SOUTH SUDAN ECONOMIC UPDATE

PATHWAYS TO SUSTAINABLE FOOD SECURITY 4TH EDITION | JUNE 2021





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ABBREVIATIONS

ACLED	Armed Conflict Location and Event Data
AfDB	African Development Bank
AY	Annual Year
BSS	Bank of South Sudan
CAADP	Comprehensive Africa Agriculture Development Programme (CAADP)
CAMP	Comprehensive Agriculture Master Plan
CFSAM	Crop and Food Security Assessment Mission
CLIMIS	Crop & Livestock Market Information System
POC	Protection of Civilians
CPI	Consumer Price Index
DMSP	Defense Meteorological Satellite Program
DDR	Disarmament, Demobilization, and Reintegration
DRC	Democratic Republic of Congo
FAO	Food and Agriculture Organization of the United Nations
FDI	Foreign Direct Investment
FCS	Food Consumption Score
FEWSNET	Famine Early Warning System Network
FSL(C)	Food Security and Livelihoods (Cluster)
FSNMS	Food Security & Nutrition Monitoring Survey
GDP	Gross Domestic Product
GPAA	Greater Pibor Administrative Area
HDDS	Household Dietary Diversity Score
IDA	International Development Association
IDP	Internally Displaced Person
IMF	International Monetary Fund
IPC	Integrated Food Security Phase Classification
MSSMEB	Multi-Sectoral Minimum Expenditure Basket
NDVI	Normalized Difference Vegetation Index
NTL	Nighttime Lights
OCHA	Office for Coordination of Humanitarian Affairs
OPEC	Organization of the Petroleum Exporting Countries
PFM	Public Finance Management
QNB	Qatar National Bank
R-ARCSS	Revitalized Agreement on the Resolution of Conflict in South Sudan
RCF	Rapid Credit Facility
RTGoNU	Revitalized Transitional Government of National Unity
SMP	Staff Monitored Program
SSA	Sub-Saharan Africa
SSP	South Sudanese Pound
TFA	Transitional Financial Arrangement
TNLA	Transitional National Legislative Assembly
UNHCR	United Nations High Commissioner for Refugees
UNMISS	United Nations Mission in South Sudan
USD	United States Dollar
WASH	Water, Sanitation and Hygiene
WEO	World Economic Outlook
WFP	World Food Program
FY	Fiscal Year

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EXECUTIVE SUMMARY

Context and Background

The gradual implementation of the Peace Agreement has provided hope for stability in South Sudan.

Following the signing of the latest truce in September 2018, a three-year Revitalized Transitional Government of National Unity (RTGoNU) was formed in February 2020. Despite delays to implementation and despite the numerous challenges that have faced the new government, including those related to the management of the COVID-19 pandemic, lower budgetary revenue, and natural disasters, the peace process has held course, with the successful appointment of state governors and with ongoing talks with hold-out factions. In a significant milestone, the Transitional National Legislative Assembly (TNLA) was reconstituted on 10 May 2021, eliminating one of the major constraints on government business. However, some critical issues outlined in the R-ARCSS remain unresolved, including the finalization of transitional security arrangements; the reunification of the armed forces; and the advancement of the disarmament, demobilization, and reintegration (DDR) process. The resolution of these issues should be prioritized to anchor the peace process.

While levels of violence declined in the second half of 2020, recent events suggest a reversal of this trend, with escalating communal violence and incidents of roadside ambushes in the first half of 2021. The agreement related to the number of states and the appointment of ten state governors has supported a de-escalation of

intercommunal violence, which usually involves cattle raids, child abductions, revenge killings, and ethnically motivated violence. Consequently, the number of conflict events declined by 17 percent in the second half of 2020, with associated fatalities declining by about 42 percent. Despite this progress, however, localized violent incidents persist across the country, with the number of violent events over the full year twice as high in 2020 as in 2019. At the same time, recent trends suggest escalating communal violence and roadside ambushes in the first half of 2021. The latest spike in violence has been concentrated in Jonglei, the Greater Pibor Administrative Area, Warrap, Lakes, and the Equatoria regions.

In South Sudan, the health impact of the COVID-19 pandemic has been relatively limited compared to its impact on regional peers. With the Government initially instituting a lockdown on 20 March 2020, South Sudan was among the first countries in East Africa to ease movement restrictions, in May 2020, barely one month after the first case was confirmed in early April. However, the situation deteriorated rapidly at the start of 2021, after the end of the December/January festive season, during which period many people travel to visit family. The trajectory of the pandemic displayed worrying trends, with the seven-day rolling averages of daily new cases indicating that South Sudan was in the middle of its second wave of infections. Consequently, new partial lockdown measures were imposed in early February 2021, mandating the cessation of all non-essential government and private business operations, except through homebased work modalities. These measures were lifted on 14 April 2021, following a reduction in the number of new reported infections. At that point, the cumulative number of confirmed cases stood at 10,359 (equivalent to 1,081 cases per million people), with 114 recorded deaths. While weaknesses in testing and contact tracing have made it difficult to assess the actual extent of the pandemic, the health impact of the pandemic has been much lower in South Sudan than amongst its regional peers.

The economic fallout from the COVID-19 pandemic has created opportunities for South Sudan to break free from a legacy of economic mismanagement and to push through an ambitious reform program. The authorities have commenced with a reform process that prioritizes the modernization of the country's public financial management systems. At the center of the process is the formation of three key structures, these being: (i) the Public Financial Management (PFM) Oversight Committee; (ii) the Technical Committee; and (iii) the Secretariat. Following the establishment of these structures, the authorities have identified 11 PFM priorities and commenced working with a wide range of stakeholders, including those from the Government, development partners, and civil society, to implement the targeted reforms.

In South Sudan, the health impact of the COVID-19 pandemic has been relatively limited compared to its impact on regional peers.

With this process, the authorities have committed to a macroeconomic and fiscal reform program that is intended to facilitate macroeconomic stabilization and improved public financial management. In support of this effort, the IMF Board approved a nine-month Staff Monitored Program (SMP) for the period from 31 March to 31 December 2021. This program will help to anchor the ongoing reform process, the focus of which is on four critical areas: (i) restoring fiscal discipline; (ii) monetary and exchange rate reform; (iii) debt management; and (iv) strengthening governance. In addition, the SMP will provide a credible monitoring and review process.

State of the Economy

While South Sudan's economy had shown strong signs of improvement before the COVID-19 pandemic, with the GDP real growth rate reaching 9.5 percent in FY2019/20, a contraction of -4.1 percent is projected for FY2020/21. The oil sector continued to be the primary driver of growth, with estimated oil production standing at 62.1 million barrels in FY2019/20, a 26.5 percent increase over the figure of 49.1 million barrels recorded in FY2018/19. However, the COVID-19 pandemic has affected planned investments in FY2020/21. This, coupled with a precipitous decline in global oil prices, the impact of COVID-19 restrictions, and the resurgence in violence, has subdued growth. The services sector is estimated to have contracted by 9.6 percent, with businesses struggling in the context of subdued demand. By contrast, the agriculture sector is estimated to have grown by 6 percent, with increases to the cultivated area more than offsetting the devastating impact of floods, resulting in higher cereal production. However, agricultural production is still considerably below pre-conflict levels, contributing to a high food deficit and widespread food insecurity.

With the economic decline in FY2020/21, living conditions in South Sudan have deteriorated, with many of its people urgently requiring humanitarian assistance. People's physical and mental wellbeing, living standards, and coping mechanisms have continued to deteriorate in 2021. According to UN OCHA's Humanitarian Needs Overview, some 8.3 million people in South Sudan are estimated to need humanitarian assistance in 2021, reflecting an increase of 800,000 in the absolute number of people in need from 2020, when the figure stood at 7.5 million. The latest food security analysis estimates that the 2021 lean season, between April and July, will be the most severe ever, with 108,000 people in the Catastrophe category (IPC Phase 5). A total of 7.7 million people (more than 60 percent of the population) are expected to need

food assistance, including 7.2 million acutely food-insecure South Sudanese in rural areas; 130,000 in urban areas; and 314,000 refugees. An estimated 1.4 million children and 480,000 pregnant or lactating women will experience acute malnourishment, with need of treatment.

Despite the large fallout from the pandemic, World Bank rapid surveys conducted between October and November 2020 show a gradual recovery to living standards, albeit from very low bases. The first round of the surveys, conducted in June 2020, involved a total sample of 1,213 households in both urban and rural areas in all ten former states of South Sudan, Compared to findings from the first survey, the second-round survey showed improving food security, employment, and access to markets. However, income losses were higher among the poor, with 41.3 percent of poor farming households reporting reduced earnings, compared to 38.2 percent of the non-poor. In addition, 59 percent of the poor reported losses from non-farm family business, compared to 49.4 percent of the nonpoor, Food insecurity levels remained elevated, with nearly three out of four households (73%) experiencing food price increases in October 2020. Pressure on living conditions continues to be exacerbated by displacement and the inadequate provision of basic services.

Following the implementation of the Government's macro-fiscal reforms,

inflation has begun to decline.

According to official CPI data, yearon-year (y/y) inflation rose rapidly in the second half of 2020, reaching 78 percent in November 2020, up from 7.5 percent in July 2020. During this period, food price inflation rose to 66 percent, up from -1.2 percent. At the same time, non-food prices inflation rose to 102 percent, up from 29 percent. However, inflation started declining from December, falling to 19 percent by March 2021, as the Government committed to a reform program whose targets included curbing monetization of the fiscal deficit and a gradual movement toward a market-determined exchange rate. Despite this, the cost of the multi-sector survival minimum expenditure basket (MSSMEB), which represents the minimum culturallyadjusted group of items required to support a six-person household for one month, increased by 69 percent in April 2021 (y/y), with the cost of the food basket increasing by 62 percent (y/y). The rising prices of essential household goods, including food, could exacerbate an already dire food security situation.

The exchange rate policy has moved towards exchange rate unification.

The Bank of South Sudan (BSS) has revamped the foreign exchange auction system through weekly auctions of the IMF's RCFs to commercial banks and forex bureaus, at a new auction rate that is much closer to the prevailing market rate than the controlled/overvalued official rate. The official rate now applies only to transactions between the BSS and the Government, whereas transactions involving the private sector and donors now occur at

a freely determined exchange rate. Not only has the BSS been auctioning FX for both banks and FX bureaus, but the reference rate for banks (that is, a weighted average of banks' transactions with their customers) is by now fairly aligned with the rates prevailing at the FX auctions. These developments registered immediate success, with the exchange rate in the parallel market appreciating from over 600 SPP/US\$ in March to a range of about 460-500 SPP/US\$ since April. With these developments, the spread between the market and official rate declined from 250 percent in March 2021 to 90 percent in May 2021.

South Sudan's fiscal position has deteriorated significantly, with the overall FY2019/20 cash deficit standing at 9.6 percent of GDP, compared to the budgeted level of 3.2 percent. The deterioration in the fiscal position has resulted from a combination of factors, including a decline in oil revenues, higher transfers to Sudan, and increased capital spending. Oil revenues are estimated to have declined to about 24 percent of GDP (SSP 201 billion) in FY2019/20, down from 26 percent of GDP (SSP 198 billion) in FY2018/19. However, non-oil tax revenue increased modestly to an estimated 3.8 percent of GDP in FY2019/20, up from 3.6 percent in FY2018/19. At the same time, the value of South Sudan's financial transfers to Sudan amounted to 8.2 percent of GDP in FY2019/20 (SSP 82 billion), up from 7.6 percent in FY2018/19 (SSP 68 billion). Budget execution challenges have led to persistently high expenditure arrears, with salary arrears estimated at 2 percent of GDP and (unverified) goods and services arrears at 108 percent of GDP.

With the pandemic and transfers to Sudan exerting pressure on the balance of payments, the current account deficit widened further, reaching an estimated 7.9 percent of GDP, up from 5.0 percent in FY2018/19. Merchandise exports are estimated to have declined by 0.5 percent in FY2019/20, following an estimated 0.8 percent contraction in oil exports, which declined to US\$ 3,088 billion in FY2019/20, down from US\$ 3,103 billion in FY2018/19. The decline in oil exports, which are estimated to contribute to about 99 percent of South Sudan's merchandise exports and 98 percent of total exports, reflects developments in the final quarter of FY2019/20 (April-June) with the global impact of the pandemic leading to declining international oil prices and OPEC+1 production cuts. Despite this, non-oil exports of goods and services are estimated to have grown by 48.7 percent, albeit from a very low base, increasing from US\$ 41 million in FY2019 to US\$ 61 million in FY2019/20. Notably, transfers to Sudan increased by 39.7 percent, going up from US\$ 335 million (6.5 percent of GDP) in 2019 to US\$ 468 million (9 percent of GDP) in FY2019/20, exerting significant pressure on the balance of payments, Gross international reserves amounted to US\$ 48 million (equivalent to about 0.1 months' cover) at the end of FY2020. By any measure, this is insufficient to provide adequate buffers to facilitate effective responses to future shocks.

^{1.} Organization of the Petroleum Exporting Countries, including Russia and other non-OPEC oil exporters

More than a year after the formation of the Unity Government, the main priorities of South Sudan's authorities continue to be consolidating peace, improving service delivery, and ensuring a smooth recovery from multiple shocks.

Credit conditions are dire, with real private sector credit growth effectively negative during the first three quarters of FY2020/21. Real private sector credit expansion picked up strongly in FY2019/20, albeit from very low levels, reflecting the strong recovery of the economy and peace dividends that supported private investments and business growth. However, this trend reversed in July 2020, reflecting strong market exchange rate depreciation and soaring inflation. In the nine-month period to March 2021, real private sector credit growth averaged –19.9 percent, compared to the 20.4 percent recorded in the same period in the previous year. The structure of private sector credit remains largely unchanged from last year. By March 2021, domestic trade accounted for 50 percent of the total value of private sector credit, followed by building and construction (17%) and transport and household activities (12%).

Global oil prices have recovered to pre-pandemic levels, providing an improved outlook in the near term. With the projected global recovery, oil prices are expected to increase by 30 percent in 2021, up from a low base in 2020, in part due to the impact of OPEC+ supply bottlenecks. Oil prices increased by 39 percent in the period from August 2020 to February 2021, with the increases at least partially driven by positive expectations regarding vaccination programs and the rapid economic recovery in Asia. A resurgence of the COVID-19 pandemic and constraints on the rollout of vaccination programs at the beginning of the year weakened the oil demand outlook, leading the OPEC+ coalition to review more prudently the relaxation of the 7 million barrels a day production ceiling announced in April 2020. By March 2021, the Brent crude oil price had climbed up to \$US 63.5/barrel, approximately similar to pre-pandemic levels. With these developments, South Sudan's weighted oil prices are expected to recover to an average level of \$US 54.7 USD/barrel in FY2021/22, up from the figure of \$US 47.9/barrel recorded in FY2021/22.

South Sudan's economy could grow by up to 2.6 percent in FY2021/22 and by 3.0 percent in FY2022/23, stronger rates than earlier projected. While the economy is expected to contract by about -4.1 percent in FY2019/20, recovery over the medium term could be stronger that earlier projected. Recent advances in the development of a range of vaccines and their expanded global production have led to a degree of optimism regarding global growth. An earlier and speedier than projected global recovery would support inward FDI and remittances, leading to a faster recovery. The efficient roll-out of vaccination programs would save lives and enable South Sudan's non-oil economy to recover faster, supporting the achievement of higher levels of resilience in the face of a multitude of shocks. At the same time, higher oil prices would lead to stronger export growth, higher FDI in the sector, and increased revenue flowing into the budget. If used well, increased oil revenues could support economic diversification, leading to a more inclusive and resilient recovery. Consequently, economic growth over the medium term could be stronger than earlier forecasts indicated.

Pathways to Sustainable Food Security

Despite increased agricultural production, crisis-level food insecurity persists, with exceptionally high food prices constraining access to food for large segments of population. It is estimated that nearly half of the total population (about 5.8 million people) faced severe food insecurity in the period from December 2020 to March 2021. This number is expected to rise during the lean season (April to July), when a total of 7.2 million people (60 percent of the population) are expected to face high levels of acute food insecurity (IPC Phase 3 and above), with 2.4 million in the Emergency category (IPC Phase 4) and 108,000 people in the Catastrophe category (IPC Phase 5). Disrupted markets, access constraints, and high prices are among the main factors driving South Sudan's dire food insecurity situation. Analysis from FAO's FSNMS data indicate that only about one in four households (27%) have acceptable levels of calorific intake, with about 40 percent of households categorized as poor and 30 percent as borderline in terms of the food consumption score (FCS), a proxy for the quantity dimension of calorific sufficiency.

The influence of conflict on food systems has occurred mainly through secondary channels, including displacement and decreased crop production and market access.

Conflict remains a latent threat to food security. Outbreaks of conflict in December 2013 and July 2016 are

reflected in the increasing influence of conflict on food security in the months following the outbreaks. A decrease in the influence of conflict on food security occurred following the September 2018 peace deal, attributed to increased trade flows, improved market access, and higher domestic production. Despite this improvement, food prices remain unaffordable for many households, with modeling efforts indicating that the continued impacts of violence on food security remain considerable. A qualitative analysis in nine South Sudanese towns indicates that conflict's main influences on food security appear to be through the displacement of populations and damage and disrepair to infrastructure, rather than directly through crop destruction, with economic and market channels playing a critical role.

Displacement has disrupted harvest and growing cycles, in many areas causing farmers to work smaller tracts of land close to towns due to insecurity in more remote locations. Many of the effects of conflict experienced in the surveyed towns are related to displacement and trade disruption. Interviewees and focus group participants attributed displacement to worsened food security outcomes due to two main factors. First, instability displaced people from their towns and into UN Protection of Civilians (PoC) camps or to other towns and countries, taking producers and consumers out of market systems and thereby weakening local markets and reducing crop

production in a number of towns, including Malakal and Torit. Second, it led to shifts away from farmlands on the outskirts of towns in favor of more secure lands close to towns such as Wau, Rumbek, and Yambio. This movement has resulted in farmers cultivating smaller plots, with correspondingly lower levels of production.

Market failures attributed to excessive inflation have had the greatest direct impact on food insecurity since late 2015, surpassing previously dominant conflict-related factors. Since 2013, while South Sudan's food security situation has been deeply affected by the impacts of war, it is the impact of the conflict on the economy and markets that has become the most significant driver of food insecurity, rather than the violence itself. In South Sudan, the prevailing narrative focuses on conflict as the major threat to food security. However, viewing conflict alone as the most critical factor misses crucial elements of South Sudan's food security situation. Before the COVID-19 crisis, critical aspects of market dynamics and weather and climate patterns already played important, often overlooked or underestimated roles in this situation. At present, in the context of the ongoing pandemic, further market disruptions due to supply-chain breakdowns threaten to intensify increases in food insecurity.

Conflict-induced trade disruptions have negatively impacted food supply, with conflict rendering trade routes insecure and resulting in destruction and disrepair to infrastructure. While more than 70 percent of South Sudan's land is favorable for agriculture, less than 4 percent was being farmed in 2012 (2.7 million ha). The World Bank estimates that increasing agricultural land use to 10 percent of the country's total land area (6.3 million ha) would increase the value of total agricultural output from approximately US\$ 808 million to US\$ 2 billion. Barriers to this expansion include the low level of adoption of productivity-enhancing technologies, capacity constraints, non-tariff barriers, high labor costs, and the lack of infrastructure, including for irrigation. However, the destruction of infrastructure and insecurity of trade routes has made trade logistically difficult. While some roads were rehabilitated during the period from 2007 to 2012, the ensuing conflict in 2013, heavy rains, increased levels of traffic, overloaded trucks and lack of maintenance have damaged the network. The destruction of or disruptions to major trade routes has further hampered trade. In addition, many roads are impassable or difficult to travel in the wet season.

While longer rainy seasons create opportunities for increased agricultural production, they do not guarantee increases to livelihoods. Trend analysis suggests that in coming years, growing seasons across South Sudan will start earlier, last longer, and have more days with greater than 5mm of rain. This could be positive for agricultural production as a whole if farmers are able to

adjust and adapt to changing conditions. However, wetter conditions are a double-edged sword, increasing risks of flooding that result in rotted crops and devastate towns. In addition to the risks associated with flooding, the onset of seasonal rains is often followed by outbreaks of diseases such as cholera that jeopardize health and disrupt labor supply. Heavy rains in East Africa during the 2019-2020 winter season have contributed to the ongoing desert locust outbreak, which is threatening crops and food security throughout the region.

