WIDER Working Paper 2014/074

Scoping of the Tunisian economy

Mohamed Ayadi[1] and Wided Mattoussi[2]

April 2014

Abstract: In this scooping paper on the Tunisian economy we review the historical background of the economy which has undergone substantial structural change since independence in 1956. In particular we emphasize that past record of consistent growth has often masked inequality, regional disparities and high unemployment rates among educated youth. We then evaluate the performance of the manufacturing industry over the past five decades in terms of exports, production and foreign direct investment. We conclude with a review of the main industrial policies undertaken by the government since independence.

Keywords: exports, manufacturing, industrial policy, Tunisia
JEL classification: F10, L60, O25, O550

Acknowledgements: This paper is one of a series of studies on industrial development in Africa produced in collaboration between the Africa Growth Initiative at Brookings, the African Development Bank (AfDB), and UNU-WIDER under their joint project 'Learning to Compete' (L2C).

Acronyms

AFI	Industrial Land Agency
API	Industrial Promotion Agency
CEPEX	Export Promotion Centre
ERSAP	economic recovery and structural adjustment programme
FDI	foreign direct investment
FIPA	Foreign Investment Promotion Agency
FTA	free trade agreement
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
PMI	industrial modernization programme
WTO	World Trade Organization

[1] UAQUAP-ISG, University of Tunis, med.ayadi@gnet.tn; [2] University of Jenbouda-LAREQUAD (corresponding author), wided mattousse@gmail.com

This study has been prepared within the UNU-WIDER project 'Learning to Compete: Accelerating Industrial Development in Africa', directed by John Page.

ISSN 1798-7237 ISBN 978-92-9230-795-0 https://doi.org/10.35188/UNU-WIDER/2014/795-0

Typescript prepared by Liisa Roponen at UNU-WIDER.

UNU-WIDER gratefully acknowledges the financial contributions to the research programme from the governments of Denmark, Finland, Sweden, and the United Kingdom.

1 Introduction

After independence (1956), most French civil servants left Tunisia, leaving a civil service vacuum that needed to be filled. The main goal of the new government was then to rebuild institutions and the civil service. Tunisia's manufacturing was artisanal, and depended on agriculture, food processing and mining. The country adopted a corporatist structure at the beginning of the 1960s with a quasi-socialist (collectivist) economic orientation. The economy was dependent on the public sector and characterized by a regime of import substitution. Eventually, the failure of collectivism (1969) led to a strategy of combining import substitution, private sector development and export promotion. However, the administration of heavy industry, transport, water and electricity were left to the state, opening opportunities for the private sector in the textiles and tourism sectors.

In the 1970s the country adopted a semi-liberal *infitâh* policy that constituted a peculiar combination of import substitution and export promotion and the coexistence of public and private sectors. The private sector was involved in quick-return manufacturing activities that are less capital-intensive, and technologically unsophisticated, while the state controlled heavy industries that were beyond capability and interest of the private sector (Bellin 1994). The *infitâh* policy was implemented through laws opening up foreign trade and providing incentives aimed at encouraging the private sector to assume a more active role. These included extensive institutional and technical support deployed through new state bodies like the Industrial Promotion Agency (API) and the Export Promotion Centre (CEPEX). In the 1970sthe economy was characterized by an offshore sector dominated by foreign investors and geared towards exports targeting external markets and dominated by foreign players; an onshore sector that was shielded from competition and regulated by the state; a public sector composed of large firms, monopolized strategic sectors; and a private sector which primarily consisted of small business units that focused on simple assembling activities.

The Tunisian economy experienced a slowdown in growth and productivity during the period 1981-86. To thwart the maladies caused by economic mismanagement and the political instability in the mid-1980s, the government put in place the Economic Recovery and Structural adjustment programme (ERSAP) that focused on tariffs reduction, facilitating quantitative restrictions on imports, the introduction of a value added tax, the reduction of personal income taxes, the devaluation of the Tunisian Dinar and negotiations with creditors that extended the maturity on the country`s foreign debt. The moderation of political instability following the political regime change in 1987 improved the business climate and encouraged the private sector to be more active, in particular for export-oriented activities.

During the 1990s Tunisian authorities promoted liberalizing measures through a legislative framework that encouraged foreign investment, accelerating privatization and deepening integration into the European market (UNIDO 2001). Trade remained protectionist throughout the first half of the 1990s, but since the mid-1990s, domestic industries have being liberalized, especially vis-à-vis 'preferential' trading partners. The government created several trade supports with the view of establishing a free trade agreement (FTA). Tunisia was part of several trade agreements including the General Agreement on Tariffs and Trade (GATT) in 1994, and subsequently became a member of the World Trade Organization (WTO) in March 1995, signatory to the European Union Association Agreement in July 1995. Tunisia became signatory to a 1997 convention targeting the creation of an Arab free trade zone over a period of ten years; and signed bilateral agreements with Morocco, Jordan and Egypt accelerating the dismantling of tariffs. The government has also encouraged the modernization of the industrial sector with the upgrading programme *Programme de mise à niveau* which was launched in 1996 and the industrial modernization programme (PMI). These programmes were intended to provide technical assistance, training, subsidies, and infrastructure upgrades, to firms to help them face international competition and survive in an open market economy.

