



# SUDAN

STRATEGY SUPPORT PROGRAM | WORKING PAPER 01

OCTOBER 2021

## Political Economy of Wheat Value Chains in Post-Revolution Sudan

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*The post-2019 political settlement described in this paper was accurate until the change in government that occurred on October 25, 2021. At the time of publication, the nature of the political settlement in the wake of this change was not yet defined. Nonetheless, the policy challenges for the wheat value chain in Sudan, and the range of interest groups that need to be considered to pursue substantive reforms, remain relevant.*

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## ABSTRACT

Wheat flour and bread have played a central role in Sudan's political economy throughout the country's post-independence history. In 2019, increasing bread prices precipitated the protests that ousted the government of Omar al-Bashir. How has Sudan's recent political transition and economic circumstances impacted distortions within the wheat value chain? What are the policy preferences of relevant stakeholders for improving the affordability of wheat products and the productivity of domestic wheat farmers? This paper addresses these questions by drawing on key informant interviews in Sudan and utilizing a political settlements approach, which captures the underlying distribution of power among elites and citizens.

The post-revolution political settlement contains a much broader distribution of power shared between a civilian alliance movement and the military, each of which has distinct interests in the wheat value chain. The paper elucidates the preferences of different stakeholders to address policy distortions and discusses bottlenecks that need to be overcome for those options to be feasible. In doing so, the analysis reveals that, while the policy of subsidizing bread remains contentious, there are broader coalitions for interventions related to regulatory and monitoring reforms, improvements in domestic wheat procurement, enhanced agricultural investments, and targeted cash transfers to cushion subsidy reductions.

## 1. INTRODUCTION

Wheat flour and bread have played a central role in Sudan's political economy throughout the country's post-independence history. In 1969, wheat was first subsidized to quell discontent among soldiers, civil servants, and traders in the capital of Khartoum (Thomas and Gizouli 2020). Protests in Khartoum in 1985 over rising bread prices led to a military coup that ushered in the National Congress Party (NCP) and its leader, Omar al-Bashir. Under al-Bashir's thirty-year rule, low bread prices were a key component of the state's social contract with Sudanese citizens and a way of discouraging demands for greater democratization, particularly from restive urban residents (Hassan and Kodouda 2019). Yet, in early 2019, after several months of mass street protests, al-Bashir was ousted from the presidency. Although the protests were driven by multiple grievances, they originally emerged in the town of Atbara after a threefold spike in bread prices (Elamin and Mampilly 2018). The new government, which consists of a tripartite coalition between civilian technocrats, the military, and former rebels, remains extremely precarious and dependent on retaining popular support. Therefore, disruptions in Sudan's wheat value chain, and resultant spikes in the costs of wheat flour and bread, remain pivotal to the country's political stability.

The causes of high wheat flour prices and bread shortages have been multi-faceted, ranging from insufficient foreign exchange to import sufficient wheat flour to low productivity of domestic wheat producers to high production costs for bakeries. This paper focuses on the following questions: How has the 2019 political transition affected the viability of reforms within the wheat value chain? What are the policy preferences of relevant stakeholders for improving the affordability of wheat products and the productivity of domestic wheat farmers? And which policy interventions are most feasible? To address these questions, the paper adopts a political settlements approach to understand who the major interest groups are in the wheat value chain and how those interests have shifted since the 2019 revolution. In doing so, key informant interviews (KII) were conducted in August and September 2021 with more than a dozen knowledgeable stakeholders across Sudan's wheat value chain to inform the findings (see Appendix). Most of these stakeholders focused on dynamics in either Khartoum or El Gezira state, because the former is the main consumption area of wheat-based products, while the latter is the main domestic area of wheat production.

The analysis highlights some policy options that are conflictual amongst different stakeholders and others that are complementary. The main area of contention is that in the current inflationary economic climate, bakeries' profitability is badly affected, and they largely advocate either for bringing the cost of traditional subsidized bread in line with the commercial price or greater financial support for other inputs into breadmaking. Regulations on wheat flour extraction levels and granulation properties are also important policy options shared by bakeries. By contrast, consumer unions and resistance committees—two key constituencies in the post-revolution political settlement—prioritize improved affordability of bread, even if that means continuing bread subsidies. They further support enforcement of consumer protection and competition laws against monopolies. All three of these constituencies note the need for a more institutionalized monitoring system of wheat flour distribution, bolstered by better data. International financial institutions advocate for a reform of the subsidy program and replacing it with a cash transfer program that would be better targeted to the poor.

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<sup>1</sup> Interview with Resistance Committee member, August 9, 2021, Khartoum, Sudan.

Greater investment in agriculture, particularly irrigation, as well as better incentive prices to wheat farmers from state agencies are a common set of interventions advocated by relevant constituencies for improving domestic wheat production. Yet, due to ongoing internal conflicts within the country and the continued role of the military in the new political settlement, public expenditures remain disproportionately allocated to military and defense services. Moreover, a few donors have suggested that when prioritizing agriculture investments, wheat is not the most cost-effective option due to the country's agro-ecological conditions.

To elaborate on these findings in more detail, the following section discusses the concept of a political settlement and outlines the contours of this settlement in pre-revolution Sudan. Subsequently, the structure of the wheat value chain until 2019 is discussed, along with economic and policy dynamics that culminated in the 2019 regime change. A similar discussion then follows of the post-revolution period through 2021, showing the shifts in the political settlement from a concentrated to a more dispersed power configuration and the changes that have emerged to the downstream segment of the value chain. I then discuss different actors' preferences for various policy options, focusing on price incentives, regulations, productive investments, and cash transfers. The concluding section summarizes the feasibility of these preferences in light of the current political settlement.

## 2. SUDAN'S PRE-REVOLUTION POLITICAL SETTLEMENT

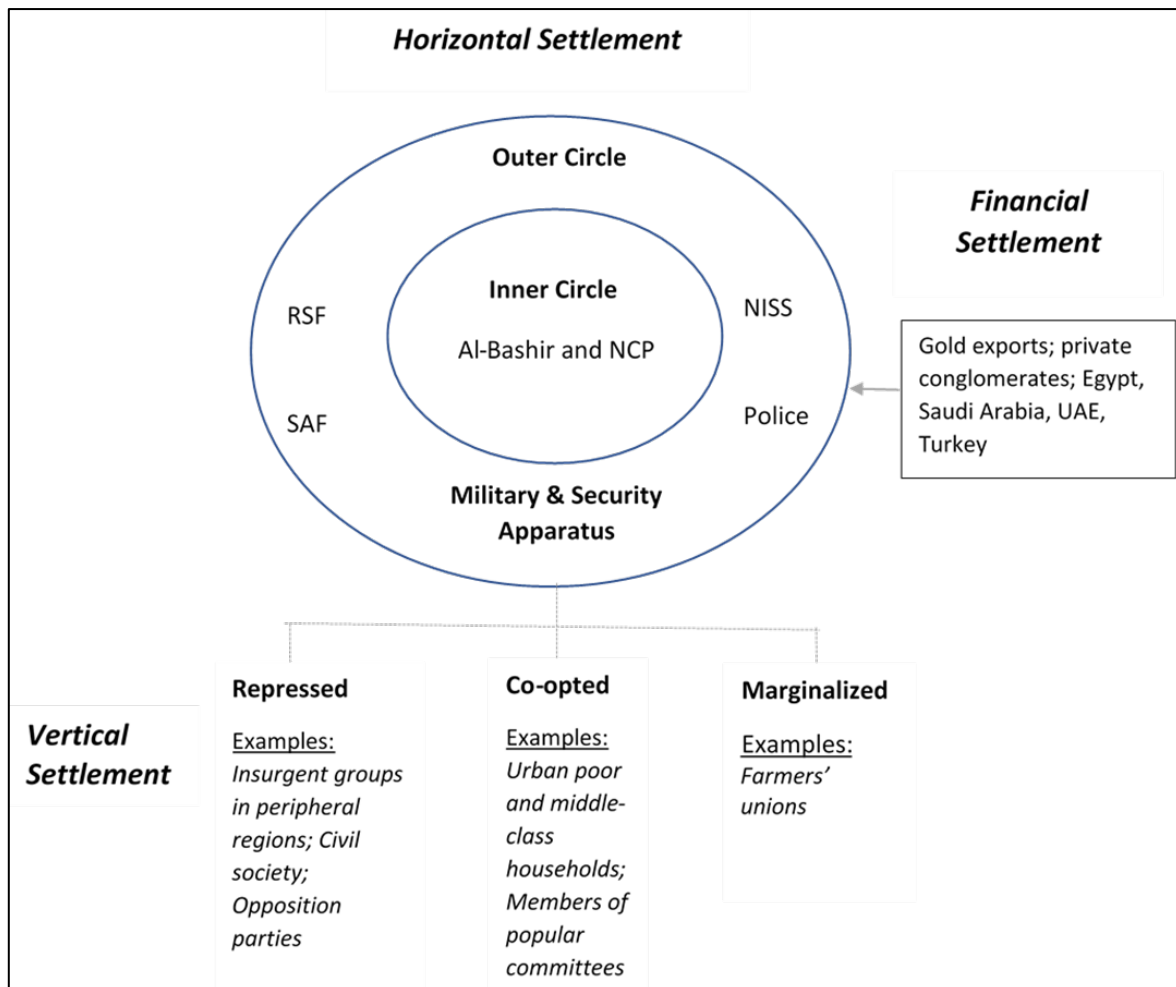
A political settlement refers to the underlying distribution of power in a society, which is reflected in both formal and informal institutions. Khan (2010) identifies multiple dimensions of the political settlement. The first is the horizontal distribution of power across different elite factions that comprise the governing coalition. These may include political parties and politicians, the bureaucracy, the military, and traditional leaders. Some of these factions will be included in power structures and united by either political ideals or materialist interests, while others will be excluded. Kelsall (2018) refers to this as the power foundation of the settlement and notes that there can be concentrated and dispersed configurations. In the former, power is highly centralized within the top leadership and excluded factions are relatively weak. In the latter, excluded factions are stronger and the top leadership may depend on an array of short-term bargains and deal-making to achieve its aims.