Overall, the achievement of improved food security in South Sudan requires a comprehensive approach to address multiple interacting factors. While market factors exert the greatest influence over food insecurity, underlying conflict-related instability affects markets through disruptions to trade routes and lower crop yields. Even when increased rainfalls have the potential to drive higher levels of production, the issue of poor water management leaves many farmers unable to benefit. If progress with the peace process allows for the voluntary return of IDPs and refugees, stabilizing smallholder agriculture will require a shift from humanitarian aid to a more development-oriented growth path. Addressing a single factor, whether this be the underlying conflict-related insecurity, or supply-chain breakdowns, or water storage, will neither solve the current severe food crisis nor prevent future crises from emerging. Rather, this is a multidimensional problem that requires multi-dimensional solutions. As seen through the dramatic shifts in the factors affecting food security, this crisis is not static but rather requires constant vigilance and continued commitment to respond appropriately to new and evolving hazards as they emerge.

In South Sudan, the Government must lead an inclusive and multistakeholder process to ensure broad country ownership over an initiative to transform the country's agricultural and food security trajectory. In addition to the Government, other stakeholders involved in this process should include those currently involved in the food and agriculture sectors, such as development partners, NGOs, civil society groups and nascent private sector representatives. Given the diversity of South Sudan's geographical conditions and the evolving security situation, the process should involve not only the central-level authorities, but also state and county-level stakeholders. This would be consistent with South Sudan's policy of decentralization, which mandates the devolution of implementation responsibilities to authorities at these levels. This discussion should be also aligned with the existing prioritysetting process, including in particular the Comprehensive Agriculture Master Plan (CAMP) and the CAADP policy review. A World Bank flagship report, entitled "Transforming Agriculture from Humanitarian Aid to a Development-Oriented Growth Path", provides an in-depth analysis of the investment scenarios necessary for this transformation.

Food insecurity remains at critical levels despite a widely acknowledged favorable agricultural potential. Climate change will not improve this potential if investments are not made in water management infrastructure.

RECOMMENDATIONS

- Intensify efforts to address the underlying causes of conflict and to restore peace and stability across the country to provide a strong basis for economic recovery and sustainable growth.
- Maintain commitment to economic and public finance management reforms to stabilize the economy, to ensure the efficient use of public funds, and to build credibility with the public and development partners.
- Improve budgeting and allocation of resources for service delivery to support improved living standards and broad-based economic recovery.
- Adopt a multifaceted approach to address both acute and chronic food insecurity that recognizes that the stabilization of smallholder agriculture will require additional public safety measures to enable the voluntary return of IDPs and refugees.

BACKGROUND AND CONTEXT

More than a year after the formation of the Unity Government, the main priorities of South Sudan's authorities continue to be consolidating peace, improving service delivery, and ensuring a smooth recovery from multiple shocks. The new government has had to deal with a number of challenging shocks, including the COVID-19 pandemic, communal violence, floods, and locust infestation. In this context, the Government has had to contend with dramatically lower revenue, due to the impact of the pandemic and other factors on both oil and non-oil revenue. Despite these challenges, the peace process has held, despite some delays, with the appointment of state governors and talks with hold-out factions. In a significant milestone, the Transitional National Legislative Assembly (TNLA) was reconstituted on 10 May 2021, eliminating one of the major constraints on government business. While the peace process is likely to be a long and potentially winding journey, the remaining aspects, including the completion of transitional security arrangements, the reunification of the armed forces, and the advancement of the disarmament, demobilization, and reintegration (DDR) process, must be prioritized. In particular, reconstituting the Council of States will enable the Government to address numerous challenges within the states, including issues related to displacement, land ownership, and conflict. These efforts should go hand-in-hand with measures to strengthen state and county institutions.

While levels of violence declined in the second half of 2020, recent events suggest a reversal of this trend, with escalating communal violence and incidents of roadside

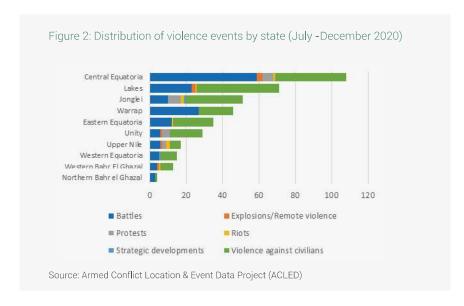
ambushes in the first half of 2021.

Conflict events intensified in the first half of 2020, with disagreements on the allocation of states to parties delaying the appointment of governors and with the ensuing leadership vacuum contributing to instability. The agreement related to the number of states and the appointment of ten state governors has supported a de-escalation of intercommunal violence, which usually involves cattle raids, child abductions, revenge killings, and ethnically motivated violence. Analysis of ACLED's data on violent events and associated fatalities shows that the number of conflict events declined by 17 percent in the second half of 2020, with associated fatalities declining by about 42 percent. Despite recent progress, however, localized violent incidents persist across the country, with a number of violent events over the full year twice as high in 2020 as in 2019 (see Figure 1). At the same time, recent trends suggest escalating communal violence and roadside ambushes in the first half of 2021, with the monthly number of fatalities increasing to 379 by May 27, 2021 from 128 in April. The latest spike in violence has been concentrated

in Jonglei, the Greater Pibor Administrative Area, Warrap, Lakes, and the Equatoria regions.

Incidents of violence are geographically concentrated in a few states that are the traditional conflict hotspots. Most of the violent events reported in the second half of 2020 are concentrated in four states: Central Equatoria, Jonglei, Lakes (including the Greater Pibor Administrative Area), and Warrap. These four states accounted for 71 percent of all violent events and more than two-thirds (68%) of violence against civilians, the most commonly reported event type across all states. At the same time, these four states accounted for 81 percent of all reported fatalities during this period (see Figure 2). In April 2021, rising insecurity along major highways disrupted crossborder trade, with Ugandan and Kenyan truck drivers suspending their South Sudan operations due to increased road insecurity. These developments compounded an already difficult situation, with COVID-19 containment measures already limiting market supplies and driving prices higher.





The health impact of the COVID-19 pandemic in South Sudan has been relatively limited compared to its impact on regional peers. Six months after reporting its first case on 5 April 2020, South Sudan had recorded 2,704 cumulative cases and 49 deaths by 30 September 2020. However, the situation deteriorated rapidly at the start of February 2021, following the end of the December/ January festive season, a period during which people often travel to visit family. The trajectory of the pandemic began to display disturbing trends, with the seven-day rolling average numbers of daily new cases indicating that South Sudan was in the middle of a second wave of infections. Consequently, new partial lockdown measures were imposed in early February 2021, with all non-essential government and private business required to stop operations or to utilize homebased work modalities. These measures were lifted on 14 April 2021, following a reduction in the number of new reported infections. At that point, the cumulative number of confirmed cases had reached 10,359, equivalent to 1,081 cases per million people, with 114 recorded deaths. While weaknesses in testing and contact tracing make it difficult to assess the actual extent of the pandemic, its health impact appears

to have been much lower in South Sudan than among its regional peers.

The pandemic has triggered an economic crisis that threatens to reverse South Sudan's nascent economic recovery and development process. Prior to the advent of the pandemic, economic growth had accelerated strongly, with real GDP growth estimated to stand at 9.5 percent in FY2019/20, building on an estimated 3.2 percent growth recorded in FY2018/19, which followed four consecutive years of contraction during the period from FY2014/15 to FY2017/18. While the oil sector has continued to be the primary driver of growth, the COVID-19 pandemic has affected planned investments in FY2020/21. This, together with a sharp decline in global oil prices, the pandemic-related restrictions, and flooding, has disrupted the recent positive growth trajectory. More broadly, South Sudan suffered a precipitous terms-of-trade shock, which, in the context of depleted reserves and of monetary financing of the fiscal deficit, led to a rapid depreciation in the exchange rate on the parallel market and sharply increasing inflation.

The effects of the COVID-19 pandemic have been exacerbated by concurrent shocks, leading to a

deterioration in the living standards of a large proportion of the population.

Despite improvements to the security situation, severe flooding in parts of South Sudan exacerbated already high levels of poverty and food insecurity, leading to a further deterioration in living standards. The floods, which killed livestock, destroyed food stocks, and damaged crops ahead of the main harvest season, have aggravated an already dire humanitarian situation. More than 6 million people are facing crisis-level food insecurity, with 1.4 million children under the age of 5 years expected to experience acute malnutrition in 2021. With the large economic fallout from these shocks, the proportion of the population living below the poverty line (at US\$ 1.90 per person per day) is projected to increase from 76.8 percent in FY2019/20 to 78.2 percent in FY2020/21.

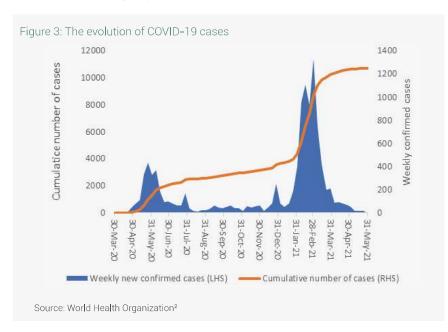
While the direct impact on the health of the population has been largely contained, there is lingering uncertainty regarding the pandemic's longer-term economic impacts. While the major effects of the pandemic on South Sudan's economy have been indirect, these effects have exacerbated existing vulnerabilities, with potentially significant implications for long-term growth and development. In particular it has the potential to result in disrupted learning and physical stunting of children; collapsed businesses and lost jobs; the depletion of savings and assets; and lower budgetary revenue, depressing investment and squeezing out urgent social spending, Back in June 2020, the World Bank conducted rapid surveys of households and businesses to track the economic impact of the COVID-19 pandemic in South Sudan. At the time, the disruption wrought by the pandemic had led to widespread losses of income among households, traders, and businesses, with half of all households reporting lower incomes. Among those particularly affected were the many households that engage in one or more non-farm business

activities to contribute to their livelihoods. However, key indicators suggest that the health impact of the pandemic in South Sudan has been relatively contained compared to its regional peers (see Table 1).

Table 1: COVID-19 key indicators for selected countries

Country	Cases	Deaths	Cases	Deaths	Tests	Tests	Positive	Latest
	Number of p	eople	per million p	eople	number	Per 1,000	Test rate	Test report
South Sudan	10,688	115	955	10	164,472	14.69	0.01	26-May
Ethiopia	272,285	4,185	2,368	36	2,7231,959	23.69	0.06	31-May
Kenya	169,697	3,108	3,156	58	1,675,310	31.16	0.12	4-May
Uganda	49,759	365	1,088	8	1,109,851	24.26	0.09	29-May
Rwanda	27,119	358	2,094	28	1,445,631	111.61	0.01	01-Jun
S. Africa	1,669,231	56,601	28,145	954	11,631,239	196.11	0.11	31-May
Zambia	97,388	1,288	5,297	70	1,538,730	83.70	0.04	28-May
Ghana	94,011	785	3,025	25	1,164,383	37.47	0,01	26-May

Source: Our World in Data (OWID)



The successful development of a range of vaccines and their expanded global production have led to a degree of optimism regarding the expected duration and impact of the COVID-19 pandemic in 2021 and beyond. South Sudan received its first consignment of 132,000 AstraZeneca COVID-19 vaccines on 25 March 2021, delivered through the Covax initiative. According to the authorities' guidelines, essential health workers, the elderly, and persons with underlying health conditions were to be prioritized in the initial stage of the rollout. The

authorities in Juba aim to eventually inoculate 2.5 million people, expecting a total of 732,000 doses to arrive in the first six months of the vaccination program. Consequently, the authorities have targeted the procurement of an additional 2.4 million doses of the vaccine. However, as of 7 June 2021, a total of only 11,889 vaccine doses had been administered. A timely and efficient vaccine roll-out would play a strong role in preventing deaths and further outbreaks, enabling the faster recovery of South Sudan's non-oil sectors, supporting initiatives to build

resilience to a multitude of shocks. At the same time, rational public health measures, including social distancing, the use of face masks, and effective testing and contact tracing, should still be implemented.

The economic fallout from the COVID-19 pandemic has created opportunities for South Sudan's government to break free from a legacy of economic mismanagement and to push through an ambitious **reform program.** The authorities have commenced a reform process that prioritizes the modernization of the country's public financial management (PFM) systems. At the center of the process was the formation of three key entities, these being the PFM Oversight Committee; the Technical Committee; and the Secretariat, Consequently, the authorities have identified 11 PFM priorities (see Box 1) and are working with a wide range of stakeholders from the Government, development partners and civil society to implement the targeted reforms. With this reform process, the authorities have committed to a macroeconomic and fiscal reform program that is intended to facilitate macroeconomic stabilization and improved public financial management,

^{2.} South Sudan Covid-19 tracking site: https://covid19.who.int/region/afro/country/ss

Box 1: PFM reform priorities

- 1. Implement a TSA
- 2. Strengthen cash management
- 3. Relocate Loan Committee to MoFP
- 4. Review, verify and clear all arrears
- 5. Review and verify loans and contracts collateralized or guaranteed against crude oil
- 6. Strengthen the Anti-Corruption Commission (ACC) and the Audit Chamber (external auditor)
- 7. Establish a Public Procurement and Asset Disposal Authority (PPADA)
- 8. Rollout electronic payroll using biometric system
- 9. Strengthen Fiscal and Financial Allocation Monitoring Commission (FFAMC)
- 10. Strengthen macro-fiscal framework
- 11. Strengthen the budget process and budget credibility

Source: South Sudan authorities

In support of the urgent fiscal needs and to anchor the reform process, the IMF has approved a Staff Monitored Program (SMP) for the period from 31 March to 31 December 2021. This will help to provide a strong basis for an ongoing reform process, with a focus

on four critical areas: (i) restoring fiscal discipline; (ii) monetary and exchange rate reform; (iii) debt management; and (iv) strengthening governance (see Box 2). In addition, the SMP will establish a credible monitoring and review process. In parallel, the IMF

disbursed a second rapid credit facility to the amount of about US\$ 174.2 million to help finance South Sudan's urgent balance of payments needs and to provide critical fiscal space to maintain poverty-reducing and growth-enhancing expenditure.

South Sudan authorities have taken advantage of the economic fallout from the COVID-19 pandemic to push through an ambitious reform program that prioritizes the modernization of the country's economic and public financial management systems.





1.1 Global and regional economic developments

After the sharp pandemic-related contraction in 2020, the global economy is projected to grow strongly in 2021, with the rollout of vaccination programs around the world expected to facilitate a broad recovery. Following an estimated contraction of -3.3 percent in 2020, the global economic growth rate is expected to reach a robust 6 percent in 2021, higher than earlier forecasted, before moderating to 4.4 percent in 2022. The upward revision to global economic growth forecasts reflects the expected impact of additional fiscal support programs in a few large economies; the successful rollout of vaccination programs, at least in a number of developed economies; and the continued adaptation of economic activity to subdued mobility. Stronger than expected growth in the United States and Japan will more than offset a larger than anticipated contraction in Europe. At the same time, a US\$ 1.9 trillion rescue package in the United States is expected to further boost GDP in 2021/22, with significant spillovers to the main US trading partners. However, there are also significant downside risks and uncertainty to this global outlook, which is heavily dependent on the trajectory of the pandemic; the success of vaccination programs; the recovery of tourism and travel sectors; oil price developments; and policy actions at the national levels.

While the COVID-19 crisis has had a severe economic impact on Sub-Saharan Africa, South Sudan and its

regional neighbors are positioned for recovery and stabilization. Economic activity in Sub-Saharan Africa is estimated to have contracted by -2.0 percent in 2020, plunging the region into its first recession in more than 25 years. However, regional growth is expected to rebound to reach 3.4 percent in 2021, as actions are taken to contain new waves of the pandemic and as vaccination rollouts gain speed and traction. With the expected recovery to the global economy, growth in the region will also benefit from strengthening exports. In Kenya, the growth rate is expected to reach 4.5 percent in 2021, following an estimated contraction of -0.3 percent in 2020. In Ethiopia, the rate is expected to continue to decelerate in FY2020/21 to approximately 2 percent, due to reduced income on the part of firms and households and to a slowdown in crop production. At the same time, Uganda's GDP growth is estimated to increase to a level in excess of 3 percent during FY2020/21, following the modest recovery in the first half of the FY, when the rate stood at 0.7 percent. Finally, in Sudan, following a decline in GDP growth over the past three years, it is projected to stabilize in 2021, reflecting the dividends from a number of major reform efforts, including exchange rate adjustments and reductions to fuel subsidies, with these and other measures setting the country on a potential path toward recovery.

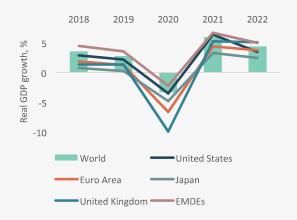
Global oil prices have recovered to pre-pandemic levels, providing

an improved outlook for regional oil exporters in the near term. With the projected global recovery, oil prices are expected to increase by 30 percent in 2021, up from a low base in 2020, in part due to the impact of OPEC+ supply bottlenecks. Oil prices increased by 39 percent in the period from August 2020 to February 2021, with the increases at least partially driven by positive expectations regarding vaccination programs and the rapid economic recovery in Asia. A resurgence of the COVID-19 pandemic and constraints on the rollout of vaccination programs at the beginning of the year weakened the oil demand outlook, leading the OPEC+3 coalition to review more prudently the relaxation of the 7 million barrels a day production ceiling announced in April 2020. By March 2021, the Brent crude oil price had climbed up to \$US 63.5/barrel, approximately similar to pre-pandemic levels. With these developments, South Sudan's weighted oil prices are expected to recover to an average level of \$US 54.7 USD/barrel in FY2021/22, up from the figure of \$US 47.9/barrel recorded in FY2020/21.

Following an estimated contraction of -3.3 percent in 2020, the global economic growth rate is expected to reach a robust 6 percent in 2021, higher than earlier forecasted, before moderating to 4.4 percent in 2022.

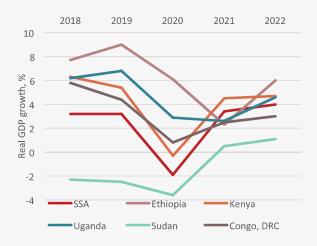
^{3.}Organization of the Petroleum Exporting Countries, including Russia and other non-OPEC oil exporters

Figure 4: Global developments



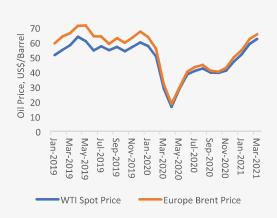
Source: IMF World Economic Outlook, April 2021

Figure 6: Regional Economic Developments



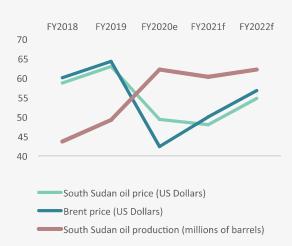
Source: IMF WEO, April 2021; World Bank Macro-Poverty Outlook, April 2021

Figure 5: Global oil price developments



Source: International Energy Agency

Figure 7: South Sudan oil sector



Source: The World Bank commodity prices data (April 2021); South Sudan data based on World Bank and IMF staff estimates. **Note:** e = estimate; f = forecast.

