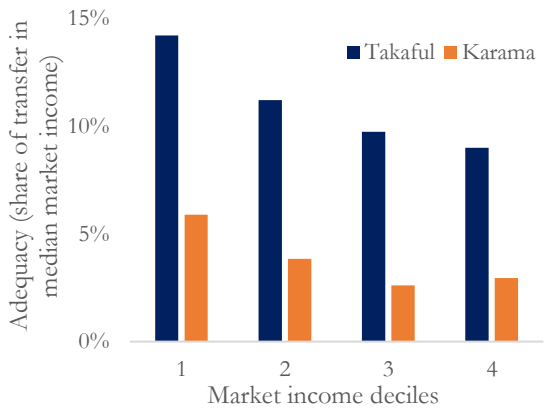
Figure 2. 16. Takaful impact on education and food expenditures



Source: IFPRI (2018)

Benefit levels are lower than typical CCT programs, indicating they could be further raised to bolster program effectiveness. The notion of adequacy captures the value of benefits, and reflects the program effectiveness through its ability to provide meaningful welfare support and allow families to invest in health and education services. HIECS survey data shows benefits received under Takaful average EGP 326 per month, equivalent to about 12 percent of post-transfer welfare per month amongst the poorest 20 percent (Figure 2. 17). Karama benefits are far lower, equivalent to 5 percent of post-transfer welfare amongst the poorest 20percent. These benefits, according to both HIECS 2017/18 and 2019/20, are lower than official administrative benefits. Moreover, both survey and administrative benefit levels are lower than the average global CCT transfer value of 15.6 percent of mean expenditure of the poorest 20percent, indicating they could be raised further to bolster the program effectiveness, particularly in areas with higher poverty rates.

Figure 2. 17. Adequacy of Takaful and Karama programs in the poorest 40 percent



Source: World Bank staff calculations from CAPMAS HIECS 2017/2018 received for World Bank / MoF FIA tools. 2017/2018 survey

66. **A range of recommendations emerge to enhance program efficiency and effectiveness, as well as to boost its technical efficiency.**

67. Expand the program to cover more eligible households; raising benefit levels would also bear impacts but more efficiently so after first expanding coverage to 5 million households. Increasing the effectiveness of TKP will depend on program coverage and benefits provided. Several scenarios of expansion

were simulated with a fiscal incidence analysis microsimulation tool[26]. Each scenario of expansion in coverage or benefit levels is associated to a positive impact on poverty reduction but also requires additional resources.

Table 2. 3. TKP: options for increased spending on raising coverage vs benefit levels of TKP - results table and illustration

#	Coverage (Million HH)	Benefit levels*	Total cost (EGP bn)	Marginal cost (EGP bn)	Poverty impact	Effectiveness index
baseline	3.4	constant	21.6		1.98	9.2
A	4	constant	24.9	3.3	0.42	12.7
B	3.4	raised Takaful base benefit to 400 EGP	24.9	3.3	0.27	8.2
C	5	constant	30.6	9	0.94	10.4
D	5	raised Takaful base benefit to 425 EGP	34.8	13.2	1.22	9.2
E	5.7	constant	34.8	13.2	1.19	9.0
F	7	constant	42.4	20.8	1.5	7.2
G	7	raised Takaful base benefit to 420 EGP	47.9	26.3	1.85	7.0
H	8.1	constant	47.9	26.3	1.77	6.7

Note: * approximating 19% of median consumption on average with the baseline benefit structure accounted for. Benefits in monthly per household terms. Increases in the benefit level were calibrated iteratively so scenarios are budget neutral allowing for comparisons.

68. **Policy makers can consider expanding coverage or raising benefit levels of the TKP.** Generally, expanding beyond the current baseline of 3.4 million households would generate poverty impacts due to more poor households receiving cash transfers that are pushed above the poverty line (see scenarios A, C, E and F). Another option would be to raise benefit levels but keep coverage constant: in that case, poverty reduction would ensue from existing beneficiary households receiving extra benefits that push some of them above the poverty line. The cost effectiveness in reducing poverty from either expanding coverage or raising benefit levels, at a fixed budget, depends on the shape of the consumption distribution and the depth of poverty, existing TKP coverage and benefit levels as well as the accuracy of the targeting methodology. As such, pursuing one option over the other may yield higher impact at the same cost at a given level of coverage as shown in Scenario A vs B, D vs E and G vs H. Besides impact on poverty, expanding coverage would help reduce exclusion errors whilst raising benefit levels lowers the depth of poverty for recipient households.

69. At the current level of coverage of 3.4 million households, expanding coverage is more cost effective than raising benefit levels. For instance, in expanding from 3.4 to 4 million households (Scenario A) at a marginal additional cost of 3.3 billion EGP poverty impacts beyond the baseline would be about 0.42 percentage points. Utilizing that same budget to instead raise benefit levels (B) of existing 3.4 million households would also reduce poverty, but by a lower degree, at 0.27 percentage points.

70. **Once coverage is raised to 5 million, it becomes more cost effective to first raise benefit levels before considering further expansion.** The notion of coverage expansion being more effective as a first policy option is intuitive as for scenario A, as coverage is well below the poverty line. However, as coverage is

[26] To estimate impacts, costs and cost/effectiveness of each scenario, a microsimulation model built on the Egypt-specific fiscal incidence analysis model jointly developed by the MoF and the World Bank is utilized. The advantage of simulating social assistance reforms in this model is that it captures impacts of overall fiscal policy, including direct and indirect taxes, direct transfers such as those under TKP, indirect subsidies and in-kind transfers. In measuring impact, the model allows for viewing the marginal impact of expansion in coverage or benefit (or a combination of both) versus a series of income concepts that take into account the distributive impacts of various fiscal policies. The effectiveness index is a measure of impact divided by marginal cost and is used as an expression of cost effectiveness. This figure varies throughout the simulations and depends on simulated coverage, benefit levels and their interplay with the depth of poverty (how far below the poverty line household consumption/income levels are). The impacts presented below are in addition to the estimated overall impacts of existing fiscal policy (from direct and transfers, with direct and indirect taxes taken into account).

raised it becomes harder to reduce poverty by expanding coverage alone and effectiveness in reducing poverty becomes comparatively higher when considering raising benefit levels. This can be seen as when reaching a coverage of 5 million households, it becomes more cost effective to raise benefit levels (D) than to use the same budget to expand coverage (E); as shown by a slightly lower effectiveness index than for scenario D. Similarly, as shown in G vs H, expanding from 7 to 8.1 million households at a marginal cost of 26.4 billion EGP would yield about 1.77 percentage points reduction in poverty versus the baseline of 3.4 million (or 0.27 percentage points in marginal terms). Spending the equivalent amount on raising benefits for 7 million households, rather than expanding to 8.1 million, would yield a reduction in poverty of about 1.85 percentage points versus the baseline (or 0.35 percentage points). At a coverage of 7 million households, exclusion errors amongst the poor would fall from about 50 percent (at the current coverage level) to 28 percent; expanding to 8.1 million would reduce these errors further to an estimated 12 percent.

71. Accurately assess the administration cost and resort to competitive processes. The administration cost of the TKP need to be assessed and compared to international norms. Given the volume of transactions, associated charges and funding costs, competitive selection of payment service providers could result in substantial savings in the programs' administrative cost. The (opportunity) cost of funding associated to the interest rate float should also be assessed and used only if it is lower than the transfer fees.

72. Leveraging digital technology. Digital technology can be used to promote the role of the social worker towards beneficiary support, strengthen case management and to facilitate the grievance redressal mechanisms. Further increasing payment cash out options for beneficiaries - including use of *Meeza* cards and mobile money agents – could raise ease of accessibility to the programs benefits and lower beneficiary transaction costs. The functioning of health and education conditionality monitoring and compliance could also be improved by further increasing digital network linkages with health and education authorities.

73. **Developing linkages to other social protection programs,** including insurance schemes and productive inclusion/graduation programs such as FORSA, while prioritizing poor households that receive TKP and those that are poor but may not be eligible for TKP. With the expansion of FORSA, focusing largely on TKP beneficiaries, it is expected the TKP-graduation rate can be increased which would make room for new entrants to TKP. This dynamism is central to design of TKP and the SP system as a whole.

2. Food subsidies

Food subsidies program is the largest social assistance program, yet the high level of coverage and low allocative efficiency is met with low adequacy. The system can be improved through strengthened delivery system, and more stringent changes in coverage, adequacy and targeting.

74. **The food subsidies program is one of oldest programs in the country dating from 1940, and is a key cornerstone of Egypt's social safety net.** The program subsidizes staple foods including the widely consumed Baladi bread. It benefits a large number of the population, with Baladi bread reaching 72 million individuals and ration cards covering 64.4 million individuals (Table 2. 4). According to the HIECS data for 2017/2018, the food subsidy system covers most of the poor, vulnerable and middle-income groups. The share of the population receiving ration cards and bread subsidies seems to have declined from 88 percent and 74 percent of households in the top two deciles in 2017/2018 to 76 percent and 60 percent 2019/2020, respectively. This indicates that the richer household deciles are benefiting less from the program, yet a majority still has access to it. The beneficiary incidence of the program is approximately 10 percent for each decile of the population and is only slightly reduced amongst the top two wealthiest household deciles (Figure 2. 18). Given its wide coverage, the program has been used to help offset socio-economic impacts of macroeconomic reforms.

75. **The food subsidies program is the largest social assistance program in Egypt and has the largest share in social assistance spending.** It absorbs 1.4 percent of GDP, and more than 32 percent total social assistance spending in FY2020. Moreover, the food subsidy budget is continuously over-executed (on average 144 percent for bread and 124 percent for ration cards in FY2018-FY2020, due to their nature as a price subsidy).

Table 2. 4. Food subsidies program information

Sub-component	Coverage (FY2020)	% of GDP (FY2020)	Eligibility
Baladi Bread	72 million individuals	0.8	Any household with a ration card purchasing bread
Ration Cards	64.4 million individuals	0.6	Non-wealthy households (based on six criteria including car / land ownership)

Source: MoF (2021)

76. The food subsidy system consists of three main components.

- **The ration cards system:** Beneficiaries are eligible to receive a monthly cash allowance of EGP 50 that could be spent on a group of goods within a basket of over 100 products sold in administered outlets with monitored prices.[27] Each household can enroll up to 4 members in the card with the full 50 EGP and any additional member will only receive 25 EGP.[28] Table 2. 5 provides a summary of the development of the monthly cash allowance and the number of beneficiaries in recent years.
- **The Baladi bread:** each individual is entitled to 5 loafs per day for a subsidized price of 5 piasters, as opposed to its cost ranging from 60-65 piasters per loaf, while the government compensates bakeries for the difference between the selling price and the production cost. Consuming less bread, however, implies more points added to the beneficiary's card to purchase other goods available under the ration card system. This "point-based incentive system" converts each loaf of bread saved from beneficiaries' daily consumption to points equivalent to money (10 piasters for each loaf of bread saved).
- **The flour warehouse subsidy:** certain beneficiaries can choose not to buy subsidized loaves of bread and instead receive monthly flour subsidy for 10 kilograms of flour per citizen (around 4.3 million beneficiaries in FY22 official food subsidy estimates).

Table 2. 5. Ration Cards subsidy system

	FY2017	FY2018	FY2019	FY2020
Estimated beneficiaries of ration cards (Million)	69.2	71.0	69.0	64.4
Ration cards subsidy (EGP Billion)	10.0	40.7	35.9	35.9
Ration cards subsidy (% of GDP)	0.29	0.92	0.67	0.61

Source: MoF (2021)

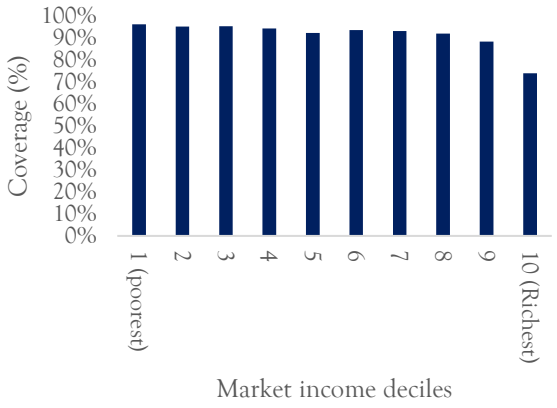
77. **The high level of coverage and low allocative efficiency is met with low adequacy**. The value of subsidy in both ration cards and bread subsidies is low. In the past, the benefit level was adjusted upward to maintain its value in light of food price inflation, averaging around 6 percent of median market income amongst

[27] Following significant economic reforms in 2016 on fuel subsidies, the government cushioned the adverse impact on the poor and vulnerable population by increasing the amount on the ration cards from 15 EGP/person in 2014 and 18 EGP/person in June 2016 to 21 EGP/person in December 2016, and its current level of 50 EGP/person since July 2017.

[28] In December 2021, Egypt's President announced that the number of beneficiaries of ration cards will be limited to two family members per card, and that ration cards will not cover children of newlyweds. No legal changes to the system have been made yet.

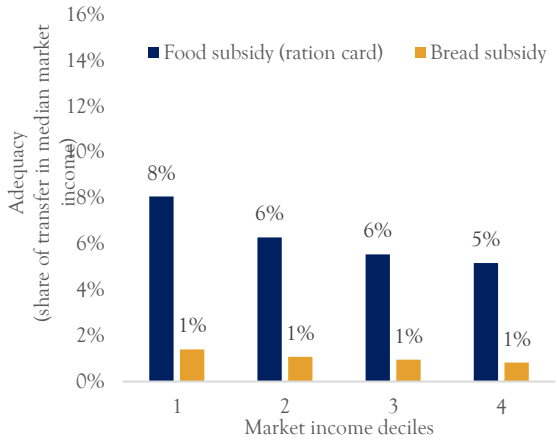
the poorest 40 percent. As for the bread subsidies, it provides much lower adequacy about 1 percent (Figure 2. 19).

Figure 2. 18. Food subsidies coverage 2017/2018



Source: World Bank staff calculations from CAPMAS HIECS 2017/2018 received for World Bank/MoF FIA analysis. 2017/2018 survey coverage inflated to 2021 coverage level.

Figure 2. 19. Food subsidies adequacy amongst the poorest 40 percent 2017/2018



Source: World Bank calculations from CAPMAS and MOSIT estimation. Alderman, H. et al (2018).

78. **Despite low adequacy, the program generates significant poverty impacts given its large coverage amongst the poor**. The Fiscal Incidence (CEQ) analysis – using the HIECS survey 2017/2018 - finds that the food subsidies program triggers the largest reduction in poverty. However, this large impact on poverty reduction comes with higher costs and lower effectiveness than other social assistance schemes, and substantial leakages to unintended income groups remain. In comparison to the TKP cash transfers for instance, food subsidies program scores lower with regards to the effectiveness index.

79. **Many efforts have been made to reduce the system's leakage then to limit its coverage amongst wealthier households.** In 2014, a new food subsidy system was introduced to replace the then prevalent system, which suffered from many drawbacks including the market distortions it caused due to the significant difference between the subsidized prices and the market prices.[29] These included for example: (i) replacing the subsidized commodity quotas with a point based system reflecting monthly cash allotments which allows beneficiaries to buy any commodity within the money allowance; (ii) shifting from input to output based subsidies[30] and limiting the number of bread loaves purchased. More recently in 2019, efforts were undertaken to reduce leakage to richer households through adjustments to eligibility criteria and cleaning of the beneficiary database, using the Unified National Registry (UNR).[31] The first phase consisted of removing of duplicates, deceases and wealthier households, yet some of these changes were reinstated since then.

80. **The motivation to reform remains strong as in 2022, the government has moved to exclude more households deemed wealthy from the program and initiate new eligibility criteria for new applicants to the ration card program** A set of exclusion criteria applied include: those with high salaries, above EGP

[29] The prevailing situation right before the introduction of the new system was that three main products (sugar, cooking oil and rice) were availed to beneficiaries (i) with a fixed monthly amount allocation for each commodity and (ii) at subsidized prices. Meanwhile, there were no restrictions on the amount of subsidized bread per beneficiary.

[30] Where previously inputs required to produce subsidized food were subsidized directly, the government shifted to subsidize consumer purchases directly (IFPRI 2018).

[31] The UNR is implemented by the Administrative Control Authority (ACA). To date, the UNR is linked with 52 databases covering, 25 million families/households, 115 million records covering civil administration, communication, education, taxation, pensions, electricity records and more. Importantly, those participating in informal labor markets are not likely to have their welfare accurately captured. The UNR has within it a detailed household classification criteria that groups the population captured in the UNR into 6 categories: Upper class, upper, middle and lower middle class, vulnerable and poor households.

9,600, those with a high insurance salary, those who pay a high added value from business owners, High value import and export business owners, those who pays school fees of more than EGP30,000/ per child, those who pay the average school fees of EGP 20,000 for more than one child, whoever owns an agricultural holding of 10 acres or more, those who pay EGP 100,000 or more in taxes, owners of companies with a capital of 10 million or more, those who own more than one car model 2011 and after or 2015 and above, those with mobile phone bill of more than EGP800 per month & those with electricity bills exceed 1,000 kilowatts.

81. **New applicants to the ration card system will also need to meet a new set of eligibility criteria.** Those entitled to social security pensions, Sadat and Mubarak, TKP beneficiaries, Widows, divorcees, and breadwinners, people with chronic diseases and people with special needs, minors who do not have a breadwinner or stable income due to the death of parents, those engaged in temporary seasonal employment, agricultural workers, street vendors, and migrant workers, drivers, professionals and craftsmen who are self-employed with low incomes, those who have educational qualifications and are still without work, according to social research and a monthly income of a maximum of 2400 pounds per month, pensioners working in the government or the insured public or private business sector with a maximum of 1500 pounds, workers in the government, the public business sector or the private sector who are insured with a maximum of 2,400 pounds and people with special needs and chronic diseases without being restricted to the maximum income threshold. Importantly, there will be a window for those excluded from the ration card system to submit grievances and potentially remain in the program.

Recent Financing Pressures

82. **Egypt is the largest importer of wheat in the world, with imports estimated at 12.1 million metric tons in FY2021 and is expected to slightly increase to reach 12.4 million metric tons during FY2022.** Of the total estimated wheat imports, the government is expecting to import 5.1 million tons, while around 3.5 million tons are purchased domestically from farmers (MOF FY2022 Financial statement).

83. **Since the onset of the COVID crises, international wheat prices have undergone an upward trend, with tighter global supply and higher export prices from major countries of origin**. Many other factors may affect wheat prices including climate conditions, oil prices and global consumption/demand. The Russia/Ukraine war came to exacerbate these pressures, as the two countries were supplying 86 percent of Egypt's wheat and meslin imports in 2020.[32] Diversification efforts (with 14 countries approved for wheat imports), strategic reserves of wheat (enough for 9 months as of February 2022) and the start of harvest season by mid-April are all partial mitigation measures especially on the quantity side rather than the price side. Meanwhile, these recent increases in global commodity prices - including wheat - are putting Egypt's budget under pressure, given its direct implications for the cost of bread subsidy.

84. **The FY2022 budget is built around an average price of USD 255 per metric ton, a large increase compared to USD 194 in the previous year.** Moreover, global prices have averaged USD 400 per ton during FY2022 (Figure 2. 21).[33] Using data from MOF, it is estimated that a USD 25 increase in global wheat prices would cost an estimated additional USD 128 million to the GASC's wheat imports bill per year, equivalent to a 10 percent increase over the original budgeted figures for imports of wheat needed for production of subsidized bread. Figure 2. 22 shows that in earlier years between FY2015-2017, the increase in the imports bill for wheat was driven by higher levels of imports while global prices where on a downward trend. This trend has reversed in recent years where imported quantities of wheat have stabilized but global and importing prices have surged, driving up Egypt's total spending on wheat imports.

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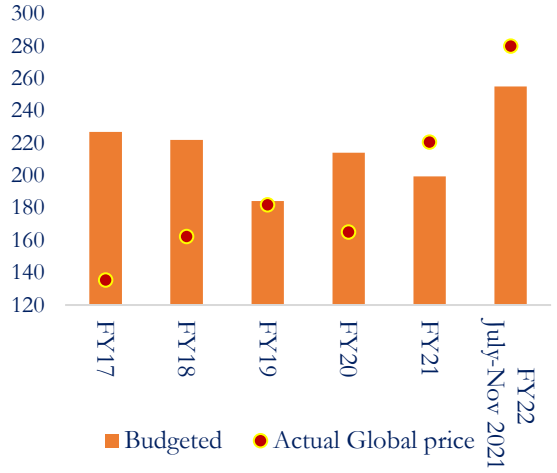
[32] GASC cancelled two wheat tenders in end-February/early-March 2020 due to the surge in prices.

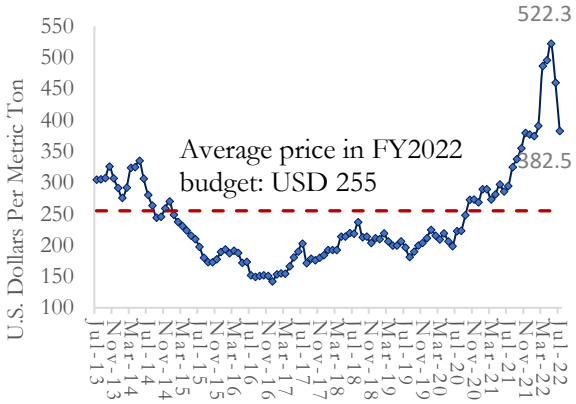
[33] In October 2021, GASC has accepted wheat tenders (to be shipped during December 2021) at prices ranging between US$ 356.50 and $361.90 from Russia, Ukraine, and Romania.

Figure 2. 20. Average price for imported Wheat, (U.S. Dollars per Metric Ton)



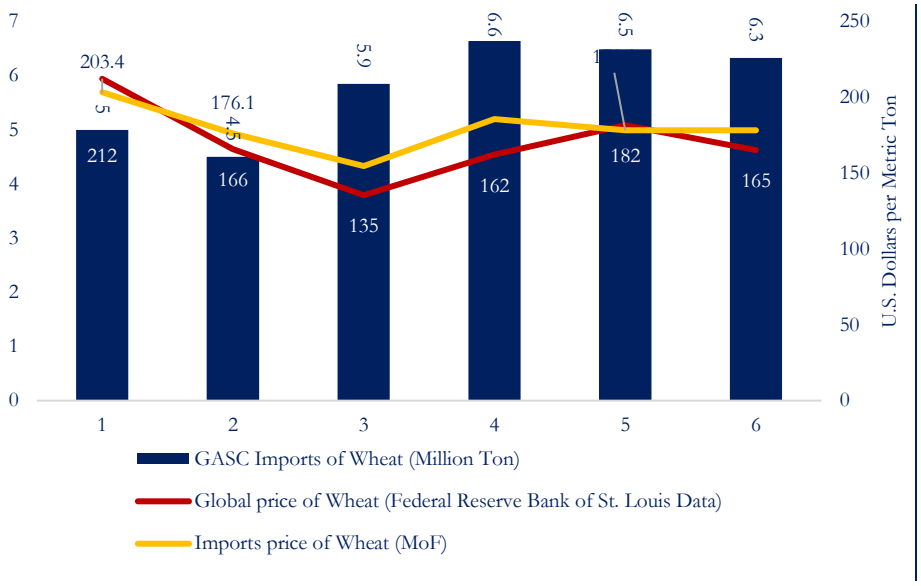
Source: MoF and Federal Reserve Bank of St. Louis Data available at: https://fred.stlouisfed.org/series/PWHEAMTUSDM

Figure 2. 21. Global Wheat Prices, Monthly



Source: IndexMundi https://www.indexmundi.com/commodities/?commodity=wheat

Figure 2. 22. Bread Subsidy Bill and Global Prices



Source: Staff compilation from MoF Financial statement, Federal Reserve Bank of St. Louis Data and United States Department of Agriculture Grain and Feed Reports

Scenarios for reforms

85. **Going forward, the food subsidy system can be further improved through continued policy reforms, adapted program designs, and strengthened delivery system.** Although the technical efficiency of the program could not be analyzed in absence of the program administration costs, food assistance programs are generally known to be more costly to deliver than cash assistance programs, as they incur additional costs related to storage and logistical arrangements. This additional cost reduces the value of the subsidy that could

have otherwise been provided to beneficiaries. Several of the program design elements could be adjusted in line with international practices (See Annex 2. 1).

