



# How to Improve Food Security in Tunisia: Step up Mutual Trade and Investment Links with the EU



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## Abstract

Economic, financial, and social ties are strong between the European Union and its neighborhood. More resilient societies in the EU's neighborhood would mean that they are liable to suffer less damage from regional conflicts and global crises – and this in turn has positive implications for European states. In our analysis, we therefore showcase how agricultural and agri-food industry interlinkages between Tunisia and the EU can help the North African state – now enduring domestic political stress and long-standing social and economic crises – improve its competitiveness and resilience against external disruptions. We find that lifting tariff rate quotas – or at least renegotiating the EU-Tunisia Association Agreement of 1998 – could help Tunisia boost its agricultural and agri-food exports. Tunisia also needs to thoroughly reassess its production capabilities in these sectors on an empirical basis. We suggest that strategic decisions on finding the right balance between specializations in certain products with comparative advantages (e.g. olive oil) and vulnerabilities due to poor overall product diversification are vital. Those efforts should be accompanied by joint EU-Tunisian investments to foster the modernization of Tunisia's agricultural sector with the goal of step-changes in sustainability (e.g. greater efficiency in water management systems).

## About “Sovereign Europe” as a part of “Europe’s Future” program

This study is part of the Bertelsmann Stiftung's project “Sovereign Europe: Strategic Management of Global Interdependence” within its “Europe's Future” program. The aim of this project is to raise geopolitical awareness in Europe of the challenges raised by critical economic interdependencies like agricultural trade relations. A focal point of our work is the EU's closest neighbors such as Tunisia.

Tunisian agricultural expert Houssein Eddine Chebbi and Bertelsmann Stiftung's economist Markus Overdiek provide a comprehensive overview of the structure and status of the Tunisian agricultural and agri-food industry. The authors show interlinkages with European markets, examining which agricultural products could be further promoted for both local consumption and increased export to Europe. They conclude with proposals for policymakers on how to strengthen the Tunisian agricultural market in accordance with European perspectives. Their analysis should be seen with the study “Ukraine's Role in Global Food Supply: Individual Countries' Vulnerability” conducted by Ukrainian trade expert Veronika Movchan who showed that, taking wheat alone, Tunisia covers around half of its annual demand via imports from Ukraine.

# 1. Introduction

European countries are facing an unprecedented heatwave in this summer of 2022. The steep rise in temperatures as well as field and forest fires brought on by the climate crisis are damaging European harvests. This adds to supply chain disruptions for agricultural products induced by the Covid-19 pandemic and Russia's war in Ukraine. No different is the situation for Tunisia which *inter alia* imports around half of its wheat from Ukraine and is otherwise very dependent on access to European markets (Movchan, 2022). This highly vulnerable position, coming alongside domestic political stress and soaring prices for wheat, barley, maize, and similar products (Managers, 2022), makes it all the more relevant to investigate Tunisia's agricultural policy options vis-à-vis the EU. Properly tailored policy measures could help the Tunisian economy and thus strengthen the country's overall resilience. This will in turn benefit European countries.

Tunisia's economy is closely linked to the European Union: 48 percent of its imports and 72 percent of its exports are directly connected to the EU (Annex 1). Following the EU-Tunisia Association Agreement of 1998, these trade relations are more liberal for industrial products than for agricultural products. A number of agricultural products are still subject to duties or obligations.

These ties are critical for the Tunisian economy as a whole because agriculture and agri-food industry play a substantial role for the country. About 14 percent of its gross domestic product (GDP) originates from these sectors which further demonstrates their value in stabilizing the Tunisian jobs market in times of crises. Given the manifold crises that Tunisia is facing, agriculture and agri-food industry are more crucial than ever to the country's successful progress over the coming years.

This analysis correspondingly examines potential paths for Tunisia to competitively engage in international trade in ways that yield economic benefits for improved standards of living as well as strengthening its resilience towards negative supply shocks arising from crises such as the pandemic, climate crisis and Russia's war in Ukraine. Particular attention is thereby paid to setting out the close ties between Tunisia and the EU and on Tunisian agriculture and agri-food industry.<sup>1</sup>

The remainder of this study is structured as follows. Section 2 deals with the role that agriculture and agri-food industry play in Tunisia's economy by incorporating key economic indicators. Section 3 follows with an analysis of the Tunisian agriculture and agri-food industry in regard to European markets. Section 4 concludes and suggests action fields to decision-makers in Europe and Tunisia.

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1 Economic data for Tunisia (e.g., GDP, employment, production) are mainly retrieved from the National Institute of Statistics and the Central Bank of Tunisia (Financial Statistics Bulletin). Data on international trade are extracted from Trade Map which uses the Harmonized Commodity Description and Coding System (HS) for classification.

## 2. Agriculture and agri-food industry's key economic role

In Tunisia, agriculture and agri-food industry contribute hugely to the achievement of national objectives in terms of food security, stable earnings and employment, regional development and natural resource management. Agriculture and agri-food industry in 2021 contributed USD 5.887 billion to Gross Domestic Product (GDP), a 13.7 percent share (Table 1). Both sectors are highly export-oriented and the share of exports in overall output reached 31 percent in 2021.

These two sectors recorded average annual growth of 0.64 percent over the period 2015–2021 – higher than that of the economy as a whole which recorded a 0.49 percent annual GDP growth rate. Annual growth rates underline the

resilience of the agricultural and agri-food industry despite the continuing domestic socio-economic crisis, the fallout of the war in Ukraine and the sustained shock of Covid-19.<sup>2</sup> However, GDP in these sectors remains quite volatile. Agricultural activity in Tunisia is highly dependent on climatic conditions, which affect production, particularly cereal production, but also arboriculture. Thus, the annual growth of the value added of the agricultural sector went down significantly in 2016 and 2019 – two years of severe drought.

2 The Covid-19 shock and the socioeconomic crisis have also increased already high levels of public expenditure, putting even further pressure on the Tunisian exchequer.

TABLE 1 Importance of agriculture and agri-food industry in Tunisian economic indicators

	Unit	2015	2016	2017	2018	2019	2020	2021
<b>GDP (Current prices)</b>	Million USD	45,764	44,377	42,162	42,688	41,791	42,519	46,810
<b>GDP growth</b>	% YoY		-3.0%	-5.0%	1.2%	-2.1%	1.7%	10.1%
<b>Value added of agriculture and agri-food industry (Current prices)</b>	Million USD	5,732	5,210	5,159	5,627	5,426	5,854	5,887
Agriculture	Million USD	4,213	3,783	3,789	4,221	4,030	4,333	4,281
Agri-food industry	Million USD	1,519	1,427	1,370	1,406	1,396	1,521	1,606
<b>Growth of agriculture and agri-food industry</b>			-9.1%	-1.0%	9.1%	-3.6%	7.9%	0.6%
Agriculture	% YoY		-10.2%	0.1%	11.4%	-4.5%	7.5%	-1.2%
Agri-food industry	% YoY		-6.1%	-4.0%	2.6%	-0.7%	9.0%	5.6%
<b>Share of agriculture and agri-food industry in value added</b>	%	13.5%	12.7%	13.2%	14.2%	14.0%	15.0%	13.7%
Agriculture	%	9.9%	9.2%	9.7%	10.6%	10.4%	11.1%	10.0%
Agri-food industry	%	3.6%	3.5%	3.5%	3.5%	3.6%	3.9%	3.7%
<b>Share of exports in output of agriculture and agri-food industry</b>	%	35.6%	27.6%	29.9%	36.3%	29.6%	32.1%	30.8%

N.B.: According to the classification of economic activities in Tunisia, output of the agricultural sector also includes forestry and fishing.  
Source: National Institute of Statistics (Tunisia) and Central Bank of Tunisia.



In Tunisia, the economy's structural vulnerabilities have been exacerbated. The decline in the investment rate was further accentuated by the Covid-19 pandemic. Investments accounted for just 13.3 percent of GDP in 2020 – compared to 18.3 percent a year earlier. The Russian war in Ukraine is likely to further depress investment levels due to greater spending on consumption.

While the agricultural sector experienced a smaller decline in investment compared to the entire Tunisian economy, its contribution to overall investment at 8.7 percent is below its contribution to GDP (Annex 2). However, over the last years investments in agriculture did prove to be stable – cushioning possible negative effects from more volatile sectors in the economy.

When it comes to Foreign Direct Investment (FDI), the situation remains volatile with limited inflows: Tunisia demonstrates an annual average of USD 758 million in FDI inflows over the 2015–2020 period. During this period, FDI in the agricultural and agri-food industry amounted to USD 136 million a year or 17.1 percent of total FDI flows to Tunisia, according to the Foreign Investment Promotion Agency.<sup>3</sup>

<sup>3</sup> Data by the Foreign Investment Promotion Agency shows that from 2010 to 2020, the United Arab Emirates held 20.41 percent of FDI stock in the agricultural sector. Countries from the European Union held nearly 60 percent of FDI stock in the agricultural sector in the same period. Italy, the Netherlands, France, and Spain are the most present European countries with respective shares of 18.48 percent, 16.13 percent, 14.74 percent, and 10.39 percent of total FDI provision to Tunisian agriculture.