Box 2: The IMF Staff Monitored Program

In South Sudan, the nine-month IMF Staff Monitored Program (SMP), to be implemented from March 31 to December 31, 2021, is intended to create the conditions for strong and inclusive growth by restoring fiscal discipline; by implementing a rulesbased monetary policy framework; and by addressing distortions in the foreign exchange market. The SMP is intended to support the implementation of the Government's current reform program; to foster greater transparency within government operations; to strengthen governance; and to reduce vulnerabilities. The SMP will include a package of measures to: (i) foster macroeconomic stability to create conditions for strong and inclusive growth by restoring fiscal discipline, implementing a rules-based monetary policy framework, and addressing distortions in the FX market; and (ii) increase transparency in government operations aiming to strengthen governance and reduce opportunities for rent-seeking. These will focus on four critical areas:

- (1) Restoring fiscal discipline: Under the SMP, fiscal policy will be leveraged to support macroeconomic stabilization and debt sustainability. This will be achieved through measures to contain fiscal deficits and to refrain from deficit monetization and nonconcessional borrowing. To create fiscal space, the authorities will strengthen non-oil revenue mobilization, while spending will be reprioritized to ensure adequate service delivery financing and timely payment of wages and salaries.
- (2) Monetary and exchange rate policies: The authorities have agreed to a set of foreign exchange market reforms that are intended to reduce or eliminate economic distortions and rent seeking and to support economic diversification. Exchange rate unification will follow a gradual adjustment to the official rate to allow for an orderly transition to a unified exchange rate in the market. At the same time, auctions will be expanded to include all commercial banks, with the auction rate serving as the reference

- rate for private sector transactions. Provided that the authorities adhere to the agreed-upon commitments, the exchange rate unification initiative is expected to be achieved at around the time of the first SMP review (September 2021). The authorities intend to pursue a reserve money targeting monetary policy regime and to rebuild the depleted international reserves to enhance the credibility of the macroeconomic policy framework.
- (3) Debt management: The authorities have committed to prudent debt management and have requested technical assistance to set up a debt unit under the Ministry of Finance and Planning and to develop a framework to monitor debt obligations. However, maintaining debt sustainability and alleviating the risk of debt distress require the authorities to refrain from high cost foreign borrowing. The authorities have committed to refraining from contracting non-concessional debt, subject to limited and well-targeted exceptions. To this end, the authorities have ended the use of oil advances, which complicated budget management and were expensive and lacking transparency.
- (4) Strengthening governance: The authorities have identified a number of public finance management (PFM) priorities and are working with the IMF, the World Bank, and other development partners to implement targeted reforms in these areas. In 2021, the SMP-supported PFM reforms will focus on: (i) strengthening the macro-fiscal framework and budget process; (ii) commencing the implementation of the Treasury Single Account (TSA); (iii) improving cash management practices; (iv) establishing a public procurement and asset disposal authority; and (v) strengthening the Anti-Corruption Commission and the Audit Chamber. The authorities have also committed to implementing measures to increase transparency in the areas of oil production, marketing, and contracts.

1.2 Real sector developments

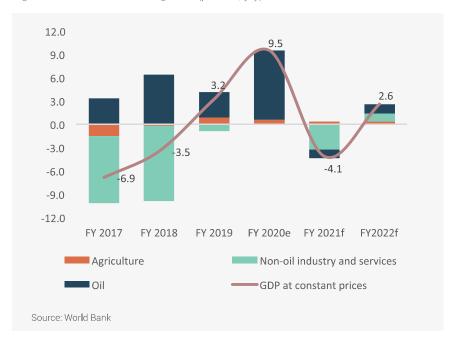
Prior to the pandemic, South Sudan's economic growth had been picking up strongly, with the real growth rate reaching 9.5 percent in FY2019/20.

The oil sector continued to be the primary driver of growth, with estimated oil production standing at 62.1 million barrels in FY2019/20, a 26.5 percent increase over the figure of 49.1 million barrels recorded in FY2018/19. Growth in the nonoil sectors was constrained by an adverse macroeconomic environment, characterized by a widening exchange rate premium, high inflation, and incidents of localized violence. The services sector is estimated to have contracted by 9.6 percent, with businesses struggling in the context of subdued demand. Nevertheless, the agriculture sector is estimated to have grown by 6 percent, with increases to the cultivated area more than offsetting the devastating impact of floods.

The impacts of the COVID-19 pandemic on agriculture were limited, highlighting its potential as a driver of resilience, diversification, and growth in South Sudan. Despite the difficulties over the year, with flooding and locust infestation devastating field crops in a number of areas, the agricultural sector displayed a high degree of resilience, with the area of land under cultivation increasing by 6 percent in 2020 compared to the previous year. Cereal production was estimated to stand at 874,400 tons, 7 percent above

the average output in 2019, but still well below pre-crisis levels. The overall cereal deficit in the January/December 2021 marketing year is estimated at 465,600 tons, 3.5 percent below the deficit estimated for 2020, but still 5 percent above the 2016-2020 average. While the agriculture sector made a positive contribution to overall GDP growth in FY 2019/20 (see Figure 8), it is faced with multiple challenges and is still operating well below potential. For South Sudan to realize its optimal agricultural potential, investments are necessary to increase domestic production; to decrease dependence on the region for supplies; and to achieve higher levels of self-sufficiency.





South Sudan's non-oil industry and services sectors were relatively seriously impacted by the COVID-19 crisis, with demand collapsing due to the implementation of lockdown measures. The non-oil industry and services sectors remained stagnant in FY2019/20, with businesses struggling with subdued demand. It is estimated that these sectors contracted mildly, by about -0.02 percent. In particular, border closures impacted exporters, especially those that rely on imported inputs. While formal trade was more resilient, informal cross-border trade declined substantially in the first half of 2020, with traders struggling to comply with COVID-19 guidelines,

including the requirement to obtain a negative COVID-19 test certificate. At the same time, demand for goods and services was suppressed by lockdown measures, job losses, and declines in income. World Bank surveys indicate that around a fifth of households (19%) reported being unable to access any markets at some point during the first three months since containment measures were implemented, corresponding to the last quarter of the fiscal year (April-June 2020). In addition, a majority of market

traders stated that they had fewer customers on a typical market day (63% of respondents), and that individual customers bought less (60%), resulting in lower overall sales (58%).

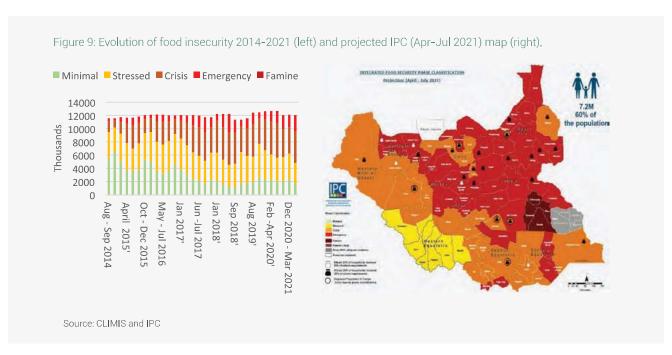
1.3 Living standards and access to services

With the economic decline in FY2020/21, living conditions in South Sudan deteriorated, with many of its people urgently requiring humanitarian assistance. People's physical and mental wellbeing, living standards and coping mechanisms have continued to deteriorate in 2021. According to UN OCHA's Humanitarian Needs Overview, some 8.3 million people in South Sudan are estimated to need humanitarian assistance in 2021, reflecting an increase of 800,000 in the absolute number of people in need from 2020, when the figure stood at 7.5 million, Food insecurity, or lack of food, has been identified as perhaps the most significant challenge experienced by the majority of affected people across gender and age groups. At the same time, more than two-thirds of South Sudan's population, together with approximately 300,000 refugees and asylum seekers, are in need of some form of humanitarian assistance and protection in 2021, with the country continuing to experience the cumulative effects of years of conflict, a surge in

sub-national violence, unprecedented flooding, and hyperinflation, with all of these factors further compounded by the impacts of the COVID-19 pandemic. The lack of durable peace and limited investment in basic services continues to impede progress towards the achievement of sustainable development.

Despite increased agricultural production, crisis-level food insecurity persists, with exceptionally high food prices constraining access to food for large segments of population. It is estimated that more than half of the population (7.2 million people) faced severe food insecurity (IPC Phase 3 and above) in the period from April to July 2021 (see Figure 9). This includes 2.4 million in the Emergency category (IPC Phase 4) and 108,000 people in the Catastrophe category (IPC Phase 5). The number of counties in Emergency (IPC Phase 4) is projected to increase to 46 by the peak of the lean season (May to July), up from 28 in 2019. An estimated 1.4

million children and 480,000 pregnant or lactating women will experience acute malnourishment, with need of treatment. Disrupted markets, access constraints, and high prices are among the main factors driving South Sudan's dire food insecurity situation, Analysis from FAO's FSNMS data indicate that only about one in four households (27% have acceptable levels of calorific intake, with about 40 percent of households categorized as poor and 30 percent as borderline in terms of the food consumption score (FCS), a proxy for the quantity dimension of calorific sufficiency.4 The COVID-19 pandemic has aggravated people's existing vulnerabilities and weakened the already fragile health system's ability to treat people. Among the most vulnerable people are newly displaced families; communities hosting large numbers of displaced and/or recently returned people; and households that are headed by a single parent or looking after older people or people with disabilities.



^{4.} The FCS aggregates household-level data on the diversity and frequency of food groups consumed over the previous seven days, which is then weighted according to the relative nutritional value of the consumed food groups (INDDEX Project, 2018).

World Bank rapid household surveys show that food insecurity was relatively high among rural and poor households. More than nine out of ten (90.5%) households from the poor group reported having to skip meals due to lack of money or resources, while around 83 percent of households from the non-poor group reported having to do so (see Table 2). At the same time, close to four in five (78.6%) households from the poor group reported having gone without eating for whole days, which was around 7 percentage points higher than the figure for the non-poor group. Among the poor group, the rural poor experienced a more severe food insecurity situation than the urban poor. For all the eight indicators regarding food insecurity, the rates for the rural poor were higher than for the

urban poor (see Table 3). For five out of eight indicators, the percentage rate stood in excess of 90 percent among the rural poor.

In South Sudan, conflict has significantly affected food production and distribution systems, with most households facing limited access to a variety of food types. Analysis based on the latest FAO/WFP FSNMS data (October/November 2020) shows that only about 30 percent of households in South Sudan rank in the highest category of the households' dietary diversity score (HDDS),5 indicating that almost 70 percent of the households have access to less than five food groups and hence are consuming a suboptimal diversity of food. The states with the lowest food consumption score (FCS) also

perform poorly in HDDS in terms of the Integrated Food Security Phase Classifications (IPC).6 For instance, Central Equatorial State (CES) had the second lowest FCS and also has the lowest HDDS ranking (Phase 4+), with 46 percent of households in the state consuming less than three (0-2) food categories. Other states, such as Jonglei, Unity and Upper Nile State (UNS), also have more than 30 percent of their households in the Phase 4+ HDDS category. It should be noted that food intake in terms of food security indicators (FCS and HDDS) is relatively poor in states that were most affected by the civil war (including Unity, Jonglei, and Upper Nile State), suggesting that the conflict has significantly affected food production and distribution systems in these states.

Table 2: Food Insecurity Comparison by Poverty Status

	October 2020		June 2020	
	Non-Poor (%)	Poor (%)	Non-Poor (%)	Poor (%)
Worried about not having enough food to eat	86.5	89.4	81.8	84.3
Were unable to eat healthy and nutritious/preferred foods	87.4	92.1	86.9	89.4
Ate only a few kinds of foods	89.8	93.4	87.7	90.6
Had to skip a meal	83.1	90.5	87.3	89.2
Ate less than you thought you should	84.9	90.6	88.8	90.5
Ran out of food	77.5	83.3	80.9	84.6
Were hungry but did not eat	79.8	86.2	79.3	83.5
Went without eating for a whole day	71.4	78.6	74.7	79.1

Source: World Bank COVID-19 surveys

^{5.} Household dietary diversity can be described as the number of food groups consumed by a household over a given reference period, and is an important indicator of food security

^{6.} IPC is a set of standardized tools that aims at providing a common measure for classifying the severity and magnitude of food

Table 3: Food Insecurity Comparison between Urban Poor and Rural Poor Group

	October 2020		
	Urban Poor (%)	Rural Poor (%)	
Worried about not having enough food to eat	87.8	90.2	
Were unable to eat healthy and nutritious/preferred foods	89.5	93.3	
Ate only a few kinds of foods	90.0	95.1	
Had to skip a meal	88.7	91.4	
Ate less than you thought you should	87.2	92.3	
Ran out of food	79.2	85.3	
Were hungry but did not eat	83.9	87.3	
Went without eating for a whole day	77.6	79.0	

Source: World Bank COVID-19 surveys

As a result of the limited availability and diversity of food and its poor quality, acute malnutrition is widespread in South Sudan.

Approximately 1.4 million children under the age of five are expected to suffer from acute malnutrition in 2021 due to high food insecurity; increased morbidity/disease outbreaks; poor childcare practices; limited access to basic services; and poor infrastructure, including clean water supplies and sanitation facilities (IPC 2020), This estimate can be confirmed on the basis of same-season historical data from the food security and nutrition monitoring system, SMART nutrition surveys, and admission trends for 2020. This is the highest caseload for acute malnutrition since the start of the crisis in December 2013. The estimation of the caseload was based on peak lean season historical data, which provide higher caseloads for better informed response planning. Cereal consumption accounts for about 48 percent of total basic food consumption in term of value; livestock for approximately 30 percent; followed by fish (4%); roots (2%); seeds (3.8%); and other non-cereal crops combined (12.7%). In October 2020, 53 counties (68% of the total) were facing serious malnutrition (IPC

Acute Malnutrition Phase 3 and above). Some counties in Jonglei (31%), Upper Nile (31%), Unity (17%), and Warrap (10%) and parts of Eastern Equatoria (3%), Northern Bahr el Ghazal (3%) and Lakes (3%) are classified as critical (IPC Acute Malnutrition Phase 4). The prevalence of acute malnutrition is also cyclical, with the situation typically deteriorating during the lean season (May-August).

The COVID-19 crisis is expected to have significantly exacerbated poverty, with the impact on household incomes expected to be greater than the projected decline in GDP. World Bank analysis suggests that the poverty rate may increase to about 78.2 percent in 2021, up from 76.8 percent in 2020, as a result of declining incomes and increasing prices for food and other vital household goods. The impact on household incomes is expected to be greater than the projected decline in GDP, with many households depending on informal, low-productivity activities that contribute little to overall GDP and that are highly vulnerable to economic shocks. Poverty impacts are expected to be concentrated among households that depend on activities that are particularly vulnerable to the impacts of lockdowns, including small-scale retail

activities and daily labor in construction and personal services. However, broad-based recovery will be critical to reduce poverty, as most people who lost jobs due to the pandemic remain unemployed.

Despite the large fallout from the pandemic, World Bank rapid surveys conducted between October and November 2020 show a gradual recovery to living standards, albeit from very low bases. The first round of the surveys involved a total sample of 1,213 households in both urban and rural areas in all ten former states of South Sudan. While attempts were made to contact the same households in the second round of phone surveys, the sample declined to 826 households due to attrition. Compared to findings from the first survey, the secondround survey showed improving food security, employment, and access to markets (see Figure 10). However, the percentage of households experiencing an income reduction in non-farm family businesses increased. At the same time, households have struggled to cope with increasing food prices, with nearly three out of four households (73.3%) reporting such struggles in October 2020.

Pressure on living conditions continues to be exacerbated by displacement, with a large number of refugees from neighboring countries and with wide-spread conflict-induced internal displacement. The number of refugees has increased consistently since lockdown measures

were first lifted in May 2020. In the six months up to March 2021, an additional 2,262 refugees were registered by UNHCR, a fourfold increase on the 576 refugees recorded in the six months to September 2020. South Sudan's total refugee population was estimated to stand at 317,158 at the end of March 2021, with 93 percent (293,004) having arrived from Sudan. The majority of refugees are hosted in just two states: Upper Nile (52.1%) and Unity (39%). Some 1.6 million people remained internally displaced, with another 2.2 million refugees in the region.

Figure 10: Changes in living standards due to the COVID-19 pandemic



^{7.} UNHCR (2021). South Sudan: Refugee Population Statistics.

Widespread poverty and limited investments in social service delivery have compounded poor living standards, with many households facing a combination of covariate and idiosyncratic shocks. According to analysis based on the latest FAO/ WFP FSNMS data (November 2020), around two out of three households (65%) experienced a series of events that affect health, business activities, jobs, and prices. In the context of the COVID-19 pandemic, floods, crime, and violence have created additional challenges for households already struggling to maintain a livelihood. Almost four in five of the households in Warrap and Lakes states experienced such shocks, as did nearly two in three (65%) of the households in other states, with the exception of Unity and Upper Nile states, where less than 50 percent of the households experienced these shocks. The most common shock experienced by households in all the states related to unusually high food prices and reduced income, with more than one third (34%) and nearly two-fifths (18%) of households in South Sudan reporting these two shocks, respectively. Other shocks experienced by households across states related to high fuel prices, illness of household members, drought and irregular rains, floods in some states, crop pests and diseases, and insecurity.

Few households have been able to take effective, well-planned actions to cushion these shocks, leading many to adopt unsustainable emergency coping strategies. Households are increasingly resorting to measures outside of the household to cope with their lack of resources to buy food. At the national level, more

than 50 percent of households have adopted emergency and crisis coping strategies, such as reducing essential non-food expenditure and accepting high risk jobs.8 In some states, such as Jonglei, Upper Nile, Unity and Lakes, more than 50 percent of households have adopted such emergency strategies, with these being the states with relatively high levels of food insecurity. The strategies adopted indicate high levels of vulnerability across the country. To cope with food price increases, one in four households (25%) that were affected have engaged in additional income generating activities, which could contribute to the reason for the increase in the employment rate. Reducing food consumption was also a strategy commonly adopted by households to cope with food price increase, with 24.5 percent of households reporting doing so. More than one in five households (21,3%) were not able to take reasonable action to cushion shocks.9

Access to healthcare is constrained by limited government investments in healthcare systems and services, resulting in generally poor health outcomes. Most people in South Sudan continue to face constrained access to health facilities. For about 30 percent of households, it takes between one hour and half a day to walk to the nearest health facility, with significant variations across states. More than 40 percent of households in northern Bahr el Ghazal, Central Equatorial and Unity states must travel for more than one hour to arrive at the nearest health facility. Distance to healthcare facility is a key indicator to measure access and utilization of health care services. With most of the

individuals having to travel for long distances to access health centers, there is a potential for poor health outcomes, including in the case of antenatal care and delivery at health centers for mothers.

While most households have access to clean drinking water, very few have access to an improved toilet, exposing many to potentially preventable hygiene-related diseases. Boreholes are the most common

sources of drinking water, accounting for about 55 percent of access to water sources. Moreover, the distance to drinking water is reasonably short, with most households accessing water within less than an hour's travel from their homes, indicating a significant improvement in access to clean drinking water. However, three in four households (75%) have no access to either family, shared or communal latrines, with this figure being consistent across states, apart from the Western Equatorial state, where 70 percent of households have access to family latrines. Poor access to improved toilets compromises the sanitation and health situation of large numbers of people, putting millions at risk of illness and death from preventable diseases such as cholera and acute watery diarrhea.

With such widespread material deprivation and limited government-provided services, the humanitarian sector plays an outsized role in closing important service delivery gaps. Humanitarian assistance remains a key source of livelihood in South Sudan. At the national level, more than 50 percent of households received humanitarian aid. At the state level, more than 60 percent of the

^{8.} Stress coping mechanisms include measures such as spending savings, buying food on credit, and selling household goods. Crisis coping strategies include reducing essential non-food expenditure, and sale of productive assets; while emergency coping strategies include accepting high risky jobs, sending adults to beg, and sending children to beg (UNHCR, 2019).

^{9.} World Bank (2020). Second Round Covid-19 rapid surveys.

households in Unity, Jonglei, Lakes, Upper Nile and Western Bahr el Ghazal States received assistance, all of which are states with relatively high incidence of food insecurity and floods. Households in the relatively productive and secure states are less likely to have received assistance, as indicated by the case of Western Equatorial, where only 14 percent of households

received assistance. Food support distributed through the General Food for All program is the most common form of assistance provided to households in all the states. At the national level, about 40 percent of households received food support, with variations between states. In Unity and Jonglei states, where the figures were highest, 80 percent and 70 percent

of households respectively received Food for All support, followed by western Bahr el Ghazal, Upper Nile and Lakes, in all of which about 50 percent of households received this form of support. Other forms of support involved the provision of agricultural inputs, supplementary feeding, agricultural tools, and medicines.

1.4 Exchange rate and inflation developments

After depreciating rapidly in the second half of 2020, market exchange rates started to stabilize in April 2021 as economic reforms gained momentum. The SSP traded at an average rate of 306 against the dollar in the six-month period from January to June 2020. However, this was followed by a period of rapid depreciation, with the nominal USD/ SSP market exchange rate averaging at 607 in December 2020 and at 625 in March 2021. With these developments, the spread between the market and the official rate widened to 250 percent in March 2021, up from 100 percent in June 2020. Monetization of the budget deficit is the most likely cause of the sharp depreciation, with official data showing a significant growth in government overdrafts from the Bank of South Sudan, Given South Sudan's high level of dependence on imports, these developments exerted upward pressure on prices, leading to higher inflation, However, the exchange rate market started to stabilize in the first guarter of 2021, with the Government ceasing the monetization of the budget deficit and deepening its economic reform program.

