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Tunisia's Self-Defeating EZ Policy

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Introduction

Many governments in the developing world have created geographically-bounded economic zones that offer unique financial incentives and subsidies designed to attract investors and spur economic growth. The success or failure of these economic zones (hereafter EZs) partially rests on how the rules governing EZs interact with the rest of the domestic economy. Does the EZ generate spillover effects that spur growth and innovation in related sectors? Is the EZ successful at achieving inward technology transfer that can then be absorbed elsewhere in the domestic economy? These are some of the questions that researchers and policymakers have struggled with for decades.

Our research focuses specifically on the Tunisian case, where a unique policy predating the creation of EZs continues to present real challenges to the government's economic development goals. This policy, known as the onshore/offshore regime, created a harsh dividing line according to whether an individual firm exported its products (an 'offshore' company) or sought to supply the domestic market (an 'onshore' company). The prevailing wisdom of the 1980s and 1990s was that economic growth was primarily achieved through the promotion of exporting industries, which led most governments in the developing world (including Tunisia) to concentrate their limited resources on support for exporting firms, many of which were incorporated into EZs where they enjoyed tax holidays, infrastructure subsidies, streamlined access to bureaucratic officials and other privileges. These EZ privileges often came at the expense of firms producing

for the domestic market, most of which employed both capital and labor from the local economy.

It soon became clear that despite government support, these exporting firms often failed to deliver the promised benefits of increased domestic employment and inward technology transfer. Some of this failure has been attributed to the very privileges that were meant to support export-oriented companies in the EZs – primarily because these privileges discouraged such firms from creating backward linkages with the local economy. By making the process of importing foreign parts *too* cheap and *too* easy, these policies effectively put domestic firms at a serious disadvantage in the competition to supply inputs to exporting firms. By allowing exporting companies to avoid paying social security or payroll taxes for foreign workers, the government likewise discouraged hiring from the domestic labor pool, so the promised increase in managerial and technical skills for the domestic workforce were likewise unrealized. The result was distinct enclave economies inside the EZs that had little (if any) positive spillover effects in the rest of the economy.

The puzzle here is why Tunisia maintained the distinct onshore/offshore policy regime even after it became clear that it was contributing to the failure of the country's EZs to create backward linkages with the wider domestic economy. Although researchers have investigated this question before, there is little research on this question in the specific context of the country's newest form of EZ, the technology park. The combination of this puzzle and an area where there exists a clear gap in the research provide the impetus for this research paper.

Layout of the Paper

We will trace the evolution of EZ goals and policies, including their success and failure, first with reference to Tunisia's early model EZs, known as 'Activities Parks,' before turning our focus to 'Technology Parks,' which represent the latest model of EZ policy in Tunisia. The Tunisian state narrative of the technology parks is extremely positive. The Tunisian state Agency for the Promotion of Foreign Investment (FIPA) proudly touts them as success stories, highlighting their importance in the state's economic development program. However, despite the new packaging and updated goals, the technology parks also fall victim to the same state policies that precluded the success of the earlier EZ model of Activities Parks.

Research Question

The central question of our paper then is why Tunisian technology parks have seen such limited success. Our research led us to the conclusion that the success of Tunisia's most recent technology parks is limited by the legacy of a Tunisian government policy that created two parallel policy regimes for businesses based on their import/export status. This division, the product of economic policy that strongly favors export-oriented sectors at the extreme expense of firms that produce goods and services for domestic consumption, have ultimately limited the ability of the new technology parks to create backward linkages with existing domestic industry or provide meaningful gains in employment or inward technology transfer.

Key Terms and Concepts

In order to engage this argument it is important to first fully understand how we are using the term EZ and the different types of EZs present in Tunisia. There are multiple types of EZs, though researchers generally group them into three categories: 1) free trade zones, 2) export processing zones, and 3) science and technology parks.¹ All EZs typically share the following characteristics:

- Geographically delimited area, often in highly securitized zones
- Range of financial and industrial benefits not available to firms outside the EZ
- Streamlined procedures and reduced regulatory burden

There are three main types of EZs in Tunisia: 1) offshore companies, 2) economic activities parks, and 3) technology parks. We consider offshore companies to be a type of EZ for the purposes of this paper because they have access to the same privileges and benefits typical of EZ firms, and because this is the custom in the existing literature. Table 1 (below) lists the primary differences between the three EZ types.

EZ Type	Location	Distinguishing Characteristics
Offshore Company	Anywhere	<ul style="list-style-type: none"> • Single company • Incentives predicated on export proportions • Majority exporting (70% or more) • Able to locate anywhere • Often located inside Economic Parks & Technology Parks
Economic Park	Bizerte and Zarzis	<ul style="list-style-type: none"> • Incentives based on location inside park • Single administrative interlocutor for all companies in EZ

¹ Farole, Thomas, and Gokhan Akinci, eds. 2011. *Special Economic Zones: Progress, Emerging Challenges, and Future Directions*. Washington, D.C.: The World Bank.

		<ul style="list-style-type: none"> • Onsite customs • Populated exclusively by offshore companies
Technology Park	Ariana, Sidi Thabet, Borj Cedra, Bizerte, Sousse, Manouba, Sfax, Gafsa, Medenine, Jendouba	<ul style="list-style-type: none"> • Incentives based on location inside park • Presence of universities and research institutions • Populated by both offshore and onshore companies • Goal is to foster innovation

Table 1

The Origins of the Onshore-Offshore Dichotomy

It is impossible to understand EZs in Tunisia without first coming to terms with the division of the economy into domestic-focused “onshore” and export-focused “offshore” firms. In the early 1970’s the regime of Habib Bourguiba sought to protect local manufacturers and increase government revenues, while at the same time encouraging foreign direct investment (FDI) and exports.² These seemingly mutually exclusive goals led to the creation of a specific exporting regime in 1972 through what became known as “1972 Law.”³ The 1972 Law sought to increase FDI and exports by offering very generous incentives to companies that exported at least 70% of their production.⁴ This in effect created company-sized EZs of all offshore companies. The offshore EZ incentives were limited to the operations of each qualifying company and include:⁵

- Tax exemption of all profits and income reinvested in Tunisia
- Duty free status for all capital goods and inputs for the company

² Bellin, Eva. 2002. *Stalled Democracy*. Ithaca, NY: Cornell University Press. (p. 75)

³ Cammett, Melani. 2007. *Globalization and Business Politics in Arab North Africa: A Comparative Perspective*. New York: Cambridge. (pg 73)

⁴ Cammett 73

⁵ FIPA. 2013. “A Foreign Investor’s Guide to Tunisia”. Brochure, Tunis, Tunisia, August. <http://www.investintunisia.tn/document/703.pdf>

- Tax exemption of corporate profits for the first ten year of operation, followed by a 10% corporate tax thereafter⁶
- 100% foreign ownership

Though the Tunisian government amended the 1972 Law numerous times, the core structure and goals remain intact to this day. Later, the Tunisian government further strengthened the division between onshore and offshore companies with the Investment Incentives Code (IIC) of 1993.⁷ The IIC laws applied to all sectors except energy, mining, domestic commerce, and the financial sector.

The creation of the offshore sector through Law 1972 was initially viewed as successful. Tunisia increased both its FDI and foreign exchange earnings.⁸ The export-oriented incentives and exemptions extended to the offshore regime helped it to quickly become globally competitive. The offshore sector experienced additional growth with Tunisia's movement to liberalize trade in the 1980's and 1990's.⁹ In fact, while moves to liberalize trade had large negative impacts on the onshore sector, most of the offshore companies welcomed it as a boon to their business.¹⁰ Trade liberalization gave offshore companies freer access to the global market, allowing them to import inputs even more cheaply than before.¹¹ Thus the government's trade liberalization policies exacerbated the division between the onshore and offshore sectors by simultaneously easing access to foreign inputs for

⁶ As of 2014 all new companies in the offshore sector corporate profits are taxed at 10% with a 5 year exemption for SMEs with less than 600,000 TND in turnover

⁷ Nucifero, Antonio, and Bob Rijkers. 2014. *The Unfinished Revolution: Bringing Opportunity, Good Jobs And Greater Wealth To All Tunisians*. 86179-TN. Washington, DC: World Bank. (p. 136)

⁸ Ibid. (p. 50)

⁹ Cammett (p. 135)

¹⁰ Ibid. (p. 109)

¹¹ Ibid. (p. 143)

offshore companies and making onshore companies' products relatively more expensive.

The Onshore Sector

While the offshore regime became more liberal and offshore firms became more globally competitive, the onshore regime moved in the opposite direction. According to World Bank reports, the tension between Bourguiba's desire to protect onshore manufacturers while also opening up the offshore sector resulted in levels of regulation that were "significantly higher" than those for similar countries.¹² This included numerous restrictions and administrative barriers that blocked the access of foreign firms to the domestic market. Although the restrictions did initially help foster the nascent onshore manufacturing sector, they also widened the disparity in competitiveness between the onshore and offshore regimes.