86. **Higher adequacy and larger efficiency gains would necessitate more stringent changes in coverage, adequacy and the efficiency of targeting**. The options for reforms include: (i) raising the adequacy of the food subsidies for the poor; (ii) adjusting the food voucher system; (iii) gradually moving from food vouchers to cash; and (iv) assessing the impacts of a general price increase of bread subsidies. Meanwhile, the GoE could consider (v) hedging against fluctuations in global wheat prices as an option to protect the budget and mitigate the risks associated with Egypt's key food item. Hedging, however, entails potential drawback which are explained here after.

(i)**Raising the adequacy of food subsidies.**

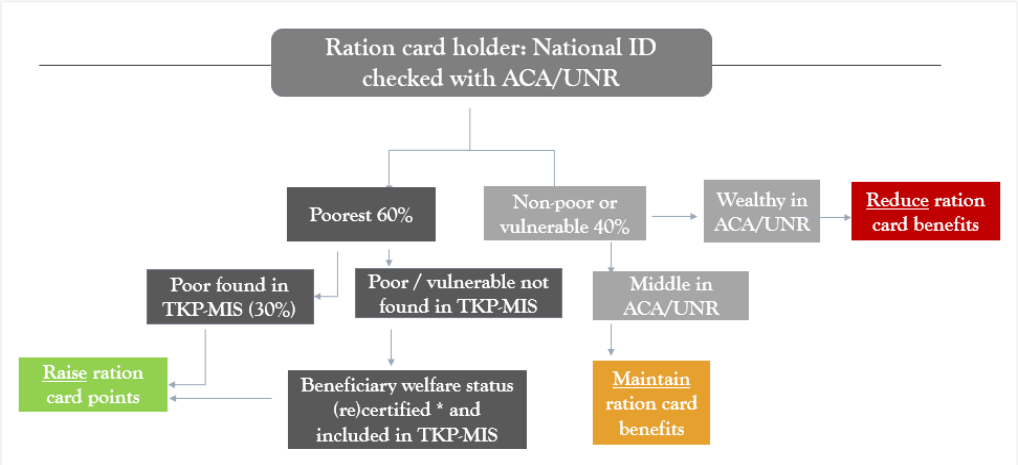
87. **At present, adequacy of food subsidies is mostly constant by design and only differs in relative terms across the welfare distribution** (how much a fixed benefit received means in terms of a given households income or consumption level). Analysis with the fiscal incidence model shows that the existing poverty impact of food subsidy spending could be reduced by 60 percent more with no additional fiscal burden on the budget by poverty could be reduced by 60 percent more with no additional fiscal burden on the budget by:

- Raising benefits for the poor (for example by moving the value of the subsidy from 7 percent of market income to 16 percent)
- Keeping them constant for the middle class
- Lowering them for the upper class *(from comprising 2.7 percent of market income to zero)*.

  Such a reform would require (i) careful planning and effective communication strategy; (ii) expansion of TKP MIS beneficiary databases to include the poor and the vulnerable households; and (iii) harnessing the ACA's UNR while ensuring more effort to improve data quality in order to properly identify the middle and upper-class households.

88. **A key** aspect **is to identify with reasonable accuracy the welfare position of a family/household, building on existing delivery systems of the TKP-MIS and the UNR (Figure 2. 23).** The poorest 30 percent could be identified by TKP database that include both TKP beneficiaries and non-beneficiaries; and the wealthiest 40 percent could be identified through the ACA database. The challenge is identifying the vulnerable 30 percent; this group is likely not accurately captured in the ACA federated database nor are they captured in the TKP-MIS that covers 30 percent of the population and has a welfare ranking conducted for these households to ascertain their level of income. There are evolving plans to expand the coverage of the TKP-MIS to cover vulnerable households as well. The TKP-MIS data is already linked with the UNR and extending its scope would help improve the ability of the UNR to ascertain welfare status of the poor and vulnerable vis a vis the welfare status of those that are non-poor. In parallel, ACA welfare grouping for households is undergoing review versus the HIECS survey and options to improve the efficiency of this grouping algorithm are being investigated.

Figure 2. 23. Process to determine which households could receive higher value food subsidy benefits



Note: The process of certification / surveying of households requires the collection of a range of socio-economic indicators used to determine welfare position. Whilst the ACA / UNR has such a system, using multiple databases, it may not be as accurate in discerning between the poor, vulnerable and middle class due to data limitations.

89. **Reform options on the design and delivery of food subsidies would require careful planning, sequencing and piloting, building on international experience.** Egypt is well on the way to improve the delivery systems of its food subsidy scheme with the implementation of the ration card voucher system. To raise the effectiveness of this system, the government could consider adjusting the food subsidy system to improve its technical efficiency through a strong monitoring system, thorough costing and linkages to nutrition. In addition, it would need to absorb the relevant aspects of international experiences in designing food assistance programs such as those adopted by Indonesia and USA in the dimension of: (i) annual re-assessment of eligibility following a mixed-methods approach; (ii) adjustments to the benefit structure and value by adjusting based on geographic, socio-economic or demographic features; and (iii) regular, beneficiary and shop owner focused, M&E focusing on food item demand and availability and grievance redressal mechanisms. Moreover, the government could adjust the design of the benefit package, reducing total number of individual beneficiaries and unifying it at the household level (though still adjusting for household size).

(ii) **Gradually moving from food vouchers to cash.**

90. **Whilst the shift from in-kind to effective voucher systems was important, an entire shift to cash may induce a more effective and efficient use of public resources, a more cost-efficient implementation, in addition to a positive impact on diet quality**. Highlighted in a 2019 study conducted by IFPRI, shifting fully to cash transfers could boost public and private consumption by 0.1 percent and 0.4 percent of GDP, respectively; and shifting the program entirely to targeted cash transfers would see household consumption growth boosted by 4 percentage points over the same period.[34] However, replacing generalized food subsidies with cash transfers to the poor and vulnerable can only happen gradually, and through piloting. Through pilots, enacted in under a year, current beneficiaries could be asked to choose between keeping the existing voucher system or otherwise receiving direct cash. This gradual shift should allow for the assessment of key consideration when moving to cash, including food inflation and potential indexation, as well as market dynamics and potential market distortions. Given the advancement of the system in Egypt to date, changes to

[34] IFPRI (2019)

the benefit level and delivery system can be piloted in similar ways as has been done in the past in (2014 and beyond), requiring:

- careful planning and comprehensive media & communication campaigns,
- coordination with central and local government stakeholders,
- continuous M&E through pilots in cities where food price inflation is stable and
- adequate supply side infrastructure (shop and food item availability and network coverage)

(iii) **Potential price adjustments to of the *baladi* bread**

91. **This policy option has been announced by the GoE as currently under consideration**. If implemented, price increases for the subsidized bread can trigger an increase in poverty unless appropriate mitigation strategies are pursued in parallel. Extremely poor households spend on average 6.64 percent of their income on bread/cereal, and for some it can reach as high as 28 percent. Raising the price of *baladi* bread will cost those households a segment of their income and could raise overall poverty levels if appropriate mitigation is not enacted. The effect of price increases of bread will be felt by the poor more than the increase in price of electricity and fuel (extreme poor only spend about 4 percent of their income on energy for dwelling).

92. **Estimated poverty impacts could be mitigated through a concurrent expansion in cash transfers or through maintaining the existing price for the poorest households.** Assuming constant price elasticity within the fiscal incidence model, a doubling of the price of baladi bread, from 5 to 10 piasters, could trigger an increase in poverty of 0.4 percentage points and free up approximately EGP 8.3 billion in resources. tripling the price would lead to about 0.6 percentage point increase in poverty and save EGP 12.5 billion.[35] Whilst poverty increases appear moderate, using the savings toward protecting the poor would be crucial given the importance of bread in their consumption – about 4 loaves of baladi bread are consumed each day per person. Mitigation measures could include:

- an expansion of TKP by 1.5 million households to avoid an overall welfare loss and yield net poverty reduction (at consumable income) by 0.3 pp if the price were doubled from 5 to 10 piasters and 0.1pp if the price were tripled, though not all poor households would be protected; or
- using the TKP-MIS and ration card database, linked with the national ID, ration card holders in the TKP-MIS could continue to pay the current subsidized price.

93. **Raising technical efficiency of the system can also be achieved through a range of adjustments**. Strengthen monitoring systems, continue to closely track supply chain, procurement, storage and transportation. Further digitalize monitoring, evaluation and grievance redress systems, and focus on raising beneficiary accessibility. Adjust the program based on M&E findings. Undertake an assessment of additional costs incurred to manage the food subsidies system including costs related to storage, logistical arrangements, retail shops to quantify the real cost of running the system. Source food items locally as much as possible, raising local economic multipliers and boosting local food production. On nutrition: strengthen linkages to the nutrition agenda by fortifying flour to raise health outcomes. This has already been adopted (adopted in some countries and currently considered in Egypt).

(iv) **Wheat imports risk management: hedging against large increases in global prices.**

94. **Financial instruments such as options and futures provide an attractive means for reducing exposure to market volatility and to protecting the budget from risks associated to large price increases in Egypt's key food item.** Financial instruments also improve budget planning by allowing the country to

[35] Whilst other analyses were estimated in the SA PER, the approach described here follows the fiscal incidence analysis model, which takes into account the allocation of existing government transfers and taxes before measuring further impact by raising price. In a separate accounting exercise with more detail on cost vectors but that did not include poverty impacts, savings from doubling and tripling the price of bread were estimated at 6 to 12.5 billion EGP.

lock in prices ahead of time (Annex 2. 3.). Discretionary hedging is an option whereby the country chooses to buy a future or option contracts when the price they offer is expected to be favorable. Non-discretionary hedging means purchasing hedges at regular intervals irrespective of price. These approaches can be applied at any magnitude, covering part or total of expected imports and could help achieving significant savings over purchases at the prevalent market prices.

3. Social Housing

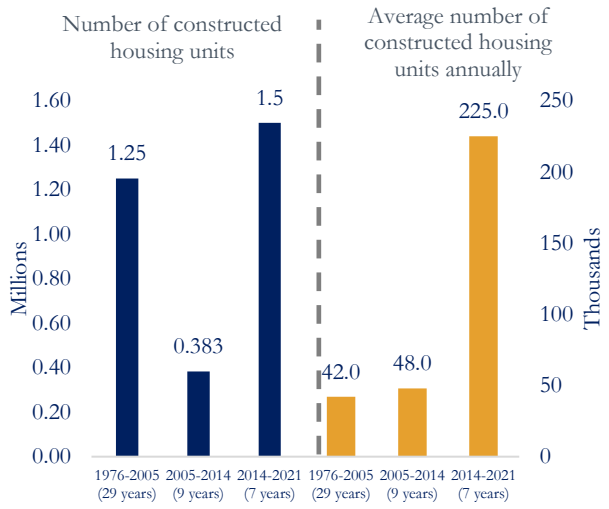
The program aspires to improve the affordability of housing to lower income households, but the estimation of its overall cost and its allocative efficiency is challenged by the absence of a consolidated reporting. Channeling all types of subsidies through the State budget would facilitate cost monitoring, reflect the real value of subsidy, and ensure the most efficient use of public funds.

95. **The housing sector in Egypt has received increasing attention from the government in the past few years.** Since 2014, Egypt has started the construction of 1.5 million housing units (an average of 225K housing units annually), almost equivalent to what has been built in the period from 1976 to 2014 (an average of 43K housing units annually) (Figure 2. 24). The Ministry of Housing, Utilities and Urban Communities (MHUUC) estimates a need for the annual provision of 500-600K housing units in order to absorb the annual increase in population – estimated at 2-2.5 million citizens. The MHUUC also estimates an existing gap between supply and demand from previous years and until 2014 to be around 2.5 million housing units.[36]

96. **The expansion of the housing sector has a direct impact on the economy and job creation**. For instance, the share of the construction and the real estate sectors in total GDP has been growing in recent years, and have been key drivers of real GDP growth, each contributing to growth by an annual average of 0.4 PPT during the past decade. Furthermore, the construction sector is currently the third biggest employer in Egypt, absorbing 13.9 percent of the employed people in Q3-FY21 - after agriculture (19.4%) and wholesale and retail trade (14.4%). Yet, work quality indicators in the sector tend to be weak, with many jobs being temporary/seasonal work, informal and without health and/or social insurance. Similarly, the share of government spending on the housing and public utilities sector in total spending has been gradually increasing to 4.2 percent of total expenditures in FY20 (Figure 2. 25), with government investment in the housing and public utilities sector reaching almost the third (29%) of the total government investment.

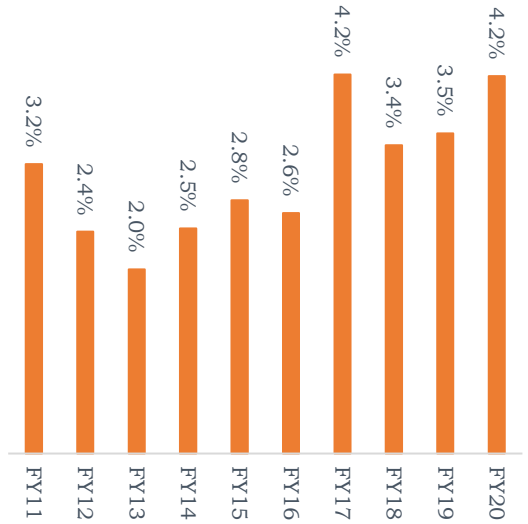
[36] MHUCC Press release, August 2021. Available at: http://www.mhuc.gov.eg/Media/NewsDetails/12401

Figure 2. 24. Historical Development of Housing Units Construction in Egypt



Source: MHUUC's, press release published on August 15, 2021

Figure 2. 25. Government Spending on the Housing and Public Utilities Sector (% to total expenditures)



Source: Ministry of Finance

97. With this vital importance for the socioeconomic development of Egypt, the housing sector is facing several challenges:

- **A decreasing contribution from the private sector as opposed to a growing role of the public sector**. The private sector's share in the annual construction of housing units has gradually declined to 56.3 percent in FY2020, down from 63.7% in FY2016, as well as its share in total investment spending in the sector, which has decreased significantly from 83.1% in FY16 to 50.6% in FY20 (Table 2. 6). At the same time, the Government/Public spending share of housing units has increased from 36% to 43% during the same period, while the corresponding share in investments has almost tripled from 17% to 49%. This may signal potential inefficiency in government/public spending or diversion to higher value housing units.

Table 2. 6. Breakdown of housing units and investments implemented by sector

	FY2016	FY2017	FY2018	FY2019	FY2020
Housing Units					
Government / Public / Public Business	36.3%	31.7%	32.2%	35.7%	43.7%
Private	63.7%	68.3%	67.8%	64.3%	56.3%
Investment					
Government / Public / Public Business	16.9%	44.6%	27.6%	29.8%	49.4%
Private	83.1%	55.4%	72.4%	70.2%	50.6%

Source: WB staff calculation based on CAPMAS – Bulletin of Housing in Egypt.

- **A substantial stock of vacant units:** CAPMAS reports around 10 million housing units (about a quarter of the 42 million total number) that are vacant. The development of ten new cities in the past few years may have contributed to this stock , [37] with difficulties arising in moving large numbers of the population to these new cities.
- **Weak rental market** More than 90 percent of the total individuals who plan to move to another house have expressed their preference for ownership, while only 8.8 percent prefer the rental system.[38] The weak regulatory environment of the rental market may explain some of this preference.[39] This explains the existence of around 3 million vacant old rent housing units, despite rental being the product that caters most to the needs of the lower-income groups.

Overview of the Social Housing Program[40]

98. **Having access to decent housing better qualifies people to actively participate in the economy and the society, and is more connected to lower unemployment, poverty, violence, and divorce rates.** Lack of decent housing could trigger complex challenges that could arise from the development of slums (usually associated with higher poverty and crime rates), and illegal forms of building (i.e., without a permit and on agricultural land). Cognizant of the ensuing social and economic risks, the government started developing programs to abolish these slums, while targeting low-income groups through the provision of social housing units. The first step was the initiation of the "National Housing Program" in 2005, which was implemented through 2010 and aimed for providing half a million housing units for eligible low-income families.

99. **The social housing program - launched in 2014 -[41] aspires to improve the affordability of housing to lower income households with an initial objective to construct one million housing units over five years.[42]** The program has clear and transparent eligibility criteria based on which the housing units are allocated to beneficiaries. Currently targeting low and lower-middle income households (income bracket of EGP 2,500 - 5,700 per month), these brackets are reviewed periodically to take into consideration changes in prices and in people's standards of living .[43] Beneficiaries also should fall into the age group of 18-50 years, be first-time low-income homebuyers and priority is given to families with children, and women-headed households. Administrative data indicate that the program is reaching its intended target group. As of December 2021, close to 400,000 households have benefited from the program with a total real-estate financing equivalent to EGP 42 billion, and around 64 percent of beneficiaries are below the age of 40 (of which 12 percent below the age of 30). Female beneficiaries constitute around 22 percent of the total (Figure 2. 26). While the affordable housing initiative is a nation-wide program covering all 27 governorates, the program is implemented with high geographic concentration, with about 80 percent located in/around the Greater Cairo area (Figure 2. 27).

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[37] Total expenditures on new cities in East Cairo alone from 2014 onwards amounts to EGP 111 billion (EGP 62 billion in the housing sector to construct 300K housing units – EGP 6.5 billion in the services sector to construct 618 service buildings – EGP 18.5 billion in the roads sector – EGP 24.3 billion in the utilities sector). This means that 44 percent of total spending on new cities was directed to the services, utilities, and roads sectors to help create communities with integrated services. This cost does not include spending on the new administrative capital, and road projects implemented by the Engineering Authority.

[38] World Bank (2019) Housing Demand Survey for Egypt,

[39] The GoE is introducing a revamped rental program in low-income housing to further stimulate the market, and reach lower income brackets that do not qualify for ownership, as well as other priority segments such as youth and newly married couples.

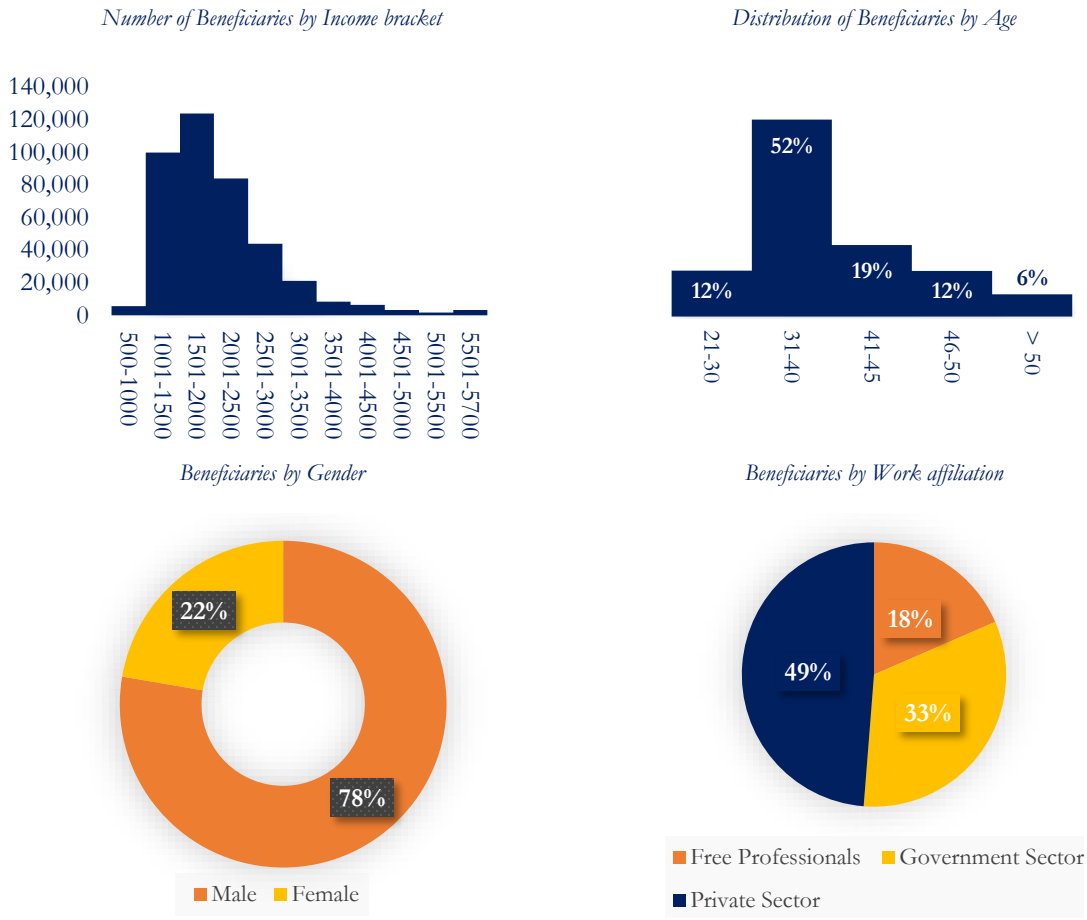
[40] The analysis of the social housing program was conducted with missing key information. Access to more data would allow for a more comprehensive analysis and refinement of recommendations.

[41] The program started with a limited stock of housing units, accumulated from the previous social housing program that ended in 2010.

[42] Some official announcements put that target as 1.5 million units.

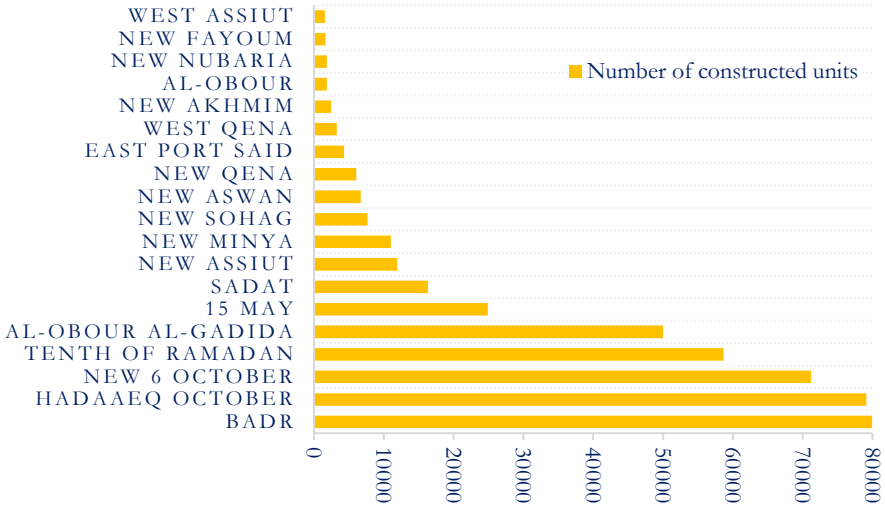
[43] The program started with targeting the income bracket of EGP 1,500–3,500 in 2015.

