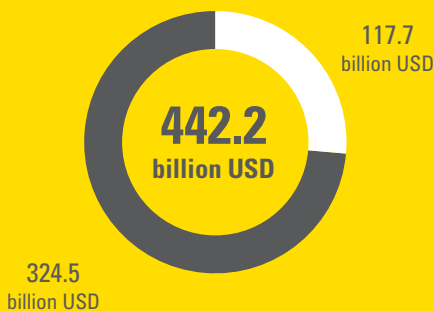


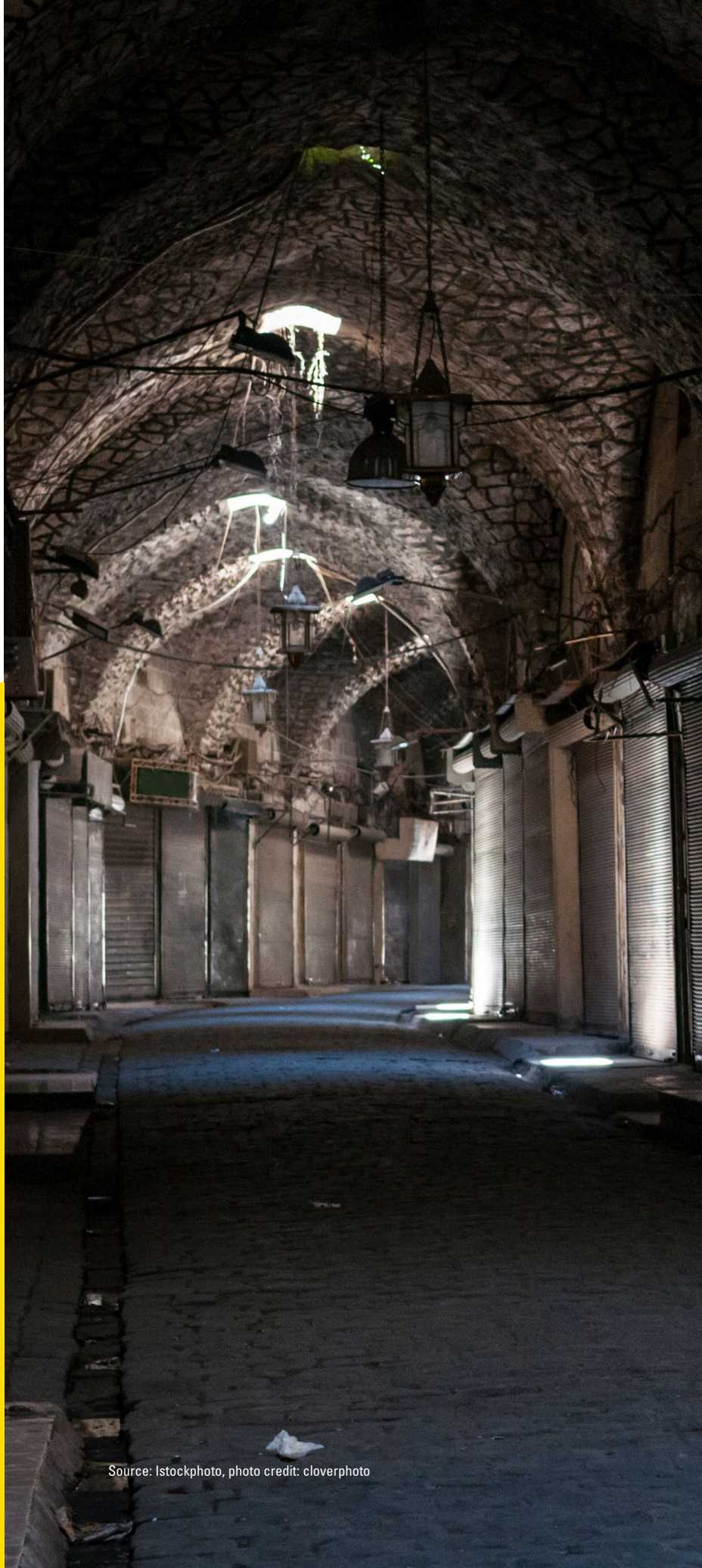
03

The Macroeconomic Ramifications

Total economic toll



Total economic toll of the conflict is estimated at USD 442.2 billion: This is the sum of the estimated value of the physical capital destruction (USD 117.7 billion) added to the estimated losses in GDP (USD 324.5 billion).



Source: Istockphoto, photo credit: cloverphoto

A. Introduction

The conflict in the Syrian Arab Republic has been one of the most destructive since the Second World War. It has encompassed huge physical and social damage, infrastructure destruction, a massive refugee crisis, and severe economic downturn.

In this chapter, we turn to the economic consequences, and the Syrian macroeconomic indicators in particular. The diverse economic and fiscal costs are identified and measured using data from the Central Bureau of Statistics in Syria,¹⁰⁵ Central Bank of Syria, ESCWA, National Agenda for the Future of Syria (NAFS) Programme estimations and calculations, the International Monetary Fund (IMF) DataMapper and the International Trade Centre, among others, to compare data from before and after the conflict

with analysis of the socioeconomic impacts on the broad economic agent classes; that is a person, company, organization that has an influence on the economy by producing, buying, or selling.

By any benchmark, losses have been considerable but the extent of the devastation is laid bare when comparing the period 2011-2018 with 2010 statistics, and using no-conflict counterfactuals to measure what the economy was expected to achieve. Estimates show a major economic crisis driven by conflict, lack of security, physical capital destruction and several geopolitical sanctions, with negative repercussions on various macroeconomic indicators.

B. Loss in physical capital

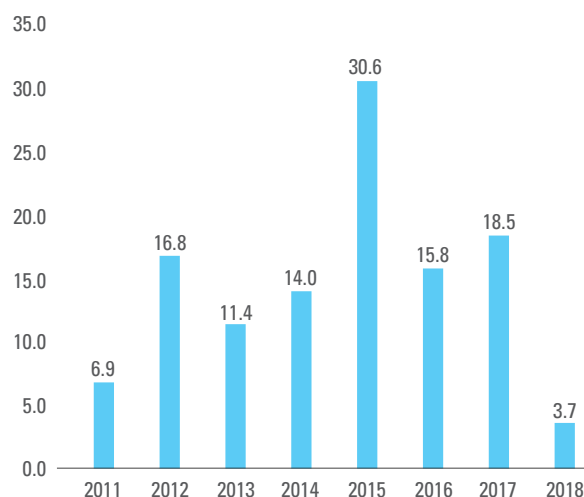
Eight years of conflict were more than enough to deal a major blow to accumulated physical capital and infrastructure. Losses included private and public construction and equipment, such as housing stock, schools, hospitals and factories, and power, water, sanitation, transport and communications infrastructure. Mass destruction meant there would be substantial consequences reflected in the macroeconomic indicators – statistics or data readings that show the economic circumstances of a country – notably economic growth rates, the fiscal budget and external account balances.

The loss of physical capital¹⁰⁶ is important in measuring the cost of the conflict. Estimating the conflict-induced damage to physical capital in the Syrian Arab Republic has been challenging for many local and international stakeholders due to the intensity of the violence, and the administrative, logistic and security problems in reaching and examining damaged sites. The NAFS team attempted to gauge physical capital damages via a specific assessment methodology. By the end of 2018, damage to physical capital was estimated at \$117.7 billion at 2010 prices, after discounting the annual damage value by the world inflation rate.¹⁰⁷

The annual volume of damage depends on the severity and location of armed operations over time. Destruction varied across the conflict years, showing an upward trend from 2011 to 2018 (figure 23). It was estimated at \$6.9 billion in 2011, when violence remained confined in limited locations. In 2012, armed operations escalated and damage reached \$16.8 billion at 2010 prices. The years 2013 and 2014 incurred lower totals, \$11.4 billion and \$14 billion, respectively.

The damage to physical capital incurred in 2015 was the highest, peaking at \$30.6 billion, due to major incidents, such as the four-month battle between Kurdish forces and ISIL for the northern town of Kobane, Russian military intervention and the capture of the ancient city of Palmyra by ISIL. Over the following two years, it reached \$15.8 billion (2016) and \$18.5 billion (2017). Apart from the Government retaking eastern Ghouta, there was a de-escalation in violence in 2018 as government military campaigns launched later that year to regain control over other areas in Qalamon, Rural Homs, Daraa and Quneitra ended soon with local settlements. The damage was estimated at \$3.7 billion, the lowest annual level.

Figure 23. Annual levels of damage to physical capital, 2011-2018 (billion dollars, 2010 prices)



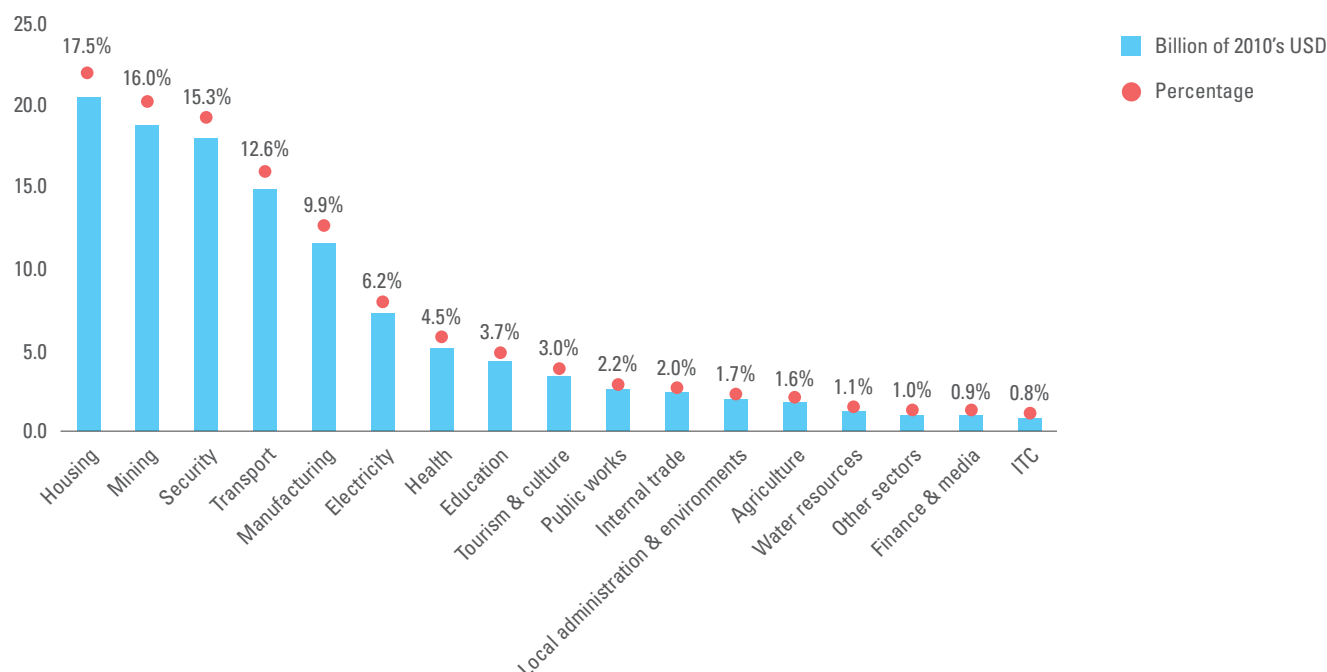
Source: ESCWA, NAFS Programme estimations and calculations.