In certain onshore sectors, including telecommunications, utilities, and tourism, the number of businesses allowed to operate is rigidly controlled.¹³ This shields many producers in the onshore economy from foreign and domestic competition. The professional services sector, which includes architects, engineers, legal services, accounting, and similar services, is also strictly regulated; the firms must be Tunisian-owned and enjoy exclusive rights to all onshore service provision business.¹⁴ Frequently these firms coordinate to restrict supply and maintain high

¹² Nucifero, Antonio, and Bob Rijkers. 2014 (p. 140)

¹³ Ibid. (p. 250)

¹⁴ Ibid. (p. 88)

prices – much like a cartel.¹⁵ This degrades competitiveness in many of the sectors that might otherwise produce inputs or services that could be used in the EZs, including Tunisia’s new Technology Parks.

Foreign Direct Investment (FDI) is also strictly controlled for large portions of the Tunisian economy. Though restrictions to FDI are common globally, Tunisia is more restrictive than its peers in the region on average.¹⁶ Governmental pre-authorization for foreign firm ownership greater than 50 percent is required for 49 sectors, accounting for approximately 38 percent of the Tunisian economy.¹⁷ Pre-authorization is also required for projects in 15 restricted sectors and 20 restricted activities. The specific sectoral classification of individual firms can be highly subjective, and the official approval process is ripe for corruption. A Tunisian business representative referenced this issue in our interview with him. Tunisian state-owned enterprises (SOEs) also play a large role in the onshore economy. They account for nearly 13 percent of GDP and are dominant forces in critical sectors such as banking and tourism.¹⁸ These SOEs regularly benefit from state largesse in the form of capital injections and bailouts. In the last five years *official* financial transfers from the Tunisian state to loss-making SOEs consumed nearly 1 percent of GDP on average.¹⁹

¹⁵ Nucifero, Antonio, and Bob Rijkers. 2014

¹⁶ Nucifero, Antonio, and Bob Rijkers. 2014 (p. 140)

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ Nucifero, Antonio, and Bob Rijkers. 2014 (p. 89)

Predictably, these restrictions and distortions lead to substandard products and services at higher prices for Tunisian consumers.²⁰ The poor quality of products destroys much of the potential for backward linkages between the onshore regime and the businesses operating in the EZs, including the technology parks. More than 50 percent of the Tunisian economy is subject to at least one of these barriers or distortions.²¹ This remains true despite Tunisian government efforts to expand the conditions governing the offshore sector to the entire domestic economy. The numerous administrative barriers and highly subjective licensing procedures encourage rent-seeking and corruption. Though not the main focus of this paper, both have deleterious effects on the competitiveness of onshore companies.²² Consequently, as the offshore regime garnered increased FDI and governmental attention, the onshore economy languished. Any efforts to foster backward linkages, so critical for spillover gains from technology parks, depend on the meaningful participation of the onshore regime.

Economic Activities Parks

In 1993 the Tunisian government created its first traditional geographically delimited EZs, dubbed 'economic activities parks.' There are two such parks operating today in Tunisia: the Economic Activities Park of Bizerte (PAEB) and the Economic Activities Park of Zarzis (PAEZ). The PAEB is located in the extreme north

²⁰ Ibid. (p. 102) A stark example of significantly higher prices can be found in international telephone calls and airline tickets, which are 10-20 times and 30-50 percent more expensive, respectively than the global averages.

²¹ Nucifero, Antonio, and Bob Rijkers. 2014

²² Ibid. (p. 110)

of Tunisia and is 81 hectares, while the PAEZ is located in the southeast of Tunisia and is 50 hectares. Both parks, located on the Mediterranean coast and founded in 1993, are wholly owned and operated by the Tunisian government. The Tunisian government leases out the plots to investing companies and provides onsite customs and Tunisian government staff to serve as the single interlocutor to the companies. While economic activities parks do not generate revenue for the Tunisian state directly, all offshore companies located in the parks pay ten percent corporate taxes. This differentiates economic activities parks from the zero percent corporate taxes previously available to offshore companies outside the parks.²³

The Tunisian government's stated goals for the economic activities parks were the same goals that motivated the creation of the onshore/offshore regime: promoting FDI and generating domestic investment.²⁴ The economic activities parks of Tunisia differ from their offshore predecessors in two ways. First, the economic activities parks' incentives are confined to the geographically delimited areas of the PAEB and PAEZ, whereas companies that are classified as offshore are eligible for their incentives regardless of where they are located. Second, the economic activities parks' primary incentives diverge from those of offshore companies. The economic activities park provides a single interlocutor that streamlines all government administrative procedures required of resident companies, including on-site customs services.²⁵ Other benefits include above average infrastructure,

²³ It should also be noted that this 10% corporate tax preexisted the recent movement to charge *all* new offshore companies countrywide a 10% corporate tax. Blanco, Marwa. 2015. "Bizerte Economic Activities Park Welcomes You". Brochure, Bizerte, March 11.

²⁴ "Zarzis Park of Economic Activities Website." 2015. Government. April 4. <http://www.investinzarzis.com/en/missions-du-parc/missions.html>.

²⁵ Blanco, Marwa. 2015

preferential utility rates, and strategic location near the key ports of Bizerte and Zarzis. By contrast, the incentives available to companies designated as offshore operating outside the economic activities parks are limited to the standard set of offshore incentives.

The PAEB is considered the more successful of the two parks according to zone representatives we met.²⁶ This is supported by the fact that the PAEB nearly doubled its size recently from 50 to 81 hectares.²⁷ The zone is operating at capacity with 61 companies and nearly 4400 employees.²⁸ The PAEZ, on the other hand, still has nearly 20% of its lots vacant.²⁹ Despite some successes there are currently no plans to further expand either park. Nor are there plans to create additional economic activities parks in the future. The representatives of the PAEB were unable to provide data on the park's operating costs. However, we do know that the companies from both parks averaged a combined 11 million TND (equal to approximately .1 percent of the Tunisian budget) in tax deductions and exemptions annually between 2008 and 2011 (table 2).

²⁶ Author Interview, March 5, 2015

²⁷ Ibid.

²⁸ Ibid.

²⁹ "Zarzis Park of Economic Activities Website." 2015

Tableau 4.3: Main Gross Tax Deductions, 2008-2011 (Annual Average)

Type of Incentive	IIC	Deductions (annual average 2008-2011 in TND million)	Percent	Cumulative Percent
Totally exporter (Corporate tax deduction)	Yes	826.8	67.0%	67.0%
Export (Deduction from the activity)	No	97.4	7.9%	74.9%
Partial exporter (Corporate tax deduction)	Yes	87.2	7.1%	82.0%
Public incentives (Firm's capital deduction)	Yes	25.9	2.1%	84.1%
Priority regional development (first 10 years) (Corporate tax deduction)	Yes	24.5	2.0%	86.1%
Revenues and profits in places funds priming	No	21.4	1.7%	87.8%
Priority Regional development (first 10 years) (Subscription)	Yes	17.0	1.4%	89.2%
Regional development (Zone 1) (Firm's capital deduction)	Yes	16.5	1.3%	90.5%
Development of agriculture or fishing (Corporate tax deduction)	Yes	15.8	1.3%	91.8%
Reinvest SICAR, or placement of capital risk funds (75 percent free)	No	11.8	1.0%	92.7%
Investment support (Firm's capital deduction)	Yes	11.7	1.0%	93.7%
Economic 'free zones' (Corporate tax deduction)	Yes	11.1	0.9%	94.6%

Source: IFC and ECOPA (2012)

Table 2

It is important to note here that *all* companies operating in the economic activities parks receive incentives both for being an offshore company and for operating inside one of the designated parks.³⁰ It is this type of layering and overlap that mitigates the impact of incentives and increases the administrative and financial costs to the state. Nor are the incentives particularly enticing. The above average infrastructure and one-stop administrative support are not as large an advantage as they first appear. All companies with the offshore designation have access to the Industrial Land Agency (AFI), which administers the distribution and lease of more than 2300 hectares of high quality industrial space.³¹ All companies also have access to one-stop administration through the Agency for the Promotion of Investment and Innovation (API)³². Park representatives do serve as the interlocutor between companies operating inside the parks and the API and AFI,

³⁰ Blanco, Marwa. 2015

³¹ FIPA. 2013. "A Foreign Investor's Guide to Tunisia". Brochure, Tunis, Tunisia, August. <http://www.investintunisia.tn/document/703.pdf>

³² FIPA. 2013

which can be beneficial if disputes arise. Nonetheless, Mustapha Mezghani, the special advisor to the ICT Department at the Ministry of Higher Education, Scientific Research & ICT, echoed the limited value of the one-stop service provided by the economic activities parks owing to the fact that these are a one-time cost so the savings are typically minimal.³³

Mr. Mezghani did highlight the benefit of onsite customs to companies located in the parks during our interview. The service is extremely beneficial to the offshore companies housed in the parks, since they regularly source all their inputs internationally. Cong Huang, CEO of the offshore company Ling Shang International, echoed this point during our interview with him when he complained of inconsistencies in customs.³⁴ His company is not in the PAEB or PAEZ and must deal with customs. The data supports both Mr. Mezghani and Mr. Huang. Dwell times in Tunisian customs are higher than regional competitors, averaging nine days.³⁵ Further, maximum dwell times are as high as 20 days, which is significantly higher than regional competitors.³⁶ The large disparity between the average customs dwell time and maximum dwell time implies a very arbitrary and unpredictable customs process, increasing the costs to firms and corruption risk. These factors help make the direct access to customs the defining benefit of the economic activities parks, highlighting the Tunisian government's overemphasis on incentives for offshore companies at the expense of developing the onshore regime. The offshore

³³ Author interview, March 6, 2015

³⁴ Author interview, March 7, 2015

³⁵ Nucifero, Antonio, and Bob Rijkers. 2014

³⁶ Ibid.

companies are offered redundant parallel incentives while the onshore regime must contend with arbitrary customs so abysmal that offshore companies are willing to pay a ten percent corporate tax just to avoid dealing with them.