Figure 2. 26. Distribution of Beneficiaries by income, age, gender and work affiliation



Source: SHMFF performance report (December 2021)

Figure 2. 27. Geographic Distribution of Constructed Units



Source: SHMFF annual progress reports

Institutional Arrangements

100. **The institutional setup of the program is complex, with the involvement of multiple financiers and stakeholders (Figure 2. 28).** The Social Housing and Mortgage Financing Fund (SHMFF) is the implementing agency in charge of designing and coordinating the program. The beneficiaries of the program are committed to down-payments of 15-50% of the unit's price while financial institutions (banks and specialized private mortgage companies) provide up to 20-year mortgage loans at a subsidized rate of 7 percent. Meanwhile, the State budget finances the administrative costs of the program, subsidies to the housing unit price, and the interest rate differential between the mortgage program subsidized rate and the market rate.[44]

101. **Investment costs are largely financed from the proceeds of units' sales paid by households, with large contribution from NUCA.** The New Urban Communities Authority (NUCA), is responsible for proposing, planning, and supervising the implementation of social housing. Land is transferred to the SHMFF free of charge,[45] and NUCA providing utilities infrastructure. In the case where the actual cost exceeds the announced price upon advertising the housing units, NUCA also provides financial contribution to the construction cost.

102. The institutional setup of the SHMFF does not perfectly fit its business model. As an on-budget public service authority (with an affiliated special fund), it currently adopts government accounting on cash-basis while, in essence, it is in the business of selling residential units and recovering the majority of the costs it incurred from the beneficiaries and other public sector entities. This business model makes the case for restructuring SHMFF into an off-budget Economic Authority (instead of a general government unit). As an Economic Authority, it has to adopt the accrual basis of accounting, present complete set of audited financial statements which will make SHMFF operations and financial position more transparent, as different assets (e.g., stock of the units available for sale and cash balances) and liabilities (e.g., bank loans and amounts due to NUCA) will be recorded on the balance sheet. This should facilitate the assessment of the program and its associated public resources by policy makers.

103. **The Central Bank of Egypt (CBE) is another major player in the provision of social housing programs and has launched several mortgage finance initiatives.** In 2014, it launched an EGP 20 billion initiative for mortgage finance to compensate commercial banks for lending at a subsidized fixed interest rate of 7 percent for 20 years. In January 2019, the initiative was ended but the CBE remains in charge of the interest rate differential[46] on units sold before January 2019 and for the period of the mortgage (20 years). In 2021, the CBE announced a new EGP 100 Bn initiative for housing mortgage at 3 percent interest rate over 30 years, for low-income households (up to EGP 6000 monthly income) and middle-income households (up to EGP 14,000 monthly income).

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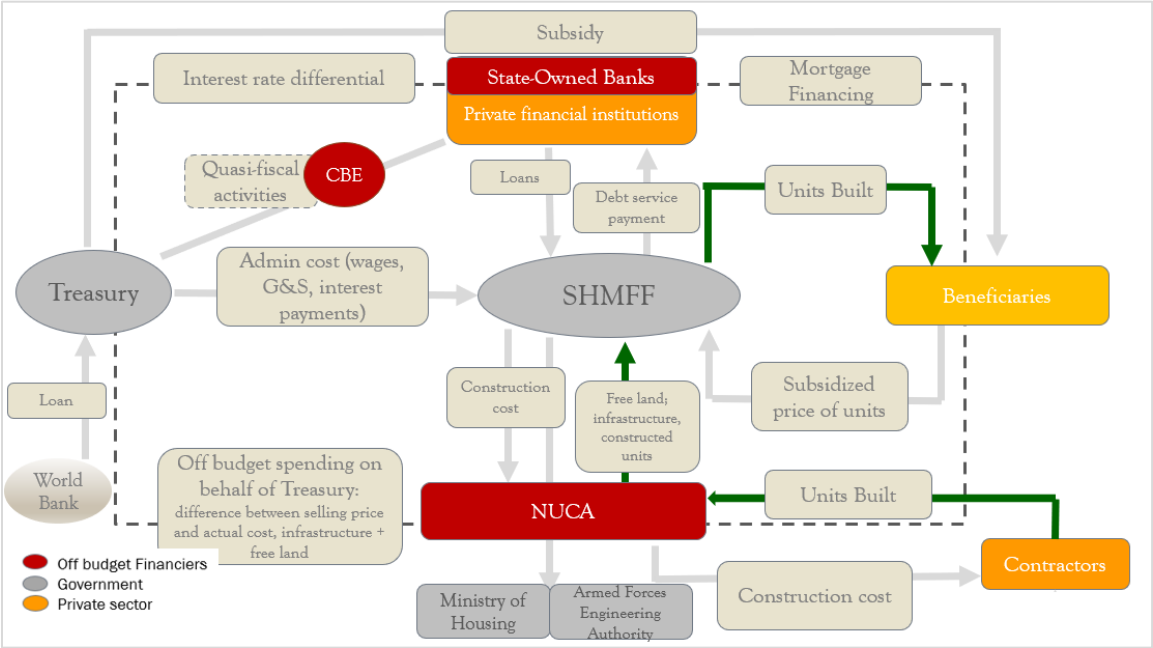
[44] This differential was borne by the CBE for loans issued until January 2019 as part of an EGP 20 bn initiative.

[45] The Social Housing and Mortgage Financing Fund law, Article 2. In some cases, local government may provide the necessary land in governorates, in coordination with NUCA.

[46] Calculated as the differential between the 7% and the CBE mid-corridor rate at the time of the payment + 2%.

Figure 2. 28. Institutional Mapping of the Social Housing Program



Program Funding

104.**Since its re-initiation in 2014, the program has grown significantly with higher budget spending and several elements of indirect subsidies.** Budget spending on the program reached 0.4 percent of GDP in FY2020 (Figure 2. 29). This consists of 0.02 percent of GDP covering the subsidy to the housing unit price and the public investment cost of 0.37 percent. The latter are then recovered from sales proceeds. The administration cost associated to the program (wages, G&S, and interest payments) remains modest compared to its size and has declined over time with the expansion of the program and the large increases in capital spending. Budget execution has been volatile, with under-execution dominating the early phases of the program (Figure 2. 30).

105.**This total cost of the program is difficult to capture in the absence of a financial reporting mechanism that consolidates all cost elements borne by different institutions**. Additional indirect (off-budget) spending includes NUCA's financing of utilities infrastructure, its contribution in the construction cost resulting from unexpected price increases, the forgone revenue from the land value that is provided for free, and the interest rate borne by the CBE (Figure 2. 31). The total cost is not captured through a financial reporting mechanism that captures and consolidates all cost elements by different institutions. This absence of consolidated reporting makes it difficult for policy makers to have a full and comprehensive view of the public resources allocated to the program. In its 2020 annual report however, the SHMFF estimates the indirect subsidy per housing unit to be around EGP 213K broken down, of which 18 percent (EGP 38K) consists of the land value, 29 percent (EGP 62K) for utilities and infrastructure, and 53 percent (EGP 113K) covers the interest rate differentia[47]

[47] In another official estimate by MHUUC, the value of the non-cash subsidy per housing unit ranges between EGP 250 and 300K covering 5 forms of non-cash support (land cost - utility cost - contractors compensation - price differences - mortgage interest rate subsidy), implying that excluding the cash support per beneficiary which ranges between EGP 5 and 60K, the citizen currently bears 40-50 percent of the total cost of the housing unit. This review could not provide an independent and accurate estimate of the indirect subsidy.

Figure 2. 29. Social Housing On-budget Spending

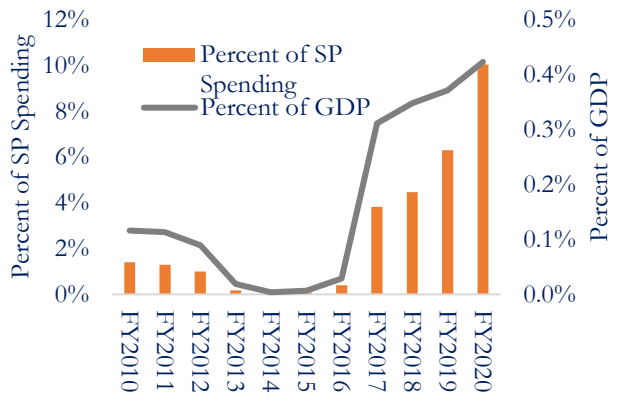
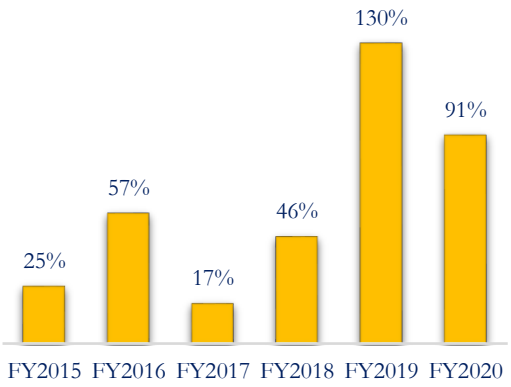
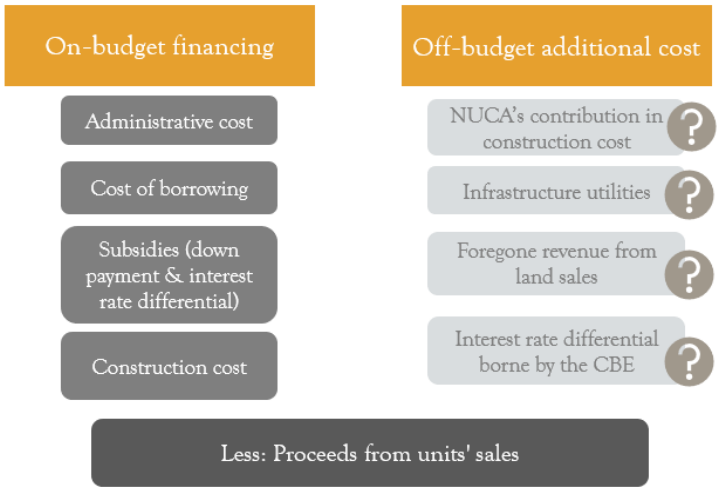


Figure 2. 30. Budget Execution



Source: Ministry of Finance and Ministry of Planning and Economic Development

Figure 2. 31. Social Housing – Program Cost Components



106.**The CBE mortgage financing initiatives may have significant implications for the State budget over the coming years (Table 2. 7).** These initiatives – including the most recent one of EGP 100 billion announced in 2021 with a significantly subsidized (a (3% declining) interest rates are in their essence quasi-fiscal operations, which affect the overall public sector balance without immediately affecting the budget deficit as conventionally measured. In such case, the central bank undertakes what in reality is a budgetary subsidy, with the subsidy showing up in the form of a reduction in the central bank's income. In addition to having important effects on resource allocation, these quasi-fiscal activities may have macroeconomic and financial effects. First, their existence and large extent means that conventional measures of the government's financial balance may give a misleading indication of fiscal activity in the economy. The resulting subsidies can be highly distortionary in their impact on resource allocation. Falling outside of the budget, they are less subject to scrutiny and more difficult to monitor and control. If unfunded, these contingent liabilities can be potentially sizable, highly uncertain, and especially difficult to control. Finally, they can create losses (or diminish profits) for the central bank that may be sufficiently large to be an important contributor to monetary expansion. These losses may also be large enough to contribute to financial instability. It is therefore critical to have an accurate estimate of the magnitude of the budget deficit and its financing, and to take account of the monetary financing of government policies that may be effectively hidden in the accounts of the central bank.

Table 2. 7. Summary of CBE initiatives for Mortgage Financing

Initiative	Date	Details	Size (EGP Billion)	Rate	Discount Rate+ Banks' Profit Margin**	Interest Rate differential	Estimated cost of initiative in EGP Billion
Total			170				12.5-13.1
Low and Middle-Income Mortgage Finance Initiative	Feb-14	Banks to allocate real estate financing equivalent to EGP 10 billion (at lower interest rates) for 20 years.	10	7% for Low-income beneficiaries (declining) 8% for Middle-income beneficiaries (declining)	10.75%	2.75%-3.75%	0.275-0.375
Adjustment (A) to the original initiative announced in 2014	Feb-16	Revising eligibility criteria for the program and revising interest rate on the loans.		5 and 7% for Low-income beneficiaries 8% for Middle-income beneficiaries	11.75%	1.25%-6.75%	
Adjustment (B) to the original initiative announced in 2014	Jun-17	Revising eligibility criteria.		10.5% for Above Middle-income beneficiaries	19.25%	8.75%-14.25%	
Adjustment (C) to the original initiative announced in 2014	Oct-17	Increasing the amount that banks should grant to beneficiaries at lower interest rates from EGP 10 billion to EGP 20 billion.	10		21.25%	10.75%-16.25%	1.075-1.625
Low and Middle-Income Mortgage Finance Initiative	Dec-19	To grant beneficiaries of the initiative mortgage loans equivalent to EGP 50 billion over 20 years.	50	10% (declining)	14.75%	4.75%	2.375
Adjustment (A) to the original initiative announced in 2019	March-20	Adjusting interest rate to 8% instead of 10%		8% (declining)	11.75%	3.75%	
Low and Middle-Income Mortgage Finance Initiative	Jul-21	Banks to allocate real estate financing equivalent to EGP 100 billion with an interest rate of 3% (declining) for a maximum term of 30 years.	100	3% (declining)	11.75%	8.75%	8.750

* As per the CBE, the EGP 20 billion of Low and Middle-Income Mortgage Finance Initiative of 2014-2017 was completely disbursed in January 2019. No available information on the disbursement status of the EGP 50 billion and EGP 100 billion Low and Middle-Income Mortgage Finance Initiatives. ** The interest rate differential is calculated using the discount rate + 2% for the Low and Middle-Income Mortgage Finance Initiatives announced in February 2014 and December 2019 and is calculated using the discount rate + 3% for the initiative announced in July 2021. Source: Staff compilation based on CBE website.

Effectiveness

107.**The earlier phases of the program have seen challenges in selling the units after their construction, but the program was later adjusted to ensure that housing units are constructed after ensuring sufficient demand**. This has resulted in a stock of unsold units (Table 2. 8) which, as per the SHMFF law (Article 8), can be sold as administrative units or investment units at an investment price as they are considered unutilized assets (Article 8).

Table 2. 8. Share of units sold out of the total constructed/under construction units

Finished Units	Under construction	Total	Units Sold	Planned to be built	In tendering process	Total
560,830	174,880	735,710	399,393 (54% of total units available for sale)	139,478	124,812	1,000,000

108.**The SHMFF imposes occupancy rules, among which is the obligation for the housing unit to be occupied by the owner for residency purposes.** This is to ensure the effectiveness of the program to reach its intended beneficiaries for its intended purposes. Yet, occupancy rates[48] and the extent of occupancy violations (710)[49] suggest that the actual occupancy of units for the designated purpose continues to be of concern. This necessitates the development of a meticulous, solid and transparent mechanism to verify the eligibility criteria at the stage of inquiry/screening of applicants, so as to minimize violations such as selling/renting/not occupying/changing the activity of the unit - which signals that the beneficiary did not initially need it. Additionally, significant variation in the results of verifying occupancy rates[50] (varies from 40 to 81 percent depending on the sample size) would also need to be taken into consideration.

109.**The rental component did not take off sufficiently after six years of implementation, despite low rent value.** This component is meant to serve applicants not eligible for mortgage financing given their income levels that fall below EGP 1,500. Yet, despite the low rental value of EGP 300-410 (USD 19-26), only 961 units were rented in 2020, out of 6,000 units advertised. This slow progress raises questions about the availability of demand for units in certain locations covered by the program.

110.**Put together, variant occupancy rates and low demand for rental suggest that the largely subsidized scheme may create distorted demand for housing units without necessarily reflecting a genuine need for the beneficiary.** The State support for the program is estimated to be large, covering a down-payment subsidy, subsidized interest rates, and a fully subsidized infrastructure. Hence, another driving element of existing demand could be to use the unit as a store of value and possibly make some capital gain by selling it at market rate after a 5 years' period, which is the time limitation set by the law.

111.**Some legal challenges prevent existing vacant units from inclusion in the program financing scheme.** Since the mortgage loans with subsidized interest rate apply only to registered units, the low level of registration of real estate wealth nationwide results in missing the opportunity of including unregistered private vacant units into the program financing scheme.

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[48] Occupancy rate is measured as the number of units occupied/number of units sold - are verified on units delivered after one year of the delivery date, the maximum grace period allowed for beneficiaries to move in.
[49] SHMFF annual report 2019-2020
[50] Independent Verification Agency report of June 2019.

112.**Private sector participation (as real estate developer) in the affordable housing program is weak**. The private sector can be expected to contribute to efficiency gains in the development, construction, operations and maintenance for affordable housing through the use of technology, better management and construction practices, especially if the demand risk is eliminated through a strict sequencing of units' allocation/construction as is now the case for the public sector construction. While NUCA may still resort to contracting private companies, their participation as real estate developers in the affordable housing program is weak. According to law 93 of 2018, all land allocated to social housing is provisioned free of charge to the SHMFF, which is not applicable to the private sector. This partially justifies the weak private sector participation under such conditions and may imply a missed opportunity for mobilizing private capital, which could help creating fiscal space. New PPP guidelines were approved in January 2020 to address the concerns of private developers. If properly implemented, this should release some fiscal burden for the government and create a level playing field between state-controlled and private developers.

Recommendations

113.**Assess the overall program costs to enable more informed policy decisions.** This review could not find such a consolidated assessment in any of the budget documents. The institutional mapping conducted by the team indicates that the program cost is spread across many entities including off-budget ones; the absence of consolidated reporting makes it difficult for policy makers to properly assess the performance of the program. The indirect cost/subsidy of the program is substantial, although not captured through budget reporting.

- **Reassess the efficiency of the program to reach its desirable outcomes in light of the size of allocated public funds.** The program serves a segment of the population (low and lower-middle income) through large amounts of public spending. As of December 2021, the program has allocated a large subsidy (around EGP 101 billion) to a limited total number of beneficiaries (399,393). The government could assess the allocative efficiency of this program compared to other ones that are targeted to the same or lower income households and consider possible adjustments and revisions.

- **Increase the clarity and transparency of the SHMFF financial position.** Information could be improved by adopting the accrual basis of accounting where all the assets (e.g., stock of unsold units) and liabilities (i.e., commercial bank loans) would be presented on the balance sheet, while ensuring continuing oversight and visibility of SHMFF transactions by MOF. This should enable policy makers to better assess the overall program performance and associated cost.

- **Avail land at its market value to all developers (public and private sector), and channel all types of subsidies through the State budget.** This would facilitate the monitoring of the true cost of the program, reflect the real value of subsidy and ensure the most efficient use of public funds.

- **In light of the availability of an already large stock of vacant units** (estimated total of around 10.8 million),[51] the government may try to find solutions to unlock part of it for residential purposes, which would help creating more fiscal space for other public investment priorities. Regulatory reforms are needed to unlock part of this stock, for example through facilitating the registration of residential units. This can be coupled by the creation of incentives for an increased resorting to rental arrangements and strengthen the enforcement of rental contracts.

- **Occupancy rates can be enhanced** by ensuring that constructed units are connected to essential services (education and healthcare facilities, transportation, economic activity etc.).

[51] CAPMAS, 2017 Population, Housing and Establishment Census

4. School Feeding

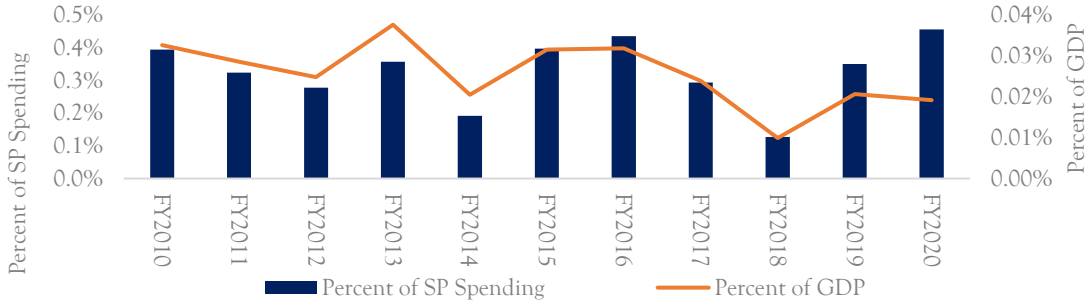
While the program is not poverty targeted, its incidence appears to be higher among the poorer segments of the population, suggesting some degree of self-selection. Ensuring that school meals of adequate quality are available and fully accessible could necessitate additional spending.

114.**Egypt has a longstanding school feeding program in place, providing important support to children attending public schools.** School feeding programs are seen to contribute to fighting malnutrition and food insecurity, serve as an incentive for school enrolment and attendance, while also alleviating the financial burden on poor families by securing meals for their children. This applies to Egypt where the national school feeding program is considered an essential pillar of Egyptian safety net programs, delivering daily fortified snacks/meals to school students. The program targets all students in public and community schools, aged 4-12 years. Coverage is currently estimated at 16.6 million students although the number is likely to increase if Al-Azhar schools are taken into account.

115.**There has been some policy development toward a more central management of the preparation of school meals**. The SILO Egypt for Food Industries in Sadat City was launched in 2021 Operating under the National Service Projects Organization (NSPO), the project aims at promoting food security, including through the provision of school meals and enhancement in their health and safety standards. . The facilities at the Sadat City Food Industrial City include "Silo Foods" and comprise four factories - for biscuits, pasta, baked goods, in addition to a flour mill, silos for storing wheat, as well as factories for printing the production of boxes for packaging products of various kinds. While health and safety of the products are enhanced with the use of a tracking system, concerns arise with regards to the use of direct orders and lack of competitive bidding, especially considering the weak transparency around Silo foods financials.

116.**The program has been expanding over the past few years**. Following a steep drop in financing in FY2018, the program continued to expand as part of governmental measures aimed at improving health and education outcomes and mitigating the impact of economic and subsidy reforms. In FY2020, the program received 0.02 percent of GDP (Figure 2. 32).

Figure 2. 32. Spending on school feeding (percent of GDP and percent of total SP spending)



Source: MOF (2021)

117.**While the program is not poverty targeted, its incidence appears to be higher among the poorer segments of the population**. This suggests some degree of self-selection, given that wealthier households are more able to afford private schools and therefore are not covered by the program. Yet, despite significant coverage, the 2017/2018 HIECS survey data suggests that many eligible students may not be making use of program benefits. Data also show that coverage is far below the poverty rate with the largest gaps being in metropolitan areas (Figure 2. 34).

Figure 2. 33. School feeding beneficiary incidence

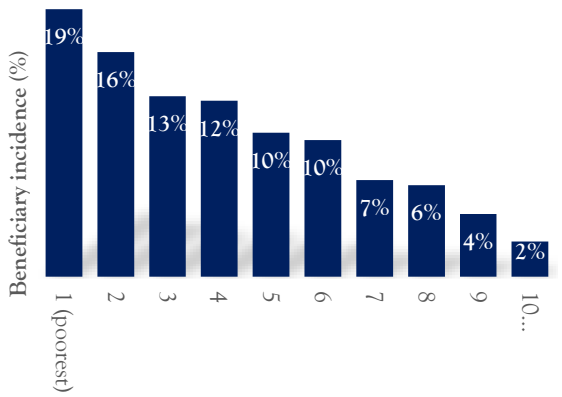
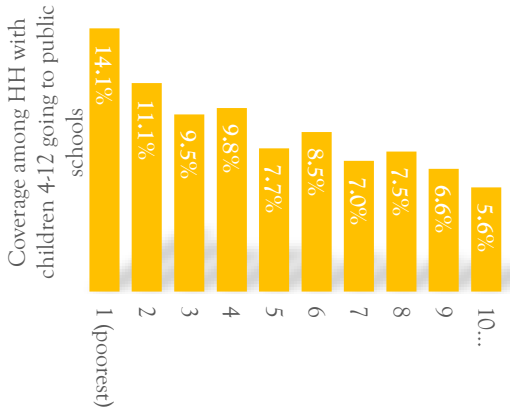


Figure 2. 34. School meals coverage 2017/2018



Source: HIECS 2017/2018 & World Bank staff calculations

118.**Impact evaluation analysis shows that the program is effective in improving academic achievements.** An evaluation conducted in 2020[52] assessed the impact of school feeding programs on children's growth, development and school achievement. Children who received meals demonstrated improved visual memory and auditory vigilance; their afternoon attention and working memory tests were also higher compared to non-recipients. However, no significant changes were detected with regards to children's nutritional status. While malnutrition is caused by a multitude of factors including unhealthy behaviors and water and sanitation practices, improving the school feeding program's benefit menu and delivery system can help improve the nutritional status of children.