1. Capital damage by sector

Conflict-induced damage accumulated in seven of the most capital-intensive sectors (figure 24), namely, housing, mining, security, transport, manufacturing, electricity and health. The hardest hit was housing, at 17.5 per cent of the total, followed by the mining sector, at 16 per cent. The security sector (military and police) was estimated to account for 15.3 per cent of total physical damage, which

is reasonable as it contains the main military assets. The transport sector reached 12.6 per cent of the total, while the manufacturing, electricity and health sectors accounted for 9.9 per cent, 6.2 per cent and 4.5 per cent respectively. The education and tourism sectors accounted for 3.7 per cent and 3 per cent respectively.

Figure 24. Sectoral distribution of physical capital loss, 2011-2018 (billion dollars, 2010 prices)



Source: ESCWA, NAFS estimations and calculations.

2. Geographic distribution of damage

To get a clearer picture of the distribution of damage to physical capital in Syrian governorates, damage in the mining and security sectors is omitted from the total value. Both sectors are fully investigated at national level rather than local. The governorates' share of the total damage remaining equals about \$81 billion.

The governorates can be divided into four distinct groups. The first group consists of Aleppo, Rural Damascus, Homs, Al-Raqqa, Idlib and Deir Ezzor, which together accounted for 81.8 per cent of the damage to physical capital. Aleppo and Rural Damascus sustained 51.8 per cent of the damage, 32.5 per cent and 19.3 per cent, respectively (figure 25), which can be explained by factors including urban size, population density and their large capital stock, mainly industrial and infrastructure. Both also experienced fighting for longer periods compared with other

governorates, entailing significant damage to their whole urban systems, productive capacity and infrastructure.

The other governorates in the group, Homs, Al-Raqqa, Idlib and Deir Ezzor, accounted for a lower percentage of the total, almost reaching parity, with 8 per cent, 8.3 per cent, 6.9 per cent and 6.8 per cent, respectively, approximately 30 per cent of damage to Syrian physical capital in 2011-2018. Even though violence broke out early in Homs, the damage, though hard, was localized. In addition, most of these localized conflicts in this governorate ended through local settlements. Al-Raqqa, however, was controlled by the United States-led coalition after using heavy bombing against ISIL in 2017 that destroyed the entire urban system. Deir Ezzor had fierce hit-and-run battles between the Syrian army and ISIL, a constant between 2014 and 2017.

The second group includes Dar'a and Hama, which accounted for 5.6 per cent and 4.4 per cent of damage respectively. The city of Hama had violent clashes in 2012 before the bulk of the armed conflict moved to the rural areas of the governorate. Largely dependent on agriculture, they are less capital intensive with lower housing density. The third group includes Damascus, Latakia and Al-Hasaka, which accounted for 3 per cent, 2.4 per cent and 1.6 per cent, respectively. They saw minimal and isolated episodes of conflict due to the tight control by government forces (in addition to the Kurdish forces in Al-Hasaka). The same applies to the fourth group, which includes the cities of Tartous, Al-Swaida, and Al-Quneitra, where damage was 0.5 per cent, 0.4 per cent, and 0.4 per cent respectively. They did not encounter armed operations until December 2018.

As highlighted, schools, hospitals, irrigation facilities and productive lands were severely affected by the conflict. Considering sectoral distribution of damage to physical capital at governorate level (figure 26) it is evident 27 per cent of housing stock was damaged, with Aleppo suffering disproportionately. Water and sanitation were greatly affected, with an average facility¹⁰⁸ destruction of 40 per cent.¹⁰⁹ Armed clashes destroyed road networks, disrupted movement and hindered connectivity within the country. By the end of 2018, the railway system had been non-operational, and Damascus airport remained the only one of three airports open to international flights.¹¹⁰ The public power supply dropped by 62.5 per cent between 2010 and 2015, the resulting electricity shortages creating a major

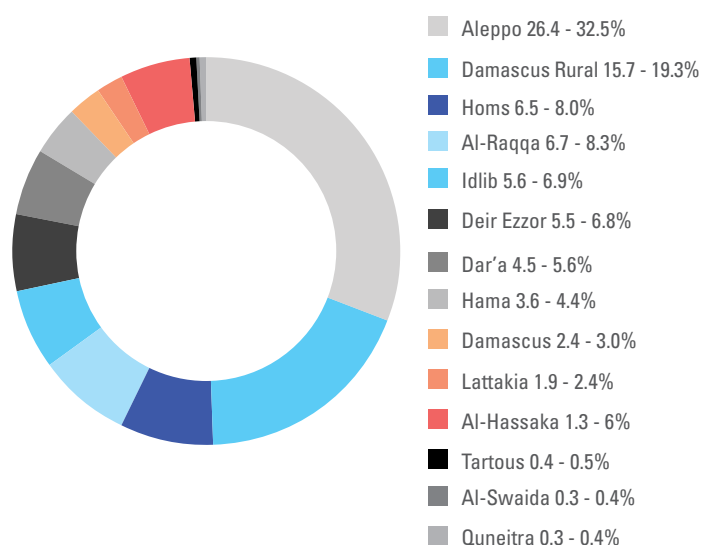
problem for firms.¹¹¹

The distribution of sectoral damage over the governorates indicates Aleppo and rural Damascus had the largest shares within the main sectors, with 27.6 per cent and 13 per cent in the housing sector, 62.1 per cent and 22.4 per cent in manufacturing, 34.3 per cent and 25.5 per cent in transport, and 19.5 per cent and 9.8 per cent in the electricity sector, respectively (figure 26).



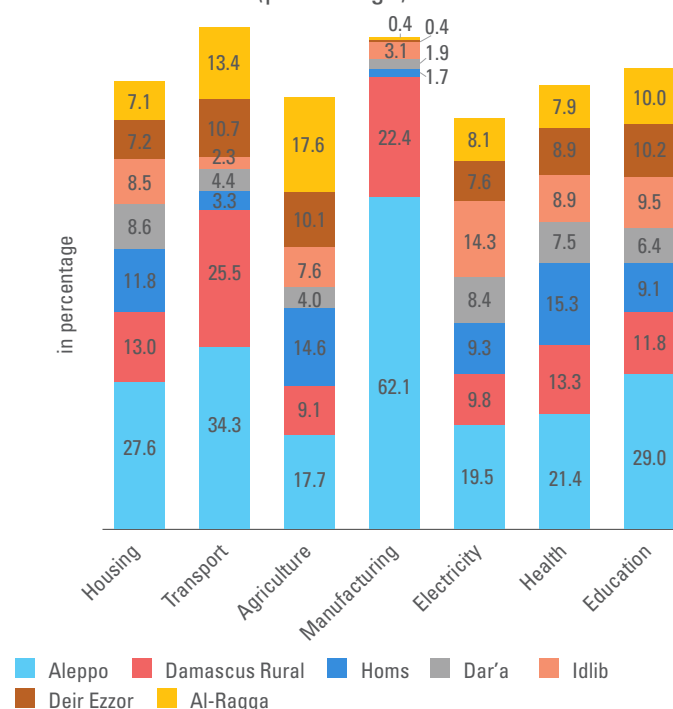
Source: Istockphoto, photo credit: Jorge Villalba

Figure 25. Distribution of damage to physical capital by governorate, 2011-2018 (billion dollars, constant 2010 price)



Source: ESCWA, NAFS estimations and calculations.

Figure 26. Distribution of main sectoral damage to physical capital in selected governorates, 2011-2018 (percentage)



Source: ESCWA, NAFS Programme estimations and calculations.

C. Impact on the real economy

1. Economic growth

The economic impact of the conflict is easily inferred from Syrian macroeconomic indicators. According to official data, by the end of 2018, real GDP had lost 54 per cent of its 2010 level. In 2011, GDP grew by 2.9 per cent, down from 5.2 per cent in 2010. As violence flared in 2012 and 2013, real GDP was slashed by more than 26 per cent each year. The persistence of the conflict in 2014, 2015 and 2016 led to further contraction in real GDP but at the decelerated rates of -10.3 per cent, -3.2 per cent and -5.6 per cent, respectively, due to the already shrunken real GDP base (figure 27). Despite signs that 2017 would bring

positive real GDP growth, after a relative improvement in the security situation allowed the utilization of idle production capacities and materialization of bottlenecked transactions, it again contracted, though at a lesser rate of -0.7 per cent. In 2018, the GDP recorded positive change for the first time since the outbreak of conflict, and was up by 1.6 per cent. This was driven mainly by manufacturing and internal trade, despite the negative impact of bad weather on the agricultural sector and the tightening of economic restrictive measures by the United States on the Syrian Arab Republic and its main supporter, Iran.

2. The macroeconomic cost of the conflict

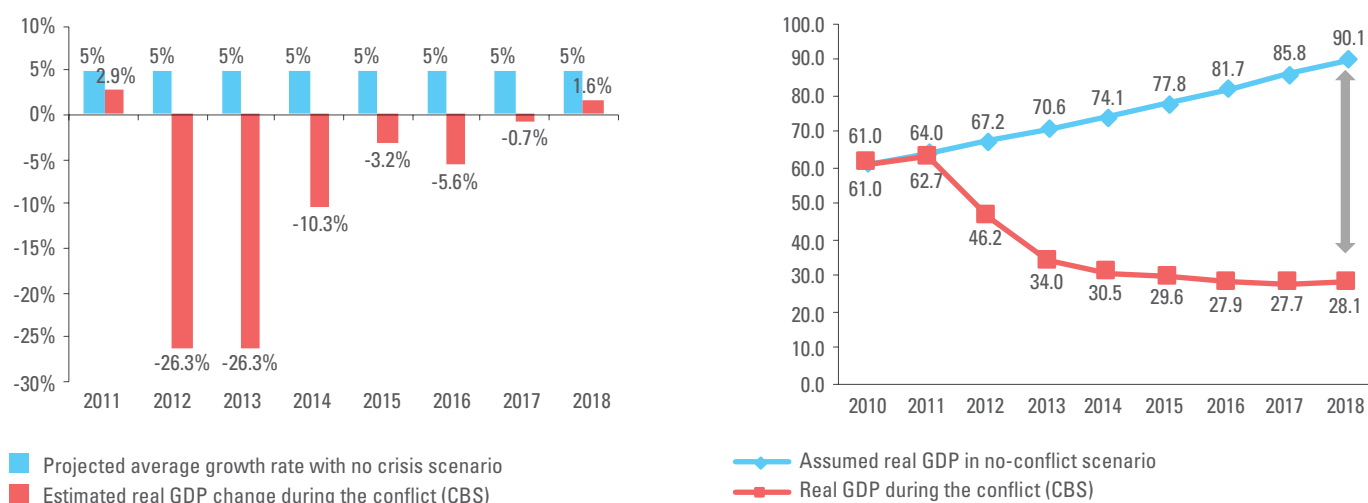
Measuring the cost of conflict is problematic due to varying methodologies, data sources and other challenges that lead to divergent and controversial outcomes. In the case of the Syrian Arab Republic, where the data available have limitations, the magnitude of the macroeconomic cost is measured by estimating the value of the economic growth lost because of the conflict; that is, the sum of the gaps between annual actual GDP levels over the conflict years and the GDP levels that would have been achieved in the counterfactual scenario (if the conflict did not take place).

