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May 2017

# WEST BANK AND GAZA INCLUSIVE GROWTH DIAGNOSTIC



CONSULATE  
OF THE  
UNITED STATES OF AMERICA

April 26, 2017

The attached Inclusive Growth Diagnostic (IGD) was generated by an interagency team from USAID/West Bank-Gaza, the Consulate General in Jerusalem, and USAID's Middle East Regional Office in Frankfurt and Bureau for Economic Growth, Education and Environment in Washington. USAID has conducted IGDs in 23 countries around the world in cooperation with other U.S. departments, host-country governments, and bilateral development partners.

IGDs apply an economic methodology to identify the constraints to private-sector investment in a national economy. IGDs offer an explicit, evidence-based rationale for policy and programmatic priorities, leading to better prospects for sustained economic growth. In the most recent Quadrennial Diplomacy and Development Review (QDDR), the U.S. State Department and USAID made a commitment to collaborate on IGDs to advance inclusive growth and increase technical capacity. This study was commissioned by USAID/West Bank-Gaza to help guide future strategic planning and policy dialogue, in recognition of the direct linkages between private sector investment, job creation, and socioeconomic stability.

The IGD for West Bank-Gaza concludes, in line with other analyses completed in recent years, that high transaction costs resulting from restrictions and limitations around movement, access and trade are the most important constraint to private investment. Policy reforms by the Government of Israel (GOI) and the Palestinian Authority (PA) that facilitate the movement of people and goods and lower transaction costs are most likely to result in tangible, near-term improvements in the overall business climate across the West Bank and Gaza. The report also identified water and energy as important constraints to economic growth. Finally, the IGD noted that macroeconomic conditions, specifically the fiscal deficit, are also important.

A number of other issues, including access to land, especially in Area C, security, and the provision of basic services are also significant to economic growth, and the U.S. Mission will continue to prioritize these areas, too.

We welcome your feedback on the Inclusive Growth Diagnostic findings.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. Blome', with a long horizontal flourish extending to the right.

Donald A. Blome  
Consul General

# WEST BANK AND GAZA INCLUSIVE GROWTH DIAGNOSTIC

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<b>AHLC</b>	Ad-Hoc Liaison Committee	<b>PA</b>	Palestinian Authority
<b>DFID</b>	United Kingdom Department for International Development	<b>PCBS</b>	Palestinian Central Bureau of Statistics
<b>DISCO</b>	Distribution company	<b>PEC</b>	Palestinian Energy and Environmental Research Center
<b>DTF</b>	Distance-to-frontier	<b>PECS</b>	Palestinian Expenditure and Consumption Survey (PCBS)
<b>EADS</b>	USAID's Economic Analysis and Data Services	<b>PENRA</b>	Palestinian Energy and Natural Resource Authority
<b>EBRD</b>	European Bank for Reconstruction and Development	<b>PERC</b>	Palestinian Electricity Regulatory Council
<b>EGY</b>	Egypt	<b>PETL</b>	Palestinian Electricity Transmission Company
<b>EIB</b>	European Investment Bank	<b>PFI</b>	Palestinian Federation of Industries
<b>FDI</b>	Foreign direct investment	<b>PLA</b>	Palestinian Land Authority
<b>GDP</b>	Gross domestic product	<b>PMA</b>	Palestinian Monetary Authority
<b>GIZ</b>	German Corporation for International Cooperation	<b>PPA</b>	Power purchase agreement
<b>GNI</b>	Gross national income	<b>PSA</b>	Power sales agreement
<b>GOI</b>	Government of Israel	<b>R&amp;D</b>	Research and development
<b>HRV</b>	Hausmann, Rodrik, and Velasco	<b>ROW</b>	Rest of the world
<b>ICT</b>	Information and Communication Technology	<b>STWS</b>	School to work surveys (ILO)
<b>IEC</b>	Israel Electric Corporation	<b>SWTS</b>	School-to-Work Transition Studies
<b>IGD</b>	Inclusive Growth Diagnostic	<b>SWTS</b>	School to work transition surveys (ILO)
<b>ILO</b>	International Labor Organization	<b>TIMSS</b>	Trends in International Mathematics and Science Study
<b>ILS</b>	Israeli new shekel	<b>TUN</b>	Tunisia
<b>IMF</b>	International Monetary Fund	<b>TUR</b>	Turkey
<b>IPCC</b>	Intergovernmental Panel on Climate Change	<b>TVET</b>	Technical Vocational Education and Training
<b>ISR</b>	Israel	<b>UNCTAD</b>	United Nations Conference on Trade and Development
<b>JDECO</b>	Jerusalem District Electricity Council	<b>UNESCO</b>	United Nations Educational, Scientific, and Cultural Organization
<b>JOR</b>	Jordan	<b>UNRWA</b>	United Nations Relief and Works Agency for Palestine Refugees in the Near East
<b>LBN</b>	Lebanon	<b>USAID</b>	United States Agency for International Development
<b>MAS</b>	Palestine Economic Policy Research Institute	<b>USD</b>	United States dollar
<b>MCM</b>	Million cubic meter	<b>VAT</b>	Value-added tax
<b>MENA</b>	Middle East and North Africa	<b>WB</b>	West Bank
<b>MEPI</b>	Middle East Partnership Initiative	<b>WBG</b>	West Bank and Gaza
<b>MOR</b>	Morocco	<b>WDI</b>	World Development Indicators
<b>MSME</b>	Micro, small, and medium enterprises	<b>WGI</b>	World Governance Indicators
<b>MW</b>	Megawatt	<b>WHO</b>	World Health Organization
<b>NGO</b>	Non-governmental organization	<b>WRI</b>	The World Resources Institute
<b>OCHA</b>	United Nations Office for the Coordination of Humanitarian Affairs	<b>WTO</b>	World Trade Organization
<b>OECD</b>	Organization for Economic Cooperation and Development		