119.**Policy reforms could be considered to enhance the program's efficiency and adequacy**.

- **Accessibility and financing.** Ensure that school meals of adequate quality are available and fully accessible to all eligible students in public schools, especially within governorates experiencing high poverty rates. This, however, could necessitate additional spending. Additionally, improving administrative capacities at the central level as well as the district and school level is key to addressing issues of access and quality of the meals provided. This would incur greater use of monitoring data through the existing implementing arrangements that include a range of stakeholders at the local and national level to identify and address issues of accessibility as they occur To ensure school feeding benefits are reaching all eligible students, it would be beneficial to increase integration with other social protection programs such as Takaful and Karama and Food Subsidies for better results and impact, and to also ensure linkages between the program's beneficiary registry and the Unified National Registry (UNR) to improve targeting
- **Nutritional value and complementarity.** To increase effectiveness, it is important to continue efforts to strengthen the nutritional value of school meals to contribute to the reduction of malnutrition. This could be achieved through the provision of healthy, nutritional, and balanced diets, taking into consideration differences in gender, age groups, and geographic locations. Adopting complementary activities such as behavioral change communication, targeting mainly the poorest households, can also help raise awareness of the determinants of malnutrition and stunting which can further improve health and nutritional outcomes for children.

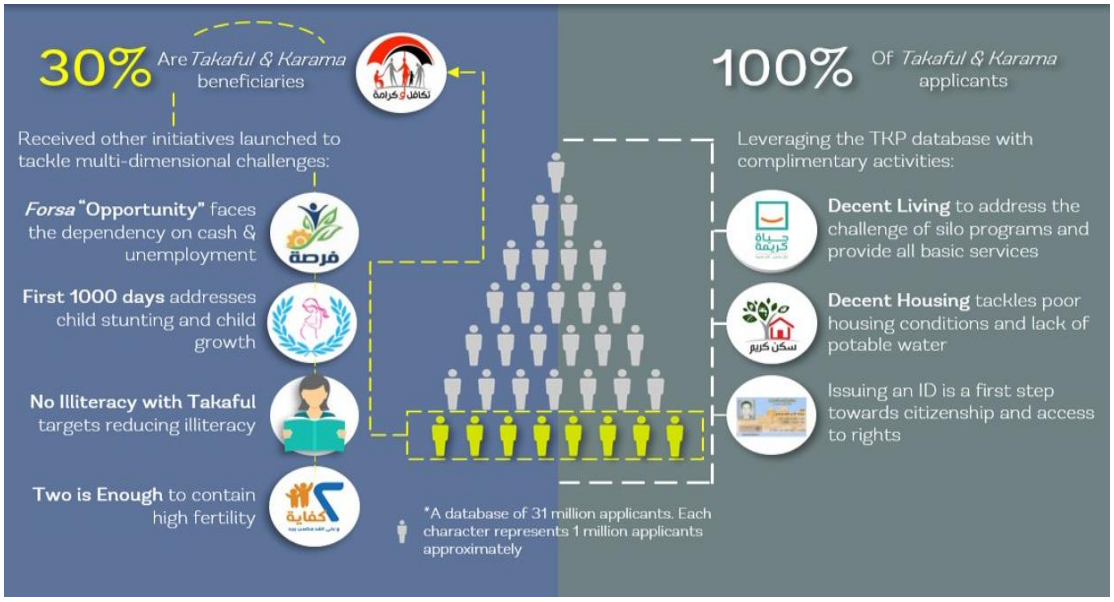
[52] Metwally, A.M et al (2020)

- **Improve institutional and coordinative capacity further.** The program is robustly institutionalized with actors supporting its implementation across different levels within the government. However, there is a need to further enhance coordination among the various implementing partners (Ministries of Education, Health, Social Solidarity and Agriculture, in addition to Al-Azhar, etc.), possibly through a specialized committee that oversees efforts aimed at improving delivery systems and overall program efficiency. It is also important to harmonize implementation and M&E systems among the Ministry of Education and Al-Azhar through an overarching legal framework to ensure all entities involved adhere to program guidelines at central and local levels. Finally, the program can consider increasing the engagement with local government, private sector and targeted communities to diversify food options and support local food production, which can have a multiplier effect on communities and can help boost local economic development.

5. Emerging initiatives: FORSA & Haya Karima

120.**Egypt's approach to social assistance is becoming more holistic with the launch of several "Cash Plus" initiatives.** Poverty and gaps in human capital outcomes cannot be addressed solely through cash transfers. This is a notion well recognized by the GoE, which was reflected in the recent launch of a range of social protection programs that focus on building sustainable livelihoods and promoting job creation. These initiatives include the re-initiation of public works programs under the wider "Decent Life" initiative (Hayat Karima), including a "Decent Housing Program" to provide flooring, roofing, water and gas connections to poor homes, "FORSA", "Two is Enough Program" (addressing reproductive health), "No Illiteracy with Takaful", addressing the fact that 64 percent of Takaful mothers cannot read and write, and the "First 1000 Days Program" (focuses on addressing stunting) (Figure 2. 35). These programs harnessed and leveraged the existing MOSS's TKP-management information system (MIS) containing 31 million people and linking directly with TKP.

Figure 2. 35. Egypt's Cash Plus approach



Source: World Bank (2021b)

FORSA

121.**Egypt has had some experience with economic empowerment programs, though most have been limited in scope and coverage.** FORSA is a pilot economic empowerment program that promotes productive inclusion through the provision of asset transfers and waged employment. It aims at creating sustainable and productive livelihood opportunities to help beneficiaries graduate out of poverty. The program consists of two tracks: wage employment and support to self-employment through asset transfers. Complementary interventions include skills development (life skills, employability skills, technical trainings), promoting financial inclusion and savings. The program is currently piloting in eight governorates, covering 50,000 households at a cost well below 0.01 percent of GDP, with plans to further scale up the program in both urban and rural areas. Across the world, BRAC/graduation type programs such as FORSA have shown success helping the poor transition into more sustainable livelihoods and this renders them more resilient to shocks such as COVID-19. In the context of Egypt, the expansion of FORSA can raise the TKP-graduation rate, which would make room for new entrants to TKP. This dynamism is central to design of FORSA, TKP and the social assistance system as a whole.

122.**Although FORSA is still at a nascent stage, there are a lot of promising opportunities for the program to explore and capitalize on as the pilot is implemented**. In particular, it is important to routinely monitor and evaluate the pilot to lay a robust foundation for scaling-up in the future and to enhance the program's impact on poverty reduction and employment creation. Furthermore, the government could raise efficiency by continuing to harness existing delivery systems used by TKP and Daman and coordinating with other institutions across levels of government; leverage digital platforms, technology and efficient monitoring & evaluation practices so that programs can be adjusted based on evidence. In addition, implementers should continue linking FORSA with other programs and initiatives such as Haya Karima and encourage more involvement from the private sector. A re-initiation public works/cash for work schemes under its framework could raise income support through employment and develop community infrastructure development through public works. The GoE should continue delivering strong facilitation support through trainings and coaching, raising financial literacy and linking beneficiaries to markets and providing the knowledge needed to develop successful businesses.

Hayat Karima

123.**Hayat Karima is a large, multi-dimensional social and economic development program**. Launched in 2021, the program will focus on villages within all 175 rural districts over three years, with the first phase covering the poorest 1,413 villages in 51 districts. The initiative focuses on many developmental challenges related to rural areas, including poverty, basic services, local development and economic empowerment. The total allocated budget was not officially announced and has ranged between EGP 14 billion for the first year to 700 billion EGP over the entire project lifecycle.[53]

124.**The Hayat Karima program aims to rely as much as possible on local contractors to carry out infrastructure projects.** There are also efforts to adopt a participatory approach and engage local communities during the planning and implementation to better respond to their needs. The program will incorporate direct support to existing TKP beneficiaries, as well as public works elements to develop:

- Integrated infrastructure and basic services in Villages. Including water & sanitation, education, environment (solid waste), roads, irrigation & drainage, gas etc.;
- Direct support to poorest and vulnerable in selected villages (Social housing, social protection, health, and other social assistance); and

[53] Strategic documentation of the plan was not available at the time of the analysis.

- Economic development opportunities to increase real incomes: large scale agricultural projects, credit provision to micro and small enterprises, as well as smaller artisanal, industrial or economic zones for local employment.

125.**Given its multi-facetted objectives, the institutional framework of the initiative is expected to be complex, as evidenced by the multitude of entities involved.** The initiative aims to create an integrated framework consolidating efforts among government institutions, the private sector, civil society and development partners. An Inter-ministerial committee is responsible for the oversight and coordination, chaired by the office of the Prime Minister and comprising nearly twenty ministries.

126.**Looking ahead, a well-coordinated and effectively implemented Haya Karima presents a momentous opportunity to raise the welfare impact of social protection and fiscal policy.** In areas where the Haya Karima program will be implemented and where it can markedly improve social services, sanitation and infrastructure, the direct welfare impacts of programs such as TKP and FORSA adequate in coverage and benefit levels could be augmented further.

Public Works

127.**Egypt implemented several large-scale public works programs between 2012 and 2017.** Emergency labor intensive public works/cash for work schemes were adopted between 2012 and 2017 to reduce the negative impact of economic conditions on the poorest. The program included two components. First, community Infrastructure projects (construction, rehabilitation) aimed at creating short-term employment opportunities for unemployed unskilled and semi-skilled workers in the most disadvantages areas. Second, community social services projects (health awareness, environmental awareness) were largely focused on employing female beneficiaries. These programs were well studied but have since been phased out.[54] Given the large amount of informality in Egypt and the continually low coverage of social insurance and social assistance among informal workers, and given the high rates of youth unemployment, there is scope to reinitiate public works/cash for work to promote employment and build community infrastructures using local labor supply.

D. Delivery Systems – social registry and payments

Integrated and digital information systems are key enablers for social assistance systems and programs 295. Government to Person payment systems in Egypt are evolving fast, but an increase in the social registry coverage could support a more effective SA spending and enhance shock response.

128.**All social protection programs rely on systems and processes that govern the delivery of benefits to beneficiaries.** Globally, social protection programs share common processes in delivery chain. This is also the case in Egypt, where despite the variety of programs, they all must follow a process of assessing potential eligibility, deciding on actual enrollment and benefit packages, before the programs get implemented. Given the common steps involved in the assessment stage, unifying this process yields important efficiency gains. Egypt has made important headway in that regard, especially in assessing potential eligibility through the emerging unified national registry (UNR) and its digital payment systems.[55]

129.**Integrated and digital information systems are key enablers for social assistance systems and programs.** These databases are key in that they: support program-specific operations and functions; support integrated operations and functions across the social protection sector to avoid fragmentation and enhance

[54] World Bank (2021b). Note: impact evaluations on several components of Egypt's experience in using labor intensive public works (LIPW) programs are described in Elsayed, A. et al (2018) and World Bank (2018) The latter publication includes a focus on the component of building community infrastructure through LIPW, but did not find significant impacts.
[55] World Bank (2021b) World Bank (2020b)

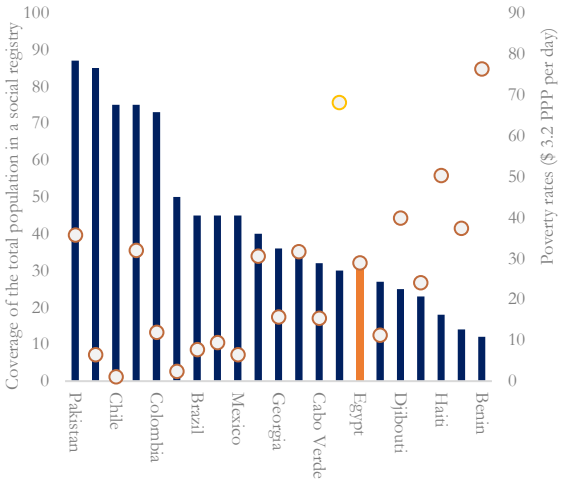
efficiency and link with different registries (national ID database, civil registry, education, health, etc.). A digital and integrated information contributes to an enhanced coordination and linkages between programs as well as with other sectors. It also yields key economies of scope and scale as a result of integration and interoperability with other systems, helps improving overall data accuracy and system integrity, enhance efficiency, and facilitate monitoring and reporting of social protection programs and other government initiatives.[56]

130.**The TKP-MIS is a beneficiary operations management information system that plays a key role in the efficient allocation of cash transfers to the poorest in Egypt**. As shown in section E1, TKP benefits are progressive, with most benefits reaching poor and vulnerable households. This results primarily from the programs use of welfare assessments made through a proxy means test (PMT). The TKP-MIS contains welfare assessments and other socio-economic records of over 31 million individuals; it is also being used to inform other SP programs such as FORSA and Haya Karima.

131.**Important steps are being taken towards a digital and integrated information system for social assistance.** The government is building on the TPK-MIS, housed in MOSS to link with the UNR to improve targeting, efficiency and leverage artificial intelligence. The UNR is led by the Administrative Control Authority (ACA) and is interoperable with 52 databases, covering 25 million families/households, 115 million records covering civil administration, communication, education, taxation, pensions, electricity records and more. Importantly, those participating in informal labor markets are not likely to have their welfare accurately captured. The UNR has within it a detailed household classification criteria that groups the population captured in the UNR into five categories: Upper class, middle class (upper, middle and lower middle), vulnerable poor and extreme poor households. The methodology of classification is detailed but differs from the methodology used in the TKP-MIS which contains wide socioeconomic data on the poorest 30 percent, classified through the PMT. The PMT in the TKP-MIS was designed to correlate strongly to consumption/income aggregates in the HIECS household survey. Accordingly, mapping the UNR classification to the same HIECS survey could help establish its ability to identify welfare positions versus the PMT built into the TKP-MIS. Initial data analysis could then be confirmed via field testing. This way, data-driven adjustments could be proposed to increase the overall accuracy of the UNR classification and facilitate progressive allocation of public spending across the welfare distribution.

132.**In many countries, coverage of the social registry is higher than the poverty rate.** Among countries having a social registry that covers at least 10 percent of the population, the average coverage of the population in the social registry is 37 percent (Figure 2. 36. The coverage of the social registry is in many cases higher than the poverty rate (on average higher by 17 percentage points above the $3.2 threshold). The coverage of the TKP-MIS (around 31 million people or 30 percent of the population) just about equals the share of households living on less than $3.2 PPP per day; there may be households who are poor but not included in the social registry. As such, raising coverage of the TKP-MIS registry would help reduce exclusion errors. Further, given the high level of informal workers, extending the coverage of the social registry would identify this group and allow outreach to increase

Figure 2. 36. Social registry coverage & 3.2 $PPP poverty rates



[56] World Bank (2020b)

participation in relevant social assistance and insurance programs.

Source: PovcalNet & World Bank Delivery Systems Global Solutions Group.

133.**Government to Person payment systems in Egypt are evolving fast.** As per the 2017 FINDEX, only 32.8 percent of adults in Egypt have a bank account. While this is more than double the 2014 estimate, it remains far below the MENA (43.5 percent) and LMIC (57.8 percent) average.[57] Currently, SA payments are managed through E-finance, the digital and informational technology arm operating the financial network of the Egyptian government. E-finance was selected to manage card issuance, process and manage various social protection programs including TKP and social insurance programs. Recently, it has partnered with Visa card networks and the domestic Meeza network to extend coverage and service levels. The TKP program for instance allows benefits to be cashed out at post offices. In the future, the program is planned to leverage the Meeza card solution to allow beneficiaries to withdraw benefits from ATMs, further raising accessibility. Meeza cards replacing TKP are being rolled out in a phased approach. By March/April 2022, MOSS hopes to have transitioned all TKP from old card to Meeza cards. Beyond boosting financial inclusion through the roll out of Meeza cards to SA programs, the government is working toward integrating subsidy program benefits under a digital payments' infrastructure. To date, benefits from a range of SA/subsidy programs are allocated into 450,000 debit cards. The government is also exploring mobile payment solutions to further enhance accessibility to benefits and promote greater choice.

E. Reform Options

Program design and fiscal

134.Looking ahead, several design and fiscal reforms could boost the effectiveness and efficiency of social assistance spending. These include expanding targeted cash transfers, including a budget neutral analysis on the question on whether expanding coverage of benefit levels reaps higher poverty impacts and adjustments on the food subsidy design, implementation and ways to raise adequacy for the poorest.

135.**Egypt's cash transfer scheme has made laudable progress though still covers only half the poor.** Despite strong evidence on the impact of conditional cash transfers in Egypt on welfare and human capital, spending is relatively low hereby resulting in sub-optimal coverage and low adequacy of cash transfers. Whilst approximately 30 percent of households were poor in 2019/2020, before the pandemic struck, Takaful & Karama covers just 15 percent of households. The value of transfers could also be raised for higher impacts on poverty. To estimate how increased spending could affect poverty, at what costs, and which approaches are most efficient at different places in a policy reform trajectory, several scenarios in adjusting TKP were explored (see Table 2. 3 for details).

136.**As per the latest Fiscal Incidence Analysis done with MoF and the World Bank, Egypt's fiscal policy is estimated to reduce poverty by 2.4 percentage points.** The impacts from adjustments to TKP coverage or benefit levels are presented in Table 2. 3 are in addition to the estimated overall impacts (from direct and transfers, with direct and indirect taxes taken into account) from the CEQ exercise.

137.**Given Egypt's national poverty rate being around 30 percent, an effective policy option proposed is to expand TKP to that level of coverage of approximately 7 million households**. This would greatly reduce exclusion errors. In expanding toward that level, once reaching 5 million households, a key question is whether raising benefits for those 5 million households is more cost-efficient than expanding coverage at existing benefit levels to 5.7 million households. At that level of coverage, simulation results show it is slightly more effective to raise benefit levels than expand further. From the current level of coverage, the effectiveness

[57] Demirguc-Kunt, A. et al (2018)

index decreases as coverage expansion target levels increase. This may indicate that as coverage expands, it is harder to reduce poverty through coverage expansion alone as households that already receive TKP may be far below the poverty line and may only be pushed above it by an expansion in benefits. Overall, results suggest expanding Takaful & Karama in coverage from 3.5 to 4 and then 5 million households is cost effective as a first step. Expanding beyond 5 million to cover the poorest 30 percent of households yields poverty impacts but also bears important equity improvements as through reduced exclusion errors amongst the poorest 30 percent.

138.**Adjusting Takaful benefit levels for families with primary school aged children may generate higher impacts than other categories.** At a coverage of 5 million households, adjusting benefits at this level of coverage yield significant impacts for the cost incurred – as reflected in the effectiveness index. Whilst scenario D in Table 2. 3 adjusts the base benefit, effects of benefit level adjustments were tested across the different benefit categories within Takaful. From these results, the highest effectiveness results from adjusting the benefit level of primary school and children aged 0-6 years old, at the same cost versus the other scenarios.

139.Raising the adequacy of food subsidies. At the moment, adequacy of food subsidies is mostly constant by design and only differs in relative terms across the welfare distribution (how much a fixed benefit received means in terms of a given households income or consumption level). Analysis with the fiscal incidence model shows that poverty could be reduced by 60 percent more with no additional fiscal burden on the budget by:

- Raising benefits for the poor *(from comprising 7 percent of market income to 16 percent)*
- Keeping them constant for the middle class
- Lowering them for the upper class *(from comprising 2.7 percent of market income to zero)*

140.**To do so, the government would need to harness the UNR and the TPK-MIS to identify households benefitting from food subsidies** (see Figure 2. 23). It will require a robust assessment of the overall systems' ability to identify the relative welfare position of beneficiary households. It will require more data collection to conduct welfare assessments for the poor, vulnerable, middle- and upper-class households – building on the TKP-MIS and the existing UNR welfare categorization.

141.**Such a reform would require careful planning and an effective communication strategy.** Given the systems wide coverage, adjustments would affect many households and necessitates careful planning sequencing and piloting, building on international experience such as those from Indonesia and the USA. Specifically: (i) annual re-assessment of eligibility following a mixed-methods approach; (ii) adjustments to the benefit structure and value by adjusting based on geographic, socio-economic or demographic features; and (iii) regular, beneficiary and shop owner focused, M&E focusing on food item demand and availability and grievance redressal mechanisms.

142.**Eventually, Egypt could consider shifting toward cash transfers**.[58] Cash transfers have been shown to be more effective than benefits provided in-kind, both internationally and in the Egyptian context. Through pilots, enacted in under a year, current beneficiaries could be asked about which modality they prefer, existing voucher system or direct cash and this could inform a potential shift from vouchers to cash. This should also allow the assessment of key consideration when moving to cash, including food inflation and potential indexation, as well as market dynamics and potential market distortions. Given the advancement of the system in Egypt to date, changes to the benefit level and delivery system can be piloted in similar ways as has been done in the past in (2014 and beyond), requiring:

- careful planning and comprehensive media & communication campaigns,
- coordination with central and local government stakeholders,
- continuous M&E through pilots in cities where food price inflation is stable and

[58] See Box 1 in the Executive Summary and Annex 2.2 for a hypothetical scenario of a partial reallocation of bread subsidies to CCT.

- where the supply side infrastructure (shop and food item availability and network coverage) is adequate

143.**Adjustments to the price of bread subsidies could incur increases in poverty if appropriate mitigation is not adequately enacted.** As about 72 million Egyptians benefit from baladi bread constituting 6 to 28 percent of total household consumption, raising the price could raise poverty levels. Doubling the price of baladi bread could increase poverty by 0.4 percentage point. Mitigating this increase could be achieved through an expansion of TKP or use of the UNR & TKP-MIS to exclude poor households from a potential price increase, thus protecting them from a decline in their welfare.

Delivery systems

144.**Increase coverage of Egypt's social registry for a more effective SA spending and enhanced shock response.** A 2019 study[59] on household vulnerability and resilience to shocks in Egypt showed that 16 percent of Egyptian households were exposed to at least one shock in year prior to the survey. Responding appropriately to such shocks requires social protection programs to be adaptive enough to provide support in the wake of shocks. Identifying which households are in need of support depends critically on having adequate levels of information on them contained in social registries. Even amongst the non-poor, some households maybe vulnerable to falling into poverty in case of shocks.

145.**Whilst the UNR covers much of the population, its welfare classification methodology may not be able to discern welfare variation as accurately as a PMT**. The TKP-MIS covers the poorest 30 percent with a strong welfare ranking developed through a PMT. Strengthening the UNR to identify household welfare better and expanding the coverage of the TPK-MIS could support:

- A more objective (targeted) shock response, especially when shocks such as COVID-19 affect large groups of the population. With a larger social registry, responses can be defined based on the varying types of support needed across the population
- Raised efficiency and effectiveness of social assistance, social insurance and active labor market programs (ALMP) as part of regular social protection policy.

146.**Such an expansion should seek to include all poor and vulnerable households.** At an estimated enumerative cost of EGP 15 per household, including socio-economic information used in the PMT, surveying the poorest 30 percent would cost about EGP 80 million. Extending the coverage of this database to include vulnerable households as well would effectively double the cost. Different methods could be explored; currently households may request for inclusion into TKP at local MoSS offices and would then be visited by a surveyor at their home. Direct outreach via existing programs and systems could also help expand the social registry; such an initiative could be completed within a year once the pandemic has receded.

147.**Integrate direct transfers and subsidies under Meeza cards, linked with the TKP-MIS and the UNR.** Harmonizing all centrally executed SA and subsidy payments under e-Finance's Meeza cards would raise accessibility and coherence of the SP system. Relatedly, ensuring direct links with TKP-MIS and the UNR would improve the governments' ability to monitor total SA support received by households and could then empower the government to foster greater convergence of SA programs based on household characteristics. The government should build on the momentum and continue rolling out mobile payments in parallel and ensure a wide range of cash-out and benefit use options are available.