Economic policies in the 2000s provided conditions for improving the performance of the economy, developing its structure, enhancing its competitiveness and ensuring openness requirements. These policies upgraded service companies focusing on the restructuring of hotel units, skills upgrading and facilitating access to new technologies. Special programmes were put in place focusing on the development of industrial and tourist zones, improving the quality of roads and modernizing communications infrastructure. More supports were put in place to support entrepreneurs including simplified new businesses creation procedures, and the creation of a network of business centres of excellence. Reforms aiming at trade liberalization focused on export promotion, by encouraging and assisting in the operations of market prospecting, and forging a partnership agreement with the European Union. Tunisian authorities developed the tax system, modernized monetary policy through the implementation of open-market instruments, optimized liquidity control operations and adopted a flexible exchange rate policy reinforcing financial liberalization and facilitating the transactions of national companies.

During the period 2002-06, there was a pronounced growth in gross domestic product (GDP), investments, foreign direct investment (FDI) and exports volumes of goods and services. This period was characterized by the development of the service sectors, and the prominence of a number of emerging and promising industrial activities such as the mechanical and electric industries. Exports of goods and services expanded at the average rate of 8.5 per cent, due to the emergence of new export sectors such as mechanical and electrical industries, automotive components and a number of promising and growing service activities, particularly textile and tourism exports. Until 2010, the Tunisian economy had masked inequitable growth and high unemployment rate, particularity among the educated youth. Consequently, growing youth unemployment, corruption and political repression led to the Arab Spring and the fall of the regime.

The paper is structured as follows. In section 2, we present a historical background of the Tunisian economy since independence (1956). We divide the past five decades into four periods: the period of liberalization (1956-60), the collectivism experiment (1961-69), transition to a protectionist market economy (1970-85), and a period of private investment boom, competitiveness and openness of the economy (1986-2010). In section 3, we evaluate the performance of the manufacturing industry over the past five decades in terms of exports. Section 4 discusses the evolution of Tunisian industries in terms of production, exports and FDI. In section 5 we present the main industrial policies undertaken by the Tunisian government since independence. Section 6 concludes.

2 Historical background

2.1 Initial conditions

After independence (1956), most French civil servants went back to France, leaving a civil service vacuum to be filled. Between 1956 and 1960, almost all 12,000 French public servants working for the Tunisian administration were obliged to repatriate. In 1960, Tunisia signed an agreement with the French government to get back land annexed by the French government (UNIDO 2001). During the first few years following independence, the main goal of the new government was to rebuild institutions and the civil service to fill the institutional vacuum. However, the Tunisian government put more emphasis on major dimensions of human development, education, family planning through birth control, women’s rights and ‘eradication’ of poverty (see Ayadi et al. 2005). At the beginning of the 1960s, Tunisia had faced high illiteracy rates and a very low standard of living. Poverty incidence rates were estimated at 33 per cent in 1966. Agriculture was by far the main activity and there was very little industry and tourism.

2.2 The 1960s: the 'collectivism' experiment

The 1960s were years of policy experimentation: agricultural cooperatives,[1] collectivism and state-led import substitution. Industrialization was state-led with the private sector playing a marginal role. These industries reduced Tunisia's dependence on imported products, but did not create new employment in industry (Findlay 1984; Murphy et al. 1999). Capital accumulation[2] was by far the main source of growth in the 1960s (around 60 per cent). Investment went into capital-intensive projects such as steel mills, an oil refinery, a paper plant, a couple of large textile factories and an automobile assembly plant. Although these projects absorbed a large share of investment resources, they barely contributed to job creation.

2.3 The 1970s: private sector development and export industry promotion

The failure of collectivism led to a new strategy combining import substitution, private sector development and export promotion. However, the public sector has been in charge of running the key sectors such as heavy industry, transport, water and electricity; while the private sector focused on textiles and tourism. During this period growth accelerated, fuelled by windfall oil revenues, the development of private manufacturing industry and tourism. The government pursued the creation of new institutions and new laws that would promote the private sector and foreign and domestic investment.

New institutions were established in 1973: (i) Industry Promotion Agency (API), tasked with assisting investors and promoters with the administrative and legal formalities necessary for company incorporation in Tunisia; (ii) Export Promotion Centre (CEPEX) providing business information to foreign importers; (iii) an investment law (Law 72-38) was adopted in (1972) offering special advantages to exporting manufacturing companies. Incentives consisted of partial or total tax exemption for periods of 10-20 years and 50 per cent reduction thereafter (granted also to partially exporting firms), full tax exemption on reinvested profits and income, total exemption from customs duties on imported capital goods, raw materials, semi-finished goods and services. A similar law that encouraged investment in industries producing for local markets was enacted in 1974 and amended in 1981. Such firms were required by law to be owned by Tunisians (at least partially) providing them with a wide range of tax concessions (e.g., exemption from corporate income tax during the first ten years of operation and repatriation of profits free of tax). An Industrial Land Agency (AFI) was established to manage industrial zones.

These policy packages implemented in the 1970s contributed to a turnaround in labour productivity. Light manufacturing and tourism grew at rates exceeding 13 per cent per annum on average. GDP growth averaged 7.5 per cent per year. The private sector grew rapidly under the protection of import restrictions. Between 1972 and 1977 private investment exceeded public investment and 85,500 new jobs were created in light manufacturing industries (King 1988; Findlay1984). However, the industrial structure remained concentrated in a few sectors and regions. In 1977, 54 per cent of new investments and 87 per cent of the employment were concentrated in textile, clothing and leather sectors. Almost all new industries were concentrated

[1] Cooperatives are promoted also in other economic sectors: all traders and several craftsmen were forced to join the cooperatives (UNIDO 2001; Morrison and Talbi 1996).

