Chapter 4
Case Studies

Abstract The case studies on Tunisia and Jordan introduce the specific structural economic challenges the countries are confronted with, present major economic policies pursued, and apply the integrated regulation framework to the countries.

Keywords Tunisia · Jordan · Case study

This chapter applies the consolidated regulation framework for core Arab economies developed in Chap. 3 to Tunisia and Jordan and refines it in view of the particular idiosyncrasies of regulation in these two countries. The case studies are based on a profound review of scientific literature on the Tunisian and Jordanian economies as well as on policy literature such as country-specific reports of international organizations and other international or national entities. To complete the picture and to add details on the particular questions addressed in the regulation framework proposed in Chap. 3, empirical research was conducted through qualitative, semi-standardized interviews with stakeholders relevant for socioeconomic regulation and with experts on particular aspects of regulation.

Following a deductive approach, the plausibility of the conceptual thoughts developed from theory and literature was tested during the expert and stakeholder interviews. These interviews were conducted for the purpose of triangulation. A comprehensive empirical test of theoretical arguments on all aspects of the regulation framework would by its very nature be highly complex and extensive and require a combination of quantitative and qualitative empirical data. Instead, the approach followed for the present chapter is a mixed methods approach that builds on theoretical reasoning developed from literature and based on the regulation framework elaborated conceptually in Chap. 3 and that performs a prima facie plausibility test through qualitative empirical triangulation.

A total of nine semi-standardized interviews were conducted per telephone or through Internet voice calls from 20 September 2018 to 17 December 2018. The interviews took between 21 and 77 min with an average duration of 42.22 min. One additional interviewee preferred to answer in writing, bringing the total number of interviewees to ten. Interviewees were either part of the policymaking community, experts, or stakeholders from the private sector from either Tunisia or Jordan. In

M. Benner, *A New Arab Social Contract?*, Economic Geography,
https://doi.org/10.1007/978-3-030-19270-9_4

order not to discourage interviewees from expressing their opinions on politically sensitive issues, it was decided not to take audio recordings. Instead, precise and comprehensive notes were taken. The interviews were guided by one detailed questionnaire per country, reflecting the major points of the regulation framework. Interviewees were assured anonymity.

The two case studies take a national perspective, but given the prevalence of spatial disparities and the importance of regional development in both countries, some focus was put on selected regions to highlight relevant aspects. In particular, the regions of Sfax (Tunisia) and Irbid (Jordan) were considered as exemplary arenas for policy interventions and recommendations.

Tunisia and Jordan offer interesting cases for applying and refining the regulation framework for core Arab economies proposed in Chap. 3. Among core Arab economies, Tunisia and Jordan exhibit a comparatively high degree of international economic integration with considerable levels of FDI and exports. Both share a highly educated workforce, skilled diasporas, and a young generation with a penchant for working with ICT. On the negative side, both countries have to cope with high unemployment levels among higher-education graduates significantly above average unemployment rates. To reduce unemployment, both countries would need economic growth rates of at least 6% annually, calling for growth-accelerating and inclusive structural reforms (Diop and Ghali 2012: 5–6).

Consistent with their status as "watchmaker" economies with a weak natural resource base but comparatively strong human capital base, both countries are left with virtually no alternative than to rely on knowledge and skills and to grow their economies through increasingly knowledge-intensive exports (Richards and Waterbury 2008: 68).

Apart from these similarities, both countries exhibit major differences. Political change since 2010/2011 took a revolutionary turn in Tunisia, while Jordan witnessed protests and, as a reaction, gradual political change but no upheaval of the political system. Tunisian economic policy experimented at times with the ideology of Arab socialism but has for decades embarked on a policy of considerable opening (*infitah*) to the world economy. Jordan's conservative monarchical system did not explicitly embark on socialist ideologies but left private entrepreneurial initiative a significant degree of freedom. Tunisia's economy is oriented towards the EU and the large Tunisian diaspora in European countries as well as the status of French as Tunisia's lingua franca in culture and economic affairs is underpinning the country's proximity to Europe. Jordan, in contrast, is embedded in the Middle East and its geopolitical realities including the Israeli-Palestinian conflict which have resulted, inter alia, in a large share of Jordanian citizens with Palestinian origins and high numbers of Syrian refugees in the country.

The next section addresses the Tunisian case. Then, the Jordanian case is introduced. The chapter concludes with a comparative summary of major insights drawn from both case studies.

4.1 Tunisia

The case study on Tunisia first presents a brief overview of structural economic challenges, both those confirming general trends in core Arab economies and those specific to the country. Then, policies pursued are examined by focusing on some relevant areas of structural policy. By applying the regulation framework developed in Chap. 3, the case study offers a stylized analysis of socioeconomic regulation in Tunisia during the Ben Ali era and implications for current regulation challenges in view of the institutional legacy left by the pre-revolutionary eras and closes by suggesting ways to achieve a more sustainable and efficient regulation regime in the context of the country's current transitional stage.

4.1.1 Tunisia's Economic Challenges

As a core Arab economy, Tunisia is confronted with the same fundamental economic challenges and structural difficulties found in other core Arab economies. Still, Tunisia is a special case because it has performed better than other Arab countries in long-term income convergence relative to OECD countries (Noland and Pack 2007: 39, 40–41, 43–44). Per capita income convergence appears to be based on a relatively vibrant business scene with a resulting comparatively efficient regulatory environment (Noland and Pack 2007: 238–241).[1] Remarkably, Tunisia exhibits a demographic situation similar to industrialized countries marked by a falling fertility rate and rising life expectancy (OECD 2015: 4). Tunisia's demographic change was not only rapid in recent decades, but in the period 2000–2005 the country witnessed the lowest fertility rate among MENA countries with 2.0 children per woman, lower than the rates found in the region's most industrialized countries Israel and Turkey (Richards and Waterbury 2008: 73).

Tunisia's old development model since independence was based on a strong authoritarian nation-state that limited civil liberties but assured stability and provided education, social services, and public infrastructure and a strategic approach to economic policy that mixed international openness for trade and investment with interventionism (OECD 2015: 2). This growth model delivered fairly impressive results on a range of human and social development indicators but brought with it fundamental structural problems in the economic sphere. To take one major economic indicator as a proxy for these structural problems, GDP growth in Tunisia fell behind that of comparable countries (World Bank 2014c: 24–26; 36–58).

In parallel with broad trends in the Arab world as described in Chap. 2, problems such as increasing unemployment among highly educated jobseekers or spatial

[1] In the broader picture, Morocco and Tunisia perform fairly well internationally when looking at the ease of starting a business, while Egypt (and pre-war Syria) exhibits a low performance comparable to India (Noland and Pack 2007: 242–243).

disparities increasingly came to plague the Tunisian economy (OECD 2015: 2). In particular, the labor market mismatch prevalent in core Arab economies (see Sect. 2.2.5) and the labor market dualism Hertog (2016) marks as one characteristic of the Arab VoC are evident in Tunisia (World Bank 2014c: 170–173). Specifically, the skills mismatch is observable in terms of jobseekers' qualifications. A shortage of workers with lower formal skills mirrors a shortage of jobs for workers with higher formal skills, meaning that not jobs per se are lacking but the right jobs corresponding to jobseekers' educational profile (World Bank 2014c: 171).

These realities lead to a particularly precarious situation of educated youth on the labor market since employment creation in Tunisia tends to happen in niches with lower value added and in the informal sector. These jobs are not attractive to higher-education graduates, exacerbating the skills mismatch and unemployment among university graduates (World Bank 2014c: 26).

In terms of regional development, the former growth model favored coastal regions which deepened spatial inequalities (OECD 2015: 8). A major component of this growth model was the integration in global value chains (GVCs) through gradual liberalization and international openness (International Monetary Fund 2016: 3–4) and notably a policy of export development that focused on a limited number of industries. These industries included the textiles and garments, leather and footwear, food and beverages, and electrical industries. Together, these industries account for the vast majority of manufacturing jobs. In 2016, electrical machines and apparatus made up 39.4% of Tunisia's total merchandise trade and textiles made up 26.5%, clearly highlighting the reliance of Tunisia's export on these two industries (OECD 2015: 71; OECD 2018: 8).

Export development promoted through tax incentives beginning in the early 1970s drove economic growth but resulted in an isolated offshore sector with low value added, notably in the textiles and garments industries (OECD 2015: 9). Tourism was another lead industry specifically promoted by the regime but, similar to the textiles and garments offshore sector, in low value-added market segments such as sun, sand, and beach-style package mass tourism (Hazboun 2008; OECD 2015: 9).

This growth model made Tunisian industry vulnerable to low-cost competition. High tariffs and slow trade liberalization put additional pressure on long-term industrial development, as did overstrict regulation and price controls in product markets; state monopolies in various important product markets, sometimes in connection with subsidies; as well as restrictions on FDI (OECD 2015: 9–11). Many market distortions seem to be caused by the Ben Ali regime's desire to protect cronies from the well-connected established business elite, or at least policies had this effect (OECD 2015: 11; Rijkers et al. 2014; World Bank 2014c: 115–123). In particular, barriers to market access and competition enabled the capture of rents by politically well-connected cronies. Prior to the revolution in 2010/2011, Tunisia was particularly marked by a high degree of state capture and crony capitalism. Two hundred and twenty firms owned by the Ben Ali clan that were confiscated after the revolution accounted for more than 20% of profits in the economy (OECD 2015: 8, 69; Rijkers et al. 2014; World Bank 2014c: 110–114).

Tunisia suffers from a deep labor market dualism between private and public sectors, the latter including SOEs. Government employment is associated with significantly above average wages, setting incentives in favor of public-sector employment and affecting reservation wages. For example, graduates' wages are roughly 35% higher in the public sector than in the private sector. In addition, family-related benefits are more generous in the public sector, creating an additional incentive particularly for women to seek public-sector jobs. Consistent with these incentives, Tunisia exhibits a high share of government employment in Tunisia. The flip side of the coin is a hitherto low level of entrepreneurship including women entrepreneurship. Apart from public-sector employment, crypto-welfare policies observable in Tunisia include subsidies which account for 7% of GDP (OECD 2015: 11–12, 30, 36, 51–52, 67).

Unemployment, in particular among economically disadvantaged groups such as youth and women, is the most visible symptom of the Tunisian economy's structural deficiencies. In the first quarter of 2014, the overall unemployment rate stood at 15.2%. While the unemployment rate was at 12.7% for men, it was 21.5% for women and 37.6% for youth. Unemployment was particularly high among university graduates, with the share of unemployment among graduates reaching roughly 40% among female university graduates and roughly 20% among male university graduates. Spatially, unemployment was particularly high in the Center-West and South regions. Furthermore, the Tunisian labor market is characterized by a much higher labor-force participation rate among males (70.3%) than among females (25.8%) and high levels of informality (OECD 2015: 28, 40; World Bank 2014c: 40–41).

Furthermore, skills demanded and offered seem to diverge, confirming the prevalence of a skills mismatch in Tunisia. At the same time, Tunisia's labor laws are among the most restrictive among MENA countries which, together with a high degree of informality, underscore the dualism on the labor market (International Monetary Fund 2016: 4, 11).

Tunisia is marked by strong interregional disparities, notably in terms of unemployment and poverty, and a lack of general convergence in terms of economic activity (World Bank 2014c: 282–283). Spatial disparities are particularly pronounced between more prosperous coastal regions (OECD 2018: 114–115; World Bank 2014c: 286–287) and peripheral regions in the interior of the country, as was evident in a considerable gap in poverty rates between the Tunis agglomeration on the one hand and the North West and Center-West regions on the other hand in 2010 (World Bank 2014c: 284). The structural problem of unemployment is most serious in the peripheral regions of the North West, the Center West, and the South (World Bank 2014c: 284). The OECD (2018: 115) stresses that "while unemployment in 2016 affected less than 10% of the population aged 15 to 64 years in Monastir and Sfax, it exceeded 25% in Gafsa and Tatouine" and with a stronger increase in the most affected regions (OECD 2018: 115). Between 2005 and 2011, Gafsa and Tataouine governorates not only had the highest unemployment rates but displayed the highest rates of increase in unemployment, while unemployment decreased in coastal regions of the country (World Bank 2013: 5, 54–55; 2014c: 39, 284).

Despite improvements in public services and infrastructure and a general decline of the poverty rate during the past two decades, the export-led development model pursued by Tunisian economic policy over the decades and the lack of interregional connectivity exacerbated the economic polarization of the country and benefitted coastal regions disproportionately (OECD 2018: 112). The polarization even increased during the 2000s, as is evident from the rise of the high share of private firms located in the North and East among all firms registered in the country (OECD 2015: 38). Accordingly, 85% of Tunisia's GDP is produced in the three coastal economic hubs of Tunis, Sousse, and Sfax, and these cities' agglomerations account for 92% of all industrial enterprises (World Bank 2014c: 282).

In terms of the country's human capital endowment, Erdle (2011) sees some disadvantages of the Tunisian higher-education system, including a focus on infrastructure investment and a neglect of investments in educational content, a lack of building skills demanded on the labor market, and the fact that "60 percent of [Tunisian universities', M.B.] students are still enrolled in liberal arts, social sciences, law, or economics" (Erdle 2011: 28–29). The latter tendency is confirmed by the World Bank (2014c: 175) and Achy (2010: 17) who contrasts the high share of students in the humanities and social sciences with a share of less than 25% of students in science and engineering. The specializations chosen by the majority of students seem less in demand on the Tunisian labor market since students in technical fields such as architecture, medicine, telecommunication and electricity, or engineering are employed below their qualification level much less often than students from other fields such as business, commerce, administration, humanities, or law (World Bank 2013: 174–176).[2]

Still, Tunisia has made some progress on becoming an increasingly knowledge-based economy, consistent with its status as a ''watchmaker'' economy whose only realistic option of long-term economic development is building on human capital and focusing on exports of skill-intensive manufacturing products or services (Richards and Waterbury 2008: 68). Rodríguez-Pose and Hardy (2014) assess Tunisia's way towards becoming a knowledge-based economy and highlight that gross domestic expenditure on research and development (GERD), commonly measured as a share of GDP, is typically low in emerging countries. However, Tunisia is a remarkable exception and additionally witnessed a high rise in GERD between 1999 and 2009. For instance, in 2007–2008 Tunisia featured a share of GERD in GDP of 1.03%, significantly above the levels founds in other Arab economies such as Morocco, Jordan, Qatar, Lebanon, Algeria, Egypt, Kuwait, Oman, Syria, and Bahrain and above the level found in Turkey (Mahroum et al. 2013: 38). Furthermore, Tunisia features exceptionally high numbers of researchers in R&D among comparable emerging countries. While Tunisia's GERD is largely dominated by public expenditure, during the early 2000s public expenditure as a share of GERD increased

[2] However, the conclusion drawn from these insights may not necessarily be to "reorient" students towards technical fields but better seizing the economic potential of business studies, social sciences, or humanities, e.g., through entrepreneurship or the commercialization of humanities in cultural and creative industries or in tourism.

significantly, due presumably to public incentives to private-sector innovation (Ben Abdessalem and El Elj 2011: 4; Rodríguez-Pose and Hardy 2014: 89–90).

When looking at Tunisia's growth performance within the global economy, it is important to note that the Tunisian economy heavily depends on the EU market with over three quarters of exports going to the EU, almost three quarters of FDI coming from the EU, and 90% of remittances originating from the diaspora in the EU, and France, Italy and Germany alone accounting for two thirds of the country's international trade (Achy 2010: 11; Erdle 2011: 40; World Bank 2014c: 311). International openness is inextricably linked to competitiveness and innovation. As the World Bank (2013: 93) demonstrates, Tunisia's trade integration has been driving total factor productivity (TFP) growth in the 1990s and early 2000s, but at the same time mentions that TFP growth in Tunisia remains lower than in comparable Asian countries such as South Korea or Malaysia. While productivity between 2000 and 2008 grew by 2% annually in Tunisia, the country's labor productivity performance is below that of competitors such as Turkey, Romania, Poland, or Asian NIEs (Achy 2010: 10). As Achy (2010: 11) suggests, the failure to reduce the (youth) unemployment rate in Tunisia may be related to its comparatively weak productivity growth. Instead of relying on higher competitiveness driven by increasing productivity, Tunisia "built its growth strategy around low-skilled sectors that rely on cheap labor" (Achy 2010: 11).

In this regard, cause and consequence appear to mix. While youth unemployment among higher-education graduates apparently hampers knowledge-intensive growth, precisely this slow pace of knowledge-intensive growth exacerbates the prospects of highly educated youth on the labor market. Over time, Tunisia witnessed a marked change in the profile of its labor supply. The share of jobseekers with postsecondary education rose from 20% to over 55% from 2000 to 2008, but labor demand has not kept pace, and the shift to a more knowledge-based economy has so far not generally succeeded, due not least to an unfavorable business environment that hampers entrepreneurship and private investment (Achy 2010: 11).

Summing up the challenges for the Tunisian economy in terms of the sources of its future competitiveness, Ghali and Rezgui (2015: 64) stress the necessity for the country to move beyond its dependence on low-cost labor and low value-added activities towards more technology- and skill-intensive activities (Ghali and Rezgui 2015: 64). How precisely to do so is visibly in the focus of the country's long-term economic policy, as will become evident in the following section.

4.1.2 Tunisia's Economic Policies: Past and Present

While core Arab economies' development trajectories are not all too different from that of comparable developing countries, among them Tunisia has performed comparatively well (Noland and Pack 2007: 181). Therefore, taking a closer look at Tunisia's economic policies since independence seems worthwhile.

Tunisia's economic policy has witnessed several phases mirroring general trends in core Arab economies such as import substitution and Arab socialism as well as later liberalization and opening up to the world economy through export development and FDI promotion, although with some noted differences. While the country's socialist phase in the 1960s was comparatively short-lived, Tunisia was an early mover in liberalization, and opening up to the world economy as its *infitah* policy was begun already in 1969 (Richards and Waterbury 2008: 195–196).

Still and despite Tunisia's role as front-runner in economic reform among Arab economies, Rivlin (2009) sees the country hitting a "glass ceiling" towards achieving higher economic growth and lowering its unemployment rate, something developing countries in other world regions succeeded to do (Rivlin 2009: 277). The next sub-sections introduce major streams of Tunisia's long-term structural policy and address their weaknesses that may help explain why the country's reform efforts have not yet effectively solved the structural difficulties of the Tunisian economy.

4.1.2.1 Industrial Policy

At the outset, colonial history explains the weak initial levels of industrialization in Tunisia. To promote the country's industrialization, a policy of import substitution was pursued until the 1980s after the private sector's reaction to encouragement right after independence was weak. Even during Tunisia's socialist phase in the 1960s, policy was not hostile towards the private sector despite the pursuit of a state-led growth model and the centralization of economic decision-making (Rivlin 2009: 277–278).

In its industrial policy since independence, Tunisia has often taken the role of policy pioneer in the Arab world. Major policy eras included major social reforms after independence during the 1950s, Arab socialism during the 1960s, *infitah* policies during the 1970s, and structural reform supported by the IMF and the World Bank, WTO membership, and participation in the EU's European Neighborhood Policy (ENP), Euro-Mediterranean Partnership (EMP), and Union for the Mediterranean (UfM) in recent decades. In the latter context, Tunisia was the first country to sign an association agreement (AA) with the EU (Altenburg 2011: 70; Erdle 2011: 3; Hazboun 2008: 74).

Tunisia's brief Arab socialist era is a particularly relevant episode, both in its own right and in view of the subsequent *infitah* era. During the 1960s, Tunisia embarked on a short socialist experiment orchestrated by planning and finance minister Ahmed Ben Salah. This period was marked by import substitution and state-led growth and saw a rapid increase in the number of SOEs and their share in national investment. The Salahist experiment ended in 1969 as abruptly as it had begun in 1961 because it could not be sustained for various structural reasons including difficulties in raising funds to fund import substitution industrialization. Under the following policy regime, Tunisia's industrial policy shifted towards a mixture between import substitution and export promotion, notably in the textile industry and tourism. This *infitah* policy was still marked by a leading role for the state in economic development but offered greater freedom for the private sector. The rationale behind this *infitah* pol-

icy was for Tunisian industrial policy to benefit from the country's strategic advantages such as its human capital and low-cost labor, political stability, and spatial and cultural proximity to Europe (Erdle 2011: 8–9).

New investment and trade legislation in the early 1970s and the creation of private-sector promotion agencies were part of the *infitah* policy that eventually resulted in the emergence of a private manufacturing sector (Erdle 2011: 9–10). Still, the public sector continued to grow, giving rise to an economy segmented into a large public sector including SOEs and strategic monopolies, a highly regulated and protected domestic industrial sector, an export- and investment-oriented offshore sector, and a residual private sector containing small firms (Erdle 2011: 10). Rivlin (2009: 282–283) similarly highlights the major dualism between a liberalized offshore export sector (mainly for the textiles and clothing industry) promoted through financial incentives and a separated and protected domestic economy still operating under conditions of import substitution (World Bank 2014c: 50, 138). The special regulatory regime governing the offshore sector allowed for industrial development in isolated pockets of the economy but with limited spillovers to other sectors that remained subject to a less encouraging business environment (World Bank 2014a: 63). The 1972 investment law was a milestone in Tunisian industrial policy. The law was designed to attract FDI in labor-intensive activities and paved the way to the country's integration in the international division of labor by taking over low-skill tasks (Ghali and Rezgui 2015: 40). The law laid the groundwork for a selective economic policy by stipulating incentives for the offshore sector but at the same time prescribing restrictions for the onshore sector such as authorization requirements (World Bank 2014a: 84). Hence, Tunisia's *infitah* policy was a compromise between state-led growth and private-sector-led growth as "on the one hand, the state encouraged private sector growth and foreign direct investment while, on the other hand, it tightly regulated market access and resource allocation" (Erdle 2011: 10). The state-led part of the *infitah* policy did contribute to short-term successes such as high economic growth and increasing living standards notably for the urban middle class but involved unsustainable measures such as expanding the public sector and accumulating deficits. It was arguably the fundamentally unsustainable character of Tunisia's industrial policy that forced the government to resort to IFI-sponsored structural adjustment in 1986 (Cammett 2007: 1892–1895; Erdle 2011: 10–11; Rivlin 2009: 278).

Structural adjustment and EU rapprochement were major externally induced drivers of trends in Tunisia's economic policy in recent years. Structural crises were arguably triggers for Tunisian policy to integrate into these transnational transformative processes. After high economic growth in the 1970s, structural crises in the early 1980s forced the Tunisian government to commit to a vast program of economic liberalization and private-sector promotion beginning in 1986 that was accompanied by structural adjustment assisted by the IMF and the World Bank (Rivlin 2009: 268–275). This reform package led to a liberalization more far-reaching than in any other Arab economy (Rivlin 2009: 272). Under pressure from IFIs, Tunisia adopted a more private-sector-led approach towards industrial policy

which, however, resulted in the distribution of fiscal privileges, favoritism, rent-seeking, and state capture (Ghali and Rezgui 2015: 40–41).