GDP is measured in the counterfactual scenario by assuming that Syrian GDP would have continued to grow after 2010 by an average annual rate of 5 per cent, the average rate over the five years preceding the start of the

conflict (figure 27).¹¹² As such, if the conflict had not taken place, Syrian counterfactual GDP would have reached \$90.1 billion by the end of 2018, starting from \$61 billion in 2010 (figure 27). The accumulated annual GDP loss is, therefore, estimated to have reached \$324.5 billion by the end of 2018.

However, since GDP, by definition, does not capture the damage that happens to physical capital outside the production process assets – like that incurred by the conflict – the value of the damage to physical capital (\$117.7 billion) detailed has to be added to the GDP loss figure (\$324.5 billion) to reach a realistic estimate for the macroeconomic cost of the conflict, which would come close to \$442.2 billion.

Figure 27. Actual and counterfactual GDP change, 2011-2018 (percentage), and real GDP loss, 2011-2018 (billion dollars)



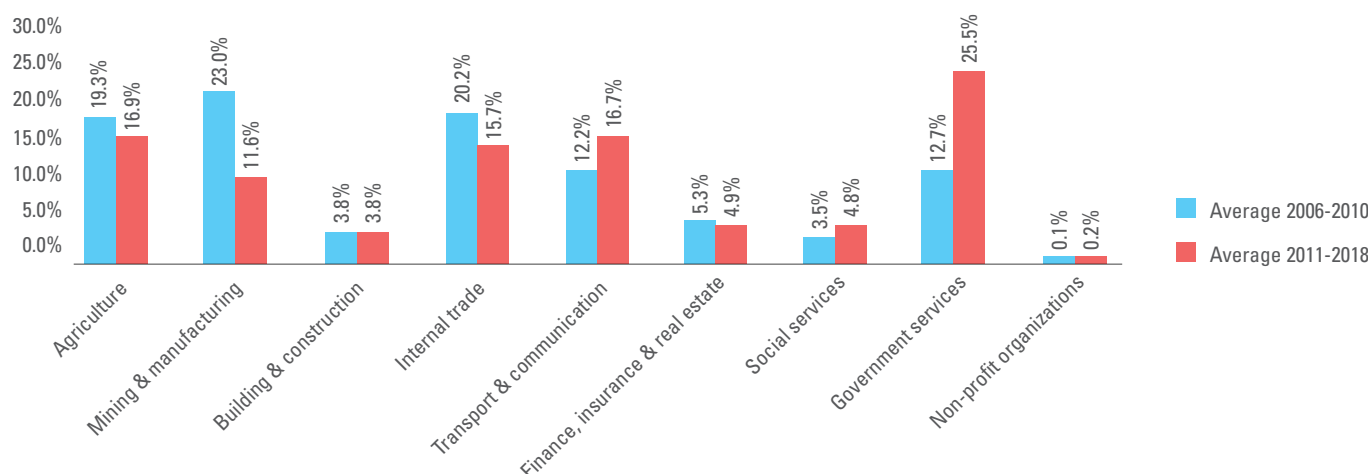
Source: Actual GDP for 2011-2018 based on the Syrian Arab Republic, Central Bureau of Statistics, Statistical Yearbook 2019; and Counterfactual GDP projected by the NAFS Programme.

3. Supply-side GDP composition and sources of growth/contraction

The conflict has altered the composition of the supply side of real GDP, relative to the pre-conflict period. The mining (including oil) and manufacturing sector's contribution to real GDP fell from 23 per cent on average in 2006-2010 to 12 per cent in 2011-2018, and the contribution of the internal trade sector from 20 per cent to 16 per cent. Restrictive unilateral economic sanctions imposed by the United States and the European Union on oil, finance and trade, as well as damage to physical capital in the oil and industrial infrastructure, and deterioration in the security

situation and the rule of law, were the major factors leading to the collapse in these sectors. The fall in their contribution to GDP meant the government services and the transport and communications sectors had a greater share in GDP in relative terms, increasing from an average of 13 per cent and 12 per cent, respectively, in 2006-2010, to 25 per cent and 17 per cent in 2011-2018 (figure 28). Agriculture's share remained significant, though it decreased from 19 per cent to 17 per cent between the two periods.

Figure 28. Average sectoral composition of real GDP, 2006-2010 and 2011-2018



Source: The Syrian Arab Republic, Central Bureau of Statistics, Statistical Yearbook 2019.

Examining the contributions per sector to real GDP growth, the drivers of growth pre-conflict also drove the contraction during it (figure 29). On average between 2005 and 2010, government services contributed approximately 0.3 to every 1 percentage point of GDP growth. Mining and manufacturing, transport and communication, and internal trade each contributed 0.2 of a percentage point, while finance, insurance and real estate, and social services contributed 0.1 points.

Between 2010 and 2018, for every 1 percentage point of real GDP contraction that took place, agriculture, mining and manufacturing, and internal trade each contributed approximately -0.2 of a percentage point, and transport and communication, and finance and real estate about -0.1 point. Government services, the engine of growth pre-conflict, contributed -0.1 point to every 1 percentage point of real GDP contraction during the conflict, which is explained by its higher relative average share in GDP over 2011-2018.

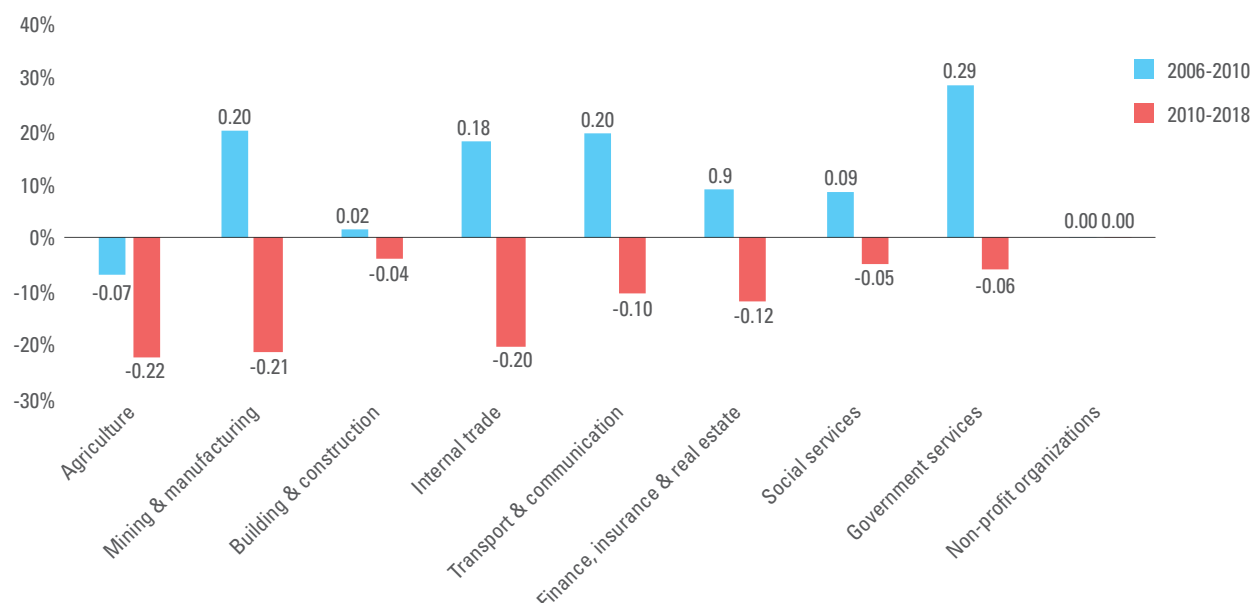
Agriculture plays a volatile role in economic growth. The sector's contribution to GDP growth pre-conflict was negative, reducing every 1 percentage point of growth by an average of -0.07 percentage point in 2005-2010. This was due to periodic droughts that hit the region,

and an agricultural policy that favoured inefficient use of water and distorted the incentives system. From 2010 to 2018, agriculture contributed -0.22 of a point to every 1 percentage point of GDP contraction. In addition to the existing problems, this was the result of the lack of security, damage to physical capital, siege of rural areas and displacement of a large portion of the rural population.



Photo credit: Mohamad Hassan Katana

Figure 29. Average sectoral contributions to each 1 percentage point of real GDP growth, 2006-2010 and 2011-2018



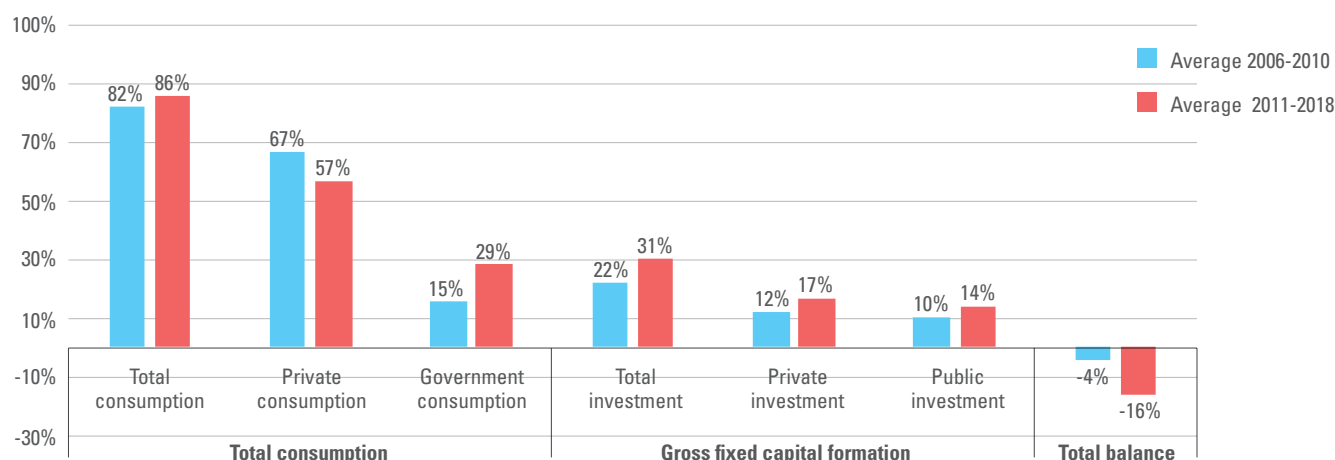
Source: The Syrian Arab Republic, Central Bureau of Statistics, Statistical Yearbook 2019.

4. Demand-side GDP composition and sources of growth/contraction

Looking at the expenditure pattern of the economy (figure 30), while all expenditure components of GDP contracted in absolute terms, the conflict altered the relative composition of aggregate spending. Private consumption fell from 67 per cent of expenditure on real GDP as a five-year average pre-conflict to 57 per cent in the period 2011-2018, due to the drop in domestic production. This was offset by the surge in public consumption, from 15 per cent to 29 per cent of expenditure on real GDP as an average. This led aggregate consumption as a percentage of real GDP to increase from 82 per cent to 86 per cent in the same period.