# EXECUTIVE SUMMARY

## *Background*

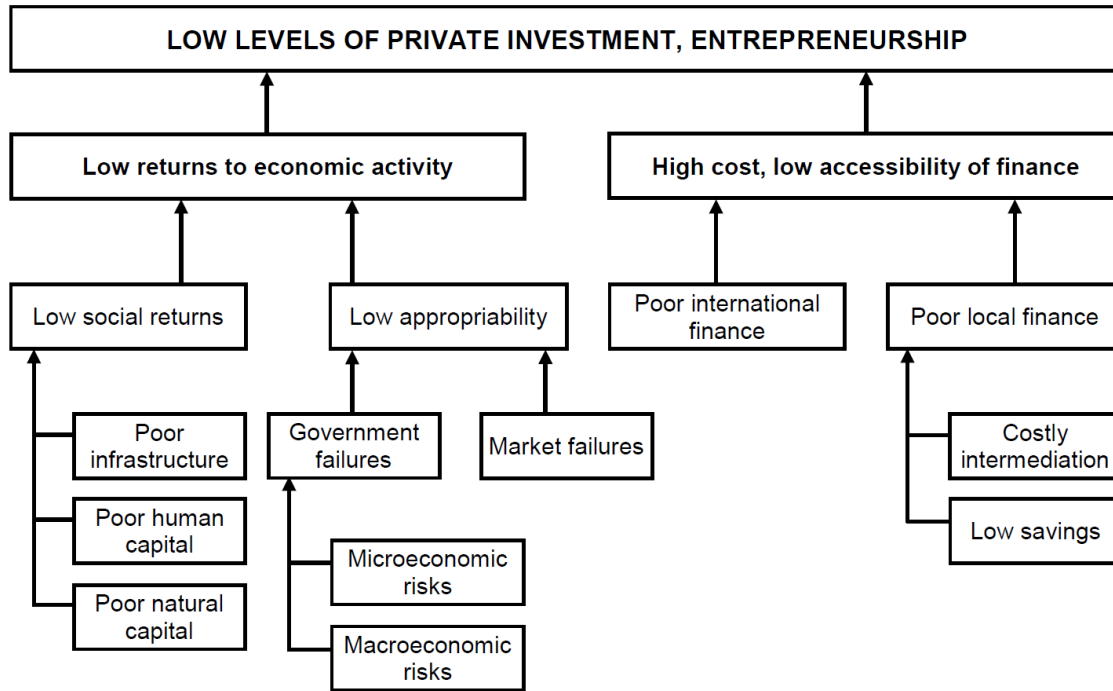
Since the signing of the Oslo Accord in 1993, the economy of the West Bank and Gaza (WBG) has struggled through more than two decades of war, conflict, and failed peacemaking attempts. Throughout that time, the economy of the Palestinian territories, which continue to be heavily influenced by Israeli security controls and restrictions, has moved erratically from periods of rapid expansion and rising employment to periods of slow growth, rising joblessness, and high inflation, with average GDP growth since 1994 offset by an equivalent growth in population. As a consequence, Gaza is poorer today than it was in 1994.