148.**Enhance regular monitoring and evaluation of social protection programs.** Regularly monitor and evaluate SA programs performance, efficiency and effectiveness vis-à-vis program goals as well as broader development goals in line with a comprehensive social protection strategy. It is key to regularly revise,

[59] Helmy, I & Roushdy, R. (2019).

consolidate or remove programs to fit the current country context and its evolving needs. Through a review of Egypt's social protection programs focusing on programs with common eligibility criteria, programs could be consolidated harnessing common delivery systems and therewith reducing associated administration costs.[60]

Institutional & strategic

149. **Harness institutional roles through topical committees**. The development of inter-ministerial committees in the COVID-19 response initiative has allowed for a fast and coherent response to the crisis. Similarly, a committee focused on protecting irregular workers has led to the development of a comprehensive database of informal workers, leading to a proposal to establish a fund to increase assistance to this group. While these are all important and concrete steps towards enhancing coordination within the social protection sector, there is a need to work towards further consolidation of such efforts within the framework of a comprehensive social protection strategy.

150. Develop a social protection strategy. The government can continue to build on the Egypt 2030 Vision, which rightly sets as a main goal the broadening of the SP scope and raising efficiency. The vision set forth has clear propositions for the way forward though lacks sufficient diagnosis of the SP system and a concrete and longer-term vision. In the wake of significant subsidy reform, there still exist components of Egypt's social protection spending that represent an amalgamation of historical entitlements that are tough to roll back despite their lack of efficiency. For some programs, there are clear and relevant objectives while others are a continuation of the past. The current vision and strategy of programs and their budget allocations are not necessarily clear and, as such, recasting these important programs in a comprehensive and goal-oriented social protection strategy in line with broader development vision and goals in an ever-shifting context is critical. The current work to develop a SP White Paper, coordinated by MOSIT and MOSS, can form the basis for the future integrated SP Strategy.

[60] World Bank (2021c)

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Annex 2. 1. International experiences on adequacy, benefit levels and eligibility

Egypt	USA's SNAP	Indonesia's BPNT
Ration card benefits comprise about 21% of the poverty line; Bread subsidies account for just 4%.	SNAP benefits adequacy is approximately 35% of the poverty line.	BPNT benefits comprise about 32% of the poverty line
No differentiation in benefit levels except where the benefit is reduced from EGP 50 per month to EGP 25 if more than four persons are registered on the card. Benefits are received indefinitely as eligibility is not defined through an assessment of welfare upon first receiving a ration card.	Eligibility and benefit system are more complex: • a function of income and family size ; • each additional dollar of a beneficiaries' income leads to a 30% decline in benefits; • as household size increases, benefit level increases based on equivalency scales; Whilst there is no time limit to participation in SNAP, most participants stay in the program for about one year and 2/3 of recipients exit the program after two years once they no longer need the benefit as determined by their income being sufficient to exit the program.	BPNT benefits are higher in remote areas only but not otherwise differentiated. Eligibility and participation in the program is determined based on whether beneficiaries are above or below an eligibility threshold, set to cover the poorest 25% of the population.

Source: Gundersorn, C. (2019) The targeting of SNAP benefits. Presented to the Government of Egypt at a 2019 Workshop on Food subsidies

Annex 2. 2. Detailed calculations behind redirection of savings from a 10-piasters increase in subsidized bread price to Conditional Cash Transfers (CCTs)

This annex provides the detailed assessment of the potential efficiency and equity gains from shifting public resources from the bread subsidy to one of Egypt's CCT programs. A hypothetical basic scenario is developed, by assuming an increase in the price of subsidized bread/reduction of the amount of subsidy and utilizing the savings in (i) expanding the coverage of the CCTs to **new** beneficiaries and (ii) increasing the monthly cash transfer to the **existing** beneficiaries of the CCTs system.

Key assumptions behind this assessment:

- All existing cash transfers beneficiaries are holders of bread subsidy cards,
- 66.7 million individuals benefit from the bread subsidy system,
- Baseline scenario is that 3.85 million households currently benefit from CCTs (equivalent to 14 million individuals),
- The current monthly average cash transfer per household is EGP 500,
- The average household (benefiting from cash transfers) has 3.6 individuals = $\left(\frac{\text{14.0 million citizens}}{\text{3.85 million households}}\right)$,
- Poverty rate is 29.7 percent and population is 100.6 million citizens which means that the poor population is 29.9 million citizens,
- 21.0 percent of total bread subsidy beneficiaries are CCTs beneficiaries = $\left(\frac{\text{14.0 million citizens}}{\text{66.7 million citizens}}\right)$,
- 44.8 percent of total bread subsidy beneficiaries are poor = $\left(\frac{\text{29.9 million citizens}}{\text{66.7 million citizens}}\right)$,
- 46.9 percent of total poor people are beneficiaries of CCTs = $\left(\frac{\text{14.0 million citizens}}{\text{29.9 million citizens}}\right)$.

Assessment:

The bread subsidy beneficiaries currently pay 5 piasters per loaf of subsidized bread (around 8 percent of its cost), and each is entitled to 5 loaves per day. The hypothetical scenario assumes a three-fold increase of the price of bread to 15 piasters per loaf (23 percent of total cost). This would generate an estimated budget savings of EGP 12.5 billion.

The savings that will materialize from a 10-piasters upward revision of subsidized bread price can be utilized as follows:

1. EGP 9.1 billion to extend the coverage of cash transfers to **new** beneficiaries,
2. EGP 3.4 billion to increase the monthly cash transfer to the **existing** beneficiaries of the CCT system.

The following calculations track the flow of this EGP 12.5 billion from/to different bread subsidies beneficiaries' pockets and they are based on a total number of beneficiaries of 66.7 million as assumed in FY2021/22 budget. These 66.7 million citizens are categorized amongst three different groups:

(i) Group (1): Citizens who are **existing** beneficiaries of the CCT system (14.0 million citizens),
(ii) Group (2): Citizens who can be added as **new** beneficiaries of the CCT system (4.8 million citizens),
(iii) Group (3): Citizens who do not belong to either "Group 1" or "Group 2" (47.9 million citizens).

Tracking the flow of the EGP 12.5 billion is presented below along two steps:

(A) Step I is increasing the price of baladi bread by 0.1 EGP

	Total number of beneficiaries (Million) (A)	Daily quota of bread per person (Loaves) (B)	Increase in price of a subsidized loaf of bread in EGP (C)	Daily loss per beneficiary in EGP (D) = (B*C)	Average monthly loss per beneficiary in EGP (E) = (D*30)	Average annual loss per beneficiary in EGP (F) = (D*365)	Cumulative annual loss of all beneficiaries in EGP billion (G) = ((A*F)/1000)
Total	**66.7**	**5.0**	**0.1**				**12.2**
Group 1	14.0	5.0	0.1	0.5	15	182.5	2.6
Group 2	4.8	5.0	0.1	0.5	15	182.5	0.9
Group 3	47.9	5.0	0.1	0.5	15	182.5	8.7

(B) Step II is redistributing the savings that materialized through "Step I"

	Total number of beneficiaries (Million) (H)	Total number of households[1/] (Million) (I) = (H/3.6)	Average monthly cash transfer per individual in EGP (J)	Annual gain per beneficiary in EGP (K) = (J*12)	Cumulative annual gain of all beneficiaries in EGP billion (L) = ((H*K)/1000)
Total	**66.7**				**12.5**
Group 1	14.0	3.9	20[2/]	240.0	3.4
Group 2	4.8	1.3	159.5[3/]	1,914.0	9.1
Group 3	47.9	13.2	0	-	0.0

[1/] Assuming that the average household has 3.6 people as announced according to which 3.85 million households are estimated to have 14 million individuals.

[2/] Amount selected to cover the monthly additional cost incurred by individuals due to subsidized bread price increase; presented in "Column E"

[3/] Equals ((500+80)/3.6) where the 500 is the current average monthly[61] CCT in EGP per household, the 80 is the needed monthly increase in EGP per household to cover the incurred loss induced by the hypothetical increase in the price of subsidized bread and the 3.6 is the average number of individuals per household.

[61] The coverage of TKP as of December 2021 is used as baseline for simulations presented in this report. The government of Egypt has cumulatively extended the coverage of Takaful and Karama programs since March 2022 as follows: (i) 450K additional households within a wider mitigation package amounting to EGP 130 billion announced in March 2022 to increase coverage to 4.1 million households (ii) 900K additional households were announced in July 2022 to increase coverage to 5 million households starting from September 2022. The expansion of the programs' coverage aims at addressing the repercussions of current global economic challenges on the Egyptian citizens.

Combining steps I and II, the net gain/loss of each group can be represented by the following table:

	Total number of beneficiaries (Million) (M)	Loss in welfare induced by increase in price of subsidized bread in EGP billion (N) = (G)	Gain in welfare from CCT system in EGP billion (O) = (L)	Net gain/loss in welfare in EGP billion (P) = (O-N)
Total	**66.7**	**12.2**	**12.5**	**0.3**
Group 1	14.0	2.6	3.4	0.8
Group 2	4.8	0.9	9.1	8.3
Group 3	47.9	8.7	-	(8.7)

Note: The net gain of groups 1 and 2 combined is estimated at EGP 9.1 billion while the net loss of group 3 is EGP 8.7 million. This means that this redirection of resources will yield an overall increase in welfare of total bread subsidies beneficiaries.

This hypothetical scenario will enable the government to expand CCTs to 18.8 million individuals up from 14.0 million, hereby increasing the coverage of the program from 46.9 percent to 62.8 percent of the poor population. Naturally, it is estimated that around 47.9 million individuals who are currently benefitting from subsidized bread (of which 36.8 are non-poor) will incur an extra of EGP 182.5/year (or USD 0.8 per month using an average exchange rate of 18.3 EGP/USD).

Annex 2. 3. Financial Instruments for Hedging against commodity prices fluctuations

Futures contracts	Options contracts
Futures and Options are derivative contracts providing protection against adverse commodity price movements.	
A commodity futures contract is an agreement to buy a predetermined amount of a commodity at a specific price on a specific date in the future. Most commodity futures contracts are closed out or netted at their expiration date. The price difference between the original trade and the closing trade is cash-settled..	Options are derivative contracts that give the grain buyer the right, but not the obligation, to buy grain at a specific price (the strike price) until or upon a certain date (the expiration date), while still being able to take advantage of lower prices in the cash market should the opportunity arise.
The country makes savings as long as the price of the futures contracts never falls below the price paid.	The lower the strike price, the more valuable the call option should be.
The holder has an obligation to act. Unless the holder unwinds the futures contract before expiration, they must either buy the underlying asset at the stated price.	It is in the interest of the holders to exercise the options only when the market price is above the strike price; they may do so at any time before the expiration of the contract.
	Require a premium payment, thus adding to the overall cost. As the size of an option increases, so do both the premium and the potential savings. The relationship between an option's strike price and its spot price is another factor affecting the option's premium (how much it costs to purchase the option).
Hedging, however, entails potential risks:	
Significant amount of price fluctuations may result in large gains or large losses.	Sovereign hedges for commodities can be very expensive for large deals.
Hedging a commodity can lead to the importer missing out on favorable price moves since the contract is fixed. If a company over hedges a commodity, it can lead to losses from unwinding the contract.	Despite widely adopted in developed countries, hedging instruments are not very common in developing countries and this might be associated with challenges pertaining to legal and institutional frameworks in addition to technical capacity and financial knowledge challenges.

Annex 2. 4. Methodology and key findings from the Fiscal Incidence Analysis for Egypt.

A fiscal incidence analysis (FIA) tool has been developed jointly by Egypt's Ministry of Finance (MoF) and the World Bank to estimate the impact of fiscal revenue collections and expenditures on household-level income inequality and poverty. Relying on the HIECS 2017/18, the study provides a static diagnostic of the impact of the fiscal system as of fiscal year 2020/21, including direct taxes (personal income tax, stamp tax) and contributions to the social insurance fund, direct transfers (Takaful and Karama, Tamween), indirect taxes (value Added tax, excise tax), indirect subsidies (energy and transport subsidies), and in-kind transfers (monetized value of public education and health services). This static analysis is converted into a dynamic one by simulating the effects of a range of changes to spending and revenue policies. Thus, this tool can equip governments with the evidence needed to understand the trade-offs inherent between government's current fiscal policy priorities and equity and poverty reduction.

The methodology and key findings, which are summarized below, are detailed in a joint report between the Poverty Global Practice and the MoF (WB and MoF, 2022).

Methodology

This fiscal incidence analysis is based on the CEQ methodology developed by the Commitment to Equity Institute (see Lustig, 2018). Following this approach, taxes and transfers are allocated to households in a nationally representative consumption microdata. As only a few transfers and taxes are directly reported in the HIECS 2017-18, administrative data, policy details and macro data are used to impute benefits and taxes, calibrate the model and simulate the fiscal system and population welfare as of FY21. Despite having access to a rich micro dataset, allocating transfers and taxes to households requires to make modeling assumptions that are detailed in the full report.

To assess how the fiscal system shapes income distribution within the economy, the CEQ methodology defines a pre-fiscal income that is used as a counterfactual representing household income before all fiscal interventions. In this analysis, the pre-fiscal income is defined as market income plus pensions (as pensions are treated as a deferred income). By successively adding and subtracting taxes and transfers to pre-fiscal income, the method defines a series of post-fiscal income concepts (net market income, disposable income, consumable income, and final income). Disposable income measures household income once direct taxes and contributions to social insurance fund are subtracted from market income, and direct transfers added. Then, consumable income is obtained by subtracting indirect taxes and adding the value of indirect subsidies. Finally, the monetary value of in-kind transfers is added to obtain the final income.

The overall impact of the fiscal system on the population welfare is estimated by comparing poverty (defined by the $3.20 international poverty line) and inequality (Gini Index) measured for each income concept. The model is then used to assess the progressivity of each fiscal instrument and their marginal contribution to poverty and inequality (expressed in absolute term and relative to the instrument's budget).

Key findings

- The Egyptian fiscal system is progressive. The total net impact of the fiscal system represents respectively 48% and 29% of the pre-fiscal income of the first two deciles and falls to about 3% of market income of the top decile.
- Across the distribution of pre-fiscal income, all deciles are net beneficiaries of the fiscal system, even when in-kind transfers are not accounted for, illustrating a gap between expenditures and revenues for all deciles of the population that is not sustainable in the long run for the GoE.

- Overall, the Egyptian fiscal system is reducing inequalities. The Gini coefficient falls from 37.1% at market income to 31.7% at final income, when all fiscal interventions are accounted for, a reduction in inequality of similar magnitude as what was documented with the HIECS 2015 (Lara Ibarra et al., 2019). The effect on poverty headcount is more limited overall but confirms the large poverty reduction impact of social assistance programs
- Takaful and Karama makes the largest contribution to poverty relative to its cost, respectively reducing the poverty headcount rate by 0.1 and 0.07 percentage points per billion EGP spent.
- Besides direct transfers, in-kind transfers make the second highest contribution inequality reductions. This is largely driven by kindergarten and basic education expenditures, which are highly progressive.
- On the revenue side, direct taxes are highly progressive overall, with households from the top decile paying the equivalent of 9.7% of their market income in direct taxes and contributions to the social insurance fund, while households from the bottom income are paying 1.8%.

CHAPTER 3. THE PENSION SYSTEM: IMPROVING THE WELFARE OF FUTURE GENERATIONS

A. Overview of the pensions system

An assessment of the new policy parameters and their impact on the finances and social indicators for the first time since the 2019 pensions reform. The reform was very broad in scope, has improved fiscal sustainability, but at the expense of benefit adequacy in the long term, questioning the social sustainability of the new system.[62]

151.**Egypt has one of the largest public pension systems in the MENA region**. It covers around 45 percent of all the employed, supporting a considerable number of the elderly, people with disabilities, widows and orphans (see Table 3. 1). Historically, this had been achieved through the establishment of several specialized pension schemes: for civil servants, workers in state-owned enterprises as well as private sector workers and business owners; casual workers and various categories of contractors and self-employed as well as workers abroad.

Table 3. 1. Insured workers, Pensioners, Pensions

	2019/2020			2020/2021		
	Government Sector	Public & Private Sectors	Total NOSI	Government Sector	Public & Private Sectors	Total NOSI
Insured	4,716,229	8,916,616	13,632,945	4,517,239	9,112,930	13,630,269
Pensioners						
Old Age and Disability	1,676,422	2,537,983	4,214,405	1,771,793	2,520,312	4,292,105
Average pension	2,384	1,674	1,956	2,720	1,885	2,230
Widows and Orphans	2,174,144	3,925,637	6,109,781	2,246,017	4,039,184	6,275,201
Average pension	1,570	1,035	1,223	1,817	1,179	1,409

Source: NOSI Annual report 2020/21 and WB calculations

152.**The scope of the system is very broad in terms of risks it covers.** It provides for long-term insurance (old age, disability, and survivorship pension benefits, to which we collectively refer in this Chapter as OADS) as well as short-term insurance (work injury, unemployment, sickness benefits[63]). The long-term insurance section provides also **complementary** life-cycle benefits that cover child-care, education, marriage, death and funeral costs, as well as End of Service (EOS) indemnity scheme bonus, financed through a separate contribution. The analysis in this chapter is focused primarily on the OADS part of the national social insurance system, including EOS.

153.**The cost of the national social insurance system is an important component of the public expenditure of the Government of Egypt, while state budget subsidies have represented a significant share of the public pension cost**. Expenditures of all the social insurance programs managed by NOSI constitute about 4 percent of GDP. They are financed through regular employer and employee contribution, **significant** transfers from the MOF Treasury, returns on investment of financial reserves, and other small revenue sources.

154.**The fragmented design of the system imposed a number of problems reflecting a development process, in which new schemes were added in response to the specific needs of various groups and/or political demands**. Prior to 2019, the institutional setup limited the portability of the **social** insurance benefits

[62] This work complements a comprehensive engagement of the World Bank with NOSI in institutional and digital transformation.

[63] The sickness benefit, as part of the health insurance scheme, is administered by the Health Insurance Authority.

when an individual moved from one sector to another. The schemes for civil servants, private sector and public sector employees contained many common elements but were administered by two different institutions Government Social Insurance Fund (GSIF) and Public Social Insurance Fund (PSIF).

155.**A new Social Security and Pension bill was promulgated into the Law no. 148/2019**.[64]. The new Law aimed at consolidating administration of the system from two separate funds under a single system managed by the National Organization of Social Insurance (NOSI) and unifying parametrically various dispersed social insurance provisions. It also aimed at restructuring a significant outstanding pension debt of the National Investment Bank (NIB) and MOF Treasury towards the pension system, resulting in close to 3 percent of GDP in annual fiscal transfers **from** MOF to NOSI, as part of covering some ongoing Treasury liabilities and pre-funding future expenditures.

156.**That historical reform constitutes a big and positive step forward to restructure NOSI holdings of the public debt and add predictability to the flow of revenues of the pension system, eliminating contentious areas and ensuring liquidity of the pension reserves**.[65] The new Law contains several important measures that improve sustainability, fairness, and incentives (unifying benefit rules; stimulating formal employment through temporarily lowering contributions; raising statutory retirement age and restricting early retirement; etc.) The new Law also established a specialized investment management entity, Investment Fund, and launched a new complementary defined contribution scheme with individual savings accounts that replaces the legacy EOS benefit. We elaborate on each of these reform areas further below. Technical Annex to this chapter provides further details of parametric changes.

157.**However, despite those positive developments, policymakers are still facing complex challenges in adapting the pension system to the current and future economic, demographic, and social realities**, especially during and post-COVID pandemic. The country's social insurance system needs to be able to effectively respond to changes in labor markets, as markets **will** likely transition further from traditional wage employment to more self-employment, flexible work, etc.

158.**Indeed, despite the large amounts of public resources dedicated to the pension system, coverage gaps remain.** The system covers about 28 percent of the Egyptian working age population or around 55 percent of all the employed. Over time, the employment coverage will expand, as increase in the retirement age gets fully implemented by 2040. Nevertheless, there are significant differences between legal and effective coverage in the case of casual workers. Due to the hiring **freeze** in the government sector, the number of active contributors in the Government sector is decreasing, adversely affecting the dependency rate and the revenues from the collection of contributions. Therefore, in the status quo, we are not modeling any expansion in the contributory coverage, as any increases in the coverage of the casual workers in the short term may be compensated by the reduction in employment in the Government sector, with a resulting zero effect on the number of covered members.

159.**Notably, despite the MOF subsidy to the employer contribution for the casual workers, the number of enrolled members under this scheme did not increase** and has actually considerably declined from where they were a decade ago. This could in part be due to the weak publicity as well as adverse impact of the COVID-19 pandemic on the economy, but it could also be attributed to the preference of the casual workers to enroll in other social assistance programs, such as Takaful and Karama. In 2020, during the COVID-19 crisis, the Ministry of Manpower offered a program of temporary cash assistance of EGP 500 for 6 months, which benefitted around 2 million casual workers. In this program, membership in the social insurance program played as a disqualifying factor, prompting a massive exodus from the social insurance coverage. This poor

[64] The Law was signed by the President on August 19, 2019 and was followed by the approval of Executive Regulations by Prime Minister decree in October 2021.

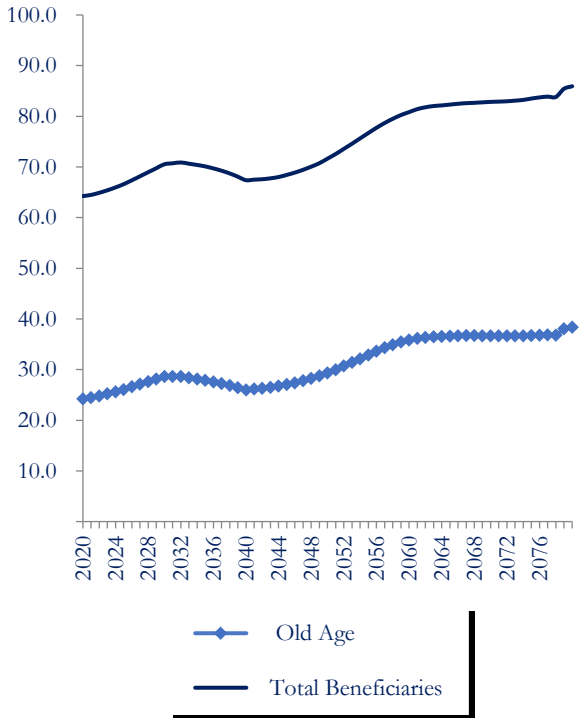
[65] The legal changes were broadly in line with recommendations of the 2018 World Bank's PER review of the Egyptian pension system.

coordination of assistance and insurance policies has unfortunately resulted in a coverage contraction. This experience should inform the future design of the public policies aiming at expanding coverage of the social programs.

160.**Egypt is ageing, and the number of beneficiaries is continually increasing.** The number of people above the age of 60 in Egypt is around 10 million today, but this number is expected to increase by 40 percent in 10 years. The total number of the old age and disability pension beneficiaries is projected to increase from around 4.2 million to around 6 million over the same period. In fact, demographic projections show that the retirement age population, as percentage of the working-age population, will increase 50 percent by 2060. It is also estimated that the country's dependency ratios, measured as the number of old-age beneficiaries and total beneficiaries as percentage of active contributors, will continue increasing, despite increases in the statutory pension age (Figure 3. 1). This poses additional challenges for the current pension system. Population dependency ratios are not yet as high as the system dependency ratios, which means that the population covered by Egypt's pensions system is aging faster than the overall population.