TABLE 2 Distribution of employed population in Tunisia across sectors of the economy, in thousand people

	2015	2016	2017	2018	2019	2020
<b>Total employed population</b>	<b>3,395</b>	<b>3,424</b>	<b>3,465</b>	<b>3,500</b>	<b>3,540</b>	<b>3,494</b>
<b>Agriculture and fishing</b>	<b>511</b>	<b>511</b>	<b>507</b>	<b>501</b>	<b>487</b>	<b>504</b>
<b>Manufacturing industries</b>	<b>628</b>	<b>628</b>	<b>636</b>	<b>648</b>	<b>652</b>	<b>641</b>
Agri-food industry	83	88	92	96	98	100
Building materials, ceramics and glass	43	40	39	39	38	33
Mechanical and electrical industries	148	149	154	156	156	154
Chemical industries	29	30	29	30	31	33
Textiles, clothing and footwear	239	235	235	243	237	232
Other manufacturing industries	85	85	87	84	92	89
<b>Non-manufacturing industries</b>	<b>487</b>	<b>503</b>	<b>518</b>	<b>528</b>	<b>549</b>	<b>521</b>
Mining and energy	35	37	38	36	39	37
Construction and public sector	452	466	481	492	510	484
<b>Services</b>	<b>1,768</b>	<b>1,770</b>	<b>1,798</b>	<b>1,816</b>	<b>1,835</b>	<b>1,807</b>
Trade	467	459	462	460	441	435
Transport and telecommunication	194	187	190	191	197	186
Hotels and restaurants	113	116	128	142	155	136
Banking and insurance	31	32	35	33	35	38
Repair and real estate services and other institutional services	166	174	176	180	187	189
Social and cultural services	138	140	145	148	156	156
Education, health and administrative services	659	661	662	661	664	667
<b>Undeclared activities</b>	<b>2</b>	<b>13</b>	<b>7</b>	<b>7</b>	<b>16</b>	<b>22</b>

Source: National Institute of Statistics (Tunisia).

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The agricultural sector remains a major and stable provider of employment. Largely as a result, it can act as an absorber of negative economic shocks. Especially in the emergence of the Covid-19 crisis, it proved its importance for Tunisia – the net creation of jobs in this sector was positive in 2020 and its presence in national employment has increased to 504,000 jobs, reaching a proportion of 14.4 percent of the employed labor force. Additionally, net job creation in agri-food industry has also been positive in recent years, with its share of the employed labor force reaching 2.9 percent in 2020, with nearly 100,000 jobs (Table 2).<sup>4</sup>

Taking the sum total of jobs in agriculture and agri-food industry, the share in total employment is larger than that from these sectors in GDP. This suggests that average earnings in this field are generally below those in other economic sectors. And that while agriculture and agri-food industry contribute to economic

<sup>4</sup> While the agricultural sector helped to absorb the employment shock during the Covid-19 crisis, the share of the agricultural labor force in total employment has been declining since 2010.

resilience by cushioning some of the hardships in the labor market, other sectors are more conducive to finding suitable opportunities for well-paid jobs and new growth paths.

Given the importance of agriculture in Tunisia, a better idea of the production side is commanded (Table 3): Together with meat, milk and dates, olive production constitutes one of the main agricultural activities and its socio-economic importance is substantial. Around one million people obtain at least some part of their income from planting olives, meaning that many small farmers are active in olive oil production and that its significance for Tunisia therefore goes far beyond its economic value (Chebbi, 2019).

The Tunisian production of olive oil tends to rise and fall because it is characterized by severe annual variation given that cultivation is carried out mainly in dry areas heavily dependent on sharply fluctuating levels of rainfall. Over the period 2010–2021, average output of olive oil was 197,000 tonnes per year (Figure 1), placing Tunisia in fourth spot worldwide behind Spain, Italy, and Greece.

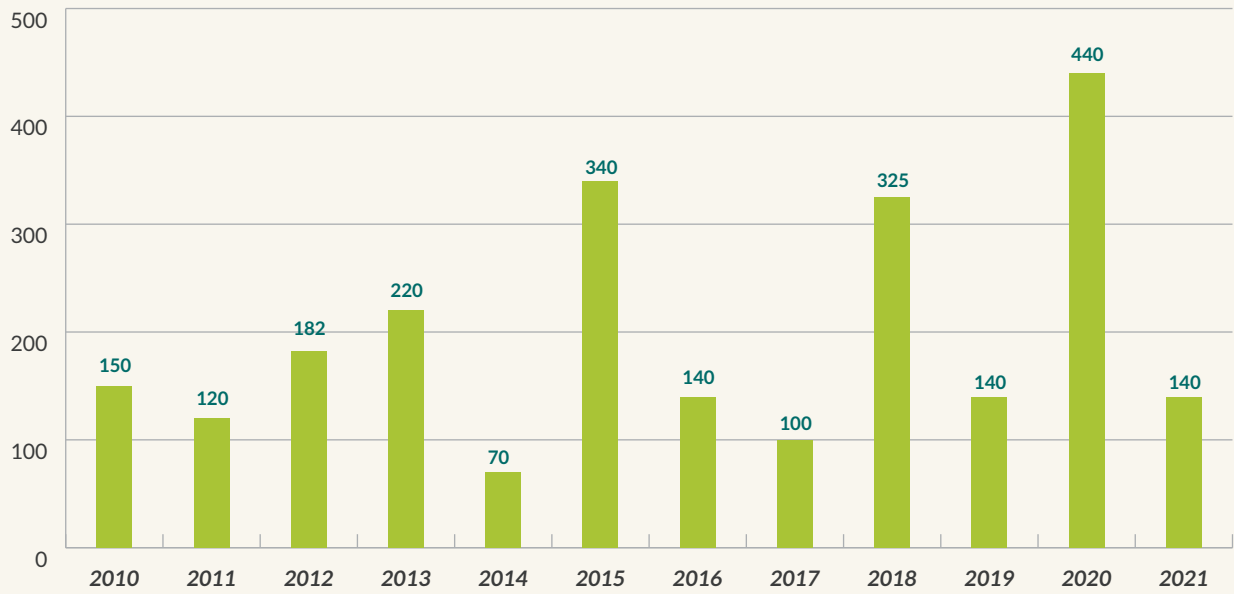
TABLE 3 Tunisia's main agricultural production, in million USD

	2015	2016	2017	2018	2019	2020	2021
<b>Cereal production</b>	364	334	387	325	504	343	400
<b>Fruit production</b>	1,866	1,345	1,186	1,961	1,374	1,914	1,616
Olives for oil	849	391	269	977	334	783	388
Citrus fruits	169	133	147	110	195	146	182
Almonds	151	142	166	167	179	159	174
Dates	375	372	335	392	347	413	445
<b>Vegetable production</b>	876	828	971	1,029	808	917	1,005
Potatoes	96	99	107	118	102	106	105
Tomatoes	220	174	149	191	168	180	172
Peppers	211	234	301	205	157	196	218
<b>Livestock and dairy production</b>	1,879	1,754	1,574	1,651	1,673	1,821	2,032
Red meat	789	759	644	675	719	798	859
White meat	418	381	350	398	377	370	434
Milk	516	489	459	449	443	526	601
<b>Fishery production</b>	373	386	419	461	495	494	540
<b>Total production value</b>	5,824	5,159	5,046	5,912	5,416	6,036	6,213

Source: Tunisian Ministry of Agriculture, Water Resources and Fishing.

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FIGURE 1 Tunisia's olive oil production, in thousand tonnes



Source: International Olive Council and authors' estimates.