For strong and consistent economic growth to occur in the West Bank and Gaza, private sector investment and entrepreneurship are critical. This process, however, requires an understanding of the constraints to economic growth. To facilitate this process, USAID and the Department of State have conducted an inclusive growth diagnostic (IGD). The findings of that work are presented in this report.

## *Methodology*

The foundational assumption of the IGD methodology is that private sector investment and entrepreneurship are critical for sustained and inclusive economic growth. Furthermore, to support that investment, the private sector needs (1) access to finance at a reasonable cost and (2) an expectation that they will receive a reasonable return on their investment, both of which are further unpacked and examined in the form of a diagnostic tree (Figure 0.1). Using this tree, the IGD runs a series of data driven tests (see Chapter 1) to arrive at evidence-based conclusions regarding the bottlenecks to growth.

**Figure 0.1 Inclusive Growth Diagnostic framework ('tree')**



Source: Hausmann, Rodrik, and Velasco 2005

### ***Limitations of the Report***

The IGD methodology focuses on utilizing existing data to examine where binding constraints to growth currently exist. As such, it is not intended to assess alternative possibilities that may exist in the future but do not exist today. Therefore, while the findings in this report point to valid and critical problems that currently exist in the Palestinian economy, in highly political and volatile situations, the conclusions of these findings should be reexamined if dramatic shifts in the Israeli-Palestinian relationship were to take place (e.g. changes in access to Area C). Furthermore, the IGD methodology does not prioritize results based on political feasibility or objectives other than economic growth and makes no recommendations on whether or to what extent other factors should be considered in formulating final programming decisions.

### ***Findings***

The analysis identifies both primary and secondary bottlenecks to growth hereto for referred to as *binding constraints* and *secondary constraints/emerging issues*. More specifically, a constraint represents a factor that is keeping the economy from growing. Although it can be tempting to think of all problems in the economy as binding constraints, the IGD methodology takes as its starting assumption that constraints are binding to varying degrees. In other words, while a number of issues may be relevant for economic growth, it is still possible to rank order these, in

terms of “Which one, if relaxed will deliver the biggest bang for the effort.”<sup>1</sup> The purpose of the IGD methodology, therefore, is to use rigorous analysis and a strict methodological framework to help identify constraints at the highest levels.

## **Binding Constraint**

### Microeconomic Risks

The analysis finds that microeconomic risks in the form of high transaction costs for doing business represent the most binding constraint to economic growth. In particular, the analysis finds that restrictions to movement, access, and trade represent the largest bottleneck to growth. Movement and access issues include Israeli control of crossings in and out of the West Bank and Gaza, the absence of airports and seaports, deficiencies in the import and export logistics chain, and numerous checkpoints within the West Bank.<sup>2</sup> This conclusion reflects the conclusion drawn by multiple recent analyses of the Palestinian economy, including reports issued by the World Bank and the Peres Center for Peace.

At the individual firm level, the high cost of Israeli security restrictions and delays adds to transaction costs which reduce profitability of investments, limit access to customers and suppliers, increase the risk of business contracts, and prevent firms from pursuing more profitable activities. More specifically, in the context of the Palestinian economy, transaction costs include the high cost of shipping, long wait times at crossings, variability in administrative clearance times, burdensome and unique back-to-back shipping requirements, import restrictions via the dual-use list, and other many other costs associated with moving goods and people both within WBG and over the crossing points.

A related finding from this study is that the average firm in WBG is unusually small. Although the Middle East and North Africa (MENA) region are notable for atypically small firms, WBG nevertheless stands out with 87% of private sector firms in the small and medium category (from 5 to 99 employees), compared to 67% for the MENA region. This is particularly relevant since we also find evidence that smaller firms are less efficient at dealing with the high transaction costs that make up the binding constraint to the WBG economy. Moreover, while large firms create relatively more jobs (as opposed to small and medium sized firms) throughout the MENA region, only 1% of firms in WBG are large firms. Therefore, the small firm size has important implications for WBG’s ability to create jobs to absorb its growing labor force.

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<sup>1</sup> *Doing Growth Diagnostics in Practice: A ‘Mind Book,’* Ricardo Hausmann, Bailey Klinger, Rodrigo Wagner, CID Working Paper No. 177, September 2008.

<sup>2</sup> At present, Israel fully controls access to, and the development of, 61% of the land in the West Bank (Area C) for both civil and security administration, and partially controls an additional 28% through joint security administration (Area B). The Palestinian Authority fully controls only 11% of its territory in the West Bank (Area A), with civil administration and joint security control of another 28% (Area B).