161.**As a particular feature of the Egyptian system, the surviving beneficiaries of the deceased members constitute a very sizable group of the pension system beneficiaries.** It is very broadly defined and includes dependent widows of any age; dependent widowers with a disability; dependent sons and brothers under the age of 21 (age 26 if a student, no limit if disabled); unmarried daughters and sisters; and dependent parents. In addition to a share of an old-age pension, survivors also have rights to the EOS benefit as well as other supplementary benefits. Currently, half of all the beneficiaries in Egypt's pension system are survivors. Since rules cover a broad range of surviving dependents, and there are strong social and cultural reasons that prevent their adjustment, these pensions pose a financial and administrative burden on the system. They also disincentivize participation in productive employment, particularly among youth and women. This area remains a focus for future policy deliberations. One option to streamline the system would be to consider a universal old age pension at the age of 60-65 to replace payments to all the elderly survivors (widows, orphans, etc.).

Figure 3. 1. Projected Social Insurance System Dependency



Source: Projections by WB.

B. A New Law to address Old Challenges

The outcomes of the reform require a periodic thorough actuarial assessment to see if the new parameters put the system in financial and social balance.

1. Key design parameters: improvements and remaining challenges

162.**The national social insurance system operates as an earnings-related defined benefit (DB) mechanism that provides benefits based on employment history (years of service and past earnings).** Prior to the reform, the system was known for its misalignment between the accrual rate[66], the contribution rate, and the retirement age[67]. There were several other problems with benefit formula and eligibility conditions prior to the reform that weakened work incentives, making the system less transparent for participants and resulting in inequitable redistribution. In what follows, we discuss some key changes that were introduced as part of the reform. Further details on the changes in traduced by the law are presented in Part A of the Annex to this chapter.

163.**Contribution rate and statutory retirement age:** As part of the reform, contribution rate was reduced, remaining on the high end of the regional range (see Figure A. 3. 1 and Figure A. 3. 2 in the Annex)[68], and the retirement age was increased.

164.**A gradual expansion of the pensionable wage in time:** In the pre-reform setting, the calculations of a significant part of the benefit were performed on the basis of the last wage, exposing the scheme to the risks of the manipulation of earnings records and an inequitable distribution of benefits in favor of workers with steeper wage profiles. This has been addressed under the reform, by expanding gradually the pensionable wage measure to the life-time wage. The high accrual rate and the maximum pension (expressed in relative terms, as 80 percent of pension to the insured wage) remained untouched by the reform. These generate average replacement rates (pension relative to the insured wage) that are relatively high in comparison to other systems.

165.**Augmented definition of the pensionable earnings:** Prior to the reform, pensionable earnings were composed of basic and variable wage components, with different rules and contribution rates applied to each. This generated a large variation in the implicit rates of return that individuals receive as a function of wage and career histories, due to the inclusion of the last five years only of the basic salary in the calculation of the pension (and even a shorter period for civil servants). Although a full-career average applied to the variable wage, the valorization[69] was ad-hoc based on a fixed growth rate. The result was a redistribution between members that was not transparent and could be regressive. The law intended to unify the definition of the insured income and bring into the coverage a greater share of the workers earnings, improving standards of the insured income and future benefits. Currently, the insured average wage is only around a half of the total labor earnings and

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[66] The accrual rate is the rate at which pension benefit is built up per year of service, often expressed as a fraction or percentage of pensionable wage. The higher the accrual, the higher the pension amount.

[67] In any viable pension system, these three parameters must be properly aligned to ensure that the system is fiscally sustainable over the long term. High accrual rates and low retirement ages, for example, require higher contribution rates.

[68] While this diagram places Egypt on the high end of the range, it does not mean that these rates are fully comparable, as different schemes provide for different benefits in terms of both adequacy and scope. Some countries, including Egypt, offer a broad range of short-term benefits, while others do not. Also, these contribution rates do not necessarily support the actuarily balanced programs, having governments contribute varying shares of co-financing. Therefore, this figure just indicates the premium cost of labor given particular social contract in each country.

[69] Valorization is a process of adjusting/inflating the historic values of individual wages to the present value, as part of applying the pension benefit formula.

the average pension today is only around 34 percent of the statistical economy-wide average wage.[70] Two main reasons contributed to this: (a) the existence of various types of bonuses, paid on top of the basic and variable wages and often remaining uninsured;[71] ; and (b) the ceiling on insured earnings, currently limited to EGP 7,000, which is approximately 120 percent of the economy-wide average earnings. This is very low and dampens the replacement rates specifically for the higher income workers, not providing an adequate income protection in retirement. Except for Morocco, Tunisia, and a few other schemes, most countries in the region have no ceiling on pensionable earnings or have a high ceiling (in the case of Iran). As part of the reform, however, both the minimum wage and the wage ceiling will be increased at a rate of 15 percent annually, which will likely be higher than the average wage growth. This will have a favorable impact both on revenues of NOSI and on gradual expansion of the covered pensionable wage in calculation of pensions.

166. **Rules of benefit indexation:** Prior to the reform, pensions were adjusted annually but the adjustment factor was determined on an ad-hoc basis, subject to the GoE discretion. The cost of the adjustment was financed by the Treasury, with limited consideration to its financial and fiscal implications, and was also putting pensioners at risk that their benefits would decline in relation to the cost of living. The Pensions Law has introduced a mandatory adjustment of pension benefits to annual inflation.

167. **Increased service requirements:** The new law increased service requirements to qualify for any pension, including minimum pension, from 10 to 15 years. However, as we discuss further below in the subsection on coverage expansion, this measure falls short of introducing strong incentives to participate for the low income workers beyond this minimum service.

2. Financing mechanisms

168. **The social insurance system is financed by payroll contributions, direct transfers from the Treasury, revenues from the investment of NOSI reserves, and other small operational revenues.** The contribution from the central budget to the national social insurance system is an important component of public expenditure (averaging 8.3 percent during the period FY2017 and FY2021) and represent a significant share of the public pension cost. Figure 3. 2 projects revenues of the OADS component of the insurance system under the current parameters of the law (see Annex 3. 1 for description of our assumptions and methods). It indicates that contribution of different revenue factors changes substantially over time. The Treasury transfers will constitute the major source of OADS financing for at least 5 years following the reform, declining gradually further in importance. However, the combined and growing contributions from employer and employees along with the investment income will not be able to replace the government transfers. The current situation of significant surpluses, therefore, is temporary. This section provides a detailed analysis of three largest components of NOSI revenues.

Contributions of employers and employees

169. **The vision of the pension law is to stimulate participation through reduced contribution, while considering the fiscal space available for such a policy in the medium-term**. Table 3. 2 illustrates schedules of social insurance contributions before and after the reform. The biggest drop in the contribution

[70] While this would be considered a decent replacement rate for countries in other regions of the world, these rates in Egypt are projected to dramatically decrease over time, both as result of the inadequate indexation and the adverse dynamics of the new pensions (see below).

[71] As an example of this remuneration policy in the public sector, based on NOSI 2020/2021 annual report, total wages of the full-time staff of NOSI constituted around EGP 600 million (or an average of around EGP 2,400 monthly), while all the bonuses stood at EGP 1,700 million, or almost three times the value of the reported wages.

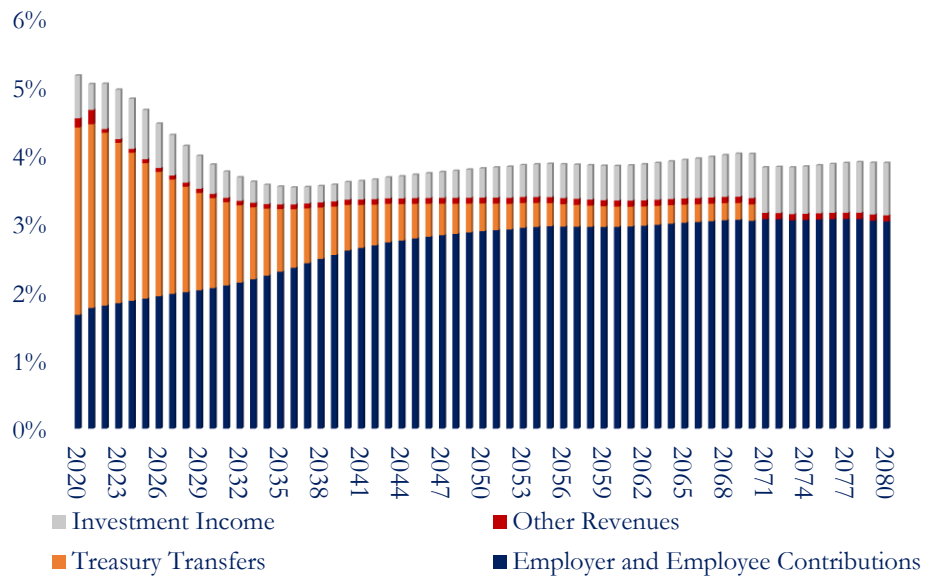
rates has been for the private sector, by over 10 percent of wage. However, for all sectors, this drop will be partially reversed, as contribution rate will be raised by total of 5 percent over a 35-year period.

170.**The projected increase in revenues from employer and employee contributions over the next several decades**, as indicated in Figure 3. 2 is primarily due to (i) the gradual increase in the contribution rates; as well as (ii) raising of the retirement age (which expands the scope of contributory coverage of the labor force). Under the status quo scenario, no significant coverage expansion was projected. Such growth in contributory revenues certainly helps to counterbalance the adverse demographic dynamics of the system.

171.**Contribution compliance varies between the public and private sectors.** For the government sector, the Treasury pays on behalf of the government as employer for the civil servants. The deductions from the employees' payroll are largely automatic, ensuring 100 percent compliance. For the private sector employers previously enrolled under PSIF, however, the NOSI reports arrears and delays in contribution payments, which has perhaps only intensified during the COVID pandemic. The current stock of overdue contributions is around EGP 40 billion (see section on NOSI assets). At the same time, NOSI is actively pursuing those overdues and has recovered close to EGP 10 billion in 2020/2021.

172.**The End of Service indemnity scheme has gone through an important systemic transformation, with implications for the OADS financing.** The scheme provides for lump sum benefits at retirement, disability, and death. The benefit is calculated as one month of basic salary for each year of contributory service. It used to be financed by a 5 per cent contribution rate applied to the basic salary. As part of the reform, the old EOS scheme was closed to new contributions. In its place, a new Defined Contribution (DC) scheme was established, with new contribution of 1 percent by employer and employee each flowing to individual employee accounts. The rights accrued under the old EOS scheme have been preserved and are being gradually paid out. However, there has been no explicit provisions made for financing of quite significant liabilities of the old EOS scheme benefits,[72] which puts further strain on financing of the OADS program, as discussed below.

Figure 3. 2. Projected revenues of OADS insurance (% of GDP)



Source: Projections by WB on the basis of data from NOSI Annual report 2020/21.

[72] If all liabilities of the old EOS scheme were to be paid out today, this would require an estimated EGP 300 to 400 billion, which is at least 60 percent of all NOSI current assets.

Table 3. 2. Contribution rates before and after reform (% of wage)

Type of insurance		Previous Law (prior to 2019/2020)			New Law 148/2019		
		Employer	**Employee**	**Total**	**Employer**	**Employee**	**Total**
Old age, disability and death	Employee	15	10	25	12 (*)	9 (*)	21
	Self-employed (**)	0	15	15	12 (***)	9 (*)	21
	Worker abroad	0	22.5	22.5	12 (***)	9 (*)	21
End of Service Indemnity (****)		2	3	5	1	1	2
Work injuries	Government	1	0	1	1.25	0	1.25
	Public	2	0	2	1.25	0	1.25
	Private	3	0	3	1.50	0	1.50
Illness/sickness	Government-Public	3	1	4	3	1	4
	Private	4	1	5	3.25	1	4.25
Unemployment (public and private)[73]		2	0	2	1	0	1
TOTAL	**Government**	21	14	**35**	17.25	11	**28.25**
	Public	24	14	**38**	18.25	11	**29.25**
	Private	26	14	**40**	18.75	11	**29.75**

Notes: (*) The employee and employer contribution be increased by 0.5% each, every 7 years until the combined rate reaches 26%. (**) Under the New Law includes multiple categories, including casual workers. (***) Government co-contribution to finance the employer share. (****) Indemnity contributions applied to basic wage only under the Previous Law and to the total wage under the New Law.

Financial transfers from the Treasury to NOSI

173.**Over the years, both the GSIF and PSIF had accumulated large reserves.** As of early 2000s, the value of those "reserves" was estimated at around 50 percent of GDP. They were mostly invested in nonliquid public debt through the National Investment Bank (NIB), so they largely did not represent real assets. By 2019, the stock of assets was estimated at EGP 696.5 bn, or 12 percent of GDP. The value of assets deteriorated in relative terms due to variety of factors, including sub-optimal investments, high inflation, possibly writing off some of the bad loans as well as claims on some of those assets to pay benefits, etc., This number became the focus of the negotiations between NOSI and MOF in the context of the proposed debt cancellation agreement to be cemented by the pension reform.

174.**In 2019, the MOF and NOSI concluded a financial agreement to settle their dispute over the valuation of those assets.** The resulting agreement consisted of the Treasury consolidating all debts and compensating NOSI through regular annual transfers. The initial book value of the accounted liquid assets of NOSI as of 2019 was set at around EGP 340 bn. The annual fixed allocation from Treasury to NOSI was set at EGP 160.5 bn in 2019/20 (equivalent to 2.8% of GDP) and to EGP 170 bn in 2020/21. A significant part of this annual transfer from the Treasury (or EGP 70.1 bn in 2019/20) was paid in the form of T-bonds issued at the market rate. The remaining part of the fixed annual transfer (EGP 90.4 bn) was paid in cash and constitutes various MOF Treasury obligations related to financing of the current costs of the program, such as (i) annual benefit increases, (ii) various contributions, including on behalf of the casual workers, (iii) various other statutory obligations of MOF, and any actuarial deficit. According to the Law, the Treasury payments would continue for the next 50 years, with the nominal amount subject to an annual increase of 5.7%.

[73] Government employees are not entitled to an unemployment benefit.

Investment income and other revenues

175.**Returns on investment of social insurance reserves constituted close to 13 percent of the total NOSI revenues in 2020/21.** As shown in Figure 3. 2, our model projects that under the status quo, this source will generate a stable relative revenue stream, which may somewhat decline in the medium term due to temporary deaccumulation of assets in relative terms, as we discuss further below. Other sources of revenues include permits issued for certain categories of self-employed workers, as well as overdue contributions, as explained above (which is classified in the NOSI accounting system under other incomes), etc. We assume that this share of income will remain stable in relative terms over the projected period. The detailed structure of the NOSI revenues and expenditures is presented in Table 3. 3 below.

Table 3. 3. NOSI Finances (EGP billion)

	2019/2020	2020/2021
Revenues		
Insurance contributions	113.8	128.4
excluding Health Insurance of	*6.7*	*6.8*
Public treasury obligation	160.5	170.0
incl. Cash	*90.4*	*99.2*
incl. Bonds	*70.1*	*70.8*
Investment return	39.7	45.9
Other revenues	8.0	13.6
incl. overdue contributions	*4.7*	*9.7*
incl. patents, etc.	*3.3*	*3.9*
Total	**322.0**	**357.9**
Expenses		
Insurance expenses, *incl.:*	222.7	249.7
Legal Pensions	*36.0*	*81.6*
EOS benefits	*5.5*	*8.0*
Additional benefits	*29.7*	*24.6*
Benefits under Laws 79/1975, 47/1984	*95.4*	*75.6*
Exceptional pensions	*19.7*	*16.3*
Various increases	*12.5*	*11.7*
Increases Art 165, Law 79/1975	*8.7*	*10.1*
Others	*15.2*	*21.8*
Administrative expenses	2.5	3.2
Charges and losses	3.1	6.3
Total	**228.3**	**259.2**
Surplus	**93.70**	**98.70**

Source: Compilation by WB on the basis of NOSI Annual report 2020/21.

3. Simulations of spending on pensions benefits

176.**The fiscal simulations focus only on the OADS component of the national social insurance.** The NOSI Annual Report provides separate records of accounts of different insurance schemes, attributing 89 percent of contribution revenues, 99.8 percent of insurance expenditures, and 92 percent of financial reserves

to the OADS section of the NOSI operation, including EOS indemnity scheme. Notably, all Treasury transfers are attributed to the OADS section of the NOSI operation.

177.**Over the projected period, under the status quo, the OADS benefit expenditures decline significantly from over 4 percent to 3 percent of GDP (Figure 3. 3) but at an expense of social sustainability**. The reduction in cost is mainly due to both benefit indexation and wage valorization linked to inflation. The figure indicates that over the same projected period, overall replacement rate (ratio of current pension to current average wage) will collapse around three times (from over 75 to around 27 percent). In other words, if assessed in current terms, the equivalent average old age pension today would be around EGP 750 instead of EGP 2230! This will very likely be socially unacceptable and politically impossible, as it would invalidate the whole purpose of the national social insurance system, whereby it could simply be converted to a flat universal benefit for everyone. The same diagram illustrates that replacement rates of the newly retired pensioners is projected to significantly decline, contributing to the overall dynamics of pension rates.

178.These findings indicate a critical need of revisiting parameters of the pension system at some point in the future. This will likely happen within next 10 years, as the pension levels will start falling to under 50 percent of the average wage, approaching the ILO recommended norms of 40 percent. We do not think that such a decline is problematic per se; on the contrary, it has been one of the objectives for this reform to make the system more fiscally affordable. However, policymakers will need to set a specific social target, beyond which any further decline in the benefit rates should be prevented. As of now, this target does not exist. It should be set as a starting point of any meaningful reforms ensuring political sustainability of the national social insurance system for the foreseeable future.

179.Expenditures of the legacy EOS scheme constitute part of OADS expenditures. In 2020/21, that scheme paid 615 thousand cases of retirement, disability, death or separation, with an average lump sum payment of around EGP 13,000 (US$ 825)[74]. This is a sizable amount, and it would be interesting to conduct an empirical study to see how these funds are utilized by the retirees. On the fiscal side, however, the liabilities of the EOS scheme, it they were to be all paid out instantaneously, constitute an estimated around EGP 100 billion, or one-fifth of the total NOSI reserves. As we noted above, after the reform, this liability is no longer supported by any stream of earmarked contributions. Hence, it constitutes important fiscal burden on the OADS assets. At the same time, this liability will be partially inflated down in relative terms, being indexed over time to inflation, as long as financial assets earn the above inflation return.

180.**We modeled an alternative scenario with benefit indexation of 50 percent wage and 50 percent inflation, known as a "Swiss formula" (with results depicted in Figure 3. 4).** This scenario also included indexation of the minimum pension in the long run with the same "Swiss formula" schedule, impacting dynamics of the new pensions. This scenario secures the replacement rates of pensions within probably a more politically and socially acceptable range of 40 to 50 percent relative to the average insured wage, which is more in line with the ILO guidelines.

181.**This exercise clearly indicates vulnerability of the system to significant policy or parametric changes, such as change of indexation rules.** Figure 3. 5 depicts schedules of accumulation of NOSI financial reserves under different scenarios. Under the status quo, after initial deaccumulation phase[75] and possible depletion of the NOSI assets completely in the medium term, assets continue to grow in the foreseeable future – but at expense of the rapid impoverishing of the current pensioners. Should the indexation parameters become more socially favorable, pension reserves are projected to be permanently exhausted within

[74] Source: NOSI Annual Report 2020/21.

[75] The rapid assets deaccumulation (in relative to GDP terms) over the next 15 years is explained by the relative dynamics of Treasury transfers versus contributory revenues of NOSI, with the latter being initially on a slower growth path (see Figure 3. 2).

next 10 years due to continuous OADS operational deficits, starting five years earlier.[76] Under this scenario, NOSI also quickly loses investment income, which would otherwise provide up to 15 percent of the total NOSI revenues. There are scenarios that have not been modeled in between these two extremes, and there are other parameters that could be adjusted to help improve the balance of the fiscal and social objectives.

Figure 3. 3. Projected NOSI expenditures (% of GDP, right axis) and replacement rates (% of average wage, left axis), Price indexation of benefits in the long term (status quo)

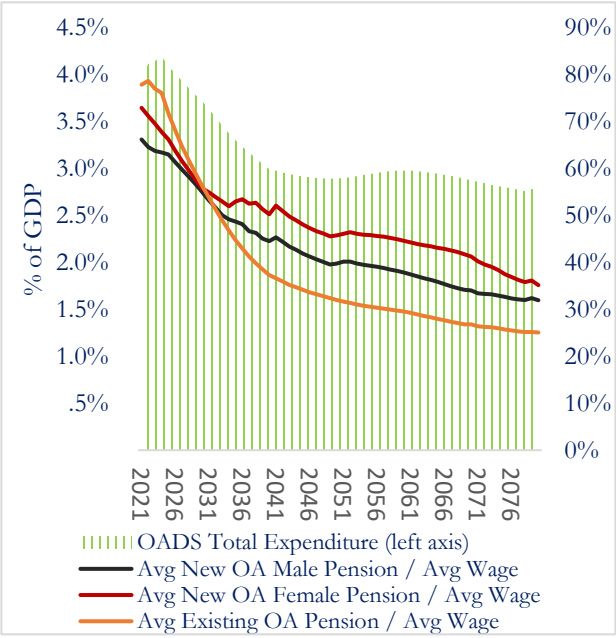


Figure 3. 4. Projected NOSI expenditures (% of GDP) and replacement rates (% of average wage), 50/50 wage/inflation indexation

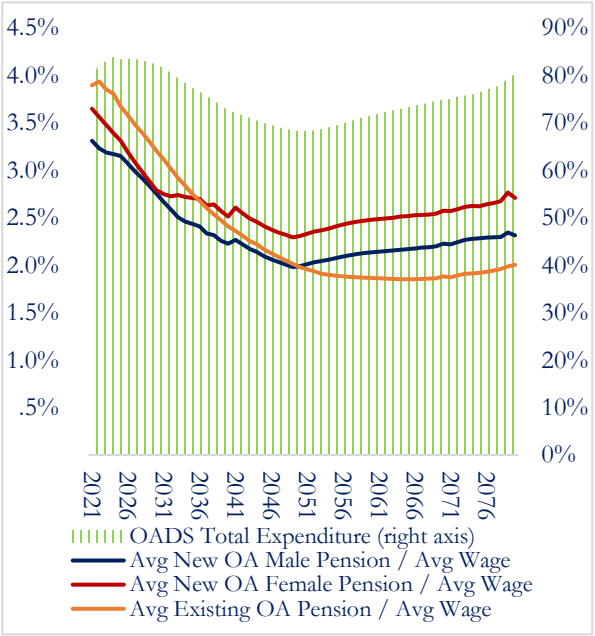
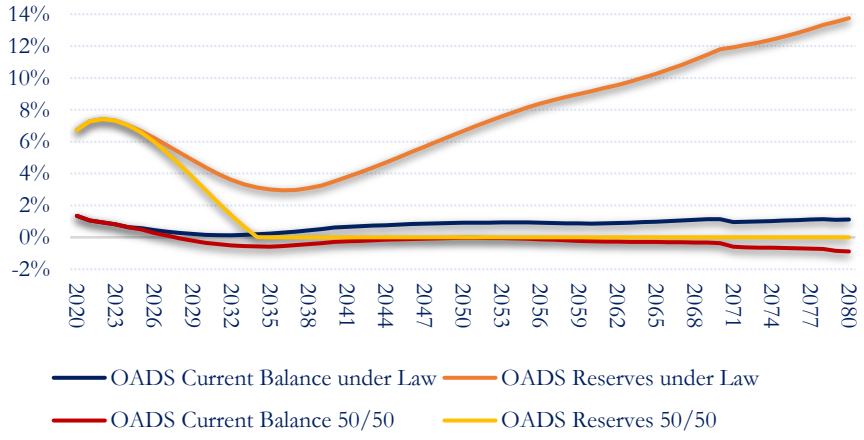


Figure 3. 5. Projected OADS balances and stock of financial reserves (% of GDP)



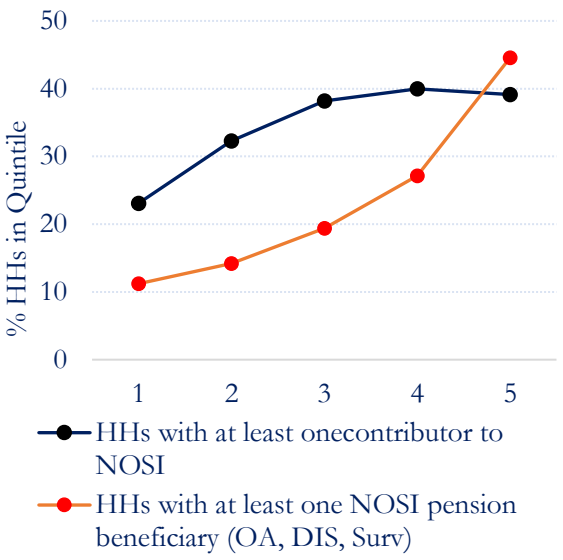
Source: WB fiscal simulations

[76] Note that under this scenario valorization remains inflation-linked, which will naturally contribute to the continuous reduction in the new pensions relative to the wage. If this parameter is changed as well, for example, making it closer to the wage growth, this would cause even earlier exhaustion of the pension reserves.