Structural adjustment was aimed at macroeconomic stabilization but did not change the structural configuration of the Tunisian economy. For instance, privatization was very limited and excluded sectors defined as "strategic" including utilities as well as the mining, chemicals, and steel industries (Erdle 2011: 18). It was only under the Ben Ali regime that a reorientation of the Tunisian economy towards a more market-based paradigm and greater openness to trade and integration into global value chains occurred. The private sector was acknowledged as a driver of economic growth because it was supposed to fill the void left by the receding public sector, in part through innovation, productivity enhancement, and job creation (Erdle 2011: 18–19).

Part of the opening effort under Ben Ali's industrial policy was the regime of offshoring free zones and incentives for exporting companies such as tax and tariff exemptions, tax breaks, infrastructure, and social security incentives for employers (Erdle 2011: 24). While association and free trade with the EU posed considerable challenges for the still heavily protected domestic Tunisian economy, the rationale behind economic *rapprochement* was that the country's industrialization effort would benefit from locking in policy into durable market opening through the legal stability afforded by the AA, as well as from technical assistance offered by the EU and other donors (Erdle 2011: 13–14).

The *infitah* era saw the setup of various support agencies such as the *Agence pour la Promotion de l'Industrie* (API) offering technical assistance to firms and the *Fonds de Promotion et de Décentralisation Industrielles* offering finance, both created in 1973. In 2005, the *Fonds de Promotion des Exportations* (FOPRODEX) and the *Fonds d'Accès aux Marchés d'Exportation* (FAMEX) were established to support exporting firms. Further agencies include the national tourism promotion agency (ONTT), the foreign investment promotion agency (FIPA), the export promotion agency (CEPEX), the standardization agency (INNORPI), the research promotion agency (ANPR), and the promotion agency for the agricultural sector (APIA). Considerable efforts towards trade facilitation were made in Tunisia since the late 1980s including the setup of a one-stop window for firm creation and the simplification of trade documentation and processing (Cammett 2007: 1894–1895; Ghali and Rezgui 2015: 64).

Measures to prepare Tunisian industry for liberalization and integration into EU markets included the ambitious industrial upgrading scheme *Programme de mise à niveau* (PMN) setup in 1995. A major part of the perceived need to upgrade Tunisian industry was that the AA implemented by 2008 and the end of Multi Fibre Arrangement (MFA) in 2004 challenged Tunisian industry due to its heavy export dependence on textiles and clothing (and tourism) and on EU markets (Rivlin 2009: 281–282). As the main pillar of the Tunisian government's industrial upgrading effort, the PMN-assisted companies in upgrading their competitiveness supported the improvement of the business environment and the development of support infrastructure such as industrial zones and promoted certification, standardization, and innovation. The program was steered by the Tunisian government and supported by

funding from the EU. Key decisions were taken by the government, but key stakeholders were included in decision-making processes. Despite its large scale, the PMN focused on larger firms and did not target traditional parts of the domestic economy such as small trades and crafts (Cammett 2007: 1895; Erdle 2011: 31–35; Ghali and Rezgui 2015: 54).

Altenburg (2011: 5) perceives a strong commitment in Tunisia to competitive upgrading of the economy in comparison to other developing countries, as is evident from policy support initiatives to strengthen firms' competitiveness and in the setup of support agencies. The Ben Ali regime's orientation in industrial policy was clearly outward-oriented and made the country a Southern Mediterranean pioneer in free trade with the EU (Altenburg 2011: 70). This policy was partly successful in the sense that the Tunisian economy "achieved sustained GDP growth rates of over five per cent per year since the early 1990s, clearly above the regional average, and created 500,000 jobs in the manufacturing industry" (Altenburg 2011: 70).

Despite these successes, Tunisian industry still exhibits a strong focus on activities with low value added (Erdle 2011: 41). According to Ghali and Rezgui (2015: 15, 45), a gradual transformation of the Tunisian manufacturing sector from textiles and garments towards electrical and mechanical equipment such as electrical wiring systems and other components for European automotive industries is ongoing, but both groups of industries are dominated by low value-added activities (Diop and Ghali 2012: 15; Ghali and Rezgui 2015: 45). Rivlin (2009: 283) confirms that while the textiles and electrical and mechanical equipment industries are relatively well-performing export sectors in Tunisia, they still have not driven widespread industrialization because they add little value added and mainly transform inputs into presumably labor-intensive exports. The World Bank (2014c: 223–224) sees the Tunisian economy's comparative advantages in textiles and garments, leather and footwear, electrical and mechanical engineering, chemical products, construction materials, and furniture. At the same time, these industries in which Tunisia has comparative advantages suffer from shallow integration in international value chains and overreliance on very few European markets, basically making the Tunisian economy an assembly subcontractor economy primarily for two European countries, France and Italy (World Bank 2014c: 311).

However, in line with the gradual trends towards higher value-added manufacturing Erdle (2011: 42) hints at, Diop and Ghali (2012: 13) see Tunisian exports moving slowly into higher value-added niches with higher technological content. Between 1005 and 2009, the share of low-technology products in Tunisia's exports declined from 56.7% to 38.3%, while products with higher technological content increased their shares correspondingly (Diop and Ghali 2012: 13). The growing technological sophistication of Tunisian exports seems to mirror the decreasing importance of the textiles and garments industries (Diop and Ghali 2012: 14; Hazboun 2008: 39–40). Still, Tunisia trails other emerging economies such as Turkey, Brazil, India, or Indonesia in terms of high-technology exports. In comparison with India and Indonesia, at the same time, Tunisia features a higher share of medium-high-technology exports, implying that the Tunisian economy is in an earlier stage of becoming a knowledge-based economy (Diop and Ghali 2012: 19).

Despite the changes in the country's industrial fabric, the Tunisian economy did not significantly change from its growth model from being highly dependent on governmental intervention and steering. The public sector remained the primary driver of economic development, and it kept "employing up to 40 percent of the national workforce, and accounting for well over 50 percent of GDP" (Erdle 2011: 41).

Another important aspect of Tunisia's industrial policy during the Ben Ali era was its highly restrictive approach to competition in protected sectors that were typically those regime cronies were active in (OECD 2015; Rijkers et al. 2014). In a sense, Ben Ali's industrial policy shifted the constraints to independent private-sector dynamism from official administrative, government-set barriers to private, oligarchic structures protected from competition by subtle administrative measures and presumably arbitrary policy implementation. When it comes to restrictions stipulated by the investment law, "64% of Ben Ali firms [were, M.B,] in sectors subject to authorization requirements and 64% in sectors subject to restrictions on FDI. For non-Ben-Ali firms the comparable numbers [were, M.B.] 45% and 36%, respectively" (Rijkers et al. 2014: 12–13).

Tunisia's halfway progress on becoming a knowledge-based economy, presumably its only choice towards continued economic development as one of the comparatively resource-poor and human capital-abundant ''watchmaker'' countries (Richards and Waterbury 2008: 68), is inextricably linked to the country's science, technology, and innovation policy but at the same time conditioned by the constraints to Schumpeterian creative destruction and entrepreneurship. While the wider context for Schumpeterian creative destruction including cronyism under the Ben Ali regime and the heavy weight of the public sector is addressed in a regulation perspective in Sects. 4.1.3 and 4.1.4, the next sub-section sheds light on the innovation policy approaches adopted by the Tunisian government in recent decades.

4.1.2.2 Science, Technology, and Innovation Policy

Tunisia's growth model centered on labor-intensive, low-cost, and low-skill manufacturing for export to European markets mainly in the textiles and garments industry, and tourism at a certain point reached its limits in an environment marked by increasing international competition. In particular, the model was not capable of reducing unemployment and absorbing increasingly well-educated youth entering the labor market in large numbers (Ghali and Rezgui 2015: 50).

The transformation of the country's industrial structure was accompanied by a marked shift in the formal skills profile of the labor force, as becomes clear from the "evolution of the national average of share of graduates of higher education from 1.6% in 1975 to 17.3% in 2011" (Ghali and Rezgui 2015: 45). With such an increase in formal qualifications by jobseekers, it is clear that the low-cost, low-skills export development model with its focus on labor-intensive industries with limited possibilities for productivity increases such as textiles, garments, and tourism could not provide adequate opportunities for young generations looking for employment on par with their formal education. As a result, it is not surprising that unemployment

rates in Tunisia are higher for tertiary-educated jobseekers than for unskilled ones (Ghali and Regzui 2015: 56). From a policy perspective, the solution to this dilemma could only be to focus on knowledge-based growth.

Ghali and Rezgui (2015: 52–53) survey indicators to measure Tunisia's progress towards becoming a knowledge-based economy. On the one hand, the strong sectors in the Tunisian economy to a considerable extent remain dominated by low-skilled activities, implying a growing demand for workers with lower formal skills. At the same time, Tunisian education policy in recent years was fairly successful and led to high rates of school enrollment, increased public spending on education, and a significant rise in university enrollment. Tunisia's ratio of R&D spending to GDP is low compared to leading OECD countries but above the levels reached in Turkey and India, and it grew during the 2000s. Yet, the contribution of firms to R&D spending is significantly lower than in the EU or in Turkey, implying a rather weak state of R&D in Tunisian industry (Ghali and Rezgui 2015: 52–53).

While academic education greatly expanded during past decades, the economic role of universities seems constrained by their limited alignment with private-sector needs. Interviewees mentioned that Tunisia's university culture follows a French model striving for academic achievement such as publications but lacks practical focus. There are, however, regional initiatives to change this culture. For example, the new e-health cluster initiative in Sfax is now developing a new model for doctoral studies in medicine that includes practical tasks for hospital work.

In terms of innovation, Tunisia was ranked 74th among 127 countries in the 2017 Global Innovation Index. While rankings are a somewhat questionable approach to measuring the complex realities of inherently social and systemic processes such as innovation, it is still interesting to look at the details of Tunisia's result. While Tunisia scores comparatively better on human capital and particularly on its expenditure for education as well as on the number of graduates in sciences and engineering (3rd place internationally behind Oman and Iran and above Morocco)[3] as well as on knowledge creation through scientific and technical articles (M'Henni and Deniozos 2012: 20–21), Tunisia is ranked particularly low on the dimension of innovative linkages such as university-industry research collaboration or cluster development, as well as on knowledge absorption. What is particularly interesting is that Tunisia scores comparatively well on high-technology exports less re-exports as a share of total trade and on the share of creative goods exports[4] of total trade (Cornell, INSEAD and WIPO 2017: 300, 333).

Ben Miled-M'rabet (n.d.) maps the Tunisian NIS and lists a large number of organizations relevant for the innovation and entrepreneurship ecosystem in Tunisia

[3] It is interesting to note the contradiction with the often-expressed claim that too many students in Tunisia specialize in social sciences or humanities and too little in science and engineering (e.g., Achy 2010: 17; Hertog 2016; World Bank 2013: 25).

[4] The latter finding further confirms the argument brought forward in Sect. 3.4 that a knowledge base in humanities and social sciences can serve as a resource for entrepreneurship and innovation in a resource-poor and human capital-rich country such as Tunisia.

and its regions. The ecosystem includes the following types of entities (Ben Miled-M'rabet n.d.):

- Public universities and other higher-education entities (HEI)[5] and their research units and laboratories
- Public R&D centers for a large number of fields and technologies including, inter alia, biotechnology, energy technology, nuclear technology, maritime technology, or telecommunications
- Science and technology parks (*technopôles*) currently being set up under the *pôle de compétitivité* scheme with the Elgazala ICT technology park in the Tunis agglomeration as the first and most advanced one (Benner forthcoming; Rodríguez-Pose and Hardy 2014: 56–57)
- Regional incubators (*pépinières*) hosted by *technopôles*, HEIs such as the applied-science *Instituts supérieurs des études technologiques* (ISET) or engineering schools, or R&D centers (M'Henni and Deniozos 2012: 32)
- The national agency for the promotion of industry and innovation API (*Agence de Promotion de l'Industrie et de l'Innovation*) providing technical assistance to enterprises, managing incubators, and acting as Enterprise Europe Network (EEN) contact point
- Regional business centers (*centres d'affaires*) providing technical assistance to entrepreneurs in the stages prior to and during new business formation
- The national R&D promotion agency ANPR (*Agence Nationale de Promotion de la Recherche Scientifique*)
- The national standardization and intellectual property agency INNORPI (*Institut National de la Normalisation et de la Propriété Industrielle*)
- A number of funds administrating innovation grants to enterprises, as well as the PMN

A range of entrepreneurship support schemes exist in Tunisia and have become a vital part of the country's industrial and innovation policies. Most public HEIs offer some kind of entrepreneurship education, and many of them provide additional services such as advice. However, these schemes are usually not designed in a multidisciplinary way and are offered by individual faculties instead of crosscutting university institutes. Furthermore, university support activities for entrepreneurship rarely include incubation services, although there are exceptions such as the University of Sfax (OECD 2012b: 14, 20–21).

Business centers set up in the 24 Tunisian governorates provide support for entrepreneurship such as coaching, consulting, business planning support, microfinance, and networking support. However, interaction between universities and business centers is limited and refers mainly to marketing and raising awareness for business centers' offers among students and graduates, as well as offering seminars (OECD 2012b: 35).

[5] The commonly used abbreviation "HEI" for "higher education institution" is used here for the sake of consistency with the literature on innovation systems, although according to the perspective taken in this book, HEIs are not institutions but organizations.

Somewhat similar to business centers, incubators (*pépinières d'entreprise*) such as those funded by API offer services to entrepreneurs or startups such as expertise, space, or networking support (OECD 2012b: 35). As with business centers, incubators' interaction with HEIs is limited, although their mission is clearly linked to entrepreneurship among HEI graduates (OECD 2012b: 74).

Further, there are so-called entrepreneurship spaces (*espaces entreprendre*) offering training and business planning support in micro-entrepreneurship for young unemployed, supported by the national employment agency ANETI (OECD 2012b: 73–74).

Further schemes to promote innovation and entrepreneurship include funds providing financial support, one-stop shops, technical centers providing technical support to private-sector enterprises, industrial zones set up since 1973, and business planning training schemes (Erdle 2011: 25–26; M'Henni and Deniozos 2012: 13; OECD and IDRC 2013: 93).

One particularly prominent scheme to promote innovation in Tunisia since the early 2000s is the country's ambitious cluster policy with its *pôles de compétivitité*. The first *pôle* was the Elgazala technopark located in the Tunis agglomeration including two satellite sites in other parts of the Tunis agglomeration and regional ICT incubators called *cyberparcs* all over the country. Launched in 1999, this technology park was set up in the early 2000s to promote the upgrading of the ICT sector in the country. The park hosts an incubator, the *Centre d'Études et de Recherche des Télécommunications* (CERT) research center, HEIs in ICT-related disciplines, and national agencies regulating the telecommunications industry. Importantly, the technology park has managed to attract renowned international anchor tenants such as Microsoft, Ericsson, Huawei, or Alcatel-Lucent and is home to roughly 100 enterprises. A certain degree of collaboration between tenants is observable in the technology park (Aubert et al. 2013: 99–101; Benner 2017c, forthcoming; M'Henni et al. 2013).

Hence, Elgazala technopark is regarded as a relative success in promoting place-based innovation. Following the observation made by Rodríguez-Pose and Hardy (2014) that science and technology parks in development or emerging countries tend to be successful if and when they benefit either from strong research universities or from innovative multinational anchor tenants, Elgazala technopark is an example for the second case. Encouraged by the relative success of Elgazala technopark, the Tunisian government during the 2000s developed plans to extend the model to other sectors by launching the *pôles de compétitivité* program. In essence, these *pôles* draw on a combination of place-based clustering and sectoral networking. A *pôle's* backbone is a technology park similar to Elgazala technopark hosting companies, research centers or HEIs, and an incubator. *Pôles* in manufacturing-oriented industries include industrial or offshoring zones hosting manufacturing firms. To achieve sectoral networking beyond the technology parks and industrial zones, sectoral networks are organized which are open to enterprises in the wider region or in the whole country. These formalized networks are typically called "clusters." Including Elgazala, so far nine *pôles* were designated and set up, or are at least partially operational, with technology parks situated in Elgazala and its

satellite sites (ICT industry), Bizerte (agrifood industries), Borj Cédria (renewable energies, environment and water, green biotechnology, materials), Gabès (environmental technologies), Gafsa (substances and phosphates), Monastir (textiles and garments industries), Sidi Thabet (medical biotechnology and pharmaceuticals), Sfax (ICT), and Sousse (mechanics, electronics, nanotechnology, and ICT). Two further *pôles* are planned for Jendouba (agriculture and forestry products) and Médenine (desert resources) and will be located in peripheral regions of the country. *Pôles* are usually set up as a public-private partnership with large firms or banks involved in running the *pôle* (Agence de Promotion de l'Industrie et de l'Innovation 2016, n.d.; Aubert et al. 2013: 99–101; Benner 2017c, forthcoming; Erdle 2011: 26–27; Lehmann and Benner 2015; M'Henni et al. 2013; M'Henni and Deniozos 2012: 33–34; Rodríguez-Pose and Hardy 2014: 56–57).

The success of the *pôles* program and its relevance for driving the Tunisian economy's move towards becoming a more knowledge-based economy cannot yet be judged. Elgazala technopark was viewed as a success by interviewees. The park's relative success was ascribed mainly due to its presence in the dynamic urban area of Tunis, the proximity of renowned university faculties, and the presence of large international anchor companies. The *pôles* in Sfax and Sousse might eventually replicate the model but need time and resources to do so. The prospects for success of other *pôles* were questioned in the interviews. The relevance of an anchor tenant strategy, as pursued in the Elgazala technopark, was underlined in the interviews. Since Tunisian companies are seen to be lacking the capacities to commercialize research available in universities, multinational enterprises investing in Tunisia and specifically in *pôles* adapting their technological solutions to the Tunisian context, developing prototypes, and mobilizing locally available research and knowledge were suggested as drivers of innovation during the interviews. In any case, replicating the relative success of Elgazala with its successful acquisition of technologically sophisticated multinational anchor tenants in other locations and sectors is a not an easy task for the other *pôles* (Ghali and Rezgui 2015: 51).

Given that the Elgazala *pôle* was set up as from 1999 on and that the other *pôles* are still in various stages of their establishment, it is probably too early to evaluate their success (Benner 2017c: 53–54; forthcoming). Seen from a spatial perspective, it is worth noting that the *pôles'* backbone technology parks are located primarily in the comparatively prosperous coastal areas of the country such as Bizerte, the Tunis agglomeration, Monastir, Sousse, and Sfax (Benner 2014a, 2017c, forthcoming; Lehmann and Benner 2015). While other technology parks like those set up or planned in Gabès, Gafsa, Jendouba, and Médenine are located in peripheral location, the *pôles* program follows the growth-oriented policy rationale of innovation policy much more than the spatial-equity rationale of regional policy. Given the large economic and social disparities between regions in Tunisia, the country's regional structural policy has come up with other schemes to enable lagging peripheral and rural regions to catch up with more prosperous urban ones. These schemes will be introduced in the next sub-section.

4.1.2.3 Regional Structural Policy

Considering Tunisia's enormous economic and social disparities between prosperous urban coastal regions such as Tunis, Nabeul/Hammamet, Sousse/Monastir, and Sfax on the one hand and peripheral regions such as Jendouba, Le Kef, Kasserine, Sidi Bouzid, Gafsa, Tozeur, or Tataouine on the other hand (Benner 2014a; Medinilla Aldana and El Fassi 2016; OECD 2018: 51–52; World Bank 2011), the relevance of regional policy in Tunisia is clear.

The Tunisian government's *pôle de compétitivité* scheme inspired by the comparatively successful experience of Elgazala technopark follows a growth-oriented logic. In the few cases where the backbone technoparks of *pôles* are located in peripheral regions, this growth logic is mixed with the equity-base rationale of traditional regional policies (Benner 2014a). The growth logic of the *pôles de compétitivité* as a measure of innovation policy is consistent with the spatial concentration of higher education and R&D in Tunisia since almost four-fifths of public HEIs and researchers are located in coastal regions with Tunis, Sousse, Monastir, and Sfax as the dominant university centers (M'Henni and Deniozos 2012: 14).

Nevertheless, as was the case with the designation of *pôles de compétitivité* in peripheral regions, Tunisian regional policy strives to decentralize the innovation system to some degree (M'Henni and Deniozos 2012: 14). However, the relationship between innovation policy and regional development in Tunisia is complex. In particular, spreading innovation infrastructure such as technology parks or incubators across the country is fraught with difficulties because a critical mass of innovative firms is not available everywhere (M'Henni and Deniozos 2012: 35). While it remains to be seen whether *pôles de compétivitité* whose technology parks are located in peripheral regions will unfold their full innovative and growth-related potential or not, unlocking endogenous growth potentials in peripheral regions arguably requires other tools.

One of those tools designed to facilitate the unfolding of endogenous growth potentials of peripheral regions in the center, West, and South of the country is the setup of *complexes industriels and technologiques* (CIT) located in towns and cities in Tunisia's peripheral governorates (Benner forthcoming). The architecture of the CITs follows that of the *pôles de compétitivité*, but their rationale focuses more on endogenous regional development than on technology transfer and technological innovation. The backbone of a CIT is an industrial zone, similar to the *pôles'* technology parks but without co-located universities. Instead, CITs may involve some degree of cooperation with technical centers or ISETs. A CIT is managed by a *société complexe industriel et technologique* (SCIT), a management company that offers services to tenants. Again similar to the *pôle* architecture, CITs set up regional networks called "clusters" to promote cooperation and networking among companies within the CIT's industrial zone and outside. Different from the *pôles* with their sectoral focus determined a priori in a top-down way, CITs have no predetermined sectoral focus but tend to specialize on a few sectors according to the profile of an

industrial zone's eventual tenants and the regional economy (Benner 2017c, forthcoming; Ministère de l'Industrie, de l'Énergie et des Mines 2014).[6]

Apparently inspired by the *pôles de compétitivité* program, the CITs emphasize a newer orientation of Tunisian regional policy more focused on endogenous growth than older schemes supporting regional development in lagging, peripheral regions. This shift is well in line with international trends in regional development theory and policy. In the case of Tunisia, traditional regional policies focused on achieving interregional equity through spatial redistribution. One part of these traditional, redistributive regional policies was the designation of 140 regional development zones (*zones de développement régional* or ZDR) in lagging regions in the interior of the country. Firms located in these zones enjoyed tax exemptions or breaks (World Bank 2011: 253). Until 2007, the Tunisian government offered 25% investment grants for companies deciding to locate in these zones. The results of this traditional, redistributive regional policy with its focus on the ZDR were mixed. The incentives given to firms locating in the ZDR led firms to locate on the eastern fringe of the area to be closer to the prosperous coastal regions instead of spreading across peripheral regions in the interior of the country. The Tunisian government reacted by readjusting the policy. It decided to differentiate incentives according to three classes of ZDR. Under this readjustment, the highest rates of grant support of up to 30% go to investments in priority development zones (*zones de développement prioritaires*) primarily located in the Western and Southern parts of the country (Benner 2014a; Medinilla Aldana and El Fassi 2016: 6; World Bank 2011: 253, 257–258).