## **Secondary Constraints and Emerging Issues**

### Infrastructure

Although not the most binding constraint on the economy, the analysis shows that water and energy also pose important secondary constraints. In particular, limited access to water constrains growth in the productive sectors of manufacturing and agriculture. A lack of access to reliable water sources prevents water-intensive industries (notably agriculture) from expanding, leading most Palestinian agriculture to be primarily rain-fed. In other words, the report finds that water is scarce and expensive with a high incidence of insufficiency, thus reducing the profitability and increasing the volatility of many Palestinian businesses. More importantly, there is clear evidence that sectors with little reliance on water have grown more quickly than others which suggests that relying on water as a critical input to production makes it much harder for firms to succeed. In fact, anecdotal evidence suggests that some producers are attempting to bypass the lack of available water via high-cost purchases from tankers.

Like water, energy is also an important secondary constraint to economic growth, particularly in Gaza where power outages are a persistent problem. Domestic production is extremely limited and electricity supplied from outside of WBG, especially in Gaza, is subject to cuts and limited hours of service, leading to people purchasing inefficient and costly generators.

While transport infrastructure is not, by itself, a binding constraint to growth, infrastructure deficiencies do contribute to the problem of high transaction costs to firms. Although improvements in isolated portions of the physical infrastructure network might be justified—to the extent that they help lower transaction costs for the private sector—the economic problems in transportation affecting private investment are much more a function of movement and access restrictions than the quality and adequacy of the physical infrastructure itself.

### Macroeconomic Risks

Macroeconomic conditions also pose an important potential secondary constraint. Specifically, the fiscal deficit, although improving, could benefit from an expansion of the domestic tax base as well as a reduced burden on fiscal expenditures posed by the public sector wage bill. The Palestinian Authority faces many long-term fiscal challenges including low tax revenues, declining budget support, and a high public sector wage bill. The largest source of revenue is clearance revenues, which are collected by the Israeli government and transferred to the PA accounts and expose the PA to additional fiscal risks should payments be delayed. However, there is evidence of improvement in domestic revenue collection and overall fiscal sustainability which suggests that macroeconomic risks may continue to decline over time.

## *Conclusions*

The analysis finds that high transaction costs to doing business, primarily associated with the movement of goods, access to commercial opportunities, and trade, are the most binding constraint to private sector investment and entrepreneurship in WBG. Limitations to movement and access include Israeli control of crossings in and out of WBG into Israel, the absence of airports and seaports, deficiencies in the import and export logistics chain, and numerous checkpoints within the West Bank. The analysis also finds that average firm size in WBG is unusually small. Since smaller firms are particularly disadvantaged when it comes to handling the high transaction costs of doing business, this finding is particularly noteworthy. Additionally, since larger firms create relatively more jobs than small and medium size firms, the absence of a significant numbers of larger firms means that the WBG economy will likely continue to struggle to create the necessary number of jobs to absorb its growing labor force.

Secondary constraints that the analysis has identified are access to water and energy and the macroeconomic environment, particularly as it pertains to the fiscal balance. Improvements in access to water and in the cost and reliability of energy (particularly for Gaza) can also be expected to improve WBG's growth prospects as can a continued improvement in the fiscal balance. However, without the reduction of transaction costs associated with the mobility of goods and trade as outlined in more detail later in this report, improvements in secondary constraints will have a more limited impact on overall growth.

**Figure 0.2 Summary of Diagnostic Tests in WBG**

	TESTS				IMPLICATIONS	
	Shadow Price	Impulse-Reaction	Circumvention	Camels & Hippos		
<b>BINDING CONSTRAINT</b>	<b>Microeconomic Risks</b>	■	■	■	■	Prioritize reforms to reduce the transaction costs of doing business, particularly in the area of trade, and encourage firm growth.
	<b>Infrastructure</b>	■	■	■	■	Prioritize water access, and for Gaza in particular, energy. Focus on the development of improved infrastructure at crossing points and ports to facilitate smoother, faster trade.
<b>SECONDARY &amp; EMERGING CONSTRAINTS</b>	<b>Macroeconomic Risks</b>	■	■	■	■	Prioritize political solutions to improve the stability and predictability of economic growth and inflation. Closely monitor fiscal deficits.
	<b>Market Failures</b>	■	■	■	■	
<b>NOT YET BINDING</b>	<b>Finance</b>	■	■	■	■	
	<b>Human Capital</b>	■	■	■	■	
	<b>Natural Capital</b>	■	■	■	■	

Key	
■	Test suggests constraint is significant.
■	Test suggests constraint is not significant.
■	Unable to conduct test.