4. Social Impact of the National Pension System

182.**The population that benefits from the system is still disproportionally in the higher income category.** There are over three times more households in the top quintiles compared to the bottom quintile that have at least one beneficiary of NOSI. This is not surprising as opportunities to participate in the system are significantly limited for the bottom quintile. It is also notable that not always participation in the system translates into a benefit. Figure 3. 6 implies that there could be significant gaps between contributing and benefiting households for most of the population. Assuming that contributory coverage remained stable or even slightly declined recently, this could indicate that significant numbers of individuals participating in the system never earn sufficient rights or are unable to claim them.

Figure 3. 6. NOSI Coverage by Quintiles



183. **Under the new Law, the minimum pension is linked to the minimum wage, at least for the first seven years after reform, a good policy that ensures relative income security at retirement**. Only two other MENA countries – Algeria and Libya – set the minimum pension in law as a proportion to the minimum wage. In Egypt, it is set to 65 percent of the minimum wage[77] or EGP 900 per month, whichever is higher. While the 65 percent is not binding today, it will be in the future, as the EGP 900 amount remains unchanged. This implies a minimum pension of around 20 percent of the average insurable wage in each sector. However, when a broad statistical wage is considered, the minimum pension is only 10 percent of it, which may be socially inadequate. Over the next seven years, under the law, the minimum pension and minimum wage will both experience an accelerated growth that will likely exceed the average wage growth. However, over the longer run and as the law stipulates that these indicators transition to the inflation indexation, the minimum pension - as share of the average - will collapse from the current 35 down to only 6 percent. Obviously, such status quo will not be socially or politically sustainable and a more realistic policy scenario will need to be agreed.

184.**At the same time, any improvements in the benefit adequacy over the medium term will be erased and reversed in the longer term as all major parameters in the system are explicitly linked by Law to inflation with no consideration of growth in real incomes.** This constitutes a major social risk in the current system. There are three parameters to consider: (i) valorization, (ii) indexation, and (iii) minimum pension.

- **Valorization** is a mechanism that adjusts the value of historic individual wages to the point of individual pension benefit calculation. Typically, it uses some combination of historic wage growth and inflation. Prior to reform, the basic wage was averaged only over a two-year period, while the variable wage was averaged over a lifetime with an additional compensation of 3 percent for each year of contributions. Combined with other parameters, it produced a fairly generous pension. The reform introduced the gradual transition to the lifetime averaging of all wages, which applies to the full wage (basic and variable) but uses price inflation as an adjustment factor. Historically, inflation was hovering around 10 percent per year, while real wage growth was around 3 percent on average. This implies that as historic wages get consolidated for an

[77] The minimum pensionable wage in 2021 is EGP 1200 for the public and private sector and EGP 2400 for the government sector).

individual pension calculation in the future, adjusted for inflation only, the 3 percent annual premium will be lost in the total pension value. Projections indicate that this contributes to a steady decline in replacement rates of the new pensioners, despite the projected improvements in their average lengths of service at retirement, which only partially compensates for that loss. Valorization could be the main candidate for the possible future policy adjustments to ensure benefit adequacy and ensure social sustainability.

- **Indexation** is responsible for maintaining the value of pension after it has been awarded. Again, from international experience, some combination of wage growth and inflation is typically used. In the past, there was no indexation set in the law and pension increases were ad hoc, leaving the elderly at the discretion of the politicians. The Law introduced a mandatory adjustment of pension benefits to annual inflation. The lack of incorporation of wage growth in the indexation index is the major contributor to declining benefit value in the long run (see Figure 3. 3). However, in practice pensions are still being indexed at an ad hoc rate which is much higher than inflation or even the average wage growth. So, in 2020/2021, all pensions were increased by 14 percent, while in 2021/22 the increase was 13%. This temporary deviation from the minimum norm of the law constitutes a premium of 4 and 8.5 percent correspondingly over inflation of the previous year, or an additional EGP 10 billion in NOSI expenditures, - this year and all future years. It is stated that this practice of the above inflation benefit indexation will gradually phase out (with the 1 percent annual decrement, as we have also modeled), until the annual indexation rate becomes inflation only. While this could be a good news for the pensioners, it is not clear if such indexation premiums have been properly factored into the MOF/NOSI debt cancellation agreement. Every such increase creates obligations not only for the current year but also for all the future years. Some middle ground may need to be sought on having indexation set formally at the rate higher than prices, especially if wages are expected to experience a significant growth. Hence, an alternative scenario of a "Swiss formula" that was introduced and modeled above. As another alternative, for example, the Government may consider an additional one-off ("thirteen") annual pension benefit which is set at full discretion of the Government and paid by the Government when fiscal conditions are favorable. Such a payment would not have impact on any future obligations of NOSI.

185.**As noted above, the minimum pension serves an important role of securing the benefit for the low-income workers.** In fact, a significant number of workers in the special schemes (drivers, construction and casual workers, etc.) as well as beneficiaries of widow and orphan pensions, receive it at the rate of the minimum pension. Table 3. 4 indicates how workers and their survivors in the private sector, in particular in the unorganized sector, are less privileged compared to their peers employed by the Government or Public sector enterprises. For them, the minimum protection offered by the system may be quickly eroding.

Table 3. 4. Sectoral overview of the NOSI pensions

Sector	**Pensioners**			**Average Pension (OADS), LE**
	Old Age, Disability	Survivors	Total	
Public sector	552,281	999,859	1,552,140	**2,759**
Government sector	1,771,793	2,246,017	4,017,810	**2,215**
Workers abroad	6,415	6,239	12,654	**1,627**
Private sector	923,025	1,059,073	1,982,098	**1,398**
Business owners	394,825	718,383	1,113,208	**856**
Casual workers	641,043	1,180,286	1,821,329	**787**
Sadat pension	2,723	65,344	68,067	**786**

Source: Compilation by WB on the basis of NOSI Annual Report 2020/21.

C. Selected policy issues

Coverage expansion, early retirement, and NOSI investments are among the top of priority issues on the Government agenda of the reform implementation.

1. Coverage expansion

186.**Previous efforts to expand coverage among the working age population have resulted in a relatively high insurance coverage among the elderly**. Notwithstanding the difficulty to get accurate data on coverage rates for specific age cohorts and of obtaining beneficiary age/gender specific data categorized by different benefit types, this analysis estimates that more than two-thirds of most elderly cohorts of men are covered by the old age pension. Among women however, the old age beneficiaries represent at best around a quarter of the elderly female population, but the majority of widow beneficiaries are women and their share among the population of retirement age is around a half. While it is not always clear if one individual can receive multiple benefits, it is safe to assume that around three thirds of the elderly population receive some kind of the insurance benefit from NOSI, which is considered as high coverage by the regional and international standards.

187.**The contributory coverage remains high but is on a declining trend.** Egypt has historically boasted one of the highest contributory coverages of the working age population in the region - in part due to various special schemes Yet, the coverage has declined in the recent years, partially as a result of the hiring freeze in the public sector, but also due to the dramatic contraction in the casual workers scheme. In 2004, that scheme covered a reported 5.5 million workers, complemented by 2.4 million of the self-employed. Today the combined coverage of the special schemes is around 2.2 million, including only 0.4 million of the registered casual workers. Clearly, the relationship of NOSI with the very vibrant and diverse sector of the unorganized employment in Egypt has dramatically deteriorated. Part of the drop in coverage can be explained by the weak coordination between social insurance and social assistance policies, largely triggered by the COVID pandemic.

188.**Important changes took place for informal (casual) workers.** As part of the reform, the Government has unified parametric provisions of various special schemes with the main scheme. Under the new law, the MOF will cover the costs of a contributory subsidy in a form of an employer part of the statutory contributions to NOSI. A major positive implication of this new policy is that it allows for benefit portability, by enabling individuals who move between organized and unorganized sectors to get their rights consolidated for a unified benefit. This is a major and exemplar achievement of the reform. At the same time, it is assessed that the mandatory monthly minimum contribution for those who would register as a casual worker have increases from EGP 90 to 100 and that contribution will be increasing now at the rate of 15 percent a year over the next seven years, in line with the legislated annual increases in the minimum wage. This cost factor may continue discouraging the informal workers from joining the system. Publicity has also perhaps remained suboptimal, suggesting that there is certainly a scope to raise awareness.

189.**Incentives to participate for the low-income workers remain low.** The law provides for a minimum benefit of 65 percent of the minimum wage to anyone who earns minimum service of 15 years. Alternatively, a minimum wage worker (majority of informal and casual workers) would need to work for close to 30 years to get the same benefit when regular formula applies. This means that as long as such low-wage individuals have worked and contributed for 15 years, they may have no further incentives to make any additional contributions, as that would not impact their future benefit. For that reason, the average service at retirement for these individuals may be stagnating at low values, resulting in suboptimal pensions. An additional incentive for such individuals to stay engaged with the social insurance would be, for example, an access to other insurance products (injury, maternity, etc.).

190.**The Government is in the process of designing a strategy for expanding the social insurance coverage.** This process has several stakeholders and many different components. It will be important to map the unorganized sector and identify clusters that can be catered for by different stakeholders and utilizing different methods. It is important to assess the needs for different packages of insurance benefits. Within the social insurance, coverage can include the normal range of benefits (retirement, sickness, family, survivors, unemployment, maternity, work injury, disablement) or a narrower selection of benefits (e.g., retirement, disability, survivorship). At the moment, the NOSI coverage for the unorganized sector under the special schemes is only restricted to the old age pension benefits. It would be strategically important to use the systems of NOSI as a core of the effort of the coverage expansion. A dedicated task team should be appointed within NOSI that would handle all the initiatives and issues associated with the program of coverage expansion. It is important to ensure that participation in the social insurance does not disqualify from various mean-tested benefits in a categorical manner, which could only exacerbate barriers to formalization.

191.**The coverage expansion will come at costs to the Government and NOSI.** Majority of the self-employed will not be able to cover the full costs of the social insurance that would qualify them for an adequate benefit or a range of benefits, without significant subsidies. Often such subsidies are implicit and maybe internal to the system, re-distributing from the higher income individuals to the lower incomes. As part of the reform, the Government made a decision to make all such subsidies explicit and transparent, so it formally covers the employer part of the contributions. Yet, it may not be enough, so higher subsidies may be needed to attract greater numbers of informal sector workers. The nature of the subsidies is unique in that it forms part of the annual fixed allocation from the Treasury to NOSI. Over the past two years, the amount of subsidy is estimated to be between EGP 3.5 and 4 billion. As the coverage expands, the NOSI will be utilizing a greater part of those Treasury transfers to cover employer part of the contributions on behalf of the informal sector workers. If any new schemes get introduced (or provisions of the current short-term insurance get extended to cover the informal workers) that would also come at additional costs. For example, given the nature of farming, the level of work-related injuries or disability onset can be high. This would have fiscal implications for any coverage by work injury or disability benefits. Therefore, it would be prudent to undertake an actuarial study to determine the viability of inclusion of some or all categories of worker in such schemes, and/or if such a program should be established separately from the main social insurance scheme.

192.**A significant segment of casual workers is in the agriculture sector,** which contributes 11.5 percent of GDP and 25 percent of total employment.[78] It is critical to define what strategic policy objectives will be addressed by the extension of social insurance to the agricultural sector[79]. Such objectives can include the reduction of poverty and vulnerability throughout life cycle for household in the rural areas, population retention in rural areas, increasing women empowerment, formalising un-regulated or informal work,[80] improving access to health services and other formal insurance programs, improving agricultural productivity, and strengthening food production security. The effort of coverage expansion would have to be a collaborative effort of several ministries and agencies, including in the agriculture sector. A pre-requisite for establishing

[78] Source: World Bank Data Bank

[79] In the MENA region, significant gaps remain in the coverage of workers in the agricultural sector. Countries such as Jordan, Lebanon, Sudan, Tunisia and Yemen explicitly exclude certain agricultural workers from some or all contributory schemes, in most cases because these workers are excluded from the Labour legislation. Yemen, Syria and Lebanon also exclude certain migrant workers, keeping in mind that they often represent a large share of workers in agriculture. Finally, except for Libya, all other countries have legal barriers in place that exclude self-employed workers from at least one social insurance scheme, excluding self-employed farmers, own-account workers and producers' cooperatives. For a detailed review, see Sato (2021).

[80] ILO defines informal employment as "all remunerative work (both self-employment and wage employment) that is not registered, regulated or protected by existing legal or regulatory frameworks, as well as non-remunerative work undertaken in an income-producing enterprise. Informal workers do not have secure employment contracts, workers' benefits, social protection or workers' representation"

some form of a contributory mandate to underpin the agriculture workers would be the need to ensure that the employing agricultural enterprise is formally recognised, and that the agriculture/farm work qualifies under the relevant legislation. This would probably require prior registration and approval in a database, such as *a Farmer Registry* (as a separate database or part of another system)[81]. It is critical indeed to seek opportunities of building synergies with existing policy and administrative systems. This matter is usefully discussed in a recent FAO publication.[82]

2. Early retirement

193.**Some important changes took place in the system of early retirement.** Prior to reform, more than 40 percent of contributors who retired took early retirement. Indeed, the system favored early retirement rather than working up to the normal retirement age, as it was easy to qualify for early retirement, and pensions were not penalized appropriately. It is a common policy in many countries to restrict access to early retirement by (i) setting specific minimum benefit rate, (ii) having high minimum service requirements and/or, (iii) minimum pension requirement. The reform expanded the minimum required service for early retirement from 20 to 25 years and a minimum pension for qualified individuals was set at 50 percent of the insured wage. It is also common to reduce pension benefits for early retirees—often called 'actuarial' reduction—to compensate for cost of the longer duration over which pension benefits will be paid. The key principle of the reduction mechanism is to ensure fairness across different beneficiaries, so that present value of the benefit does not depend on the age of retirement. A new set of actuarial adjustment factors was introduced by the law. For workers who retire prior to the retirement age of 60, the pension would be reduced (for life) by around 5 percent for each year of early retirement. We discuss the issue of early retirement further below.

194.**However, the new rules are perceived by many as being too restrictive and are facing some pressure to undo the changes introduced by the law.** If flexibility was to be introduced, there are mechanisms to largely neutralize budget implications, as outlined below:

- Minimum age could be established, for example at 50, gradually increasing to 55, along with the statutory pension age increase.
- The right to early retirement could be further differentiated, so that rights to retire early in a particular age is linked to the years of service.[83] In fact, the average allowable service to retire early would be 25, as provided by the current law, but it would get converted to a range of eligibility from a single number. Such type of a parametric change usually is seen as introducing justice, since it links people's rights to their contribution to the economy. This also stimulates formal employment. With the current average service at retirement of 33 years for Government sector and 22 years for public/private sector, the average eligibility age would be around 51 and 57 correspondingly. As the statutory pension age increases over time, as provided by the Law, the suggested 10-year range should correspondingly shift up.
- Importantly, along with introducing the early retirement age corridor, coefficients in Table 5 of the Law would apply to reduce the benefits for those who retire early voluntary. So, even if one meets criteria to retire early, his or her pension will be reduced correspondingly. The minimum pension provision should still be in place, and in case such reduction yields benefit less than the statutory minimum, such a prospective beneficiary would have to wait until the condition of the minimum pension and/or age/service is met.

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[81] Lorenzon (2018)

[82] Sato (2021)

[83] For example, if 15 years is required to retire at the age of 60 (currently normal retirement), we would suggest a minimum 35 years to retire at the age of 50 (which should be established as a minimum), the two year service increment would qualify for one year decrement of age of early retirement eligibility: 17 years of service would qualify for the age of 59; 19 years of service would qualify for the age of 58; until it gets to 33 years of service for the age of 51 and then 35 for 50.

- NOSI could also provide and option of "purchasing" pension increment using EOS benefit, which could in part compensate for the monthly benefit reduction for those who retire early.

195. **Early retirement has often been used as mechanisms to downsize the public sector, a policy that is deemed inappropriate from both the sustainability and adequacy points of view**. The objective of the pension system is to protect people of old age, not people that are still young and able to work. Early pensions are usually small, so early retirement is not recommended from adequacy point of views. Instead, policymakers should consider offering severance payments (time bound or lump-sum compensation payments) and/or instituting skills training programs that help beneficiaries find new jobs.

196. **A separate analysis and fiscal assessment would be required for the professions and occupations that have a legal right for early retirement,** to ensure sufficient additional employer (government) contributions that would cover the cost of such an early retirement. At the moment, such employers pay a higher work injury contribution, and the same principle should apply to the benefit of early retirement. Details will need to be elaborated on minimum service period to qualify for such a benefit, minimum age, additional contributions. It will also be important to ensure coordination with the main scheme, so that in case a worker has service from both special occupation scheme and from a general scheme, those could be fairly combined and considered. In short, a separate reform of special occupations pension provisions would be required. Since beneficiaries of such employment contracts typically benefit from the early separation from service, a concept of "bridge pension" could be introduced, with clear policy and financing mechanisms, whereby such policy would cover cost of financing beneficiary's pension between the separation and his/her reaching the pension age.

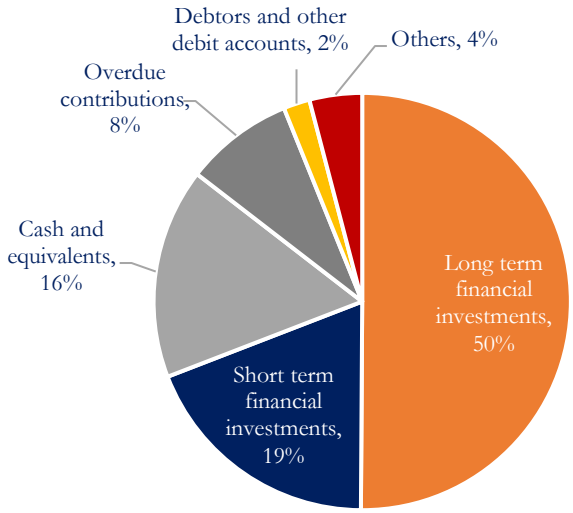
197. **With better polices, population ageing can go hand in hand with longer, more fulfilling and prosperous lives,** where work at an older age in good quality jobs is both promoted and valued. In this respect some of the further actions could include:

- Developing training and re-qualifications schemes for older workers, focused on improving the skills level and adjusting it to the current needs of the labor market, such schemes allow participants to gain new qualifications or refresh the existing ones;
- Promoting age management development among enterprises, focused on changing the stereotypes of employers related to employment of older workers and developing work organization measures supporting longer working lives;
- Improvement of overall work conditions and work quality level, that would help to reduce inflow to early retirement and disability pensions;
- Introducing flexible worktime measures for older workers as well as possibility to have additional leave to support the rehabilitation and prevention of losing working ability;
- Developing a program supporting re-employment of older workers;
- Seeking ways to reduce the labor costs of older workers (like revision of the contribution rates for working pensioners).

3. Institutional and policy context of the NOSI investments

198.**Close to 70 percent of the NOSI asset holdings constitute Government bonds and T-bills** (Table 3. 5). The current policy requires that no less than 75 percent of all investments should be vested with the Government. Equity holdings, stocks, term deposits and cash instruments total at the moment to just over EGP 90 billion, which is understood to form the main portfolio under management of the Investment Fund, newly established under the Law 148/2019. The Fund will operate as an entity separate from NOSI and will be managed by the Trustees who have been nominated, but are waiting for the appointment confirmation by the Prime Minister. While a lot of operational issues remain to be decided, this is a very important positive development and has several international precedents in OECD countries as well as in the region (for example in Jordan).

Figure 3. 7. Structure of NOSI portfolio of financial reserves (2020/2021)



Source: Compilation by WB on the basis of NOSI Annual Report 2020/21.

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Table 3. 5. Dynamics and structure of NOSI financial reserves

	2019/2020	2020/2021	
	EGP	**EGP**	**Comments**
Long term financial investments	190,761,176,123	249,431,808,613	Including 244.6 bln in Gov. bonds and 4,7 bln in equity holdings.
Short term financial investments	69,784,117,576	94,767,716,599	Including 88.8 bln in T-bills. bonds and 5.8 bln in stocks.
Cash and equivalents	84,412,616,652	81,297,467,963	Term deposits, cash, etc
Overdue contributions	50,948,276,024	41,916,183,702	
Debtors and other debit accounts	10,703,798,153	10,163,488,266	Including 6 bln in benefit overpayments and 2 bln TA & MOF debt.
Others	13,083,563,543	20,302,437,500	Including 6 bln in prepaid benefits and 10.7 bln in due investment return.
Total	**419,693,548,071**	**497,879,102,643**	

Source: Compilation by WB on the basis of NOSI Annual Report 2020/21.

200.**Notably, close to 10 percent of all the NOSI reserves constitute overdue contributions and various debts.** Although NOSI managed to recover over 9 billion in overdue contributions in 2020/21 (as has been also confirmed by the income statement), it is not clear if it would be able to successfully recover all those debts. Considering that 10 to 15 percent of the assets are apparently counted only on the accrual basis, we can anticipate that only 10 to 15 percent of the declared value of the NOSI assets will form the non-government investment portfolio to be placed under management of the Investment Fund.

201.**Under the status quo, the balance of pension reserves is hovering within the range of 10 percent of GDP, declining to critically low levels in medium term** (Figure 3. 5). This implies vulnerability of the NOSI assets to significant policy changes or ad hoc decisions (e.g., persistent policy of pension increases above inflation or wage growth), which may result in a temporary critical reduction of the pension reserves due to the benefit claims exceeding the revenues over extended periods. This was clearly demonstrated in the modeled scenario by altering just one benefit parameter, an indexation factor. This has important implications for both NOSI and the MOF. There is a chance that in the short to medium term, NOSI may find itself in a situation of a liquidity crunch, requiring converting the stock of the government holdings to cash and/or possibly selling off private holdings. This makes policymaking over investment of significant part of pension assets more difficult, dependent on operational needs of NOSI and correspondingly on policy decisions around parameters of the social insurance schemes. Simply put, the Investment Board may end up in a situation with no actual investment job to do if NOSI comes to a situation where it would require liquidating most of the private holdings, unless NOSI pursues the approach of selling government bonds. This has implications for MOF Treasury and/or domestic financial market. If the rate of sales accelerates, a careful fiscal planning would be required. Furthermore, MOF will not be in a position anymore to transfer part of its annual commitments in bonds, as NOSI would require hard cash to pay out its current benefit obligations. The worst-case scenario is when NOSI both needs full annual transfer in cash and is selling the outstanding stock of government instruments.