Regional economic development in Tunisia in the past decades cannot be understood without taking a look at the broader trends in Tunisian industrial policy (see Sect. 4.1.2.1). In particular, Tunisia's offshore regime for export-oriented manufacturing and notably for the textiles and garments industry provides a framework highly relevant for regional development. It is safe to assume that the upswing of coastal regions was critically related to the relative attractiveness of coastal regions for export-oriented manufacturing. Indeed, the designation of offshore areas located in coastal regions and related tax and bureaucratic advantages offered to export-oriented manufacturers increased the spatial polarization (OECD 2015: 41). In addition, the country's tourism policy that for a long time focused primarily on sun, sand, and beach package mass tourism (see Sect. 4.1.2.4) most likely contributed to the phenomenon the World Bank (2011: 101) calls "bipolar convergence," meaning that since the 1980s, regions in the central-eastern part of the country and particularly the governorates of Mahdia and Monastir managed to catch up with the prosperous Tunis agglomeration but other lagging regions such the Center-West region did not (World Bank 2011: 101–102).

It is thus not surprising that Tunisian regional policy witnessed a partial turn towards approaches focusing on endogenous growth such as the *pôles de compétitivité* or the CITs (Benner 2014a). Another attempt to facilitate the endogenous growth of regional economies is the establishment of industrial zones (Erdle 2011:

[6] The author was involved as a consultant in a project to support CITs and clusters in Tunisian regions funded by German technical cooperation.

26; World Bank 2009: 138–139). Tunisia has a comparatively well-developed system of public-private management of industrial zones. The system is based on a law from 1994 that stipulates the setup of tenants associations in industrial zones called *Groupement de Maintenance et de Gestion* (GMG) funded by tenants and whose task is to assure the management of the industrial zone. Here too, the Tunisian government-set special incentives for regional development in lagging regions as government funding for zones' investment expenditure was higher in the interior regions than in Tunis. Yet, the industrial zone program is confronted with major difficulties such as delays in setting up active GMGs and tenants' reluctance to fund the associations through fees (Erdle 2011: 26; World Bank 2009: 139).

Newer initiatives in Tunisian regional policy include the intended establishment of a regional development investment bank for funding youth and women projects (Mattes 2016: 6). Currently the Tunisian government is pursuing a plan for decentralization of political decision-making (OECD 2018: 52; 117; 121–124). The ongoing postrevolutionary decentralization process might eventually provide new opportunities for regional development policies designed in a more pronounced bottom-up manner but will most likely require strengthening competences and resources on the regional level (Benner 2014a; Medinilla Aldana and El Fassi 2016). There are indeed endogenous assets available in peripheral regions, as was highlighted in the interviews. Although industry, R&D, and entrepreneurship are concentrated in Tunisia's urban regions, rural areas have their own resources and assets, for instance, in agriculture or cultural heritage. For instance, one interviewee mentioned the production of essential oils as a promising industry in Tunisia's rural regions but stated that economic opportunities are often not seized because of a lack of knowledge about (international) market opportunities. Additionally, the country's entrepreneurship policy was said to focus on employment and income generation primarily but not on upgrading to internationally common levels of excellence, e.g., in terms of quality standards and norms. Furthermore, interventions (presumably often driven by international donors) often follow a youth or gender dimension, thus possibly creating societal cleavages. To counter the risk of societal cleavages, one interviewee suggested a territorial development perspective would be preferable because focusing interventions on the resources and assets of a territory could strengthen solidarity within the population instead of undermining it. Summing up, there appears to be a certain awareness for the role of endogenous regional development that could be seized with participatory approaches as described in Sect. 4.1.5.

4.1.2.4 Tourism Policy

Both industrial and regional policies in Tunisia are affected by the prominent role the tourism industry plays in the country's economic development. Tourism in Tunisia originally started as a French colonial project but after independence became a postcolonial national vision promoted by President Bourguiba. First investments in tourism occurred after 1959 by the parastatal *Société Hôtelière et Touristique* (SHTT) in hotels. Investments undertaken by SHTT were meant to

serve as a model to mobilize private investment and thus entrepreneurial initiative to jump-start the creation of tourism supply. Tourism development followed the goal of spatial equity through investments not only in Monastir (a center of the Bourguiba regime) but also in Gafsa, Kairouan, and Kasserine. Yet, today the Tunisian tourism sector is spatially characterized by a strong degree of clustering in tourism zones. In recent decades, Tunisian tourism policy has come to focus on the development of integrated tourism complexes such as Port El Kantaoui and Yasmine Hammamet, but for a long time Tunisia's tourism development model retained its dependence on low-cost mass tourism in "a low-equilibrium trap where the product had to continue to undercut prices at other destinations" (Hazboun 2008: 30). Despite efforts towards creating more unique features of Tunisian tourism in the integrated tourism complexes, the Tunisian tourism sectors still offers a comparatively standardized product focused mainly on sun, sand, and beach mass tourism (Hazboun 2008).

Since the 1960s, Tunisian tourism policy followed a state-led strategy to attract standardized, Fordist mass tourism. Government-funded hotel investments served to demonstrate the viability of the mass package tourism business model and to mobilize private investment, combined with government incentives such as subsidies for hotel project feasibility studies or access to capital provided by state-owned banks. Private investment did kick in, leading to the emergence of large Tunisian hotel chains owned by established merchant families and assisted by the state-owned bank STB. Part of the strategy was the strong concentration of mass tourism in three regions, Nabeul/Hammamet, Sousse/Monastir, and Jerba which together accounted for almost three quarters of the country's hotel capacity in the early 1970s, arguably reinforced by the inflow of FDI by TNCs in mass tourism hotels (Hazboun 2008: 7–14).

According to the OECD (2015: 77), Tunisia took the third place on the African continent in terms of international tourist arrivals after South Africa and Morocco, welcoming 6 million visitors. Tourism contributes between 6.5% and 12% to the country's GDP and about 11% of employment in the active population (OECD 2015: 77; World Bank 2015: 6).[7] At the same time, tourism in Tunisia is concentrated in low value-added segments of the market, mirroring the long-standing orientation of the Tunisian manufacturing sector. The flip side of the coin is that "opportunities for cultural, sport and eco-related tourism activities remain largely unexploited," and "on average receipts per tourist arrival in Tunisia are low" (OECD 2015: 77). The insight that the Tunisian tourism sector captures little added-value compared to other Mediterranean destinations is confirmed by the World Bank (2014c: 207). The World Economic Forum (2017) presents data suggesting that average spending per international tourist in Tunisia stands at 257.70 USD which is fairly low compared to Morocco (575.10 USD), Egypt (663.60 USD), Turkey (674.20 USD), or Jordan (1080.80 USD).

[7] The estimates used in different sources vary significantly because of the difficulty of separating tourism-related activities from other economic activities and thus follow different methods of measurement.

Hazboun (2008: 43–45) puts the Tunisian tourism sector in the context of the post-Fordism debate. According to this narrative, in the 1980s and 1990s, the end of Keynesianism-Fordism affected tourism and gave rise to more flexible and individual forms of tourism instead of standardized Fordist mass tourism prevalent in the 1960s and 1970s. New and more differentiated preferences among European travelers called for more differentiation in the tourism offer, a trend that Tunisia still has not fully responded to. Hence, "the large, boxy hotel complexes that lined the Tunisian coast faced a challenge similar to the one faced by the Fordist manufacturing plants that dotted the American Midwest in the era of deindustrialization" (Hazboun 2008: 44–45). Responding with lower prices to its reputation as a low-cost destination for mass tourism, the Tunisian tourism sector entered a cycle of deteriorating quality (Hazboun 2008: 45). Therefore, the combination of lacking quality and a focus on low-cost, standardized mass tourism still appears to a considerable degree characteristic for the structure of production in Tunisia's tourism sector.

Apart from the past and present attempts to "re-territorialize" Tunisia's tourism product mainly through integrated tourism complexes (Hazboun 2008), further efforts towards differentiation and entry into attractive, higher value-added market niches (OECD 2015: 77) will probably be necessary. Furthermore, the new "Open Skies" agreement between Tunisia and the EU signed in late 2017 can be expected to unfold significant influence on the Tunisian tourism sector with consequences that are difficult to predict (Dahmani 2017).

4.1.3 Regulation in the Tunisian Economy

After the presentation of Tunisia's major structural economic challenges and policies in the previous sub-sections, the present sub-section characterizes the main features of how the old Arab social contract looked like in Tunisia under the Ben Ali regime.

A major aspect of socioeconomic regulation in Tunisia is the weakness of the private sector, a problem Tunisia shares with other Arab countries save Lebanon (Rivlin 2009: 277). Still, the Tunisian economy is, apart from its major problem of high unemployment, structurally strong but suffers from excessive government control with related distortions (Rivlin 2009: 285). Under the Ben Ali regime, reforms took place but in a selective and patrimonial manner, benefitting coalitions of regime supporters (Rivlin 2009: 286). This patrimonial approach gave way to rent-seeking and extended the dominance of the state to a "network of connections in the public-private sector" (Rivlin 2009: 286). Trusted and well-connected crony capitalists were favored, leaving no room for the development of an independent entrepreneurial class. Furthermore, the Tunisian business community was split between anti- and pro-liberalization factions (Rivlin 2009: 280–281) which presumably made it even more difficult for a confident and independent entrepreneurial class to emerge and to speak with one voice vis-à-vis the regime. The isolation of the offshore sector and

the presence of politically connected firms particularly in the services sector led to entry barriers for entrepreneurial newcomers and undermined productivity (World Bank 2014a: 63).

Consistent with the constraints for an independent and confident entrepreneurial class to emerge, during the Ben Ali era upgrading support was aimed at individual firms, while collective action in the private sector was not encouraged. Business associations were co-opted by the regime and thus lacked independence (Cammett 2007: 1896–1898).

In general, while prescriptive rules are often rigid, major problems seem to be the arbitrary and discretionary implementation of administrative and regulatory procedures (World Bank 2014c: 145–156). This finding is well in line with general trends in Arab economies and explains part of the difficulties new and independent entrepreneurs are confronted with (World Bank 2009). Hence, obstacles for economic dynamism to increase are not only found on the level of prescriptive rules but also, and maybe more importantly, on the level of institutions that are much harder to change.

A highly regulated labor market in the formal sector is another characteristic of the regime prevalent in the Tunisian economy during the Ben Ali regime. Strict laws governing formal labor relations gave rise to rule-circumventing institutions such as firms entering the informal sector or employers and employees agreeing on informal arrangements (Achy 2010: 19). While flexibility on hiring is on par with international averages, the rigidity on layoffs on the Tunisian labor market is very high. The Global Innovation Index hints at the rigidity of Tunisia's formal labor market by ranking the country 89th among 126 countries on the ease of dismissing workers as measured in terms of the notice period and severance pay (Achy 2010: 19–20; Cornell, INSEAD and WIPO 2017: 323; Erdle 2011: 29–30; World Bank 2014c: 182–186).

As in other core Arab economies, vocational training appears to have a negative image and suffers from a low reputation (Achy 2010: 18; OECD 2018: 111). Widespread preferences for university education were confirmed in interviews, as was the skills mismatch on the labor market. TVET is seen not to respond to the demands of firms when it comes to skills relevant to day-to-day work. In part for this reason, TVET is perceived as a second-best educational choice only. Often, firms do not offer TVET graduates prospects for professional advancement as they do for university graduates. Maybe because of these disadvantageous prospects but also because TVET is seen as the educational track of choice for less performing students, TVET generally suffers from a bad reputation. This insight confirms the prevalence of a further set of problems on the institutional level of the Tunisian economy.

The negative image of technical and vocational training and education is likely to underscore the gravity of the labor market mismatch. Interviewees confirmed the skills mismatch in the Tunisian labor market. In particular, soft skills are lacking among higher-education graduates. The problem seems to be exacerbated by spatial disparities in the education system between prosperous coastal regions such as, the Tunis agglomeration and peripheral regions of the country.

Transnational transformative processes (Peck and Theodore 2007) affecting Tunisia include policy transfer from Europe and notably from France which is evident in the *pôles de compétitivité* scheme that uses the same name as the French cluster policy. In addition and probably more importantly, EU *rapprochement* and structural adjustment supported by the IMF and World Bank condition socioeconomic regulation in Tunisia in many ways. For instance, Tunisia is currently undergoing another wave of structural adjustment under IMF assistance and conditionality. Tunisia's ongoing *rapprochement* to the EU leads to a considerable degree of de-facto integration of the county in major parts of the EU's economic context. As the pioneer in the EU's Barcelona process of Euro-Mediterranean cooperation and integration, Tunisia has gone far in implementing the AA by aligning its economy and economic policy with EU standards. The subsequent *Programme de mise à niveau* (PMN) very well illustrates this point. Since Tunisia was the first country to sign an AA, the Tunisian government saw the need to prepare domestic firms for competition from the EU. Given that cost advantages waned, under these conditions Tunisian industry needed to strengthen its competitive and innovative capacities, a problem the PMN sought to address (Hazboun 2008: 74).

While policy alignment with EU policy standards created a policy anchor that may have been beneficial to some parts of Tunisian industry, and while the AA with its perspective of free trade gave Tunisian producers far-reaching access to EU markets, firms were confronted with an urgent need to upgrade their competitiveness and thus to accommodate or even drive the country's move towards becoming a more knowledge-based economy. This is an ongoing effort that will probably get a new impetus through the Deep and Comprehensive Free Trade Area (DCFTA) agreement currently being negotiated between the EU and Tunisia (European Commission 2017b; OECD 2012a: 127–128). This agreement, once completed, will cover a range of trade and economic policy areas, deepen the Tunisian economy's integration into the single market, and align trade-related prescriptive rules with EU standards (European Commission 2017b).

Based on the discussion of elements of socioeconomic regulation above, Fig. 4.1 gives a stylized overview on the major components of the Arab social contract in Benalist Tunisia within the terms of the regulation framework developed in Chap. 3. These components are marked by the following characteristics.

Within the regime of accumulation, the *structure of production* in Benalist Tunisia shares the general characteristics found in other labor-abundant core Arab economies such as a high degree of labor market segmentation between formal and informal sectors as well as along characteristics such as age, gender, regions, and between public and private sectors (OECD 2018: 95–102), high levels of youth and female unemployment, and particularly unemployment among higher-education graduates (OECD 2018: 98–100; World Bank 2013: 66; 2014c: 39), low female labor-force participation (OECD 2014: 41; 2018: 49; World Bank 2014c: 40–41), and an inflated public sector (Hertog 2016: 13, 29).

In particular, labor market segmentation in Tunisia is well documented by recent data. For instance, the employment rate among those aged 15 years and over for Tunisia in 2016 was only 39.8% compared to an average of 66.9% in OECD coun-

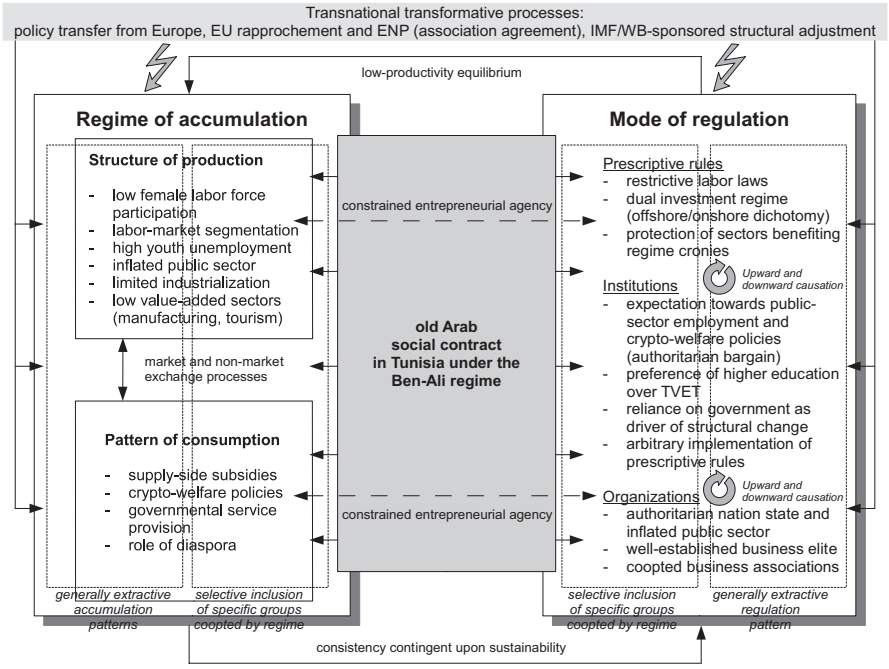

Fig. 4.1 Stylized regulation framework under the old Arab social contract in Tunisia under the Ben Ali regime. (Source: Own work based on Bathelt 1994: 66)

tries (for those aged 15–64). For men, Tunisia's employment rate stood at 59.8%, and for women, the rate stood at only 20.5%, compared to OECD averages of 74.7% and 59.3%, respectively. Tunisia's unemployment rate in 2016 was 15.5% compared to an OECD average of 6.3%. For youth aged 15–24, Tunisia witnessed an unemployment rate of 37.6% compared to an OECD average of 13.0% (OECD 2018: 8).

Interviewees confirmed that youth unemployment is a problem particularly among higher-education graduates and linked to expectations and preferences on the institutional level. Since university graduates expect to be hired for jobs on a par with their level of educational attainment, they often do not find adequate employment. These institutional patterns are anchored within the mode of regulation but shape phenomena shaping the structure of production through the profile of the workforce.

The labor market mismatch is very obvious in the Tunisian case (OECD 2018: 109–111). When it comes to industrialization, Tunisia is a relative success story among core Arab economies (Cammett 2014: 164; Amin et al. 2012: 113; Diop and Ghali 2012; Ghali and Rezgui 2015), but still and notably when compared to East Asian NIEs, industrialization in Tunisia remains limited and in a certain sense shallow. Although the country's economy is making some slow progress towards becoming more knowledge-based and innovation-driven, Tunisian manufacturing is

still to a large extent dependent on low value-added subcontracting for European markets and notably for France and Italy. Somewhat similar to Tunisia's dominant manufacturing industries, textiles and garments and mechanical and electrical engineering, the tourism sector is marked by limited diversification, and a focus on low value-added mass package tourism aimed at European markets (Benner 2017a; Hazboun 2008).

As for the *pattern of consumption* under the old Arab social contract in Benalist Tunisia, the salient trends identified across core Arab economies in Sect. 3.3.1 generally apply. Untargeted supply-side subsidies exist for foodstuffs such as milk, sugar, and wheat as well as fuel (OECD 2018: 36–37; World Bank 2014c) as a part of the crypto-welfare policies typically found in core Arab economies that include public service provision by governments. Examples for the extent of public service provision and the activist role of government in Tunisia include the involvement of the state in providing water and sanitation, electricity, and public transport, the dominance of SOE in these and other service markets, or SOEs with monopoly status in importing, producing, or distributing agricultural commodities (World Bank 2014c: 89). Relations with the diaspora are important with the Tunisian communities in European countries such as France, and remittances in 2004 equaled more than 5% of Tunisia's GDP (Richards and Waterbury 2008: 389–390; 397–400; Benner 2015).

The *mode of regulation* under the old Arab social contract prevalent in Benalist Tunisia was marked by prescriptive rules such as restrictive labor laws underpinning labor market segmentation (e.g., OECD 2018: 47–49; 104–106) as well as an investment regime discriminating along an dichotomy between onshore and offshore sectors (OECD 2018: 70–73) including selective and often restrictive authorization requirements for investments in defined strategic sectors that had the effect of protecting the business interests of the established and well-connected business elite of regime cronies. Arbitrary implementation of prescriptive rules (World Bank 2014c: 145–156) is another institutional feature of the old Arab social contract in Benalist Tunisia. While guarantees for public-sector employment to university graduates were given less explicitly in Tunisia than in other core Arab economies such as Nasserist Egypt, public employment was still part of the Ben Ali regime's crypto-welfare policies. The institutional legacy left by the crypto-welfare policies during the pre-revolutionary era remains visible. Even in the postrevolutionary era, public protests against youth unemployment still may prompt the Tunisian government to resort to promises of public employment provision, as was the government's reaction to protests in the peripheral governorate of Tataouine in 2017 (Marzouk 2017). This pattern of governmental action is in line with institutions such as widely held expectations and aspirations towards public-sector employment and towards crypto-welfare policies such as supply-side subsidies. The public attitude towards subsidies became particularly obvious during the "bread revolt" that occurred in the early 1980s after subsidy cuts (Hazboun 2008: 41–42; Richards and Waterbury 2008: 222). Governmental reactions to calls for public employment via the creation of public employment can be understood as an institution-reinforcing rule that, through a process of cumulative and circular causation, reinforces aspira-

tions and calls for public employment and thus shapes rule-reinforcing institutions. Among Arab economies, aspirations of tertiary-educated graduates towards public-sector employment are particularly strong in Tunisia (Hertog 2016: 25). In a 2010 survey, 46% of Tunisian youth expressed their willingness to work in the public sector, while only 15% were willing to work in the private sector (World Bank 2014b: 13). The high prominence of higher education and the institutionally based preference for academic education over TVET are very visible in Tunisia (Achy 2010: 18; OECD 2018: 111). As for the preferred model of economic development, it seems that institutions in the Tunisian regulation system during the Ben Ali era (and, presumably, even in the postrevolutionary era so far, as calls for public employment during protests in peripheral eras in recent years have demonstrated) included the public expectation that the state act as the main driver of economic progress. Organizations characteristic of Benalist Tunisia's old Arab social contract included an authoritarian nation-state, an inflated government and SOE sector, and a dominant well-established and politically well-connected business elite of regime cronies including members of the Ben Ali clan. Representation in business associations with UTICA (*Union Tunisienne de l'Industrie, du Commerce et de l'Artisanat*) at the pinnacle tended to lack political independence due to cooptation by the Ben Ali regime (Cammett 2007: 1898). Religious authorities, however, did not seem to play a major role in the mode of regulation in Benalist Tunisia. Mechanisms of upward and downward causation between prescriptive rules, institutions, and organizations in the case of Benalist Tunisia seem similar to those found in the stylized model for core Arab economies presented in Sect. 3.3.1. These mechanisms include, for instance, the design and implementation of the crypto-welfare policy of public-sector employment as a reaction to open or latent public discontent or as an approach to extend regime patronage to important societal groups. This policy of regime patronage through public employment provision may have shaped citizens' expectations, aspirations, and educational or employment preferences and led to an inflated government and SOE sector. The onshore/offshore sector dichotomy and the restrictive investment law with its authorization requirements and barriers to entry in sectors protected presumably for the sake of safeguarding regime cronies' business interests strengthened the role of the well-established and politically connected business elite, while a lack of political independence of business associations underpinned the lack of inclusiveness of the regulation regime towards independent economic agents.