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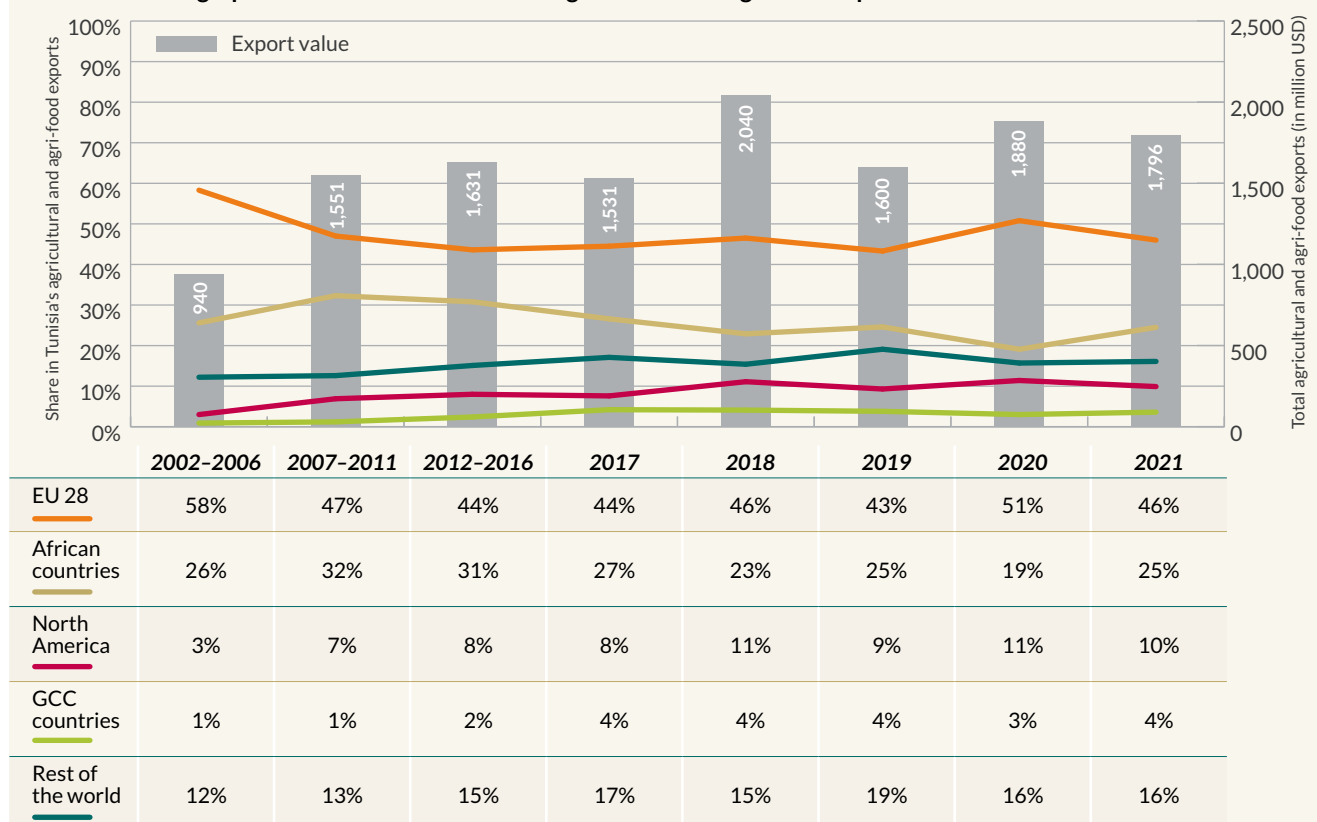
### 3. Tunisia’s agricultural and agri-food trade closely geared to Europe

#### 3.1 A continuing dependency and heavy concentration on the EU

Tunisia’s trade flows reflect the country’s dependency on European markets. When it comes to agricultural and agri-food

trade in 2021, nearly half of all exports from these two sectors went to the EU (USD 826 million). This means that the EU remains by far the biggest trading partner for Tunisia. However, its relative importance has declined in comparison to the early 2000s by about fifteen percentage points (Figure 2) while North America and Middle Eastern countries have gained weight. Even

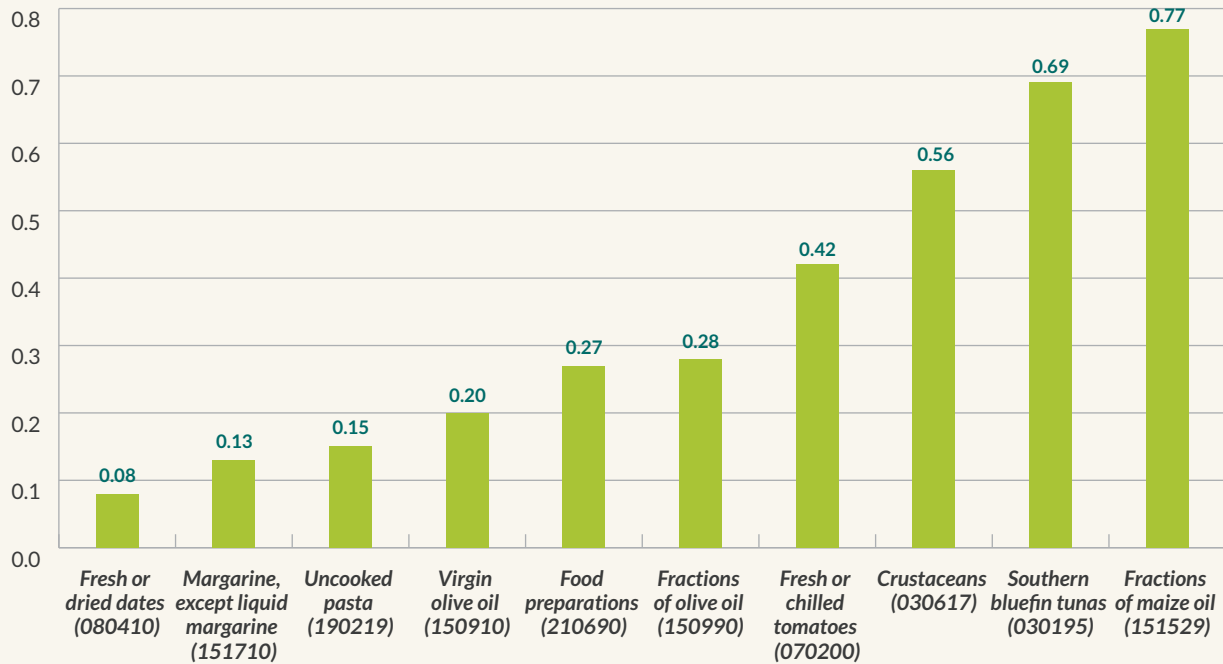
FIGURE 2 Geographical distribution of Tunisia’s agricultural and agri-food exports



Source: Trade Map and authors’ estimates.

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FIGURE 3 Concentration of destination countries for Tunisia's top 10 agricultural and agri-food export products, 2021, in HHI values



N.B.: HS-Codes for each product are in brackets.  
Source: Trade Map.

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so, the share of Tunisian exports going to EU markets remains historically strong if down from its peak, not least because of closeness to and historical links with European markets.

Tunisia's agricultural and agri-food exports remain barely diversified in terms of country of destination (Figure 3). If we focus on the concentration in destination countries of the top ten products that Tunisia exports – taken together representing 65 percent of the value of exports in 2021 – most of these exhibit quite a high Herfindahl-Hirschman index (HHI). The HHI is a measure of concentration that bestows more weight on countries with a larger share in Tunisian exports of certain products, such as France, Italy, and Germany. Especially for maize oil (0.77), bluefin tunas (0.69), and frozen shrimps (0.56), a high concentration of their exports to very specific markets can be detected. Furthermore, olive oil – a Tunisian specialization – shows with a HHI of 0.20 an index value that points to a notably substantial concentration in export destinations.

Strong focuses on certain products – e.g. olive oil as explained at the end of Section 2 – or countries of destinations – e.g. some larger EU countries as illustrated by the HHI – come at the cost of constant dependencies. While it can be reasonable to specialize in the production of a handful of foodstuffs and specific markets, this comes at the expense of (economic) vulnerabilities which Tunisia must closely monitor on a continuous basis.

### 3.2 EU tariffs on Tunisian imports and the role of tariff rate quotas (TRQs)

Trade relationships between the EU and Tunisia generally have become quite liberal since the Association Agreement of 1998 (European Communities, 1998). As many as 97.3 percent of Tunisian exports to the EU in 2016 were duty- and quota-free and trade-weighted average duties are just 0.6 percent (OFSE, 2018). Only when it comes to agriculture does this picture differ.

Agricultural products from Tunisia to the EU are still subject to duties averaging 12 percent while other African states negotiated completely duty-free arrangements with the EU. In the other direction, Tunisia charges the EU duties that amount on average to 32 percent when it comes to agricultural production (GIZ, 2019). In negotiations for a Deep and Comprehensive Free Trade Area (DCFTA) between the EU and Tunisia (2015–2019), the EU

therefore also proposed the elimination of all tariffs and quotas (OFSE, 2018). However, these negotiations have been on hold since 2019 (European Commission, 2019) and resuming them should be uppermost in Tunisia’s foreign policy agenda as the EU remains the most important export destination for Tunisian agricultural and agri-food industry products.

For thirteen agricultural products, tariff rate quotas (TRQs) apply. TRQs allow a predetermined quantity of a product to be imported at a lower rate of import duty compared to the rate which would normally be applicable to that product. Below this threshold set in accordance with the 1998 Association Agreement, a reduced rate or even duty-free trade can be applied to certain traded products. Table 4 shows these TRQ thresholds. Beyond the thresholds, the EU applies a so-called entry price system. This mechanism ensures that the level of tariffs is flexible so that certain imports cannot undercut a minimum price – a disadvantage to low-cost producers such as those from Tunisia (Rudloff, 2020).