[2] In turn, labour barely contributed to growth with a rate almost equal to 10 per cent.

in the North-Eastern region, strengthening regional disparities and encouraging further migrations towards this region (UNIDO 2001).

2.4 1977-86: Economic mismanagement

At the end of the 1970s, Tunisia's foreign debt ballooned while the economy showed no stable productive base capable of absorbing excess labour force and exporting a diversified and competitive range of goods (Morrison and Talbi 1996). The Tunisian economy experienced further slowdown in the period 1981-86 reaching the lowest growth performance (2.8 per cent annum) and productivity decline (around 1.5 per cent per year). The poor performance was mainly was attributed to economic mismanagement and political instability. Despite the low growth performance, the government instituted a public sector wage raise inflating the wage bill. At the same time, food subsidies were maintained at record levels, representing more than 5 per cent of GDP. Inflation sharply rose over 8 per cent while the current account deficit grew over 10 per cent of GDP. In 1986 Tunisia registered negative growth, amid growing social unrest labour strikes and (UNIDO 2001; Murphy et al. 1999; Morrison and Talbi 1996). Faced with internal imbalances and external debt, Tunisia negotiated its first economic adjustment programme (ERSAP) in 1986 (King 1998).

2.5 1986-90: Economic recovery and structural adjustment programme

ERSAP led to tariff reductions, quantitative restrictions on imports, the introduction of a value added tax, the reduction in personal income taxes, the devaluation of the Tunisian Dinar and negotiations with creditors to extend the maturity on the country's US$10 billion foreign debt. The privatization programme led to the full or partial privatization of nearly 160 state-owned companies. While public investment declined, the ensuing slowdown in growth was moderate (going from 3.7 per cent in 1980-85 to 3.0 per cent per annum in the period 1985-90). Macroeconomic stability was restored and the external debt burden fell. In addition, there was a sharp fall in inflation (below 5 per cent in less than 10 years) and a reduction in the current account deficit from 7.8 per cent of GDP in 1986 to 2.4 per cent in 1996. Fiscal discipline and the realignment of the exchange rate were instrumental in reducing public and external deficits and placing the economy on a sustainable growth trajectory. The reduction in political instability following the change in regime in 1987 improved the business climate, creating a vibrant private sector, especially in export-oriented activities.

2.6 The 1990s: global competition

Tunisian authorities played a crucial role in making the private sector cope with increased competition in global markets. A legislative framework encouraged foreign investment, while privatization measures facilitated deepening integration into European markets (UNIDO 2001). The government encouraged the modernization of the industrial sector through *Programme de mise à niveau* launched in 1996 and the industrial modernization programme (PMI) that subsequently followed. Moreover, the government created several trade supports with the view of establishing an FTA with the European Union. The FTA's target was to improve the productivity of the manufacturing sector and to increase the export share of manufacturing products. Trade remained protectionist throughout the 1980s and the first half of the 1990s. Since 1996, however, the government has gradually liberalized trade in manufacturing. Economic policies in the 1990s contributed to a steady decline in capital. During the same period, labour and productivity gains became important sources of growth; real GDP grew faster than in the previous period.

2.7 Early 2000s-2011: development of services and innovative projects

During the period 2002-06, economic indicators including GDP, investments, FDI and export volumes of goods and services showed steady growth. Real GDP grew at an average rate of 4.5 per cent, despite the stagnation of the agricultural sector due to unfavourable climatic conditions. The 2000s are characterized by the development of the service sectors which exhibited an average growth rate of 7.2 per cent. The mechanical and electronics industries showed promise with growth rates averaging at 8.9 per cent. During the same period, the contribution of technological-intensive sectors to GDP grew to 20.4 per cent in 2006 against 16.8 per cent in 2001.

Overall investment grew at an average rate of 5.1 per cent to reach 41.2 billion Tunisian Dinars. FDI grew substantially over the period, due to favourable investment policies that encouraged the participation of foreign firms (close to 884 joint-venture firms were established during the period).

The private sector became the dominant force in the Tunisian economy contributing to 57.1 per cent of total investment, 85 per cent of exports and 91 per cent of jobs creation. Exports of goods and services increased at the average rate of 8.5 per cent, due to the emergence of new export sectors such as mechanical and electronics industries, automotive components and textiles and tourism. Economic performance during the period relied on the preservation of internal and external financial stability. Most importantly: a favourable current account deficit 2.4 per cent of GDP, a reduction in the rate of external debt to 47.9 per cent of the net income, the consolidation of monetary reserves, the control of budget deficit excluding donations and privatization to an average rate of 3.1 per cent of the GDP (Republic of Tunisia 2010).

2.8 The Arab Spring (Tunisian revolution of 14th January 2011)

Several factors led to the Arab spring: youth unemployment, corruption, human rights violations, extreme poverty, and regional disparities all played a role.

Youth unemployment

The Tunisian economy that exhibited strong 'competitiveness' had masked the inequitable growth and high unemployment rate among educated youth. In Tunisia unemployment is concentrated at the lower age cohorts. In 2008 the unemployment rate for individuals below 30 years was nearly 30 per cent—twice the overall unemployment rate. The unemployment rates among 25-29-year olds increased from 12.6 per cent in 1984 to 25.2 per cent in 2008 (see Haouas et al. 2012).