What is most important about the economic activities parks is what they do not do. The parks exacerbate the challenges to the Tunisian economy created by the offshore-onshore dichotomy. There are no exceptions to the stringent limitations that prohibit onshore companies from operating in either the PAEB or the PAEZ, which could conceivably give them better access to the offshore firms that might (conceivably) incorporate their inputs into their final products. The offshore companies in the PAEB and PAEZ source the vast majority of their inputs from abroad, just like offshore companies outside the parks.

Technology Parks

Despite the limitations made plain in the operations of the economic activities parks, Tunisia has continued to expand its EZ policy, most recently with the introduction of so-called technology parks. The term technology park is often used interchangeably with the terms science park, research park, and technopole. For the purpose of this paper we will use the following definition of technology park:

"A Science Park is used to describe a property-based initiative which (i) has a formal and operational link with a university or other higher educational institution or major centre of research; (ii) is designed to encourage the formation and growth of knowledge based businesses and other organizations normally resident on site; (iii) has a management function that is actively engaged in the transfer of technology and business skills to the organizations on site."³⁷

³⁷ "About UKSPA." 2015. Nonprofit Business Association. *United Kingdom Science Park Association*. April 2. <http://www.ukspa.org.uk/our-organisation/about-us>.

Tunisia launched its Technology Park policy with the founding of El Gazala Technology Park outside Tunis in 1999. El Gazala focuses on the information and communication technologies (ICT) sector and houses research institutions alongside large multinational companies (MNCs) including: Ericsson, Microsoft, Orange, and Alcatel-Lucent. Tunisia now has ten technology parks, eight completed and two under construction, in cities including: Tunis, Sfax, Sousse, and Borj Cedria (figure 2).³⁸ Among the Tunisian technology parks, El Gazala is widely considered to be the most successful, due to the number of large MNCs located there and the more than 3300 Tunisians directly employed by the park's tenants.³⁹

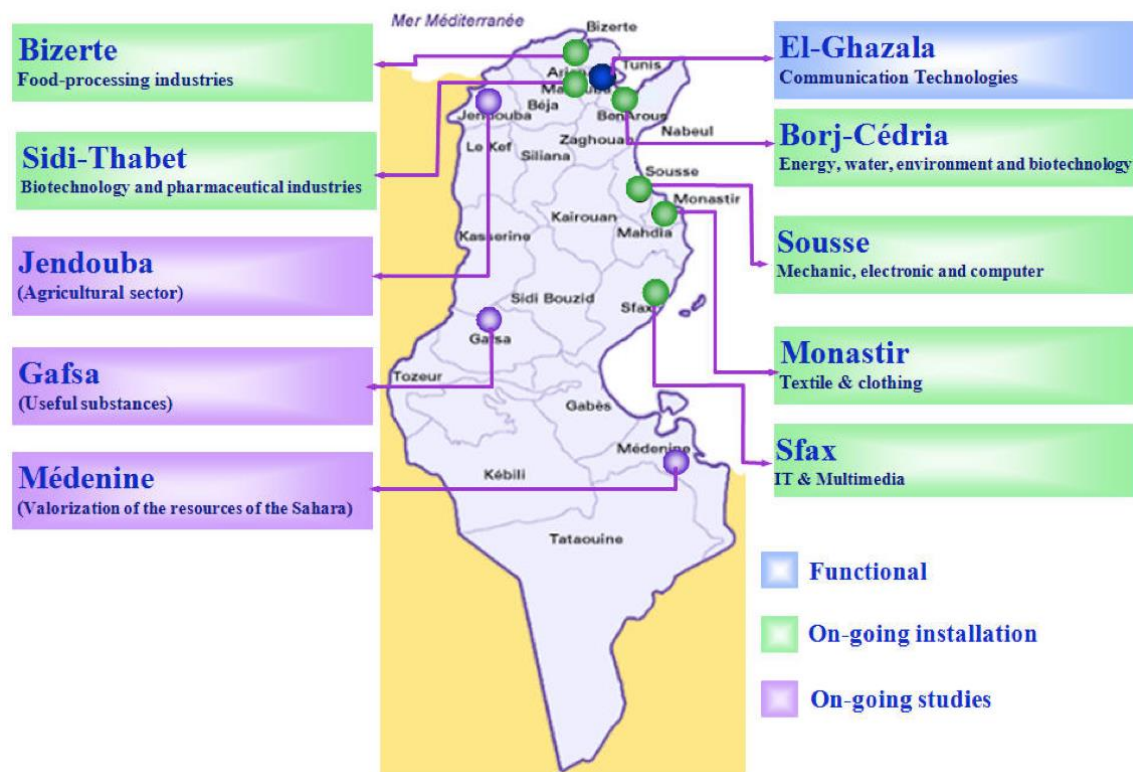


Figure 1 Source: *European Review of Industrial Economics*

³⁸ "Technological Parks." 2015. Tunisian Government. *Foreign Investment Promotion Agency*. March 30. http://www.investintunisia.tn/site/en/article.php?id_article=828.

³⁹ Youssef, Adel Ben, N. Elaheebocus, Hatem M'henni, and Ludovic Ragni. 2012. "Are Technoparks High Tech Fantasies? Lessons from the Tunisian Experience." *European Review of Industrial Economics and Policy*, December. <http://revel.unice.fr/eriep/index.html?id=3548>.

The Tunisian technology parks diverge from the offshore regime and the economic activities parks in both goals and incentives. The Tunisian technology parks' primary incentives are their clustering of like businesses, business incubators and research institutions. With the technical assistance of the European Investment Bank (EIB) in Tunisia, the government designed two main operational approaches. The first is the "technology push" method.⁴⁰ This method seeks to increase interactions between research institutions, universities and businesses in the hopes that the research institutions and universities will "push" new technology use into the co-located businesses. The second approach – the one adopted by Tunisian technology parks is the "market-pull." In this approach Tunisian technology parks provide incentives designed to "pull" high tech MNCs inside the parks in the hopes of fostering connections between the MNCs and the co-located domestic companies to increase the latter's innovation and competitiveness.

The incentives on offer include those of the activities parks (such as modern infrastructure) but add new incentives, primarily access to university research centers, and business incubators (table 3). The technology parks' ultimate goal is to foster innovation and technology transfer, going beyond the offshore regime and economic activities parks, which merely encourage FDI.⁴² Written another way, Tunisia's policy seeks to move the country's exports up the value added scale by

⁴⁰ *Plan and Manage Science Park in the Mediterranean: Guidebook for Decision Makers*. 2010. 02/2010. Luxembourg: European Investment Bank. http://www.eib.org/attachments/country/plan-and-manage-a-science-park-in-the-mediterranean_en.pdf.

⁴² "Plan and manage a science park in the Mediterranean". *Guidebook for decision makers*.

attracting companies that manufacture and sell more high-tech and complex products.

Like the economic activities parks, technology park incentives are available only to those companies that locate inside the physical boundaries of the park. This also means that offshore companies that choose to locate inside technology parks will benefit from both sets of incentives. However, technology parks differ from the economic activities parks by housing both offshore and onshore companies within their borders. This does allow onshore companies access to new tools, in the form of universities and incubators, but the close geographic proximity of onshore and offshore companies does nothing to address the structural barriers created by the Tunisian offshore policy – primarily the fact that this policy encourages offshore companies to source their inputs from abroad.

Primary Incentives	Onshore**	Offshore Company	Economic Park	Technology Park
Tax exemption of all profits and income reinvested in Tunisia		X	X*	X*
Duty free status for all capital goods and inputs for the company		X	X*	X*
Tax exemption of corporate profits for the first ten year of operation, followed by a 10% corporate tax thereafter		X	X*	X*
100% foreign ownership		X	X*	X*
One-stop shop licensing		X	X*	X*

Single Administrative Interlocutor		X	
On-site customs officials		X	
Access to relatively high quality infrastructure	X	X	X
Ability to partner with research institutions	X		X
Access to business incubators	X		X
* Available only to offshore companies in Technology and Economic Parks			
** Available only to those onshore companies in Technology Parks			

Table 3

Research Methodology & Source Materials

We sought to analyze the relationship between Tunisia’s current economic zone development model focused on technology parks and the country’s pre-existing economic zone policy regime. We structured our research as a single case study to understand this relationship, focusing on the goals, performance, and evolution of Tunisian EZs. We then divided the evolution of Tunisian EZs into three main stages: 1) the creation of the offshore regime, 2) the founding of economic activities park, and 3) the technology park initiatives. This division helped us organize our three-pronged approach to research, sourcing information from secondary literature, primary literature, and field interviews. This model afforded multiple routes to information verification.