The vertical dimension, or societal foundation, of a settlement refers to the way in which different societal groups, ranging from trade unions, the media, business groups, farmers' associations, and ethnic networks, among others, are incorporated and managed by elites. These groups may have different types of resources—including economic power, voting weight, and ideational influence—to disrupt extant political institutions. If the group has broad disruptive potential and is united, then the government is likely to co-opt it through mass benefits (e.g. public housing, state welfare programs); if the group is more divided, then it is likely to be targeted with patronage benefits in return for supporting the government. Groups that are narrower may be either repressed if they have disruptive resources, or marginalized if they do not (Kelsall 2018).

The third dimension is how the political settlement is financed (Buur and Salimo 2018; Khan 2010). This might include donor partners, domestic capitalists, foreign investors, and global markets. Identifying this dimension requires analyzing the ownership structure within specific sectors and understanding the historical relationship between economic actors and the governing coalition (Behuria, Buur, and Gray 2017). Depending on the main sources of financing, negative shifts in the external environment can threaten the extant political settlement, while new windfalls of resources may reinforce it (Usman 2020).

Figure 1 presents a schematic of Sudan's political settlement prior to April 2019. Up until that time, Sudan had a concentrated power configuration in which the National Congress Party, led by al-Bashir, was the dominant actor within the Islamic movement. Al-Bashir led a personalist autocratic regime whereby he weakened challenges to his rule by fragmenting the security forces, creating overlapping responsibilities among them, and undermining their lines of communication to forestall their ability to engage in a coup against him (Hassan and Kodouda 2019). The key security actors he empowered were the Sudanese Armed Forces (SAF), the secret police under the label of the National Intelligence and Security Service (NISS), and a variety of regional militias, including the Janjaweed in Darfur. By 2013, Bashir had transformed certain factions of the Janjaweed into an official paramilitary group, known as the Rapid Support Forces (RSF).

**Figure 1: Sudan's Political Settlement, 2011 to early 2019**



Source: Partially adapted from Gallopin (2020).

Note: NCP = National Congress Party; SAF = Sudanese Armed Forces; NISS = National Intelligence and Security Service; RSF = Rapid Support Forces; UAE = United Arab Emirates.

At the same time, he provided significant patronage to the military and other political elites. For instance, a majority of budgetary expenditures went towards the security apparatus (Hassan and Kodouda 2019). In addition, al-Bashir provided these actors with access to lucrative economic resources, thereby attempting to tie their fate to his own. These included the export of gold, gum arabic, sesame, and weapons as well as the import of fuel, wheat, and vehicles, real estate development, aviation, construction, and much more (Gallopin 2020). The RSF was also hired out to Saudi Arabia and the United Arab Emirates (UAE) to fight against Yemen's Houthi rebels (Hassan and Kodouda 2019). In the wake of South Sudan's secession in 2011 and the loss to

Sudan of the oil reserves there, access to foreign exchange through these activities became especially critical to the survival of the political settlement.

In terms of the vertical political settlement, insurgent movements against the regime in peripheral regions, such as Darfur, South Kordofan, and Blue Nile, were violently repressed. Urbanites, who were becoming increasingly numerous, were co-opted through a series of subsidies, including for flour, bread, and fuel. Civil society organizations, including a variety of unions that coalesced into the Sudanese Professionals Association and resistance committees, were often repressed or placed under surveillance. These committees, consisting of university students and unemployed youth affiliated with the Communist and other opposition parties, originally formed in September 2013 during another set of protests initiated by a reduction in wheat and fuel subsidies. They posed a threat to the neighborhood “popular committees” of the regime, which included retired army officers, local religious leaders, and security forces.

Farmers’ unions were marginalized through legal maneuvers. For example, in the El Gezira Scheme, farmers opposed the government’s move to delegate authority for the operations of the irrigation scheme to the appointed state governor rather than local water user associations. After joining with opposition forces to boycott the March 2015 elections, the Gezira Farmers’ unions were dissolved by the government under Constitutional Decree 32, which also transferred land ownership in the scheme from farmers to the private sector and foreign investors (Goelnitz and Al-Saidi 2020; Radio Dabanga 2020d).

### 3. WHEAT VALUE CHAINS PRIOR TO THE 2019 REVOLUTION

These dynamics in the political settlement in Sudan provide important context for how wheat value chains were structured prior to the 2019 revolution. Due to high consumer demand and low domestic wheat productivity, approximately 85 percent of wheat grain has been imported, costing the government about half a billion US dollars a year (FEWS NET 2015; World Bank 2020a). Up until 1996, the government held a monopoly on wheat imports, which were allocated to 20 small milling companies through a quota system. When wheat milling was liberalized in 1996, three companies—Sayga, Wheata, and Seen—began to dominate imports, milling, and distribution (FEWS NET 2015).

Sayga and Wheata are run by two of Sudan’s largest commercial families, and largely source wheat grain from Australia and Canada.<sup>2</sup> Sayga supplies about 70 percent of Sudan’s consumption of wheat flour, inclusive of subsidized and commercial flour, and its market power was evident in 2015 when, due to unfavorable exchange rates from the government, it halted production and caused massive flour and bread shortages (Radio Dabanga 2015). It is also part of one of Sudan’s largest businesses, the DAL conglomerate, which operates in agriculture, food and beverage, healthcare, mining, automobile, energy, and many other industries.<sup>3</sup> Seen is linked to the security and intelligence services—the general manager was a member of Bashir’s National Congress Party (NCP) (Gizouli 2020; Thomas and Gizouli 2020). Seen imports mainly from countries on the Black Sea and continues to receive special access to domestic wheat (FEWS NET 2015).<sup>4</sup> Consequently, market power has been concentrated among the millers who—due to both their role in the regime or their ability to keep it financially afloat—also exerted significant political power.

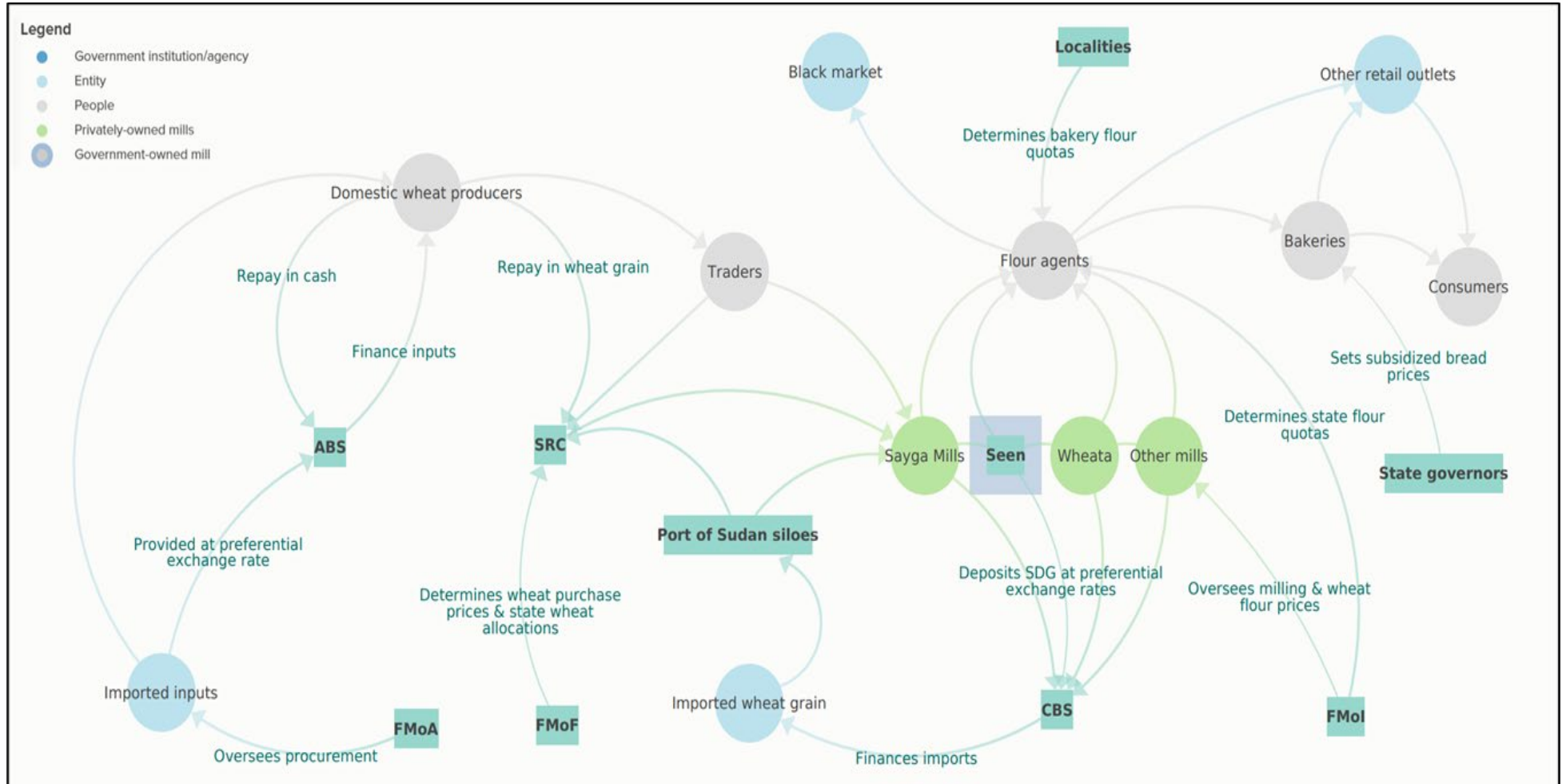
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<sup>2</sup> Sayga has its own fleet of railway locomotives and wagons as well as its own grain terminal and storage silos at Port Sudan that supplies its mills with about 1.5 million metric tons of grains annually (Ganson 2013).