Young university graduates were particularly harmed by the deterioration of job creation in the Tunisian economy. Unemployment levels among those who had that completed higher education grew from 3.8 per cent in 1994 to 21.6 per cent in 2008 (see Haouas et al. 2012). Unemployment is largely caused by search friction typical of countries where education systems and training are not related to the economic environment. This mismatch between skills and firm needs is the primary cause of persistent unemployment. Private sector job creation remains concentrated in low-skill employment, while private investment is relatively low and tightly controlled by the government.

Regional disparities

The regional disparities in Tunisia are structural and institutional, and have become enforced over decades. Overall, coastal regions (such as Cap Bon, Sousse, Sfax, Mehdia) tend to be wealthier than inland regions (western, central and southern regions); but these disparities are much more severe in the governorate of Tunis, largely due to the political dominance of networks cantered on the political regime. Factories (and employment prospects) have long been concentrated along Tunisia's coast, while the interior regions were isolated from these hubs of economic activity not only by distance but, more significantly, by a lack of infrastructure, transportation and information networks. The population and economic activities are mainly concentrated in the northeast (governorate of Tunis) and the mid-east (governorate of Sfax) with the coastal regions accounting for 75 per cent of non-agricultural jobs. This has been the source of a significant gap in average consumption and poverty across costal and interior regions.

In 2010, while the poverty headcount (national average) stood around 15.5 per cent, regional disparities in poverty levels are significant. Similarly, there is a large disparity in employment opportunities across regions. For instance, since 2004 the unemployment rate on average has exceeded 22.6 per cent in the region of Jendouba, Le Kef, Kasserine and Gafsa. In addition, close to 65 per cent of public investment is allocated to coastal areas. As a consequence, healthcare needs in the mid-west region are largely unmet and youth illiteracy remains significantly high.

A recent World Bank study by Brisson and Krontiris (2012) on inequality across the Middle East and North Africa regions suggests that marginal improvements in transportation and digital connectivity networks entail significant welfare gains for disadvantaged regions.

Economic costs of the Arab spring

In the wake of the revolution, investments sharply declined in almost all sectors, except the electronics sector which was uninterrupted (API 2012). FDI flows decreased by 29.2 per cent during 2011 compared to 2010. Consequently, 182 foreign firms closed their doors (64 Italian, 61 French and 10 German firms), leading to the loss of 10,930 jobs. The decline of FDI was particularly severe in the tourism sector where losses were estimated at 83.3 per cent, while manufacturing and energy exhibited losses amounting to 42.4 per cent and 19 per cent, respectively.

Government measures

The government took steps to limit losses in the affected firms. Some of these measures included:

- 50 per cent reduction of firms' contribution to social security,
- reduction or even abolition of firms' taxes dues for 2011, and
- reduction of credit fees by 2 points.

The government also adopted an economic and social enhancement plan (FIPA 2012), through which more investments are devoted to the less developed regions. The plan provided more incentives for investment through the Tunisian financial market, and allowed the exclusively exporting firms to operate in the local market and facilitated firm level access to liquidity.

Economic recovery in 2012

In the wake of revolution, investments dramatically declined, but economic recovery followed in 2012. FDI flows recovered by as much as 44 per cent from TD775.3 million during the first half of 2011 to TD1,121.2 million in the first half of 2012. Compared to the same period in 2010, FDI amounts rebounded to TD1,090.6 million, surpassing the 2010 levels by about 2.8 per cent

(API 2012). During the first few months of 2012, 71 foreign firms were created giving rise to 6,731 new jobs. FDI was mainly concentrated on energy and manufacturing sectors (API 2012).

3 Global evaluations of the last five decades

3.1 Economic activities

After a half century of rapid growth, the structure of the Tunisian economy has changed. While industry and services shares in output have increased, that of agriculture has gradually decreased.

Agriculture

Agriculture had a large but volatile influence on overall growth performance over the past five decades. In the 1970s, agricultural output grew at 6.7 per cent per annum. Between 1980 and 2000, the average growth of agriculture was higher than GDP growth, although there were subperiods (1981-86 and 1991-95), when agricultural registered very low growth rates or at times even negative (Ayadi et al. 2005). Similarly, the contribution of agriculture to real GDP growth rates fluctuated in the past decade. On average, agricultural contribution to GDP amounted to 13.4 per cent during 2000-07, but declined to 10 per cent between 2005 and 2009 (Chemingui and Sánchez 2011).

Manufacturing

Manufacturing was the fastest growing sector (particularly textiles and garments). Excluding the agro-food industry, manufacturing value-added grew at 11 per cent annually over nearly four decades, until 2000. By the year 2000 the textile and garment sector accounted for almost half of total manufacturing employment and 14 per cent of total employment. Its rapid growth made it easier to absorb a large portion of low-skill, active female population from the rural areas (Ayadi et al. 2005). During the years 2000-07, the contribution of industry to GDP stood at 29.2 per cent and its growth rate averaged at 4.2 per cent (Chemingui and Sánchez 2011).

Tourism

Tourism value-added grew at an average annual rate of 12 per cent over the period 1962-2000. The employment share of the sector grew from an insignificant proportion to almost 3 per cent of the total labour force (Ayadi et al. 2005). During the period 1990-2007, the contribution of services to GDP stood at 57.4 per cent and its average growth rate was equal to 5.6 per cent (Chemingui and Sánchez 2011).