Taking together the major elements of the regime of accumulation and the mode of regulation, the conditions for *entrepreneurial agency* in Benalist Tunisia seem similarly constrained as in the stylized model of regulation in core Arab economies introduced in Sect. 3.3.1. Even if Tunisian policy left somewhat more freedom for the private sector and even if Arab socialism in Tunisia lasted a shorter time than in other core Arab economies and left a weaker institutional legacy, independent entre-

preneurial agency as a driver of Schumpeterian creative destruction still appears severely hampered by two major factors. The first factor is the model of state-led growth pursued since independence – as in other core Arab economies – with its elements so characteristic of the old Arab social contract such as crypto-welfare policies and inflated public sectors and the related crowding out of private investment as well as the adaptation of human capital to government needs and the skills mismatch. The second factor is specifically Tunisian although similar phenomena may be found in other core Arab economies. The economic dominance of the Ben Ali clan and barriers to competition and entrepreneurial market entry in protected sectors is arguably one of the most salient factors conditioning entrepreneurship in Benalist Tunisia and represents a specific form of crony capitalism and extractive configuration of the economy in favor of an established and politically well-connected business elite.

Transnational transformative processes conditioning socioeconomic regulation in Tunisia in the Ben Ali era and after include EU *rapprochement* through the AA the need to upgrade firms' competitiveness through schemes such as the PMN and IMF/World Bank-supported structural adjustment, as well as policy transfer from Europe.

As in other core Arab economies, structural deficiencies such as high (youth) unemployment and massive interregional economic and social disparities hint towards a low productivity equilibrium of the regulation system found in Benalist Tunisia. While the system in its low productivity equilibrium featured a certain degree of internal consistency, it exhibited the same lack of sustainability as the old Arab social contract in general. In the case of Tunisia, this lack of sustainability became visible and acute in the wake of transnational transformative processes such as IMF/World Bank-sponsored structural adjustment, as was demonstrated by the public reaction to the consequences of structural adjustment during the Tunisian "bread revolt" in 1983–1984 (Hazboun 2008: 41–42; Richards and Waterbury 2008: 222). While this event happened before the Ben Ali era, it is obvious that the friction between the need to achieve economic sustainability of the country's economic model and the internal consistency of the regulation system persisted and, through the persistence and exacerbation of structural deficiencies as symptoms of the system's underlying lack of sustainability, was a major driver of public discontent that led up to the Tunisian revolution in 2010/2011.

The regulation system's underlying unsustainability is visible in structural deficiencies such as high unemployment and intense spatial inequity, but the fundamental problems in terms of the Tunisian economy's dynamic efficiency are to a significant degree related to the role of Schumpeterian creative destruction. Hence, the next section takes a closer look at the state of entrepreneurship and innovation as drivers of Schumpeterian creative destruction as they played out under the old Arab social contract in Benalist Tunisia.

4.1.4 *Entrepreneurship and Creative Destruction in the Tunisian Institutional Context*

Entrepreneurship cannot be isolated from wider socio-economic realities. In particular, institutions such as widely held preferences for public employment condition and limit the propensity of young graduates to set up new businesses. Still, interviewees saw a change in attitudes. While the long-standing preferences of young people to work in the public sector as first choice and for large enterprises as a second choice still persist (notably in peripheral regions), an entrepreneurial spirit seems to gain ground particularly in the ICT sector, as does young people's willingness to work in the private sector, although the risk-taking culture still seems limited in international comparison. Long-term changes in government policy seem to play a role here, probably in line with international trends towards the encouragement of private-sector work and entrepreneurship. While previously, Tunisian university students were (at least implicitly) given the perspective of working at university, in administration, or in SOEs, today universities offer and emphasize entrepreneurship education and the government offers extensive entrepreneurship support. A more supportive ecosystem involving incubators or co-working spaces has emerged in recent years, but government support for entrepreneurship is still considered too weak. For instance, incubators were sometimes considered real estate only, and too little emphasis was placed on intangible support such as networking support. However, the awareness for the importance of intangible entrepreneurship support seems to grow but still suffers from a scarcity of skilled human resources for tasks such as networking support of cluster management. Further, interventions to engage the Tunisian diaspora of entrepreneurs and students in the EU were suggested during the interviews. While international donors have started to work on the latter subject, government agencies such as API could put a stronger focus on promoting cross-border entrepreneurship.

The trend towards entrepreneurship support became dominant in Tunisia in the wake of a growing belief among policymakers that promoting entrepreneurship is a necessary step towards confronting high youth unemployment and the demographic situation (OECD 2012b: 14). Indeed, in their survey comparing Egypt and Tunisia, Adly and Khatib (2014: 168) find some relative advantages in Tunisia's entrepreneurial ecosystem, including some of the support structures established during the Ben Ali era such as public banks supporting entrepreneurs, business centers, and incubators. Despite the prominence of entrepreneurship support, on a strategic level the goals of entrepreneurship support measures in Tunisia are not made explicit. In particular, possibly conflicting goals such as offering employment opportunities to the unemployed, enhancing employability, or building skills are often mixed. Hence, support structures were deficient due to their fragmentation and disintegration, a mixture and confusion of economic and political goals in support structures' mission (e.g., fighting youth unemployment of university graduates, raising the value of formal education) and work (e.g., requiring that supported ventures fall into the domain of the applicant's university degree), and the (mis-) use of entrepreneurship

support as channels for patronage. Entrepreneurship promotion is subject to overlapping programs of different ministries such as the Ministry of Industry or the Ministry of Employment. A lack of support, incentives, and training for entrepreneurship teachers is another shortcoming of Tunisian entrepreneurship promotion. Cooperation between ministries and support agencies appears limited. HEIs and entrepreneurship support entities (e.g., incubators) tend to be disconnected from each other, and collaboration is not systematically organized but rather ad hoc and personalized. In some contrast to the high prominence accorded to entrepreneurship education in HEIs, entrepreneurship education in the TVET system is lacking, and TVET entities and startup support structures are not aligned (Adly and Khatib 2014: 168–170; OECD 2015: 34–36, 75).

The extensive landscape of entrepreneurship promotion schemes apparently designed to confront youth unemployment stands in a stark contrast with the constraints to independent entrepreneurship inherent to the wider regulation regime. It is likely that notwithstanding the deficiencies of entrepreneurship support in Tunisia listed above, even a well-designed and efficient entrepreneurship support landscape could not effectively have helped independent entrepreneurs overcome the fundamental barriers to entrepreneurship and competition built into the regulation regime under the old Arab social contract during the Ben Ali era. These built-in barriers in the regulation regime included notably the protection of cronies' business interests from competition. It is plausible to assume that during the Ben Ali era, fundamental incentives for entrepreneurship were heavily distorted by state capture and crony capitalism in favor of established and politically well-connected cronies. The economic dominance of the well-connected business elite and particularly of firms related to the Ben Ali clan suggests tight constraints to competition and market entry against independent entrepreneurial newcomers (OECD 2015: 11; Rijkers et al. 2014; World Bank 2014a).

Rijkers et al. (2014) demonstrate the extent of state capture and crony capitalism under the Ben Ali regime related to prescriptive rules limiting competition and protecting cronies' business interests. For example, "220 confiscated Ben Ali firms appropriated 21% of all net private sector profits and accounted for approximately 3% of private sector output" (Rijkers et al. 2014: 3). Sectors containing connected firms were more likely to be protected by authorization requirements and other restrictions. Looking at the success of firms connected to the Ben Ali clan in the pre-revolutionary era, the authors find a significantly higher market share of these firms than that of the average firm in Tunisia and relate this finding to high legal barriers to market entry. Interestingly, the setup of new firms connected to the Ben Ali clan was correlated with the introduction of new restrictions (Rijkers et al. 2014: 3–4, 12–13).

Even the ambitious *Programme de mise à niveau* illustrates the distorted incentives for entrepreneurship and independent firm growth. Paradoxically, while the PMN was designed to enhance the openness of the Tunisian economy in the wake of trade liberalization after the signature of the AA, upgrading Tunisian enterprises was promoted through a tightly monitored and filtered, state-managed process. The effect of this controlled opening was that upgrading support was directed not

towards broad echelons of Tunisia's entrepreneurial scene but rather towards a limited number of businesses, presumably underpinning the dominance of a closed-off and well-connected business elite (Hazboun 2008: 74–75).

Ghali and Rezgui (2015: 60–63) provide a number of examples on the role of the established and politically well-connected business elite in the design and implementation of Tunisian economic policy before 2011. In particular, they highlight the prominent role of established businesspeople and family conglomerates as beneficiaries of the PMN (Ghali and Rezgui 2015: 61). Another example is the strong lobbying power of established entrepreneurs involved in the garment industry within the UTICA business federation (Ghali and Rezgui 2015: 62).

The impact of these constraints to independent entrepreneurship and firm growth is limited creative destruction in the Tunisian economy as evident in low rates of entry of new firms and limited firm growth. Further, severe restrictions in market access including for foreign investment, limited competition, supply-side subsidies, and price controls in many product markets further constrain processes of creative destruction and, thus, opportunities for independent and growth-oriented entrepreneurship (World Bank 2014c: 59–65, 82–94).

Correspondingly, in the Global Entrepreneurship Monitor's expert ratings of Tunisia's entrepreneurial ecosystem, some stylized facts on strengths and weaknesses related to entrepreneurship become apparent. While Tunisia is in line with the global average of countries surveyed on the dimensions of entrepreneurial finance, government policies, government entrepreneurship programs, and physical infrastructure, Tunisia ranks significantly above average on its internal market dynamics and its commercial and legal infrastructure. In contrast, Tunisia is below global average on cultural and social norms towards entrepreneurship, entrepreneurship education at school and post-school stages, R&D transfer, and internal market burdens or entry regulation (Kelley et al. 2016: 110).

These findings confirm the role of an established and politically well-connected business elite and concomitant systemic constraints to competition, to entrepreneurial initiative and innovation, as well as to Schumpeterian creative destruction in a wider sense, in pre-revolutionary Tunisia. Hence, one of the major features of the old Arab social contract as was identified in Chap. 3 can be confirmed in the case of Benalist Tunisia.

A further problem about the entrepreneurial potential among young Tunisians mentioned during interviews seems to be that a considerable part of higher-education graduates interested in entrepreneurship are leaving the country and establish their ventures – presumably opportunity-based ones – abroad, notably in European countries. While economic framework conditions are a major problem for the resulting lack of innovative entrepreneurship in Tunisia, the small size of the domestic markets is another, structural reason. One interviewee suggested the government establish a support scheme for Tunisian entrepreneurs to access markets in sub-Saharan Africa.

4.1.5 After the Revolution: A New Mode of Regulation?

When thinking about how a new, internally, and externally consistent and sustainable Arab social contract in postrevolutionary Tunisia could look like, the discussion in Sect. 3.4 is generally applicable. In particular, the scenario for such a new, consistent, and sustainable regulation regime depicted in Fig. 3.4 is equally valid for Tunisia, but some points are worth highlighting in the idiosyncratic case of Tunisia.

It is not surprising that policy recommendations found in the literature largely parallel those given for other core Arab economies. For example, because firms are exposed to volatile international markets and competition, Achy (2010: 21) calls for more flexibility in the labor market but also for compensation schemes for laid-off workers to prevent them from having to bear completely the risks of shocks. Another example is the OECD's (2018: 13) recommendation to reduce public-sector employment over time. Yet, implementing such recommendations requires overcoming mutually consistent aspirations for stable (public) employment and policy reactions towards providing government or SOE employment and thus the circular and cumulative causation process between rules and institutions on the Tunisian labor market. In the current postrevolutionary political situation, such a fundamental change in the interplay of rules and institutions conditioning the functioning of the Tunisian labor market is neither evident nor easy to achieve. Protests in rural governorates in 2016 and 2017 consistently featured calls for the creation of public-sector employment, as did the 2017 protests in the governorate of Tataouine and the reaction by government to provide new employment in the SOE sector (Marzouk 2017). Recommendations for subsidy cuts (e.g., OECD 2018: 13) are likely to be confronted with comparable popular resistance. Indeed, interviewees stressed the social climate after the 2010/2011 revolution characterized by widespread calls for social interventions including salary increases and public-sector employment. Under this political pressure, the postrevolutionary government continued to inflate public-sector employment, adding to a burdensome public wage bill exacerbated by the impact of subsidies. This policy dilemma implies that structural reforms will have to be complemented by long-term institutional change.

Institutional change takes time, and instigating it through downward causation presupposes a comprehensive, institution-sensitive policy mix (Benner 2017a; Glückler and Lenz 2016). For example, as in other core Arab economies, accepting the widely held preference for tertiary education over TVET in vocational schools and confronting the skills mismatch in the labor market with dual-study programs in HEIs such as Tunisia's ISETs could be part of such an institution-sensitive policy mix.

Developing an institution-sensitive policy mix could offer Tunisian policymakers a way out of the quandary between reform necessities and implementation problems they find themselves in. On the political level, there seems to be a willingness to undertake structural economic reforms but interviewees saw several problems in the reform process. First of all, both parliamentary decision-making processes and implementation are slow. Hence, the impact of reform steps decided on (such as the new investment code) is not yet tangible. Second, a prioritization of reform steps

seems to be missing, leading policymakers to undertake a number of complex reforms at once without ensuring the necessary conditions for successful implementation such as administrative capacity on the local level. Third, resistance to reforms such as privatization by trade unions or popular resistance to subsidy cuts makes the decision-making process even more difficult. In addition, policymakers' desire to achieve a consensus prevents them to make reform decisions against political, societal, or popular opposition. At the same time, popular trust in the political system seems to have suffered due to economic instability.

While these factors apparently slow the reform process during Tunisia's current economic transition, they can be seen as evidence for the uneasy move towards a new regime of socioeconomic regulation. The fact that policymakers seek a social consensus is particularly interesting in this regard. While making decisions even more complicated to reach, this approach to opposition by the population or by trade unions suggests emerging decision-making routines known from CMEs and may in the long term contribute to the formation of a new and stable regulation regime. However, the friction between such a consensus-seeking approach and economic realities such as budgetary pressures or IFI-sponsored structural adjustment requiring quick political responses even against strong political or societal opposition is obvious.

Where institutional change is required, transnational transformative processes can give an impulse to establish and maintain institution-circumventing or even institution-competing rules. While institution-competing rules generally have low prospects of success, when it comes to public employment or subsidies, policies to reduce the scale of public recruitment and subsidies are likely to cause institutional change as popular expectations may eventually adapt to the new realities. A prerequisite for this to happen is that policies establishing institution-competing rules are maintained, which is not guaranteed as public opposition can be expected. Tunisia's "bread revolt" in the early 1980s (Hazboun 2008: 41–42; Richards and Waterbury 2008: 222) is an example of the political difficulties attached to maintaining institution-competing rules. However, transnational transformative processes such as IMF-sponsored structural adjustment and the underlying economic and fiscal realities a small, export-driven economy such as Tunisia is facing can provide a policy anchor making the maintenance of institution-competing rules more likely. Indeed, under the current IMF-sponsored structural adjustment program, the Tunisian government attempted to gradually cut back subsidies and freeze public procurement (Barnell 2017), although contrary announcements by the country's finance minister in view of the 2018 budget (Amara and Laessing 2017) suggest an ongoing process of back-and-forth policymaking and provide a recent example for the inherent political difficulty in establishing and maintaining institution-competing rules. The wave of protests against consequences of the government's 2018 budget with tax hikes and other austerity measures in the wake of rising prices in January 2018 (Dahmani 2018a, b) are another reminder that establishing and maintaining rules needed for a new and sustainable regulation regime will not be an easy task. These events suggest that institution-competing rules alone will not suffice to treat two of the major obstacles towards a sustainable and consistent new regulation

regime. Institution-circumventing rules will be needed to complement the fiscal consolidation that requires institution-competing rules. Such institution-circumventing rules might include a system of targeted, need-based demand-side cash transfers replacing the supply-side subsidy system as well as facilitating employment growth in the private sector and in civil society. Comprehensive entrepreneurship policies designed to strengthen entrepreneurial attitudes among young people and particularly higher-education graduates will be effective only in the long term but might establish institution-circumventing rules by making entrepreneurial activity a viable alternative to increasingly unrealistic expectations of stable public-sector employment.

The emergence of the independent entrepreneurial association CONECT (*Confédération des Entreprises Citoyennes de Tunisie*) that has become an alternative to the traditional business association federation UTICA could indicate the emergence of a politically conscious and independent entrepreneurial class, or give them stronger voice and political clout. According to results from the interviews, CONECT was established after the 2011 revolution for several reasons. First, UTICA was perceived as too close to government and static. Second, the private sector had a negative reputation among the population. The establishment of CONECT was therefore an attempt both to set up an independent organization voicing companies and particularly SMEs' needs to the government and to improve SMEs' reputation by emphasizing the image of socially responsible business conduct (hence the term *entreprise citoyenne*). CONECT is seen to actively voice its positions to policymakers and thus may have contributed to a more confident and independent stance of the entrepreneurial class in postrevolutionary Tunisia. In this regard, economic policymaking has become more inclusive. However, it is important to note that the informal sector by definition lacks representation, thus leaving a considerable part of the economy out of more inclusive policymaking structures and processes.

Even in the postrevolutionary era, burdensome bureaucratic prescriptive rules, or burdensome implementation of prescriptive rules on the institutional level, remain a major problem for Tunisian businesspeople (OECD 2018: 67–69). In the interviews, the bureaucratic burden encountered by companies notably by slow administrative procedures was expressed, as was the need for policymakers and government officials to redefine the role of government from being interventionist to becoming a facilitator for private-sector development and entrepreneurship.

On the level of prescriptive rules, since 2017 the Tunisian government is implementing the new investment code that aims at liberalizing the authorization regime and at easing market access and investment. In particular, the new law sets incentives for investments in priority industries such as ICT, textiles and garments, and electronics. Under the framework of the new investment regime, new organizations were created such as the High Council on Investment (*Conseil Supérieur de l'Investissement*), the Tunisian Investment Authority (*Instance Tunisienne de l'Investissement*), and the Tunisian Investment Fund (*Fonds Tunisien de l'Investissement*), but pre-existing organizations such as API, APIA, CEPEX, or ONTT remain. Thus, the creation of new bodies could possibly add to the complexity

of the support landscape. Furthermore, the system of regional development investment incentives was refined under the new law (OECD 2018: 74–76; 117–118).

While the new investment code changes prescriptive rules for the private sector, it remains to be seen if changes do materialize as hoped for. Given the prevalence of arbitrary and burdensome implementation of prescriptive rules as an important institutional legacy of the old Arab social contract in Tunisia, changing prescriptive rules may not be sufficient to significantly improve the framework conditions for private-sector growth. In addition to new prescriptive rules, institutional change within the government and administration will be necessary.

In the interviews, the prospect of a DCFTA between the EU and Tunisia as a possibly important transnational transformative process was considered a mixed blessing. While the PMN is perceived to have significantly contributed to upgrading in the manufacturing sector and to the emergence of new industries, there is still ample room for further upgrading under the framework of an eventual DCFTA. However, the liberalization of the service sector under a DCFTA is considered a threat because of the likely and asymmetric competition by European companies.

In any case, EU *rapprochement* will remain an important driver of the further development of the Tunisian economy. One might eventually expect Tunisia to follow Turkey's path of far-reaching economic de-facto integration into the EU. In the case of Tunisia, even without the prospect of EU accession, this could mean an eventual customs union and a strong degree of alignment in terms of economic structures, organizations, and policies (Benner 2015).

In terms of regional development, policy transfer from the EU (a transnational transformative process), if and when adapted sensibly to the institutional context found in Tunisia and its regions, could include applying the smart specialization concept and thus bring regional policy and innovation policy closer together. Different from the *pôle de compétitivité* scheme with its top-down design and possibly weak sensitivity to the regional institutional context, Tunisian regions could develop smart specialization strategies in a bottom-up way and by drawing on localized assets found in the regional knowledge base, micro-level entrepreneurial dynamics, and institutional specifics of the regional economy. Doing so could provide a more comprehensive policy approach than the *pôles* but still critically build on them as existing structures and backbone agents in implementing smart specialization strategies and resulting action plans. In more peripheral regions, CITs could play a similar role. In this way, an integrated model of endogenous regional development could be elaborated and supported by national government and international donors. For rural regions, a less innovation-focused but similarly participatory model of endogenous regional development could use the LEADER/CLLD method and tools developed under the umbrella of the EU's cohesion policy (Benner 2014b, 2017b, d, forthcoming).[8]

However, the typical constraints particularly encountered by weaker regions applying a participatory and strategic approach of regional policymaking such as smart specialization have to be considered and addressed. The obstacles the smart

[8] Strictly speaking, the LEADER approach originated under the EU's Common Agricultural Policy.

specialization approach is confronted with in weaker European regions such as distrust among agents, missing government capacities in public-private coordination, hierarchical policymaking traditions, and weak intermediate organizations (Trippl et al. 2018) are certainly not less prevalent in Tunisia. These constraints may be most severe in Tunisia's peripheral regions. Applying the smart specialization approach to Tunisian governorates will certainly be a long and difficult process. On the other side, considering the opportunities of the approach in mobilizing collective dynamism and changing the institutional context of a regional economy (Benner 2018), the smart specialization method could be particularly beneficial for Tunisian regions. Given the participatory nature of the process and its intricate relationship with institutional context (Benner 2018; Glückler and Bathelt 2017), the assumption that the smart specialization approach could drive changes in socioeconomic regulation on the regional level and possibly on the national level through bottom-up dynamics seems plausible. While the problems mentioned by Trippl et al. (2018) will be difficult to overcome in peripheral areas of Tunisia, regions such as Bizerte, Sousse, or Sfax might benefit from the approach by prioritizing areas of comparative advantage or promising trajectories in their regional economies (Benner forthcoming).

In the interviews, an interesting case for endogenous regional development related to regional institutional context and smart specialization was brought up. Apparently, the Sfax region enjoys advantages in the medical sector such as an exceptionally high share of medical doctors per inhabitant. As a part of the regional institutional context, parents' expectations for their children to study medicine and to become medical doctors seem widespread. Building on this institutional characteristic of the Sfax regional economy and the focus of the Sfax *pôle de compétitivité* on medical applications of ICT, a cluster initiative for e-health technologies was formed. In this context, one interviewee mentioned these efforts as a starting point for smart specialization. Within Tunisia, Sfax might serve as an example of an intermediate region and possibly benefit from the widened involvement of regional-level agents found by Trippl et al. (2018: 15) in European intermediate regions as an outcome of the implementation of smart specialization.