<sup>3</sup> See <https://dalgroup.com/>. Sayga also supplies fortified flour to the World Food Program for the latter’s activities in the region.

<sup>4</sup> When al-Bashir was arrested in 2019, millions of dollars in cash were found in his home in sacks belonging to Seen Flour Mills (Abdalla and Al Taher 2019).

**Figure 2: Sudan's Wheat Value Chain, Pre-Revolution**



Sources: Key informant interviews and various secondary literature cited in the text.

Notes: ABS = Agricultural Bank of Sudan, CBS= Central Bank of Sudan, FMoA = Federal Ministry of Agriculture, FMoF = Federal Ministry of Finance, FMoI = Federal Ministry of Industry, and SRC = Strategic Reserve Corporation.

As highlighted in Figure 2, importers received an implicit subsidy by being offered preferential exchange rates by the Central Bank of Sudan. For instance, as of 2015, they could import at a rate of 2.9 Sudanese pounds (SDG)/USD, which was lower than the official exchange rate of 5.9 SDG/USD or the black market rate of 8-9 SDG/USD (World Bank 2015). Once wheat imports arrived at Port Sudan, a majority was transported to Khartoum for milling into wheat flour and then distributed by either flour agents of the milling companies or wholesale traders (FEWS NET 2015). Each state would receive a certain quota of wheat flour, determined by historical consumption data and population size.<sup>5</sup> Each bakery then would receive a quota of subsidized wheat flour based on its relationship with the millers' flour agents. For instance, in August 2017, shortages of bread in Khartoum were caused by Sayga reducing the flour quota for bakeries from four sacks to one sack a day (Radio Dabanga 2017a). Subsidized prices for wheat flour remained fixed at a certain rate but varied across states due to transport costs (Radio Dabanga 2017d). This arrangement created potential for leakage as flour agents and bakeries could try to sell a portion of the subsidized flour on the black market, smuggling flour both out of the country and internally to other retail outlets (Siddig 2016).<sup>6</sup> By way of example, in January 2017, one sack of wheat flour cost 150 SDG but could garner 250 SDG on the black market (Radio Dabanga 2017b). The bakeries, in turn, provided subsidized bread to consumers at prices set by the governor of each state; for example, in 2016, the rate in Khartoum was about 0.33 SDG per loaf of 70 gram bread (Siddig 2016).

Domestically-produced wheat also plays a role in this system. Sorghum, millet, and wheat are the most important cereal crops in Sudan, but wheat is not as well-suited as the others to the country's agro-ecology.<sup>7</sup> However, rapid urbanization over the past 20 years has increased wheat and bread consumption (FEWS NET 2015). In Khartoum, which represents one-quarter of Sudan's population, total weekly bread consumption is approximately 261 kg compared with only 4 kg a week in North Darfur (FSTS 2020). Consequently, the previous regime viewed wheat as a strategic crop to help the country achieve food self-sufficiency and reduce import dependence.

Sudan's domestic wheat is almost entirely irrigated and predominantly concentrated in El Gezira state due to the Gezira Scheme, which encompasses one million hectares and is considered the world's largest irrigation scheme (Goelnitz and Al-Saidi 2020). Over 500,000 tons were produced in the state during the 2020/21 season; by comparison, the next biggest producing state is Northern State, where 155,000 tons were produced during the same season (FAO 2021).<sup>8</sup> Over time, land intensification, silt accumulation, and increased water use has caused the performance of the El Gezira Scheme to deteriorate, leading to a series of unsuccessful reforms in 2005 and 2014 that contributed to the farmer disenchantment with the al-Bashir regime described earlier (Goelnitz and Al-Saidi 2020).

Two of the most important institutional bodies for domestic wheat producers are the Agricultural Bank of Sudan (ABS) and the Strategic Reserve Corporation (SRC). The ABS, under the mandate of the federal Ministry of Agriculture, finances inputs for wheat (and sorghum) producers. As with wheat grain imports, a preferential exchange rate of 2.9SDG/USD was available to the ABS for such inputs as of 2015. An opaque procurement process controlled by the Ministry of Agriculture determined which companies were able to import inputs, sometimes resulting in inferior quality seeds and fertilizer (World Bank 2015). Producers were able to repay inputs provided by the ABS

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<sup>5</sup> Interview with the leader of the bakery and industry union of Sudan's Wheat Chamber of Commerce, September 8, 2021.

<sup>6</sup> Ibid.

<sup>7</sup> While sorghum is the staple food for the majority of poor households in central and eastern regions, and millet for the majority of households in Darfur and some parts of Kordofan, wheat traditionally has been the staple food for northern Sudanese states (UNOCHA 2017).

<sup>8</sup> Of the 900,000 tons of wheat production predicted for the 2020/21 season, only 2,000 tons was expected to be traditional rainfed wheat (FAO 2021).

in cash or in-kind during the post-harvest period. If in-kind, the wheat was provided to the SRC (Mansfield and Markhof 2016).

The SRC was established in 2000 and falls under the mandate of the Ministry of Finance, which determines the price at which the SRC purchases either domestic or imported wheat grain (Ahmed, Abdelsalam, and Siddig 2012). As part of an interlinked contract with the ABS, the SRC purchased wheat at prices that are set before the production season starts and then uses the stocks to try and stabilize wheat prices in local markets. The SRC also imports wheat grain, and while some of this can be sold to small-scale traders and millers, most is distributed to the three main milling companies (FEWS NET 2015). In addition, Seen mills had preferential access to purchase domestic wheat grain directly (FEWS NET 2015).

Wheat farmers faced several challenges in this system. First, the SRC usually did not purchase grain in time, causing farmers to resort to middlemen who bought from farmers at lower prices and then later resold the grain to the SRC at higher prices (Ahmed, Abdelsalam, and Siddig 2012). Secondly, SRC purchase prices may not correspond with inflation and the cost of other inputs that farmers incur; for instance, between 2014 and 2017, the price per sack of wheat stayed at 400 SDG even though the price of a bag of fertilizer had increased by 20 percent during the same period (Radio Dabanga 2017c). Relatedly, soaring fuel prices sometimes require farmers to halt use of irrigation pumps and harvesting devices (Radio Dabanga 2017c).

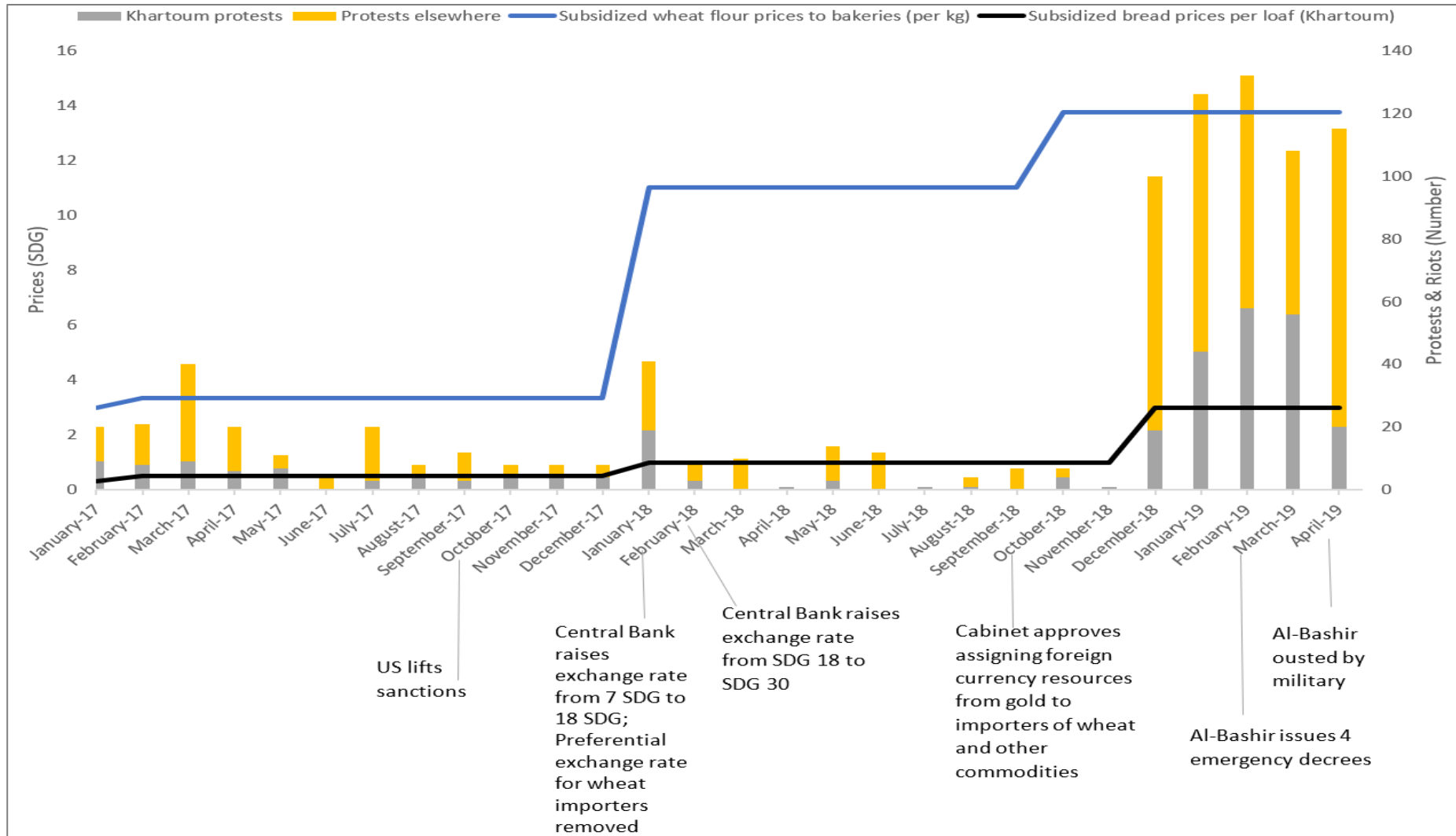
More broadly, while wheat and other strategic crops, such as sorghum and cotton, have received priority financing from the agricultural budget over the years (World Bank 2020a), overall financing for agriculture and other productive sectors historically has been displaced by military spending (Radio Dabanga 2017a). For instance, as of 2017, military expenditures constituted 25 percent of total government expenditures (World Bank, 2021). This public expenditure pattern was critical to the maintenance of the horizontal political settlement.