3.2 Economic strategies

Evolution of manufacturing industry: more competitiveness and openness

The share of industry in GDP and total employment stood at 30 per cent and 32.5 per cent in 2007. Textiles, clothing and leather industries benefited greatly from the export promotion strategies instituted in the 1970s with the aim of strengthening light industry beyond traditional food processing activities.

The decades following independence were dominated by an import- oriented industrial strategy. At the beginning of the 1980s, the manufacturing sector accounted for 15 per cent of GDP. Over five decades, the structure of the industry has changed significantly with the growth of the chemical, and textile sectors. The relative importance of exports continued as a result of the structural adjustment policy instituted in 1986 and later, with the Barcelona Declaration (1995).[3]

The progressive elimination of import tariffs, and ensuing global competition provided an incentive for Tunisian firms to raise productivity. Over the 1983-87 period, the effects of the second oil crisis were still being felt and Tunisia faced a severe economic and financial crisis resulting from the decline in oil export earnings and net remittances (cf. Morrison and Talbi 1996). A more restrictive external trade policy was instituted to stem the balance-of-payments crisis and the sharp fall in external reserves.

During the subsequent period (1987-95) and consequent to the adoption of structural adjustment policies, Tunisia joined GATT and became signatory to the WTO. In addition to the multilateral approach to trade policy, a stronger Euro-Mediterranean partnership grew out of the Barcelona Declaration (1995).

Gradually, domestic demand became a key driver of real GDP growth especially during periods of global recession. During the past two decades, private consumption has contributed to growth and compensated for the decline in foreign demand during global recessions. Private consumption remains one of the main driver of growth and occupies a central place in Tunisia's development strategy (Chemingui and Sánchez 2011).

Three pillars of Tunisian manufacturing industry

Since 1970, efforts to improve competitiveness and diversification gave rise to three important manufacturing subsectors: textiles/clothing-leather/footwear, agro-food, and mechanical, electrical and electronic industries. In 2007, the three subsectors represented 87 per cent of exports, close to 62 per cent of FDI, and more than 83 per cent of jobs created by the private sector.

- *Textile/clothing and leather/footwear industries*: The Tunisian textile industry gradually evolved from sub-contracting[4] to co-contracting and, subsequently, to finished goods to become the fifth largest supplier to the European Union. The majority of businesses that make up this sector (more than 1,700 textile firms and more than 200 leather/footwear firms) produce exclusively for export markets. There are 1,500 ready-to-wear garment manufacturers and 200 hosiery concerns, accounting for more than 70 per cent of exports by the sector. The leather and footwear industry is dominated by shoes and uppers manufacturers. More than 220 firms out of a total of 300 businesses are engaged in the production of shoes and upper leather.
- *Agro-food industries:* Exports increased by almost 300 per cent during the period 2002-07, up from TD557 million to TD1,616 million. There are at least 1,000 firms in the agro-food sector with at least 10 employees, and of these firms, 156 are full-exporters while close to 104 are financed partially by foreign holdings. Firms producing oils and fats and

[3] In November 1995, the Barcelona Declaration established a global framework geared towards strengthening a multidimensional partnership between the European Union and twelve South and East Mediterranean (SEM) countries, including Tunisia. The main objective of this Declaration was to promote a shared prosperity on both sides of the Mediterranean Sea, mainly through the development of regional trade: the liberalization of trade in goods by both parties by 2008.

[4] Industrial initiatives in Tunisia up until the late 1990s often handled just a limited part of the production process (task-based production). Companies today are no longer interested in handling only isolated portions of production, even if they are productive and profitable. Interest lies in coordinating links between various sites, leading to total insertion of Tunisian industry with other research, production, service or distribution entities.

cereals and handling cold storage represent almost 70 per cent of the overall number of businesses in this sector.

– *Mechanical/electrical/electronic industries:* These industries accounted for more than 30 per cent of industrial exports in 2007. Over the years 2002-07, exports grew at an annual rate of more than 20 per cent.

3.3 Exports, offshore and FDI

More recently, close to 70 per cent of manufacturing exports come from firms that have benefited from offshore status since 1972. Major trading partners include France, Italy, Spain and Germany. Up until the mid-1980s, export products exhibited a high dependence on factor endowments, primarily natural resources (such as petroleum and derived products). Between 2000 and 2003, manufactured exported accounted for 80 per cent of total exports.

In June 2010, there were 5,840 industrial companies registered with API, 48 per cent of which exported all of their production (offshore sector). During the same period, Tunisia's exports of machinery and electrical products became largest export sector.

Table 1: Evolution of the structure of Tunisian industrial exports between 1995-2003

Exports (% of total exports)					
Agro-food products		Energy and lubricants		Manufacturing products	
1995-98	2000-03	1995-98	2000-03	1995-98	2000-03
9.93	7.74	8.62	9.82	79.86	80.23

Source: World Bank database (2005).

Tunisia's export performance

Since 1972, close to 70 per cent of the manufacturing exports come from firms with offshore status. More than 80 per cent of industrial exports are shipped to European markets and close to 2200 industrial European firms operate in Tunisia. Exports to EU countries have expanded more than 10 per cent annually since 1996.

Tunisia's exports are concentrated in a few products. For instance, the textile and agro-food sectors represent 50 per cent of the production and 60 per cent of employment. Export destinations are limited to a handful of EU countries (France, Germany and Italy) and face strong competition from Asian exporters China and India and Eastern European countries that have higher productive and face lower labour costs.