The authorities' exchange rate policy has moved towards exchange rate unification. The Bank of South Sudan

(BSS) has revamped the foreign exchange auction system through weekly auctions of the IMF's RCFs to commercial banks and forex bureaus, at a new auction rate which is much closer to the prevailing market rate than the controlled and overvalued official rate. The official rate now applies only to transactions between the BSS and the Government, whereas transactions involving the private sector and donors now occur at a freely determined exchange rate. Not only has the BSS been auctioning FX for both banks and FX bureaus, but the reference rate for banks (that is, a weighted average of banks' transactions with their customers) is now pretty much aligned with the rates prevailing at the FX auctions. These developments have had an immediate positive impact, with the exchange rate in the parallel market appreciating from over 600 SPP/US\$ in March to a range of about 460-500 SPP/US\$ since April. With these developments, the spread between the market and official rate declined from 250 percent in March to 90 percent in May 2021 (see Figure 11).

Following the Government's implementation of macro-fiscal reforms, inflation has started to decline. According to official CPI data, the year-on-year inflation rate

increased rapidly in the second half of 2020, standing at 78.3 percent in November 2020, up from 7.5 percent in July 2020. During this period, food price inflation rose to 65.7 percent, up from -1.2 percent. Over the same period, non-food price inflation rose to 102 percent, up from 28.5 percent. However, inflation started to decelerate after December, declining to 19 percent by March 2021, following the Government's commitment to a reform program whose targets included a cessation to the practice of monetization of the fiscal deficit and a gradual movement towards a marketdetermined exchange rate.

The pressure on food prices began to ease in November/December. following a sustained period of inflation. South Sudan experienced intense upward pressure on food prices due to pandemic-related trade restrictions and the exchange rate depreciation in the second half of 2020. However, data from the CLIMIS show that while food inflation remains extremely high, the upward pressure on prices began to dissipate towards the start of the harvest season in around November/December 2020. Consequently, the year-on-year increase in the Juba prices for maize flour declined to 181 percent in April 2021, down from the figure of 608

percent recorded in December 2020. Likewise, the year-on-year increase in Juba prices for sorghum flour declined to 209 percent in April 2021, down from 617 percent in December 2020 (see Figure 13). These developments may reflect improved cross-border trade between South Sudan and its regional neighbors, following the collapse of this trade at the peak of the COVID-19 restrictions, with strong recovery during the second quarter of FY2021

(see Figure 14). The appreciation in the value of local currency has also had a positive impact. However, despite these positive developments, food prices remain exceptionally high. The future trajectory of food prices may well depend on the sustained recovery of agricultural production and trade following a particularly difficult year, due to floods, COVID-19 restrictions, and increased insecurity along major trade routes.

Food price movements in locations outside Juba are characterized by divergent trends, possibly indicating weak market integration. Food price volatility tends to be higher in markets outside the capital, possibly indicating that they are subject to different location-specific market forces. Figure 13 shows recent developments in the evolution of food prices for four items (beans, wheat flour, sorghum flour, and rice) in four locations (Juba,

Box 3: The Cost of Exchange Rate Distortions

The gap between the official and parallel exchange rates constitutes loss of revenue; biases government spending toward imports; places pressure on development resources; and potentially constrains investment flowing into South Sudan. Maintaining an official rate that is markedly stronger than a market clearing rate means that demand will always exceed supply, creating avenues for renting seeking among those with privileged access to FX. This may result in a number of damaging distortions, including the following: (i) lower levels of oil revenue flowing into the budget; (ii) reduced value of development assistance flowing into the country; (iii) potentially reduced foreign direct investment; (iv) distorted statistics and corporate accounts; (v) constraints on financial institutions, who may struggle to find good projects for lending; (vi) then not non-existent interbank FX markets. In general, removing exchange rate distortions can provide a substantial boost to economic development by removing uncertainty regarding the availability of FX; strengthening competitiveness; and increasing resources flowing into the budget.



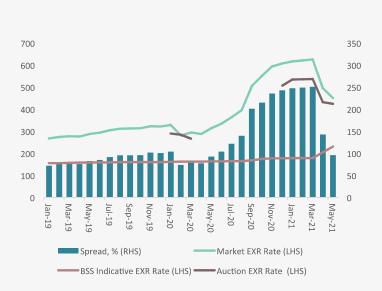
Wau, Renk, and Yei). While pressure on prices began to dissipate in around January 2021, there have been visible differences in trends across locations. Specifically, food prices in Juba not only follow smoother paths, they are also more reflective of broader macro-trends, particularly the parallel exchange rate movements and crossborder trade flows. Various factors, including inefficient connectivity and insecurity along major trade

routes, could explain the low level of market integration in South Sudan. Non-integrated markets lead to inefficiencies, as producers cannot determine what is appreciated in other markets and what is not, and therefore they cannot make optimal production decisions.

The gap between the official and parallel exchange rates constitutes loss of revenue; biases government spending toward imports; places pressure on development resources; and potentially constrains investment flowing into South Sudan

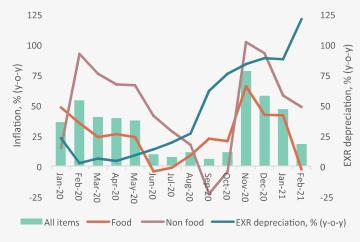


Figure 11: The exchange rate spread has started to narrow



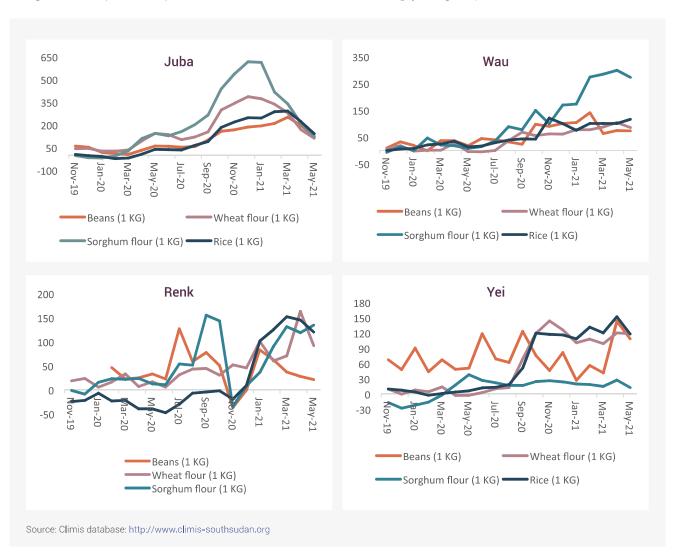
Source of data: Bank of South Sudan

Figure 12: High inflation followed exchange rate depreciation



Source of data: National Bureau of Statistics; Bank of South Sudan





High inflation has affected purchasing power, creating severe difficulties for households in both urban and rural areas and depressing market demand. The cost of the multi-sector survival minimum expenditure basket (MSSMEB), which represents the minimum culturally-adjusted group of items required to support a sixperson household for one month,

increased by 93 percent in March (y/y), up from 19 percent in August 2020. At the same time, the cost of the food basket increased by 102 percent in March 2021 (y/y), up from 24 percent in August 2020. The rising prices of essential household goods, including food, could exacerbate an already dire food security situation. These developments have led to a rise in the

share households' expenditure on food, leaving them with little to no resources to cover non-food needs and depressing demand for the many self-employed South Sudanese who trade in non-food goods and services. There is a real risk that these price hikes will result in widespread poverty and force more people into dependence on food assistance.

1.5 Fiscal policies and developments

South Sudan's fiscal position has deteriorated significantly, with the overall FY2019/20 cash deficit standing at -9.6 percent of GDP, compared to the budgeted level of -3.2 percent. The deterioration in the fiscal position has resulted from a combination of factors, including a decline in oil revenues, higher transfers to Sudan, and increased capital spending. Oil revenues are estimated to have declined to about 24 percent of GDP (SSP 201 billion) in FY2019/20, down from 26 percent of GDP (SSP 198 billion) in FY2018/19. However, non-oil tax revenue increased modestly to an estimated 3.8 percent of GDP in FY2019/20, up from 3.6 percent in FY2018/19, At the same time, the value of South Sudan's financial transfers to Sudan amounted to 8,2 percent of GDP in FY2019/20 (SSP 82 billion), up from 7.6 percent in FY2018/19 (SSP 68 billion).

Spending pressures increased throughout FY2019/20. Current spending in FY2019/20 increased to an estimated 16.4 percent of GDP. up from 12.6 percent of GDP, driven by higher wages, interest payments, operating expenses, transfers to Sudan, and subsidies and transfers to public enterprises. The FY2019/20 budget had envisaged increased capital spending (mostly on road infrastructure) of about 14.9 percent of GDP, to be delivered through an oilfor-roads deal, with a daily allocation of 10,000 to 30,000 barrels approved for this purpose. However, despite significant under-execution, capital spending increased to an estimated 3.6 percent of GDP in GY2019/20, up from 0.8 percent in 2018/19, reflecting the Government's increased spending on roads infrastructure.

Budget planning and execution challenges have led to persistently high expenditure arrears. A high level of expenditure arrears is a persistent and chronic issue in South Sudan, with these arrears being a symptom of underlying weaknesses in the country's public financial management systems. As of March 2021, the Government has accumulated a total of five months of salary arrears for civil servants and state transfers; four months for the organized forces; and seven months for universities. The cash requirements for these salary arrears stood at SSP 21.7 billion (2% of GDP). 10 These challenges have been compounded by unresolved issues related to the integrity of the public payroll, particularly in the case of the organized forces. In addition, outstanding expenditure arrears on goods and services were estimated to stand at SSP 896 billion (108% of GDP) at the end of FY2019/20. The authorities recognize the urgent necessity of resolving these issues and have requested support to complete a verification exercise to determine the extent of these expenditure arrears. Without an approved arrears management strategy, budget execution will continue to be a challenge into the medium term.

While there were significant delays in the FY2020/21 budget preparation, the FY2021/22 budget process has progressed well, albeit behind schedule. In the context of very difficult circumstances, the FY2020/21 budget was initially extended by presidential decree for a period of 90 days, allowing the authorities to continue the FY2020/21 budget preparation process well beyond the commencement of the FY.

While the FY2020/21 budget was eventually presented to the Council of Ministers for deliberation, the delayed reconstitution of the Transitional National Legislative Assembly meant that there were no oversight institutions to provide guidance and the requisite approvals. With these challenges, budget implementation has been conducted on the basis of the draft budget, potentially necessitating post-implementation approval. These challenges notwithstanding, the draft FY2021/22 resource envelope and proposed ceilings for spending agencies were presented to the economic cluster and approved for submission to the Council of Ministers. It is envisaged that the FY2021/22 budget proposal will be presented to the Council of Ministers for approval by mid July 2021. With the reconstitution of the Transitional National Legislative Assembly in May 2021, it is expected that the FY2021/22 budget will be presented to the National Legislative Assembly by mid-July 2021 for debate and approval within the statutory 45 days. Thus, the budget is expected to be approved by the National Legislative Assembly by the end of August 2021, two months into the financial year.

The Government is making progress with a number of critical public financial management reforms. The authorities have taken advantage of the economic fallout from the COVID-19 pandemic to undertake critical macroeconomic and fiscal reforms, building on key milestones already achieved as part of the peace process. Ongoing PFM and economic reforms include the establishment of a PFM Reform Governance Structure and PFM Oversight Committee, to provide coordination, direction,

^{10.} The Ministry of Finance and Planning has started paying the salary arrears from using the IMF's Rapid Financing Facility. The payment of salary arrears will continue on bi-weekly basis, until the salary arrears are reduced to only one or two months left by June 2021

and oversight to accelerate the implementation and effectiveness of PFM reforms. In addition, the authorities have committed to discontinuing the use of oil advances for budget financing, which will improve budget transparency and the management of oil resources. Further, the establishment of the IMF SMP in late March will help to establish a strong basis for the macroeconomic reform agenda and facilitate the conditions for strong, inclusive growth by restoring fiscal discipline; implementing a rules-based monetary policy framework; and addressing distortions in the foreign exchange market. These steps provide a firm basis for optimism regarding a rapid, broad-based recovery and improved resilience to future shocks, providing the necessary building blocks for an inclusive and sustainable growth trajectory.

The persistent budget execution challenges and the large expenditure arrears reflect weaknesses in public investment management (PIM) systems. Previous World Bank assessments have shown that budget execution continues to be problematic, with significant divergencies between budgets and outturns. At the same

time, the social sectors not only receive relatively small allocations, they also experience under-execution. Although capital expenditure outturns reached 3.6 percent of GDP by the end of FY2019/20, this is still well below the budgeted 14.8 percent of GDP. The COVID-19 crisis is likely to have exacerbated these challenges, with the authority seeking to create fiscal space to maintain critical expenditures in the face of both declining revenue and increased expenditure pressures. In 2019, the authorities commenced the process leading to the development of a comprehensive Public Investment Plan (PIP). While the primary responsibility for ensuring that government resources are invested in bankable projects lies with the Ministry of Finance and Planning, other Ministries, Departments and Agencies (MDAs) also play a key role in ensuring successful implementation and multisectoral coordination across these agencies to avoid duplication. Over the longer term, PIM could be strengthened by the adoption of an indicative reference multi-year expenditure framework, consistent with the national development strategy.

Large portions of revenues are absorbed through compensation

agreements, external oil-backed prefinancing loans, and transfers and subsidies to public institutions. While the Transitional Financial Arrangement (TFA) with Sudan continues to exert significant pressure on the budget, the agreement will end in mid-2022, opening considerable fiscal space. Financial transfers to Sudan accounted for around 26.2 percent of government expenditure (9.9% of GDP) in FY2019/20 and 30.3 percent of the Government's total expenditure. on average, over the past three years. The forthcoming completion of the TFA will allow for lower levels of debt accumulation; a more robust debt profile; and thus lower borrowing costs in the relatively near future. While the authorities are intensifying their efforts to diversify non-oil revenue sources, expenditure pressures from oil-collateralized loans and subsidies and transfers to public enterprises are offsetting the gains made in non-oil tax revenue mobilization. The financial repayment obligations to Sudan are projected to account for an estimated 4.1 percent of GDP in FY2020/21, while public transfers and subsides (2.1%) and repayments (4%) that include arrears owed to advance oil contracts, continue to absorb large shares of revenue.

Table 4: Government fiscal operations, % of GDP

	FY2018/19 (Actual)	FY2019/20(Est)	FY2020/21(Proj)	FY 2021/22 (Proj)
Total government revenue	29.1	28.1	26.1	31.1
Oil revenue	25.5	24.3	21.1	27.1
Non-oil tax revenue	3.6	3.8	5.0	4.0
Grants	0.0	0.0	0.0	0.0
Total government expenditure	30.1	37.7	28.7	33.6
Recurrent spending	29.2	34.1	23.5	28.6
Wages and salaries	3.1	4.4	4.5	5.2
Interest	0.5	2.0	1.3	0.9
Capital spending	0.8	3.6	5.2	5.0
Primary balance	-0.4	-7.6	-1.5	-1.6
Overall balance (cash)	-0.9	-9.6	-2.7	-2.5
Variation arrears	2.2	-3.2	0.0	0.0
Overall balance (accrual)	-3.2	-6.8	-2.7	-2.5

Source: IMF, Ministry of Finance and Planning, World Bank estimates

Interest payments on public debt continue to consume a large share of government revenue. Interest payments increased from 1.7 percent of revenue (0.5% of GDP) in FY2018/19 to an estimated 7.0 percent of revenue (2.0% of GDP) in FY2019/20. This increase reflects the impact of increased non-concessional borrowing at high interest rates and the pandemic-induced decline in oil revenue that has resulted in immense pressure on South Sudan's revenue outturns. The stock of commercial external debt increased from US\$ 965 million in FY2018/19 to US\$ 1,105 in FY2019/20, accounting for 82 percent of total external debt (see Table 6). Going forward, the authorities must remain committed to non-concessional financing, limiting external borrowing only to finance critical infrastructure and necessary responses to the pandemic.

Financing over the past three years has been driven by external

borrowing, although recourse to monetary financing intensified in the context of the pandemic. Following a sharp decline in oil revenue following the outbreak of the pandemic, the authorities resorted to monetary financing of the deficit. Consequently, the monetary base expanded at a faster rate in the first half of 2020 than at any time during 2019. This growth was led by large increases in net claims on government, which increased by 93 percent in the period from December 2019 to June 2020, and by 48 percent in the period from July to December 2020. This monetary expansion exacerbated the pressure on the SSP, contributing to a sharp depreciation in the parallel market and to increased inflation. Given South Sudan's high level of dependency on imported products, including food and other essential commodities, the passthrough of parallel market exchange rate depreciation to consumer prices is very high and almost instantaneous. Monetary financing of the deficit has

now been discontinued, contributing to foreign exchange rate stabilization in the second half of FY2020/21.

South Sudan has reached a debt restructuring agreement with Qatar National Bank (QNB), putting an end to external debt distress. Prior to this agreement, South Sudan was in debt distress owing to external debt arrears, with its debt being assessed as unsustainable in the 2019 DSA and with a short-term trade facility provided by QNB falling into arrears in 2015. In addition, South Sudan fell behind on payments to Sudan in 2015 and 2016 due under the Transitional Financial Arrangement (TFA), although it cleared these arrears in 2018.11 The authorities negotiated a debt restructuring agreement with the QNB in July 2020, which helped to bring debt to sustainable levels on a forward-looking basis. The Government started servicing the loan in October 2020 and is now current on all its external debts.

Table 5: Distribution of oil revenue

	2018/2019		2019/20 (Es	st)	2020/21 (Pi	roj)
	Bn SSP	% GDP	Bn SSP	% GDP	Bn SSP	% GDP
Gross oil revenues	198.2	25.5	201.1	24.3	234.7	21.1
Public transfers and subsidies	10.4	1.3	20.5	2.5	23.8	2.1
Payment to Sudan	68.2	8.8	81.7	9.9	46.0	4.1
Repayments	60.0	7.7	103.1	12.5	44.6	4.0

South Sudan's external public debt was estimated to stand at US\$ 1,355 million (40.8% of GDP) at the end of June 2020. With limited public data, it is difficult to estimate the exact debt situation in South Sudan. The latest joint IMF-World BANK Debt Sustainability Analysis (October 2020, updated March 2021) estimated South Sudan's external public debt,

including arrears, to stand at US\$ 1,355 million (40.8% of GDP) at the end of June 2020. Debt to the World Bank amounted to US\$ 79 million on IDA terms, while debt to the African Development Bank (AfDB) amounted to US\$ 28 million. In addition, the Government had borrowed US\$ 143 million from China Exim Bank to upgrade Juba International Airport.

The Bank of South Sudan (BSS) has an outstanding liability to the QNB of US\$ 627 million. Debt to the Afrexim Bank amounted to US\$ 379 million, while oil-related short-term loans are estimated to stand at US\$ 99 million. As shown in Table 6, relatively few counterparts account for most of South Sudan's gross external debt. In FY2019/20, around 81 percent of total loans

^{11.} Under the agreement signed with Sudan in 2012, the South Sudanese government agrees to deliver a payment-in-kind of 10 million barrels of oil per year until FY20/21. In FY 2015/16, South Sudan accumulated payment arrears on the TFA to Sudan of US\$291 million. Note: the fiscal year in South Sudan runs from July to June.

(46%: QNB loans; 35%: oil advances and Afrexim Bank loans) are highly non-concessional. South Sudan opted not to participate in the Debt Service Suspension Initiative.

Prior to the COVID-19 crisis, South Sudan's domestic debt had been low, at below 10 percent of GDP. Domestic debt is mostly in the form of loans from the central bank. The Government had stopped monetary financing in late 2017, which helped to lower inflation and to stabilize the exchange rate. The COVID-19 crisis triggered some monetary financing, resulting in increased domestic debt by around 5 percentage points in FY19/20. However, following a cabinet resolution, there has been no further monetary financing of the budget

since September 2020. While there are no arrears on domestic debt instruments, the authorities faces domestic arrears related to salaries and goods and services. The current estimate of salary arrears is 2 percent of GDP, or five months of salaries. The authorities' PFM reform strategy includes the review, verification and clearance of all other arrears.