TABLE 4 Preferential quantities for exports from Tunisia to the EU, 2021

TRQ management method	Section	HS 4 code	Product	TRQ quantity
First-come-first-served basis	Section I: Live animals; animal products	0409	Natural honey	50t
	Section II: Vegetable products	0603	Cut flowers	1,120t
		0701	Potatoes	18,816t
		0711	Provisionally preserved olives	10t
		0805	Fresh oranges	39,338t
AGRIM import certificate	Section III: Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	1509	Virgin olive oil	56,700t
First-come-first-served basis	Section IV: Prepared foodstuffs; beverages, spirits and vinegar; tobacco and manufactured tobacco substitutes	1604	Preserved fish	100t
		2002	Prepared or preserved tomatoes	4,000t
		2003	Prepared or preserved truffless	5t
		2008	Apricot pulp	5,160t
		2008	Mixtures of fruits	1,000t
		2204	Local PDO wine ≤ 15% vol, ≤ 2l	56,000hl
		2204	Wine	179,200hl

Source: Elaboration of the authors on the basis of data from the EU-Tunisian Tariff Rate Quota consultations.

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Tunisia can for example export 56,700 tonnes of olive oil to the EU without paying any duties in the framework of the regular duty-free tariff quota while its export potential for olive oil is much higher.<sup>5</sup> Except for olive oil, tariff quotas are managed on a first-come, first-served basis. In the case of olive oil, the quota is operated through a system of import certificates.

The review of how utilization rates of tariff quotas have evolved shows that the country has not benefited fully for all thirteen products to which TRQs apply (Figure 4). In recent years, Tunisia has sold its preferential tariff quotas towards EU countries solely for olive oil, prepared or preserved tomatoes<sup>6</sup>, and preserved fish.

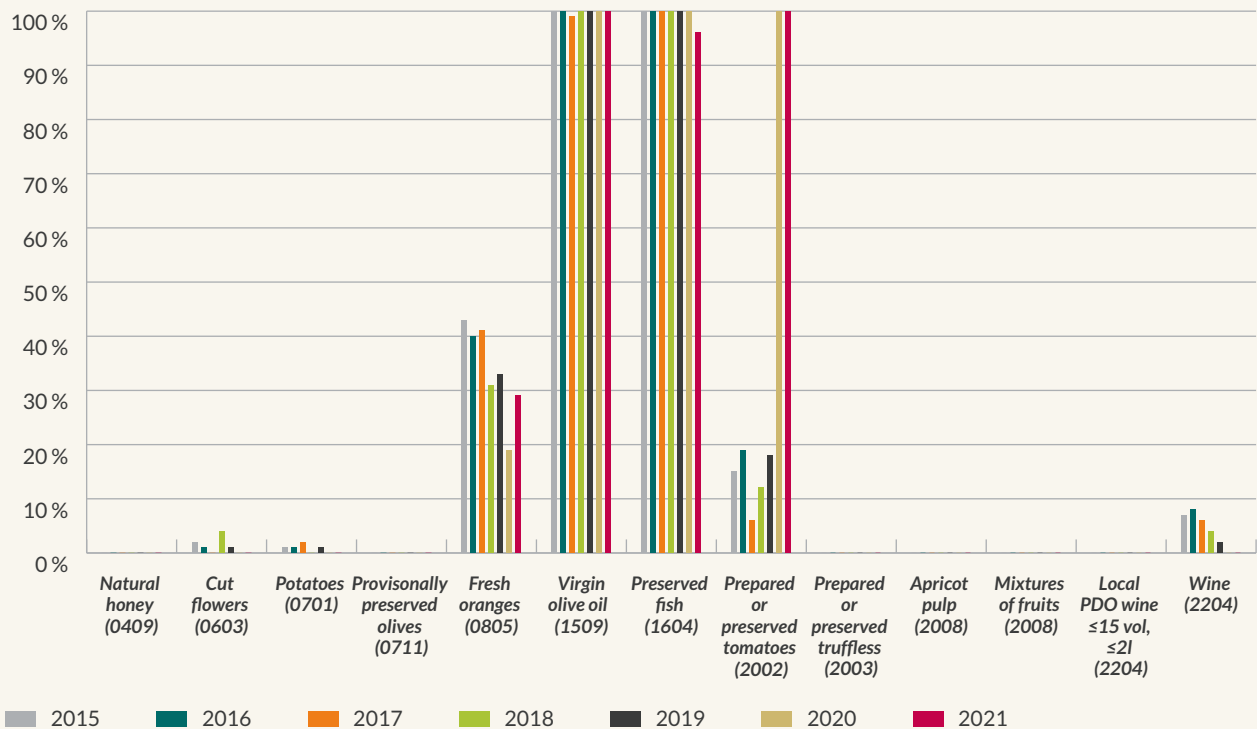
For other products and going back several years now, the quantities exported by Tunisia remain very limited, meaning that it does not take full advantage of preferences granted by the EU. Specifically, this is the case for natural honey, cut flowers, potatoes, provisionally preserved olives, fresh oranges, prepared or preserved truffles, apricot pulp, mixtures of fruit, local wine that is protected by its designation of origin (PDO), and wine.

In Tunisia, state support to exporting sectors remains strongly focused on the olive oil and seafood value chains.<sup>7</sup> For the olive oil sector, it is important to remember that despite the granting of an additional temporary annual quota of 35,000 tonnes

- 5 In 2016 and 2017, the EU temporarily granted an additional 35,000 tonnes to be duty-free to strengthen the Tunisian economy following income losses in the tourism sector caused by terrorist attacks in 2015.
- 6 For prepared or preserved tomatoes (HS code 2002), this is mainly due to the growth of exports in volume to France, which increased from 10,490 tonnes in 2020 to 24,571 tonnes in 2021. Exports to Spain, Italy, and Portugal have also increased.

- 7 It should be noted that Tunisia has made significant efforts to support and upgrade its seafood exports, the third largest element of agri-food export revenues. Since 2008, Tunisia has adopted European certification which requires exporters to certify that exported seafood complies with quality standards and rules in terms of hygiene, food safety and consumer health. This first European directive adopted by Tunisia, in terms of agri-food, allowed it to support the export sector and was followed by the adoption of the directive on traceability.

FIGURE 4 Utilization of quantities in the tariff rate quota system between the EU and Tunisia, 2015–2021



N.B.: HS-Codes for each product are in brackets.

Source: Elaboration of the authors on the basis of data from the EU-Tunisian Tariff Rate Quota consultations.

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for 2016 and 2017 to support the Tunisian economy after the terrorist attacks of 2015, local olive oil production would genererally profit from higher quantities granted by the EU's tariff rate quota system.<sup>8</sup>

At the same time, the (relatively good) performance in olive oil and seafood production is in contrast to problems encountered in citrus production. In the case of oranges for example – equivalent to less than 1 percent of agricultural and agri-food exports – Tunisia has never been able to reach the preferential quota at zero duty (39,338 tonnes) that it enjoys. Moreover, for several years these exports have represented less than 50 percent of this quota and have been decreasing continuously, *inter alia* because the Tunisian variety of oranges does not meet European consumer preferences.<sup>9</sup>

A key policy goal must consist of negotiating an update to the 1998 Association Agreement so that an accord on increases in quantities in the TRQ system with the EU for those products that already fulfil the quotas is achieved. Increases in preferential quotas for olive oil could especially benefit Tunisia's economy and help stabilize the country. This can realistically be achieved in the current circumstances – at least in the short-term – as the EU has already lifted trade barriers for agricultural products from Moldova for one year (Europe, Table, 2022). Furthermore, Tunisia should put the stress on examining the case for supporting current export activities for products that do not yet fulfil their TRQs, e.g. wine or oranges, more thoroughly.

8 At the time of writing this study, a Presidential Decree has been promulgated in Tunisia to implement new rules for the export of Tunisian olive oil to the EU at zero duty. Accordingly, Tunisian private exporters already registered on the official list of olive oil exporters must obtain specific authorization before proceeding to loading for export. This Decree, which gives priority to the export of organic and packaged oils, specifies that the request for obtaining the export license must be presented at least seven days before the export operation to the Tunisian Ministry of Agriculture, Water Resources and Fishing. This applies as from January 1st of each year for any olive oil packaged under the Tunisian label. These new measures also aim at improving the traceability of Tunisian olive oil.

9 A set of factors complicates the competitive position of Tunisian Maltese oranges: i) the choice of a single variety, the Maltese, which matures from January to March or the period when supply is at its largest on the European market and prices are at their lowest, and whose small size is less well valued; ii) the lack of diversification in exported products and of new varieties to meet the needs of export markets, iii) a concentration of exports on the historic market, France, without a strategy to penetrate new markets, and iv) problems of compliance with sanitary and phytosanitary standards and, above all, the planning of production operations (Arfa et al., 2018).