## ACKNOWLEDGEMENTS

The members of the Inclusive Growth Diagnostic Team would like to thank the numerous people and institutions who provided their time and expertise to this project. We could not have completed this work without the generous contributions of colleagues in the West Bank and Gaza and Washington, DC.

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The authors of this report take full responsibility for any and all errors and omissions. The views expressed in these pages are those of the authors and not necessarily those of the USAID, USAID West Bank and Gaza, the Department of State, the U.S. Consulate General Jerusalem, or the United States Government.

--- WA, TH, MH, EK, TK, PO, LO, AT

# 1 OVERVIEW & SYNDROME

## 1.1 OVERVIEW

### 1.1.1 Purpose and motivation

The purpose of the West Bank and Gaza Inclusive Growth Diagnostic is to diagnose the most binding constraints to economic growth. The goal of this report is to inform the programming and decision-making for the USAID West Bank and Gaza mission and the Consulate General in Jerusalem.

### 1.1.2 Methodology

The growth diagnostic methodology was first described by Ricardo Hausmann, Dani Rodrik, and Andres Velasco (HRV) in 2005.<sup>3</sup> Hausmann, Bailey Klinger, and Rodrigo Wagner wrote the ‘Mindbook’ operationalizing the HRV methodology in 2008.<sup>4</sup>

“The foundational assumption of this methodology is that private sector investment and entrepreneurship are necessary for sustained economic growth. From this assumption, the methodology proposes two possible explanations for low levels of private investment and entrepreneurship: the expected private returns to investments are too low, or the cost of financing is too high. Under the first explanation, there is sufficient supply of financing for private sector investment to flourish but the demand for financing is too low because there are no profitable investments available to entrepreneurs. This can result from low social (economic) returns or low appropriability, which refers to the expectation that any profit from an investment will be ‘appropriated’ away for some reason. Under the second explanation, the cost of financing can be traced to either international financial markets or domestic financial markets.”

The authors of the methodology created an organizing framework, seen in Figure 0.1, to illustrate their argument. The chapters in this report broadly follow the divisions of this framework, or ‘tree.’

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<sup>3</sup> Hausmann, Ricardo; Rodrik, Dani and Velasco, Andrés. “Growth Diagnostics.” Harvard University, 2005.

<sup>4</sup> Hausmann, Ricardo; Klinger, Bailey and Wagner, Rodrigo. “Doing Growth Diagnostics in Practice: A ‘Mindbook.’” Center for International Development, Harvard University, Working Paper No. 177, 2008.

To operationalize the ‘tree,’ the authors offer four “principles of differential diagnosis” for identifying constraints to growth (Table 1.1).

**Table 1.1 Principles of differential diagnosis**

<b>Principle</b>	<b>Explanation</b>	<b>Example</b>
<i>The shadow price of the constraint should be high.</i>	The shadow price indicates whether the opportunity cost or value to a consumer is greater than the market price.	A price ceiling on gasoline creates a black market in which consumers pay a higher price.
<i>Movements in the constraint should produce significant movements in the objective function.</i>	When the constraint is relaxed, there is a positive market reaction (investment and entrepreneurship increase). Referred to as the impulse-response test.	Reducing tax rates results in an increase in investment when tax rates are a constraint.
<i>Agents in the economy should be attempting to overcome or bypass the constraint.</i>	Economic actors should be taking observable steps to circumvent the constraint. Referred to as the circumvention test.	Firms purchase generators instead of relying only on the grid when electricity is a constraint.
<i>Agents less intensive in the constraint should be more likely to thrive, and vice versa.</i>	Firms should flourish if they are better-suited to the domestic business environment. Referred to as the “camels and hippos” test.	Firms that are less dependent on infrastructure (e.g. electricity) fare better when infrastructure is a constraint.

Source: Ricardo, Klinger, and Wagner 2008

No single principle or test is sufficient to declare a given constraint to be the most binding for economic growth. Instead, the methodology requires conducting multiple tests across each ‘node’ of the framework and aggregating these tests to make the most credible conclusion. Table 1.2 illustrates how the nodes are connected to specific sectors and conclusions.