First, we reviewed secondary sources covering EZs and technology transfer, both generally and specific to Tunisia. We turned primarily to World Bank

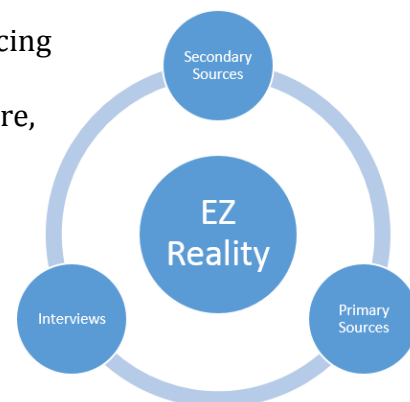


Figure 2

and OECD reports for a firm grounding in the breadth of issues surrounding EZs globally. These reports offered multiple case studies and best practices for EZs. With this information we were able to turn to Tunisia-specific secondary literature, consisting of Tunisian political economy books, articles, and World Bank reports. The Tunisia-specific materials were critical for helping us frame our understanding of EZs in Tunisia's economic system and identify where Tunisia deviates from EZ norms and best practices.

Second, we turned to primary sources such as the state-run websites of the agencies FIPA and Center for Export Promotion (CEPEX) to better understand the domestic political dynamics and government narratives surrounding EZ policy in Tunisia. The offshore regime, economic activities parks, and technology parks were mentioned in brochures and reports promoting Tunisia as a destination for investment. The extremely positive nature of these agencies' views on Tunisian EZs provided important alternative narratives to the material provided in the World Bank and OECD reports. Articles from Tunisian media provided an intermediate source of information that provided texture and detail to the macro perspective of the official institutional reports and the rosy picture painted by official promotional materials. These multiple sources helped round out our understanding of the competing narratives surrounding Tunisian EZs.

The government-produced materials were designed to promote Tunisia's national image among potential investors. Although the information provided by these sources necessarily puts a positive spin on Tunisian economic performance, it also gives us a better understanding of the original goals the government had in

mind when drafting its EZ policies. Our secondary sources, including several World Bank Reports and academic articles on the performance of Tunisia's EZ policy provided information on the actual performance and the weaknesses of the policies. We were also able to collect useful statistical data from secondary sources, which helped us verify the validity of anecdotal evidence from our field interviews.

Third and finally, we conducted field interviews for anecdotal evidence and microanalysis to verify and contextualize information from the primary and secondary literature. We conducted our field research in Tunisia from March 3-10, 2015. Our interviewees came primarily from two groups: Tunisian government officials and members of the business community (table 4). We predicted that by interviewing individuals on both sides of the process (those designing the policy and those operating under the policy) we would get complementary (or even contradictory) material that would help us get a more accurate picture of how EZs actually operated in Tunisia. Prior to conducting interviews, we worked in consultation with our advisor, Dr. Shana Marshall, to create a comprehensive set of questions based on our research purpose. While we had a list of standard questions, we tailored our questions to the individual interviewee's background and specialization.

Our interview subjects broadly represented two kinds of opinions. The government officials admitted there are some shortcomings to their policies, but their attitude toward the future development is still optimistic. Compared to the interviews with officials, members of the business community focused on the shortcomings of the policies based on their own direct experiences. Most of our

interviewees in the business community possessed university degrees and had some overseas experience in either business or higher education, including a number of foreigners who had lived in Tunisia for several years. Their experiences of interacting with Tunisian government officials and the difficulties they encountered in doing business (especially with domestic firms) lend important anecdotal data to support our argument.

Government officials	Business Community
<ul style="list-style-type: none"> • Minister of Industry • Director of El Ghazala technology park • Product manager of foreign investment promotion agency (FIPA) • Representative of the Bizerte Economic Activities Park (PAEB) • Head of the Tunisian National Institute of Statistics (INS) • Director of Center for Export Promotion (CEPEX) 	<ul style="list-style-type: none"> • Two Tunisian businessmen operating wiki star-up program and Tunisian American young professionals • An American researcher at the Maghreb studies center of Tunisia (CEMAT) • A CEO of a foreign-owned offshore company specializing in digital transmission devices • A Tunisian government consultant for the ministry of communication technologies • A Tunisian college graduate

Table 4

Limitations to Research

In our research we encountered three central obstacles. First is the complexity of the Tunisian economy. The Tunisian economy faces multiple challenges, many of which are interconnected. We confined the scope of our research to focus narrowly on Tunisian EZ policy to limit the number of variables. However, in doing so we necessarily sidestepped many of the contributing factors to suboptimal Tunisian economic policy. Improvement to many factors, beyond

Tunisia's EZ policy itself, would likely have a positive impact both on their EZs and on their economy as a whole. Expanding the research into the multiple methods for improving the competitiveness of the onshore regimes could suggest multiple avenues for improving Tunisian EZ efficacy.

A second central limitation was the available data. Much of the statistical data available from the Ben Ali period is incomplete or prone to fabrication/exaggeration. The very positive macroeconomic indicators for Tunisia in the run-up to the Tunisian revolution are testament to this. Further, there was very little data available on the economic activities and technology parks.⁴³ Better tracking of the costs of technology parks and the number and type of interactions between offshore and onshore companies would have been particularly useful for our research. We were limited to anecdotal data from interviews on both these points.

Finally, contributing to the challenge of limited data was the necessarily short duration of our field research. With only a week in Tunisia we managed to organize 12 interviews with stakeholders in the Tunisian EZ system. However, the majority of our interviews came in the last three days of research. The connections we established at the beginning of our research snowballed, eventually resulting in four or more interviews per day. With just a second week of field research we are certain we could have more than tripled our interviews. This would have not only improved our sample size, but also allowed us to improve the breadth of our

⁴³ Fortunately, this appears to be changing. Housseem Tounsi, the director of El Gazala, divulged that an internal government cost-benefit analysis on the technology parks was set for presentation shortly after our visit.

sampling. We would have liked to include more business representatives and expand the regions we covered. Further, our research would have benefited from interviews with Tunisian workers, with emphasis on college graduates since they are the main targets for employment in technology parks.

Case Selection & Significance of Study

Finding the best policies for fostering economic development is a significant policy question for countries across the globe. Increasingly, governments are turning to EZs as way to jumpstart their stagnant economies. The number of EZs globally grew dramatically over the last few decades – from 176 EZs in 47 countries in 1986 to 3500 EZs in 130 countries in 2008.⁴⁴ The MENA region was no exception, with the number of EZs jumping from ten in 2005 to 37 in 2009.⁴⁵ Globally, EZs accounted for an estimated \$200 billion in global exports and employed approximately 40 million workers in 2008.⁴⁶ There is little reason to believe the pace of EZ growth will slow. Such a widespread adoption of EZs underscores the importance of understanding how they interact with their host economies and contribute to growth.

Tunisia's EZ experience is unique from other countries because of its distinct onshore-offshore dichotomy. The literature on EZs cites two primary vehicles through which zones can contribute to dynamic economic growth: 1) backward

⁴⁴ Akinici, Gokhan, and James Crittle. 2008. *Special Economic Zones: Performance, Lessons Learned, and Implications for Zone Development*. 45869. Washington, D.C.: FIAS - World Bank Group

⁴⁵ Boehmer, Alexander, and Nada Farid. 2010. *Designing Economic Zones for Effective Investment Promotion*. OECD.

⁴⁶ Akinici et al 2008

linkages, or connections to the broader economy, and 2) technology transfer. However, in Tunisia there exists two entirely separate regulatory regimes for business operations based on their onshore-offshore status, which acts as a barrier to the realization of gains from backward linkages or technology transfers. Although researchers have previously identified these parallel regimes as a major obstacle to the success of EZs in Tunisia, this finding has not been specifically applied to Tunisia's newest form of EZ, the technology park. This project is a modest effort to begin to fill that gap by examining how the onshore-offshore regime creates obstacles for businesses operating in Tunisia's technology parks. Due to the lack of systematic literature on technology parks, our findings are primarily based on our field research and interviews with representative of the EL Gazala technology park. We focus on El Gazala, located just outside of Tunis, because it is the oldest and most successful of all of the ten Tunisian technology parks according to both researchers and our interviews.⁴⁷

The Tunisia onshore-offshore dichotomy and technology park interactions also offers an example of negative consequences that arise from parallel and overlapping economic policy. Instead of reforming the flaws inherent in the onshore-offshore regime, the Tunisia government chose to create a parallel EZ scheme with its economic activities parks and technological parks. This attempt to sidestep ultimately failed. In a highly-integrated global economy the maintenance of two parallel policies creates unintended negative consequences. The benefits of

⁴⁷ Nucifero, Antonio, and Bob Rijkers. 2014. *The Unfinished Revolution: Bringing Opportunity, Good Jobs And Greater Wealth To All Tunisians*. 86179-TN. Washington, DC: World Bank.

technology park policy will necessarily be circumscribed by limits originating in the onshore-offshore policy.

This research question also demonstrates the necessity for governments to reform existing economic policy regimes before enacting new laws – specifically those crafted for the next “trend” in enclave and zone-based economic development platforms. It is impossible for states to start their economic policies from scratch, rather they must do the hard work of dismantling and/or updating existing policies.