### 3.3 Opportunities for Tunisia to export agricultural products to the EU

It is important for developing countries to make use of well-tailored growth strategies. A key element of propitious approaches to facilitating long-term growth is evaluation of promising future export opportunities. The International Trade Center (ITC) has developed an assessment methodology to offer assistance in this respect. It established the Export Potential Indicator (EPI) which identifies internationally competitive products for an exporting country that have good prospects of success in target markets (Ducreux and Spies, 2016). This enables one to derive the export potential for specific Tunisian products in 2026 and compare that to today's export values for these products.

As a result of Russia's war in Ukraine and the deteriorating global economic outlook, the ITC's estimates of global export potential (EP) by 2026 have fallen by 1.2 percent. ITC also indicates that estimates of export potential have decreased for almost all sectors due to the war. For Tunisia, the new ITC estimates indicate that the country's overall export potential in 2026 is expected to fall by 8.4 percent (ITC, 2022). This is arguably the largest decline in the North African region.<sup>10</sup> But even with this substantial fall in Tunisia's export potential due to lower growth rates or even recessions in many countries induced by the war in Ukraine, opportunities for export growth remain surprisingly large.

10 In North Africa, export potential decreased the most for Tunisia (-8.4 percent) and Morocco (-0.4 percent). It increased for Egypt (+0.9 percent), Mauritania (+1.3 percent) but especially for Algeria (+6.9 percent) and Libya (+25 percent).



If one takes a closer look at products from agriculture and agri-food industry, since those products are quite export-oriented and at the same time still subject to tariffs from the EU, Tunisia for 2026 has an overall export potential of about USD 2.166 billion (Figure 5). More than half (54 percent) of the difference between export potential and actual exports is still untapped.<sup>11</sup> The EU is the market with the biggest opportunities for Tunisia in this respect as it has the largest export potential: USD 1.283 billion which represents 59 percent of sectoral export potential. 60 percent of this remains untapped, convincing evidence in itself that there is much more scope for exports there from agriculture and agri-food industry.

11 The International Trade Centre (ITC) defines untapped export potential as composed of i) current untapped potential and ii) projected untapped potential. Current untapped potential represents exports that should be achievable at present but are held back by trade frictions such as lack of information or difficulty in complying with the rules and regulations of the target market, mismatch between product characteristics and consumer preferences, or difficulty in finding buyers. These frictions must be identified and addressed to realize the current untapped potential. Projected untapped potential is the potential that is expected to occur due to growth in supply and demand. To realize the projected untapped potential, governments must ensure that investment in additional production is sufficient to meet the additional demand.

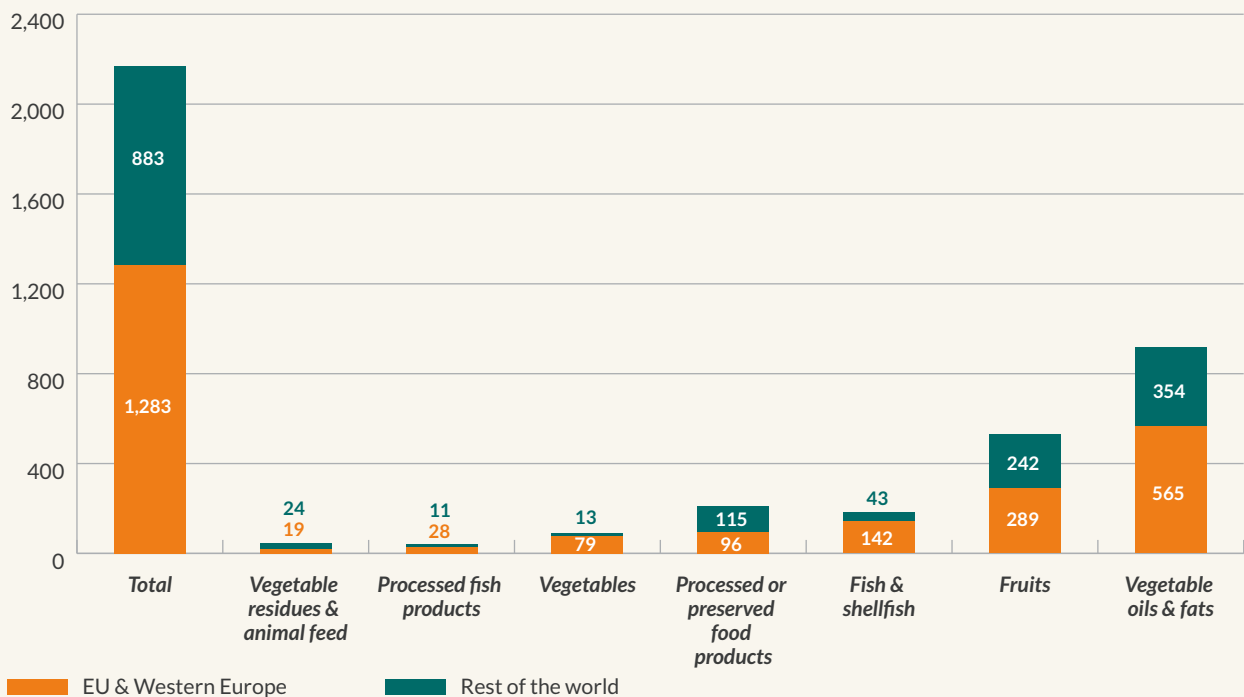
Among agricultural and agri-food products that have the highest export potential as well as the highest difference between export potential and actual export outturns are olive oil (export potential: USD 534 million, actual exports: USD 407 million), fresh or dry dates (export potential: USD 249 million, actual exports: USD 129 million) and fresh tomatoes (export potential: USD 44 million, actual exports: USD 41 million) (Annex 3).

However, in Tunisia despite its importance, the date sector is experiencing several problems at production level: illicit extension of areas, scattered ownership, high concentration on the *Deglet Nour* variety, aging of more than one million palm trees, continuous increase in production costs and difficulties in the old oases (Chebbi et al., 2019).<sup>12</sup> This raises doubts as to whether Tunisia can genuinely seize such opportunities.

This illustrates clearly how important it is for Tunisia to closely analyse production in the agricultural sector so it can make strategic decisions about the products it would like to promote and support over the coming years.

12 Tunisian palm plantations cover an estimated total area of ca. 56,000 hectares, comprising 5.2 million date palms.

FIGURE 5 Tunisia's export potential for main agricultural and agri-food products, estimations for 2026, in million USD



Source: Elaboration of the authors using ITC's Export Potential Map.

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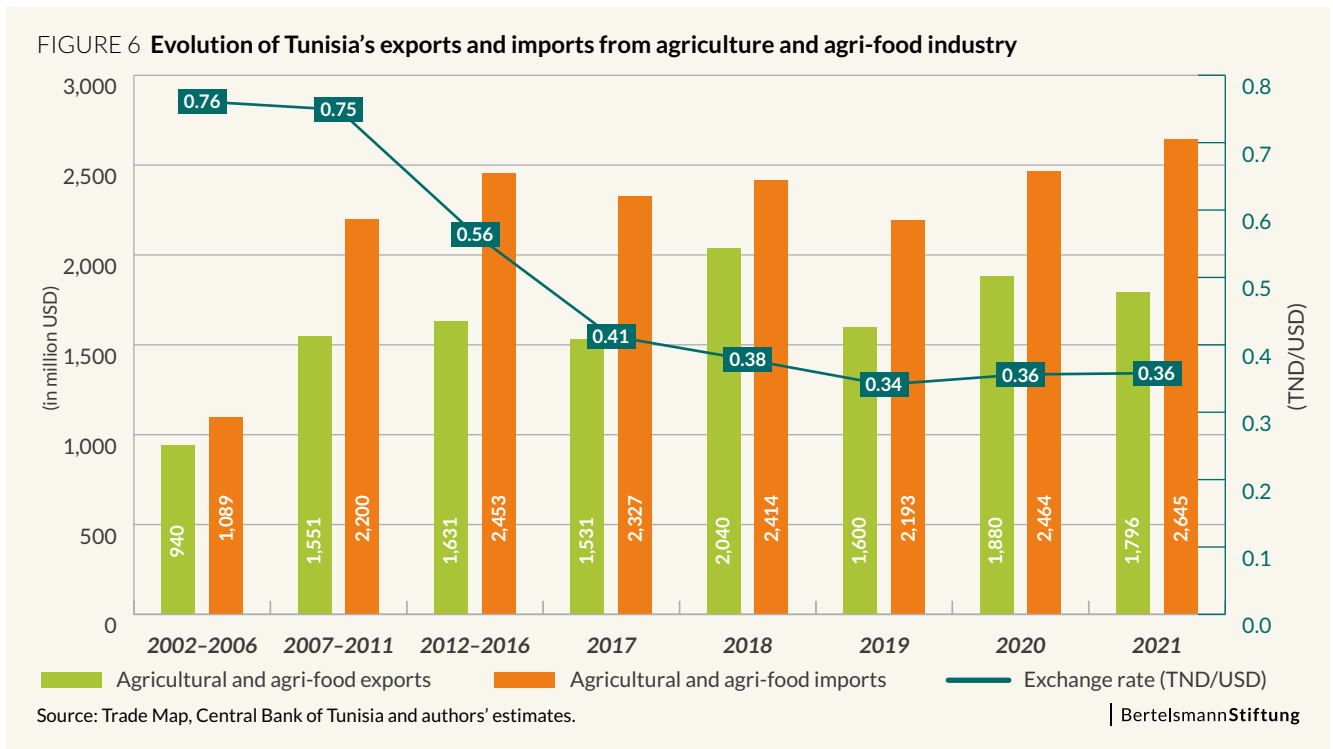
### 3.4 Agriculture and agri-food industry contribute to Tunisia's chronic trade deficit

Tunisia has a permanent trade deficit. Agriculture and agri-food industry play a substantial role here as imports in these sectors have exceeded exports for the past twenty years, apart from 2006 when the agricultural and agri-food trade balance was positive. While exports for these products amounted to USD 1.796 billion in 2021, imports reached USD 2.645 billion (Figure 6). Cereals in particular are responsible for this large and widening gap between imports and exports (Agence Tunis Afrique Presse, 2022) (Annex 4).