The textile sector that accounted for 40 per cent of exports and 46 per cent of employment in 2005 faces persistent competition from lower cost, efficient Asian producers and exports, including China. Tunisian wages in the sector are relatively high compared to other exporters such as China. On average, a Tunisian worker earns a monthly salary of 115 -130 Euros (for 40 to 48 hours of weekly work), while a Chinese worker receives between 50-60 per cent less.

Tunisia is the fourth largest exporter of textiles to the EU. Current estimates by the World Bank indicate that one third of the 250,000 jobs in the sector are threatened. The economy`s continued dependence on low-cost production and traditional export sectors makes it vulnerable to low-cost competitors.

Tunisian exports of manufacturing products are mainly concentrated on textile and clothing, which constitute almost 70 per cent of manufacturing products. However, a number of new products have emerged with strong demand from EU countries. For instance beam wire exports have targeted European mass-produce vehicles, electronic components, certain plastic products, essential oils, and detergents.

Several modernization and upgrading programmes(*mise à niveau*) were implemented to enhance the competitiveness of Tunisian firms including the upgrading programme launched in 1996 and supported by the industrial modernization programme partially funded by the EU. These programmes aided firms in their efforts to modernize equipment, resources, and governance strategies. This has improved the competitiveness of Tunisian firms consequently leading the expansion of industrial exports to 84 per cent of overall exports in 2007, up from 40 per cent in 1995.

Export-oriented sectors, textile and electromechanical equipment industries, in particular, have been weakly integrated with the rest of the economy (Chemingui and Sánchez 2011). Thus, only growth in high-technology products is bound to absorb high-skilled unemployed Tunisians.

Foreign direct investment

During the past decades, many measures have been adopted by Tunisian policymakers to attract FDI in a bid to spur modern technology, enhance productivity and stimulate export-led growth. The government provided a wide range of incentives, including:

- tax relief up to 35 per cent on reinvested revenues and profits (30 per cent beginning 2007),
- exemptions from customs duties and a 10 per cent reduction of VAT (value added tax) for imported capital goods having no Tunisian manufacturing equivalent,
- a suspension of VAT and sales tax on locally produced equipment at company start-up and an optional depreciation scheduling for capital equipment older than seven years.

In 1972, an investment law provided special benefits to manufacturing companies producing for exports. The regulation has been successful in attracting foreign involvement, particularly in the textile industry.

Table 2: The breakdown of manufacturing exports by sector

Sector	Exporting in %
Textiles and clothing	37
Electrical/electronics and household appliances	25
Agro-food	11
Mechanical and metal industries	8
Chemical industries (exclusive of plastics)	8
Leather and footwear	6
Miscellaneous	2,6
Building materials, ceramics & glass	2
Wood, cork & furnishings	0,4
Total	100

Source: INS (2007 data).

The investment laws provided incentives in the form of:

- Partial or total tax exemption for periods of 10-20 years and 50 per cent reduction thereafter (granted also to partially exporting firms),

- Full tax exemption on reinvested profits and income,
- Total exemption from customs duties on imported capital goods, raw materials, semi-finished goods and services necessary for business.

A similar law was enacted in 1974 (amended in 1981) with the aim to encourage investment in industries producing for local markets.

- The statute stipulated that for firms to be eligible for benefits were to be partially owned by a Tunisian (in many cases conditional on majority ownership).

A 1981 amendment to the law offered incentives for investment in less-developed regions.
In the1990s, the ratio of net FDI flows to GDP reached 2.2 per cent. FDI distribution by sector revealed that until the first half of the 1990's, FDI was mainly directed towards the petroleum and gas sector (about 80 per cent against 8 per cent for the manufacturing sector). By 1998, and following a successful privatization program, the share of total FDI in the manufacturing sector grew substantially compared to the petroleum and gas sector (35 per cent and 58 per cent respectively).

The annual investment flow of FDI to Tunisia peaked at US$778.8 million in 2000, up from US$368 million in 1999. The annual investment flow fell following the global economic slowdown of 2001 and the 9/11 terrorist attacks in the United States. FDI flows to Tunisia fell from US$486 million in 2001 to US$402 million in 2002. Nevertheless, in 2002, the manufacturing sector accounted for 84 per cent of foreign-owned firms in the country and 90 per cent of new jobs created.

Table 3: The breakdown of FDI flows by sector for 2007

Sector	FDI in %
Mechanical, electrical and electronic	31
Textiles and clothing	19
Chemical and rubber	19
Agro-food	8
Building materials	8
Plastic industry	7
Leather and shoes	5
Miscellaneous Industries	3
Total	100

Source: Calculations by authors based on data from FIPA.

Offshoring

The Tunisian government has been relatively successful in creating an attractive environment for export-oriented foreign investors. Tunisia is becoming an attractive destination for European investment due to geographical and cultural proximity. But even firms from the BRICs and North America have expanded investments.

The Kearney's Global Services Location Index (GSLI), which analyses and ranks the top 50 countries worldwide for locating outsourcing activities bases its index on 43 measurements, grouped in three categories: financial attractiveness, people and skills and availability and business environment. The GSLI ranked Tunisia as the 17th most attractive offshoring[5] destination in the world.

The report indicates that the geography of offshoring is rapidly shifting, with the Middle East and North Africa emerging as the key offshoring destination because of its size, high literacy rates and proximity to Europe. Currently, 3000 foreign companies are operating in Tunisia. The country has earmarked 7.5 per cent of its GDP to the sector of education and 1.25 per cent in scientific research and innovation.