Our focus on Tunisia was also motivated by its connection to the Arab Spring revolution. On a region-wide level, many scholars believe that economic opportunity and inequality in living standards were significant contributing factors to the unrest that ultimately led to the Arab Spring. Tunisia was no different. After more than 20 years in power, the Zine el Abidine Ben Ali regime collapsed in less than 30 days, shocking the region and the world. It is impossible to capture all the reasons that Tunisians chose to protest. However, poor economic performance, including a lack of jobs for Tunisia’s large population of university graduates,⁴⁸ is believed by many scholars to be a large contributing factor.⁴⁹ Tunisia suffered from unemployment rates well above the median, with a formal rate of more than 15 percent in 2009.⁵⁰ The true unemployment rate was believed to be much higher, as those who had stopped looking for work were not counted.

⁴⁸ Many scholars have pointed to the shortage of specialized jobs for college graduates as strongly correlating with Arab Spring revolutions. Campante, Filipe, and Davin Chor. 2012. “Why Was the Arab World Poised for Revolution? Schooling, Economic Opportunities, and the Arab Spring.” *The Journal of Economic Perspectives* 26 (2): 167–87.

⁴⁹ El-Khawas, Mohamed. 2012. “Tunisia’s Jasmine Revolution: Causes and Impact.” *Mediterranean Quarterly* 23 (4): 1–23.

⁵⁰ Hussain, Musammil, and Philip Howard. 2013. “What Best Explains Successful Protest Cascades? ICTs and the Fuzzy Causes of the Arab Spring.” *International Studies Review* 15: 48–66.

Tunisians repeatedly expressed deep concerns about the state of the economy and unemployment in public opinion surveys. A 2011 survey conducted shortly after the fall of the Ben Ali regime by the International Republican Institute (IRI) asked Tunisians to list the three most pressing issues confronting their countries. Among all the issues listed, job growth and economic development were listed as two of the top three priorities with 72 and 41 percent of Tunisians mentioning them respectively.⁵¹ The results of this survey, coming so soon after the revolution, helped highlight the centrality of economic issues to Tunisians, even in the midst of significant political upheaval.

After successful democratic elections, Tunisia remains a solitary bright spot for the Arab world. Yet it is dogged by persistent economic challenges. The dearth of jobs and the weak economy continue to loom large in the minds of the Tunisian people. A July 2014 survey showed that these two issues are still significantly more important to Tunisians than other issues (see Table 5). Furthermore, in the same survey 84 and 78 percent believe that the “Living Standards” and “Economy” became somewhat or much worse over the course of the year.⁵² The lingering economic problems of Tunisia amplify the importance of improving EZ policy and economic policy more broadly. A failure to do so could lead a fragile Tunisian state down a more turbulent path.

⁵¹ Pickard, Duncan, and Todd Schweizer. 2012. “Overcoming the Binding Constraint to Economic Growth in Post-Revolution Tunisia”. Harvard.

⁵² *Survey of Tunisian Public Opinion*. 2014. International Republican Institute. <http://www.iri.org/resource/iri-poll-tunisia%E2%80%99s-democratic-transition-crossroads>.

What would you say are the most important problems facing Tunisia as a whole?
(open-ended, top responses only)

	First mention	Second mention	Third mention	Total
Economy/Financial crisis	23%	27%	14%	64%
Unemployment	27%	22%	13%	62%
Terrorism	22%	10%	12%	44%
Security	9%	11%	8%	28%
Political conflicts/Tensions	5%	4%	5%	14%
Corruption/Transparency	3%	3%	5%	11%
Standard of living/ Increasing prices	3%	4%	3%	10%
Violence/Delinquency/ Vandalism	2%	4%	6%	12%
Strikes/Sit-ins	2%	2%	3%	7%
Elections	<1%	<1%	1%	1%
Don't know/ Refused to answer	1%	7%	24%	32%

Table 5 (Source International Republican Institute Survey June 2014)

A second practical reason for choosing to research EZs specifically in Tunisia was that it is one of the few countries in the region where economic policy may actually take precedent over other issues. With much of the MENA region consumed by internal strife or civil war, Tunisia represents a relative island of stability. This stability affords Tunisia the privilege of focusing on economic issues. The stability and newly democratic nature of Tunisia also offered a level of access to information and officials that is unlikely to be available in most states in the region. These two facts allowed us to gain sufficient information to make suggestions to a government that actually has the capacity to undertake economic reform. We hope our research helps us understand the shortcomings in Tunisian economic policy that may have contributed to the revolution and continues to limit the country's potential.

An overview of Tunisian Industrial and EZ Policy

The literature on Tunisia shows a long history of state-led economic intervention, including how the division between offshore and onshore undermined interactions and backward linkages.⁵³ A telling example is the garment and textile sectors.⁵⁴ The garment sector was primarily populated by offshore companies, while textile companies were predominantly onshore. Because the garment and textile sectors were both well-developed sectors that enjoyed healthy comparative advantages, if any sector would benefit from sourcing domestically and clustering it would have been these sectors. Nonetheless, the two sectors demonstrated little interaction. Interviewees from companies in both sectors confirmed that they did not consider the other sector in their decisions.⁵⁵

While the literature is not decisive on the efficacy of EZs in general, it does outline the commonalities found in successful EZs. Backward linkages, or connections to the broader economy, and technology transfer were two of the most commonly cited factors contributing to the success of EZs.⁵⁶ We paired this information with many of the shortcomings in the onshore-offshore dichotomy detailed in the literature on Tunisian political economy. This helped us to draw some conclusions about the effects of the onshore-offshore dichotomy on

⁵³ Nucifero, Antonio, and Bob Rijkers. 2014.

⁵⁴ Cammett

⁵⁵ Cammett

⁵⁶ Akinici, Gokhan, and James Crittle. 2008. *Special Economic Zones: Performance, Lessons Learned, and Implications for Zone Development*. 45869. Washington, D.C.: FIAS - World Bank Group.

technology parks, Tunisia's latest EZ model. This is particularly important considering the limited amount of literature on Tunisia's technology parks.

Critiques of the Onshore-Offshore Regime

The onshore-offshore regime was initially successful at attracting FDI and improving export earnings. Indeed, the offshore sector has been successful in the goal of job creation relative to the onshore sector.⁵⁷ However, the onshore-offshore regime is now a structural obstacle to Tunisian growth. Seemingly positive statistics belie weak export and productivity growth in the offshore sector.⁵⁸ The two central critiques of the onshore-offshore regime are that it is 1) expensive and narrowly focused and 2) that the artificial division of the Tunisian economy creates multiple negative distortions.

Lost Tax Revenue

First, the IIC set of financial incentives is incredibly expensive. A 2012 report, jointly produced by the International Finance Corporation (IFC) and the predictive analytics company *ECOPA*, estimated the direct costs to be as high as 2.2 percent of GDP.⁵⁹ The incentive scheme of the IIC is also extremely narrow with over 90 percent of total incentives going to just over 10 percent of the nearly 24,000

⁵⁷ 75% of manufacturing jobs are in the offshore sector. Nucifero, Antonio, and Bob Rijkers. 2014. (p. 137)

⁵⁸ Tunisian export growth was second worst in the MENA region from 1994-2014 and sectors "dominated" by offshore companies underperformed benchmarks for productivity growth. Ibid. (p. 51)

⁵⁹ *Tunisie: Coût/bénéfice des Incitations Fiscales et Financières à l'Investissement*. 2012. Preliminary Report. World Bank. http://www.finances.gov.tn/assises_fiscalite/pdf/3-Tunisia_Tax_incentives_Sept2014_final_%28short%29.pdf

companies receiving tax incentives through the IIC.⁶⁰ You can see the division of tax incentives in the chart below. This is an extremely expensive method for creating employment. Further, the vast majority of the jobs created in the offshore sector are low-paying, factory assembly jobs.⁶¹

Tableau 4.3: Main Gross Tax Deductions, 2008-2011 (Annual Average)

Type of Incentive	IIC	Deductions (annual average 2008-2011 in TND million)	Percent	Cumulative Percent
Totally exporter (Corporate tax deduction)	Yes	826.8	67.0%	67.0%
Export (Deduction from the activity)	No	97.4	7.9%	74.9%
Partial exporter (Corporate tax deduction)	Yes	87.2	7.1%	82.0%
Public incentives (Firm's capital deduction)	Yes	25.9	2.1%	84.1%
Priority regional development (first 10 years) (Corporate tax deduction)	Yes	24.5	2.0%	86.1%
Revenues and profits in places funds priming	No	21.4	1.7%	87.8%
Priority Regional development (first 10 years) (Subscription)	Yes	17.0	1.4%	89.2%
Regional development (Zone 1) (Firm's capital deduction)	Yes	16.5	1.3%	90.5%
Development of agriculture or fishing (Corporate tax deduction)	Yes	15.8	1.3%	91.8%
Reinvest SICAR, or placement of capital risk funds (75 percent free)	No	11.8	1.0%	92.7%
Investment support (Firm's capital deduction)	Yes	11.7	1.0%	93.7%
Economic 'free zones' (Corporate tax deduction)	Yes	11.1	0.9%	94.6%

Source: IFC and ECOPA (2012)

Table 6

Tax Inequality

In addition to being expensive, the tax system created by the offshore-onshore dichotomy is also incredibly unfair. Though the Tunisian government increased corporate taxes on offshore companies from zero to ten percent recently, the offshore tax rate remains significantly lower than the 30 percent corporate tax imposed on onshore companies.⁶² Opinions in the Tunisian government and business

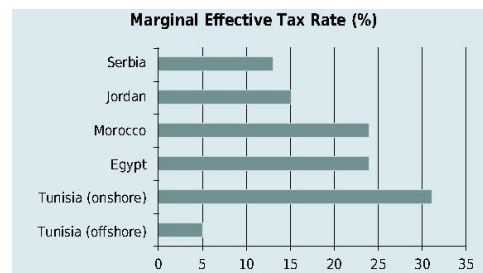


Figure 3

⁶⁰ Nucifero, Antonio, and Bob Rijkers. 2014.