When the costs of imports exceed export earnings for such a long period, this contributes to a depreciation of the local currency. Such a depreciation normally facilitates exports as they become cheaper for other countries to buy. At the same time, the depreciation causes imports to become more expensive and this may depress import volumes.

Against this background, it should be mentioned that Tunisia's trade deficit has worsened at the same time as the continued depreciation of the local currency, the dinar, which has lost almost half its value against the US dollar since 2011. Future depreciation may imply that Tunisia's exchange rate policy may become inconsistent with some of the objectives for agriculture and agri-food industry such as food security and self-sufficiency (Chebbi and Olarreaga, 2019).

This prevailing deficit in Tunisia's agricultural and agri-food trade also shows that the country is unable to improve productivity in these sectors adequately, given its inability to grasp export opportunities. This is another reason for speeding up modernization in agriculture and agri-food industry, including strategic investments that contribute to an improvement in soil and water quality, projects related to sustainability and undertakings geared to conservation. This kind of investment can have positive spill-over effects on other sectors of the economy such as tourism. If and when Tunisia achieves this, it will make better use of export opportunities for products in which the country traditionally has a comparative advantage.



In the short-term, the objective is to ensure the availability and accessibility of foodstuffs, particularly for disadvantaged households, while maintaining local production through the sufficient and affordable agricultural inputs, e.g. seeds, fertilisers, plant protection products. In the medium-term, the objective is to improve the effectiveness of public support by making it more attractive to produce locally while paying close attention to tight public finances and improving food aid to low-income households. Along with that, specific measures should aim at more efficient use of water in agriculture since Tunisia's current efficiency in water usage is comparatively very low while the country is particularly exposed to challenges induced by climate change (Duenwald et al., 2022). In addition to that, waste reduction and enhanced nutritional quality need to be on the policy agenda. By successfully following such policy measures, the permanent trade deficit in agriculture and agri-food industry can be cut. This in turn can benefit the overall state of Tunisia's economy and the societal stability.

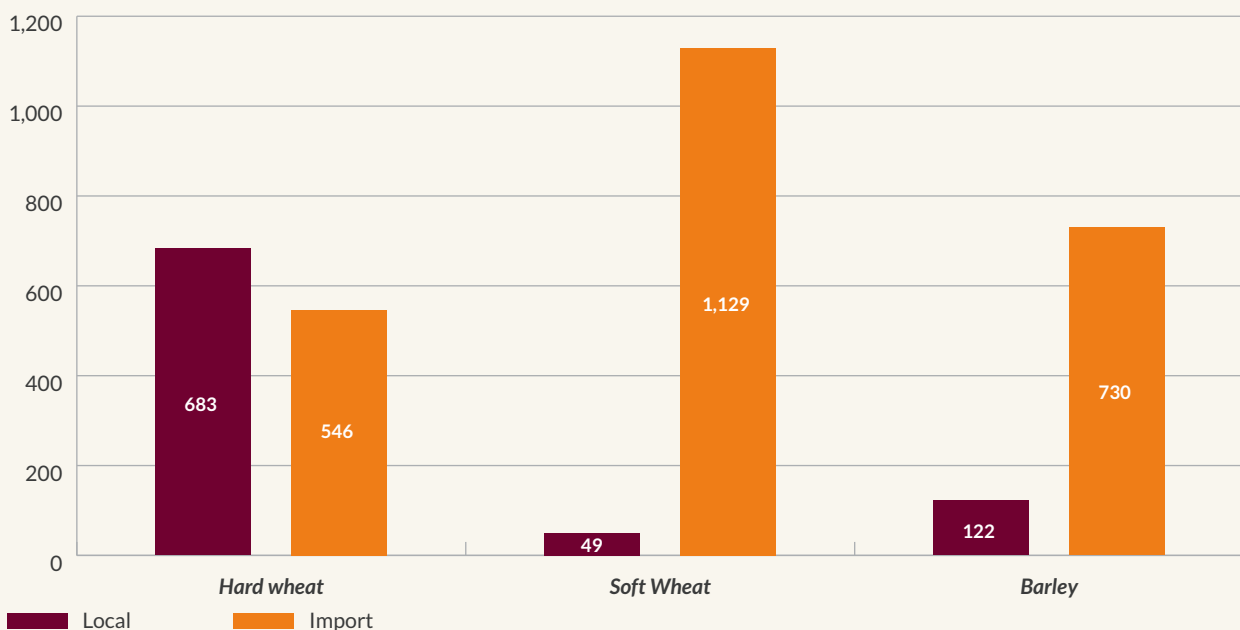
### 3.5 Russia's war in Ukraine exacerbates vulnerabilities in Tunisian food security

Tunisia's economy is likely to be impacted significantly by the international repercussions of Russia's war in Ukraine, mainly by its reliance on imports of cereals from Ukraine. Along with higher cereal prices that Tunisia will have to pay, governmental subsidies for those basic foodstuffs will increase (Annex 5). In addition, substantial hikes in energy bills are foreseeable.

The war-induced increase in cereal prices on international markets is aggravating Tunisia's trade deficit. The additional cost of cereal imports could become immensely costly and further increases in 2023 can be expected, given that the worst hardships via the supply shocks from the war are yet to come (Movchan, 2022).

This is a tough situation for the country because most of Tunisia's domestic cereal consumption is covered by imports and cereals are so vital for daily needs that Tunisia may have

FIGURE 7 Origin of the main cereals in Tunisia, annual average 2017–2021, in thousand tonnes



Source: Elaboration of the authors on the basis of data from the Tunisian Ministry of Agriculture, Water Resources and Fishing.

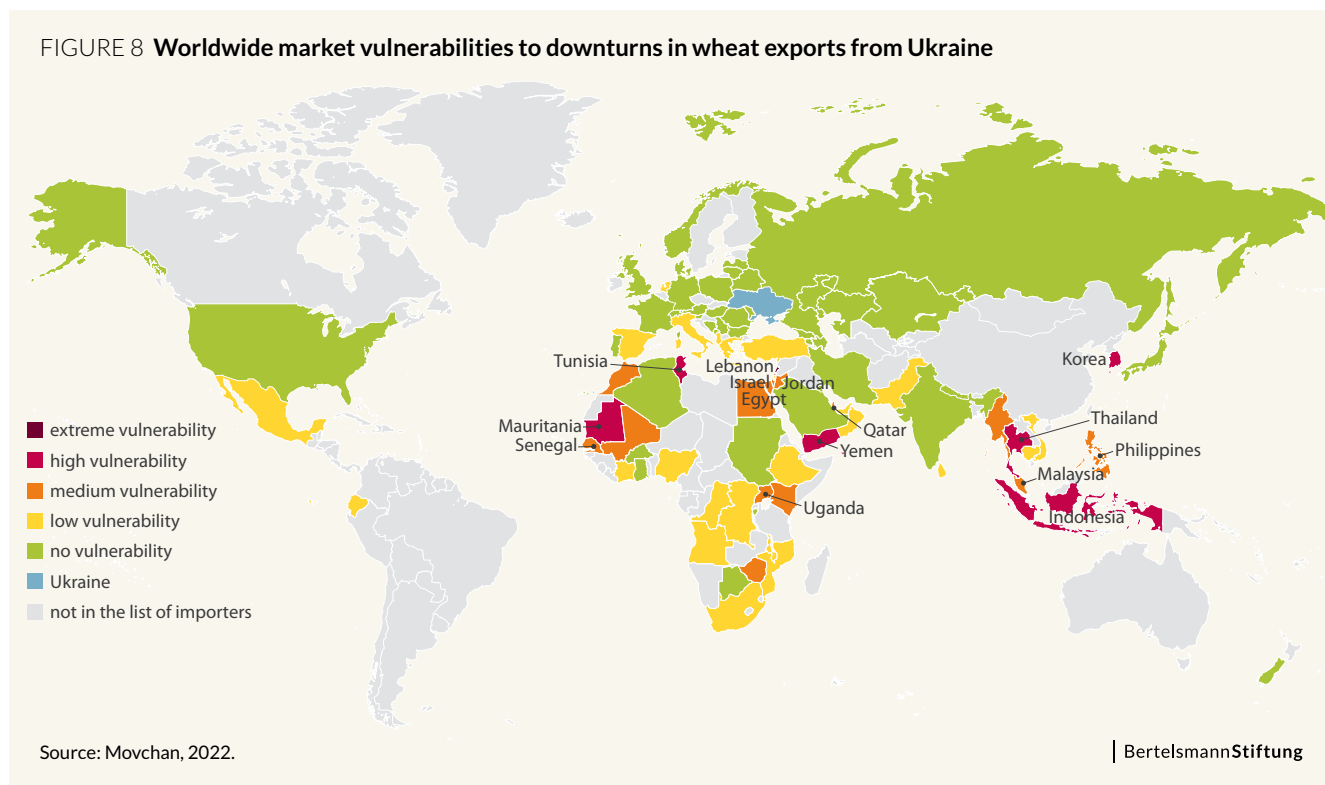
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no alternative but to pay a high price for products such as hard wheat, soft wheat and barley (Figure 7). Having to subsidise these products results in additional budgetary pressures for the country's exchequer. On top of this, Tunisia specifically is very dependent on cereal imports from Ukraine. It imports 96 percent of its domestic need for soft wheat and a lot of these imports come from Ukraine.