202.**We further recommend for the Investment Board to establish its own capacity to produce regular actuarial reports, or at least participate in the process of preparing and updating such reports with NOSI management**. It is in the direct interest of the Board to be able to assess scope of its mandate over managing the pension reserves in the nearest future and plan accordingly through effective design, implementation, and timely updates in the investment policy. Specifically, any foreseen shortages of cash by NOSI requiring claims on the reserves should not come as a surprise to the Investment Board and should be planned in advance, ensuring adequate liquidity in the overall portfolio of the pension reserves.

203.**The NOSI Annual Report does not present a full picture on the operational or investment setup of the new EOS individual accounts.** This is an important shortcoming, as the reform should give individuals an assurance of the safekeeping and adequate management of their individual assets. The Report seems to indicate that the current aggregate value of the individual accounts is EGP 11.7 billion and they earned EGP 1.27 billion of investment return. The Law does not make any prescriptions on the nature of the EOS portfolio, leaving it to the Board of Trustees to draw corresponding investment policy. Most likely, the EOS assets will need to be segregated from the rest of the pension reserves under the management of the new Investment Fund. Proper management of the scheme and attribution of investment earnings to individual account will require procuring and installing a sophisticated new information system, which can be a customized off-the-shelf solution.

4. Policy considerations for short-term insurance benefits

204.**In FY2021, all short-term insurance schemes (work injury, unemployment, sickness benefits) operated with a significant fiscal surplus and were not deployed strategically during the COVID pandemic.** Their revenues exceeded program expenditures multiple times (see Table 3. 6). For comparison, the current reserves of the work injury scheme is three times more than the costs of the emergency program

for 2 million casual workers launched by the Ministry of Manpower in response to the COVID pandemic. Indeed, there is no evidence that the short-term programs operated by NOSI have been effectively utilized during some of the most difficult times in the recent history of the country by the workers covered by such programs. While detailed assessment of the short-term insurance programs is outside of scope of this analysis, this situation needs to be investigated further. It is not clear if this situation stems from the nature of the accounting and/or specifics of a year that has been significantly and adversely influenced by the pandemic and/or lack of proper parametric balancing of these programs. The latter aspect may have some play in this outcome since the reform resulted in a reduced contribution rates to both work injury and unemployment insurance schemes – presumably in the effort to balance them.

Table 3. 6. Finances of the short-term insurance schemes, 6/30/2021 (EGP)

	Work Injury	Sickness	Unemployment
Contribution income	5,267,356,449	6,808,366,122	1,932,459,822
Insurance expenditures	161,241,936	180,048,280	595,776
Insurance reserves	18,016,722,306	6,728,059,096	1,936,082,042

Source: Compilation by WB on the basis of NOSI Annual Report 2020/21.

5. Institutional and technological transformation of NOSI

205.**The system has for long period remained administratively inefficient, but it is now undergoing a rapid institutional and technological transformation.** The system used to be administered by two different agencies and was based on four laws.[84] This fragmentation created administrative inefficiencies and additional costs. Two legacy Funds implied duplicated services and additional administrative costs. Combined, they employed over 30,000 staff and operated more than 500 branches across the country, often with presence in the same location. Over the years, the staff has been reduced down to around 23,000 (including around 20,000 full time staff of NOSI), largely due to freeze on the hires in the public sector. However, that reduction over the years was not accompanied by a digitization and hence likely contributed to deteriorating services to the covered population.

206.**As share of total benefit expenditures, the current administrative expenses of NOSI (1.1%) have declined considerably from 2004,** where they stood at 2.5% and 1.7% for PSIF and GSIF correspondingly. However, it is not necessarily a good sign. The low administrative expenditures often are an indication of poor client services and chronic neglect of the needs of investments in infrastructure and technology of the delivery systems. This is likely the case in Egypt. In 2021, we observed an increase in administrative expenditures of 25 percent over the expenditures of 2020, in nominal terms. Part of that increase was due to the increase in the staff pay, but NOSI has also accelerated spending to upgrade its aged technological infrastructure. We project that in the long run, administrative expenditures will further decline slightly, in relative terms.

207.**A more nuanced assessment of staffing needs and administrative expenditures indicates scope for rebalancing resources towards technology investments and training of staff.** To conduct this analysis, we utilized a regression model[85] that incorporates various attributes of the social insurance system, such as, system size, responsibility for contribution collection, supplementary programs, and level of economic development of the country.

[84] Excluding the schemes for the military and police force.

[85] See Sluchynsky (2015)

- **Staffing.** Staffing requirements of NOSI if it was operating a simple contributory pension program, without any short-term benefits is estimated at around 22,000 employees. When adding the requirement to manage various short-term benefits, the indicative staffing for NOSI goes above 30,000, which is closer to the combined staffing number of both Funds prior to the downsizing that happened mostly over the past 5 years. This may suggest a suboptimal number of staff. At the same time, this indicator is very sensitive to the level of economic development of the country, which correlates with level of advances in technology available to the national social insurance agency. Keeping everything else constant, a social insurance agency in a higher income country can operate the same tasks with the lower numbers of staff, having greater utilization of more advanced technologies. Given the increased availability and affordability of such technologies in less developed countries, social insurance agencies in such countries should be able to attain the same levels of resource efficiency. This assessment suggests that NOSI is in a transition from "high staff/low technology" situation, to "reduced staff/high technology utilization" state. This journey may take several years as the new digital solutions gradually unfold, but it is not recommended to expand the number of staff significantly, unless temporarily to address various transition needs.

- **Administrative expenditures.** The regression analysis also indicates a scope for expanding operational expenditures of NOSI. The EGP 2.5 billion, registered in 2019/20, seems much lower than what the agency should spend on quality service delivered by qualified, motivated, and well-trained staff. Any additional allocations to the administrative budget, in our view, needs to be done in a smart way, in line with the overall national digitization strategy. This will ensure compatibility and coordination of investments in ICT capabilities and in HR capacity. In fact, in the most recent move, the NOSI has introduced pay increases to the staff and is working on remapping the HR system to the new institutional setup along with the revised terms of reference for the new positions (which has already contributed to the increase in administrative expenditures in 2020/21).

208.**Reporting and monitoring systems of NOSI remain weak, which provides major impediment to effective management of the system or building trust among general public**. Six months into the new fiscal year, the official annual report for the year 2020/21 has not been released. NOSI website does not provide any operational or financial data for any recent periods. The process of collecting data for this analysis revealed major difficulty with obtaining and interpreting data by the NOSI management team, including critical reliance on the IT staff to generate some basic operational reports. Modern institutions have that function automated, so the main set of reports is available to the management at a simplicity of pressing a button.

209. **The current NOSI initiative of modernizing its ICT systems should clearly incorporate an objective of developing a strong business intelligence (BI) and data analytics (DA) capabilities,** including establishing a segregate data warehouse with a capacity to consolidate and analyze the data to inform better policies and more effective management. NOSI's BI mechanisms should comprise a multi-layer complex system, including the following: (i) weekly, monthly and quarterly automated operational reports for staff, management, and senior management team, (ii) annual financial and operational report, (iii) quarterly and annual statistical reports, (iv) annual actuarial report, ideally supported by mechanisms of microsimulations, and (v) a strong system of data analytics, with components of descriptive, predictive, and prescriptive analytics.

D. The Way Forward

210.**Be prepared to revisit parameters of the national pension system in the medium term, to address the issue of potentially deteriorating benefit adequacy (pension replacement rates)**.. More specifically, it would be important to:

- Define a clear policy target for income replacement at retirement, as a starting point for a meaningful reform.

- Support the policy discussion by elaborate actuarial simulations of various options. The outcome will likely be a new indexation and/or valorization policy that is more closely linked to wages in the medium to long term.
- To streamline the system of survivor pensions, consider a universal old age pension at the age of 60-65 to replace payments to all the elderly survivors (widows, orphans, etc.)

211.**Discuss mechanisms of possible compensation to NOSI for the benefit indexation that exceeds the norms provided by the Law**. Otherwise, the over-indexation creates additional liabilities for the social insurance system that had not been factored into the Law or costed under the MOF/NOSI debt cancellation agreement. Some middle ground can be sought to avoid significant political discretion, for example by having indexation formally set on a more adequate measurement than prices, especially if wages are expected to experience a significant growth. As another alternative, for example, the Government may consider a complementary one-off annual pension benefit which is paid when fiscal conditions are favorable. Such a payment would be funded by MOF and not have impact on any future obligations of NOSI.

212.**Rethink strategically the coordination between social assistance and social insurance policies, with a view of designing an effective system enabling coverage expansion.** This could include:

- Coordinate with all key stakeholders within the Government on developing a holistic strategy of coverage expansion
- Assess options of a broader set of insurance products, in addition to pensions, to stimulate participation of the unorganized sector workers (sickness, maternity, health, etc).
- Have NOSI as a core institution at the heart of the effort of coverage expansion. Establish a dedicated team within NOSI focused on the subject area of coverage expansion, including client support.
- Explore operational synergies with the institutions promoting development of the agriculture sector with a view of utilizing farmers registry
- Complement these efforts with a well-designed public information campaign for workers in informal sector and agriculture.

213. **On early retirement plans and short-term schemes:**

- Introduce further changes to the early retirement policy, to make the provisions more flexible, without compromising fiscal implications. Avoid temptations of using early retirement as a mechanism of downsizing the public sector enterprises. Explore options of offering the EOS lump sum benefit to purchase pension increment in the main scheme in case of early retirement and inadequate pension.

- Conduct a separate analysis and fiscal assessment of the special retirement provisions for the professions and occupations that have a legal right for early retirement, to ensure sufficient funding of such special arrangements.

- Similarly, conduct actuarial analysis of the short-term insurance schemes, to ensure they are actuarily balanced, not too expensive and operationally efficient.

214.Institutional reforms:

- Following the recent establishment of the Board of Trustees of the Investment Fund, have it draw a broad investment policy, including segregate management of the EOS assets in individual accounts.

- Hire a professional accounting firm to review and recommend improvements in the NOSI accounting framework. The World Bank FM team can advise on international practices of application of different accounting standards to public agencies like NOSI. It is recommended that the investment branch of the system, under management of Investment Fund and Board of Trustees follow conventional

international accounting framework, producing its own annual financial statements, duly and regularly audited by a professional accounting company.

- Hire a professional private firm to produce periodic actuarial reports.
- Design and invest into a multi-tier system of operational reporting and Business Intelligence, on the basis of a data warehouse installed as part of the NOSI digital transformation strategy.

Annex 3. 1. Detailed Information About the Pensions System and Key Data Associated with Baseline Projections

Part A. Overview of the Pensions Law and Pension System

215.The social insurance system in Egypt provides pensions for old-age, survivorship (widow and orphan benefits), disability, work injuries, sickness and unemployment. The last three categories of benefits are not provided to the self-employment or casual workers.

- **Retirement age**. The retirement age is set to increase from 60 to 65 to both men and women by July 1, 2040 (article 41).

- **Early retirement**[86]. Early retirement is allowed with at least 240 months (20 years) of actual contribution with an increase to reach 300 months (25 years) in 2025 if the individual has enough credits to reach at least 50% of the insured wage.

- **Benefit levels**: benefits levels are determined on multiple factors.

  - The accrual rate remains the same at 2.22 (1/45).

  - For the **retirement age**, Law 148 gradually increased the retirement age from 60 to 65 years for both men and women by 2040. The increase is gradually with 1 year to be added every 2 years starting 2032.

  - For the qualifying minimum **length of service**, the law also increased the required years of service from 10 years to 15 years by 2025.

  - The **wage base** for the pensions is changed from the average of last 2 years before retirement to the average of lifetime career. For the employees in the government sector, the minimum insurable salary (monthly) is the minimum salary set by the government in fiscal year 2021/2022, currently EGP 2,400, and the maximum insurable salary is EGP 8,100 regardless of the salary received by the employee. For all other employees (non-government) previously registered under the PSIF, NOSI assumes a minimum insurable salary of EGP 1,200 starting 2020 with an increase of about 15 percent every year till 2027, and afterwards the minimum insurable salary will be indexed to inflation with a cap of 15 percent. It is worth noting that there are discrepancies between the actual wages received by employees and the insurable wage upon which employees and employers pay contributions, and this is due to the exclusion of bonuses, per diems, etc.

- **Survivorship**. In the case of death for a pensioner or insured worker, his family members are entitled to receive pensions. Eligible survivors include: a dependent widower of any age, dependent parents, unmarried daughters and sisters, dependent sons and brothers with an age limit of 21 (age 26 if a student and no limit in case of disability)[87].

- **Minimum Pension**. Prior to law 148, the minimum pension was determined by a presidential decree and was set to EGP 900. The law however, set the minimum pension to be at least 65 percent of the minimum insurable salary (and not less than EGP 900).

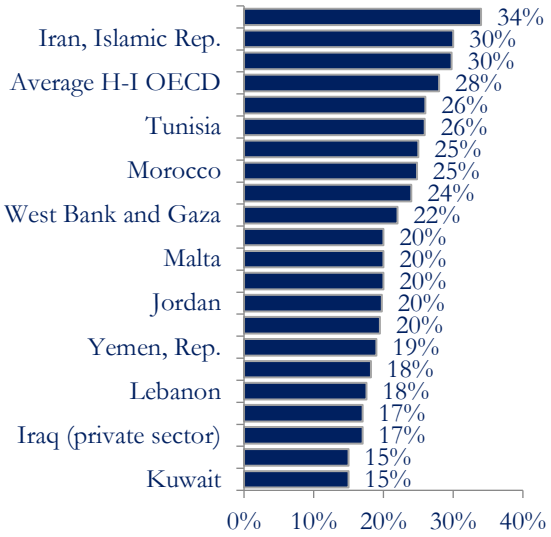
- **Indexation**. The annual increase of pension is indexed to inflation with a cap of 15%.

- **Contributions.** In an attempt to expand labor coverage and stimulate participation, the new law introduced two measures: (i) a reduction of contribution rate for old age/death/disability pension to 21% with 9% by employees and 12% by employers. The contribution rate will gradually increase by 1% split equally between employer and employee every 7 years with a cap of 26% of total contribution rate (article 19). (ii)

[86] Article 21, point 6.
[87] Chapter 8 provides details on the conditions.

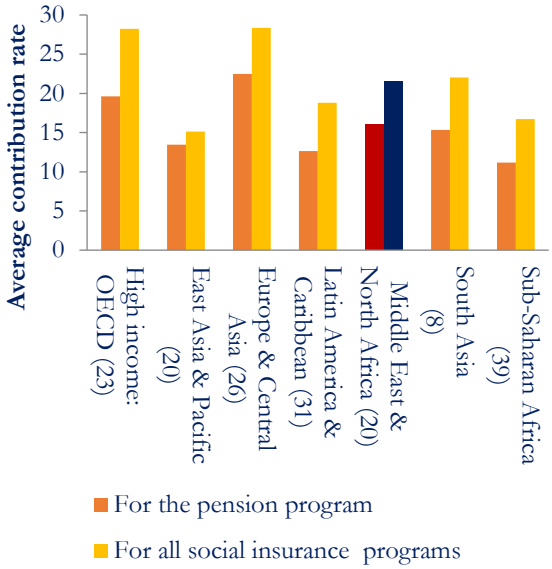
government co-contribution of 12% acting as employer on behalf of casual workers[88] (article 19). Another change is the contribution to the indemnity/end of service where the 2 percent will be placed into the individual savings account for each insured member.

Figure A. 3. 1. Contribution rates to finance social insurance in the MENA region (% of wages)



Note: Includes total contribution to finance pension and other insurance programs. Source: World Bank data

Figure A. 3. 2. Regional Comparison of the social insurance contributions



Source: World Bank data

Part B. Key Data and Assumptions

216.Financial projections presented in the pension chapter were produced with the World Bank's PROST (Pension Reform Options Simulation Toolkit) model. The analysis refers to the newly integrated pension system and focused on the post-reform status quo situation without simulation of any further changes. The modelling of the integrated system considered all distributions by age and gender for both public and private sectors. In the case of contributors and beneficiaries, they were summed up, and in the case of wages, pensions, etc. the weighted averages were used. We did detailed modeling for the pension benefits only (old age, disability and survivorship programs), including the EOS bonus scheme, but without modeling work injury, unemployment and sickness schemes.

217. The simulation period runs from 2020 (the base year) to 2080 (the ending year) – approximately a lifetime in the system of one generation (working age and retirement age), which is viewed to be an adequate length for pension system modeling. Information for the base year (2019/20) was kindly provided by the management of NOSI and verified with the NOSI Annual Report 2020/21. We present the key data and assumptions used in the modeling exercise as well as some projection results.

[88] The list of casual/irregular workers is in article 1, section 4.

218.Table A. 3. 1 below presents key economic environment indicators. From 2020-2026, the World Bank projections are used for the real GDP growth rates and inflation. Afterwards, the real growth rate of GDP is assumed to gradually converge to 3 percent by 2080. As for inflation, the inflation rate goes down to 4 percent by 2060 and remains constant thereafter. This is considered to be a moderate economic scenario. Wage growth rates were based on the general assumption that the payroll share in GDP, which currently is quite low, in the long run will increase by 50 percent.

219.The insured wage for calculation of pensions uses career-average valorized earnings, with valorization of past earnings based on a general wage index. For the basic salary under the past law, the new career-average formula would apply to future service only. It means that the part of the pension linked to the years of service up to the reform date would be calculated using the final two-year salary at the retirement date, while the part of the pension related to years of service after the reform date would be calculated using the new career-average formula. It has been assumed at 10% as an average historic growth.

220.Population projections for Egypt are in line with the observed international trends. The total fertility rate is assumed to decrease, and mortality rates are also assumed to decrease over the whole period – also in line with long term tendencies around the world. The resulting projected changes in life expectancy are shown in Figure A. 3. 3.

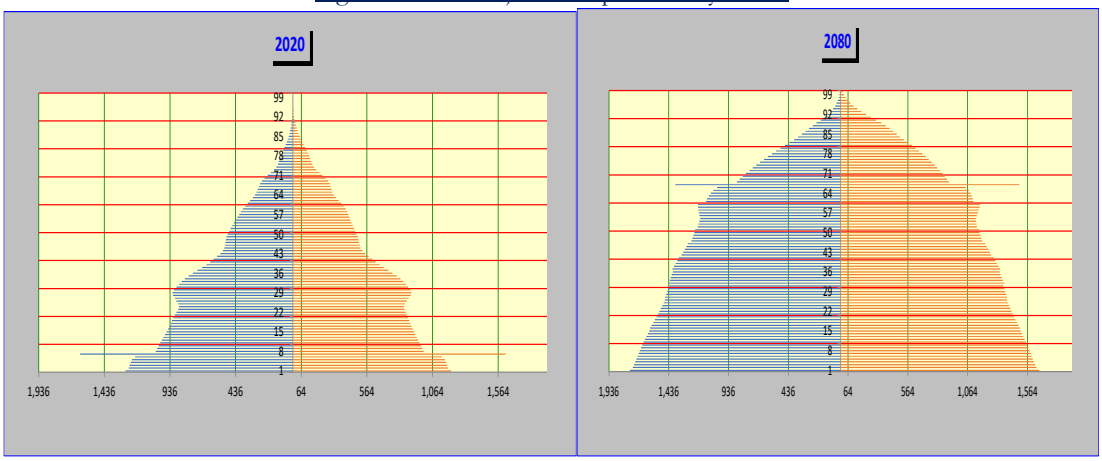
221.The decreasing fertility and increasing longevity are the two driving forces for population aging: the old-age dependency ratio is expected to increase from current 16 percent, to around 18 percent in less than 10 years. However, given the fact that both working age population (15-59) and older population (60+) are both increasing, old-age dependency ratio is relatively constant for a few years, however, from around 2040 the old-age dependency ratio starts considerably increasing. By 2024 the old-age dependency ratio is projected to be more than 20 percent and in less than 10 years increases to 24 percent.

222.Population pyramids (Figure A. 3. 3) illustrate the projected aging trend. Based on the above assumptions, the population is projected to grow from 104 million in 2020 to about 213 million by 2080.

223.*Labor force.* Male and female labor force participation rates for the period 2005-2020 are based on ILO projections. By 2040 they are assumed to converge to current OECD levels for both men and women and remain constant afterward. So, in the long run activity rates for men are expected to slightly decrease from the current level which is very high by international standards. In contrast, female activity rates are expected to grow significantly, in line with the observed trends around the region.

The fiscal projections did not model any explicit increase of coverage as percentage of population, except that the coverage will slightly and naturally expand as a result of the pension age increase.

Figure A. 3. 3. Projected Population Pyramids



Source: WB staff calculations

Table A. 3. 1. Economic environment

	2020	2021	2022	2023	2024	2025	2030	2040	2050	2060	2070	2080
Macroeconomic Indicators												
Nominal GDP, EGP million	5,855,000	6,320,385	7,100,953	8,090,826	9,261,365	10,700,581	21,246,882	73,114,992	209,550,160	499,241,984	1,065,306,944	2,165,972,224
Real GDP growth	3.6%	3.3%	5.0%	5.5%	5.5%	6.0%	5.9%	5.2%	4.6%	4.0%	3.5%	3.0%
Inflation Rate	10.0%	4.5%	7.0%	8.0%	8.5%	9.0%	8.0%	6.6%	5.3%	4.0%	4.0%	4.0%
Wage Indicators												
Insured Wage Bill as % of Nominal GDP	8%	8%	8%	9%	9%	9%	9%	11%	11%	11%	12%	12%
Average Nominal Insured Wage, monthly EGP	2,578	2,864	3,193	3,610	4,101	4,700	8,926	29,152	75,091	162,331	319,803	599,955
Real Insured Wage Growth	3.0%	6.3%	4.2%	4.7%	4.7%	5.2%	4.9%	4.7%	3.6%	3.1%	1.9%	1.9%
Minimum Wage, monthly EGP (inflation indexed long run)	1,050	1,211	1,400	1,619	1,873	2,167	3,678	7,492	13,481	21,395	31,670	46,880
share of Average Insured Wage	41%	42%	44%	45%	46%	46%	41%	26%	18%	13%	10%	8%
Minimum Pension, monthly EGP (inflation indexed long run)	900	900	900	1,041	1,204	1,393	2,365	4,817	8,668	13,757	20,363	30,143
share of Average Insured Wage	35%	31%	28%	29%	29%	30%	26%	17%	12%	8%	6%	5%

Source: MOF and WB staff calculations

Table A. 3. 2. Projected Life Expectancy (for the General Population)

I D	2020	2021	2022	2025	2030	2035	2040	2050	2060	2070	2080
Male											
Life Expectancy: At Birth	72.1	72.5	72.8	73.9	74.7	75.4	76.0	77.3	78.0	78.2	78.4
At Age 20	54.1	54.4	54.6	55.4	56.0	56.6	57.1	58.2	58.8	59.0	59.2
At Age 60	17.6	17.8	17.9	18.4	18.8	19.2	19.6	20.4	20.9	21.1	21.2
At Age 65	14.0	14.1	14.3	14.7	15.0	15.4	15.8	16.5	16.9	17.0	17.2
At Retirement	17.6	17.8	17.9	18.4	18.8	17.3	15.8	16.5	16.9	17.0	17.2
Retirement Age	60.0	60.0	60.0	60.0	60.0	62.5	65.0	65.0	65.0	65.0	65.0
Female											
Life Expectancy: At Birth	76.2	76.5	76.9	78.0	78.8	79.6	80.3	81.5	82.2	82.4	82.7
At Age 20	58.2	58.5	58.8	59.7	60.4	61.0	61.6	62.7	63.3	63.5	63.7
At Age 60	20.5	20.7	21.0	21.7	22.2	22.8	23.2	24.1	24.6	24.8	25.0
At Age 65	16.4	16.6	16.8	17.4	17.9	18.4	18.9	19.7	20.2	20.3	20.5
At Retirement	20.5	20.7	21.0	21.7	22.2	20.6	18.9	19.7	20.2	20.3	20.5

Source: WB staff calculation

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