**Table 1.2 IGD Nodes, Relevant Sectors, and Relevant Implications**

<b>Node</b>	<b>Sectors / Issues</b>	<b>Negative Implications</b>
<b>Low Social Returns</b>		
<b>Infrastructure</b> (Bad infrastructure)	Water, telecommunications, energy, roads, ports, etc.	Poor inputs to production leading to low returns on investment
<b>Human Capital</b> (Low Human Capital)	Education, health system, labor market, etc.	
<b>Low Appropriability</b>		
Government Failures		
<b>Microeconomic Risks</b> (Enabling Environment)	Property rights, court system, regulation, corruption, firm-level tax policy, etc.	Inability to reap an adequate return on one's investment
<b>Macroeconomic Risks</b> (Enabling Environment)	Monetary policy, exchange rate policy, fiscal management, inflation, etc.	High uncertainty of potential return to investment
Market Failures		
<b>Coordination Failures</b>	Market efficiency (e.g., availability of information on supply and demand)	Missed opportunities for maximizing profits
<b>Information Externalities</b>	Intellectual property rights legislation, patent laws, prevalence of R&D	Slow adaptation of technologies lowering profitable returns to investors
<b>High Cost of Finance</b>		
<b>Availability of Finance</b> (Low domestic savings and poor international finance)	Foreign Direct Investment (FDI), financial institution access, financial market depth	Lack of access to finance
<b>Cost of Finance</b> (Poor local Finance)	Financial market regulations, overhead costs, investment risk, collateral policies	Finance is available but too expensive to ensure a profitable return to investment

Source: Modified from South Sudan Growth Diagnostic Scoping Mission. USAID, 2013.

To apply the principles of differential diagnosis, we must benchmark the country of interest against other comparable countries, or “comparators.” Following USAID guidelines for conducting an IGD, our team employed a variety of criteria for selecting comparators, including the indicators in Table 1.3, as well as historical, political, and geographic considerations. Based on these criteria, we selected the following comparator countries: Israel, Jordan, Egypt, Lebanon,

Turkey, Morocco, and Tunisia. Israel was included because of important historical and political ties and the inseparable economic relationship that exists today between the two countries. Turkey is included as an “aspirational” comparator because of its higher GDP per capita and status as a middle-income country, and it provides some geographic diversity outside of the Arab world. At times, we also compare data to an aggregate of the Middle East and North African countries, if data is available, or averages of a unique set of MENA countries on a case-by-case basis as determined by the chapter author. Special comparator selections are described in sources or footnotes.

**Table 1.3 Selected criteria for WBG comparators**

*Data are 5-year averages, 2011-2015*

	GDP per capita (2010 US\$)	GDP per capita growth (annual %)	GDP per capita, PPP (2011 US\$)	Population growth (annual %)
<b>Israel</b>	32,409	1.6	31,286	1.9
<b>Turkey</b>	11,108	2.7	18,760	1.7
<b>Lebanon</b>	7,669	(4.3)	14,247	6.0
<b>Tunisia</b>	4,225	0.7	10,537	1.0
<b>Jordan</b>	3,981	(0.4)	10,252	3.1
<b>Morocco</b>	3,094	2.5	7,034	1.4
<b>Egypt</b>	2,667	0.3	10,097	2.2
<b>West Bank and Gaza</b>	2,554	2.8	4,546	3.0
<b>MENA</b>	3,999	(0.7)	11,596	1.8
<b>World</b>	9,917	1.5	14,128	1.2

Source: World Bank WDI

### 1.1.3 Scope and limitations of the analysis

While the IGD methodology can lead to significant and valuable insights that inform better decision-making, we want to make its limitations clear. Most importantly, this report will not prescribe specific interventions in response to our diagnosis of the most binding constraints to growth. In the same way that diagnosis and treatment of a disease are separate medical functions, we leave the ultimate ‘treatment’ of the binding constraints to others and hope that our analysis informs their decisions.

This limitation has three important implications. First, our analysis does not account formally for current reforms or initiatives that may impact economic growth. This stems from our reliance on data, which has not yet been collected on events still in motion. Second, our analysis does not attempt to incorporate the political economy of WBG into any prescriptions or recommendations. The priorities and policies of stakeholders in WBG and its neighbors may

make it more or less likely that an intervention targeting the binding constraint to growth will succeed. Third, our analysis does not account for the cost-effectiveness of interventions. Beyond the potential political constraints to intervention, there may also be financial or economic constraints that limit the feasibility of action.

Further research, such as a political economy analysis of reform options for the WBG, or cost-benefit analysis at the project level, would provide a more comprehensive understanding of the types of interventions that would be both feasible and impactful.