Livestock and dairy production activity in Tunisia also relies heavily on the import of raw materials used in livestock feed. These are in particular maize, wheat and barley for fodder and oil cakes, a large part of which came from Ukraine before the war. Although these products have traditionally been imported without state intervention, since 2021 the government has tried several times to set selling prices to control the increase in production costs. However, these interventions have not improved stock levels.

This means that Tunisia needs to seek out other sources to import soft wheat in common with many countries. Meanwhile, Tunisia's domestic vulnerability to the external shock from the war in Ukraine is higher than in most other countries (Movchan, 2022; Figure 8). Without additional financial assistance from the EU and other international actors, it will be very challenging for Tunisia to overcome these hardships in full.

FIGURE 8 Worldwide market vulnerabilities to downturns in wheat exports from Ukraine



## 4. Conclusions and policy recommendations

Agriculture and agri-food industry are important parts of the Tunisian economy. About 17 percent of employed people work in these sectors and in 2021 it accounted for 14 percent of the country's GDP. In light of current crises such as the Covid-19 pandemic, climate change, and Russia's war in Ukraine, strong interdependencies with other countries in these sectors are a double-edged sword.

On the one hand, it is important for Tunisia to grasp the economic benefits that come along with an increase in international trade in every sector of its economy so as to enhance economic growth and thereby standards of living. On the other hand, especially in agriculture and agri-food industry, Tunisia also needs to boost its resilience towards economic shocks so that when facing large concomitant challenges, these sectors can be a key element for cushioning potential hardships – and those are already on the horizon.

Our study therefore shades light on this complex situation with a special emphasis on the close ties between Tunisia and the EU while giving special focus to the Tunisian perspective. It shows that stronger cooperation in developing the Tunisian agriculture and agri-food industry is beneficial for both. We recommend concrete policy fields that Tunisian and European decision-makers can work on to better cope with the current situation:

### Be aware of continuous dependencies on export and import markets for agriculture and agri-food industry production.

Tunisia's export activities are weak in diversification as they have a strong focus on certain products such as olive oil as well as an emphasis on larger European economies as target export market. This specialization in products and export destinations may be reasonable due to the utilization of comparative advantages, seasonal opportunities and geographic proximity.

However, Tunisia should analyse these ties continuously and carefully as the downside is that they may come with vulnerabilities. Taking these vulnerabilities into the equation for products on which the country relies heavily for imports (e.g. wheat) and for exports (e.g. olive oil) can help in carrying out proper risk assessments which better equip Tunisia against external shocks.

### Update the Association Agreement of 1998 and negotiate a renewal of tariff rate quotas with the EU.

Growing awareness about the need to increase the resilience of agricultural markets offers a window of political opportunity.

Tunisian policymakers and stakeholders should thoroughly assess if the country can profit from an enhancement in the production of agricultural products that currently fall under the imposed tariff rate quotas (TRQs) and whose quotas are not exhausted.

With olive oil, preserved or prepared tomatoes and preserved fish, three agricultural products from Tunisia (potentially) fulfill the TRQs which the EU imposes on a total of thirteen agricultural products. Negotiations for increases in or lifting of quotas for olive oil, preserved or prepared tomatoes and preserved fish can therefore help Tunisia in the short-term. Those negotiations should take into account that farmers need to adopt to changes in TRQs – only increasing TRQs for a year as in 2015–2016 therefore has minimal impact.

In this context, any lifting or increase of TRQs should be accompanied by European technical and financial support to modernize Tunisian agriculture and its agri-food industry to gear it more towards sustainability and resilience.

That said, a lifting or increase of TRQs for agricultural products is a sensitive issue within EU decision-making circles as subsidies to defend national farming interests are uppermost in their thinking. Therefore, any EU-Tunisian negotiations on TRQs should be accompanied by stakeholder participation to involve farming interest groups in Europe as well as in Tunisia.

### Analyze strategically which agricultural products to further bring forward.

When it comes to employing its agricultural capacities in the best way possible, Tunisia needs to build on data-driven insights. Export potential as one of many relevant indicators gives a hint that especially olive oil, dates and fresh tomatoes exhibit a lot of opportunities for export markets. Further analysis in this respect is required to set a strategic framework for the agricultural sector in Tunisia that officials should strive for. Such an analysis should always be accompanied by awareness of the links between very strong specializations and enhanced vulnerabilities.

### Help the most vulnerable and aim towards measurements of modernization.

Improving Tunisia's resilience to economic shocks also requires short-term measures that make sure poorer households retain access to basic foodstuffs and that sustaining local production of these is crucial. Due to upcoming hardships induced by climate change and taking into account comparatively low efficiency in agriculture water usage, a specific focus should be on enhancing efficiency in water management systems.

### Further support from the EU to cope with the short- and long-term consequences of Russia's war in Ukraine is recommended.

The negative effects of Russia's war in Ukraine are hard to overcome for Tunisia simply by relying on its own resources for securing basic foodstuffs – especially wheat – on global markets. The country may need further financial assistance from the EU to cope with the most pressing challenges to pay for rising prices of agricultural products on international markets. Such aid from the EU should help to stabilize the country's food security in the short-term.

However, this short-term financial support should be accompanied by EU-Tunisian negotiations about joint investments in sustainable modernization of the agricultural sector. If the Tunisian side were to present its own project plan and implementation agenda, the EU should support it – also with technical assistance. In addition, joint initiatives should involve local farmers and civil society. Their participation can strengthen local ownership and ultimately help to increase agricultural production and create more job opportunities.

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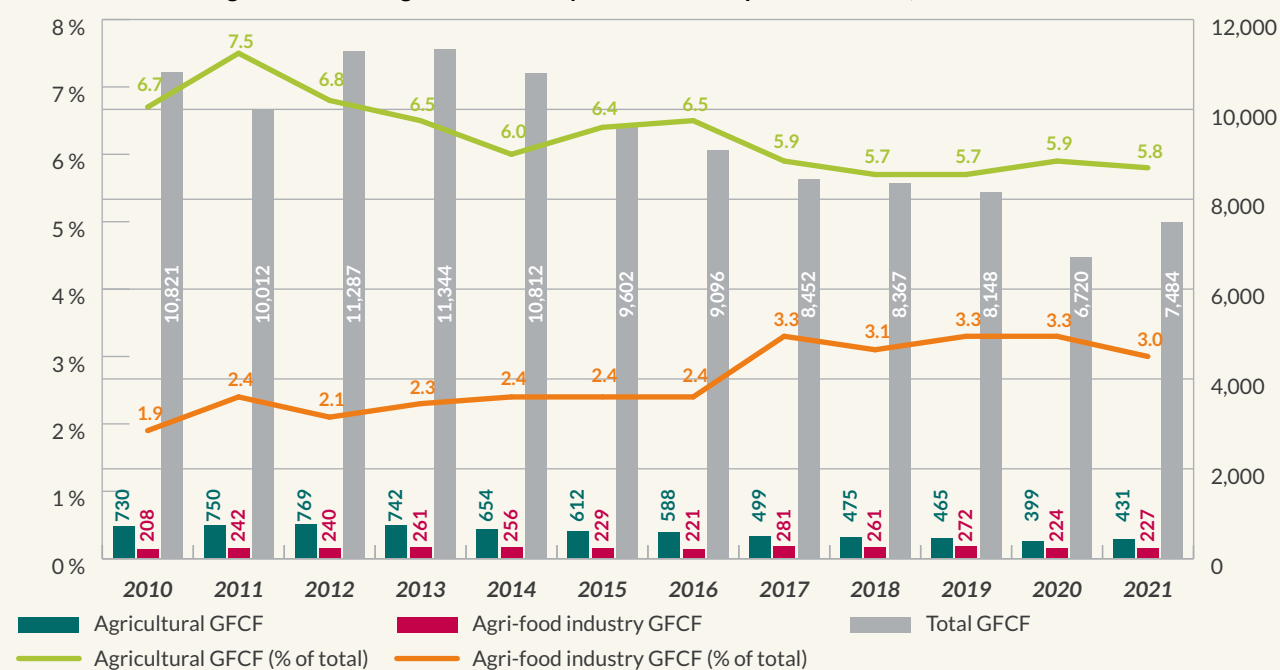
# Annexes