Table 6: Debt by Creditors (millions of US Dollars)

	FY2017/18		FY2018/19		FY2019/20	
	USD Million	Share (%)	USD Million	Share (%)	USD Million	Share (%)
Multilateral		3775 2 (3)		0110110 (0)		3110110 (3)
IDA	53	4	53	4	79	6
AfDB	28	2	28	2	28	2
Bilateral						
China EXIM Bank	100	8	150	13	143	11
Commercial						
QNB	627	52	627	52	627	46
AFREXIM	108	9	0	0	379	28
Oil advances	216	18	338	28	99	7
Arrears to Sudan	70	6	0	0	0	0
Total external debt outstanding	1,202	100	1,196	100	1,355	100
External debt to GDP ratio	1,202	37.8	1,196	26.7	1,355	28.3
Domestic debt to GDP ratio	265	8.3	229	6.0	596	12.5
Total Public debt to GDP ratio	1,466	46.1	1,424	32.7	1,952	40.8

Source: South Sudan Authorities, IMF, and World Bank

1.6 Trade and external sector developments

Trade between Uganda and South Sudan has recovered strongly, following an earlier collapse due to COVID-19-related cross-border movement restrictions. While COVID-19-related restrictions affected both formal and informal cross-border trade, its impact on the latter was considerably greater. South Sudan's informal imports from Uganda

collapsed in the first half of 2020, with traders struggling to comply with COVID-19 guidelines, including requirements to obtain and present a negative COVID-19 test certificate. At the same time, traders were affected by a scarcity of foreign currency and worsening security conditions along South Sudan's major trade routes. Bank of Uganda data show that

informal cross border trade fell by 97 percent in the period from March to April 2020, going down from US\$ 5.2 to US\$ 0.15 million in April 2020 between these points, beginning to recover only in August 2020, when its value rose to US\$ 1.9 million. By January 2021, informal cross border trade had recovered to pre-crisis levels, with the value standing at US\$ 7.8 million.

Informal cross-border trade, which usually involves goods transported in small quantities across the border by foot, bicycle, motorbike, passenger car, and bus, is a major livelihood source in border towns. Formal imports declined by about 28 percent, from US\$ 38.3 million in March to an average of US\$ 28 million over a 10-month period during April 2020-January 2021. However, despite sporadic border delays and security concerns along major trade routes, formal imports had recovered to pre-crisis levels

by February 2021, standing at US\$ 40 million, 9 percent higher than the January-March 2020 pre-pandemic average (see Figure 14).

In the midst of the pandemic, while South Sudan exports to Uganda initially surged, this growth was short-lived. South Sudan's exports to Uganda surged during the pandemic, rising from US\$ 0.16 million in April 2020 to US\$ 54 million in May; US\$ 22 million in June; US\$ 5.5 million in July; and US\$ 2.5 million in August,

before reverting to a normal range of about US\$ 0.5-0.6 million in the period from September onwards. With these developments, the annual value of South Sudan exports on a calendar year basis increased from US\$ 9.2 million in 2019 to US\$ 88.7 million in 2020 (see Figure 15). Of this, 93 percent of the merchandise (US\$ 82.2 million) was classified as "pearls, precious stones, metals, and coins" and 4 percent was classified as "iron and steel."

Figure 14: South Sudan imports from Uganda recovered

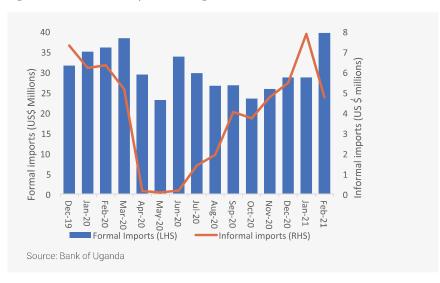
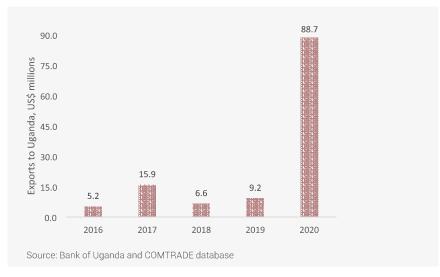


Figure 15: South Sudan exports to Uganda surged in 2020



¹² South Sudan Cash Working Group: Joint Market Monitoring Initiative (JMMI) — April 2021

While the functioning of markets has recovered somewhat following the lifting of COVID-19-related restrictions, insecurity along major trade routes continues to pose significant risks. Cross-border trade (both formal and informal) between South Sudan and its regional neighbors has recovered somewhat, after a difficult year in which floods, conflict, and COVID-19 restrictions affected connectivity. In early April, the South Sudan Joint Market Monitoring Initiative (JMMI) reported that roads were open at least irregularly in almost all assessed locations across the country, resulting in a greater availability of goods in many markets/locations.12 Nearly nine in ten households (87.5%) surveyed by the World Bank in October 2020 indicated that they could access markets, higher the figure of 83.5 percent reported in June 2020. This improvement is significantly reflected in urban areas. However, a rise in insecurity incidents along major highways threatened to disrupt the recovery in trade flows and market activity, with traders from Uganda and Kenya suspending cross-border movement in the first week of April 2021. Given the importance of regional imports to meet domestic demand for food and essential supplies, the authorities acted quickly and increased security measures to ensure the safe passage of goods into the country.

Table 7: The current account (Millions of dollars, % GDP in parentheses)

(Millions of dollars)	2017/18	2018/19	2019/20 Estimate	2020/21 Projection
Current account balance (% GDP)	-343	-253	-406	-341
	(-9.5)	(-5.0)	(-7.9)	(-7.1)
Balance of goods (% GDP)	150	267	-38	-440
	(4.2)	(5.2)	(-0.7)	(-9.2)
Exports of goods o/w Oil Imports of goods	2,568	3,103	3,088	2,912
	2,552	3,086	3,061	2,883
	-2,418	-2,836	-3,126	-3,352
Balance of services (% GDP)	-675	-707	-648	-658
	(-18.8)	(-13.9)	(-12.6)	(-13.7)
Income (% GDP)	-594	-719	-576	-484
	(-16.5)	(-14.1)	(-11.2)	(-10.1)
Current transfers (% GDP)	776 (21.6)	906 (17.8)	856 (16.1)	1,241 (25.9)
General government Workers' remittances Financial transfers to Sudan Other sectors	0.0	0.0	0.0	0.0
	53	58	77	81
	-409	-335	-468	-212
	1,132	1,183	1,247	1,372
Memoranda items				
Nominal GDP (USD millions)	3,596	5,093	5,147	4,788
Gross foreign reserves (USD millions) In months of imports	33	31	48	133
	0.1	0.1	0.1	0.4

Source: International Monetary Fund, World Bank Estimates

In FY2019/20, with the pandemic and transfers to Sudan exerting pressure on the balance of payments, the current account deficit widened further, reaching an estimated 7.9 percent of GDP, up from 5.0 percent in FY2018/19. Merchandise exports are estimated to have declined by 0.5 percent in FY2019/20, following an estimated 0.8 percent contraction in oil exports, which declined to US\$ 3.088 billion in FY2019/20, down from US\$ 3.103 billion in FY2018/19. The decline in oil exports, which are estimated to contribute to about 99 percent of South Sudan's merchandise exports and 98 percent of total exports,

reflects developments in the final quarter of FY2019/20 (April-June), with the global impact of the pandemic leading to declining international oil prices and OPEC+ production cuts. Despite this, non-oil exports of goods and services are estimated to have grown by 48.7 percent, albeit from a very low base, increasing from US\$ 41 million in FY2018/19 to US\$ 61 million in FY2019/20. Notably, transfers to Sudan increased by 39.7 percent, going up from US\$ 335 million (6.5% of GDP) in 2019 to US\$ 468 million (9% of GDP) in FY2019/20, exerting significant pressure on the balance of payments. Gross international reserves amounted

to US\$ 48 million (equivalent to about 0.1 month's cover) at the end of FY2019/20. By any measure, this is insufficient to provide adequate buffers to facilitate effective responses to future shocks.

Cross-border trade has recovered strongly, following an earlier collapse due to COVID-19-related crossborder movement restrictions.

1.7 Monetary and financial sector developments

The authorities have instituted accommodative monetary policy measures intended to sustain liquidity in the economy and to mitigate the impacts of the pandemic on the financial sector. On 24 April 2020, the BSS reduced the central bank rate by two percentage points, from 15 percent to 13 percent. In addition, the reserve requirement ratio was reduced from 20 percent to 18 percent. This was followed by additional measures announced on 7 July 2020, which included reducing both the Central Bank rate, by a further 3 percentage points, down to 10 percent; and the Reserve Requirement Ratio, to 10 percent. It also suspended the implementation of a recent regulation that mandated higher minimum paid-up capital for commercial banks. BSS also reiterated that the South Sudanese Pound (SSP) is the only legal tender for settlement of domestic payments, encouraging banks to restructure loans as necessary. Some of these monetary policy measures were reversed in November 2020, with the central bank rate increasing to its previous level of 15 percent, with the authorities moving to counter rising inflation. However, considering that the monetary transmission mechanism is not functioning effectively due to the very limited role of banks in financial intermediation, both decisions had a limited impact on commercial bank lending activity.

South Sudan's financial sector is small, with negligible levels of intermediation to sustain weak private sector credit growth. Loans represent about 44 percent of total assets, of which more than 90 percent are loans to the Government. If the

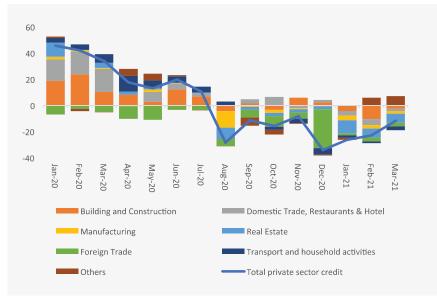
impact of currency depreciation over the loan portfolio is applied, it shows that there has not been any new lending activity for years, which also indicates the absence of liquidity in banks. The only important dynamic in the loan portfolio was determined by the conversion of the trade credit exposures to the central government into loans. Since most of the loans are in FX, the continuing depreciation of the national currency and constrained FX inflows to the public sector have a direct negative impact on the potential to recover these loans. Loans to the private sector represent only 11 percent of customer deposits, or 2 percent of GDP, which reflects the very limited role played by banks in financial intermediation in the real economy. The exposure to the Government is even higher, if considering the balances at BSS, which is mainly in FX and represents approximately 60 percent of the liquid assets of the banking sector.

Credit conditions are dire, with real private sector credit growth effectively negative during the first three quarters of FY2020/21. Real private sector credit expansion picked up strongly in FY2019/20, reflecting the strong recovery of the economy and peace dividends that supported private investments and business expansion, albeit from very low levels. 13 However, this trend reversed in July 2020, reflecting strong market exchange rate depreciation and soaring inflation. In the nine month period to March 2021, real private sector credit growth averaged -19.9 percent, compared to the 20.4 percent recorded in the same period in the previous year (see Figure 16). The structure of private sector credit remains largely unchanged from last year. By March 2021, domestic trade accounted for 50 percent of the total value of private sector credit, followed by building and construction (17%) and transport and household activities (12%).



^{13.} We define real private sector credit as the dollar equivalent of private sector credit at market (parallel) exchange rates

Figure 16: Real private sector credit growth, % y/y



Source: Bank of South Sudan

no repayments of principal have been made. Considering the overall macroeconomic situation in South Sudan and the real (parallel) market exchange rate, the Government and the BSS are unlikely to have the capacity to repay these exposures in the short and medium term. Additionally, based on the banks' assets and liabilities structure, this very high exposure to the Government also means that they currently only play an extremely

limited role in financial intermediation and that they do not contribute significantly to economic activity in the country. The share of loans to non-government entities represents an insignificant share of banks' loan portfolios, with a considerable portion of these loans already classified as non-performing. Adjustment to the Capital Adequacy Ratio (CAR) based only on the real exchange rate (parallel market) would lead to a reduction in

South Sudan's banking sector faces significant risks related to solvency, liquidity, asset quality and FX and **sovereign exposure.** The key source of risk arises from the very high level of exposure to FX loans to the Government. These loans do not appear to be serviced for long, even while interest income continues to be shown as accrued, thereby artificially boosting income and capital. A vast majority of the assets (almost 80%) are concentrated in FX loans to the Government and FX balances at the BSS. All exposures to the Government are classified as performing, although the exposures have not decreased in the past years, which indicates that

the CAR by more than two-thirds (from 15.6% to about 5%). At this level, the BSS will have to implement resolution measures, if urgent recapitalization is not feasible. Any additional losses related to the quality of assets would very quickly reduce the capital level, taking it months into negative territory. This may require the authorities to implement significant interventions to recapitalize the banking sector.



The ability to accurately estimate economic activity is an ongoing challenge in South Sudan. We propose a methodology to estimate high-frequency, non-oil GDP growth using a range of different data sources, including traditional surveys, trade data, and satellite imagery. We also provide sub-national, non-oil GDP growth estimates at the quarterly scale for the period from 2008 to 2020. The emphasis has been on developing a transparent and data-driven approach to estimate and eventually forecast quarterly GDP using the following methodologies.

Agriculture GDP. A reliable source of data for net cereal production in South Sudan in the period from 2008 to 2019 is available from the Crop and Food Security Assessment Missions (CFSAM) annual reports (FAO, 2020). Sorghum and maize dominate production quantities, contributing to 85.7 percent and 13.6 percent respectively, based on 2014-2018 averages. The level of cereal production depends on local weather conditions and therefore fluctuates annually, with potentially dramatic changes from one harvest to the next. In order to forecast cereal production, environmental data for monthly rainfall and normalized difference vegetation index (NDVI) was obtained at the state level for South Sudan. The NDVI provides a measure of healthy green vegetation and can detect abnormal changes in the growth process. Annual cereal production was found to depend on NDVI in January and the rainfall in June and November corresponding to the last months of the first and second harvests according to the FAO crop calendar. This quantitative forecasting model allows for sub-annual estimation of agricultural GDP (adjusted R2 = 45%). The selected variables coincide with agronomic knowledge that production is particularly sensitive to receiving adequate rainfall during the growing phase prior to harvesting. After forecasting the quantity from each harvest, it was then assumed that the value can be distributed across the months until the start of the subsequent

harvest, with a simple linear decay. Following the crop calendar, monthly GDP is then estimated and aggregated to quarterly GDP. Access to real-time rainfall and NDVI allows for quarterly forecasts with horizons of one to two quarters into the future. An additional finding was that upon release of the CSFAM report for the previous year (usually in the first or second quarter), it is possible to use the cereal production and cultivated land area to produce annual forecasts for the present year with a higher degree of accuracy (adjusted R2 = 76%).

Industry & Services: An extensive literature exists on the use of satellite-based night-time lights (NTL) as a proxy for economic activity, in particular for industry and services. Various studies have considered NTL to estimate economic activity, with the assumption that undertaking the majority of these activities in the evening or night requires lighting. NTL data is available from the NASA Defense Meteorological Satellite Program (DMSP) and has been used in a number of studies to estimate GDP based on evidenced correlation between luminosity and the level of economic activity. Unfortunately, the DMSP source only covers the period from 1992 to 2013. An alternative source of night-time lights is provided by VIIRS for the period from 2012 to 2019. A seamless time series of growth rates was calculated from these two sources in order to derive state-level NTL for the full period of the study. National GDP from industry and services were then distributed across states according to the NTL. A final challenge related to estimating the expected modulation that is likely to be present in the quarterly figures. To overcome this challenge, we use monthly trade data between South Sudan and Uganda to infer the intra-annual weights. The weights for the four quarters were as follows: wq = [0.3129 0.2129 0.2049 0.2693] indicating that the first quarter has the highest weighting, followed by the last quarter of the year.

Box 5: Spatial distribution of reconstructed 2019 non-oil GDP

Panel A: GDP from agriculture in 2019 with quintile ranking from lowest (dark red) to highest (dark green).

Panel C: GDP from industry & services in 2019 with quintile ranking from lowest (dark red) to highest (dark green).



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Constant 2009 millions SSP						
66-88	66-88 94-96 98-111 123-148 197-213					

Constant 2009 millions SSP

194-211 232-254 333-336 601-1197 1938-2358

Panel B: Per capita GDP from agriculture in 2019 with quintile ranking from lowest (dark red) to highest (dark green).

Panel D: Per capita GDP from industry & services in 2019 with quintile ranking from lowest (dark red) to highest (dark green).





Constant 2009 SSP					
60-65 69-81 88-96 119-145 180-272					

Constant 2009 SSP						
117-227	117-227 233-247 264-336 416-1461 1775-2168					

ECONOMIC OUTLOOK AND RISKS

1.8 The outlook has deteriorated due to the economic impact of the COVID-19 pandemic, particularly on the country's most vulnerable

In FY2020/21, South Sudan's economy is projected to contract by about -4.1 percent, with growth negatively affected by the impact of the pandemic, floods, and increased conflict intensity in parts of the country. This rate represents a 0.7 percentage point reduction from the forecast presented in the December 2020 South Sudan Economic Update, and a 10.2 percentage point reduction compared to the pre-COVID-19 projection (February 2020 Economic Update), South Sudan experienced a second wave of the pandemic at the start of the year, with rapidly increasing numbers of new cases and deaths. The authorities instituted fresh lockdown measures in early February, with these restrictions remaining in place until 14 April 2021. Going forward, the speed of the recovery of the oil sector will depend on higher investments, with these constrained and delayed by the COVID-19 pandemic. Thus, oil production is projected to decline by -2.9 percent, going down from the figure of 62.1 million barrels realized in FY2019/20 to 60,2 million barrels in FY2020/21. However, agricultural production growth is projected to average at more than 3.5 percent in the medium term, with the sector expected to benefit from both favorable weather conditions and a gradual return to peace across the country.

Beyond FY2020/21, South Sudan's economy is expected to recover faster than earlier estimated, with projected growth rates of 2.6 percent in FY2021/22 and 3.0 in FY2022/23.

Recent advances in the development of a range of vaccines and their expanded global production have led to a degree of optimism regarding the duration and impact of COVID-19 pandemic into the future. An earlier and speedier than projected global recovery would support inward FDI and remittances, leading to a faster recovery than earlier projected. The efficient rollout of vaccination programs would save lives and enable South Sudan's non-oil economy to recover faster, supporting the achievement of higher levels of resilience in the face of a multitude of shocks. At the same time, higher oil prices would lead to stronger export growth, higher FDI in the sector, and increased expenditure revenue. If used well, increased oil revenues could be used to support economic diversification, leading to a more inclusive and resilient recovery. Consequently, the economy could grow by 2.6 percentage points in FY2021/22 and by 3.0 percentage points in FY2022/23, higher than our previous projections (December 2020) of 0.0 percent and 2.5 percent respectively.

The fiscal deficit is expected to narrow to about 2.7 percent of GDP, reflecting higher than projected oil and non-oil revenue and the impact of fiscal consolidation efforts. Despite delayed oil sector investments, the fiscal outlook could benefit from higher oil prices in FY2020/21. Oil revenue is expected to increase to 25.2 percent in FY2020/21 from 24.3 percent of GDP during FY2019/20. This projected outturn is more than ten percentage

points higher than the authorities' forecast at the start of the year, when oil prices were very low and their future path uncertain. At the same time, fiscal consolidation will benefit from lower than planned investment expenditures, with outturns of about 5.1 percent of GDP, lower than the 5.3 percent projected by the authorities at the start of the fiscal year. In addition, non-oil tax revenue is projected to increase to an estimated 5.0 percent of GDP in FY2020/21, from 3.8 percent in FY2019/20, reflecting the National Revenue Authorities' efforts to expand the tax base, and various measures to reform its tax revenue collection functions. Going forward, the fiscal situation is expected to improve gradually as South Sudan completes the payment of financial transfers to Sudan in FY2022/23, with these currently absorbing a large share of revenue, estimated at 4.1 percent of GDP in FY2020/2021.

South Sudan's economy is projected to contract by about -4.1 percent in FY2020/21 but may recover faster than earlier estimated, with projected growth rates of 2.6 percent in FY2021/22 and 3.0 in FY2022/23.

Figure 17: Real GDP growth rate (percent)

10 8

6

4

0

-2

-4 -6



FY2019 FY2020 FY2021 FY2022 FY2023

February 2020

June 2021

Figure 18: Overall fiscal balance (percent of GDP)

FY2019 FY2020 FY2021 FY2022 FY2023

--- February 2020 --- December 2020

June 2021

Source: International Monetary Fund; World Bank estimates

The current account is expected to narrow to -7.1 percent of GDP in FY2020/21, from -7.9 percent in FY2019/20. The trade balance is expected to widen to an estimated deficit of -9.2 percent of GDP (US\$ 440 million) in FY2020/21, from -0.7 percent of GDP (US\$ 38 million) in FY2019/20. These developments reflect lower oil revenue receipts, which are projected to decline by -5.7 percent year-on-year. At the

same time, merchandise imports are expected to increase due to the increased need for food imports resulting from severe flooding, which has destroyed food stocks and crops ahead of the main harvest season. Nevertheless, the income account is projected to improve marginally, with net outflows of oil-related investments declining from an estimated 6.8 percent of GDP in FY2019/20 (US\$ 348 million) to about 5.3 percent of

-10

GDP (US\$ 254 million) in FY2020/21. In addition, financial transfers to Sudan are projected to decline to about 4.4 percent of GDP (US\$ 212 million) in FY2020/21, from an estimated 9.1 percent of GDP (US\$ 468 million) in FY2019/20. These latter two developments are expected to support an overall improvement in the current account balance.