#### **1.1.4 Challenges**

##### *The Separation of the West Bank and Gaza*

The West Bank and Gaza are most often grouped together as a single entity, and the authors of this IGD maintain that practice. However, as any close observer of Palestinian politics knows, today the West Bank and Gaza function essentially as separate territories both politically and economically. The Fatah-controlled West Bank is home to the official Palestinian Authority government while Hamas-controlled Gaza is largely autonomous, and restrictions of movement, access, and trade in Gaza are far more stringent than that of the West Bank. The authors of this IGD are very aware of these issues, and although the West Bank and Gaza are grouped together as a single entity, we strive to identify to the extent practicable the uniqueness of each territory and the particular economic constraints of each. However, a close examination of each territory separately is not feasible in many cases due to data availability, and at times authors exclude the distinction if an issue is similar in both territories and separate discussions would become redundant.

##### *Data availability*

Data availability is generally very good for WBG, and the Palestinian Central Bureau of Statistics, the Palestinian Monetary Authority, the Ministry of Finance, and other government institutions provide excellent public data sources in both Arabic and English. The most limiting factor is the lack of disaggregation between the West Bank and Gaza, particularly in World Bank data from the World Development Indicators. Some data sources provide disaggregation today but not in earlier iterations.

##### *Benchmarking and time series*

Our historic analysis usually begins in 1994 with Oslo Accords and the establishment of the Palestinian Authority, and in most cases, data is available starting at least in the year 2000. However, benchmarking and time series are challenged given the political separation of the West Bank and Gaza in 2007 when bifurcation divided a country that was until that time far more politically and economically homogenous. For example, the World Bank Enterprise Survey did not disaggregate by region in the 2006 survey, yet by the time of the follow-up survey in 2013, the territories had undergone significant changes affecting private sector firms, particularly in

areas of trade. The lack of disaggregation between surveys makes it impossible to do detailed analysis on disaggregated regional data.

## **1.2 SYNDROME: The Unrealized Political Settlement**

The HRV growth diagnostic methodology recommends that the team identify a ‘syndrome’ that links the identified ‘symptoms,’ or constraints to growth. The failure of the Palestinian and Israeli governments to reach a political settlement is the syndrome linking the economic constraints in the West Bank and Gaza.

Without a political settlement, WBG continues to operate as a partially-autonomous state without full legal recognition in many international organizations. After more than a century of war, peace negotiations, and agreements, WBG finds itself in a messy, unresolved status as neither a fully independent state nor a sub-national entity within another state. It does not control its own borders. Its people cannot easily move between the two territories or internationally. It cannot build its own seaports or airports. It does not have its own currency or monetary policy. It cannot collect its own customs revenues and must rely on revenue transfers from Israel. The list of economic constraints is long, and ultimately they originate from the syndrome that is the unresolved political settlement.

The syndrome is no surprise to experts who study Palestinian politics and economics, and the related issues of movement, access, and trade are referenced in almost any report on the Palestinian economy. However, it is not obvious how those issues specifically impact private sector investment and entrepreneurship. In other words, it is not obvious how issues related to national politics and international relations impact firm-level decision making. The IGD methodology used in this report provides a rigorous methodological means to answer that question.

### **1.2.1 From Syndrome to Constraint**

The syndrome manifests itself in the form of economic constraints in every branch of the IGD diagnostic tree. In finance, Palestinian banks are constrained by limitations on cash transfers from WBG to correspondent banks in Israel, and large amount of vault cash affect interest rates and lending practices. Social returns are low because Palestinians do not have full control of territory in the West Bank and cannot access many of the natural resources, namely water and offshore Gaza Marine gas fields, which they would otherwise use. Workers must pass through onerous checkpoints to reach better-paying jobs, and a skilled worker in Gaza who would like to work for a firm in the West Bank cannot do so without an Israeli permit. Palestinian firms must import and export goods through Israeli customs and security procedures. Shipments must undergo back-to-back transfer from Palestinian trucks to Israeli trucks to move across borders and crossing points.

These are just a few of the many examples of how the political syndrome impacts private sector investment and entrepreneurship. The challenge for the IGD methodology is to parse through these constraints and make a determination of which constraint is the most binding. The syndrome is not a constraint, but it ties together the constraints to tell a cohesive story of economic growth in WBG and the challenges faced in boosting growth rates. The remaining chapters of this IGD examine each node of the IGD diagnostic tree in detail to determine which constraint is most binding to economic growth in WBG, namely high transaction costs.