ANNEX 1 **Geographical distribution of Tunisian trade, in million USD**

		2002–2006	2007–2011	2012–2016	2017	2018	2019	2020	2021
<b>Imports</b>	Total	12,278	21,800	22,648	20,618	22,695	21,527	18,412	21,812
	EU 28	70%	61%	54%	54%	53%	52%	50%	48%
	African countries	6%	7%	7%	7%	7%	10%	8%	7%
	GCC countries	1%	2%	2%	2%	2%	2%	2%	3%
	North America	3%	4%	4%	4%	4%	3%	4%	3%
	Rest of the world	19%	27%	33%	34%	34%	32%	36%	38%
<b>Exports</b>	Total	9,354	16,641	15,695	14,200	15,521	14,995	13,829	16,433
	EU 28	80%	75%	73%	74%	73%	74%	74%	72%
	African countries	8%	11%	12%	10%	10%	11%	10%	10%
	GCC countries	1%	1%	1%	1%	1%	1%	1%	1%
	North America	1%	2%	2%	2%	3%	2%	3%	3%
	Rest of the world	10%	11%	12%	12%	12%	12%	12%	14%

Source: Trade Map and authors' estimates. | BertelsmannStiftung

## ANNEX 2 Tunisia's agricultural and agri-food industry Gross Fixed Capital Formation, in million USD



Source: Trade Map and authors' estimates.

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## ANNEX 3 Tunisia's export potential to the EU and Western Europe for main simple value chains, 2022, in million USD

HS Code   Product	Actual exports	Export potential	Untapped potential
<b>Vegetable oils and fats</b>			
150910 Virgin olive oil	407	534	285
<b>Fruits</b>			
080410 Fresh or dried dates	129	249	121
080510 Fresh or dried oranges	8.2	11	5.3
080930 Fresh peaches and nectarines	0.2	6.4	6.2
080711 Fresh watermelons	2.6	5.2	3.9
081020 Fresh raspberries, blackberries, mulberries and loganberries	1.7	2.2	0.9
080910 Fresh apricots	0.3	2.1	1.9
<b>Vegetables</b>			
070200 Fresh tomatoes	41	44	23
071290 Dried vegetables and mixtures	17	19	13
070999 Fresh or chilled vegetables	5.9	7.8	6.6
070511 Fresh cabbage lettuce	1.3	2.9	2.2
070959 Fresh or chilled mushrooms	0.3	2.5	2.3

Source: Elaboration of authors using export potentials from the International Trade Centre.

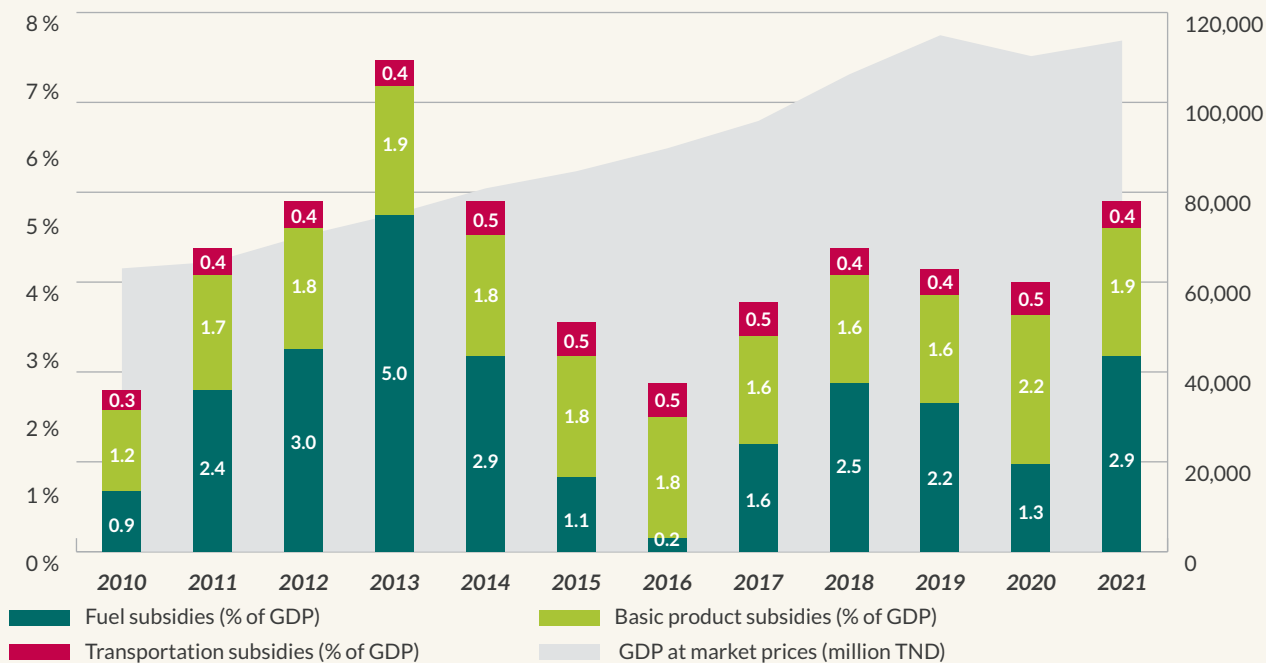
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ANNEX 4 Tunisia's trade balance for agriculture and agri-food industry, in million USD									
		2002- 2006	2007- 2011	2012- 2016	2017	2018	2019	2020	2021
All products		-2,924	-5,159	-6,953	-6,418	-7,173	-6,532	-4,583	-5,379
Agriculture and agri-food industry		-158	-649	-822	-797	-374	-593	-583	-848
	Live animals	-7	-19	-30	-7	-17	-25	-20	-13
	Meat and edible meat offal	-16	-21	-23	-6	-20	-21	-5	0
	Fish and crustaceans, molluscs and other aquatic invertebrates	98	101	71	88	84	50	58	119
	Dairy produce; birds' eggs; natural honey; edible products of animal origin	-22	-8	-4	-8	-24	-37	-29	-12
	Products of animal origin, not elsewhere specified or included	3	14	16	8	4	-1	-1	-1
	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage	1	1	-4	-3	2	0	2	1
	Edible vegetables and certain roots and tubers	-18	6	28	19	32	39	37	42
	Edible fruit and nuts; peel of citrus fruit or melons	90	213	260	234	275	268	233	234
	Coffee, tea, maté and spices	-18	-35	-43	-63	-55	-53	-52	-53
	Cereals	-376	-845	-903	-734	-811	-692	-1,002	-1,173
	Products of the milling industry; malt; starches; inulin; wheat gluten	10	0	-4	4	1	-5	-4	-4
	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit	-19	-146	-293	-240	-318	-294	-287	-324
	Lac; gums, resins and other vegetable saps and extracts	-3	-4	-4	-4	-5	-6	-6	-5
	Vegetable plaiting materials; vegetable products not elsewhere specified or included	0	1	1	0	0	-1	-1	-1
	Animal or vegetable fats and oils and their cleavage products; prepared edible fats	237	311	391	246	709	361	717	494
	Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates	1	18	21	11	21	27	26	31
	Sugars and sugar confectionery	-94	-183	-180	-156	-114	-111	-111	-72
	Cocoa and cocoa preparations	-1	5	-1	-16	-10	-10	-15	-10
	Preparations of cereals, flour, starch or milk; pastrycooks' products	38	80	77	48	50	71	65	61
	Preparations of vegetables, fruit, nuts or other parts of plants	16	16	10	1	-5	-5	2	13
	Miscellaneous edible preparations	-20	-37	-39	-32	-19	-19	-18	-12
	Beverages, spirits and vinegar	30	30	26	13	11	16	19	11
	Residues and waste from the food industries; prepared animal fodder	-68	-75	-109	-83	-47	-23	-58	-66
	Tobacco and manufactured tobacco substitutes	-21	-70	-85	-114	-116	-123	-132	-108

Source: Trade Map and authors' estimates.

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ANNEX 5 Tunisia's expenditure on subsidies in comparison to its GDP, in million TND



Source: Elaboration of the authors based on data reported by the Tunisian Ministry of Finance.

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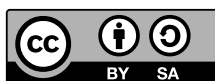
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