## **Policy dynamics, 2017 to 2019**

Due to the import-intensive nature of the wheat value chain—both through direct imports of overseas wheat grain and through imports of inputs for domestic wheat production—any shifts in the macroeconomy had enormous implications for the price of wheat flour and bread. Before 2011, the entire system could be managed by Sudan's massive oil reserves. Yet, the secession of South Sudan led to the loss of three-quarters of these reserves which, along with a decline in international oil prices, massively reduced the country's foreign exchange (Hassan and Kodouda 2019).

In October 2017, the situation paradoxically worsened when the United States partially lifted sanctions against Sudan, claiming it had addressed concerns about terrorism and human rights abuses against civilians in Darfur (Figure 3). This resulted in a massive demand for US dollars by Sudanese importers, which further weakened the Sudanese pound and stimulated inflation (UNOCHA 2017). In January 2018, at the urging of the IMF, the Central Bank devalued the pound to 18 SDG per dollar, double the previous peg of 6.7 SDG per dollar, and eliminated wheat import subsidies by removing the preferential exchange rates for wheat importers. This caused the price of a 50 kg bag of wheat flour to increase from 167 SDG to 450 SDG, while the price of a 70 gram loaf of bread rose from 0.5 to 1.0 SDG (FAO 2018; Reuters 2018). A month later, the Central Bank had to devalue again, to 30 SDG per dollar, which caused the price of flour to increase by 25 percent (Radio Dabanga 2018a). In October 2018, the Central Bank announced it would allocate foreign currency reserves received from gold and non-petroleum export revenues to importers of wheat, sugar, fuel, and medicines (Radio Dabanga 2018b).

**Figure 3: Policy Chronology of Flour, Bread, and Protests, Pre-Revolution**



Sources: Price data is from various newspaper reports cited in the text and interviews with Khartoum bakeries. Protest data is from the Armed Conflict Location and Event Data Project (2021).

Bread shortages ensued for several reasons, including the fact that bakeries received fewer sacks than their usual quota from millers as fuel costs increased the costs of transport and distribution. In addition, wheat flour is only approximately 20 percent of the cost of making bread, and other inputs, such as oil, water, and labor, are not subsidized, while declines in fuel subsidies increased electricity prices.<sup>9</sup> Shortages were then compounded by spiraling inflation, causing all food goods to rise in cost; by the end of 2018, the price of a loaf of subsidized bread had to be increased from 1 SDG to 3 SDG in Khartoum (Elmileik 2018).

As seen in Figure 3, protests related to bread and wheat flour began to grow in late 2018 and early 2019. Although the protests were initially about the rising cost of living, they morphed into a broader set of grievances about government corruption and autocracy (Hassan and Kodouda 2019). In response, al-Bashir responded by issuing four emergency decrees that banned any gatherings, assemblies, marches, or strikes. However, as protests grew, a coalition of unions known as the Sudanese Professionals Association took control of the demonstrations and ultimately, with the support of civil society groups and opposition parties, the Forces of Freedom and Change (FFC) emerged. When the FFC staged a sit-in at the military headquarters in Khartoum in April 2019, junior officers decided to protect the protesters, and the various elements of al-Bashir's outer circle—the military, the RSF, and the NISS—overthrew the president (Gallopini 2020).

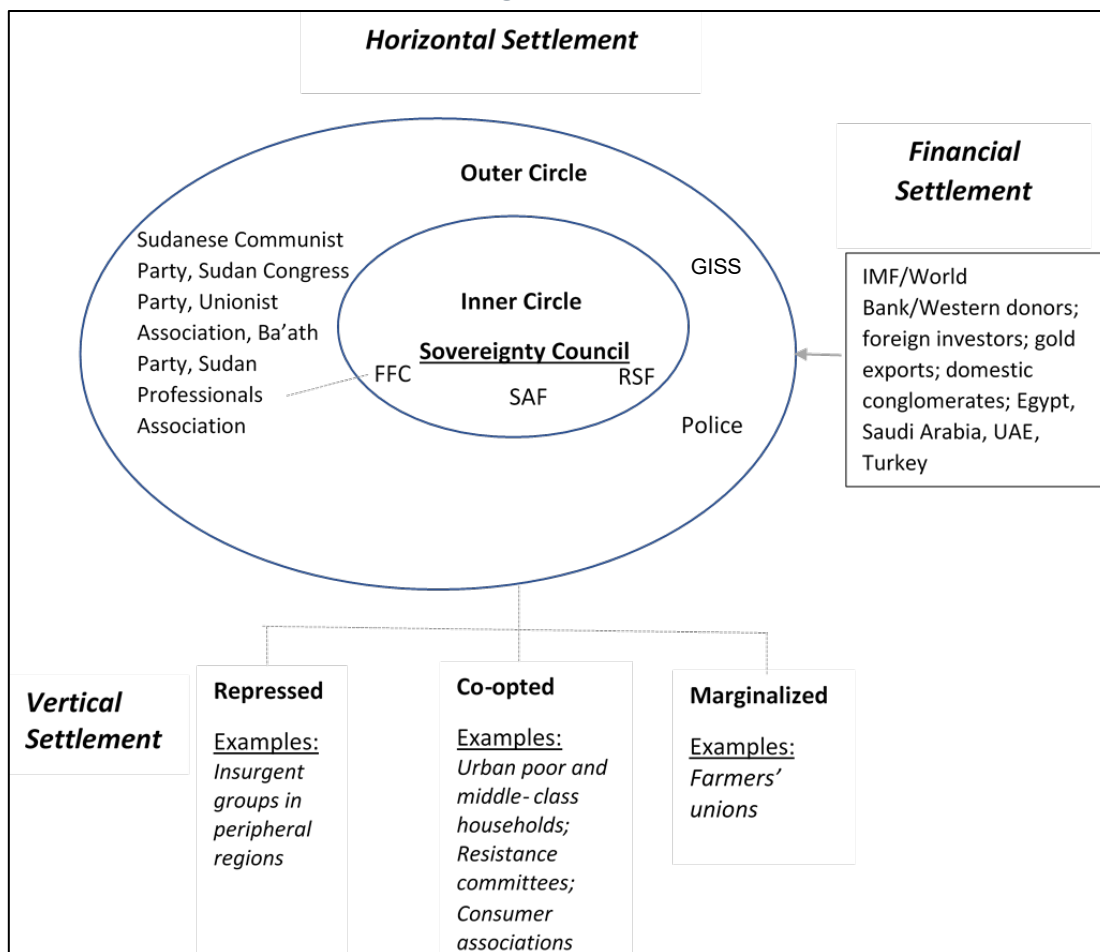
## 4. SUDAN'S POST-REVOLUTION POLITICAL SETTLEMENT

After a tumultuous period, a Constitutional Declaration was signed in August 2019, which stipulated that a 36-month post-transition government would be established. This government has shifted the country's political settlement, creating a more dispersed horizontal power configuration, as shown in Figure 4. Specifically, the government is now ruled by the Sovereignty Council, which consists of a coalition between the Sudan Armed Forces (SAF), the Rapid Social Forces (RSF), and civilian technocrats led by the prime minister, Abdalla Hamdok, and backed by the FFC. The police and security forces—transformed from the NISS to the General Intelligence and Security Services (GISS)—also still retain significant power. Nonetheless, violence has continued in regions such as Darfur and parts of Eastern Sudan, while farmers' demands, including for greater investment in the Gezira Scheme, have not been given much consideration (Radio Dabanga 2020d, 2021c).

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<sup>9</sup> Interview with the leader of the bakery and industry union of Sudan's Wheat Chamber of Commerce, September 8, 2021. Diesel accounts for approximately 50 percent of the cost of electricity.