⁶¹ Nucifero, Antonio, and Bob Rijkers. 2014. (p. 156)

⁶² Ibid.

community are divided about the wisdom of the increase. Some are worried that the ten percent increase could drive away investment and are wary of any further increases to the corporate tax rate. Nonetheless, there are estimates that the Tunisian government could net the same amount of revenue with a flat corporate tax of approximately 15 percent applied to all companies, onshore or offshore.⁶³

The tax regime also limits the trade between onshore and offshore companies that would create backward linkages and encourage technological spillover. The way the IIC is worded, if an onshore company would like to purchase inputs from an offshore company those inputs are treated as foreign imports despite the fact that the offshore company is located in Tunisia. The same is true of the reverse: If an offshore company would like to source inputs from an onshore company they will have to “import” those inputs. The IIC therefore not only deters offshore companies from sourcing inputs from domestic ‘onshore’ Tunisian firms but also deters onshore Tunisian firms from sourcing their inputs from domestic firms classified as ‘offshore.’ This creates a scenario where an onshore firm that does export some of its product will pay both a VAT tax and import tax.

Furthermore, while offshore companies can import inputs from abroad VAT-free, if an onshore company would like to export to the offshore company VAT-free they are required to receive authorization from the Director General of the Tunisian Tax Department. This process of authorization adds both time and uncertainty to any

⁶³ Nucifero, Antonio, and Bob Rijkers. 2014

interaction between onshore and offshore companies – and introduces yet another opportunity for intervention by potentially corrupt government officials.

Unpredictable Customs Processing

The onshore-offshore regime also creates distortions in the customs process. Offshore companies export their products abroad with ease. However, for an offshore company to “export” its good to the domestic market in its region it must receive authorization of the Tunisian Director General of Customs. Worse, if the offshore company would like to export to a different region inside Tunisia it will need further authorizations, one for each region. Goods must then be checked before leaving the offshore company and once again at arrival to the point of sale. As previously noted, after all this the “importing” onshore company purchasing the goods from the offshore company will still have to pay import taxes. As a result, those offshore companies that do choose to sell a portion of their goods domestically generally spin off an entire company because of the challenges that onshore administration cause.⁶⁴ These procedural difficulties are contrasted by ease with which offshore companies can source inputs internationally.

Unequal Competition Standards for Onshore/Offshore Firms

Divisions created by direct distortions to trade between the onshore and offshore regimes are compounded by the lack of competitiveness inherent in the highly regulated and under-resourced onshore regime. As previously noted, onshore products are often more expensive and inferior than their competitors on the global market. Multiple interviewees from both the government and business sector

⁶⁴ Author Interview, Cong Huang, March 7, 2015

confirmed the lack of quality products in the onshore sector as an inhibitor to trade between onshore and offshore companies. Consequently, offshore companies can source better inputs cheaper and with less red tape internationally. Predictably, the vast majority of companies choose to do so.

Analysis of Findings

The findings on the performance of Tunisian technology parks is mixed. As early as 2006, the Tunisian government was connecting technology parks to the looming challenge of employing a growing number of college graduates.⁶⁵ Unsurprisingly, the official state narrative of the parks' performance is extremely positive. A video published by the Tunisian Ministry of Technology and Communication labels El Gazala the "Silicon Valley of Tunisia," a place where "knowledge combines with practice."⁶⁶ This rosy image of the technology parks is echoed in publications from the state-run FIPA which states that El Gazala represents "an innovative environment based on creative intelligence and high technology" that is "creating synergy between education, research, and industry."⁶⁷ Housseem Tounsi, the director of El Gazala technology park, diverged from the official narrative to a degree, conceding that there have been "challenges" for the park. He elaborated, citing the lack of a defined process for initiating technology

⁶⁵ The report identified that college graduates would represent more than 56% of new job-seekers by 2006. Slim, Harbi. 2006. *Technoparks in Tunisia: Partners in Knowledge*. Tunis: Tunisian Ministry of Scientific research, Technology and Competency Development.

⁶⁶ Tunisian Ministry of Technology and Communications - <https://www.youtube.com/watch?v=KaDJUM31n0w>

⁶⁷ *Invest in Tunisia: Information and Communication*. 2010. Tunis, Tunisia: FIPA.

transfer between companies, the inability of the lack of “readiness” in the onshore market for providing inputs, and the suboptimal relationships between the research institutions and companies as the primary challenges.⁶⁸

Although not quite as rosy, the Tunisian media has also been relatively positive in its coverage of the operations of technology parks. Most articles concerning the parks are descriptive in nature, detailing investments with TND amounts or changes in management – rarely going so far as to criticize either the parks themselves or the broader government policy that gave rise to them. The Tunisian national newspaper El Maghreb trumpeted partnerships between Orange, a large French telecommunications company operating in El Gazala and onshore companies.⁶⁹ An article from Al Chourouk limited most of its coverage of technology parks to amounts invested and changes in government personnel.⁷⁰ This was by far the most common style of articles we found. Lastly, an article from El Maghreb focused on a recently announced new government plan to improve the performance of El Gazala.⁷¹

The narrative of the technology parks presented by the business community was much more critical. Mondher Khanfir, CEO of Wiki Startup, a private business incubator that seeks to promote promising startups through technology transfer, mentorship and technical assistance, told us the “technology park model has

⁶⁸ Author interview, March 9, 2015

⁶⁹ “شراكة ناجحة لنموذج الابتكار التكنولوجي الاجتماعي بين اورانج والجامعة الخاصة «ايسيري» /المغرب October 2014

⁷⁰ /الشروق “خليفة, محمد علي..” سوسة:فضاءات جديدة بالقطب التكنولوجي بتمويل أوروبي December 10, 2014

⁷¹ الرزقي, محسن.. “قطب الغزالة يطلق إستراتيجية جديدة للفترة 2015-2020 _ شعار جديد وبرنامج اتصالي واسع دوليا ومحليا /المغرب April 24, 2015 Housseem Tounsi, who we interviewed on March 9, 2015, was quoted in this article citing poor interaction between El Gazala and the broader economy. However, there was no follow up analysis by the newspaper.

failed.”⁷² Mohammed Malouche, of Tunisian American Young Professionals was less strident. In his opinion El Gazala was a relative success, but the other technology parks failed to follow through. He elaborated that the technology parks were “good at gathering common interests,” but less successful at encouraging business creation or interaction.⁷³

Perhaps the most interesting opinion concerning the Technology Park system and El Gazala came from Mustapha Mezghani. Mr. Mezghani serves as the Special Advisor to the ICT Department at Ministry of Higher Education, Scientific Research & ICT. Before his current position, Mr. Mezghani led multiple studies on Technology Parks as a consultant for the Tunisian government, including the parks at El Gazala, Sidi Thabet, and Sfax. This mix of public and private sector experience combined with direct interaction with the parks afforded him unique insight. Mezghani told us that El Gazala started well but faltered under new management. He cited lack of profit and the lack of services to encourage partnerships as particularly problematic for the parks. In reference to the low level of backward linkages between offshore and onshore companies in the technology parks Mr. Mezghani said the problem was twofold: 1) there were few products in the onshore market worth purchasing, and 2) even when suitable onshore firms did exist, the large MNCs were unaware of them.⁷⁴ These two points confirmed the findings in the literature on the low competitiveness of onshore companies and the overall lack of interaction between the two types of firms.

⁷² Author Interview, March 9, 2015

⁷³ Author interview, March 3, 2015

⁷⁴ Author interview, March 6, 2015

The disparity in these narratives is perhaps predictable. Government officials support the government policy, the business community points out the government's perceived flaws in an effort to elicit more government support and resources, and the media is somewhere in the middle. A similar dynamic can be found in multiple developed countries, including the U.S. However, the narratives fail to address the existence of the onshore-offshore dichotomy as a potential source of technology park problems. Mustapha Mezghani touched on distortions created by the onshore-offshore regime, but never suggested repealing the onshore-offshore policy. We believe there is a direct line between the underperformance of the technology parks and the distortions created by the onshore-offshore regime, but that the repeal of this policy may be very costly to certain individuals whose business interests depend on the continuation of the offshore policy. This may be why even critics from the business community are unlikely to directly challenge the continuation of the onshore/offshore dichotomy.