Evolution of R&D and innovation in Tunisia

The *Mise à Niveau* instituted in 1996[6] is an industrial upgrading programme targeting strategic sectors of the national economy. Launched on a pilot scale in 1996, the programme was supported in part by EU grants and consisted of technical assistance, training, subsidies, and infrastructure upgrades with the aim of restructuring and modernizing Tunisia's private sector.

During 1997-2006, the Ministry of Higher Education Scientific Research and Technology (MHESRT) reported the amount of credits allocated to research and development to have reached 430 million dinars in 2006 from 89 million dinars in 1997. According to the office of planning and programming studies, the number of researchers in full-time positions reached 15,833 individuals in 2006 against 6,563 in 1998. During the period 1998-2006, the number of researchers per million inhabitants has more than doubled, from 2.14 to 4.52.

The number of national patents filed has significantly increased, from 160 in 1990 to 338 in 2005. However, the majority of patents are owned by foreign investors (MHESRT). Only ten patents were filed by Tunisian companies with the United States Patent and Trademark Office (USPTO) during the period 1996-2005 (which is very few compared to other European and Mediterranean countries), and only one was registered with the European Office of Patents (EOP) in 2004. Patents filed in USPTO by partner countries between 1996 and 2005 totalled 42,464 for France, 19,334 for Italy, 3,651 for Spain, 26 for Jordan, 31 for Morocco and 91 for Egypt.

4 Sunrise and sunset industries

In this section we examine the sunrise and sunset industries in terms of production, exports and FDI.

4.1 Production, investment and exports: an overview

During the period 2004-08, the manufacturing sector grew at an annual rate of 14 per cent. However, not all subsectors have experienced similar growth. While the textile and garment production subsector stagnated with annual growth limited to 1 per cent for the same period, electronics and chemicals grew at annual rates of 21 per cent and 33 per cent, respectively (Table 4).

[5] Offshoring designates the delocalization of service or production activities of certain firms towards countries exhibiting low wages or other advantages. This phenomenon was started in 1970 by American firms. After staying away for a long period from this wave, European firms became progressively conscious about the advantage of reducing costs by delocalizing their firms. Firms could find the necessary competencies for their development by dealing with specialized subcontractors of other countries: in such a case, we speak of outsourcing offshore. If these firms are filial, we then talk about FDI.

[6] The programme was first adopted in 1995 and successively revised over time.

The growth in investment accounted for much of the expansion in the manufacturing sector. However, investments are still more concentrated in old industries, notably, textiles and garments (TD1,364 million in 2008) than in the emerging industries, such as the electronic industry (TD146 million MTD in 2008).

Manufacturing exports represent 80 per cent of total national exports. Their levels have shown a steady rise with annual growth averaging around 16 per cent during (2004-08). However, exports growth rates differ by subsector. For instance, exports of chemical products grew at an annual rate of around 33 per cent, while those of mechanical products and electronics increased annually by 29 per cent and 22 per cent, respectively. In turn, the textile and garment exports experienced a low growth rate which barely reached 4 per cent per year (Table 6).

Table 4: Industrial production trend, 2004-08, in millions of TD

Sector	2004	2005	2006	2007	2008	Annual growth rate %
Chemicals and rubber	2,857	3,041	3,179	3,564	8,958	33
Leather and shoes	2,095	2,520	3,010	3,864	4,536	21
Electrical and electronic comp.	3,051	1,280	3,271	4,611	5,681	17
Mechanical	2,169	2,305	2,851	3,254	3,706	14
Agro-food	6,784	7,060	7,888	8,615	9,927	10
Building materials	1,832	1,963	2,211	2,350	2,584	9
Miscellaneous industries	2,312	2,477	2,616	2,805	3,009	7
Textiles and clothing	5,191	5,120	4,876	5,341	5,364	1
Total	26,291	25,766	29,902	34,404	43,765	14

Source: Ministère du Développement et de la Coopération International.

Table 5: Industrial Investment trend, 2004-08, in millions of TD

Sector	2004	2005	2006	2007	2008
Agro-food	225	230	240	270	300
Building materials	184	129	180	238	961
Mechanical	128	129	120	133	172
Electrical and electronic components	57	71	105	153	146
Chemicals and rubber	105	110	97	105	135
Textiles and clothing	993	1,026	1,017	1,167	1,364
Leather and shoes	25	26	26	32	37
Miscellaneous industries	120	119	122	122	143
Total	1,837	1,840	1,907	2,220	3,258

Source: Ministère du Développement et de la Coopération International.

Table 6: Industrial exports trend, 2004-08

Sector	2004	2005	2006	2007	2008	Annual growth rate, %
Agro-food	1,227	1,233	1,599	1,616	1,850	11
Building materials	172	204	272	302	375	22
Mechanical	694	806	1,022	1,554	1,928	29
Electrical and electronic comp.	1,861	2,184	2,661	3,464	4,217	23
Chemicals and rubber	1,113	1,307	1,430	1,731	3,499	33
Textiles and clothing	4,481	4,452	4,422	5,185	5,183	4
Leather and shoes	621	685	726	875	894	10
Miscellaneous industries	477	475	622	836	1,005	20
Total	10,646	11,346	12,754	15,563	18,951	16

Source: Ministère du Développement et de la Coopération Internationale.