**Figure 4: Sudan’s Political Settlement, August 2019 to 2021**

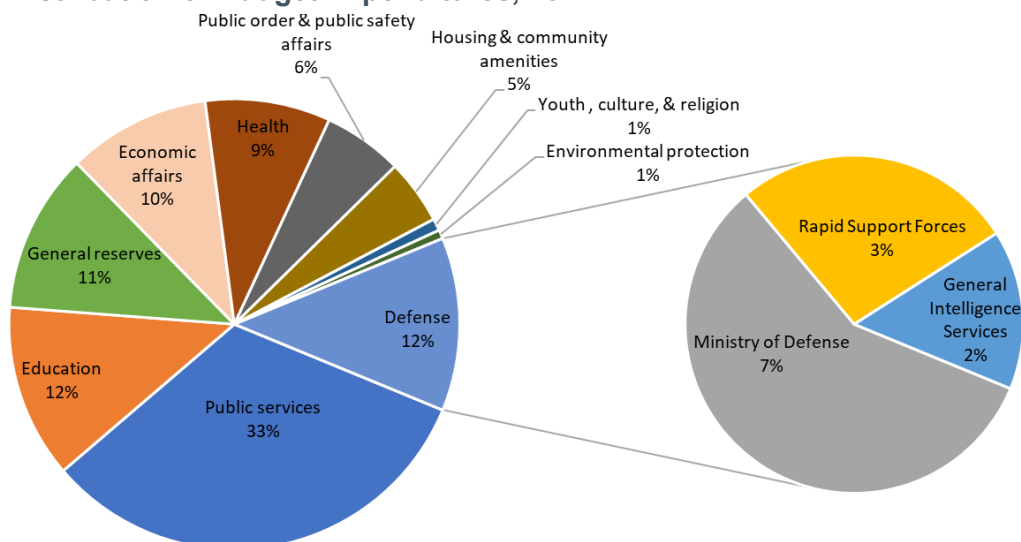


Partially adapted from Gallopin (2020). FFC = Forces of Freedom and Change; SAF = Sudan Armed Forces; RSF = Rapid Social Forces; GISS = General Intelligence and Security Services; IMF = International Monetary Fund; UAE = United Arab Emirates.

Because of this fragile alliance, the budget remains skewed toward the military. Figure 5 shows that the 2021 fiscal year budget allocated 10 percent of expenditures toward economic affairs, inclusive of agriculture, industry, and mining, compared with 12 percent—or 136 billion SDG—for the Ministry of Defense, RSF, and GISS combined (MoFEP 2020). In addition, the military and security departments continue to control more than 200 state-owned firms, to the tune of at least \$3 billion, spanning the sale of gold, marble, gum arabic, livestock, telecommunications, banking, pharmaceuticals, water distribution, and more (Africa Confidential 2021; Sayigh 2021). Seen Flour Mills, which was formally owned by the NISS (now GISS), is now under the exclusive authority of the SAF and reportedly controls 60 percent of the wheat market (Gallopin 2020). Under IMF pressure, the interim government agreed in March 2021 to begin a process of divesting the military from commercial companies and transferring them to civilian-headed government ministries.<sup>10</sup> This is a critical move since the Prime Minister claimed that due to the influence of the security and defense forces in much of the economy, his government effectively only controls about 18 percent of the country’s public funds (Baldo 2021).

<sup>10</sup> The RSF, however, is not part of the agreement (see Sayigh 2021).

**Figure 5: Distribution of Budget Expenditures, 2021**



Source: Ministry of Finance and Economic Planning, Sudan (MoFEP 2020)

At the same time, the FFC includes a broad alliance of actors whose diverse interests need to be considered. One of the challenges for the government is that most members of the FFC have opposed subsidy reforms—for both wheat and fuel—because of concerns about social impacts (Gallopín 2020). The FFC also derives support and legitimacy from a variety of civil society groups, including resistance committees, which became reinvigorated in 2018 when they helped organize protests at the neighborhood level to confront the state security forces (Gizouli 2020).

Beyond the international financial institutions and a variety of private investors, other external government actors play a role in the post-revolution settlement. For instance, Turkey, which previously invested in Seen’s milling capacity at Port Sudan, has an interest in exporting more wheat to the country.<sup>11</sup> In addition, Turkey has been allocated approximately 100,000 hectares of agricultural land to cultivate in Sudan, with another potential 700,000 hectares under negotiation (Daily Sabah 2021). Even prior to the revolution, Saudi Arabia and UAE had negotiated the purchase of some of Sudan’s irrigated land to produce food to feed their own domestic populations (Radio Dabanga 2016). In the aftermath of the ouster of al-Bashir, both the governments of Saudi Arabia and UAE provided an aid package of approximately \$3 billion that gives them significant leverage with the transitional military council (The Arab Weekly 2021).

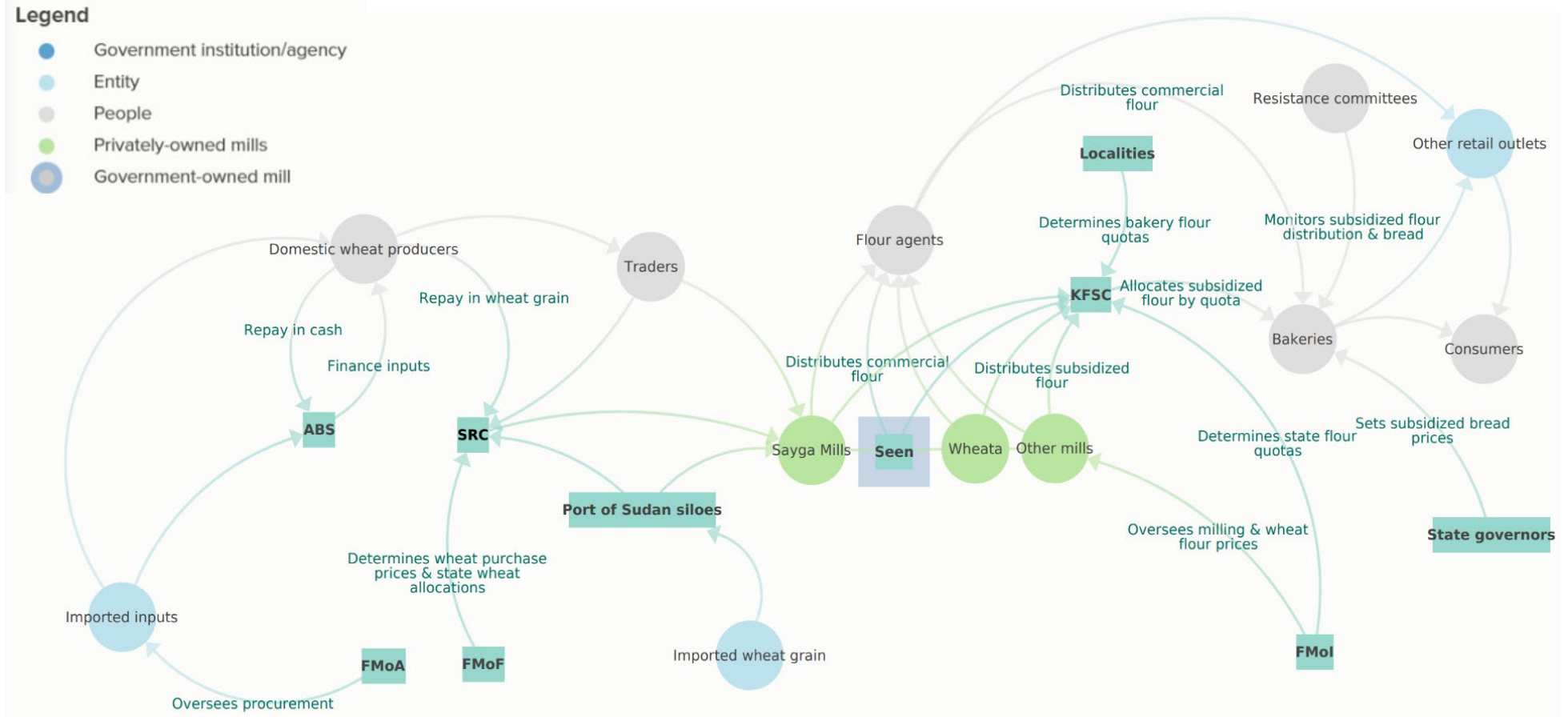
## 5. POST-REVOLUTION WHEAT VALUE CHAINS, 2019 TO PRESENT

Under the post-revolution government, there are several changes to the way the wheat value chain operates, as illustrated in Figure 6. First, with the liberalized exchange rate, there are no longer preferential rates for wheat or agricultural input importers.

Second, and most notably, a system for monitoring has been established to ensure that subsidized flour is not siphoned off to the black market and that bakeries do indeed provide subsidized bread to consumers. In January 2020, the Federal Minister of Industry, noting that approximately 25,000 bags of flour were leaked every day, stipulated that anyone proved to be involved in leaking flour would face five years’ imprisonment under the country’s consumer protection laws (Radio Dabanga 2020f).

<sup>11</sup> Interview with confidential respondent, October 15, 2021.

**Figure 6: Sudan's Wheat Value Chain, Post-Revolution, Khartoum State**



Sources: Key informant interviews and various secondary literature cited in the text.

Notes: ABS = Agricultural Bank of Sudan, FMOA = Federal Ministry of Agriculture, FMOF = Federal Ministry of Finance, FMoI = Federal Ministry of Industry, KFSC= Khartoum Food Security Company, SRC = Strategic Reserve Corporation.