--- December 2020



1.9 Risks to the outlook

Upside risks relate to recent advances in the development of COVID-19 vaccines and the successful rollout of vaccination programs. Recent advances in the development of COVID-19 vaccines have raised hopes that the global economy could recover faster than previously expected, which should support a sustained uptick in oil prices, inward investment, and remittances. While there are

uncertainties regarding efficiencies in the production, distribution, rollout and equitable access to vaccines, recent developments in parts of the world, particularly in rich countries, point to a strong recovery, with many such countries gradually reopening their economies and ending lockdowns. While South Sudan has successfully navigated a second wave of the pandemic, there is an urgent need

to support South Sudan's national vaccination program, even in the context of dire financing needs and pressure on the budget to implement the peace agreement. This will be critical to avoid resurgences and additional waves of the pandemic, with associated lockdown measures, especially as new variants of the COVID-19 virus continue to emerge on the continent.

Table 8: Economic Outlook (annual percentage changes unless stated otherwise)

	FY2018/19	FY2019/20 (Est)	FY2020/21 (Prel.)	FY2021/22 (Proj.)	FY2022/23 (Proj.)
GDP at constant market prices	3.2	9.5	-4.1	2.6	3.0
Oil	10.7	27.5	-2.9	3.2	1.1
Non-oil	0.0	0.8	-4.9	2.2	4.1
GDP at constant factor prices	3.2	9.5	-4.1	2.6	3.0
Agriculture	9.9	6.0	3.5	3.5	3.6
Non-oil industry and services	-1.5	0.0	-6.3	2.0	4.2
Oil sector	10.7	27.5	-2.9	3.2	1.1
Inflation (average)					
Exchange rate, official (SSP/USD, Avg)	152.4	161.8	232.7	285.8	331.6
Exchange rate, market (SSP/USD, Avg)	251.1	310.2	542.8		
Memorandum items					
Oil production (millions of barrels)	49.1	62.1	60.2	62.1	62.8
South Sudan's oil price (\$US/bbl, Avg)	62.9	49.3	47.9	54.7	53.4
Brent price (\$US/bbl, average)	64.9	51.3	49.9	56.7	55.4
Nominal GDP (SSP billions)	776.2	827.8	929.9	1,227.4	1,503.8

Source: South Sudanese authorities; World Bank, and IMF estimates

South Sudan's current PFM reform program creates opportunities for the achievement of faster, more inclusive growth in the near and medium term. As discussed earlier, the authorities have committed to an ambitious but feasible reform program, consistent with the Government's commitment to achieving stabilization and improved

public financial management. In support of this effort, the IMF Board approved a nine-month SMP to run for the period from 31 March to 31 December 2021. This will provide a strong basis for an ongoing reform process that focuses on four critical areas: (i) restoring fiscal discipline; (ii) monetary and exchange rate

reform; (iii) debt management; and (iv) strengthening governance. Provided that the authorities adhere to agreed-upon commitments, the improved fiscal transparency, macroeconomic stability, and prudent use of oil resources that are expected to derive from this reform initiative will support the development of the necessary

conditions to enable economic diversification, leading to more inclusive and resilient recovery in the medium term.

The major downside risk to the outlook relate to the sustainability of peace and security in South Sudan. While a national Unity Government was formed in February 2020, the situation in South Sudan continues to remain volatile. A flareup in violence in parts of the country and the slow implementation of key aspects of the peace agreement raise concerns regarding the sustainability of the peace process. The formation of a new inclusive parliament more than a year after the Unity Government was formed represents the formal fulfillment of a key pending aspect of the this process. However, its practical impact on peaceful modes of governance remains uncertain, while some critical issues outlined in the peace agreement, including the completion of transitional security arrangements related to the reunification of the armed forces and the DDR, remain unresolved. A resurgence in the conflict would reverse the gains made towards economic recovery and exacerbate the macroeconomic and humanitarian situation

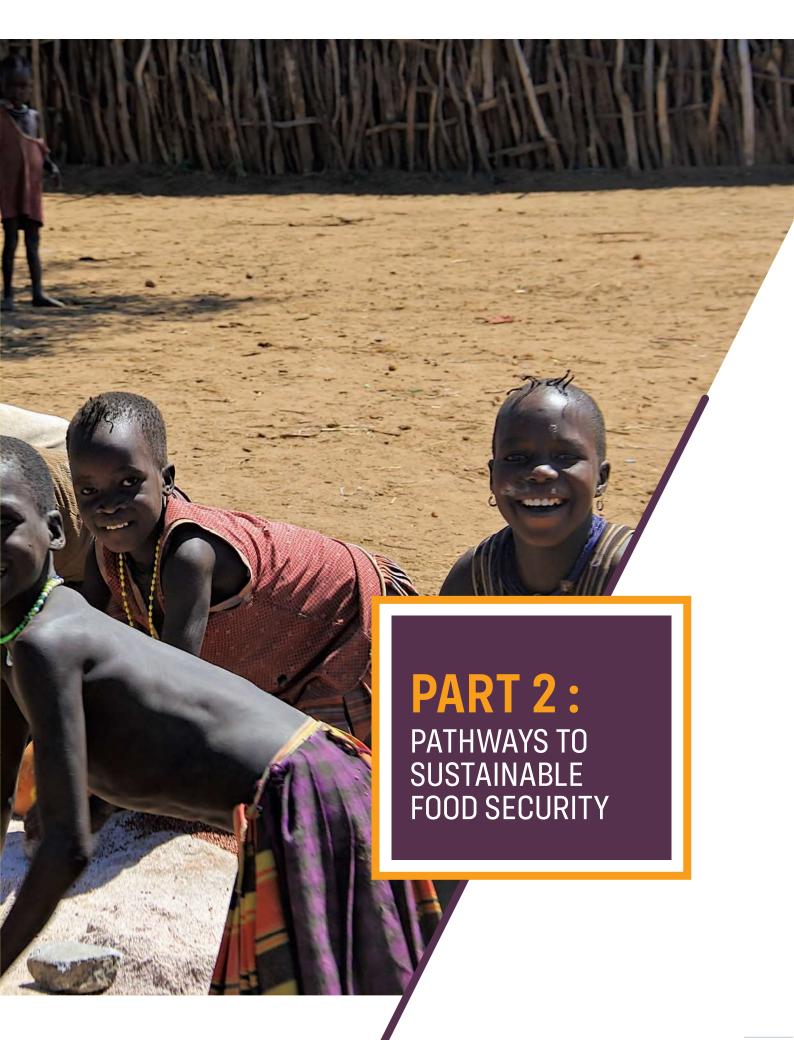
Subdued oil prices on the international market could also undermine South Sudan's economic recovery. As recent events have highlighted, South Sudan is vulnerable to adverse commodity price shocks. Government resources are heavily dependent on the oil sector, which is estimated to account for more than 90 percent of central government revenue and 95 percent of the country's exports. Lower oil export revenue would negatively impact the Government's resources, potentially derailing the Government's investment program, which is already grossly underfunded. In addition, lower oil prices may affect sector investment plans, requiring South Sudan to quickly locate alternative sources of growth. In the absence of major new oil discoveries, the known oil reserves could face rapid depletion in the coming years.

Reliance on rainfed agriculture and the chronic issue of food insecurity continue to pose downside risks to agricultural sector productivity, the living standards of the poor, and non-oil export earnings. As recent events highlight, households in South Sudan are particularly vulnerable to weather-related, pest, and other shocks. Thus, a renewed focus on building resilience,

including through measures to support better water management, climatesmart farming practices, and the use of more resilient seed varieties, is vitally necessary. With the security situation improving, the authorities should also focus on facilitating the achievement of a year-round agricultural cycle that could improve household production and productivity. Despite its large agricultural potential, South Sudan has not achieved food self-sufficiency since 2009, resulting in high levels of food insecurity that have frequently reached crisis levels in a number of sub-national jurisdictions. At the same time, recent analysis suggests that in coming years, growing seasons across South Sudan will start earlier, last longer, and have more days with greater than 5mm of rain, potentially ameliorating conditions that constrain agricultural sector productivity. On the downside, this could cause disruptions due to the increased likelihood of flooding, potentially increasing the risks for poor agricultural and food security outcomes. Part 2 of this Economic Update will delve into these issues further, providing a nuanced analysis of South Sudan's agricultural and food insecurity dynamics for the period from 2006 to 2020.

Despite its large agricultural potential, South Sudan has not achieved food self-sufficiency since 2009, resulting in high levels of food insecurity that have frequently reached crisis levels in a number of sub-national jurisdictions.





2.1 Factors influencing food insecurity have shifted dramatically since pre-independence

While South Sudan's food security situation has been deeply affected by the impacts of war, it is the impact of the conflict on the economy and markets that has become the most significant driver of food insecurity, rather than the violence itself. South Sudan faces one of the most dire food insecurity situations out of all the world's nations. An analysis conducted by the FAO in December 2020 found that about 6.35 million people (more than half of the country's population) faced crisis-level food insecurity or worse (IPC Phase 3) during the October-November period in 2020, with 24,000 among them facing Catastrophic levels (IPC Phase 5). The situation was projected to deteriorate at the peak of the lean season in April-July 2021, when more than 7 million are expected to face acute food insecurity, with 31,000 facing Catastrophic levels.14

In South Sudan, the prevailing narrative focuses on conflict as the major threat to food security. In fact, this is not incorrect: South Sudan faces conflict-induced instability that affects the ability of its people to grow, buy, and sell food, ensuring a persistent cycle of food insecurity. Millions have been displaced from their homes due to conflict, further constraining food access, However, viewing conflict alone as the most critical factor misses crucial elements of South Sudan's food security situation. Before the COVID-19 crisis, critical aspects of market dynamics and weather and climate patterns already played important, often overlooked or underestimated roles in this situation. At present, in the context of the ongoing pandemic, further market disruptions due to supply-chain breakdowns threaten to intensify increases in food insecurity.

In South Sudan, conflict, disruptions to oil revenues, and economic mismanagement have all led to a situation in which market factors play the greatest direct role in current food insecurity. Market effects, including poor trade conditions and hyperinflation, have stemmed in large part from conflict and economic mismanagement (World Bank, 2017), with these playing a major role in determining the availability and accessibility of food for South Sudan's population. Other secondary effects of conflict, including displacement and infrastructure destruction and disrepair, have additionally contributed to this situation. Despite South Sudan's ample and growing agricultural potential, agricultural production has suffered due to insecurity and lack of farm labor.

Recent modeling work indicates that

market factors and environmental influences play a critical role in South Sudan's food insecurity situation. 15 Agencies reporting to the United Nations Security Council identify conflict-driven displacement, low crop yields, economic crisis, climatic shocks and difficulties for humanitarian access as key drivers of food insecurity in the country (United Nations Security Council, 2019). To further examine the relative importance of these factors, the analysis presented here aims at predicting historical (2009-2019) critical food insecurity levels in 21 countries, including South Sudan, using data related to conflict, market prices, and the environment, as observed prior to critical food insecurity events (World Bank 2020a). Critical food insecurity is measured in terms of the Integrated Phase Classification categories (see Table 9), with critical food insecurity being deemed to be present when

the categories Crisis, Emergency or Catastrophe apply. Critical food insecurity means that households have significant food consumption gaps, driving them to start shedding livelihood assets to fill that gap. Rebuilding from this type of situation urgently requires significant resources, time, and effort to protect lives and livelihoods. Below this threshold, households are deemed to be able to avoid these stress-coping strategies (IPC, 2019).

Table 9: IPC Categories

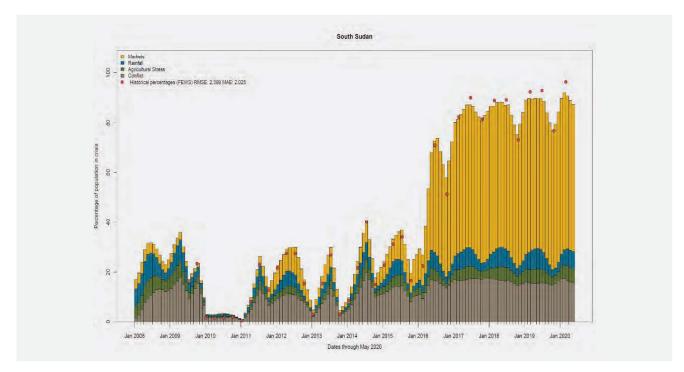
Phase 1) Minimal/None (2) Stressed (3) Crisis (4) Emergency (5) Catastrophe/Famine

Factors influencing food insecurity have shifted dramatically since the pre-independence period. This shift is highlighted in Figure 19, which summarizes the explanatory power of key drivers of interest over time. While violence has long been associated with greater food insecurity, more than half of the current populations experiencing crisis-level or worse conditions can attribute this to the breakdown of markets and the high inflation rates experienced since in 2015. In fact, the influence of market prices on modeled food insecurity has skyrocketed since late 2015, coinciding with the outbreak of conflict and politically-induced economic collapse. Decades of war have resulted in a shift toward market dependence that is now closely tied with food insecurity (Thomas, 2019).

^{14.} FAO (2020). IPC Acute Food Insecurity & Acute Malnutrition Analysis. October 2020 – July 2021.

^{15,} Andree, Bo Pieter Johannes; Chamorro, Andres; Kraay, Aart; Spencer, Phoebe; Wang, Dieter, 2020, Predicting Food Crises, Policy Research Working Paper; No. 9412, World Bank, Washington, DC. © World Bank, https://openknowledge.worldbank.org/handle/10986/34510

 $Figure\ 19: Decomposition\ of\ estimated\ populations\ in\ areas\ experiencing\ critical\ food\ insecurity^{16}$



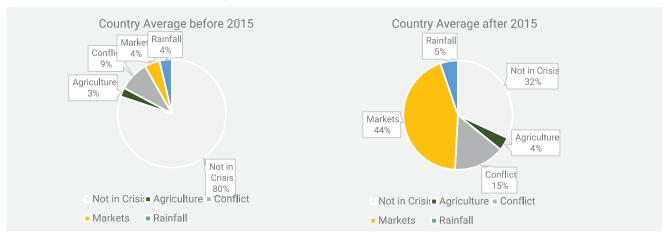
At the national level, the analysis shows that market prices are the most significant factor driving the recent food security situation in South Sudan, following the depreciation in the value of the South Sudanese Pound (SSP) in December 2015.

Market influences on food security appear relatively independent of local agricultural supply, which is especially evident following the

SSP's depreciation and subsequent skyrocketing inflation. Before that time, market prices were a relatively insignificant factor in explaining food security. Instead, conflict was the most prominent explanatory factor (see Figure 20). The FAO and World Food Programme (WFP) found that during the 2018 lean season, more than 40 percent of cereals and roots consumed by households nationally

were acquired from markets. However, this market dependence varies considerably between regions. The FAO and WFP note that 2018 figures indicating a decrease in market dependence relative to 2017 are unlikely to signal increased crop production. Rather, they suggest excessive difficulty in obtaining market goods due to inadequate market supplies and/or extreme prices (FAO & World Food Programme, 2019).

Figure 20: Factors influencing food insecurity



16. Based on 3-month centered average results, national level

The modelled influences of violence, inflation, and crop health on food security align with key indicators.

Food price index and price volatility show a dramatic increase in food costs following the collapse of the South Sudanese Pound in December 2015, coinciding with rising populations in food insecurity crisis areas. Conflict death intensity since 2013 does not appear to correlate tightly with food insecure populations in the same way: while conflict intensity has subsided and stabilized to some extent since 2017, food insecurity has remained high. Environmental factors, too, show volatility, but do not closely correlate with the rapid and sustained growth in the level of food insecurity since 2015.

Food security has become more dependent on environmental factors in recent years, during which period an increase in rainfall and longer growing seasons have been recorded across the country. Environmental variables related to rainfall and agricultural stress shift cyclically, coinciding with growing

seasons and the varying supply of food available during harvest and lean times. These influences have grown during times of higher violence and market shocks, despite violence and market disruptions being attributed to non-environmental causes. An agricultural shock of similar magnitude may have more destructive impacts on livelihoods when the economic system is weak, so the overall impact of agricultural shocks on food insecurity can increase despite positive environmental developments. Moreover, increases in rainfall are not guarantees of greater crop output. In fact, increased volatility and a lack of water management capacity can threaten farmers' livelihoods. The 2019 floods, for example, are estimated to have caused a loss in excess of 15 percent to agricultural production in affected areas (FAO, 2017b).

Conflict remains a latent threat to food security. Outbreaks of conflict in December 2013 and July 2016 are reflected in the increasing influence of conflict on food security in the months

following the outbreaks. These two outbreaks occurred at the beginning of the dry season and the middle of the rainy season, respectively, highlighting conflict's negative impacts on food security in spite of relative abundance or scarcity. A decrease in the influence of conflict on food security following the September 2018 peace deal, attributed to increased trade flows, improved market access, and higher domestic production (World Bank, 2020b). Despite this improvement, food prices remain unaffordable for many households, with modeling efforts indicating that the continued impacts of violence on food security remain considerable. A qualitative analysis in nine South Sudanese towns indicates that conflict's main influences on food security appears to be through the displacement of populations and damage and disrepair to infrastructure, rather than directly through crop destruction, with economic and market channels playing a critical role.

2.2 South Sudan's agricultural potential has increased over the past decade

South Sudan's agricultural potential has increased over the past decade, with increasingly long rainy seasons.

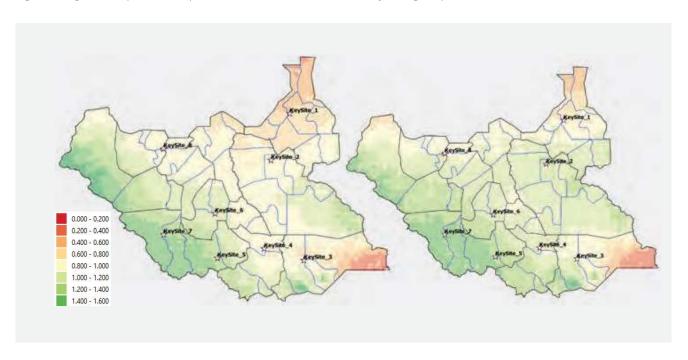
A novel analysis of 2006-2019 historical climatic data finds that areas where agriculture faces high levels of seasonal vulnerability have decreased since 2006. Figure 21 shows agricultural potential₁₇ in the periods from 2006-2013 and from 2014-2019, demonstrating that the past six years have been wetter, and therefore more agriculturally viable, than the previous eight years. This also indicates that there are fewer vulnerable agricultural areas in the recent period.

Despite South Sudan's promising agricultural potential, more than an estimated 7.5 million people lived in agriculturally vulnerable areas at the time of the 2013 conflict. Figure 22 shows areas of South Sudan that are most vulnerable to weather variability during the May-September rainy season. The shift toward less vulnerable conditions in South Sudan is important for the achievement of food security for those still living in South Sudan and for potential returnees. As much of the country relies on subsistence agriculture, consistently wetter growing seasons have the potential to yield greater food production.

Influences of conflict on food systems occur mainly through secondary channels including trade disruptions and decreased farming security.

^{17.} Agricultural potential refers to mean precipitation divided by potential evapotranspiration (P/PET)

Figure 21: Agricultural potential for period 2006-2013 and 2014-2019, May through September





Box 6: South Sudan's Landscape

South Sudan's landscapes are highly diverse, with many livelihood specialties. FEWS NET classifies the country into 12 zones, illustrating various types of farming and livestock territories and key crop zones (FEWS NET, 2018). Agricultural activity is widespread, with pastoralism around the Nile River running north-south through the center of the country and west of the Nile in the south. Livestock raising occurs mainly in eastern areas, while crop farming occurs over a wider area.

South Sudan's rainy season lasts for up to 248 days in some locations, beginning in most areas between April and June¹⁸. The southern reaches of the country have the earliest onset and longest rainy seasons. These southern areas, including the Equatoria provinces, are considered some of the most fertile in South Sudan and are used to cultivate a range of cereal crops, including maize, cassava, and sorghum.