Older initiatives designed top-down to promote regional innovation such as the *cyberparcs* were judged less successful during interviews. It seems as if the *cyberparcs* are currently looking for a new business model more adapted to the specifics of regional economies and including the participation of regional stakeholders, which would indeed call for a process similar to the European smart specialization approach.

In general terms, the current postrevolutionary context found in Tunisia offers a window of opportunity for changing both prescriptive rules and institutions, but at the same time economic, fiscal, and political pressures make changes even more pressing than in previous periods. As in other core Arab economies, establishing and maintaining new prescriptive rules and causing institutional change through downward causation and aptly reacting to processes of upward causation to arrive at a new, consistent, and sustainable regulation regime are enormous policy challenges in a highly complex context of pressure from stakeholders, citizens, and external

forces such as IFIs and, particularly in the case of Tunisia, the EU. It is by no means sure that the process of a new, consistent, and sustainable regulation regime crystallizing in a complicated and multifaceted negotiation process between policymakers and their polity will eventually succeed. What can be assumed, however, is that the postrevolutionary democratic arena of today's Tunisia offers an environment for such a process to take place through the complex but peaceful mechanisms of a pluralistic society.

4.2 Jordan

Analogously to the Tunisia case study, the case study on Jordan gives an overview on the specific structural challenges the country is confronted with, highlighting both similarities and differences to the general tendencies found in core Arab economies. Then, the case study focuses on specific policy areas before sketching the major elements of the present Jordanian regulation regime with a specific focus on the dynamics of Schumpeterian creative destruction. The case study concludes with an outlook on prospects of possible new ways of regulation in Jordan.

4.2.1 Jordan's Economic Challenges

The wave of demonstration in the wake of the "Arab Spring" touched upon Jordan in 2011 (Muasher 2011: 3). However, in contrast to Tunisia, regime change was not a widely shared goal of the protest movement. In general, the status of the king was not challenged. Rather than regime change, reform within the existing constitutional monarchy was the commonly shared goal of protesters (Josua 2016: 11).

Therefore, other than Tunisia whose current transitional state was set off by a revolution, Jordan is a case for evolutionary change of a fairly stable political regime responding to public dissatisfaction by gradual and incremental reform. The present chapter attempts to shed light on the implications of such an evolutionary policy approach for socioeconomic regulation.

Jordan's economic challenges to a considerable extent parallel those found in other core Arab economies such as high unemployment specifically among tertiary-educated youth and among young females (e.g., Amin et al. 2012: 57; International Labour Organization 2016: 9; Smadi and Tsipouri 2012: 3; World Bank 2013: 10; 2014b: 12–14). For instance, the country's unemployment rate in the first quarter of 2017 stood at 18.2% overall and at 13.9% for males and 33.0% for females. Unemployment among university graduates is particularly high at 21.4%. Unemployment among university-educated males was 20.8% compared to a staggering 53.9% for university-educated females. Youth unemployment stood at 39.5% for those aged 15–19 and at 35.4% for those aged 20–24 years. Economic

participation among the labor force aged 15 and over stood at 63.0% for men and 18.3% for women (Department of Statistics 2017).

Still, the country's economy features some specifics due to its geopolitical situation and historical development. The circumstances of the country's formation and geopolitical events in its neighborhood strongly shaped the economic and demographic structure of Jordan. After 1948, the emerging merchant class came to be dominated by citizens from Palestinian origin. While estimates vary widely, it is assumed that more than half of the current Jordanian population may be of Palestinian origin (Ryan 2010: 323). Jordanians from tribal, non-Palestinian origin, so-called East Bankers, tend to hold public-sector, government, or military jobs, while Palestinians dominate the private sector (Ryan 2010: 324). Further, Jordan today exhibits the special situation of hosting a large number of Syrian refugees (International Labour Organization 2016: 5, 17; Smadi and Tsipouri 2012: 3; World Bank 2015: 32). In particular, the divide between Palestinian-origin citizens dominating the private sector and East Bankers dominating the public sector arguably led to a certain hesitation of the state to encourage growth of the private sector. However, in the wake of economic crisis towards the end of the 1980s and subsequent IMF/World Bank-supported structural adjustment, the private sector was given more freedom, trade was liberalized, and the role of the public sector was limited (Rivlin 2009: 166–169).

Generally, Jordan suffers from a scarce endowment in natural resources and a weak industrial base (Kanaan and Hanania 2009: 145–146). It is worth noting that the country is the second-largest exporter of phosphates, making the phosphate and potash mining industries very important for the country's economy (Mahroum et al. 2013: 78). Still, Jordan essentially is a service-based economy with little agriculture or manufacturing (Ryan 2010: 321–322) within a framework of international openness and important links to neighboring countries and notably Gulf states in trade, tourism, FDI, and remittances (Smadi and Tsipouri 2012: 3). Jordan's relatively far-reaching trade openness in regional comparison is underscored by the country's WTO accession in 2000 (OECD 2013: 119). Jordan's economic model relies on its relative political stability and comparatively well-developed human capital which enabled the emergence of some productive sectors such as the ICT, pharmaceuticals, healthcare, or light manufacturing industries (Smadi and Tsipouri 2012: 3). Jordanian exports in manufactured products include notably fertilizers, pharmaceuticals, textiles and apparel, as well as ICT, while tourism is another important outward-oriented industry. These relative strengths in exports are driven by the Jordanian economy's comparative advantages in clean technologies, transport, ICT, pharmaceuticals, and tourism (OECD 2013: 119–120).

Yet, Jordan's economic model faces questions on sustainability. Ryan (2010: 322) calls Jordan a "semi-rentier economy" because it strongly relies on indirect oil rents through remittances from emigrants to GCC countries and foreign aid, e.g., from the United States (Brand 2014: 576, 579–580; World Bank 2009: 183). Historically, the role of rents from foreign aid was apparent from the fact that until 1990, foreign aid reached almost a fifth of Jordan's GNI (World Bank 2009: 183).

Despite the role of rents for the Jordanian economy and state, the country has achieved some success in economic development. Structural change is comparatively advanced in Jordan (in contrast to Egypt and Morocco), but still, labor tends to move primarily into lower-productivity sectors (World Bank 2013: 95, 98–100). Looking at Jordan's progress towards becoming a knowledge-based economy, GERD in Jordan is considerably lower than in Tunisia. Nevertheless, as Tunisia, Jordan has numbers of researchers in R&D exceptionally high among comparable emerging countries (Rodríguez-Pose and Hardy 2014: 89–90).

Despite the comparative strength of human capital in Jordan, the skills mismatch typically found in core Arab economies is prevalent in Jordan, too (Mahroum et al. 2013: 68). A specificity of the Jordanian case is a brain drain towards GCC countries (Smadi and Tsipouri 2012: 3).

In terms of Jordan's spatial structure, population and industry are clustered in the country's major urban centers, with one fifth of the population living in the capital Amman and approximately half of the country's industry being located in Zarqa (Seidel et al. 2009: 23). In terms of regional socioeconomic conditions, the differential in poverty rates between urban and rural regions can serve as a prima facie indicator for spatial disparities. According to data presented by the World Bank (2011: 37), the poverty rate in rural areas in Jordan in 2002 stood at 18.7% compared to 12.9% for urban areas, suggesting a considerable urban-rural gap. However, disparities between governorates in terms of household consumption are rather small in Jordan and largely attributable to demographic factors. When controlling for education, intergovernorate disparities in per capita consumption almost vanish (World Bank 2011: 86–88).

These insights lead the World Bank (2011: 88) to conclude that "urban-rural disparities in economic opportunity should not be considered a priority policy challenge for Jordan." However, unemployment rates do diverge significantly between governorates. For instance, during the first quarter of 2017, the unemployment rate in Ma'an governorate stood at 26.2% compared to 15.5% in Jerash governorate (Department of Statistics 2017), suggesting indeed a need for specific regional policies of economic development.

In sum, the structural economic difficulties Jordan is confronted with are generally comparable to those found in other core Arab economies, but with the added dimensions of a high dependence on foreign funding, an economic structure demographically segmented according to origin, and the country's location in a geopolitically volatile neighborhood with possibly severe economic repercussions.

4.2.2 Jordan's Economic Policies: Past and Present

Jordan is an example for a small, comparatively open economy with some success in industrialization. Comparing the Jordanian case with the previous Tunisian case study is interesting because, generally, orientations of economic policy in Tunisia and Jordan appear fairly similar. However, Tunisia has apparently achieved more

progress so far on industrialization and on making its economy more knowledge-based. Mahroum et al. (2013: 12) consider Jordan to have become a "semi-industrialized economy" from the 1960s to the 1990s. While in the 1960s Jordan's industrialization push was aided by an ISI policy, the country has in recent decades opened up to international trade. In the 1970s, the Jordanian government began to focus on developing medical and healthcare industries. In the wake of liberalization of the telecommunications sector where Jordan was the pioneer among Arab countries and within the framework of WTO accession, the Jordanian economy witnessed the emergence of an ICT sector in the early 2000s. Indeed, the Jordanian ICT sector has developed fairly well and given birth to a number of indigenous ICT companies, aided by low barriers to entry. In the medical sector, too, Jordan has gained a reputation as a regional leader, particularly in medical tourism. Both in ICT and in medical tourism, Jordan has managed to position itself as a regional hub, benefiting from the fast growth of the Arabic language and the small share of Arabic content on the Internet so far as well as the spatial location of the country for medical treatments. Jordan's pharmaceuticals industry, as the country's second-largest exporting industry, is highly focused on exporting to regional markets. The industry's development was aided by patent legislation that allows for generic drug producers to develop generic drugs before patent expiration, but now seeks ways to diversify its product range. Thus, both of the country's salient nonnatural resource-based exporting sectors, ICT and pharmaceuticals, seem to have benefited from policy measures allowing for their development such as, notably, early liberalization of the telecommunications sector and advantageous intellectual property legislation (Mahroum et al. 2013: 12, 46–53, 121).

When comparing the export structures of Tunisia and Jordan, Diop and Ghali (2012) find differing patterns. While Tunisian exports became technologically more sophisticated, the share of low-technology manufacturing products in Jordanian exports increased (Diop and Ghali 2012: 13). This pattern was largely driven by a rise of textiles and garments manufacturing (Diop and Ghali 2012: 13–14). In particular, the setup of the Qualified Industrial Zones (QIZ) regime attracted foreign FDI in textiles and garments manufacturing. Nevertheless, an important fact about the Jordanian textiles and garments industry is that "most of the 60,000 workers in this sector in Jordan are foreigners" (Diop and Ghali 2012: 15).

Jordan's high-technology exports rely almost exclusively on pharmaceuticals that appear comparatively competitive, with high value added included through branding and relevant linkages into the domestic economy for R&D, packaging, and other inputs (Diop and Ghali 2012: 17). Although the rise in low-technology (particularly textiles and garments) manufacturing raises questions for Jordan's pathway towards continued industrialization, international benchmarking of the country's export structure reveals a comparatively well-developed state of industrial development since Jordanian exports exhibit a higher share of high-technology products (particularly pharmaceuticals) than comparable emerging economies (Diop and Ghali 2012: 19).

This relative success in industrialization occurred within the framework of an economic policy that left comparatively much room for the private sector (Cammett

2014). As a conservative monarchy, Jordan's economic policy since independence was not marked by explicit, comprehensive, and ideologically driven Arab socialist experiments. The role of the significant part of the population with Palestinian origins that specialized in private-sector work because of the public sector being dominated by East Bankers (Rivlin 2009: 166–169) can be seen as another component of Jordan's relatively free private sector. Still, state-led growth was a major part of Jordan's economic development strategy through public investments and government stakes in industrial ventures in fields such as mining (notably phosphate), manufacturing, tourism, or transport. Contrary to other core Arab economies particularly during their Arab socialist periods, Jordanian economic policy seems to have shown little outright distrust towards the private sector and even let it develop in other fields than those dominated or heavily influenced by government (Richards and Waterbury 2008: 201).

Another feature of Jordan's general economic policy orientation is its relative openness to the global economy, as witnessed by Jordan's WTO accession in 2000 and its free-trade agreement (FTA) with the United States (Muasher 2011: 5; OECD 2013: 119, 122) as well as the EU-Jordan association agreement (AA) signed in 1997 and in force since 2002 and upcoming negotiations for a DCFTA (OECD 2013: 96, 122–123). Jordan entered another FTA with Turkey and is member of the Agadir FTA together with Morocco, Tunisia, and Egypt (OECD 2013: 121–122; Seidel et al. 2009: 9). Noland and Pack (2007: 221–222) stress the high relevance of Jordan's preferential trade agreement with the United States that seems more important to the country than its FTA with the EU, although a future DCFTA might eventually upgrade European-Jordanian trade relations. In any case, Jordan's economic policy has demonstrated a long-term commitment to a free-market orientation in international trade and to a certain degree in its domestic economy (Brand 2014: 577–580).

Within these general orientations of Jordan's economic policy since independence characterized by a comparatively high degree of freedom for the private sector, the role of citizens with Palestinian origins in the private sector, and the country's international openness, Jordan's industrial policy strives to build on the country's relative strengths in terms of human capital, pockets of industrialization such as pharmaceuticals and ICT, and its natural and cultural assets feeding the tourism sector. The next sub-section provides more details on approaches and structures guiding Jordan's industrial policy.

4.2.2.1 Industrial Policy

In 1989, Jordan embarked on an IMF-sponsored stabilization and structural adjustment program (Ryan 2010: 314). Since then, economic liberalization (*infitah*) picked up and gained further drive under the current king Abdullah II, focusing on international openness to trade through WTO membership and bilateral free-trade agreements, and a focus on making Jordan a regional center for the ICT industry (Ryan 2010: 322–323).

However, as in other core Arab economies, the *infitah* process was not smooth. The 1989 structural adjustment program led to riots (Hazboun 2008: 80), and in the second half of the 1990s, a second wave of IMF-sponsored structural adjustment occurred in the wake of a deteriorating tourism sector, sinking living standards, and a popular sentiment of exclusion when aspirations towards inclusive growth and prosperity that were originally attached to the Israel-Jordan peace treaty proved unrealistic (Hazboun 2008: 169–170).

Geopolitical realities including the importance of the Israel-Jordan peace treaty represent major framework conditions for Jordan's industrial policy. This fact is particularly evident in the setup of the Qualified Industrial Zones (QIZ), an instrument that combines the two motivations of supporting industrial development in Jordan and creating an economic anchor and thus an economic constituency for peace between Israel and Jordan. Manufacturers located in a QIZ benefit from streamlined customs procedures as well as tax and tariff exemptions, provided they meet defined local-content requirements for joint Israeli and Jordanian produce. As an external incentive for economic cooperation, products manufactured in a QIZ enjoy duty-free access to the US market (Noland and Pack 2007: 222–232; OECD 2013: 113, 116).

Together with the US-Jordan FTA, the QIZ scheme underscores the important role of trade with the United States for Jordan (Noland and Pack 2007: 230). According to Noland and Pack (2007: 231), QIZs may have generated 40,000 jobs mainly in the textiles and apparel sector with 26,000 Jordanian workers and many other from South Asia including notably Bangladesh. The high share of foreigners in the workforce employed in QIZs is assumed to be due to the low competitiveness of local producers, a lack of appropriate TVET and thus basically the labor market skills mismatch, and low degrees of technology transfer (Noland and Pack 2007: 231). Rivlin (2009: 171) highlights that the QIZs have increased Jordanian exports to the United States particularly in garments and contributed to a certain degree of diversification of the Jordanian economy, but more than 60% of employment provided in the QIZs were accounted for by foreign labor. In sum, while the QIZs have led to a boom of the textiles and garments industry in Jordan, due to low shares of local ownership and employment, value added for the Jordanian economy has been rather low (OECD 2013: 116).

On a broader level, tax incentives for investments are a part of Jordanian industrial policy although they tend to suffer from being intransparent and bureaucratic (World Bank 2014a: 62). The OECD and IDRC (2013: 94) stress that SME finance is an even more severe constraint in Jordan than in other Arab economies such as Morocco, Tunisia, Egypt, or the UAE.

In terms of the organizational landscape of industrial policy in Jordan, relevant agencies include the Jordan Investment Commission, the Development and Free Zones Commission (DFZC), the Ministry of Trade and Industry with its SME strategy, or the Jordanian Central Bank in terms of allocating credit to SMEs (World Bank 2014a: 62).

According to Jordan's National Investment Strategy, the Jordan Investment Commission (formerly: Jordan Investment Board) is charged with investment pro-

motion and offers a one-stop shop, as does the Jordan Development and Free Zones Commission. However, the Jordan Investment Commission is not mandated with issuing all approvals needed by investors. The Jordan Investment Commission specifically focuses on four priority sectors: ICT, renewable energies, pharmaceuticals, and tourism (OECD 2013: 22, 108–110).

Further agents relevant to industrial relations include the General Federation of Jordanian Trade Unions with its 17 member trade unions (OECD 2013: 29). Free zones such as the Aqaba Special Economic Zone (ASEZ) are another feature of Jordan's industrial policy (OECD 2013: 23) and will be further characterized in Sect. 4.2.2.3.

The Jordan Enterprise Development Corporation (JEDCO) is the central business promotion agency in Jordan. The agency was established in 2003 as a replacement of the former Jordan Export Development and Commercial Centers Corporation founded in 1972 and today puts its focus on support for entrepreneurship and SMEs and provides services such as mentoring and consultancy, market research and analytics, and financial and technical support to companies. In promoting internationalization, the agency specifically focuses on countries Jordan has FTAs with, reflecting the country's general orientation towards international openness to trade and towards export development. However, the promotion of export development was transferred to the Jordan Investment Commission in 2014 (Jordan Enterprise Development Corporation 2018a).

In 2008, JEDCO took over two major programs for industrial upgrading, the Jordan Upgrading and Modernization Program (JUMP) supported by EU funds and the Euro-Jordanian Export Program (EJEP). In 2012, JEDCO was charged with managing the Governorate Development Fund (GDF) that seeks to promote entrepreneurship in areas of the country outside of Amman (Jordan Enterprise Development Corporation 2018a).

Chambers of commerce or industry as well as the Jordan Engineers Association play a significant role in Jordan's economic tissue. These organizations offer one-stop shops for administrative issues and provide business development services as well as training programs to their members (Seidel et al. 2009: 30; Sultan and Soete 2012: 323).

Further relevant agents in industrial policy and, more broadly, in the country's NIS include the Higher Council for Science and Technology (HCST), the Royal Scientific Society (RSS), and the range of HEIs the country hosts (Smadi and Tsipouri 2012: 4) which will be introduced in more detail in the following subsection on innovation policy.

Jordan's position as a resource-poor ''watchmaker'' economy, similar to Tunisia and neighboring Israel (Richards and Waterbury 2008: 68), effectively requires the Jordanian economy to become more knowledge-based and implies a need for targeted policies to support innovation and entrepreneurship. The next sub-section therefore provides more details on Jordan's science, technology, and innovation policy.

4.2.2.2 Science, Technology, and Innovation Policy

Consistently with Jordan's "watchmaker" status (Richards and Waterbury 2008: 68), there seems to be an awareness among Jordanian policymakers that the country's economic development in the long run depends on its ability to become more knowledge-based and that the country's young and highly educated population offers an opportunity to do so since the educational level in Jordan is high in comparison with other countries with similar levels of income (Smadi and Tsipouri 2012: 3).

Ryan (2010: 322) confirms the availability of a comparatively highly skilled workforce due to a relatively good state of general education in Jordan, leading both to the export of skilled workers particularly to Gulf states and to the import of unskilled labor particularly from Egypt, Sudan, and pre-war Syria. This combination of a brain drain to GCC countries and the import of unskilled labor implies a skills mismatch on the Jordanian labor market (Smadi and Tsipouri 2012: 3) and underscores the need for knowledge-based industrial development in Jordan. For example, Kharabsheh et al. (2011) provide qualitative evidence for the skills mismatch evident in lacking soft skills and notably lacking entrepreneurial skills (Kharabsheh et al. 2011: 222).

Due to the country's scarcity of natural resources and its lacking industrial base, human capital is highly relevant for Jordan. Indeed, the country has become a leading reformer in education within the MENA region, for instance, through curriculum reforms encompassing, inter alia, soft skills and information management for new economic activities such as e-commerce (Kanaan and Hanania 2009: 145–146).

Within the education system, some fundamental problems persist. For instance, "the system is built on memorizing textbook facts instead of creative learning systems or explorative research," and "only a few dedicated courses to innovation management and entrepreneurship can be found in public universities" (Sultan and Soete 2012: 322). Furthermore, in line with other core Arab economies, Jordan's education system is oriented more towards higher education than towards TVET (Sultan and Soete 2012: 323).

In the same vein, Mahroum et al. (2013: 30) argue that despite the generally good education indicators Jordan exhibits in regional comparison, TVET suffers from its inability to address the skills mismatch and from adverse reputational effects by referring to a "low employability of graduates and a persistent cultural stigma that vocational education leads to limited career opportunities" (Mahroum et al. 2013: 30). TVET suffers from a lower reputation than academic education, is often unable to convey the skills demanded on the labor market, and educational quality is considered low (Mahroum et al. 2013: 30).

In spite of these difficulties, Jordan's education system is fairly well developed in international comparison, but knowledge output as measured in terms of scientific publications is rather weak but increasing (Mahroum et al. 2013: 41; Smadi and Tsipouri 2012: 16–22). The patent output of the Jordanian NIS is low (Kharabsheh et al. 2011: 222). Innovation in Jordan seems to suffer from several systemic weaknesses inherent to the NIS such as a lacking innovation culture, weak university-

industry linkages, and a lacking awareness for the opportunities inherent to the country's strong human capital base evident from the brain drain (Smadi and Tsipouri 2012: 33).

Jordan's share of GERD in GDP stood at a mere 0.34% in 2007–2008, significantly lower than the level found in Tunisia (1.03%) and lower than the levels found in other comparator countries such as Morocco or Turkey, but still higher than the levels found in other core Arab economies including Egypt (Mahroum et al. 2013: 38). Jordan's GERD is concentrated in the public sector with a share of 58% in total GERD compared to 36% for the private sector (Smadi and Tsipouri 2012: 13). Considering the dominance of government in R&D in Jordan, governmental priorities such as energy and water technologies shape the country's R&D system (Smadi and Tsipouri 2012: 19). The OECD and IDRC (2013: 93) hint at the paradox that although Jordan's R&D spending is high when compared to other Arab economies, the country's share of high-technology products in total manufactured exports stands at only 1%. These structural features and outcomes of the Jordanian NIS provide a clear rationale to pursue an innovation policy aimed at upgrading the innovative potential of the country's economy.