Aggregate investment share of expenditure on real GDP also increased, in relative terms, from 22.2 per cent to 30.6 per cent, driven by private investment, which increased from 12 per cent to 16.9 per cent of real GDP. Public investment share increased by a lesser extent, from 10.3 per cent to 13.6 per cent, between the same periods. The main source for meeting consumption needs was deficit financing, in addition to increased reliance on imports financed by external assistance and borrowing, pushing the trade deficit share in real GDP from -4 per cent as a five-year average before the conflict to -16 per cent as an average during the conflict years.

Figure 30. Average composition of real GDP levels by expenditure items, 2006-2010 and 2011-2018

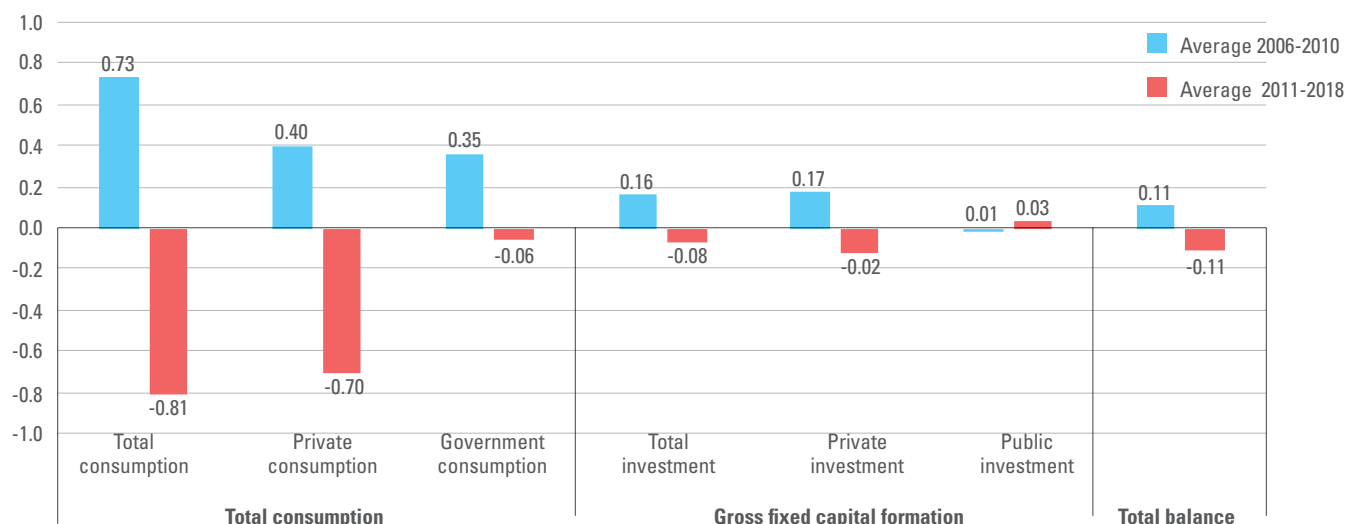


Source: ESCWA, NAFS Programme estimations and calculations based on the Syrian Arab Republic, Central Bureau of Statistics, Statistical Yearbook 2019.

Aggregate consumption was the main driver of real GDP change in the Syrian Arab Republic before and during the conflict (figure 31). As a five-year average before the conflict, 0.7 of every 1 percentage point of GDP growth rate achieved was generated by aggregate consumption, equally shared by public and private consumption. The remainder was generated by aggregate investment (0.2) and trade balance (0.1).

After conflict broke out, and as an average during the conflict years 2011-2018, -0.8 of every 1 percentage point of real GDP contraction rate was driven by the contraction in aggregate consumption, mainly private consumption (0.7), and the contraction in aggregate investment (-0.1). The trade balance contribution to GDP contraction during the conflict was almost zero.

Figure 31. Average contribution of expenditure items to each 1 percentage point of growth/contraction rate of real GDP change, 2006-2010 and 2011-2018



Source: ESCWA, NAFS Programme estimations and calculations based on the Syrian Arab Republic, Central Bureau of Statistics, Statistical Yearbook 2019.

D. Foreign trade

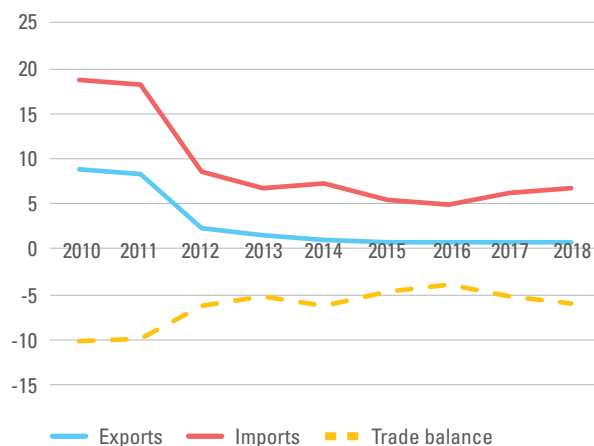
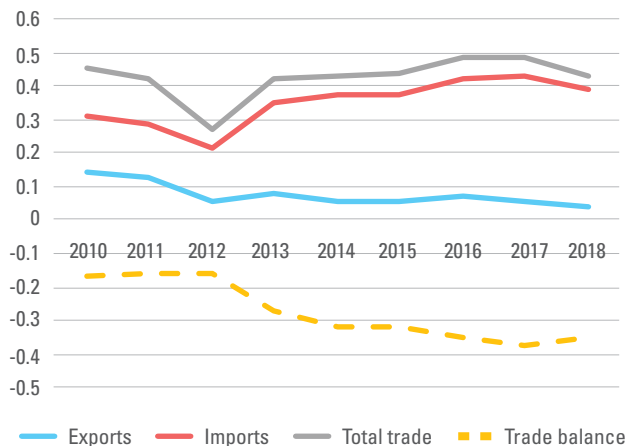
Foreign trade followed a similar downward trend to other macroeconomic indicators. As most borders remained outside government control for several years, many cross-border transactions with neighbours were not captured in official data. Foreign trade is analysed using mirror data recorded by the Syrian Arab Republic's trade partners and published by the International Trade Centre (ITC). Iraq, traditionally a major trading partner, has not reported its mirror data to the ITC, though in effect, this would have made little difference as ISIL controlled the Iraq/Syrian border areas at the time.

Measuring trade indicators to GDP ratios gives an idea of the relative importance of foreign trade in the economy. In 2010, the volume of merchandise trade, exports and imports, constituted approximately 45 per cent of GDP. The trade volume to GDP ratio fell to 27 per cent in 2012 before increasing steadily to about 43 per cent of GDP on average over the period 2013-2018 (figure 32). This came about because the fall in imports (in absolute terms) was less

than the fall in exports due to the conflict. This resulted in the imports to GDP ratio increasing from 31 per cent in 2010 to approximately 39 per cent in 2018. Exports to GDP ratio, 14.3 per cent of GDP in 2010, tumbled to 4.1 per cent in 2018. Consequently, the trade deficit widened from -16.6 per cent to -34.6 per cent of GDP – despite the fact it fell from \$10.1 billion to \$6.1 billion in 2010-2018 – with drastic implications on foreign reserves and the exchange rate of the Syrian pound.

In absolute terms, Syrian exports collapsed from \$8.7 billion in 2010 to \$2.3 billion in 2012 and continued to shrink steadily, dropping to \$0.72 billion in 2018 (figure 32). The deterioration came mainly as a result of disrupted production and trade chains due to damage to infrastructure, the United States and European Union unilateral restrictive economic measures imposed in 2011 that also complicated the Syrian Arab Republic's transactions with the world, and the physical, financial and human capital flight out of the country.

Figure 32. Foreign trade as percentage of GDP, and foreign trade, 2010-2018 (billion dollars)

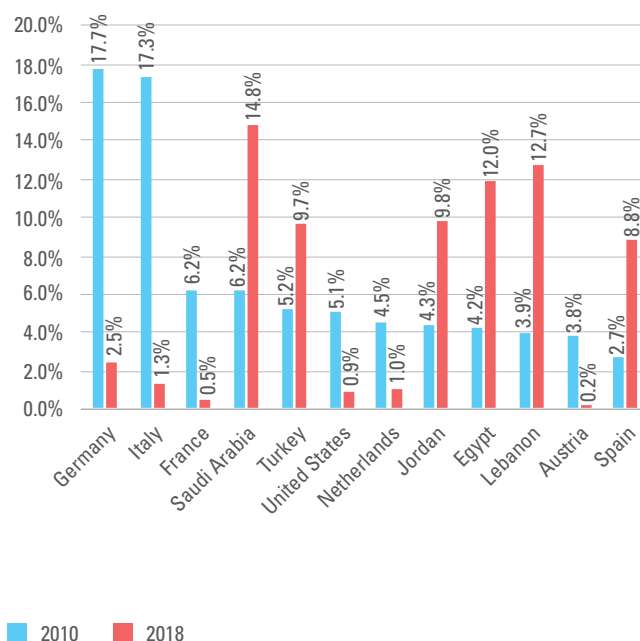
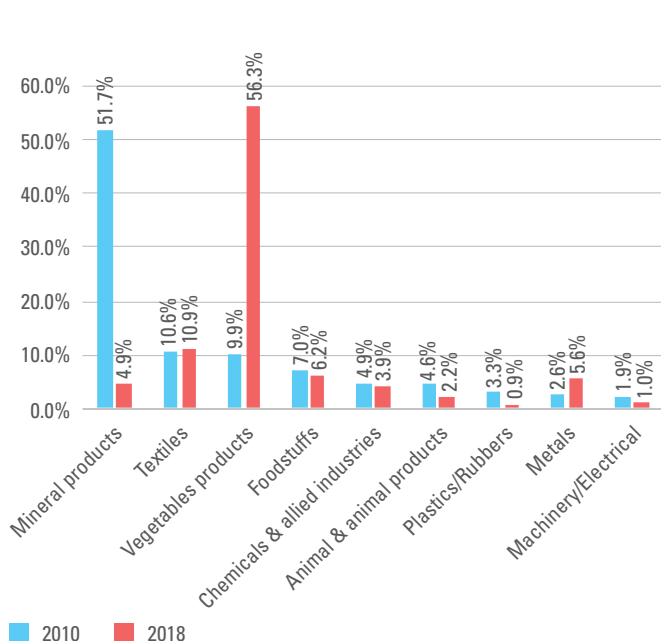


Source: Based on International Trade Centre mirror data and author's calculations.

Conflict also altered the composition of Syrian exports. In 2010, mineral products (mainly oil and phosphate) accounted for 52 per cent of the value of total exports (figure 33). The rest were vegetable products (9.9 per cent), foodstuffs (7.0 per cent), chemicals (4.9 per cent) and animal and animal products (4.6 per cent). As the oil industry was subject to sanctions from early in the conflict, and later faced massive destruction when under ISIL control, by 2018 mineral products had almost disappeared from the Syrian export basket. Consequently, the share of vegetable products went up, from 10 per cent to 56 per cent of total exports, while in absolute terms it fell from \$1.1 billion in 2010 to \$0.41 billion in 2018. Textiles accounted for 10.9 per cent,

metals for 5.6 per cent, food for 6.2 per cent and chemical industries for 3.9 per cent. The conflict and sanctions also meant exports were redirected from traditional destinations (figure 33). European countries that had received 45.6 per cent (\$4.8 billion) of total Syrian exports in 2010, received just 20.6 per cent (\$0.15 billion) in 2018. Instead, the share of Arab countries, excluding Iraq,¹¹³ increased, from 25.1 per cent (\$2.2 billion) of total exports in 2010, to 62.1 per cent (\$0.44 billion) in 2018. Likewise, exports to Turkey and Iran in 2018 represented 9.7 per cent (\$0.07 billion) and 0.9 per cent (\$0.007 billion), respectively, compared with 5.2 per cent (\$0.44 billion) and 0.3 per cent (\$0.03 billion) in 2010. Exports to Russia were minimal in both periods.