Figure 22: Length of rainy season in days in South Sudan (9x9km)

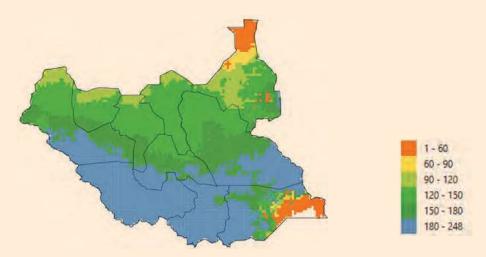


Figure 22 highlights the diversity of South Sudan's landscape, as well as the agricultural vulnerability experienced in some areas¹⁹. While more than 70 percent of South Sudan's land is favorable for agriculture, less than 4 percent was being farmed in 2012 (2.7 million ha) (World Bank, 2012). The World Bank estimates that increasing agricultural land use to 10 percent of the country's total land area (6.3 million

ha) would increase the value of total agricultural output from approximately US\$ 808 million to US\$ 2 billion (World Bank 2012). Barriers to this expansion include the low level of adoption of productivity-enhancing technologies, capacity constraints, non-tariff barriers, high labor costs, and the lack of infrastructure, including for irrigation.

Figure 23: Agricultural potential (14-year mean P/PET during rainy season, May-September, 2006-2019



^{18,} Length of rainy season refers to the number of days where the rolling 10-day P/PET is greater than 0.70 with no period of 21 days where the rolling 10-day P/PET is below 0.70.

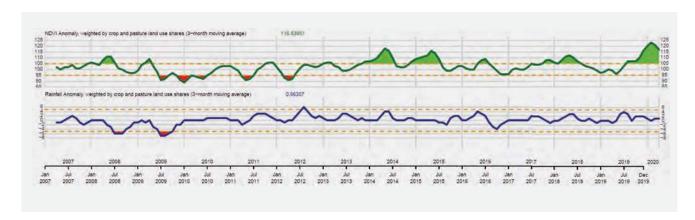
^{19.} Areas requiring irrigation for farming refer to those with P/PET less than 0.8 P/PET, vulnerable areas refer to P/PET between 0.8 and 1.2, and arable refers to areas with P/PET above 1.2.

While the marked rise in the amount of precipitation across South Sudan has resulted in increased growing opportunities, volatility remains an issue. Figure 24 demonstrates anomalies in plant productivity and rainfall at the national level, indicating the instability of crop conditions beyond seasonal variations. This variability is a concern for farmers who

cannot access water management equipment and/or facilities, and who therefore face the threats of inundation without the benefit of increased water availability throughout the growing season. In 2019, 73,000 metric tons of potential harvests were destroyed by flooding, with nearly one million people affected by these events (World Food Programme, 2019). The combined

impact of the economic crisis, lack of investment in the sector, and the low capacities of producing households often means producers cannot take advantage of the increased availability of water to produce increased yields. Many farmers lack access to fertilizer, herbicides, pesticides, and high yielding seeds, further limiting production.

Figure 24: Population weighted plant productivity and rainfall anomalies in agricultural areas, South Sudan (2007-2020)



Trend analysis suggests that in coming years, growing seasons across South Sudan will commence earlier, last longer, and have more days with greater than 5mm of rain.

This could be positive for agricultural production as a whole if farmers are able to adjust and adapt to changing

conditions. However, given the lack of institutional resources, including water management support (e.g., to build water storage facilities and to provide pumping and irrigation equipment); crop adaptation (e.g., for research and the provision of seeds for crops most suitable in the context of the changing

ecology of South Sudan's regions); and food storage facilities, this adaptation will be difficult. Environmental changes in the context of conflict and high inflation will pose even greater challenges.

2.3 Conflict's effects on food insecurity have been indirect

While for many years conflict has been considered the main precipitator of food insecurity, recent informant analysis shows that the main effects of conflict on food security are through secondary factors such as displacement and decreased crop production and market access. Prior studies have connected conflict to agricultural productivity and food security in many ways, with factors including pastoralist raid/revenge cycles; displacement leading to disrupted growing and harvest cycles and farming reduction (United Nations

Security Council, 2019); gender-based violence (Oxfam, 2017); destruction of infrastructure and disruption of maintenance that exacerbates limited market access and disrupts trade routes; decreased consumption (Pape and Finn, 2019); unsustainable deforestation for conflict financing (United Nations Security Council, 2015); and market closures. Incidents of crop destruction and looting as part of violent offensives, such as those that occurred in Unity state in the period April to July 2018 (United Nations Security Council, 2019)

Market failures attributed to excessive inflation have the greatest direct impact on food insecurity.

can be devastating. However, these occurrences do not capture the broader macroeconomic impacts of conflict on South Sudan's agriculture and food security situation.

Key informant interviews and focus group discussions in nine South Sudanese towns show that while the effects of violence on agriculture and food security are diverse in their magnitude, they share similarities in terms of their disruptive effects on markets, trade, and the feasibility of farming. Table 10 summarizes findings from nine towns surveyed in Spring 2019. In many of these towns, conflict has had dire consequences on the livelihoods and well-being of the population. However, the impacts on agricultural production and food security appear to manifest mainly through market effects related to

trade disruption and displacement, rather than through the actual acts of violence. This finding challenges the prevailing narrative that conflict is the main driver of food security in South Sudan, at least in terms of conflict's direct impacts. These interviews and discussions reveal rather than crop destruction or theft being the major mode of harm to food security, the harm from conflict exacerbates already strained market systems by affecting local supply and demand.

Many of the effects of conflict experienced in the surveyed towns are related to displacement and trade disruption (see Table 10). In total, 1.8 million people are displaced within South Sudan, with more than 2.3 million South Sudanese refugees spread across the region, mainly in Sudan, Uganda, and Ethiopia (UNHCER,

2019). Interviewees and focus group participants attributed displacement to worsened food security outcomes due to two main factors. First, instability displaced people from their towns and into UN Protection of Civilians (PoC) camps or to other towns and countries, taking producers and consumers out of market systems and thereby weakening local markets and reducing crop production in a number of towns, including Malakal and Torit. Second, it led to shifts away from farmlands on the outskirts of towns in favor of more secure lands close to towns such as Wau, Rumbek, and Yambio. This movement has resulted in farmers cultivating smaller plots, with correspondingly lower levels of production. These disruptions have also affected abilities to adequately store food for longer periods.

Table 10: Effects and extent of conflict in select towns

Town Admin2	Effect of Conflict	Related quotes	Conflict Events 2013-19	Fatalities 2013-19
Aweil Aweil Centre	Comparatively unaffected by 2013 conflict, but decades- long endemic insecurity in the region limits storage and movement of large agricultural surpluses	"The 2013 conflict has affected people in so many ways, because it didn't allow people to cultivate well, because the farms are located outside of the town in the villages and the villages were where the conflict was. So, this has led to reduction in supply of groundnut and groundnut paste in the market because there was no production." (LA KII).	3	2
		"There was a supply of fertilizers by the Government before the 2013 conflict to help farmers, also some agriculture schemes have been abandoned not only here in Aweil, but in South Sudan at large because of insecurity. And there was a free movement of people and fuel was cheap and people who owned large farms were easily buying fuel to cultivate their farms, but now it's expensive and if you can't afford the cost of fuel, then you may decide to grow crops on a small scale and that bring about less production." (CAD KII)		

Town Admin2	Effect of Conflict	Related quotes	Conflict Events 2013-19	Fatalities 2013-19
Bor South	Largely destroyed in 2013 conflict; faced violence in 2016 conflict. Many were displaced to a UN PoC camp, moved south, or left the country.	"When the conflict broke out, we went to the camp, because there were no people cultivating." (FF FGD) "During the crisis of 2013, the market was totally burnt down and many people have lost their property." (TA KII)	231	904
Juba Juba	Large inflows of displaced people resulting from 2013 conflict. Destruction during the 2016 conflict disrupted markets and destroyed businesses. The Jebel area remains insecure following the 2016 conflict and the market there has collapsed, but overall insecurity in Juba has improved.	"The number [of traders] decreased because of the crisis. After the war, the markets were destroyed. Like market called Suk Jebel, all the people we employed there did not have any activity anymore and even other traders did not have capital to start over the businesses they established. So it was a total loss for both the market traders and to the body that is governing the market. So the number decreased due to lack of necessities to be given to them." (TA) "Although there is conflict in the country, there has not been any change in the crops people grow in Juba. Only the economic situation is very bad because there is no money and things are expensive." (Trader FGD)	703	3406
Malakal Malakal	Heavily impacted by conflict 2013-2017; the town is largely destroyed and deserted. Large-scale farmers left for Juba, Sudan, and Uganda, leading to local scarcity and inflation.	"There is a lot of change. Before the incident (of 2013) the market was full of different types of crops, but now as you can see there is not much left." (CAD KII) "Now there are no successful (large-scale) farmers in Malakal. They used to be here, but they are all gone to Khartoum, Juba and Uganda, due to the incident in 2013." (CAD KII)	192	595
Renk Renk	Farming has withstood conflict, though many were displaced during the 2013 conflict, especially Nuer and Shilluk people. Ethnic tensions are still high. Dangerous roads limit trade.	"Yes it's dangerous to travel between Renk-Malakal-to Bor- Ayod- Nasir." (MF FGD) "Conflict has affected my work because currently I don't have many customers like before, also before conflict I was having many branches such as in Fashoda, KaKa, Malakal and Nazir but now they have closed up due to conflict." (Male Traders)	120	378

Town Admin2	Effect of Conflict	Related quotes	Conflict Events 2013-19	Fatalities 2013-19
Rumbek Rumbek Centre	A 2012 conflict between Pakam, Kuei, and Rup pastoral communities escalated with the 2013 national conflict. Violence continues despite a 2019 peace agreement. Displacement to and from Rumbek occurred; many farmers fled to urban areas.	"Since the war or conflict occurred in 2013, people ran away from their cradle land to seek refuge in other areas causing high population in the places they settled in resulting in a shortage of land for crop production." (P FGD) "What we used to do back then was cultivation of both cash and food crops like sorghum, groundnut, and millet, and also tobacco cultivation and fishing. Why we don't practice them these days, it's because of insecurity in our areas." (P FGD)	220	796
Torit Torit	The 2013 conflict had smaller effects than in other areas, but many were displaced. 2013 food insecurity also caused displacement. The 2016 conflict badly affected Torit and worsened road transportation from unsafe conditions that begun in 2013.	"Many have moved away, outside of Torit state, others have come into Torit town. Others now, they could not continue they decided to go the camps, to Kenya, to Uganda. The population used to not be like this. Many people have moved away. Others are still coming back. What you see at this moment, there is no rampant gunshot, what is making people run away is famine. Famine has affected people, when we were hammered with war then we were hammered with famine. So people would go to the camps just to get something to support your children." (LA KII)	155	439
Wau	Conflict and insecurity occurred from 2014-2018. Farmers abandoned land on the outskirts of town to farm smaller plots near town. Conflict was mainly intercommunal and tensions remain high. Many left Wau or moved to a UN PoC. Roads remain dangerous and limit trade and movement.	"From the village to the town, you may be looted. There are some obstacles that meet them on the way, you may lose your property or you may be killed by armed robbers, because of the insecurity." (TA KII) "The conflicts of 2013 affected people in many ways, like; it displaced many people from their places, which led to no chance of cultivation. The insecurity also prevented people to do other agricultural activities or to cultivate outside the town. So the conflict brought some changes to the farmers. So the farmers do activities only for their survival." (CAD KII)	296	581
Yambio Yambio	Yambio faced a crisis in 2016 as it became a hotspot for armed conflict and displacement. This conflict pushed farmers off their lands.	"The conflict has affected many farmers in a way that the conflict scattered them and they were not able to feel secure to cultivate a lot of feddan." (LA KII) "It is dangerous for farmers to transport their goods to the markets, because of the presence of rebels on the roads. Another issue is if farmers hire a motorbike, the charge will be too much and sometimes their products will not be bought, this will bring for them losses." (LA KII)	149	214

Note: LA = local authority, KII = key informant interview, CAD = County agriculture department, FF = female farmer, MF = male farmer, FGD = focus group discussion, P = processor. Number of conflict events and fatalities represent the admin-2 level total from January 1, 2013 – December 5, 2019.

In addition to shifting populations, conflict-induced trade disruptions have resulted in shifting patterns of supply and demand for food across South Sudan. The destruction of infrastructure and the insecurity of trade routes has made trade logistically difficult, for instance due to destroyed roadways around Renk, Torit, and Wau, or destroyed markets in Bor and Juba. Larger-scale producers

and traders have also shifted their trade away from towns such as Malakal to more stable markets

During the decade before independence, Southern Sudan engaged in the stable seasonal trade of agricultural products with nearby countries. South Sudan would export beans to DRC and Ethiopia and cassava to CAR and DRC from

November to January, while importing maize, beans, and cassava from Uganda (with beans additionally coming from Ethiopia). In February and March, Southern Sudan would export maize to DRC and CAR and import maize from Ethiopia. Exports mainly left from Yambio in Western Equatoria, an area of high production (FEWSNET, 2008a, 2008b, 2008c).

2.4 Market factors have had the greatest direct impact on food insecurity in recent years

While South Sudan's shift towards a cash economy has made selling at markets more important, low yields and transportation constraints have hindered market access in rural areas.

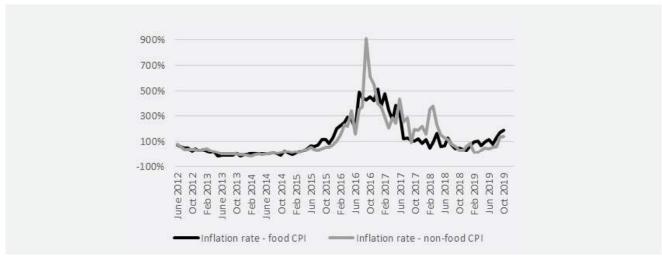
A movement toward market-oriented practices and the use of cash resulted in the beginnings of a transition from self-sufficiency to market dependence well before South Sudan's independence. This shift, triggered to a large extent by preceding wars, has led to a market system shaped by conflict (Thomas, 2019), Previous market assessments in South Sudan show high prices in hub markets with low effective household demand, while rural markets have low supply due to the long-term effects of conflict and degraded infrastructure (FEWSNET, 2019). Markets in Juba and other urban areas are highly dependent on imports, with high, unstable prices

due to demand from international clientele. Many market sellers come from outside South Sudan to sell imported goods, turning local capital into international income.

While agriculture plays an important role in the livelihoods of many South Sudanese, it often provides a means of subsistence without necessarily generating income. In the current context, many farmers rely upon their own subsistence crops and those of farmers nearby, creating a volatile supply chain with few safeguards if crop growth is impeded, Livestockcentered livelihoods, common in northeastern areas of the country, are sometimes linked with environmental limits to agriculture as well, such as flooding risks. In urban areas, food insecurity is also influenced by markets, though in a different manner. The inelasticity of staple food demand, particularly for poor households, often results in greater proportions of income being spent on food as prices increase.

With ongoing disruptions to agricultural activity, there is a risk of losing technical expertise and knowledge. Disruptions to the transmission of knowledge between generations and within communities may result in a loss of critical information within South Sudan's agricultural sector. Widening knowledge gaps between generations can increase the adoption of negative coping mechanisms in the face of food insecurity that strip households of human capital (a critical assumption underlying social safety nets)





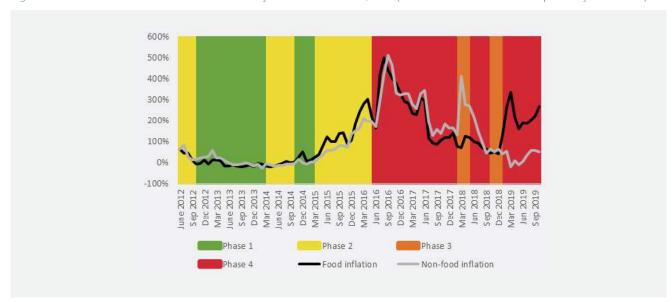


Figure 26: Food and Non-Food Inflation with HA-adjusted FEWS Phases, Wau (Phase refers to last declared phase by FEWS NET)

Relative to non-food price inflation, food price inflation is highly volatile, but with a more limited overall range in food prices (see Figure 26). Before July 2015, there was a disparity between the inflation rates for food and non-food items, standing at an average of 10 points apart, with non-food inflation higher than food inflation 55 percent of the time and food inflation higher 45 percent of the time. Since July 2015, food and non-food inflation have become more erratic, and decoupled to some extent when compared with pre-July 2015 figures. Noticeably, food inflation was significantly higher than non-food inflation during this ramp-up in overall inflation.

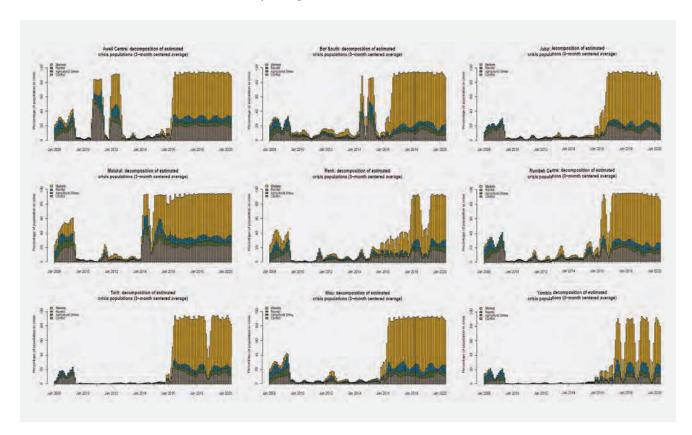
Local variations in market prices and inflation show that food insecurity and market factors are highly correlated across the country, although in varying ways. Three studied towns were non-food stressed following independence, with Juba and Wau only beginning to face severe food insecurity in 2016, aligning with the advent of runaway inflation, Malakal had experienced worsening food insecurity since 2014, suggesting that that town may have been affected by different drivers of food insecurity. Decoupling of food and non-food inflation may also serve as a warning sign of increased food scarcity and food insecurity, although conclusive evidence of this relationship requires additional research beyond the scope of this report.

The variations in price levels over time and across districts have troubling implications for food security.

Overlaying price and inflation data with IPC levels shows a clear relationship between prices and food security. The relationship between these factors is not static across towns, however. In Wau, for instance, food inflation and IPC have a 0.78 correlation, while this correlation is 0.51 in Juba and only 0.33 in Malakal. However, food CPI in Juba is highly correlated with IPC at 0.76, while this correlation stands at 0.63 in Wau and that 0.33 in Malakal. These correlations suggest that food security in Juba and Wau may be more dependent on market prices than in Malakal.

Conflict induced trade disruptions have negatively impacted food security.

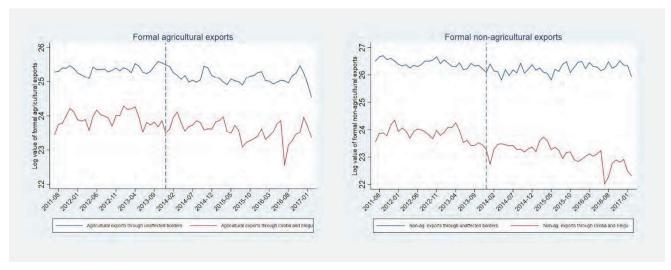
Figure 27: Sub-national decompositions of predicted populations in areas experiencing critical food insecurity each month in 9 South Sudanese admin-2 areas based on country average results, national level



In 2013, formal and informal crossborder trade was deeply affected by the outbreak of civil war in South Sudan. While agricultural trade (particularly informal trade) also suffered, the strongest impacts were seen on industrial trade (see Figure 28). This study finds that formal agricultural trade from Uganda, for example, continued to flow despite the outbreaks of violence (Rauschendorfer & Shepherd, 2020). The study attributes food price inflation in South Sudan to factors such as low local

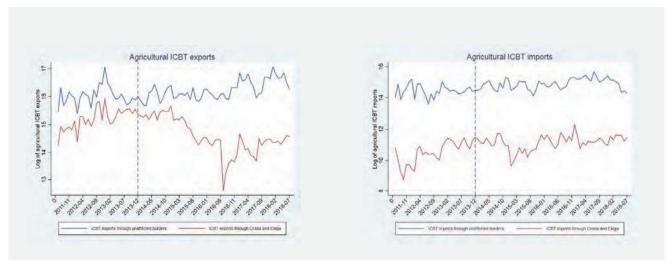
production, the depreciation of the South Sudanese pound, and reduced imports from other countries rather than due to lower informal agricultural product exports from Uganda.