To address this leakage, the Khartoum Food Security Company (KFSC) was established under the Khartoum State Ministry of Industry to collect and distribute all the subsidized flour from the main milling companies rather than allowing the millers' flour agents to do so. The KFSC checks flour stocks every Saturday to assess that quotas to bakeries—between 8 and 10 bags of flour per day to traditional bakeries and 18 bags per day for mechanized ones—are being used effectively.<sup>12</sup> The responsibilities of the traditional flour agents are now more for collecting and distributing commercial flour to both types of bakeries and other retail outlets.<sup>13</sup> While there were previously about 70 flour agents in Khartoum State, there are only about 20 now.<sup>14</sup> In other states, the administrative localities play the same role as the KFSC.<sup>15</sup> In Khartoum, Seen and Sayga Mills continue to play dominant roles, delivering around 34,750 and 18,000 bags, respectively, of wheat flour daily.<sup>16</sup>

Third, another form of monitoring emerged via the resistance committees. After the 2019 revolution, the resistance committees have stood watch at bakeries to monitor what enters and leaves, recording data on flour deliveries, bakery closures, and smuggling into a mobile application (Lewis 2020). The aim has been to ensure that bakeries are producing the amount of bread commensurate with the subsidized flour they receive and not storing it or using it to make alternative, more remunerative products, such as sweets.<sup>17</sup> As one member notes, "Our mission has changed from organizing demonstrations and protests to upgrading services in neighborhoods."<sup>18</sup> The resistance committees, however, are populated by volunteers, and therefore, the sustainability of this monitoring approach is uncertain without commensurate institutionalization and financing.

On the domestic production side, very little has changed. Most of the activists who make up the FFC and associated civil society organizations are urban professionals, with less representation from farmers, agricultural workers, and miners (Tossell 2020). The market concentration enjoyed by the largest millers continues as well. After the 2020 harvest, for instance, Seen Mills and Sayga Mills received 124,823 and 92,000 tons of domestic wheat grain, respectively, followed by 65,244 tons for Wheata. The remaining mills received 22,000 tons or less (Sudan News Agency 2020).

## Policy dynamics, 2019 to 2021

Soon after the new government was established in 2019, it began to pursue an economic reform roadmap with the IMF that involved removing subsidies on both fuel and wheat (Abdelaziz, Laessing, and Georgy 2019). However, a few months later, in the midst of another a bread shortage, the Federal Minister of Industry and Trade promised that bread would continue to be subsidized for the remainder of the transitional administration (Radio Dabanga 2020c). In February 2020, the Minister announced that the price of bread would likely need to rise to 2 SDG, but that a new loaf size of 45 grams would simultaneously be issued that could continue to be sold at 1 SDG (Radio Dabanga 2020c). However, this policy was not well-implemented, and the smaller loaves failed to serve as a substitute for consumers.<sup>19</sup>

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<sup>12</sup> Interview with the leader of the bakery and industry union of Sudan's Wheat Chamber of Commerce, September 8, 2021.

<sup>13</sup> There are about 13,760 bakeries throughout Sudan (Radio Dabanga 2020c).

<sup>14</sup> Interview with the leader of the bakery and industry union of Sudan's Wheat Chamber of Commerce, August 11, 2021.

<sup>15</sup> Interview with Ministry of Agriculture, July 2021.

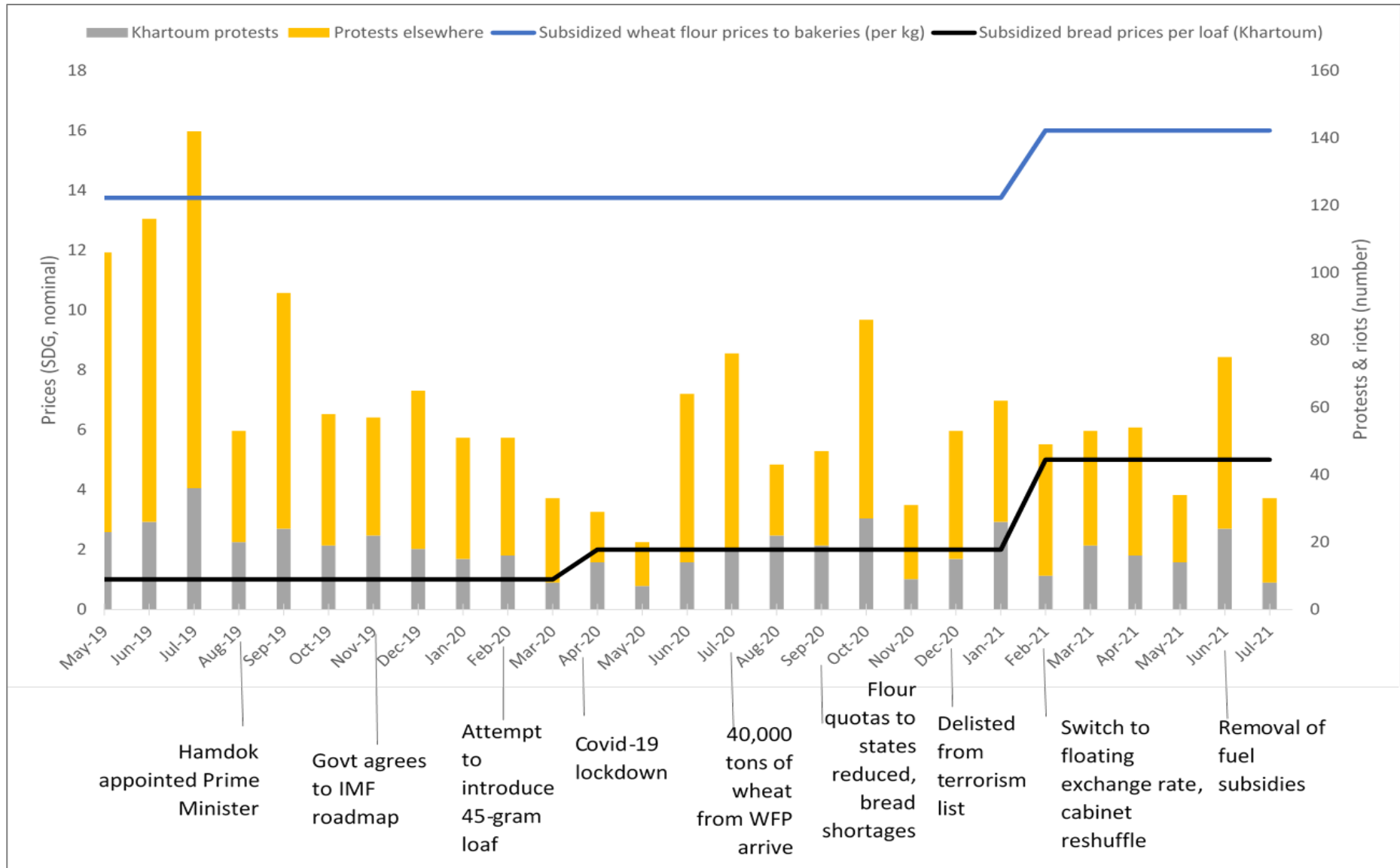
<sup>16</sup> Interview with the leader of the bakery and industry union of Sudan's Wheat Chamber of Commerce, August 11, 2021. In comparison, Wheata, Rotana, and El Said mills deliver about 7100, 3000, and 3000 bags of wheat flour daily to Khartoum.

<sup>17</sup> Interview with Resistance Committee member, Burri Province, Khartoum, August 9, 2021.

<sup>18</sup> Interview with Resistance Committee member, Wad Nubawi Province, Khartoum, August 12, 2021.

<sup>19</sup> Interview with former Federal Minister of Industry and Trade, Khartoum, August 19, 2021.

**Figure 7: Policy Chronology of Flour, Bread, and Protests, Post-Revolution**



Sources: Price data is from various newspaper reports cited in the text and interviews with Khartoum bakeries. Protest data is from the Armed Conflict Location and Event Data Project (2021).

As seen in Figure 7, a new bread crisis began in September 2020 as the allocation of flour quotas to states was reduced, causing bakeries to increase prices of commercial bread to 10 SDG per loaf and ration subsidized bread (Radio Dabanga 2020b). The reduction in quotas was attributed to the government's inability to pay debts of approximately \$20 million to the flour mills and to hoarding (Radio Dabanga 2020e, 2020c). By November, the bread shortages were exacerbated by the decision of some bakeries in Khartoum to close in protest over their demands to be allowed by the government to charge customers higher bread prices (Radio Dabanga 2020a).

In December 2020, the US removed Sudan from the list of State Sponsors of Terrorism, allowing the country to begin the process of accessing relief for some of its \$64 billion in debt under the Highly Indebted Poor Countries (HIPC) initiative and receive foreign investment from the West (IMF 2021). As part of the IMF agreement, the Government partially decreased fuel subsidies while introducing the Sudan Family Support Program (Samarat), which is a cash transfer program aimed to serve as a safety net for poor households (FSTS 2021). However, the amount of money allocated to wheat subsidies in the 2021 budget actually increased from 46 billion SDG in 2020 to over 61 billion SDG (\$137.5 million) in 2021 (MoFEP 2020), exceeding the amount allocated to expenditures within the agriculture sector.

Bread protests continued through early 2021 due to a continued inability to fund wheat imports. In Khartoum, for instance, there was a 50 percent reduction in the share of flour allocated to the state in January 2021 (Radio Dabanga 2021b). At the same time, a declaration was issued by Khartoum state to increase the price of bread to 5 SDG a loaf and to increase the size to 100 grams; this dictate was then implemented the following month (see Figure 7). All bakeries were to have an electronic scale for weighing and were only allowed to sell subsidized bread to Sudanese citizens and not to cafeterias or restaurants. Legal ramifications included suspending a bakery's license, redistributing idle flour quotas to other bakeries in operation, and suspending licenses of cafeterias and restaurants that use subsidized bread.<sup>20</sup>

In February 2021, Sudan abandoned its fixed exchange rate regime and unified the official rate with the black market rate, which was 370 SDG to 1 USD at the time (Mohiedeen 2021). This represented a 580 percent devaluation of the currency, fueling concerns about further inflation, which at the time was already more than 300 percent for all consumer goods (Baldo 2021). A cabinet reshuffle the following month—a goodwill gesture to become more inclusive after the Juba Peace Agreement was signed—led to some reduced momentum around wheat flour policymaking, especially since the post-revolution Minister of Industry and Trade was replaced (Tucker 2021).