In terms of Jordan's NIS, Seidel et al. (2009: 21–44) see a lack of strategic policymaking that might have been alleviated by the National Innovation Strategy 2013–2017 (Higher Council for Science and Technology 2013; Smadi and Tsipouri 2012). The strategy focused on priority areas such as the medical and pharmaceuticals industries, ICT, clean technologies, as well as services in engineering and architecture, education, and financial services (Higher Council for Science and Technology 2013; Smadi and Tsipouri 2012: 12). The strategy allocated a budget of nearly JD 14.5 million for a total of 52 activities or projects including, inter alia, studies, entrepreneurship training courses, the introduction of new study tracks, or the setup of a fund promoting ICT innovation (Higher Council for Science and Technology 2013). Mahroum et al. (2013: 22) criticize the Jordanian government's approach to innovation policy marked by 5-year strategies as sector-oriented instead of systemic or aiming at the innovation ecosystem. This critique is consistent with the project-driven character visible in the 2013–2017 innovation strategy.

The Jordanian NIS is characterized by a number of relevant agents shaping and implementing the country's innovation policy (Sultan and Soete 2012: 322). To start with, the Higher Council for Science and Technology (HCST) is a major agent in the Jordanian NIS and is responsible for the National Innovation Strategy as well as related programs (Smadi and Tsipouri 2012: 14). Further, the HCST was charged with setting up research centers (Smadi and Tsipouri 2012: 4, 14). The HCST was created in 1987 as an overarching agency to plan, coordinate, and implement S&T policies (Mahroum et al. 2013: 16–17).

The Royal Scientific Society (RSS) is another important agent in Jordan's NIS. The society was established in 1970 as an applied research entity. The RSS provides R&D, testing, certification, and related services. The society works through 38 laboratories and focuses on thematic priorities such as energy, water and environment, industrial development, construction and sustainable buildings, and ICT (Mahroum et al. 2013: 16; Royal Scientific Society 2017).

JEDCO's services and programs are relevant for promoting entrepreneurship and for upgrading the innovative capabilities of SMEs. For instance, together with other public and private agents, JEDCO established a network of innovation centers and incubators since 2005 which today consists of six centers (Ajloun, Irbid, Jerash, Karak, Madaba, Mafraq) and three affiliates (Ma'an, Tafilah, Wadi Musa). New centers were planned in Aqaba, Balqa, and Tafilah. These centers aim towards increasing university-industry technology transfer and capacity building among entrepreneurs through consulting on subjects such as strategy, marketing, market research, and legal framework conditions. JEDCO strives to raise awareness for opportunities in entrepreneurship among youth and, inter alia, provides mentoring and consulting services to entrepreneurs aged 16–34 years and assists them in drafting business plans (Jordan Enterprise Development Corporation 2018b, c).

Rodríguez-Pose and Hardy (2014: 57–58) briefly discuss the state of science and technology parks (STPs) in Jordan. At the time of their writing, the authors count a total of eight STPs in early stages of their development, with half of them being linked to universities (Kharabsheh et al. 2011; Rodríguez-Pose and Hardy 2014: 57–58). STPs set up in Jordan so far include the Cyber City for ICT close to Irbid, El Hassan Business Park (EHBP), and El Hassan Science City (EHSC), with the latter hosting organizations such as HCST, RSS, and the Queen Rania Center for Entrepreneurship as well as HEIs such as Princess Sumaya University of Science and Technology (PSUT) and incubators. EHBP hosts the Intellectual Property Commercialization Office (IPCO) that acts as the central node of the Jordan Technology Transfer Offices Network (JTTON) (Mahroum et al. 2013: 18, 25; Seidel et al. 2009: 28–29; Smadi and Tsipouri 2012: 34).

Amman's King Hussein Business Park (KHBP) is an interesting case because this science and technology park, apart from hosting academia such as Al Hussein Technical University as well as the "Oasis 500" accelerator, managed to attract multinational anchor tenants such as Bayer, Cisco, Ericsson, Microsoft, Oracle, Samsung, or Unilever (King Hussein Business Park 2018). The park is thus an example of an anchor tenant strategy, as was discussed by Rodríguez-Pose and Hardy (2014) as a possibly promising approach for science and technology parks in developing and emerging economies.

Jordan features 10 public and 19 private universities as well as national research centers such as the National Center for Human Resources Development, the National Center for Diabetes, Endocrine and Inherited Diseases, the National Center for R&D, and the National Center for Agricultural Research and Extension (Smadi and Tsipouri 2012: 15). Mahroum et al. (2013: 16) mention in particular the University of Jordan (UoJ) set up in 1962. Another important public university is the Jordan University of Science and Technology (JUST) located in the northern city of Irbid. JUST focuses on subjects such as healthcare and ICT and includes the King Abdullah University Hospital as well as research centers in the fields of pharmaceuticals, biotechnology, and agricultural research (Mahroum et al. 2013: 81). Further important public universities include Irbid's Yarmouk University, the Hashemite University in Zarqa, and the Mu'tah University in Karak (Mahroum et al. 2013).

In terms of universities' performance, Seidel et al. (2009: 37) see a focus on theoretical education with a comparatively high quality of teaching but a smaller role of (applied) research. Karahbsheh et al. (2011) criticize Jordanian universities' lacking focus on commercialization of research results and absence of modern, experimental teaching methods (Kharabsheh et al. 2011: 222). Furthermore, students seem to aim towards public-sector employment instead of developing their innovative skills (Seidel et al. 2009: 37–38). The latter point suggests wider societal aspirations and preferences for public-sector employment, a typical feature of the regulation regime under the old Arab social contract found in core Arab economies.

Seidel et al. (2009: 41) mention a number of approximately ten incubators in Jordan and consider their work fairly successful. The incubator landscape includes university incubators or business parks, EHBP's iPark for ICT (Smadi and Tsipouri 2012: 34), and JEDCO's network of incubators and innovation centers under the *Al Urdonia lil Ebda* initiative such as the Irbid ICT Business Incubator, and UoJ's Agro-Industry Business Incubator (Mahroum et al. 2013). Sultan and Soete (2012: 324), however, judge the outcome of Jordanian incubators in terms of innovation to be moderate, notably because of the tendency of successful entrepreneurs to emigrate to Gulf states.

A remarkable element of Jordan's NIS is the "Oasis 500" accelerator that focuses on the ICT industry and provides support to early-stage entrepreneurial activities (Mahroum et al. 2013: 80). Further, a private biotechnology incubator called Copiatec is being set up in the Irbid Development Zone (Mahroum et al. 2013: 54).

While Jordan does not have an explicit cluster policy, some geographical clusters exist, and bottom-up cluster initiatives have formed, notably in the pharmaceuticals and ICT industries (Mahroum et al. 2013: 23; Seidel et al. 2009: 29–30). These clusters will be introduced in more detail in Sect. 4.2.2.3.

The setup of EHSC in 2007 can be understood as a form of innovation-driven cluster policy. Since EHSC is designed to host HEIs and research entities including PSUT, RSS, and HCST, as well as technology-based enterprises and startups, it can be understood as a similar science and technology park scheme as the Tunisian *pôles'* backbone technoparks such as Elgazala. Indeed, EHSC exhibits a comparable top-down orientation of policy design (Mahroum et al. 2013: 23).

It is remarkable that despite the formally strong position of HCST and RSS, the Jordanian NIS seems to be fragmented into a host of relevant agents and to suffer from a lack of coordination. Mahroum et al. (2013: 17–20) map relevant stakeholders in Jordan's NIS including, among others, bodies within the HCST and affiliated with it, several national ministries, as well as chambers and associations. Further, foreign donors such as the EU, USAID, JICA, and their programs play a role. The high number of agencies appears to cause some confusion among entrepreneurs and further stakeholders in search of R&D or innovation support (Mahroum et al. 2013: 20).

Jordan's innovation policies in recent years witnessed a number of initiatives and projects striving to promote innovation. One of these initiatives is the "Faculties for Factory" program seeking to stimulate university-industry technology transfer (Smadi and Tsipouri 2012: 33). However, the program is more an awareness-raising

program than a device for genuine innovation support (Mahroum et al. 2013: 27). Another relevant initiative was the SRTD project that can be understood as a project promoting industrial upgrading through innovation somewhat similar to Tunisia's PMN. The program included, inter alia, the setup of technology transfer offices (TTOs) in HEIs and research centers (Smadi and Tsipouri 2012: 32). The SRTD project was supported by EUR 4 million of EU funding and aimed at enhancing the Jordanian private sector's innovative potential including through the promotion of startups and R&D commercialization. Other international donor-funded programs relevant for the Jordanian NIS include, notably, the Enterprise Development Program established by UNIDO with Italian governmental funds, USAID's long-term program to support economic development in Jordan which includes an innovation clusters initiative, or JICA's support program to various fields including human resources. The Graduate Internship and Employment Programme is an example for an initiative supported by USAID that aims at using the ICT sector as a vehicle for job creation for youth by temporarily subsidizing HEI graduates' salaries during employment in private-sector ICT companies (Mahroum et al. 2013: 23, 37, 63).

Another relevant initiative is the Jordanian government's *Kulluna al Urdun* initiative. While *Kulluna al Urdun* is the outcome of a larger national consensus process aimed at careful political reform (Muasher 2011: 15–18), it included dimensions relevant for the Jordanian NIS such as the setup of business or technology incubators (Smadi and Tsipouri 2012: 14).

Several public funding schemes for R&D projects exist under the umbrella of the Jordanian Ministry of Higher Education and Scientific Research and HCST. These funding schemes focus on priorities such as energy, water, healthcare, or food security (Smadi and Tsipouri 2012: 16). Furthermore, legislation designed to raise the economy's innovative performance has been introduced. Laws require companies to pay a 1% tax on net profit to fund a governmental R&D fund and to allocated a defined amount to R&D (Sultan and Soete 2012: 324).

4.2.2.3 Regional Structural Policy

While regional development appears to be less of a necessity in Jordan than in Tunisia, the economic dominance of Amman, Zarqa, and Irbid implies a certain need for regional policy to facilitate endogenous regional development in other, more peripheral parts of the country.

Jordanian regional policy has designated development areas (OECD 2013: 113–114; World Bank 2011: 253) and offers fiscal incentives to investments there. These incentives include corporate tax breaks differentiated into three classes according to the level of economic activity in regions (World Bank 2011: 253). Further, free zones to support export-oriented manufacturing and trade are managed by the Development and Free Zones Commission (DFZC) and offer tenant companies tax and customs exemptions (OECD 2013: 115).

Industrial estates are an instrument of regional development managed by the Jordan Industrial Estates Corporation (JIEC). According to Mahroum et al. (2013:

87), industrial estates exist in Irbid (Al-Hassan Industrial Estate and Cyber City), Karak, Amman, Aqaba (ASEZ), and Zarqa. Enterprises located in the industrial estates benefit from tax exemptions and incentives (Mahroum et al. 2013: 87; OECD 2013: 115).

Apart from these traditional approaches, the influx of Syrian refugees in the wake of the Syrian civil war creates a renewed and urgent need for regional development in specific parts of the country that are not necessarily the most remote or lagging ones. For instance, the International Labour Organization (2016) suggests a comprehensive economic development strategy for Irbid governorate. Located in the north of the country close to the border to Syria, Irbid governorate is confronted with the special situation of hosting almost a quarter of the registered Syrian refugee population present in Jordan, thus increasing the pressure on the regional labor market (International Labour Organization 2016: 5, 17–18).

Irbid governorate hosts one development area with concomitant incentives for investments such as tax exemptions and the Al-Hassan Industrial City. Similar to Jordan in general (as is the case in other core Arab economies), demand for TVET is low in Irbid governorate and exacerbates the shortage of practical skills demanded in the labor market (International Labour Organization 2016: 34, 47–48).

The regional development strategy proposed by the International Labour Organization (2016: 57–71) includes an action plan to promote agriculture, industry, tourism, crafts, education, and other sectors with measures such as awards for student innovators in schools, the establishment of an incubator to support successful student innovators, the setup of another incubator with Yarmouk University targeting youth, an innovation awareness-raising campaign, or support to research in nanotechnology, physics, and chemistry at Yarmouk University and JUST.

Mahroum et al. (2013: 81) take stock of two incubators in Irbid in fields such as ICT, electronics, agriculture, and education. The authors report on efforts to promote the ICT and healthcare industries through the setup of the Northern Development Corporation (NDC) in 2007 and the development of the Irbid Development Area (IDA). IDA is an interesting example of how to pursue a regional cluster policy under the umbrella of a development zone. On its website, IDA presents five regional clusters such as healthcare, education, IT and commerce, pharmaceuticals, and advanced engineering and lists support structures and agents for these clusters (Irbid Development Area 2018).

In general, QIZs might play a role in regional innovation policies, but since technology transfer typically does not occur on a large scale in QIZs and since a significant part of the workforce employed in the QIZs is accounted for by foreign workers, the potential of the QIZs to reinforce regional innovation limited (Seidel et al. 2009: 23). In addition, given the low degree of local value added by QIZs (OECD 2013: 116), the systemic potential of QIZs to stimulate the emergence of functional relations within the regional economies surrounding them appears low.

Various investment incentives exist, including preferential economic zones such as the Aqaba Special Economic Zone (ASEZ) with its free-zone status, a low and flat income tax, and a specific investment regime. Among the country's various free-trade zones, ASEZ is the largest. ASEZ was setup by the Aqaba Development

Corporation (ADC) under USAID's support, managed by the autonomous Aqaba Special Economic Zone Authority (ASEZA), and is attributed a model character for industrial development in Jordan. ASEZ has a special legal status because special provisions for ASEZ override general Jordanian law (OECD 2013: 116). ASEZ focuses on sectors such as tourism, logistics, and light industry and allows for up to 70% of the workforce to be foreign nationals (Mahroum et al. 2013: 83; OECD 2013: 23, 116).

Further, the science and technology parks (Kharabsheh et al. 2011; Rodríguez-Pose and Hardy 2014: 57–58) that were introduced in the previous sub-section complement the picture of spatial development in Jordan, although their rationale appears to follow primarily a growth-driven innovation logic rather than an equity-based regional development logic.

Regarding cluster initiatives, Seidel et al. (2009: 29) report that some cluster initiatives have emerged in a bottom-way and are driven primarily by industry (Seidel et al. 2009: 29). Geographical clusters exist notably in the pharmaceuticals and ICT industries (Seidel et al. 2009: 29–30). Mahroum et al. (2013: 23) state that the Jordanian government does not have a national cluster policy, neither within the framework of its industrial policy nor within the framework of its regional policy. Nevertheless, Seidel et al. (2009: 26) stress that Jordan's industrial policy promoting the pharmaceuticals industry is strongly cluster-driven. In any case, bottom-up cluster initiatives are formed during the early 2000s, notably in the pharmaceuticals and ICT industries. Further to these bottom-up cluster initiatives, a cluster for fertilizer chemicals is promoted within ASEZ (Mahroum et al. 2013: 23).

From the discussion above, it becomes apparent that Jordanian regional policy has experimented with a wide array of special economic regimes involving tax exemptions, regulatory easing, and preferential customs conditions. While integrated into Jordan's general economic orientation of international trade openness, these schemes at the intersection of industrial policy and regional policy are marked by a significant degree of selectivity. In addition to their selectivity, or maybe because of it, the impact of some of these schemes and notably of the QIZs in terms of regional development so far seems to be limited. What appears to be lacking is a pattern of regional policy striving to promote endogenous and systemic regional growth, for example, through regional innovation policies. The lack of a formal, top-down cluster policy, however, is not necessarily a disadvantage. Given that cluster initiatives designed in a top-down way are often less successful than those set up by industry in a bottom-up way (Benner 2012), Jordan's industrial and regional policy may be well advised to promote the existing, industry-driven cluster initiatives where needed instead of embarking on a top-down cluster policy of its own.

Apart from the schemes to promote trade and manufacturing in Jordan's regions that were highlighted in the discussion above, tourism plays a highly important role for Jordan and some of its regions, particularly for the southern governorates of Aqaba and Ma'an that host the country's most prominent tourist attractions Petra, Wadi Rum, and Aqaba. The next sub-section turns to the tourism policy Jordan has pursued in recent decades.

4.2.2.4 Tourism Policy

Tourism is important in several of Jordan's regions. In particular, the southern governorates of Aqaba with the country's only destination on the Red Sea and Ma'an with the famous archaeological site of Petra and the adjacent modern tourist town Wadi Musa as well as the Wadi Rum desert area offer touristic assets, but so do the capital Amman, the country's Dead Sea shore, the Roman archaeological site of Jerash, and other locations.

In contrast to Tunisia, no large-scale mass tourism development efforts are apparent in Jordan despite the country's attempts to develop the tourism sector in the late 1970s and 1980s. In the 1990s, after the signature of the Israel-Jordan peace treaty, a short boom of tourism under the "New Middle East" geopolitical imaginary of regional economic cooperation led to the rapid expansion of supply, notably in Amman and Wadi Musa/Petra, but limited government capacities in tourism planning and short-term rent-seeking behavior by new tourism entrepreneurs lacking sufficient management skills and experience led to unsustainable and undesirable outcomes most visible in Wadi Musa. When the Oslo peace process collapsed at the turn of the century, the Jordanian tourism sector faced problems of oversupply and insufficient demand. It became apparent that the hoped-for "peace dividend" did not materialize on a broad and inclusive basis. When popular support for peace between Israel and Jordan and concomitant economic normalization waned in Jordan, the country's tourism policy was compelled to change its course. Eventually, Jordanian tourism policy came to focus on promoting Jordan as a tourist destination in international markets independent of regional schemes of cooperation (Hazboun 2008).

It is particularly interesting to note the role of international donors in Jordan's tourism policy. For instance, USAID was active in supporting Jordan's tourism development in Petra, Jerash, and Amman (Hazboun 2008: 85). In addition, USAID supported plans to establish a Jordan Tourism Board (JTB) steered primarily by the private sector. When the original plan failed due to differing visions held by private-sector stakeholders, the Jordanian government, and USAID, the donor agency withdrew its support for tourism projects in Jordan, leaving space for the World Bank and JICA. Eventually, the JTB was established on terms preferred by the Jordanian government terms with the Ministry of Tourism and Antiquities (MOTA) steering the organization (Hazboun 2008: 139–141).

In 2016, Jordan registered 3.858 million international tourist arrivals, down from more than 4.2 million in 2010 (World Tourism Organization 2017: 12). Average spending per international tourist in Jordan (1080.80 USD) is high in comparison with other Mediterranean destinations (World Economic Forum 2017). Hence and in contrast to Tunisia, Jordan is not a low-cost tourist destination. Tourism development in the country's major destination, Wadi Musa/Petra, followed unsustainable boom-and-bust patterns, implying a lack of long-term planning (Hazboun 2008). A policy similar to Tunisia's approach to develop and plan integrated tourism complexes is not observable in Jordan to date. However, there is a potential for further developing the tourism sector and for diversifying the country's tourism product.

For instance, promoting ecotourism opportunities in Jordan seems promising (OECD 2013: 204).

4.2.3 Regulation in the Jordanian Economy

After the presentation of Jordan's major structural economic challenges and policies in the previous sub-sections, this sub-section characterizes the main features of how the old Arab social contract plays out in Jordan. Different from Tunisia's situation, Jordan did not witness any revolutionary changes during the "Arab Spring" in 2010/2011 but is characterized by a remarkable degree of political stability against the background of highly volatile neighborhood. Consequently, regulation-related change in the Jordanian economy and society is evolutionary, often slow, and sometimes even retrogressive. In the case of Jordan, one may prima facie assume that the old Arab social contract did not significantly change in the wake of the demonstrations and political reactions in 2010/2011. However, in terms of economic reforms, the two cases are more comparable because in both countries, fundamental economic reform is an incremental process that is to some degree conditioned by revolutionary or evolutionary political change but still needs to be negotiated between government and polity and, typically, with transnational agents such as IFIs. The latter in particular exert pressure that, combined with the underlying structural problems stemming from the inherent unsustainability of the old Arab social contract, is likely to lead to some changes in the regulation regime even in the absence of considerable political change.

Thus, the present sub-section presents stylized facts about regulation in Jordan in a longer-term perspective. As an approximation, the stylized facts presented below apply at least to the reign of the current king Abdullah II so far. Even as revolutionary change is absent in Jordan, evolutionary changes in socioeconomic regulation are either occurring or being negotiated, thus confirming to a certain degree the assumption that the old Arab social contract is dissolving in Jordan, too. These evolutionary changes are discussed particularly in Sect. 4.2.5.

While Jordanian economic policy left considerable room for the private sector compared to other core Arab economies and has pursued a rather liberal economic policy (Cammett 2014), many of the structural deficiencies and challenges characterizing the regulation regime of the old Arab social contract (see Sect. 3.4) are observable in Jordan, too, although the country's peculiar geopolitical situation yields some specificities not typically found in other core Arab economies.

For example, on economic participation among the labor force aged 15 and over, a large gap between males (63.0%) and females (18.3) can be observed, suggesting a very low rate of female labor-force participation (Department of Statistics 2017; International Labour Organization 2016: 9). Sultan and Soete (2012: 321) state that "Jordan's active-to-total population ratio is one of the lowest in the world, with an average of four non-active individuals depending on a single worker."

Similar to other core Arab economies, Jordan's government sector is inflated (Muasher 2011: 21), as is evident in a share of the public sector in total employment even significantly higher than in Tunisia (World Bank 2015: 12). This finding suggests that despite having pursued long-term policies more accommodating to private-sector development than were pursued in other core Arab economies, over the long run Jordanian governments responded to labor market pressures by providing government employment for constituent groups. Given the dominance of East Bankers in the public sector (Brand 2014: 568; Rivlin 2009: 166–169), such a strategy can be explained with the Hashemite regime's interest to secure loyalty from among the tribally structured East Bank society (Muasher 2011: 22) and can therefore be seen as an expression of the authoritarian bargain in the form of the crypto-welfare policy of public employment provision in a context of selective inclusion of the East Bank constituency while excluding Palestinian-origin citizens from this kind of bargain.

Consistent with general institutional realities typically found in core Arab economies, a preference for public-sector employment can be stated in Jordan (Mahroum et al. 2013: 98, 124). In a 2010 survey, 54% of Jordanian youth stated their willingness to work in government, while only 16% were willing to work in the private sector (World Bank 2014b: 13). Yet, this finding needs to be differentiated between East Bankers and citizens of Palestinian origin who dominate the private sector. It is reasonable to assume that expectations towards public-sector employment among Palestinian-origin citizens are less pronounced than among the East Banker population. Consistently, Brand (2014: 576) argues that economic benefits (notably public-sector jobs) were reserved for members of tribal structures and clans to establish a regime tribe symbiosis and thus a loyal support base for the Hashemite regime among East Bankers.