Figure 33. Composition of exports, and orientation, 2010 and 2018 (percentage of total exports)



Source: Based on International Trade Centre mirror data and author's calculations.

Factors that led to a drop in aggregate consumption and investment resulted in a similar but higher magnitude impact on imports. The value of goods imported to the Syrian Arab Republic fell from \$17.6 billion to \$6.7 billion between 2010 and 2018 (figure 34). The shares also shifted. In 2010, mineral products made up the highest share of imports, at 21.4 per cent. However, by 2018, their contribution fell to just 2 per cent of overall imports. Similarly, metals and transportation also witnessed a decline in their contribution to imports from 13 per cent and 7.2 per cent in 2010 to 7.6 per cent and 4 per cent in 2018, respectively. As some imports' share fell drastically between 2010 and 2018, other imports witnessed an opposite shift. In 2010, machinery made up only 13.2 per cent of imports whereas in 2018, its contribution increased to 20.2 per cent.

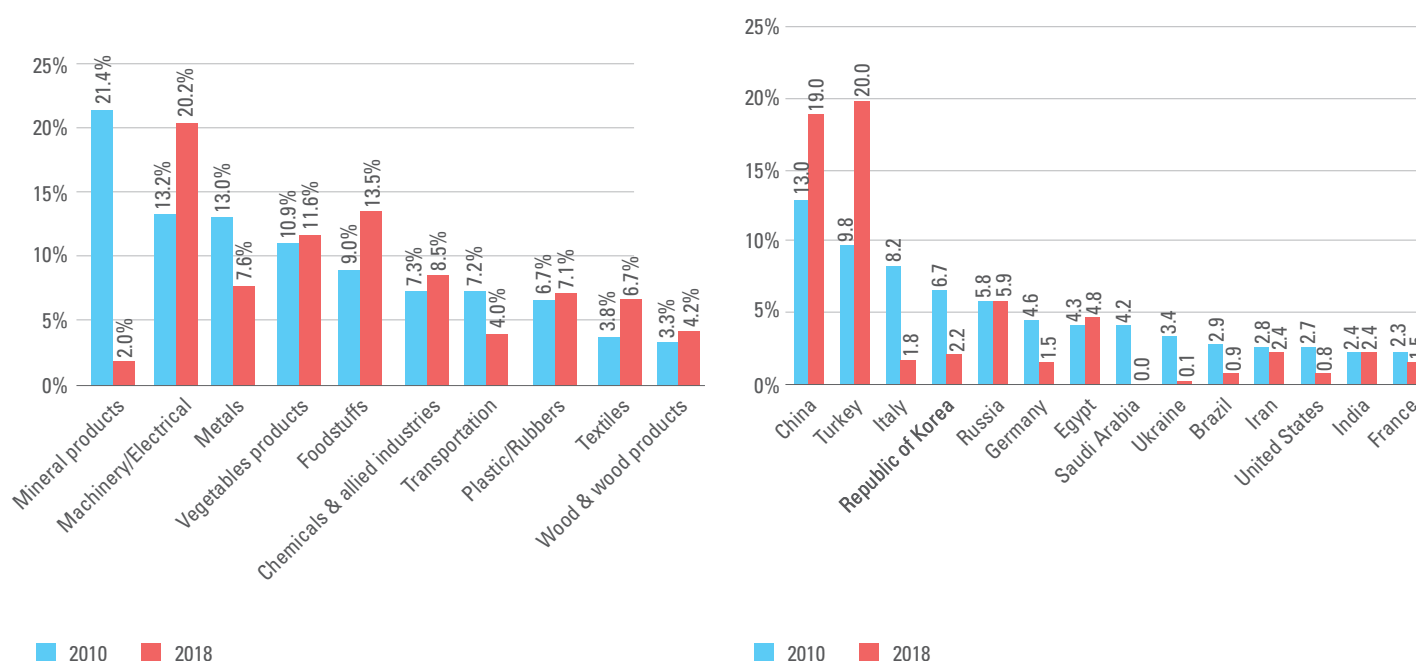
Similarly, in 2010, vegetable products had a share of 10.9 per cent of imports, foodstuffs (9 per cent), chemicals (7.3 per cent), plastics and rubbers (6.7 per cent), and textiles (3.8 per cent). By 2018, these imports would witness an increase in their shares with vegetable products at 11.6 per cent of imports, foodstuffs (13.5 per cent), chemicals (8.5 per cent), plastics and rubbers (7.1 per cent), and textiles (6.7 per cent).

Geographically, 25.8 per cent (\$4.9 billion) of Syrian imports came from the European Union in 2010, and 13.5 per cent (\$2.6 billion) from Arab countries (figure 34). The remainder came from China (13 per cent), Turkey (9.8 per

cent), Russia (5.8 per cent) and Iran (2.8 per cent). In 2018, just 10.7 per cent of total imports came from the European Union (\$0.7 billion), while Arab countries accounted for 27.5 per cent (\$1.85 billion), equal to 74 per cent of their level in United States dollars in 2010. China, Turkey and Russian Federation accounted for 19 per cent, 20 per cent and 5.9 per cent respectively of Syrian imports in 2018 while Iran's share remained almost the same, decreasing by only 0.4 per cent (figure 34).

“Syrian exports collapsed from **USD 8.7 billion** in 2010 to USD 2.3 billion in 2012 and continued to shrink in the following years to reach **USD 0.72 billion** in 2018 mainly as a result of damage in the productive infrastructure, as well as the US and EU unilateral restrictive economic measures (UERM).”

Figure 34. Composition of imports, and countries of origin of imports, 2010 and 2018 (percentage)



Source: Based on International Trade Centre mirror data and author's calculations.

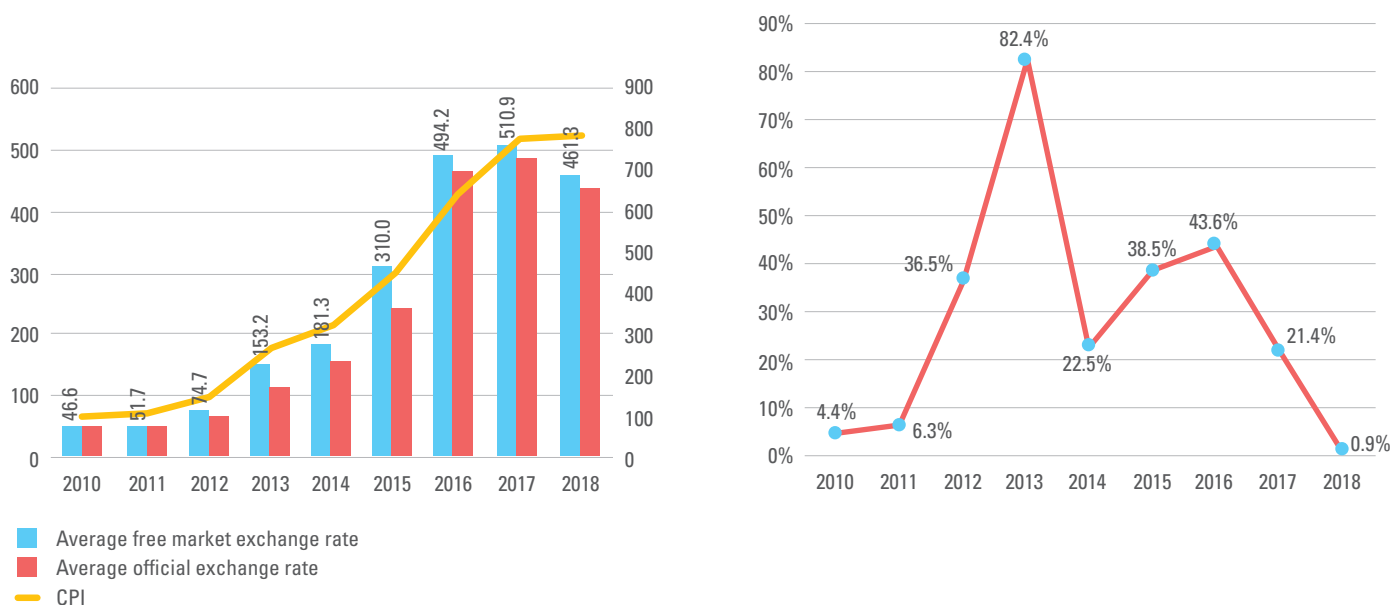
E. Monetary policy and financial sector

An important share of the cost of the Syrian conflict is reflected in economy-wide price changes. Taking 2010 as the base year, the Syrian Consumer Price Index (CPI) had reached 811 by the end of 2018, according to official data. In the early years of the conflict, price movements were mainly driven by supply-side shocks as production costs and supply chains were disrupted by the deteriorating security situation and accumulated damage of physical capital in productive capacities. This disruption was worsened by the increasing fragmentation of the country between the warring factions from 2013 onwards. Supply shocks were reflected in a shortage of basic goods (and the slump in exports), leading to a general price increase that was exacerbated by inflation expectations.

The drop in exports was not accompanied by a comparable drop in imports, which widened the trade deficit and generated increasing pressure on the value of the Syrian pound (SYP). The Central Bank of Syria tried to restrain the pound's decline by managing demand. It

adopted a special exchange rate for official transactions, made a series of stabilization initiatives in the foreign exchange market and imposed restrictions on circulating foreign currencies, in addition to controlling imports. These measures failed to stop the currency deterioration. A parallel foreign exchange market was created, which stirred inflation expectations, leading to the price level and the foreign exchange developments moving in an upward trend (figure 35). Consequently, the average exchange rate by the end of 2018 was 460.2 SYP per \$1, compared with 46.6 SYP in 2010, a loss in value of almost 90 per cent. The value deteriorated further in 2019, falling to 650 SYP per \$1 in September but, with the financial crisis flaring in Lebanon the following month, it touched 1,000 SYP per \$1 by the end of the year. As a result, the inflation rate in Syrian markets rocketed by more than 50 per cent, causing disruptions in economic activity with further losses in the purchasing power of ordinary Syrians. These dramatic developments have aggravated poverty and food insecurity indicators already at drastic levels.

Figure 35. CPI and official free market exchange rate of dollar in SYP, and inflation rate, 2010-2018



Source: ESCWA, NAFS Programme calculations based on the Central Bank of Syria's official exchange rates for banks, available at <http://cb.gov.sy/ar/stats/category?id=7e96402809> (accessed on 18 December 2019); the Syrian Arab Republic, Central Bureau of Statistics CPI data, available at <http://cbssyr.sy/cpi-2019.htm> (accessed on 18 December 2019).