The full removal of fuel subsidies in June 2021, which preceded Sudan's receipt that month of debt relief from the IMF under the HIPC scheme (Radio Dabanga 2021d), further exacerbated production costs for bakeries. Motivated by rising costs for other inputs that are not subsidized, such as water, yeast, cooking gas, labor, and oil, Khartoum's bakeries unions successfully lobbied for a decline in the size of bread to 80 grams in May 2021 and then again to 70 grams in August 2021.<sup>21</sup> According to one representative of the bakery union, 380 bakeries have gone out of business in Khartoum in recent years due to their inability to keep up with input costs while the bread subsidy remains in place.<sup>22</sup> Indeed, Figure 7 shows clearly the gap between the levels that wheat flour is subsidized compared with the cost at which bread can be sold.

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<sup>20</sup> Communication with leader of the bakery and industry union of Sudan's Wheat Chamber of Commerce, September 14, 2021.

<sup>21</sup> Interview with the leader of the bakery and industry union of Sudan's Wheat Chamber of Commerce, August 11, 2021.

<sup>22</sup> Interview with member of Khartoum Bakers' union, Khartoum Wasat Province, August 9, 2021.

## 6. POLICY PREFERENCES AND INTEREST GROUP ALLIANCES

The above discussion highlights that there remain multiple challenges confronting the wheat value chain in Sudan that will require prioritizing the preferences of some groups over others. However, the fragile political settlement and dispersed power configuration involve keeping a broad range of actors satisfied. Drawing on key informant interviews (KII) and secondary literature, this section elaborates on the positions of different stakeholder groups regarding primary bottlenecks and potential policy options, while highlighting where alliances exist across groups. One caveat is that stakeholder groups are comprised of diverse individuals, and interviews with just a few representatives do not comprehensively capture the preferences of an entire group. Nevertheless, most of the KIIs were conducted with individuals who were either high-level decisionmakers within their organizations or who had the most specialized knowledge about wheat value chains within their organizations.

The analysis focuses on two key, interrelated policy goals—improving bread affordability and enhancing domestic wheat production—while recognizing the macroeconomic pressures confronting the country. From the interviews and secondary resources consulted, clusters of four sets of interventions have emerged to achieve these goals: price incentives, regulations, productive investments, and cash transfers (Figure 8).

**Figure 8: Policy Preference Matrix for Reforms to the Wheat Value Chain in Sudan**

Stakeholder category	Stakeholder	Typology of Policy Interventions			
		Price incentives	Regulation	Productive investments	Cash transfers
<b>Key social and business groups</b>					
	Bakeries	Oppose bread subsidies, support bread input subsidies and tax exemption for bread production	Support enforcement of flour extraction rates by Sudan Standards Association		
	Resistance Committees	Support bread subsidies, support provision of attractive prices to farmers	Support deterrent laws with wheat flour monopolies, support tracking tools like phones	Support creating warehouses close to bakeries, support provision of bakeries' gas	
	Consumer Unions	Support bread subsidies	Support passage of the Consumer Protection Law and the Flour Improvers Law; support regulation of wheat monopolies		
	Farmers	Support provision of attractive prices to buy farmers' wheat		Support timely provision of inputs, support irrigation canal repair	
<b>Government policy actors</b>					
	Federal Ministry of Industry	Support provision of attractive prices to buy farmers' wheat, support timely funding from ABS for inputs		Support provision of petroleum products for planting and harvesting operations	
	Ministry of Agriculture (Federal and State)	Support provision of attractive prices to buy farmers' wheat, support timely funding from ABS for inputs		Support irrigation investments and technical packages of fertilizers/seeds, oppose obligating farmer to grow wheat	

Stakeholder category	Typology of Policy Interventions				
	Stakeholder	Price incentives	Regulation	Productive investments	Cash transfers
	Federal Ministry of Finance			Support new agricultural varieties and technical inputs, with distribution in a timely and equitable manner; Support better capital allocation to ABS rather than importing so much wheat	
<b>Government technical bodies</b>					
	Agricultural Bank of Sudan		Supports banking system reforms to raise value of deposits	Support irrigation investments and technical packages of fertilizers/seeds	
	Strategic Reserve Corporation	Support provision of attractive prices to buy farmers' wheat, support timely funding from ABS for inputs			
<b>Donors &amp; International Financial Institutions</b>					
	International Monetary Fund	Oppose fuel subsidies, prefer phased withdrawal of bread subsidies			Support cash transfers
	World Bank <sup>a</sup>			Support short-term subsidies for inputs to wheat farmers, Oppose wheat prioritization	Support cash transfers
	European Union <sup>a</sup>				Support cash transfers
	FCDO <sup>a</sup>			Oppose wheat prioritization	Support cash transfers

Sources: Information derived from KIIs, IMF (2017, 2021), Mansfield and Markhof (2016), Radio Dabanga (2021e), and World Bank (2015, 2020a).

Notes: <sup>a</sup> The World Bank, European Union, and FCDO are all members of the Sudan Transition and Recovery Support Trust Fund (STARS), jointly funding the Samarat program with other bilateral donors.

ABS = Agricultural Bank of Sudan, FCDO = Foreign, Commonwealth & Development Office of the government of the United Kingdom.

## Improving bread affordability

As with the previous regime, ensuring the affordability of bread (and other key commodities) will be central to political stability in the short-run, and especially as the 2022 general elections approach. The bakeries in Khartoum identify themselves as relatively isolated and maligned in the current political settlement, finding that they are both facing a squeeze on profits by government policies as well as monitoring by resistance committees and consumer unions. Reflecting on the country's many recent transitions, a leading member of the Khartoum Baker's Union expressed, "The situation is now worse, because the government is showing the population that it is supporting bread, while the subsidy is only for flour and not other ingredients... The final solution is to lift the subsidies on bread to be sold at commercial prices."<sup>23</sup> Alternative approaches include requesting that the subsidy is retained but increased to 9 SDG to allow for higher profit margins, subsidizing the costs for other inputs required for making bread (e.g. electricity, yeast, oil, and labor), and offering tax exemptions for bread production.

Given that the bakeries recognize the need for better monitoring of where flour goes to prevent smuggling, better quality regulation by the Sudan Standards Association (SSA) is another

<sup>23</sup> Interview with member of Khartoum Bakers' union, Khartoum Wasat Province, August 9, 2021.

approach they support. For instance, the SSA could ensure that the wheat extraction rate from flour mills for subsidized flour is increased from its current 78 percent to 85 percent and that it has a certain granulation so that it becomes easier to monitor if the flour has been mixed with other varieties for non-subsidized bread or sweets.<sup>24</sup>

Both resistance committees and consumer unions strongly support the continuation of bread subsidies and advocate for more oversight tools. Continued use of a mobile phone app for the committees to monitor and record data on flour deliveries, bakery closures, and smuggling is viewed as a possibility by this constituency (Lewis 2020). The committees further support the bakeries' need for input access, especially gas, and for warehouses closer to the bakeries. The latter intervention would likely mitigate both leakage and reduce transport costs. Both groups also encourage anti-competition laws that would deter flour monopolies. As a senior member of the Consumer Protection Association noted, a key priority for improving consumer access is "Liberating the wheat commodity from the monopoly that is carried out by some influential parties that do not abide by the laws and regulations."<sup>25</sup>

Bilateral donors and international financial institutions are major supporters of cash transfers as the main option for improving bread affordability. The most vocal advocate, as noted earlier, has been the IMF, which views cash transfers through the Samarat program as the optimal way of reforming both fuel and bread subsidies. The program aims to finance transfers to selected families, including coverage of service and banking fees that may accompany access to the program through electronic and mobile money mechanisms (World Bank 2020b). The World Bank and the Sudan Transition and Recovery Support Trust Fund (STARS), an umbrella of multiple bilateral donors, are the main funders of the initiative, which has received about \$820 million (Radio Dabanga 2021a).

## Enhancing domestic wheat production

To enhance wheat production, there were fewer areas of conflict among domestic stakeholders. Their perspectives appear to coalesce around four interrelated policy issues. First, there is broad consensus that farmers are not receiving incentive prices to sell to the SRC. Second, the inability of the ABS to provide inputs to farmers in a timely manner is well-recognized. A representative from the ABS claims that this is due primarily to insufficient financing allocated to the ABS to engage in its functions.<sup>26</sup> Similarly, a former strategic commodities coordinator at the Federal Ministry of Finance notes that the capital of the ABS does not cover all cultivation needs.<sup>27</sup> Third, there are clear investments needed within the broader agricultural sector that would benefit wheat production. This includes both irrigation investments as well as those in more technical packages, such as for fertilizers, seeds, pesticides, and agricultural extension.

Fourth, farmers—like bakers—cannot afford many inputs needed for harvesting, including gasoline for machinery, due to the macroeconomic conditions. As one representative of a farmers' association noted, "The inflation that is now in the country has reflected on the farmer, the increase in costs in the absence of an explicit policy from the state to deal with these effects of this economic inflation."<sup>28</sup> Increasing expenditures to improve these investments would require a reconsideration of the budget allocations shown in Figure 5, allowing more money to flow to productive investments and less to the security-military apparatus.

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<sup>24</sup> Interview with the leader of the bakery and industry union of Sudan's Wheat Chamber of Commerce, August 11, 2021.