Figure 28: Formal agricultural and non-agricultural exports imports at Ugandan border crossings affected (red) and unaffected (blue) by South Sudan's conflict



Source: Rauschendorfer & Shepherd, 2020

Figure 29: Agricultural ICBT exports and imports at Ugandan border crossings affected (red) and unaffected (blue) by South Sudan's conflict



Source: Rauschendorfer & Shepherd, 2020

Sub-national models reveal vast differences in the manner in which these variables relate to food security within South Sudan. In recent years, market factors are found to be the most influential estimator of food security in the districts of the nine towns surveyed on conflict above (see Figure 27). The magnitude and timing of this influence differ greatly across these areas, however, While Aweil, Bor. Juba, Torit, Rumbek, and Wau show similar patterns, with food insecurity shocks following the collapse of the South Sudanese Pound, Malakal and Renk show increases to food insecurity prior to this collapse. In particular, Malakal shows a marked increase following the outbreak of violence in 2013, attributed to a combination of

conflict, environmental, and market factors. While already highly food insecure, this area has also shifted, with market trends becoming a more significant factor following the monetary collapse. Among the nine towns, only Yambio is seen to have maintained seasonal food security following the collapse, though this is offset by high levels in lean seasons. Yambio's location near the border with the Democratic Republic of Congo and relatively fertile land may help to explain its seasonal pattern of food security, which were not seen in the other districts. These modeled outputs are further explained by underlying factors, including food price index and volatility, conflict intensity, and environmental trends.

Data related to informal cross-border trade in agricultural products through border crossings with Uganda also show that agricultural exports from Uganda to South Sudan experienced a downward trend following the outbreaks of violence in 2013 and 2016 and the increasing inflation from 2015 onward (see Figure 29). The drastic decline in agricultural exports in the period around the 2016 conflict had a widespread impact as the conflict largely occurred in Juba, an important hub for trade. Interestingly, agricultural imports do not appear to have been affected to the same extent (Rauschendorfer & Shephard, 2020).

2.5 Tackling food insecurity requires a comprehensive approach

With market factors exerting the greatest influence over food insecurity, addressing these factors offers the greatest opportunity to improve food security outcomes.

Despite a number of initiatives to increase agricultural production in

South Sudan, food insecurity has been generally increasing. While underlying conflict-related instability affects markets through disruptions to trade routes and lower crop yields, inflation has been the most significant driver in the increase in food insecurity since

before South Sudan's independence. Mismanaged macroeconomic decisions in 2015 resulted in additional food insecurity to a far greater extent than can be explained by the direct impacts of violence. Thus, macroeconomic oversight is a crucial piece in the food security puzzle

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While longer rainy seasons create opportunities for increased agricultural production, they do not guarantee improvements to livelihoods. Wetter conditions are a double-edged sword, creating greater risks of flooding that result in rotted crops and devastated towns. In addition to the risks associated with flooding, the onset of seasonal rains is often followed by outbreaks of diseases such as cholera (UNICEF, 2019) that jeopardize health and disrupt labor supply. Heavy rains in East Africa during the 2019-2020 winter season have contributed to the ongoing desert locust outbreak, which is threatening crops and food security throughout the region (World Meteorological Organization, 2020).

Even when increased rainfalls have the potential to drive higher levels of

production, the issue of poor water management leaves many farmers unable to benefit. Conflict-related instability that limits the areas viable for crop production will also not be addressed by wetter seasons, with these conflict factors still limiting South Sudan's agricultural production. Key informant interviews and focus group discussions, for instance, show that insecurity in many areas has resulted in the movement of farmers from large plots on the outskirts of towns to smaller, more secure plots near towns (World Bank, 2019a). Even with these smaller plots, hiring farm labor is often too expensive for many farmers. A range of other factors not explored in this report, such as the gender dynamics of South Sudan's agriculture and food systems, can also impact farmers' production.



Box 7: Impacts of the COVID-19 pandemic on South Sudan's food insecurity

International organizations and others have raised major concerns regarding the impacts of the COVID-19 pandemic on food security at a global level. Export restrictions, broken value chains, labor shortages, and loss of income and remittances have all been identified as potential threats to food availability for people worldwide (World Bank, 2020c).

In the context of the COVID-19 pandemic, South Sudan's food security situation has been characterized by increased instability. News of the spread of the virus among UN workers, heads of government, and UN PoC camps raised concerns regarding extensive infection throughout the country and region. Coupled with underlying risk factors, the COVID-19 pandemic presents a critical threat to the wellbeing of South Sudan's population. Decreases in food imports among populations highly reliant on

markets is expected to pose major threats to food security in the country (UN OCHA, 2020). With market-related factors having played a leading role in South Sudan's food insecurity situation over the past five years, this decrease in supply could easily exacerbate an already dire situation.

Estimates of food insecurity in the period up until 2021, shown in Figure 30 below, shows that high populations face an increasingly intense food insecurity crisis, with less seasonal change than in the past two years (in essence, a temporary relief from insecurity following crop harvests). With the high level of uncertainty regarding the trajectory of the COVID-19 pandemic and its effects not only on health, but also on markets and general instability, outcomes could certainly be worse than current estimations suggests.

Figure 30: Historical estimates and forecast of population in food crisis in South Sudan, (2008-2021)



The international community's response to South Sudan's food insecurity crisis has been largely implemented through humanitarian initiatives. In 2018, the World Food Programme assisted 5.3 million people in South Sudan through the provision of food assistance, cash transfers, school meals, and

nutrition outreach programs (World Food Programme, 2018). The UN Peacekeeping Mission in South Sudan (UNMISS) was established in 2011 and now includes over 19,000 deployed personnel. Following the outbreak of war in December 2013, the UN Security Council reprioritized UNMISS to protect civilians, two monitor

human rights, and to support the delivery of humanitarian assistance (United Nations Peacekeeping, 2019). Peacekeeping and aid have been provided through the aftermath of the 2013 and 2016 conflict outbreaks, with food assistance comprising about 13 percent of cereals and roots consumed across during lean seasons (FAO &

World Food Programme, 2019). By working with UNMISS, WFP, and other humanitarian actors, South Sudan can ease the transition toward the self-sustaining food production that will be necessary to ensure long-term food security. To facilitate this, these initiatives should address chronic food insecurity (driven by structural issues) in addition to acute food insecurity (driven by shocks such as conflict or flooding).

In 2015, a World Bank Systematic Country Diagnostic suggested that the low levels of productivity and commercialization of agriculture and livestock in South Sudan could be addressed through measures to strengthen smallholder-based agriculture and to develop largescale commercial farms. This recommendation was intended to improve food security and nutrition in the short term and to reduce poverty in the long term (World Bank, 2015) D.C.","source":"documents.worldbank. org","event-place":"Washington, D.C.","abstract":"The combination of South Sudan's historical and geographical isolation, extreme fragility to conflict, oil dependence, and extremely low socio-economic conditions represents a formidable and almost unique development challenge. The Republic of South Sudan emerged from decades of conflict in 2011 as the world's newest independent country. In an extremely fragile country like South Sudan, reducing extreme poverty is closely linked to finding paths out of recurrent cycles of conflict and fragility. Hence, the systematic country diagnostic (SCD. Measures to support this development could also be paired with programs to promote entrepreneurship and social inclusion, such as through the provision of training for women to improve their productivity and market access. Improving capacity at the national and state levels of government could also play a major positive role in supporting related social programs.

To stabilize smallholder agriculture will require a sufficient level of public safety to enable the voluntary return of IDPs and refugees. Part of the challenge relating to voluntary returns will involve land claims, and land ownership and tenure, as returnees reclaim previously occupied or held property. Land issues related to conflict, such as between cattle-owning Dinka and sedentary farmers, are likely pose further challenges if Equatorian farmers return from Ugandan PoC camps. Conflict avoidance measures may be necessary and could require formal agreements between community leaders. Landholding reform, including measures to enable women to own land independently, could further drive improvements in shared prosperity and social inclusion, Agricultural jobs programs could also assist the returning labor force to find productive work and increase food availability.

Given the impact of inflation on market prices and food security, it is crucial for the authorities to continue to implement measures to facilitate the achievement of economic stabilization. While inflation has already declined from its 2016 peak, prices remain excessively high for a significant proportion of consumers. Thus, measures to stabilize the overall economic situation and to support and protect the incomes of the poor is crucial to redeveloping markets. Improved agro-logistics are also necessary to support locallysourced markets (Pape et al. 2017). Part of a strategy to achieve this requires the establishment of safe access to markets (e.g., through collective activity such as local coops/aggregators or through safe routes that allow passage without extortion or violence). Improvements to infrastructure, including the improvement of roadways and connectivity, and increased regional trade integration could enable farmers to gain greater access to markets, thereby improving agricultural

livelihoods (World Bank, 2015).
Infrastructure and security must both be strengthened in order to restore trade to pre-civil war levels.
At present, even local access to markets has become dangerous or impossible due to infrastructure and security breakdowns, which has kept markets from rebounding following the subsiding of conflict.

While implementing technological improvements to increase agricultural productivity can be challenging due to infrastructure constraints, it has the potential to improve food security outcomes and reduce poverty in the long term. Shortages and high costs of fuels indicate a need for the application of technological solutions that do not rely on fuel. Rather, farm equipment, storage, and other facilities should be tailored to meet the needs of small farmers. Augmentative irrigation can further stabilize growing, providing a cost-effective solution in the context of high levels of weather/climate variability. The provision of additional food storage facilities could also help to reduce waste, Such improvements would require long-term investment and commitment to agricultural research.

Overall, the achievement of improved food security in South Sudan requires a comprehensive approach to address multiple interacting factors. Addressing a single factor, whether this be the underlying conflict-related insecurity, or supply-chain breakdowns, or water storage, will neither solve the current severe food crisis nor prevent future crises from emerging. Rather, this is a multidimensional problem that requires multi-dimensional solutions. As seen through the dramatic shifts in the factors affecting food security, this crisis is not static but rather requires constant vigilance and continued commitment to respond appropriately to new and evolving hazards as they emerge.

REFERENCES

ACLED. (2019). Armed Conflict Location & Event Data Project [Data]. https://www.acleddata.com/

Andree, B. P. J., Chamorro, A., Kraay, A., Spencer, P., & Wang, D. (2020). Predicting Food Crises. Policy Research Working Paper No. 9412. World Bank, Washington, DC

Asenso-Okyere, K., Mekonnen, D. A., & Zerfu, E. (2013). Determinants of Food Security in Selected Agro-pastoral Communities of Somali and Oromia Regions, Ethiopia. Journal of Food Science and Engineering, 3(9), 453.

aWhere. (2019). Environmental Trend Assessment South Sudan.

BBC News. (2020, May 19). South Sudan's VP and his wife contract COVID-19. BBC News. https://www.bbc.com/news/world-africa-52721274

Beyene, F. (2015). Determinants of food security under changing land-use systems among pastoral and agro-pastoral households in eastern Ethiopia. Environment, Development and Sustainability, 17(5), 1163–1182. https://doi.org/10.1007/s10668-014-9596-8

FAO (2021). Global Information and Early Warning System (GIEWS): South Sudan Country Brief, March 2021

FAO, & World Food Programme. (2019). Special Report: FAO/WFP Crop and Food Security Assessment Mission to South Sudan. http://www.fao.org/3/ca3643en/ca3643en.pdf

FAO. (2019a, September 11). More than half the country struggles to survive despite improving conditions in South Sudan. FAO in South Sudan. http://www.fao.org/south-sudan/news/detail-events/en/c/1207694/

FAO. (2019b). Flood Impact on Crops & Livestock: South Sudan. https://fscluster.org/sites/default/files/documents/fao_south_sudan_flood_impact_report_-_13_nov_2019.pdf

FEWS NET. (2008a). Bean Production and Market Flow in the Greater Horn of Africa. https://fews.net/sites/default/files/documents/reports/East%20Africa_full%20map_beans_normal.pdf

FEWS NET. (2008b). Cassava Production and Market Flows in the Greater Horn of Africa. https://fews.net/sites/default/files/documents/reports/East%20Africa_full%20map_cassava_normal.pdf

FEWS NET. (2008c). Maize production and market flows in the Greater Horn of Africa. https://fews.net/sites/default/files/documents/reports/East%20Africa_full%20map_maize_normal.pdf

FEWS NET. (2018). Livelihoods Zone Map and Descriptions for the Republic of South Sudan (Updated). USAID. https://fews.net/sites/default/files/documents/reports/Livelihoods%20Zone%20Map%20and%20Descriptions%20for%20South%20Sudan.pdf

FEWS NET. (2019, August). Catastrophe (IPC Phase 5) outcomes likely persist despite ongoing consumption of green harvest. FEWS NET South Sudan. http://fews.net/east-africa/south-sudan

Gemechu, D. T., Palmujoki, E., & Virtanen, P. (2019). Global Climate Policies, Local Institutions and Food Security in a Pastoral Society in Ethiopia. Consilience: The Journal of Sustainable Development, Issue(Five). https://doi.org/10.7916/D82J6C74

Integrated Food Security Phase Classification. (2020). "South Sudan: IPC Acute Food Insecurity & Acute Malnutrition Analysis – October 2020 – July 2021. Issued: 18 December 2020

IPC. (2019). Technical Manual Version 3.0 Evidence and Standards for Better Food Security and Nutrition Decisions. http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/manual/IPC_Technical_Manual_3_Final.pdf

Krätli, S., Huelsebusch, C., Brooks, S., & Kaufmann, B. (2013). Pastoralism: A critical asset for food security under global climate change. Animal Frontiers, 3(1), 42–50. https://doi.org/10.2527/af.2013-0007

Malak, G. A. (2020, January 7). Food insecure South Sudan banks on oil money for agriculture. The East African. https://www.theeastafrican.co.ke/business/Food-insecure-south-sudan-banks-on-oil-money-for-agriculture/2560-5409896-pf4gvqz/index.html

Meroni, M., Fasbender, D., Rembold, F., Atzberger, C., & Klisch, A. (2019). Near real-time vegetation anomaly detection with MODIS NDVI: Timeliness vs. accuracy and effect of anomaly computation options. Remote Sensing of Environment, 221, 508–521. https://doi.org/10.1016/j.rse.2018.11.041

OXFAM Canada. (2013). Country Profile: South Sudan. https://www.oxfam.ca/wp-content/uploads/2013/04/country-profile-south-sudan.pdf

OXFAM. (2017). South Sudan Gender Analysis: A snapshot situation analysis of the differential impact of the humanitarian crisis on women, girls, men and boys in South Sudan. OXFAM. https://oxfamilibrary.openrepository.com/bitstream/handle/10546/620207/rr-south-sudan-gender-analysis-060317-en.pdf?sequence=1

Pape, U. J., Parisotto, L., Phipps-Ebeler, V., Mueller, A. J. M., Ralston, L. R., Nezam, T., & Sharma, A. (2018). Impact of Conflict and Shocks on Poverty: South Sudan Poverty Assessment 2017 (No. AUS0000204). The World Bank. http://documents.worldbank.org/curated/en/953201537854160003/Impact-of-Conflict-and-Shocks-on-Poverty-South-Sudan-Poverty-Assessment-2017

Pape, U., & Finn, A. (2019, April 23). How conflict and economic crises exacerbate poverty in South Sudan. World Bank Blogs. https://blogs.worldbank.org/africacan/how-conflict-and-economic-crises-exacerbate-poverty-in-south-sudan

Pape, U., Benson, M. S., Ebrahim, M. F., & Lole, J. Y. (2017). Reducing poverty through improved agro-logistics in a fragile country: Findings from a trader survey in South Sudan (No. 120347). World Bank Group. http://documents.worldbank.org/curated/en/979181507716471876/Reducing-poverty-through-improved-agro-logistics-in-a-fragile-country-findings-from-a-trader-survey-in-South-Sudan

Rauschendorfer, J. & Shepherd (2020) Regional economic spillovers from the South Sudanese civil war: Evidence from formal and informal cross border trade. Working paper, International Growth Centre: London

South Sudan National Statistics Office. (2019). CPI Data through October 2019 [Data].

Thomas, E. (2019). Cash, Commodification and Conflict in South Sudan - South Sudan. Rift Valley Institute. http://riftvalley.net/publication/cash-commodification-and-conflict-south-sudan#.XgDo0OhKh3g

U.S. Department of the Treasury. (2018, December 14). Press Release: Treasury Sanctions Three Individuals for Their Roles in the Conflict in South Sudan. https://home.treasury.gov/news/press-releases/sm574

UN News. (2020, May 13). South Sudan: Coronavirus cases confirmed inside UN civilian protection site. UN News. https://news.un.org/en/story/2020/05/1064012

UN OCHA. (2020, April 22). South Sudan: Dire food security situation could worsen with COVID-19. OCHA. https://www.unocha.org/story/south-sudan-dire-food-security-situation-could-worsen-COVID-19

UNHCR. (2019). Regional Update: South Sudan Situation. http://reporting.unhcr.org/sites/default/files/UNHCR%20South%20 Sudan%20Situation%20Regional%20Update%20-%20August%202019.pdf

UNICEF South Sudan. (2019, August 4). Aiming for zero cholera in South Sudan. https://www.unicef.org/southsudan/press-releases/aiming-zero-cholera

United Nations Peacekeeping. (2019). UNMISS Fact Sheet. United Nations Peacekeeping. https://peacekeeping.un.org/en/mission/unmiss

United Nations Security Council. (2019). Letter dated 9 April 2019 from the Panel of Experts on South Sudan addressed to the President of the Security Council (S/2019/301). United Nations. https://digitallibrary.un.org/record/3801695?ln=en

UNOCHA (2021). South Sudan Humanitarian Needs Overview 2021. https://reliefweb.int/report/south-sudan/south-sudan-humanitarian-needs-overview-2021-january-2021

World Bank (2020), Monitoring Covid19 Impacts on Businesses and Markets in South Sudan.

World Bank (2020), Monitoring Covid19 Impacts on Households in South Sudan

World Bank (2020). Second Round COVID-19 rapid surveys.

World Bank (2020). South Sudan Economic Update: Poverty and Vulnerability in a Fragile Environment

World Bank (2020). South Sudan Economic Update: Socioeconomic Impacts of COVID-19.

World Bank (2021). South Sudan Macro-Poverty Outlook. Spring 2021.

World Bank. (2012). Agricultural Potential, Rural Roads, and Farm Competitiveness in South Sudan. https://openknowledge.worldbank.org/handle/10986/11885

World Bank, (2015). South Sudan Systematic Country Diagnostic (No. 99383). World Bank, http://documents.worldbank.org/curated/en/952191472743836373/South-Sudan-Systematic-country-diagnostic

World Bank. (2017). South Sudan Economic Update, 2017: Taming the Tides of High Inflation. World Bank Group. https://openknowledge.worldbank.org/handle/10986/28560

World Bank. (2019a). Value Chain Analysis in South Sudan.

World Bank. (2019b). World Development Indicators [Data]. http://data.worldbank.org/indicator/EN.ATM.CO2E.KT

World Bank. (2020b). South Sudan Economic Update: Poverty and Vulnerability in a Fragile Environment (No. 146783). The World Bank. http://documents.worldbank.org/curated/en/893571583937198098/South-Sudan-Economic-Update-Poverty-and-Vulnerability-in-a-Fragile-Environment

World Bank. (2020c). Food Security and COVID-19 [Text/HTML]. https://www.worldbank.org/en/topic/agriculture/brief/food-security-and-COVID-19

World Bank (2021 forthcoming), South Sudan Country Economic Memorandum, The Dynamics of Conflict Economy.

World Bank (2021 forthcoming), Transforming Agriculture from Humanitarian Aid to a Development Oriented Growth Path.

World Food Programme. (2016). Special Working Paper on Devaluation of South Sudan Pound: Short-term Food Security Implications. https://documents.wfp.org/stellent/groups/public/documents/ena/wfp281309.pdf?_ga=2.94347738.656824799.1567179825-1896581093.1523004925

World Food Programme. (2018). South Sudan emergency. https://www.wfp.org/emergencies/south-sudan-emergency

World Food Programme. (2019, December 12). South Sudan famine threat: UN food security agency in 'race against time.' UN News, https://news.un.org/en/story/2019/12/1053321

World Meteorological Organization. (2020, February 18). Heavy rains contribute to desert locust crisis in East Africa. https://public.wmo.int/en/media/news/heavy-rains-contribute-desert-locust-crisis-east-africa