Inflation was inevitable for the Syrian Arab Republic during the conflict years. The Government had to meet its current expenditure to pay salaries, subsidize basic goods and finance the increasing military spending. As government savings were drying up, the last resort was deficit financing (printing money), which in 2013 pushed

inflation rates to 82.4 per cent (figure 35). Moreover, using a policy of price control over basic goods did not help in controlling inflation. Rather it led to shifting the exchange of goods with prices set administratively from the official market to the parallel market but at higher prices, as had been the case with oil, cooking gas and bread.¹¹⁴

F. Capital markets

The conflict has led to a decline in the availability of standard data on the banking sector's performance. State-owned banks (10 out of 21 operating banks) do not publicly disclose their financial results. Available data indicate the conflict has aggravated an already poor performance.

Usually, businesses finance their activities through banks. Therefore, low access to financial services, lack of funds and high financing costs stifle economic growth, and eventually the reconstruction process, particularly where the private sector is a major actor in economic reconstruction.¹¹⁵ During the conflict, the Syrian Arab Republic witnessed a drop in savings and investments as a result of a deteriorating investment climate, and a large-scale exodus of financial assets and capital, or capital flight.¹¹⁶ As such, private investment dropped in real absolute terms by an average of 31 per cent in the period 2010-2017, while its share of aggregate investment increased from 54 per cent in 2006-2010, to 64 per cent in 2011-2017.¹¹⁷

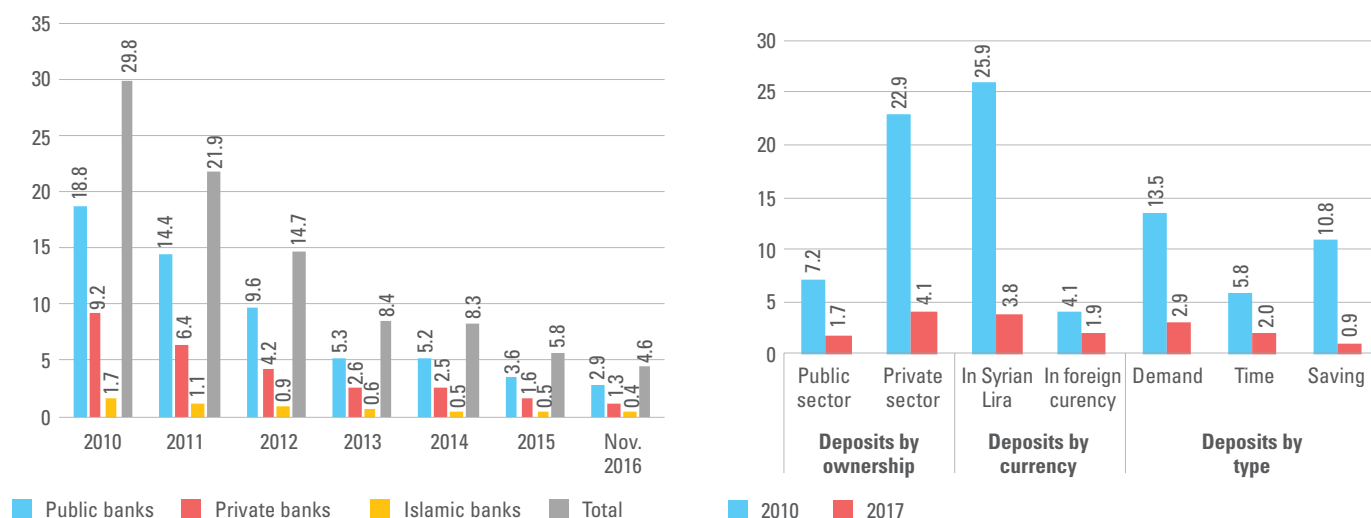
During the conflict, the loss of major industries, particularly those largely operating in the informal sector, made it difficult for banks to properly assess risk and returns, and to provide lending opportunities within suitable risk parameters. In 2017, 75 per cent of firms confirmed they did not use bank credit, up from 53 per cent pre-conflict, meaning reactivating the private sector post-conflict will be hard. In addition, 34.1 per cent of firms identified accessing finance as a major constraint, as their share of bank credit dropped from 23 per cent to 8 per cent. The conflict also increased the probability of default (the default risk). Non-performing loans deteriorated

substantially, from 4 per cent in 2010 to 35 per cent in 2013.¹¹⁹ The income levels of private banks reflected this, with net interest margins¹²⁰ falling from 2.42 per cent in 2010 to 1.46 per cent in 2015.¹²¹ Pre-conflict, the Syrian Arab Republic's net interest margin averaged 2.6 per cent,¹²² below Lebanon (3.6 per cent) and Jordan (4.7 per cent), signalling an adequate rate.¹²³ Given the elevated levels of risk and accompanying hike in performance monitoring costs under stressed security conditions, the lending spread is expected to have widened, and the cost of capital to have increased. Due to data limitations, analysis of the cost of capital is inconclusive.

Total deposits in the banking sector fell by more than 82 per cent in the period 2010-2017, a result of economic deterioration and uncertainty, and the high opportunity cost of holding balances in Syrian pounds, which were losing value. The dollar value of deposits fell from \$29.8 billion in 2010 to \$4.6 billion in 2016, a decline of 85 per cent. Deposits were estimated to have grown in 2017 by approximately 14 per cent to \$5.3 billion (no real figures have been published at the time of issuing this report).¹²⁴

In 2010, public banks acquired 63 per cent of total deposits and maintained this share in 2016. Total deposits for private banks fell slightly, from 30.8 to 28.3 per cent. The share of Islamic banks increased from 5.7 per cent to 8.7 per cent (figure 36). The level of deposits changed dramatically during the period 2010-2017. Private sector deposits fell from \$22.9 billion to \$4.1 billion, and deposits in Syrian pounds from \$25.9 billion to \$3.8 billion, reflecting the prevailing level of uncertainty and risk for doing business in the period.

Figure 36. Share of total deposits by type of bank, 2010-2016, and composition of deposits, 2010 and 2017 (billion dollars)



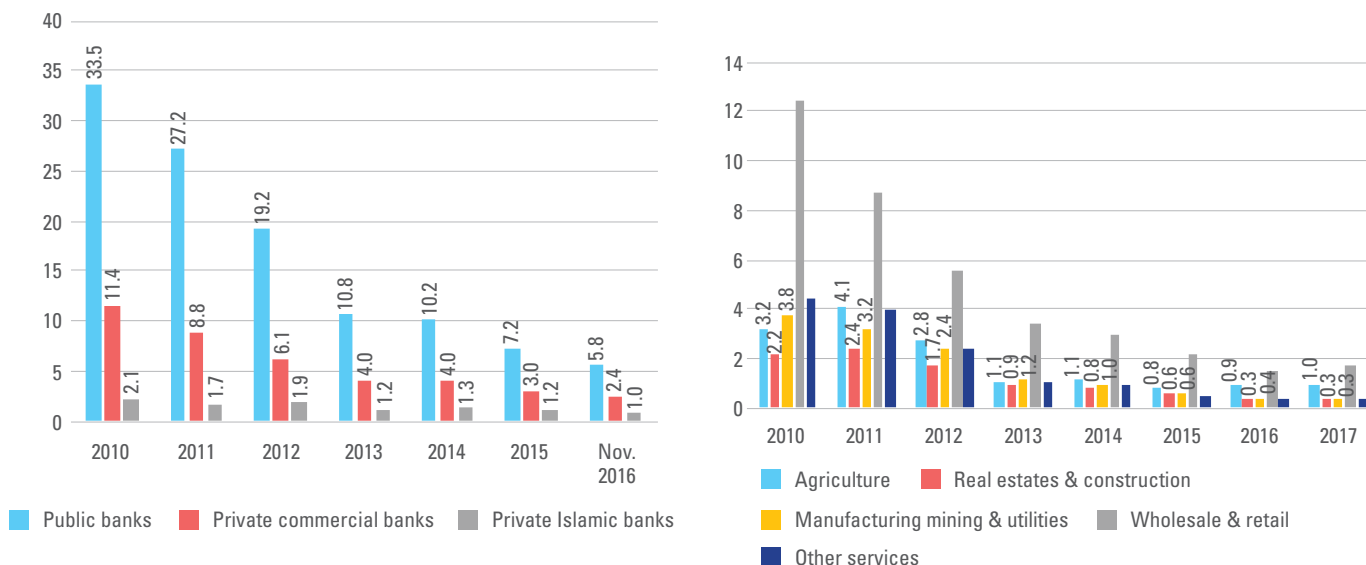
Source: ESCWA, NAFS Programme projections and calculations, and the Central Bank of Syria.

In addition, public banks acquired more than 71 per cent (\$33.5 billion) of total bank assets (\$47 billion) in 2010. In 2016, this share fell to approximately 63 per cent (\$5.8 billion) of total assets (\$9.2 billion). As a result, private banks and Islamic banks' share of total assets increased from 24.3 per cent and 4.5 per cent, to 26.1 per cent and 10.8 per cent, respectively (figure 37). Total credit fell from \$26 billion to \$3.7 billion in the period 2010-2017.

Bank credit to the economic sectors also dropped proportionally, a result of a collapse in economic activity

due to the risks associated with the conflict. In relative terms, the internal trade sector kept receiving the bulk of the credit, averaging 43.3 per cent between 2010 and 2017. The agriculture sector received the second highest share of credit, which amounted to 12.2 per cent in 2010, and increased to 26 per cent in 2017. The real estates and construction sector received 14.6 per cent of the share in 2010, falling to 8.5 per cent in 2017. Finally, manufacturing and mining maintained some 10 per cent of the credit during the same period (figure 37).

Figure 37. Share of total assets by type of bank, 2010-2016, and distribution of credit facilities by banks in economic sectors, 2010-2017 (billion dollars)



Source: ESCWA, NAFS Programme projections and calculations; and the Central Bank of Syria.