<sup>25</sup> Interview with senior member of Consumer Protection Association, Khartoum, August 16, 2021.

<sup>26</sup> Interview with economic analyst, Agricultural Bank of Sudan, Khartoum, August 24, 2021.

<sup>27</sup> Interview with former strategic commodities coordination, Federal Ministry of Finance, October 6, 2021.

<sup>28</sup> Interview with head of farmers' union, Nile River state, August 22, 2021.

Among some donors, there is a more eclectic range of perspectives on domestic wheat production. The World Bank (2015) has advocated for a shift in the subsidy scheme from wheat flour to improving farmers' access to inputs, suggesting that the domestic production subsidy could be gradually phased out. At the same time, the World Bank (2020a) notes that wheat production is not productive in Sudan due to the short production season and lack of day-night variation. The Bank is not supportive of efforts to expanding land use for wheat production, given that there are trade-offs with other cash crops that have better potential in Sudan's limited irrigated areas. Others, like the United Kingdom's Foreign, Commonwealth, and Development Office, previously argued that Sudan should be supporting production of higher-value agricultural goods, including dairy, rather than prioritizing wheat (Mansfield and Markhof 2016).

## 7. SUMMARY AND CONCLUSIONS

The affordability of wheat flour and bread remains one of a significant number of issues that will be critical for Sudan to effectively address if the country is to achieve political and economic stability. Yet, some of the needed reforms to ultimately achieve this stability will involve difficult economic choices that could upset certain constituencies key to both the horizontal and vertical dimensions of the political settlement.<sup>29</sup> The dilemma is well-summarized by Tossell's (2020: 9) observations of the civilian component of the government: "legitimate civil forces are granted sufficient executive powers in the transitional government, but because their status is intrinsically tied to public perception, they are reluctant or hesitant to enact the necessary legislation and reform to address the underlying issues that partly fueled the revolution in the first place."

The focus on targeting cash transfers to vulnerable households through Samarat is arguably the least disruptive policy intervention, with seemingly the least amount of opposition and posing minimal threat to the big players—such as the millers. However, it may not be sufficient to quell demands for bread or fuel subsidies from the rest of the actors in the value chain for several reasons. First, Sudan's macroeconomic volatility and inflation can make the cost of basic goods quickly unaffordable and potentially undermine the value of the cash transfer in a way that universally subsidized bread does not (Thomas and Gizouli 2020). Secondly, the cash transfer is targeted to the poorest households but some of the most vocal advocates of the revolution due to rising bread prices were from the urban middle class—professional unions and university graduates—who are less likely to qualify for the transfers. Ensuring their buy-in, as well as that of resistance committees and consumer associations, will be key to obtaining continued support from the FFC faction of government to proceed with such reforms. Third, the policy does not address the challenges faced by wheat farmers, especially since the program initially only is focused on Khartoum, Kassala, Red Sea, and South Darfur states (Radio Dabanga 2021f), and therefore not in the main wheat producing areas of El Gezira. Fourth, as shown by efforts to reform subsidy programs elsewhere with cash transfers (Kyle 2018), the continued sustainability of the program will require building citizen trust that the government is not corrupt and indeed has sufficient local capacity to manage the transfer system in a well-targeted manner. As the political situation continues to be quite tense, and the consolidation of a new democratic regime far from established, this trust is unlikely to emerge in the short-term.

A second major area of intervention involves public sector capacity building. Many stakeholders identified this as a major constraint to reform, and it is cross-cutting across the value-chain. Indeed, it is pivotal for organizations such as the ABS and the SRC to be more effective, for standards agencies to enforce regulations for wheat flour monitoring or wheat milling monopolies, and for the

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<sup>29</sup> Tellingly, Sudan has among the world's highest rate of coup attempts—both successful and failed—between 1945-2019 (Peyton et al. 2021).

government to effectively manage a cash transfer program. Among other innovations, public sector reform efforts in other African countries have included the creation of delivery units that rely on a mandate from the chief executive to focus on a limited number of priority areas, address obstacles that block progress, and build learning. Concretely, delivery units consist of small teams of experts whose offices usually are located within the Office of the Chief Executive (e.g. president, prime minister, governor) or the Ministry of Finance. This ensures high level political commitment to the delivery unit's work and provides it with access to the decisionmakers at the ministerial level to identify bottlenecks and facilitate information flows (Barber, Kihn, and Moffit 2010; Lindquist 2007). In the Sudanese context, creating such a unit that has the buy-in from both the civilian and military wings of the government—and has goals for the agricultural sector that are mutually agreed upon and transparently shared with the public—could create constituencies for reform among a broad swath of actors in the political settlement.

Third, the continued role of the ABS should be re-examined. The lack of liquidity that continuously faces the institution, and its inability to provide timely inputs in a transparent manner, suggests that it is not solving key bottlenecks to productivity while simultaneously creating a drain on public resources. Further analysis of whether the private sector has sufficient capabilities to support input distribution to farmers at a reasonable price and to provide alternative agriculture financing options for farmers would help inform the future of that institution.

Fourth, while fuel subsidies are well-recognized as regressive—the IMF (2017) identified that close to 70 percent of the benefits went to the top income quintile in Sudan who have automobiles—such subsidies have played a role in various elements of the value-chain that indirectly affect the poor. Indeed, as noted throughout this paper, fuel costs affect productivity of farmers, millers, and bakeries. Though fuel subsidies are neither economically nor environmentally sustainable, there is scope for development partners to support investments in green energy, such as photovoltaic systems on bakery roofs, that can reduce electricity costs (see Meyer and von Solms 2018; Osava 2018).

Finally, given the agro-ecological restrictions on domestic wheat production, a longer-term effort requires shifting the narrative about wheat and bread. Food security in Sudan long has been equated with wheat sufficiency, discounting the important role of other cereal grains, particularly sorghum, which can be more advantageously cultivated in Sudan's drylands (World Bank 2015). Just as changing consumer tastes drove greater demand for wheat bread, marketing and information campaigns can prove crucial for increasing interest among urban consumers in less-expensive alternatives to wheat. There are growing examples of how mass media campaigns that highlight certain foods' nutrient properties, or attempt to equate them with a particular view of "modernity," can shift consumer thinking and preferences (Global Panel 2017).

The combination of oligopolistic market power, military influence, and protest power by citizens disgruntled by rising food costs means that bread is an especially political commodity in Sudan. After an abortive military coup in September 2021, supported by some citizens tired with the high cost of living, Sudan is at a critical juncture. There is a unique opportunity to correct distortions that historically have generated high levels of uncertainty about households' food access. Access to HIPC debt relief, increased foreign investment, and potential military divestment create possibilities to manage inflation and invigorate the agricultural sector. Simultaneously, there are now many more actors whose preferences need to be considered within the policy arena, thereby underscoring that building a broad coalition for wheat value chain reform is essential to ensure a stronger foundation for the post-revolution political economy.

## APPENDIX: LIST OF INTERVIEWEES BY ORGANIZATIONAL AFFILIATION

No.	Organization	Position of Respondent
1	Bakery union (Sudanese industrial chamber)	President
2	Bakery union (Sudanese industrial chamber)	Vice-president
3	Sudanese Consumer Protection Association	President
4	Steering committee of the Federation of Gezira and Managal Farmers	Member of the Presidential Council
5	Manaseer Project Farmers' Union	Head of the Union
6	Resistance Committee, Khartoum, Burri Province	Services Committee
7	Resistance Committee, Khartoum, Al Drushab Province	Services and Bakery Control Committee
8	Resistance Committee, Khartoum, Wab Nubawi Province	Treasury Committee
9	Federal Ministry of Agriculture and Forests	Agricultural engineer
10	Ministry of Agriculture, Khartoum State	Wheat Production Coordinator
11	Ministry of Agriculture, Gezira State	Agricultural engineer
12	Central Bank of Sudan	Foreign exchange policy advisor
13	Sudan Federal Food Security Technical Secretariat	Policy and planning officer
14	Federal Ministry of Industry and Trade	Former Minister
15	Khartoum State Ministry of Industry & Trade	Strategic inventory management, Marketing department
16	Agricultural Bank of Sudan	Assistant Director-General for Strategic Stocks
17	Agricultural Bank of Sudan	Analyst, Plant Finance Department
18	Strategic Reserve Corporation	Director General of Internal Trade and Supply, Vice-president of the Central Chamber of Wheat and Flour
19	Federal Ministry of Finance	Former strategic commodities coordinator

Notes: The above list aims to provide readers with more specificities on sources of information while keeping the actual names of respondents confidential due to current sensitivities around wheat and bread.

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## ACKNOWLEDGEMENTS

This paper was prepared with the gracious financial support of the United States Agency for International Development (USAID).

I also would like to thank Sudan Polling and Statistics Center/Voluntas for conducting key informant interviews under the leadership of Elmogeira Elawad and Niklas Pedersen, respectively. I am also grateful to Khalid Siddig for identifying key contacts for interviews, to Brian D'Silva for helpful background context, and to colleagues at the International Food Policy Research Institute, Kibrom Abay, Clemens Breisinger, and Paul Dorosh. Excellent research assistance was provided by Fatma Abdelaziz and Amy Williams.

Ethical clearance for the study was obtained from the Institutional Review Board of the International Food Policy Research Institute.

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The Sudan Strategy Support Program (SSSP) is managed by the International Food Policy Research Institute (IFPRI) and is financially made possible by the generous support of the American people through the United States Agency for International Development (USAID). This publication has been prepared as an output of SSSP. It has not been independently peer reviewed. Any opinions expressed here belong to the author(s) and do not necessarily reflect those of IFPRI or USAID.

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