Backward Linkage Problems

The nearly complete division of the onshore and offshore regime is important because it undermines the potential for backward linkages to form between the onshore and offshore companies. A comprehensive 2008 World Bank report lists six potential causes for weak backward linkages between EZs and the broader economy:⁷⁵

- High Import Dependence
- Duty-free access to EZs

⁷⁵ Akinici, Gokhan, and James Crittle. 2008. (p. 37)

- Ban on EZs selling products domestically
- Lack of Competitive local firms
- Preference for international suppliers
- Lack of awareness of local suppliers

The Tunisian offshore regime contributes to all six of these issues. Offshore companies import the vast majority of their inputs and those imports receive 100 percent duty-free access. Though there is not an official ban on sales by the offshore regime to the local economy, the previously outlined administrative and authorization issues offshore companies must navigate create a de facto ban.⁷⁶ As previously noted, this ban also makes the onshore sector uncompetitive. Offshore companies prefer international suppliers not only because they are easier and cheaper to deal with as a result of IIC policy, but also because many large MNCs have pre-existing relationships with global suppliers. Finally, anecdotal evidence from interviews shows that even when qualified onshore firms are present, offshore companies are not aware of them because they have no incentive to search for alternative suppliers from the onshore sector.

Backward linkages are critical for spurring dynamic growth. In a system with functional backward linkages the onshore companies provide inputs and services for the offshore companies, which contributes to the development of managerial expertise and technology transfer associated with the best practices of the globally competitive offshore companies.⁷⁸ Unfortunately, Tunisia is failing to foster these linkages and undermining its potential for dynamic growth.

⁷⁶ Only 39% of offshore companies “export” goods to the Tunisian market. Among them, very few sell the full amount allowed (30% of total production). ⁷⁶ Nucifero, Antonio, and Bob Rijkers. 2014. (p. 138)

⁷⁸ Source FIPA Doc.

Impact on Technology Parks

Tunisian technology parks were designed specifically to encourage clustering of industries in the hopes that they would foster backward linkages and technology transfer between large MNCs and domestic firms, with the ultimate goal being to increase business and employment opportunities for Tunisian college graduates.⁷⁹ To that end, technology parks house both onshore and offshore companies. However, this re-design has not furthered either of these goals. The offshore sector remains centered on low value added industries and processes. Tunisia's export sophistication is much lower than that of other countries with similar factors according to the EXPY index.⁸¹ Worse, the EXPY results also do not take into account the majority of Tunisia's more sophisticated exports are merely assembled (not designed or produced) in Tunisia. This means the already poor rating is likely too high. Tunisia is also not creating enough jobs for its college graduates, who continue to grow both in total numbers and as a percentage of unemployed.⁸²

⁷⁹ Slim, Harbi. 2006

⁸¹ The EXPY index was developed by Hausmann, Hwang, Rodrik (2004). The EXPY is linked to the productivity level of countries exporting these goods, building on the assumption that the export products predominantly produced by higher income countries are more likely to be associated with a higher productivity level. The EXPY is based on PRODY. The PRODY of an exported good is calculated as the GDP per capita of each country exporting the good weighted by the export of each given country as a share of the sum of all export shares. Goods primarily exported by richer countries are presumed to be more sophisticated and receive higher PRODY. A country's EXPY is thus calculated as the PRODY of each good that country exports weighted by the share of these goods in the country's exports basket. Jordan is the only MENA country to have an EXPY superior to what has been expected given its GDP per capita level (as the two largest exporting industries in Jordan are the pharmaceutical industry and minerals).

⁸² Nucifero, Antonio, and Bob Rijkers. 2014. (p. 38)

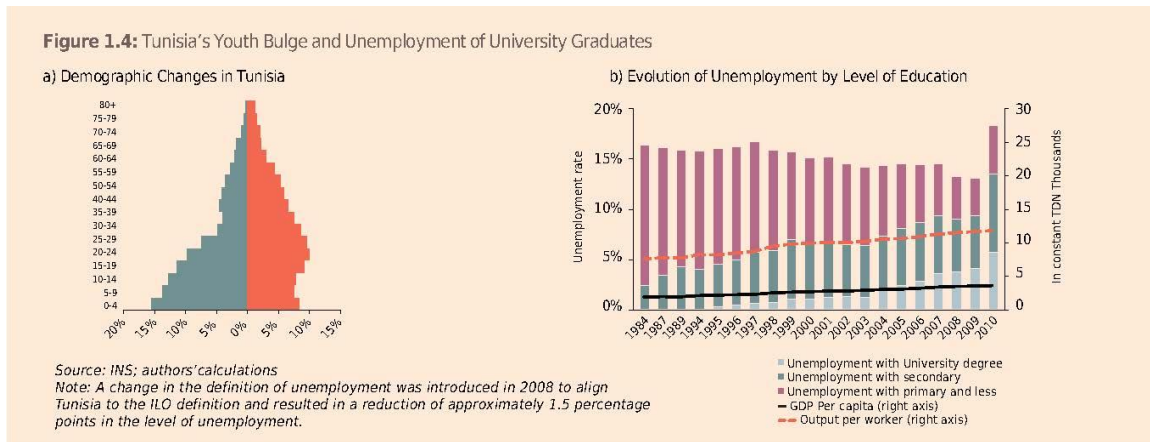


Figure 4

Some of the obstacles to backward linkages could be circumvented if large MNCs were also incorporating in the onshore regime. However, this simply is not happening; MNCs overwhelmingly operate in the offshore regime.⁸³ This problem of poor backward linkages exists even in El Gazala, which is regularly held up as a successful model for other technology parks to emulate. Indeed, El Gazala has been able to attract large high-tech MNCs to their grounds. These globally competitive companies, including Microsoft, Alcatel-Lucent, Ericsson, and Orange are the exact type of companies central to a successful technology transfer program. Yet all these companies operate under the offshore regime and have little interaction with the onshore companies located in El Gazala. According to our interviews offshore companies source the vast majority of their inputs internationally.⁸⁴ A government official with knowledge of the park said most joint initiatives and potential for technology transfer are relegated to PR stunts, mostly designed to appease investors

⁸³ Ibid. (p. 138)

⁸⁴ Author interview, Cong Huang, March 7, 2015

Author interview, Cheraz Tebrouea, March 4, 2015

Author interview, Mondher Khanfir, March 9, 2015

in their home countries. After doing much of the difficult legwork to convince the large MNCs to locate in Tunisia, and in a technology park in particular, the Tunisian government is failing to encourage the technology transfer and backward linkages so central to their policy

Policy Recommendations

The rapid expansion of technology parks in Tunisia indicates the government's commitment to the EZ model as a means for developing their economy. Given this commitment and the huge demand for jobs, it is critical that Tunisia maximize their economic benefit. In our analysis we identified two main problems limiting the economic impact of Tunisian EZs. First and foremost, the Tunisian onshore/offshore regime creates distortions that weaken backward linkages. Second, the incentives supplied to the offshore companies are extremely costly and have failed to generate meaningful gains in employment or increased revenues. We suggest three possible solutions for these distortions: 1) extend "equal footing" policies to onshore companies, 2) promote subcontracting from domestic companies, and 3) focus on less-costly non-fiscal EZ incentives.

Equal footing is a term used for extending the EZ incentives to those companies outside the EZ. This type of policy has a successful history of helping foster backward linkages between EZ companies and those operating in the domestic market. This policy enacted in Tunisia would mean allowing onshore producers duty-free access for inputs used in the creation of goods and services for "export" to offshore companies. This policy would not need to undermine the

protection afforded the domestic market. The Tunisian government could be provide onshore companies tax credits on imported goods, redeemable only through exporting to offshore companies. The tax credit should also be extended to inputs “imported” from offshore companies. Equal footing would increase the onshore sectors competitiveness, at least in regards to exporting to offshore companies, and eliminate the tax-related distortions limiting interaction between the two regimes. Importantly it would give a reason to sell to the offshore regime and open a new market for offshore providers, helping companies build relationships where none existed before.

After onshore companies receive “equal footing,” the Tunisian government should offer services to encourage offshore companies to subcontract from onshore companies, but not mandate subcontracting through domestic content requirements.⁸⁵ This could take the form of providing technical assistance to onshore companies seeking to subcontract from offshore companies and offering offshore companies detailed lists of onshore companies that could meet their needs. While this service already exists in Tunisian technology parks, at least in name, evidence from interviews indicates that there is meaningful encouragement from the Tunisian state. We believe the increased competitiveness of the onshore companies paired with aggressive marketing would lead to an increase in backward linkages.