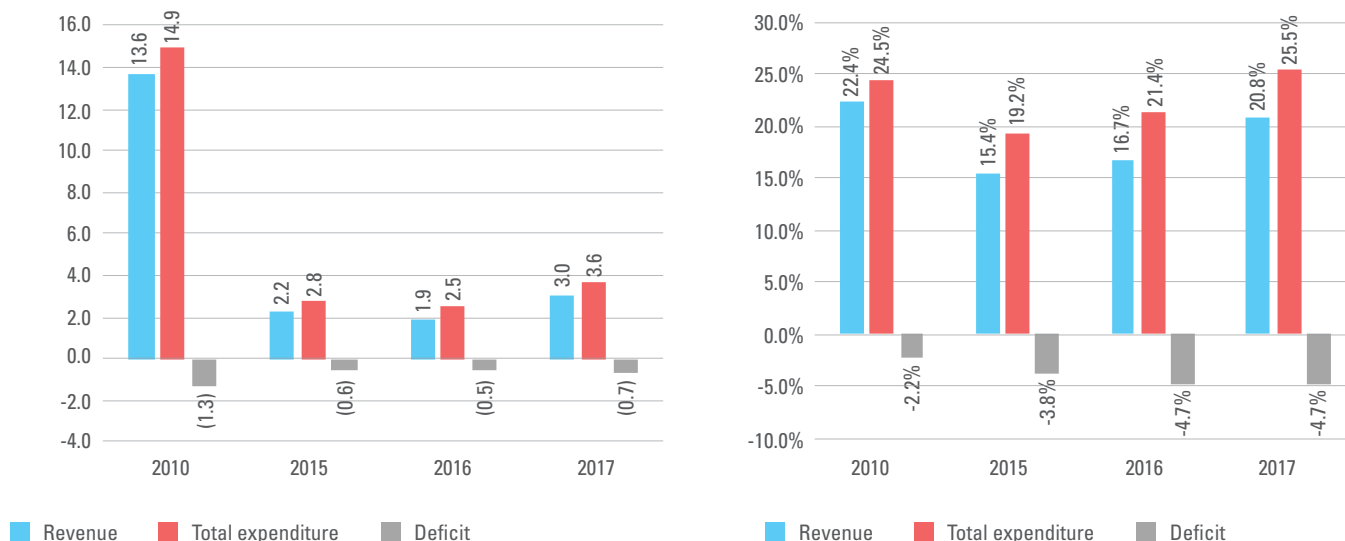
G. Public finance

Publication of public finance data has been restricted by the Government since 2011. Figures have therefore been estimated from the rate of implementation of the announced budget plan, based on scattered official statements and published national accounts. Since data based on the Syrian pound for the conflict years are hardly comparable due to high inflation rates, the estimated data for each year were converted to United States dollars using the relevant annual average exchange rate.

Taking account of this, public finance numbers dropped proportionally along with the Syrian GDP. Public revenues plunged by -78 per cent, from \$13.6 billion (22.4 per cent of GDP) in 2010 to approximately \$3 billion (20.8 per cent of GDP) in 2017 (figures 38 and 39). In addition, public expenditures fell by 76 per cent, from \$14.9 billion (24.5 per cent of GDP) to \$3.6 billion (25.5 per cent of GDP) in the same period. However, the budget deficit fell from \$1.3 billion to \$0.7 billion, while its percentage to GDP more than doubled, from -2.2 per cent to -4.7 per cent over the same period.



Source: Istockphoto, photo credit: lechatnoir

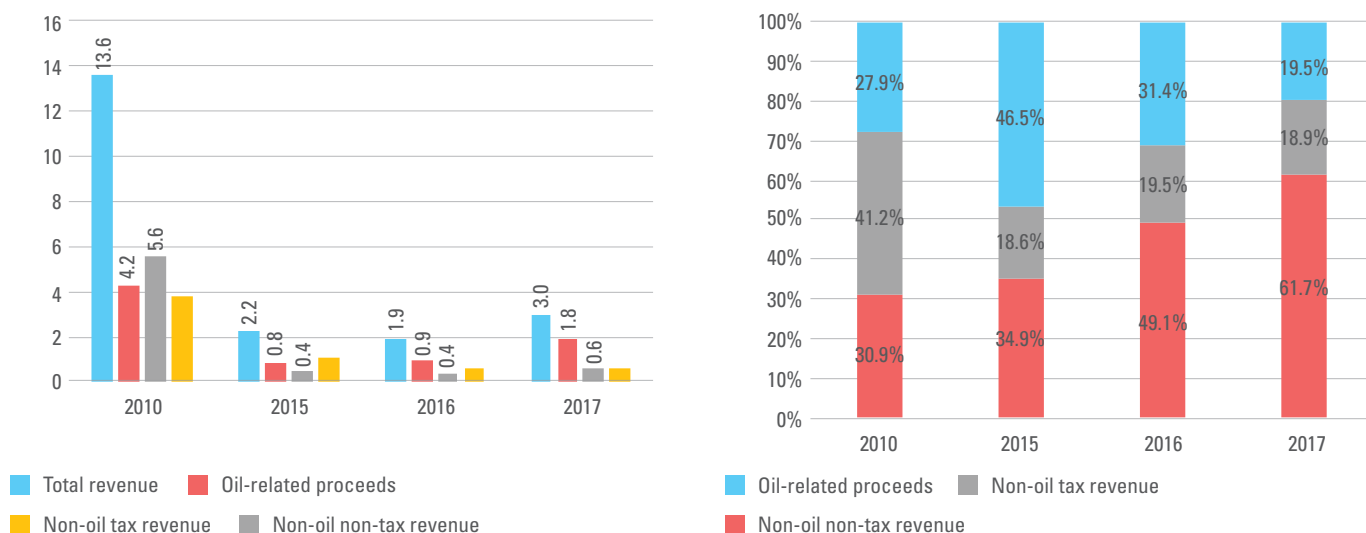
Figure 38. Estimated budget summary (billion dollars), and as percentage of GDP, 2015-2017 compared with 2010

Source: ESCWA, NAFS estimations and calculations.

Looking at the sources of government revenue, oil-related proceeds made up 31 per cent of total revenue in 2010, with non-oil tax revenue and non-oil non-tax revenue accounting for 41 per cent and 28 per cent respectively of total revenue (figure 39). Despite the decrease in revenue between 2010 and 2017, the share of oil proceeds went up steadily, reaching almost 60 per cent in 2017, due to the loss in non-oil tax revenues and despite the loss in oil production (from 380,000 barrels per day to less than 10,000). This could be explained by two factors: first, a dwindling of the revenue base, and second, it is possible that the proceeds from the oil imported through credit facilities is recorded in the budget as revenue. However,

the corresponding entry for this revenue (the increase in public debt by the amount used from this credit facility to import oil) to validate this is not available.

Non-oil tax revenue's share of oil-related proceeds fell from 41 per cent in 2010 to almost 19 per cent in 2017. This was due to the loss of economic activity and expansion of the informal economy, and less efficient tax collection, which is put down to deteriorating human and institutional capacity. Non-oil non-tax revenue (such as fees on government services, interest receipts) dropped from 28 per cent in 2010 to 19.5 per cent in 2017 (figure 39), to more closely match the tax revenue level.

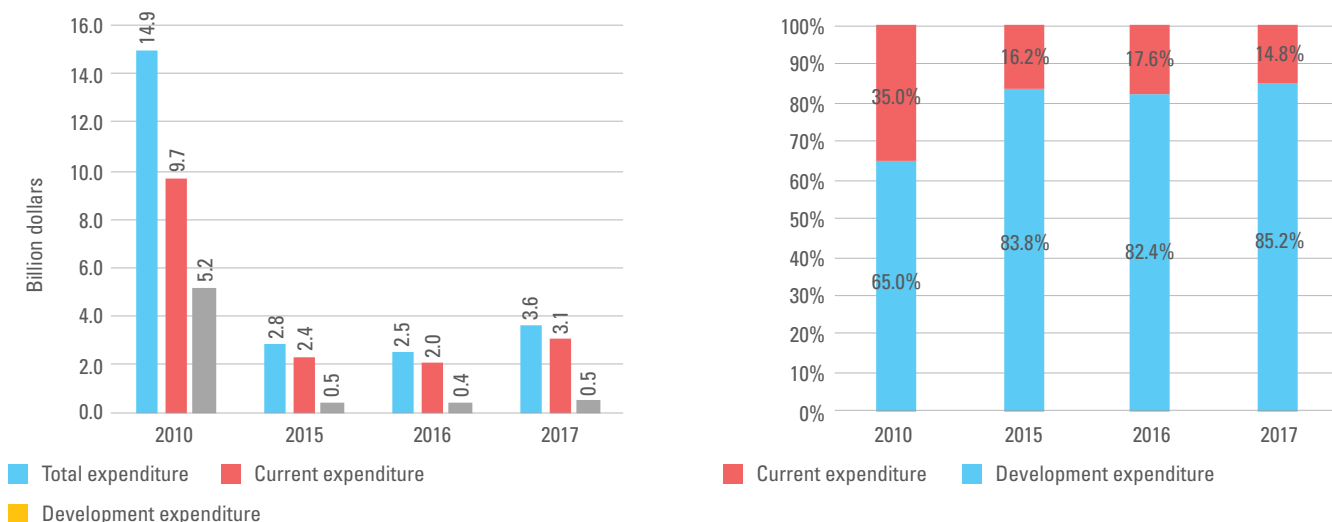
Figure 39. Estimated public revenue composition (billion dollars), and estimated public revenue composition (percentage), 2015-2017 compared with 2010

Source: ESCWA, NAFS estimations and calculations.

On the expenditure side, current and development expenditure allocations changed, from 65 per cent and 35 per cent in 2010 to 85 per cent and 15 per cent, respectively, in 2017. This was due to the increase in

military and social expenditure – for which no breakdown is available – which reflects a drop in development spending in absolute terms, from \$5.2 billion to \$0.54 billion (figure 40).

Figure 40. Estimated public expenditure composition, 2010 (billion dollars), and estimated current expenditure items (percentage), 2015-2017 compared with 2010



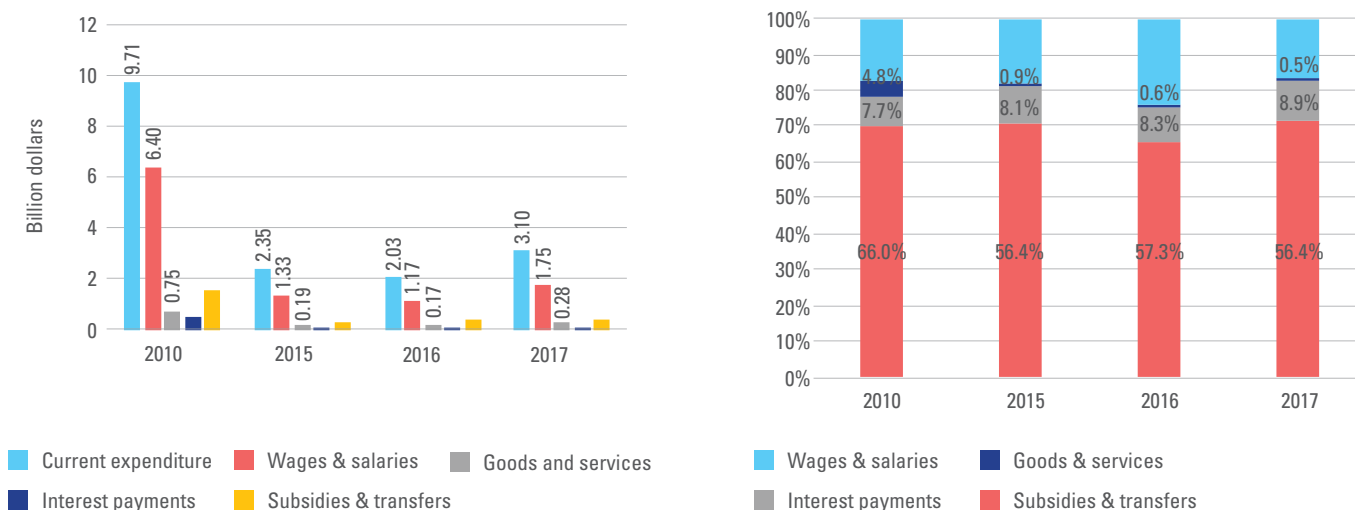
Source: ESCWA, NAFS estimations and calculations.