6 Conclusions

The Tunisian economy has undergone substantial structural change since independence in 1956. The economy has transited from liberalism, a brief stint of collectivism to a full-fledged market economy. The relatively closed and inward oriented state-driven economy heavily dependent on the public sector and insulated from foreign competition has given way to an increasingly outward-oriented and export-oriented market economy. Presently, a modern and competitive manufacturing industry is at the centre of economic growth and holds the key to future economic prosperity.

Past records of consistent growth have often masked inequality, regional disparities and high unemployment rate among educated youth. However, the gradual transformation of the economy towards technologically sophisticated manufactured exports is expected to absorb portions of the educated youth by creating opportunities for high skill jobs. More measures are being taken by the government to make sure that regional disparities are addressed. The government has expressed intentions to channel public investment to improve infrastructure projects in marginalized regions with the aim of attracting private investment. Statutory frameworks are being revised to accommodate objective criteria for selecting investment projects.

Appendix

Appendix Table A1: Sectoral industrial percentage, 2004-08

Sector	2004	2005	2006	2007	2008
Chemical	11	12	11	10	20
Leather and shoes	8	10	10	11	10
Electric and electronic components	12	5	11	13	13
Mechanical	8	9	10	9	8
Agro-food	26	27	26	25	23
Construction and ceramics	7	8	7	7	6
Other industries	9	10	9	8	7
Textiles and garments	20	20	16	16	12
All industries	100	100	100	100	100

Source: Ministère du Développement et de la Coopération Internationale.

Appendix Table A2: Industrial investment, 2004-08

Sector	2004	2005	2006	2007	2008
Agro-food	12	13	13	12	9
Construction and ceramics	10	7	9	11	29
Mechanics	7	7	6	6	5
Electric and electronic components	3	4	6	7	4
Chemical	6	6	5	5	4
Textiles and garments	54	56	53	53	42
Leather and shoes	1	1	1	1	1
Other industries	7	6	6	5	4
All industries	100	100	100	100	100

Source: Ministère du Développement et de la Coopération Internationale.

Appendix Table A3: Sectoral percentage of industrial exports, 2004-08

Sector	2004	2005	2006	2007	2008
Agro-food	12	11	13	10	10
Construction and ceramics	2	2	2	2	2
Mechanics	7	7	8	10	10
Electric and electronic components	14	19	21	22	22
Chemical	10	12	11	11	18
Textiles and garments	42	39	35	33	27
Leather and shoes	6	6	6	6	5
Other industries	4	4	5	5	5
All industries	100	100	100	100	100

Source: Ministère du Développement et de la Coopération Internationale.

References

Ayadi, M., G. Boulila, M. Lahouel, and P. Montigny (2005). 'Pro-Poor Growth in Tunisia'. International Development and Strategy, 2005, Paris, France.

Barrouhi, A. (2008). 'Bourguiba déclaré inapte à gouverner'. *Jeune Afrique*, 18 November.

Bellin, E. (1994). 'Tunisian Industrialists and the State'. *World Development*, 22(3): 427–36.

Brisson, Z., and K. Krontiris (2012). *Tunisia from Revolutions to Institutions*. Washington, DC: International Bank for Reconstruction and Development/World Bank.

Chemingui, M., and M. Sánchez (2011). 'Country Study: Assessing Development Strategies to Achieve the MDGs in the Republic of Tunisia'. New York: UNDESA.

Erdle, S. (2011). 'Industrial Policy in Tunisia'. Discussion Paper 1/2011. Bonn: German Development Institute

Findlay, R. (1984). 'A Comment on North-South Trade and Export-Led Policies'. *Journal of Development Economics*, 15(1-3): 161–7.

Grissa, A. (1989). 'The Tunisian State Enterprises and Privatization Policy'. Mimeo.

Haouas, I., E. Sayre, and M. Yagoubi (2012). 'Youth Unemployment Tunisia: Characteristics and Policy Responses'. *Topics in Middle Eastern and African Economies*, 14: September.

INS (National Institute of Statistics) (2007). Data from the National Institute of Statistics. Tunis. Available at: www.ins.nat.tn/indexfr.php.

International Labour Organization (2011). Tunisia: A New Social Contract for Fair and Equitable Growth. ILO Studies on Growth with Equity. Geneva: ILO.

King, R. (1988). 'Production, Growth and Business Cycles: II. New Directions'. *Journal of Monetary Economics*, 21(2-3): 309–41.

Kriaa, M., and Z. Karray (2010). 'Innovation and R&D Investment of Tunisian Firms: A Two-Regime Model with Selectivity Correction'. *Journal of Business Inquiry*, 9(1): 2–21.

Ministère du Développement et de la Coopération Internationale (n.d.). Tunis.

Morrison, C., and B. Talbi (1996). *Long-Term Growth in Tunisia*. Paris: OECD.

Murphy, K., et al (1999). 'Informal Authority in Organizations'. *Journal of Law Economics and Organization*.

Nabli, M., J. Keller, C. Nassif, and C. Silva-Jáuregui (2006). 'The Political Economy of Industrial Policy in the Middle East and North Africa'. Washington, DC: World Bank. Available at: www.siteresources.worldbank.org/INTMENA/422183-1131656931098/20895775/The Political EconomyofIndustrialPolicyMarch302006.pdf

Republic of Tunisia (2001). 'Economic and Social Development in Tunisia' (2010).

UNIDO (2001). 'Support to SMEs in the Arab Region: The Case of Tunisia'. Project coordinated by Stefanu Giovannelli, UNIDO/UNDP edition, 2001.

World Bank (2005). WB database. Washington, DC.