Mahroum et al. (2013: 96) consider Jordan a "tribal-based society" and ascribe a continuing role to the phenomenon of *wasta*. Interviewees largely confirmed this insight. The Jordanian society was described as marked by tribal traditions. That does not necessarily mean that society was structured among tribal lines which are not true for urban regions anymore. But tribal traditions underlie the importance of *wasta* and thus decision-making in favor of societal units such as extended families. For instance, jobs are often filled with relatives regardless of their qualification. Thus, tribal traditions prevent more merit-based decision-making processes in the economy. At the same time, Mahroum et al. (2013: 96) convey a statement that the impact of tribal institutions may be decreasing due to a combination of exposure to other, notably Western, cultural trends and the technological possibilities afforded by ICT or what can be understood as transnational transformative processes rooted in technological developments and cross-border flows of cultural expressions.

The skills mismatch on the labor market is observable in Jordan (Mahroum et al. 2013: 68; Smadi and Tsipouri 2012: 3), as it is in other core Arab economies. However, the brain drain of qualified human capital to GCC countries and the influx of unskilled workers from Egypt, Sudan, and Asia makes Jordan a special case. The combination of a labor market with a fairly well-developed base of human capital that apparently does not correspond to the structure of the national economy with its

limited degree of industrialization in competitive pockets such as ICT and pharmaceuticals and larger labor demand in low-skilled activities such as textiles and garments manufacturing may be the reason why the Jordanian labor market is squeezed between an import of lower-skilled labor from Egypt, Sudan, and Asia and an export of higher-skilled human capital to GCC countries while being confronted with high youth unemployment particularly among higher-education graduates (Amin et al. 2012: 57; Department of Statistics 2017; International Labour Organization 2016: 9; Smadi and Tsipouri 2012: 3; World Bank 2013: 10; 2014b: 12–14).

Kanaan and Hanania (2009: 149–150) state that TVET suffers from a "social stigma" and claim that "most students and parents [are, M.B.] obsessed with the social esteem of university education." In a similar vein, Mahroum et al. (2013: 30) confirm the low reputation and stigma of TVET in Jordan that can be regarded as rule-competing institutions in the sense that political efforts to promote and strengthen TVET face institutions held among the population (i.e., low reputation and stigma) that make the policy efforts a priori less promising. Higher education is highly regarded, and many students are keen on achieving either public-sector jobs in Jordan or private-sector jobs in other countries (Seidel et al. 2009: 38). These imply three institutional features in the Jordanian economy and society. First, aspirations of students and their families are geared towards academic education and less towards alternative educational tracks such as TVET. Second, graduates tend to prefer public-sector employment to domestic private-sector employment. While these two points are fairly common in most core Arab economies, the third point appears somewhat peculiar for the case of Jordan. Next to domestic public-sector employment, graduates aspire towards employment abroad, notably in GCC countries, providing an institutional rationale for the brain drain of highly skilled human capital from Jordan to the Gulf. Aspirations for employment in the Gulf have repercussions for unemployment in Jordan by raising reservation wages and presumably exacerbating the problem of queuing (Seidel et al. 2009: 37, 40; Smadi and Tsipouri 2012: 3, 33).

In the interviews, the level of education in Jordan was considered relatively good in comparison to other Arab countries. Yet, interviewees stated that university education is theoretical, not responding to labor market demands, and contributing to the skills mismatch because graduates are seen to lack the soft skills demanded by employers. There are a large number of university graduates, implying that while the best-performing ones seek to emigrate to GCC countries due to higher salaries, there is still a sufficient number of graduates to fill vacancies. Lower-skilled work is performed by immigrants from Egypt or, in the case of the textile industry in QIZs, Indian or Bangladeshi immigrants because Jordanian jobseekers are unwilling to perform these manual industrial jobs under the conditions offered. TVET schemes do exist but their success is mixed. Usually company participation in curricula development does not succeed, and TVET contents are judged outdated by companies. Therefore, companies have to train graduates on the job. In middle management, companies often prefer to hire experienced staff than to train younger staff. This applies, for instance, to the tourism sector where TVET graduates seem to lack soft skills such as an appropriate service mentality or customer orientation. While there is a large number of craftspeople (including many immigrants from Egypt),

there is no formal training and quality is mixed. The reputation of craftsmanship seems to be rather low. In general, the higher reputation of academic education over TVET and the stigma of TVET education as being an inferior choice to university studies was confirmed by interviewees, as were parents' expectations that their children study at university. There are, however, efforts to enrich academic education with practical content such as the German-Jordanian University whose study model includes company internships and cooperative bachelor theses, inspired by the German system of universities of applied sciences. Al Hussein Technical University is another example of an HEI currently trying to establish dual-study programs. During interviews, the hope was expressed that dual-study schemes might ultimately change the image of vocationally oriented education if it is offered at universities. However, for these programs to be set up successfully, a change in attitudes on the firms' side was deemed necessary since firms would need to understand the long-term benefit of participating in dual-study programs and be prepared to pay students a salary.

Other than public employment, supply-side subsidies are a traditional component of the crypto-welfare policies pursued. The relevance of these crypto-welfare policies for the authoritarian bargain is clear from the fact that in the wake of demonstrations during the "Arab Spring" in 2011, the Jordanian government raised both civil servants' salaries and subsidies for fuel (OECD 2013: 36). The extent of subsidies and their increase as a political response to popular dissatisfaction and as a crypto-welfare policy (Josua 2016: 17) is evident from the fact that from 2010 to 2011, the burden of energy subsidies in Jordan increased from 1% to 6% of the country's GDP (OECD 2013: 36). Similar to the Tunisian case, cost-of-living riots in Jordan in 1989 demonstrated the political sensitivity of subsidy cuts and their impact on the cost of living (Richards and Waterburs 2008: 283).

When it comes to institutions underpinning industrial organization, specifics in corporate culture and management styles can be discerned. These specifics apply notably to the large share of SMEs, many of them being family-owned. Mahroum et al. (2013: 124) state that these firms "are generally run in a conservative manner, and the culture of risk taking necessary for R&D and innovation is limited." In the interviews, too, the Jordanian economy was characterized as relying on micro and small enterprises with many of them being family businesses. In this labor environment, a professional "culture" with clear growth perspectives and career paths as well as transparent rules and procedures is lacking. Companies often seem to lack a corporate culture open to employee-driven innovation and new ideas. While jobseekers often look for public-sector employment and the preference for government jobs continues to be prevalent, there is also an aspiration to work for respectable private-sector companies that ensure transparent working conditions.

Various transnational transformative processes affect socioeconomic regulation in Jordan. First of all, the AA between Jordan and the EU signed in 1997 and in force since 2002 provides a framework for aligning processes in economic policies and rules (European Commission 2017a; OECD 2013: 96, 122–123), although the relevance of the country's relationship with the EU politically and economically appears somewhat less dominant than in the case of Tunisia. With Jordan, too, the

EU is seeking a new agreement meant to establish a Deep and Comprehensive Free Trade Area (DCFTA) since 2011. Such an agreement would cover additional fields such as trade in services, investment protection, and public procurement and lead to a closer alignment and *rapprochement* of Jordan to the EU in a wide range of fields related to the structure of production and economic policies in general. In this sense, a DCFTA agreement can be expected to exert considerable influence on prescriptive rules (European Commission 2017a).

In general, Jordan's web of FTAs and its commitment to openness to international trade provides a window for transnational transformative processes, as does its WTO membership (Muasher 2011: 5; OECD 2013: 119, 122). Further, the role of international donors in shaping economic policies and particularly prescriptive rules appears fairly prominent. For example, the EU was involved in Jordanian innovation policymaking with the SRTD project, and further donors such as USAID, UNIDO, and JICA have been active in Jordan (Mahroum et al. 2013: 37). For instance, USAID supported Jordan's tourism development in Petra, Jerash, and Amman (Hazboun 2008: 85). A particularly interesting episode is USAID's assistance for the setup of JTB that eventually revealed differing visions held by different stakeholders (Hazboun 2008: 139–141). In hindsight, it seems as if prescriptive rules suggested by USAID as an international donor conflicted with organizational and institutional realities, preferences, and interests held by the Jordanian government and by the private sector. In sum, the involvement of international donors appears to shape transnational transformative processes through transnational policy transfer and competition among donors and has to be viewed under the lens of their relationship with organizations and institutions existing in Jordan. Finally, waves of IFI-sponsored structural adjustment and related reform efforts (Rivlin 2009: 166–169) condition socioeconomic regulation in Jordan as another form of transnational transformative processes.

While Jordan is an economy based to a certain degree on rents, the role of well-established elites seems to be somewhat different from the one observable in Benalist Tunisia. In the case of Jordan, the well-established and connected elite seems entrenched not so much in protected parts of the private sector (as was the case in Tunisia under the Ben Ali regime) but rather in decision-making positions in government. It is likely that the main structural reason lies in the dichotomy of East Banker domination of the public sector and Palestinian-origin citizen domination of the private sector. Through this dichotomy, the relationship between political power and economic activity seems less pronounced than in Benalist Tunisia. Despite these different structural features, the role of entrenched elites in the Jordanian public sector does engender structural inefficiencies. Despite the king's often-expressed willingness to pursue a reform agenda, entrenched interests by groups resisting reform continuously contradicted or obstructed the king's reform policies (Muasher 2011: 3–4). As a consequence, "in most cases, the king's directives were ignored, diluted, and, at times, directly opposed" (Muasher 2011: 4). In spite of the king's directives for political and economic reform, resistance to reform by entrenched elites is possible because of the monarchy's dependence on the loyalty of its tribal

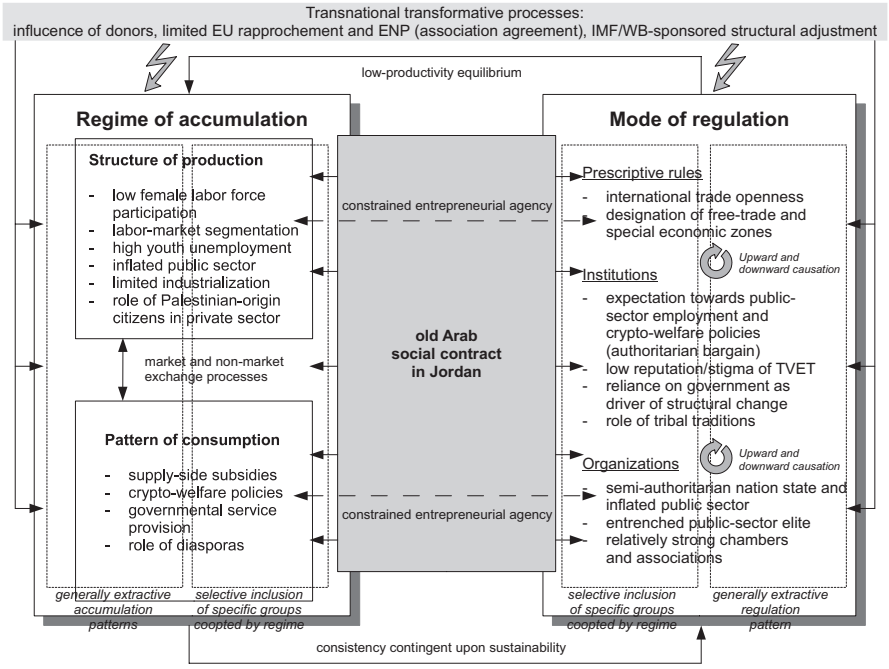

Fig. 4.2 Stylized regulation framework under the old Arab social contract in Jordan (Source: own work based on Bathelt 1994: 66)

constituency and the necessity to co-opt elites from among the tribal East Banker society (Muasher 2011: 22).

Based on the discussion of elements of socioeconomic regulation above, Fig. 4.2 gives a stylized overview on the major components of the long-standing Arab social contract in Jordan within the terms of the regulation framework developed in Chap. 3.

Figure 4.2 summarizes the following salient features of socioeconomic regulation in Jordan, based on the previous discussion.

The *structure of production* within the regime of accumulation in the Jordanian economy witnesses some features typically found in core Arab economies. The high degree of labor market segmentation is evident notably along age and gender lines through high (youth) unemployment (Amin et al. 2012: 57; Department of Statistics 2017; International Labour Organization 2016: 9; Smadi and Tsipouri 2012: 3; World Bank 2013: 10; 2014b: 12–14) as well as the low female labor force participation and low ratio of economically active population (Department of Statistics 2017; International Labour Organization 2016: 9; Sultan and Soete 2012: 321). Furthermore, the public sector is inflated (Muasher 2011: 21; World Bank 2015: 12). A particular feature of Jordan's structure of production is the peculiar form of segmentation between East Bankers dominating the public sector and citizens of Palestinian origin dominating the private sector (Brand 2014: 568; Rivlin 2009:

166–169). The skills mismatch is a salient feature of the labor market (Kharabsheh et al. 2011: 222; Mahroum et al. 2013: 30, 68; Smadi and Tsipouri 2012: 3) that underscores labor market segmentation and particularly youth unemployment. The brain drain to GCC countries (Ryan 2010: 322; Smadi and Tsipouri 2012: 3, 33) is a phenomenon peculiar to the Jordanian case that combines with the skills mismatch and with immigration of lower-skilled labor into a highly complex picture of the Jordanian labor market. Industrialization of the Jordanian economy is advanced in limited pockets of competitiveness such as the ICT and pharmaceuticals sectors, essentially making Jordan a "semi-industrialized economy" (Mahroum et al. 2013: 12). Similar to the long-standing pattern in Tunisia, low value-added textiles and garments manufacturing is widespread, and the economy is particularly integrated into global value chains in this industry. These trends are underscored by the general thrust of Jordanian economic policy towards international trade openness and in particular by the QIZ scheme (Diop and Ghali 2012: 13–14; OECD 2013: 119–120).

For the *pattern of consumption* in the old Arab social contract in Jordan, too, most of the common trends identified for core Arab economies in Sect. 3.3.1 apply. Untargeted supply-side subsidies, for example, for food and energy, are a part of the crypto-welfare policies pursued by the Jordan government and a common approach to soothe public unrest (Josua 2016: 17; OECD 2013: 36). Given the Jordanian diaspora, particularly in the Gulf, remittances play a significant role for the country's economy (OECD 2013: 34). While Jordan under the Hashemite regime can be classified as a socially conservative and economically comparatively liberal monarchy in contrast to other core Arab economies organized as secular republics that at some point followed more of less extended experiments of Arab socialism, the reliance on the state as provider of public services is part of the state-driven development model that has been prevalent in much of the Middle East and North Africa (Richards and Waterbury 2008). It seems, however, as if the Jordanian state's peculiar situation as an economy dependent on foreign rents, remittances, and aid, as well as its sensitive geopolitical situation, its exposition to various waves of massive immigration by Palestinian, Iraqi, and Syrian refugees at different times, somewhat limited the capability of the Jordanian state to provide public services to its citizens to a large degree when compared to other core Arab economies. Still, the inflated public sector implies a significant role of government service provision, as does the role of the state in education.[9] In any case, Jordan did adopt a state-driven growth model as did other core Arab economies (World Bank 2009: 25).

When it comes to the *mode of regulation* under the old Arab social contract in Jordan, it is interesting to note the comparatively liberal orientation of Jordanian economic policy. Within the Global Innovation Index, Jordan is ranked first interna-

[9] However, there are different regimes for public service provisions for refugees organized separately from the Jordanian state. In particular, for a part of registered Palestinian refugees or their descendants, the United Nations Relief and Works Agency for Palestine Refugees (UNRWA) in the Near East provides healthcare and educational services, for example, through schools and TVET centers (UNRWA n.d.).

tionally on the ease of dismissing workers (measured in terms of the notice period and severance pay), a place the country shares with a number of industrialized and emerging economies including, inter alia, Austria, Denmark, Hong Kong (China), Italy, Japan, New Zealand, Singapore, the UAE, or the United States (Cornell, INSEAD and WIPO 2017: 323). However, elsewhere, the labor law in Jordan is considered highly restrictive when it comes to dismissing workers (World Bank 2013: 148). This contradiction may be due to segmentation. As became clear in the interviews, labor laws mirror the segmentation of the labor market by granting comparatively high protection to Jordanian workers. Remarkably, a system of sectoral barriers to entry and protective prescriptive rules for the benefit of a politically well-connected business elite, as existed in Benalist Tunisia, is not evident in Jordan. The dichotomy between the East Banker elite dominating the public sector and Palestinian-origin citizens dominating the private sector – arguably not because of political clout but because of them having seized opportunities of comparatively free entrepreneurship – can be assumed to be a major structural reason for this marked difference to other core Arab economies. Still, this does not mean that prescriptive rules are set in economically efficient ways. The entrenched public-sector elite's resistance to reforms (Muasher 2011: 3–4) probably creates a different but somewhat comparable set of inefficiencies as in the case of Tunisia. Similarly, a survey reported by the World Bank (2009: 86–93) suggests that for entrepreneurs in Jordan, inconsistent and unpredictable implementation of prescriptive rules is a problem, although the time spent by managers dealing with the implementation of prescriptive rules appears to be less than in other core Arab economies, implying a lower bureaucratic burden.

In any case, as for prescriptive rules distinguishing Jordan from other core Arab economies, the clear policy of opening the country to international trade and thereby effectively anchoring its domestic economic policies to a certain degree of liberalism affected by transnational transformative processes makes Jordan a special case among Arab countries. Consistent with this generic orientation of Jordanian economic policy, a number of liberalization schemes have been implemented through the various special economic or free-trade zones (including the QIZs), but these schemes are by their very nature selective because of their legal regimes separate from the general legal regime applying to the rest of the economy. In a sense, Jordan's liberalization policy bears some resemblance to the onshore/offshore dichotomy in Benalist Tunisia and may reflect a policy of selective and careful liberalization, using special economic or free-trade zones as laboratories for economic reform in a way somewhat evocative of the gradual opening of the Chinese economy under Deng Xiaoping. However, Jordan's use of special legal regimes – defined not sectorally as was the method of selective liberalization in Benalist Tunisia but regionally – appears so vast that it allows for the hypothesis that the exception has effectively become the rule.

Guarantees for public-sector employment to university graduates may not have been made explicit at all times in Jordan, but the role of public employment as a crypto-welfare policy and as a means to secure loyalty of East Bankers to the Hashemite regime is still evident. Popular expectations and preferences are clearly

geared towards public employment (Mahroum et al. 2013: 124; World Bank 2014b: 13), at least among the tribally structured East Banker society (Brand 2014: 576). Supply-side subsidies such as those for food and energy (Josua 2016: 17; OECD 2013: 36) are another component of the crypto-welfare policies pursued in Jordan as in other core Arab economies. The role of crypto-welfare policies in securing loyalty to the regime is evident in the relief package introduced as a reaction to protests in the wake of the "Arab Spring" (Brand 2014: 580).

Further, institutions within the mode of regulation of the old Arab social contract in Jordan include a preference for academic, higher education and the low reputation and stigma of TVET (Kanaan and Hanania 2009: 149–150), again a rather typical institutional component of the old Arab social contract in core Arab economies. These institutions give policies to strengthen vocational schools the character of institution-competing rules likely to encounter significant obstacles because of the strength and persistence of underlying institutional realities.

Further, tribal traditions play a role, notably through the institution of *wasta* (Jamal and Khatib 2014: 256–257; Mahroum et al. 2013: 96), but their precise influence on socioeconomic regulation notably among the East Banker society is unclear and merits more research. In any case, tribal patterns in the East Banker society are intricately related to the political foundations of the country's stability despite being located in a volatile neighborhood. Given Jordan's complicated demographic situation, the Hashemite regime's power is based on its long-standing alliance with East Banker tribes that dominate the public sector and specifically the military (Brand 2014: 566).[10]

Among the salient characteristics of organizations governing the mode of regulation under the old Arab social contract in Jordan is a nation-state that is inflated in terms of its public sector and centralized in terms of the monarchy's power but that is still somewhat different from the strongly authoritarian nation-state in Benalist Tunisia. In some regard, the Jordanian nation-state could be classified as weak or at least vulnerable. Among the reasons for this vulnerability are first Jordan's precarious geopolitical situation in an unstable neighborhood; second, the demographic pressures the country faces because of subsequent waves of refugee immigration from neighboring countries; third, the demographic segmentation of the population primarily in East Bankers and Palestinian-origin citizens; fourth, the reliance of the regime on its alliance with East Banker tribes; and fifth, the government's economic dependence on rents (Brand 2014). The entrenched public-sector elite hostile to reform (Muasher 2011: 3–4) is another building block of the organizational tissue of the mode of regulation, but its role is markedly different from the well-established and politically well-connected business elite that existed in Benalist Tunisia. All of these aspects suggest one might call the Jordanian nation-state semi-authoritarian. This partial weakness of the Jordanian state may be one of the reasons why in terms of economic policy, government has left the private sector with a comparatively high degree of freedom in comparison to other core Arab economies. In addition,

[10] Still, some Palestinian-origin businesspeople are part of the monarchy's support base (Josua 2016: 9).

the relative weakness of the Jordanian state may be a reason why chambers and associations could secure a comparatively prominent role for themselves in the Jordanian economy (Seidel et al. 2009: 30; Sultan and Soete 2012: 323).

Consequently, the characterization of the regulation regime in Jordan as extractive or inclusive is not as clear-cut as it may be in other core Arab economies. Indeed, patterns of inclusion and exclusion seem to be more complex, although overall trends are largely similar. Given high youth unemployment and low female economic participation, labor market segmentation is obvious, implying a pattern of non-inclusivity on the labor market. The crypto-welfare policy of public employment provision is non-inclusive first because it benefits those who happen to get a government job and, second, because in Jordan the policy is meant for East Bankers but not for Palestinian-origin citizens. However, the private sector does seem to offer opportunities for economic participation and thus a certain degree of inclusiveness since Palestinian-origin citizens were able to seize opportunities in entrepreneurship. In contrast to other core Arab economies with their legacies of former Arab socialist periods and extractive economic rules designed specifically to benefit the well-connected business elite, we might assume an economically more inclusive and less extractive pattern of socioeconomic regulation in Jordan. Nevertheless, it is important to stress that this somehow higher economic inclusiveness does not translate into political inclusiveness, both because of the Jordanian regime's incremental or hesitant approach to granting political freedoms in general (Josua 2016) and because of the East Banker-Palestinian-origin dichotomy.