Although wages and salaries fell from \$6.4 billion (66 per cent of total expenditure) in 2010 to \$1.7 billion (56 per cent of total expenditure) in 2017, they remained an important portion of current expenditure (figure 41). Thus, assuming the number of public employees was the same as it had been pre-conflict,¹²⁵ the dollar value of public expenditure on wages reflects the deterioration in their real wages. Continuity in running the public sector came

at the expense of the standard of living of public sector employees.

The goods and services purchased by the Government remained almost stable at about 8 per cent. Subsidies, the second notable portion of public expenditure, fluctuated from 16 per cent in 2010 to 21 per cent in 2016, then back to 13 per cent in 2017.

Figure 41. Estimated public expenditure composition (billion dollars), and estimated current expenditure composition (percentage), 2015-2017 compared with 2010



Source: ESCWA, NAFS estimations and calculations.

H. Doing business

The conflict affected the composition of the enterprise sector, with the proportion of informal small and medium-sized enterprises (SMEs) increasing, and that of large enterprises decreasing, from 24 per cent in 2009 to 16 per cent in 2017.

According to the 2017 Enterprise Survey, in areas controlled by the Government, firms identified the interruption to services (electricity, water) as the main obstacles to doing business. This was the fifth priority pre-conflict, when regulatory uncertainty, tax rates and access to finance were cited as more pressing concerns. 68 per cent of remaining firms said intermittent electricity was their greatest challenge, with 56 per cent mainly

concerned about the inconsistent fuel supply.¹²⁶ Poor infrastructure has had a severe impact on the social return of the private sector. For instance, during 2009, firms recorded a loss of sales of 9.9 per cent due to electricity outages, 7.6 per cent to water and sanitation issues, and 1.3 per cent to transport failures. These deficiencies all induce market failure, the lack of provision of these types of external infrastructure limiting the scaling up of productive activities in all sectors post-conflict. The survey in Table 2 indicates growth inhibitors, in order of priority after services interruptions, include the loss of employees, physical damage and insecurity, loss of customers and suppliers, the Government (owing to business service problems) and finance problems.¹²⁷

Table 2. Issues affecting Syrian firms, 2018

Most problematic factors for firms	Percentage of responses
Service interruptions	36.7
Loss of employees	15.8
Physical damage and security	15.2
Loss of customers/suppliers	13.9
Transport problems	8.9
Government to business service problems	5.7
Finance problems	1.9
Other	1.9

Source: Salmon, Assaf and Francis, *Surviving Firms of the Syrian Arab Republic*, 2018.

I. Economic governance

The governance and institutional framework was a major limitation on economic activity pre-conflict, especially in the private sector, and it deteriorated further during the conflict.¹²⁸ A complex bureaucratic structure has been a constraint to starting a business in the formal economy, thus a large share operate in the informal sector.^{129,130} According to the World Bank's Ease of Doing Business rankings for 2020, it takes a firm on average 7.5 procedures and 15.5 days to start a business (table 3). It also costs 8.1 per cent of income per capita and a minimum capital of 88.3 per cent of income per capita. This meant the Syrian Arab Republic ranked 143rd in starting a business among a total of 190 economies; revealingly, this is based only on statistics from areas controlled by the Government.



Source: Istockphoto, photo credit: Joel Carillet

Table 3. Ease of doing business rankings, 2020: starting a business

	The Syrian Arab Republic	Iraq	Jordan	Lebanon	Turkey	Yemen
Starting a business (rank)	143	154	120	151	77	156
Procedures (number)	7.5	8.5	7.5	8	7	6.5
Time (days)	15.5	26.5	12.5	15	7	40.5
Cost (percentage of income per capita)	8.1	34.2	23.3	42.3	6	40.2
Minimum capital (percentage of income per capita)	88.3	14.6	0.1	41.5	0.0	0.0

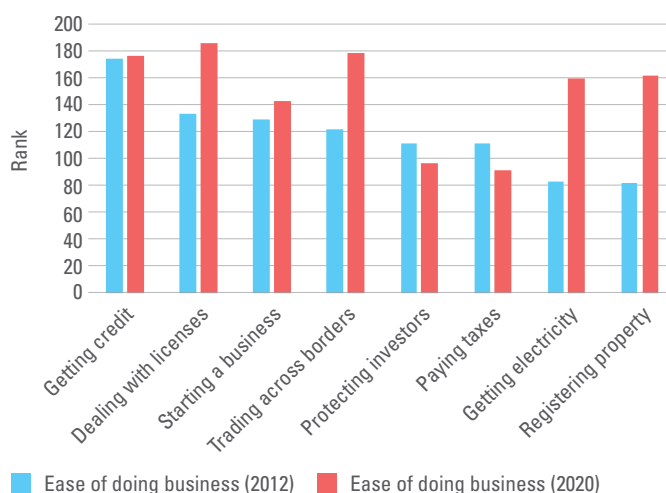
Source: World Bank, Doing Business 2020.

Syrian firms are relatively disadvantaged at acquiring construction permits and electricity – in terms of procedures, time, cost and quality – and in enforcing contracts and property rights. Additionally, firms now face an increased tax burden, the average tax rate rising from 39.7 per cent in 2012 to 42.7 per cent in 2020.¹³¹

The World Governance Indicators (WGI) ranked the Syrian Arab Republic at the 20th and 26th percentiles on regulatory quality and rule of law, respectively, in 2011. These had declined severely to the lowest 4th and 1st percentile by 2016.¹³² Corruption and perceptions of corruption – long-standing grievances within the Syrian Arab Republic – increased during the conflict, and the country fell from the lowest 14th rank to the 2nd lowest over the same timescale.^{133,134}

The Enterprise Survey 2009 suggested SMEs viewed uncertainty as a leading obstacle, especially given 80 per cent of them observed they needed to gift public officials to get their work done, compared with 37 per cent of SMEs in the region.¹³⁵ As a result of the weak institutional framework, economic agents have become more reluctant to grow their businesses and request credit from banks, as highlighted previously. This affects the supply of credit and reinforces the unwillingness of banks to provide loanable funds to the private sector.

The absence of adequate risk assessment tools and the weak law enforcement has resulted in historic credit misallocation behaviour. More loanable funds are allocated to the public sector than the private sector despite it being less efficient.¹³⁶ This business environment, along with political instability, induces low investment confidence. Investors feel unable to appropriate the

Figure 42. The Syrian Arab Republic's general Ease of doing business ranking, 2012 versus 2020

Source: World Bank, Doing Business 2020.

returns on their activities, a binding constraint to sustainable growth.¹³⁷

The Syrian Arab Republic's economy has been contracting since the onset of conflict as incentives for investment have gone down. Today, the economy faces a wide set of constraints that inhibit sustainable and inclusive growth. These centre around social, macroeconomic and structural issues.¹³⁸ Of these, addressing the weak labour force and infrastructure, the governance and institutional framework, macroeconomic environment, access to finance and market failures would be of most benefit to the Syrian economy.

Table 4. World Governance Indicators by rank

Year	Control for corruption	Rule of law	Regulatory quality	Government effectiveness ^a	Political stability and no violence ^b	Voice and accountability ^c
2010	12.86	33.65	19.62	32.06	22.27	4.74
2011	13.74	25.82	19.91	38.39	2.84	3.76
2012	9.95	13.62	4.27	12.32	0.47	3.29
2013	8.53	4.69	4.27	6.64	0.47	3.29
2014	2.40	5.77	3.85	7.21	0.00	3.45
2015	1.92	4.81	4.33	5.29	0.00	2.96
2016	2.40	0.96	3.85	1.92	0.00	1.48

Source: World Bank, "World Governance Indicators, 2017", Data Catalog.

Notes:

- a Reflects perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.
- b Political Stability and Absence of Violence/Terrorism measures perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism.
- c Reflects perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.

J. Conclusion

There remains formidable economic challenges for the Syrian Arab Republic. By the close of 2018, damage to physical capital was estimated to have reached \$117.7 billion at constant 2010 prices.¹³⁹ The most affected are the capital-intensive sectors, and cities with high population and business density hardest hit by the conflict. Adding to the capital damage is the weak economic performance. As a consequence of the human and physical losses, GDP by the end of 2018 had fallen by approximately 54 per cent, down to \$28.1 billion from its 2010 level of \$61 billion. Capital flight has aggravated the problem. It is difficult to fully estimate but, to give an example, between 2011 and 2017, Syrian expatriates and refugees registered more than 6,000 new businesses in Turkey, mostly small and medium-sized trade and manufacturing companies, in Gaziantep, Istanbul, Kilis and Hatay.¹⁴⁰ Egypt, too, is host to predominantly small and medium-sized Syrian enterprises, many of them manufacturers relocating from Aleppo's conflict-torn industrial zone. The widening trade deficit, capital flight, external displacement and economic sanctions have placed huge pressure on the Syrian pound, which had lost more than 90 per cent of its value in 2019 compared with 2010. This was accompanied by a surge in inflation that reached 790.1 per cent by the end of 2017 compared with 2010. This implies an inflation rate of 800

per cent over eight years of the conflict, according to the Central Bureau of Statistics.

This is, however, just the start. In addition, there has been massive unemployment, weakened institutions and State capacity, and deep environmental degradation. The conflict has destroyed a significant number of jobs, causing the jobless rate to jump to 55 per cent in 2017 compared with 8 per cent in 2010. Unemployment has been the highest among youth, reaching 75 per cent as of 2015,¹⁴¹ with women affected more than men. The weakened administrative capacity of State institutions has given corruption, a war economy and criminal activities room in which to flourish.

The conflict has caused serious environmental damage, directly and indirectly. It has led to widespread destruction due to the high mobility of violence. Predatory mining by non-State armed groups with rudimentary techniques has also caused deep land degradation and air pollution. Further, unregulated drilling for water due to the weak law enforcement has caused depletion in strategic water resources in various areas. The most tragic environmental impact, however, has been extensive deforestation due to violence and the need for heating resources during winters.

These challenges are truly daunting, but the Syrian Arab Republic has strengths, and opportunity. Despite the huge damage to business infrastructure, the economy has coped, and has kept functioning in all sectors, to varying degrees. The economy had diversity pre-conflict and this, with the important agricultural base, has afforded it significant resilience. Though weakened, State institutions have largely survived with some administrative and fiscal capacity, managing day-to-day life by providing basic needs and legal documents, and governance, public finance and economic management. It will be crucial to harness their strengths while transforming their governance structures and performance to make them representative, accountable and responsive.

With regard to natural resources, the most important oil wells and water resource (the Euphrates river) are still in conflict zones. However, the country enjoys considerable natural resources, such as water, oil and gas, phosphate and other minerals. These resources will facilitate the

provision of basic needs (energy, for example) and the financing of other urgent stabilization initiatives.

Finally, the Syrian diaspora has always been an asset. Remittances have played an increasingly important role in household incomes throughout the conflict and are expected to do so in the following years. In 2016, the World Bank estimated that remittances reached \$1.62 billion, which reflect an average daily rate of approximately \$4 million. Remittances are an important source of household support, ensuring basic needs such as shelter, education and health, and helping people counteract transient poverty in general. The experience of other countries in post-conflict situations shows remittances can contribute at the macroeconomic level to correcting balance of payments deficits, while at the microeconomic level they represent a stable source of income security because their flow is not diminished during economic slumps; indeed, the flow actually increases during times of conflict, prompted by phone calls to relatives.