⁸⁵ Akinici, Gokhan, and James Crittle. 2008. (p. 54) Analysis has shown local content requirements and other stringent mandates on backward linkages actually undermine EZ performance

Equal footing and the encouragement of subcontracting enjoy historical successes for fostering backward linkages. This is particularly evident in the cases of Korean and Taiwanese EZs. In both cases the government provided domestic producers duty-free access to inputs meant for products to be sold to EZ companies. In Korea the percentage of domestically sourced inputs for their Masan zone EZ jumped from just over 3 percent in 1971 to 24 percent by 1975, reaching 44 percent by 2005.⁸⁶ The rise in domestically sourced inputs correlated with a rise in domestic value added, rising from 28 to 52 percent between 1971 and 1979.⁸⁷ Taiwan also restructured their EZ incentives towards equal footing and encouraged domestic sourcing of inputs to great success. Domestic inputs rose from 7 percent in 1970 to 70 percent in 1979.⁸⁸ This helped rapidly lead Taiwan up the valued added chain, moving from hair dryers, to microscopes, to semiconductors in three decades. With this evolution, Taiwan saw huge growth in the number of college-educated employees in their EZs – a primary goal of the Tunisian technology parks.⁸⁹ In a paper comparing the EZs of Korea, Taiwan, and India, Aggarwal identified backward linkages as one of two factors leading to early EZ success of Korea and Taiwan and the failures of Indian policy.⁹⁰

Our final recommendation is for Tunisia to move the EZ incentive structure away from fiscal incentives. Tunisia should instead focus on incentives that improve

⁸⁶ Farole, Thomas, and Gokhan Akinci, eds. 2011. (p. 218)

⁸⁷ Ibid. (p. 218)

⁸⁸ Aggarwal, Aradhna. 872. "SEZ-Led Growth in Taiwan, Korea, and India: Implementing a Successful Strategy." *Asian Survey* 52 (5): October 2012. (p. 16)

⁸⁹ The proportion of college graduates employed in Taiwanese EZs reached 52% by 2010. Ibid. (p. 16)

⁹⁰ Failure to insulate the Indian EZs from the "prevailing" investment climate was the second factor cited. Aggarwal et al, 2012 (p. 27)

the business environment. These incentives should include 1) an expansion of customs streamlining found in the economic activities parks to technology parks, 2) emphasis on helping offshore companies find appropriate subcontractors, and 3) a gradual reduction of tax holidays available to offshore companies. Whereas the first two recommendations are meant to help encourage and nurture backward linkages between the offshore and onshore companies, this recommendation is meant to help lure the globally competitive MNCs to Tunisia in the first place.

The expansion of onsite customs to technology parks would be a huge incentive to any MNCs considering investing in Tunisia. The importance of this service to businesses was mentioned in three separate interviews.⁹¹ Also, as previously noted, dwell times for customs all above average and vary wildly increasing chances for corruption.⁹² Onsite customs would help encourage the MNCs to invest in the geographically delimited areas of the technology parks, encouraging clustering. It is important to note here that under current IIC offshore MNCs can incorporate anywhere in Tunisia and receive essentially the same benefits. Further, expansion of onsite customs to the technology parks would not be difficult. The model already exists, the Tunisian government need only copy its procedures in the PAEB and PAEZ.

Finally, the Tunisian government should gradually curtail their broad tax holidays for offshore companies. Tunisia's focus on fiscal incentives has attracted

⁹¹ Author Interview March 5, 2015 Cheraz Tebrouea, Marketing Director, PAEB
Author Interview March 7, 2015 – Mustapha Mezghani
Author Interview March 8, 2015 – Martin, CEO, Lingshang International

⁹² Nucifero, Antonio, and Bob Rijkers. 2014. (p. 151)

“footloose” investment leading to insecure and low-skilled assembly-style factor jobs.⁹³ These are no longer the types of jobs the Tunisian government is primarily seeking. Further, this would help the Tunisian government recover some of nearly 2.2 percent in GDP it loses in tax revenue just in tax exclusions that are wasted and end up going to a very narrow segment of offshore companies.⁹⁴ This huge savings could be used to partially offset the costs of the previous two recommendations meant to improve the business environment. Restructuring will necessarily entail withdrawing the privileges and subsidies from powerful business owners or other influential social groups. In order to gain the support from the “losers” of policy restructuring, the government must be willing to offer compensation. Only with the business elites on board can the government engage in the heavy lifting of policy reform.

There are fears in the Tunisian business community that the reduction of fiscal incentives will limit FDI. However, evidence from the PAEB supports this movement away from fiscal incentives. Even with a 100 percent corporate tax holiday available to offshore companies located outside the PAEB, companies chose to locate *inside* the PAEB and pay 10 percent corporate tax. With all other variable equal the only reason for these choices can be the provision of onsite customs and above average infrastructure provided by the park.⁹⁵ The PAEB proved so successful it nearly doubled its size to accommodate demand. Research from the World Bank

⁹³ Ibid. (p. 140)

⁹⁴ World Bank analysis indicates that the companies receiving the bulk of the incentives would still have invested in Tunisia in the absence of the incentives Ibid. (p. 162)

⁹⁵ All companies housed in the PAEB are offshore companies. Which means they had the option to locate outside the economic activities park and pay no corporate taxes.

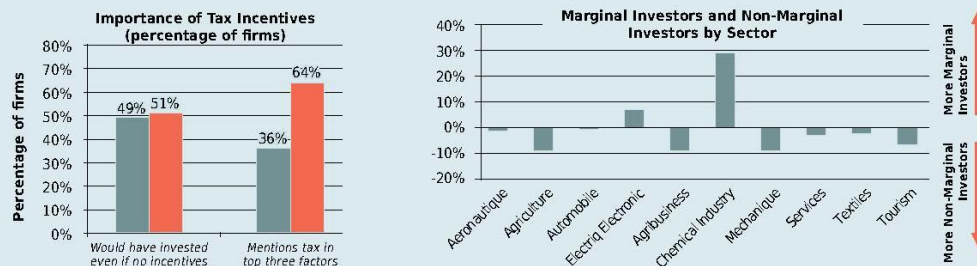
echoes the minimal draw of fiscal incentives to the high value-added sectors the Tunisian government is actively courting (see figure 5).⁹⁶

Table 4.1: Marginal and Non-Marginal Investors by Type of Firm

		Marginal Investors (Additional)	Non-Marginal Investors (Indifferent)
All firms	Fiscal incentives	21%	79%
	Financial incentives	14%	86%
	Fiscal and financial incentives	11%	89%
Offshore firms	Fiscal incentives	36%	64%
	Financial incentives	19%	81%
	Fiscal and financial incentives	19%	81%

Source: Authors' calculation using data from the 2012 Tunisia Investors Motivation Survey.

Figure 4.3: Importance of Tax Incentives in the Decision to Invest in Tunisia and Distribution of Marginal Investors by Sector



Source: Authors' calculation using data from the 2012 Tunisia Investors Motivation Survey.

Note: 'Non-marginal' investments are those investments that would have come in anyway. The chart on the right hand side is calculated as (a) - (b), where: (a) is the percentage of marginal investors (i.e., the number of marginal investors for each sector divided by total number of marginal investors); and similarly, (b) is the percentage of non-marginal investors (i.e., the number of non-marginal investors for each sector divided by total number of non-marginal investors).

Figure 5 – Source Nucifero, Antonio, and Bob Rijkers. 2014

These recommendations are meant to be actionable policy suggestions for improving Tunisian EZ policy based on our research and are by no means exhaustive. In general the streamlining and elimination of administrative burdens would go great lengths to improving the investment climate in Tunisia. Further, the gradual opening of the Tunisian onshore economy would significantly improve the competitiveness of the onshore regime increasing their attractiveness. However, we chose to forego these suggestions not because we do not believe them, but rather

⁹⁶ The chemicals products sector was the only sector that significantly indicating that it would not have invested in Tunisia without fiscal incentives. Ibid. (p. 142).

because fully expanding on the points would have resulted in a second paper of equal or greater length than this one.

Conclusion

The successful democratic election of Beji Caid Essebsi just four months ago shows how far Tunisia has come. As the other Arab Spring revolutionary countries experience military coups or slide further into civil war, Tunisia remains a solitary bright spot. However, many challenges remain for Tunisia – central among them is economic reform. As we have shown, poor economic opportunities were a large contributing cause to the revolution and remain a central concern for Tunisians.

The isolated nature of Tunisian EZs and the current focus of the IIC on fiscal incentives has not served the Tunisian people well. The starkly divided onshore-offshore regimes suppressed the growth of the high value added jobs needed for the swelling number of college graduates. Further reform of the EZ policy towards the promotion of backward linkages and technology transfer will not only improve the performance of the technology parks themselves, but also help invigorate the onshore sector – representing 50 percent of the economy. A truly successful Tunisian economy will demand productivity from both the onshore and offshore halves of its economy.

Tunisia, like all countries along the development spectrum, has been guilty of turning to the trendy economic policy of the time. However, recent actions by the Tunisian government are encouraging. The recent imposition of a ten percent tax on all new offshore companies indicates the state is taking a hard look at its fiscal

position vis-à-vis their EZ policy. The internal Tunisian government “Strategic Plan 2015-2020” report for technology parks is yet another positive sign that the Tunisian state is working to identify best practices in a structured cost-benefit analysis.⁹⁷ These are only the first steps on a long path of truly reforming the Tunisian economy and helping create the right environment for the job growth that its citizens so desperately need. The Tunisian people and government have overcome many obstacles in the last half a decade and can overcome this economic hurdle in the future.

⁹⁷ The “Strategic Plan 2015-2020” is a recently released internal government report outlining the costs and benefits of the technology parks and offering steps for improving performance.

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