The role of *entrepreneurial agency* seems somewhat different in Jordan than in the model of socioeconomic regulation under the old Arab social contract in core Arab economies as it was proposed in Sect. 3.3.1. In other core Arab economies such as Benalist Tunisia, entrepreneurial agency and related Schumpeterian creative destruction were more or less limited by policies that protected the business interests of a well-established and politically connected business elite from competition. In Jordan, the situation appears different, probably due in part to the vulnerability and weaknesses of the Jordanian nation-state but maybe also due to the pragmatic economic policy approach of the Hashemite regime. The Jordanian approach to economic policy differed from other core Arab economies' more or less extensive experiments with import substitution and Arab socialism in earlier decades. The demographic divide between East Bankers dominating the public sector and Palestinian-origin citizens dominating the private sector and seizing economic opportunities arising from the regime's relatively liberal economies policies may be the most relevant reason behind the seemingly greater degree of entrepreneurial freedom in Jordan. A possible hypothesis is that the East Banker dominance of the public sector prevented the rise of a politically connected business elite with sufficient political clout to push for restrictive legislation to protect itself from competition. While, within the private sector, a Palestinian-origin business elite of a certain size has formed and that some members of this elite are part of the Hashemite regime's support base (Josua 2016: 9), their support was presumably less critical to political stability than regime support by East Banker elites. Thus, in comparison with other core Arab economies, the link between political influence and economic

power appears to be significantly weaker in Jordan because of the split between political/administrative power wielded by East Bankers and economic power attained by Palestinian-origin citizens.

Transnational transformative processes relevant for socioeconomic regulation in Jordan include IMF/World Bank-supported structural adjustment; a considerable influence of international donors such as the EU, USAID, or JICA; and limited but still relevant EU *rapprochement* through the AA. Some of these processes are presumably and to a certain degree motivated by Jordan's geopolitical position both in relation to the Israeli-Palestinian conflict and the instability in its neighbors Syria and Iraq.

Despite the gradual differences between the regulation regime in Jordan and other core Arab economies, the Jordanian case still exhibits major characteristics of the old Arab social contract. As other core Arab economies, the country suffers from severe structural deficiencies such as high youth unemployment and labor market segmentation with related inequities. Similar to other core Arab economies, the Jordanian economy seems trapped in a low productivity equilibrium that for some time was internally consistent but has become increasingly unsustainable. For instance, the reliance of the Jordanian state on rents and the characterization of the Jordanian economy as "semi-rentier" (Ryan 2010: 322) are reasons to question the sustainability of the country's traditional socioeconomic regulation regime. Furthermore, high unemployment among youth, women, and the educated is a socially unsustainable situation, even more so given the need for the Jordanian economy to cope with the consequences of the influx of refugees from neighboring countries. IMF-sponsored structural adjustment aimed at stabilizing the country's precarious fiscal situation, subsidy cuts, and tax hikes (Al-Khalidi 2018) demonstrates the urgency of curing the most pressing aspects of the unsustainability of the regulation regime.

Beyond the surface, however, dynamic structural characteristics of socioeconomic regulation are among the most fundamental aspects to look at in terms of the ability of the Jordanian economy to solve structural deficiencies. While the present sub-section ends with the conclusion that in terms of economic policymaking, the conditions for entrepreneurship and Schumpeterian creative destruction may be somewhat better than in other core Arab economies, the next sub-section takes a closer look at the state of entrepreneurship and innovation as drivers of dynamic efficiency in the Jordanian economy.

4.2.4 Entrepreneurship and Creative Destruction in the Jordanian Institutional Context

While the degree of entrepreneurial freedom in Jordan seems to be somewhat larger than in other core Arab economies, entrepreneurship and innovation as critical drivers for Schumpeterian creative destruction are subject to constraints that may render the country's eventual development into a knowledge-based economy more

difficult. As a first indication, Jordan is placed 83rd among 127 countries in the Global Innovation Index. More specifically, the Jordanian economy is judged better on the index's dimension of "institutions," i.e., macro-level conditions (political stability, regulatory environment, and the business environment), innovation linkages (including particularly good ratings on university-industry research collaboration and cluster development), knowledge absorption, knowledge creation (particularly on scientific and technical articles), knowledge diffusion, creative goods and services, and online creativity. In contrast, Jordan is ranked below its overall rank on the dimensions of access to credit, investment, and knowledge workers (Cornell, INSEAD and WIPO 2017: 242).

The Global Entrepreneurship Monitor 2016/2017 assessed the state and challenges of entrepreneurship in Jordan. In expert ratings of the entrepreneurial ecosystem, the Jordanian economy was considered roughly on par with average values for comparator countries in Asia and Oceania but below average on entrepreneurship education indicators. While entrepreneurs are accorded a comparatively high status in Jordan, the ratio of female to male total early-stage entrepreneurial activity is the lowest of all 64 countries surveyed (Global Entrepreneurship Research Association 2017: 72).

While interviewees stated a generally low level of entrepreneurial attitudes particularly among East Bankers and their preference for long-term, stable government employment, a relatively vibrant entrepreneurial scene has emerged in urban regions, driven to a significant extent by the ICT sector and by support programs implemented by government agencies such as JEDCO or accelerators such as Oasis 500. Interestingly, these programs have created new perspectives to raise the low levels of female labor market participation. Since the families of married women often prefer them not to work outside their home, establishing a startup and working from home has become easier for women under these support schemes. This is important given the innovative and entrepreneurial potential of women, many of them highly educated, hitherto not economically active.

Seidel et al. (2009: 39–40) paint a rather cheerful picture of innovative and entrepreneurial attitudes in Jordan. In contrast, Mahroum et al. (2013: 98) do not see sufficient entrepreneurial potential in Jordan, both in terms of entrepreneurs and their business skills, which the authors explain primarily with institutional realities such high-risk adversity within Jordan's society and the stigma of failure both for the individual and for his or her family. Seidel et al. (2009: 36) confirm that the stigma of business failure is severe for the entrepreneur's whole family even if the stigma may be decreasing. However, these insights will probably differ between East Bankers and citizens of Palestinian origin, with the latter's dominance in private-sector entrepreneurship suggesting the prevalence of considerable entrepreneurial attitudes among this demographic group.

Interviewees confirmed the relatively higher entrepreneurial spirit among Palestinian-origin citizens which is presumably due to a significant extent to restrictions to government employment or regulations favoring employment for East Bankers in formal private-sector employment. Successful entrepreneurs are often from among the demographic group of Palestinian-origin citizens. Interestingly,

Syrian refugees (e.g., in Irbid province) seem to have a somewhat higher willingness to engage in entrepreneurial activities than East Bankers, too. It seems plausible to assume that need-based entrepreneurship is a coping strategy among Syrian refugees confronted with difficulties to engage in the segmented Jordanian labor market and resulting problems of exclusion.

Generally, on the institutional level "social or cultural barriers to risk taking, and the importance of financial security and social status play an important role in influencing entrepreneurship in Jordan" (Mahroum et al. 2013: 89). Therefore, one can hypothesize that Schumpeterian creative destruction through entrepreneurship is constrained in Jordan by institutional factors such as high-risk aversion, possibly leading entrepreneurially spirited people to look towards leaving the country. The result is a diaspora with significant entrepreneurial potential that generates remittances and facilitates access by entrepreneurs from Jordan to international innovative networks. At the same time, returning migrants may contribute their skills and experience gained abroad to innovative or entrepreneurial activity in Jordan (Mahroum et al. 2013: 72–74).

Jordan therefore is a case for a country with a comparatively liberal regulatory environment for entrepreneurship and innovation (somewhat different from other core Arab economies) but with institutionally grounded barriers to entrepreneurship, although constraints on the level of prescriptive rules such as the lack of innovation-stimulating tax incentives or constraints for university faculty members to engage in entrepreneurial activity do exist (Mahroum et al. 2013: 89–90). The barriers to entrepreneurship, innovation, and hence Schumpeterian creative destruction rooted both in prescriptive rules and institutions underscore the limited entrepreneurial agency in the Jordanian regulation regime. Thus, the barriers contribute to the low productivity equilibrium the Jordanian economy finds itself in, despite the comparatively higher freedom of entrepreneurial activity and tolerance of independent economic activity than found in other core Arab economies. Reforming the Jordanian regulation regime towards a more sustainable and efficient equilibrium will have to include efforts to lift barriers to entrepreneurship and innovation, both on the level of prescriptive rules and institutions. The next section discusses how a more sustainable and efficient regime of socioeconomic regulation in Jordan could be brought about, given the context of evolutionary and incremental reform currently present in Jordan.

4.2.5 Perspectives for Regulation in Jordan: Continuity or Change?

Although Jordan offers a context of regime stability and evolutionary and incremental change in contrast to Tunisia's context of revolutionary political change, in economic terms the two countries' challenges in transitioning towards a new, internally and externally consistent and sustainable regulation regime are remarkably similar.

Again, the discussion in Sect. 3.4 is generally applicable. In particular, the stylized framework for such a new, consistent, and sustainable regulation regime as depicted in Fig. 3.4 is generally valid for Jordan. However, some peculiarities have to be pointed out. Since Jordan appears to have a partly liberal but selective labor law and an investment environment characterized by a host of spatially defined special economic regimes, reforming prescriptive rules may not necessarily necessitate generic liberalization but rather focus on extending liberal special economic regimes to wider parts of the economy, thus reducing segmentation. Rather than further liberalizing legislation, assuring predictable and equal enforcement may be more relevant in the Jordanian case, but doing so is likely to touch upon the institutional level of the economy, possibly requiring institution-circumventing rules within the public sector to improve the quality of rule enforcement. Meritocratic government recruitment should play a role in this regard but to a certain extent may touch upon the dominance of the tribal East Banker elite in the public sector by opening it up to other parts of the society.

Indeed, the current transitional period seems to be marked by uncertainty related to patterns on the institutional level of the Jordanian economy. In the interviews, the policy environment in Jordan was considered unstable due to frequent changes, leading to unstable expectations on behalf of private-sector companies and investors. The current IMF-sponsored structural adjustment program with the income tax increases planned was cited as a major example. While governmental strategies to tackle structural problems such as unemployment exist, implementation is lacking. Interviewees addressed the problem of the challenging business environment companies face. While there are a large number of support agencies or programs to encourage investments and entrepreneurship, regulatory decisions are seen to be made in an arbitrary and often surprising manner. For instance, new laws or tax increases are not communicated to companies, and their sudden implementation thus comes as a surprise to firms. Information from government agencies is often contradictory and competences overlap. Due to these difficulties, a significant part of successful entrepreneurs seem willing to emigrate abroad if they had the chance to do so. Similarly, young graduates with ideas for entrepreneurship may end up disappointed with the existing limits to realizing their ideas. Still, most graduates apparently stay in Jordan due to the proximity of family and friends, a clear indication of embeddedness (Granovetter 1985).

As in other core Arab economies, the institutional foundations of the state-driven growth model including expectations towards public employment and supply-side subsidies and unsustainable prescriptive rules establishing and maintaining selective crypto-welfare policies to accommodate publicly held preferences and expectations are at the heart of the structural deficiencies of the old Arab social contract in Jordan. This relationship between policy and institutions is evident, for example, in the government reaction to public discontent by offering yet another wave of crypto-welfare policies (Brand 2014: 580; Josua 2016: 17). In particular, Brand (2014: 580) stresses that the Jordanian government reacted to demonstrations during the "Arab Spring" with economic relief packages for the poor and middle classes. Given the continued fiscal stress, the country finds itself confronted with (Brand 2014:

581); however, one may ask whether such a strategy can be sustainable in the long term. Breaking this mechanism presupposes a different growth model based on private-sector initiative, vibrant entrepreneurship, and effective policies to counter the labor market skills mismatch. To be successful, these policies will have to be developed in an institution-sensitive way and will have to find ways to provoke institutional change through processes of downward causation.

Recommendations proposed by Mahroum et al. (2013: 127–128) include shaping institutions towards more entrepreneurial vibrancy, e.g., through education reforms for more problem-solving and critical-thinking skills, business and management skill courses, awareness-raising activities, or an "innovation festival." Doing so might eventually strengthen the conditions for Schumpeterian creative destruction, but this kind of institutional change, if successful, will take time.

The relatively high number of engineers in Jordan and significant unemployment among them, combined with a scarcity of technicians with mid-level skills, suggests the need for extending the TVET system (Mahroum et al. 2013: 97–98). However, the reputational bias in favor of higher education and against TVET (Mahroum et al. 2013: 30) is an institutional fact that cannot be ignored by rule-setting policymaking. Instead of setting up institution-competing rules by promoting TVET, pursuing a policy built on institution-reinforcing rules such as enriching higher education with practical skills demanded on the labor market through dual-study courses at universities in collaboration with enterprises, as is being pursued to some degree at the German-Jordanian University, seems more promising. Such a dual-study approach can serve to create closer linkages between higher education and workplace needs (Kharabsheh et al. 2011: 222) and may thus provide a way to reduce the skills mismatch without competing with firmly anchored institutions such as preferences for academic education.

Reforming the subsidy system will be highly difficult because doing so touches upon questions of political stability. Nevertheless, subsidy reform is not only a question of fiscal sustainability but a question of the external consistency of the Jordanian regulation regime with transnational transformative processes in the form of IFI-sponsored structural adjustment. In early 2018, the Jordanian government lifted subsidies on one type of bread (but not on others), marking the first major bread price hike since 1996, and introduced cash transfers to offset the impact on poor parts of the population. In addition, the government announced tax increases in the wake of an IMF-sponsored stabilization package designed to curb the Jordanian state's high public debt that has accumulated, in part, due to expansionist policies such as public job creation and subsidies in previous years. Yet, in mid-2018, austerity measures under the IMF-sponsored structural adjustment program such as tax increases and subsidy cuts led to protests and the resignation of the country's prime minister (Al-Khalidi 2018; France 24 2018a, b).

In terms of Jordan's regional policy, adapting policymaking more to the context of regional-level socioeconomic regulation seems worthwhile. The thoughts on regional development through the smart specialization approach used in European regions apply by analogy (see Sect. 4.1.5). In particular, the institutional and governance-related problems found in lagging European regions (Trippl et al. 2018)

can be expected to be found in Jordan and maybe even more severely so. However, given the opportunities of the smart specialization approach in improving the institutional context of regional economies (Benner 2018), it is likely that some regions of the country might benefit from implementing the approach. In particular, a region such as Irbid with its Yarmouk University could provide an interesting case to pioneer the approach, similar to Tunisia's Sfax region. Paralleling the role of intermediate organizations in mediating the necessary public-private prioritization and policymaking process found by Benner (2018) in some European economies, JEDCO could function as a major driver of the approach in Irbid and other suitable regions.

Interviewees stressed that the emergent entrepreneurial dynamic is limited to urban regions. Extending it to rural regions of the country was considered necessary by interviewees, given that labor market problems such as high unemployment among youth and low female labor market participation are even more severe there than in urban regions. In addition, interviewees saw a widespread unwillingness of inhabitants of rural regions to move to another region to find a job. Hence, there seems to be a need for rural programs to foster entrepreneurship that will have to address broader questions of socio-institutional regulation and notably entrepreneurial attitudes.

Reforming the Jordanian regulation regime both in terms of prescriptive rules and in terms of institutions will be a long, uncertain, and politically difficult process. Given the Jordanian economy's weaknesses (such as its dependence on foreign rents and the government's difficult fiscal situation) as well as its strengths (such as the comparatively liberal approach towards the private sector and pockets of competitive industries such as ICT and pharmaceuticals), there may be a possibility to do so through evolutionary and incremental change. Overcoming the entrenched public-sector elite's hostility to reform will be imperative though. Here, too, institution-sensitive policy reforms will be necessary.

4.3 Learning from the Tunisian and Jordanian Cases

While the case studies in Tunisia and Jordan generally confirmed the major elements of the regulation framework for core Arab economies proposed in Chap. 3, each of the two cases revealed some peculiarities. On a conceptual level, these peculiarities emphasize the need to refine the regulation framework for each national case (and maybe even for subnational, i.e., regional cases) and highlight that the generic regulation framework is indeed a framework that requires adaptation to the specific case at hand. Nevertheless, both cases studied confirm the validity of the most salient elements and tendencies in socioeconomic regulation in core Arab economies.

Comparing the generic, stylized regulation framework for core Arab economies (Fig. 3.3) with the refined regulation frameworks for Benalist Tunisia (Fig. 4.1) and Jordan (Fig. 4.2) yields the following observations:

- Within the *structure of production*, structural deficiencies such as labor market segmentation, low female labor-force participation, high youth unemployment particularly among higher-education graduates, and an inflated public sector and limited industrialization are elements of the generic regulation framework that are well supported by the Tunisian and Jordanian cases.
- The *pattern of consumption* characterized by crypto-welfare policies including supply-side subsidies for goods such as energy and foodstuffs as well as government service provision is another set of components of the regulation regime confirmed in both Tunisia and Jordan. While both cases share the importance of their diaspora, trends are different in that Europe is the main destination of the Tunisian diaspora while the Jordanian diaspora is to a large degree oriented towards GCC countries.
- On *prescriptive rules*, the tendencies identified in the generic regulation framework are confirmed to some degree, but notable differences exist between the two cases studied. With its stringent labor laws, Tunisia confirms the generic regulation framework in this regard, while Jordan features somewhat more liberal but selective labor legislation. Both countries exhibit some pattern of segmentation in their investment regimes. Public employment guarantees in both countries were rather implicit, but in Jordan they were effectively restricted to the East Banker part of the population. A major difference is the protectionist legislation effectively shielding the business interests of the politically connected business elite in Benalist Tunisia from competition, an element of crony capitalism that may be found in other core Arab economies but not in Jordan, arguably due to the fact of the relatively clear-cut dichotomy of a politically connected East Banker elite dominating the public sector and a Palestinian-origin elite dominating the private sector. While connections between these two elites may exist, they are arguably much weaker than was the case under the intricate nexus between political and economic power found in Benalist Tunisia.
- On the level of *institutions*, expectations towards crypto-welfare policies including supply-side subsidies and public-sector employment, as well as preferences for public-sector over private-sector employment, are at the core of the generic regulation regime in core Arab economies and are to a large degree confirmed in the cases of Tunisia and Jordan, although aspirations for public employment in Jordan are effectively limited to the East Banker population. Further, a preference for higher education over TVET is observable. Despite the different political systems and historical traditions in Benalist Tunisia and Jordan, respectively, both countries witness the tendency of seeing the state as the main driver of development rather than the private sector, although one might expect that this was less the case over time in Jordan due to the relative freedom left to the private sector there.
- One detail of the case studies is noteworthy for the transition towards an eventual new regulation system. In both countries, entrepreneurial dynamics seem to gain ground. Even if the emerging entrepreneurialism is limited to pockets of urban youth in agglomerations such as Tunis and Amman and to sectors such as ICT, there is reason to believe that the unideological, pragmatic, and opportunity-

driven approach Amin et al. (2012: 16) suggest contributes to long-term institutional change through upward causation. The insights gained in the case studies that expectations towards private-sector employment are becoming somewhat weaker points into the same direction. However, even if these phenomena imply nascent processes of institutional change, they will have to be sustained and reinforced to be able to contribute to the establishment of a more private-sector-led regulation regime.

- Finally, in terms of *organizations*, both cases confirm the generic regulation framework but with gradual differences. The authoritarian nation-state under Ben Ali was fairly strong and related to a well-established business elite connected to the regime. The Jordanian nation-state, however, was marked by a less secure position that may have limited the state's ability to extend its power into the economy to a degree comparable to Benalist Tunisia. This may be a reason why, in contrast to co-opted business associations in Benalist Tunisia, economic chambers and business associations in Jordan could secure a fairly strong position. The public sector in both countries – as in core Arab economies in general – can be seen as inflated. The Jordanian case, however, is particular due to the comparatively isolated role of the East Banker elite in the public sector that does not extend to the private sector.

In terms of policy, parallels between the Tunisian and Jordanian cases are visible and may be due in part to the two countries' similar situation as semi-industrialized small open economies seeking to deepen their knowledge and innovation intensity. One of these parallels is that in both countries, programs supporting innovative upgrading of the economy (PMN in Tunisia, SRTD in Jordan) were pursued and were supported by the EU. Another parallel is that both countries are pursuing some kind of territorial innovation policy, Tunisia with its *pôles de compétitivité* and constituent *technopôles* as well as its CITs and Jordan with its technology parks such as EHSC and KHBP. When it comes to detailed policy design, however, different approaches are observable. While the Tunisian *pôles de compétitivité* scheme was basically a comprehensive cluster policy designed in a top-down way (Lehmann and Benner 2015), cluster initiatives in Jordan have grown through bottom-up industrial initiative (Mahroum et al. 2013: 23; Seidel et al. 2009: 29–30). Still, "cluster" networks in Tunisia are somewhat of a bottom-up complement to top-down designed technoparks (Benner forthcoming). In Jordan, EHSC and KHBP can be understood as a top-down technopark policy similar to the Tunisian *pôle* architecture (Mahroum et al. 2013: 23).

On the regional level, both case studies show that there is a certain potential for anchoring newer approaches of regional innovation policy based on regional knowledge bases (Asheim et al. 2017) and the diversification of regional economies along the lines of related variety (Asheim et al. 2011; Frenken et al. 2007). While simply transferring policies from abroad is not advisable, learning from the European experience with the smart specialization approach could prove valuable for regions marked by a relatively dynamic regional innovation system. The approach is basically a method for using public-private collaboration to set regional policy priorities

according to the regional socioeconomic context and can be combined with horizontal policies in the broader notion of smart experimentation (Benner 2014b, 2017b, 2018, forthcoming). Suitable regions to introduce the approach in a context-specific and institution-sensitive way could be those marked by comparatively strong universities and bottom-up cluster initiatives. In Tunisia, Sfax could serve as a pilot region, while in Jordan, prima facie Irbid seems suitable.

On the macro-level, both countries are characterized by a general *infitah* policy orientation, although in historically different contexts. While in Tunisia, *infitah* was a policy turn after a less-than-successful and rather short period of Arab socialism, the Hashemite regime in Jordan pursued a general penchant for relative economic liberalism over time and may have found that the country's precarious situation marked by its lack of natural resources, its location in a geopolitically unstable environment, and its reliance on rents required international trade openness. While Tunisia's international opening went along with far-reaching reliance on European markets, Jordan's trade policy was somewhat more diversified and consistent with its geopolitical orientation towards the United States, not least in the context of the Israel-Jordan peace treaty and concomitant economic support schemes such as the QIZs. Still, in both countries, international trade and investment policies exhibit some kind of segmentation, in the case of Tunisia the onshore/offshore dichotomy and in the case of Jordan the mosaic of various special economic and free-trade zones.

Both countries are under fiscal pressure and subject to transnational transformative processes within the framework of IFI-sponsored structural adjustment. The underlying fiscal pressures underscore the fundamental unsustainability of the old Arab social contract and are thus compatible with the insights gained through the generic regulation framework. Both Tunisia and Jordan find themselves in a situation where they will have to limit public employment provision and supply-side subsidies, effectively ending crypto-welfare policies pursued for decades, and both countries find it politically difficult to do so. Hence, the transition towards a new, more sustainable and internally and externally consistent regulation regime will be a challenging process in both countries. Still, some incipient changes on the institutional level of both economies give reason for careful optimism, provided that institution-sensitive reform policies adapted to the peculiar context of both countries can be designed and implemented to support the institutional changes needed.

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