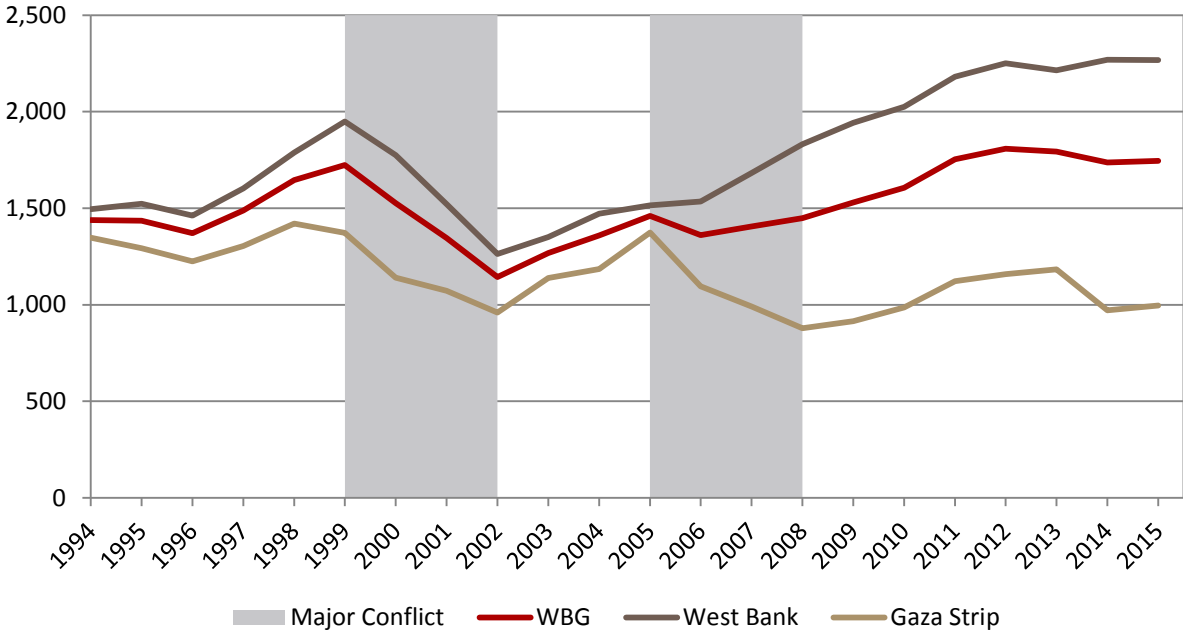
## 2 THE WEST BANK AND GAZA GROWTH EXPERIENCE

This chapter provides an overview of the recent economic experience of the West Bank and Gaza (WBG) while providing context through comparator countries and aggregates. After an initial summary of trends in gross domestic product (GDP) growth, the chapter identifies the components and contributors to growth to the national economy including an overview of private investment, trade, labor market conditions, and poverty. Subsequent chapters examine the economic policies, institutions, and other forces that have shaped these outcomes.

### 2.1 West Bank and Gaza Economic Growth 1994-2016

Economic growth in WBG has been erratic in recent decades, with periods of major conflict negatively impacting economic growth. Other factors such as political and security instability, decreasing competitiveness, restriction of movement and access, and decreasing donor aid have also combined to dampen economic growth. As shown in the Figure 2.1, economic growth was strong between 1996 and 1999 due to a significant entry of public and private capital and the relative stability following the Oslo peace process and the founding of the Palestinian Authority (PA) in 1994. However, the effects of the Second Intifada in 2000, with increased violence and political instability, put an abrupt end to growth, and the economy in both the West Bank and Gaza severely contracted over the next three years. Growth resumed from 2003 to 2006 in response to renewed stability.

**Figure 2.1 WBG Real GDP Per Capita, 1994-2015 (in 2004 prices, U.S. dollars)**



Source: PCBS

The growth patterns of the West Bank and Gaza changed significantly following major political and economic upheaval in 2006. At this time, internal divisions drove apart the Fatah-controlled West Bank and Hamas-controlled Gaza, and a combination of international sanctions and the Israeli closure policy on Gaza caused immediate and significant economic declines in Gaza. Over the next three years, the West Bank continued its steady growth trajectory while the Gaza economy contracted to its lowest level in modern history. Meanwhile, in the West Bank, the steady economic growth that began in 2002 continued during a time when international donor support increased, the PA adopted economic policy reforms, and restrictions on movement eased.

However, from a peak of 12% GDP growth in 2011, the WBG economy dipped into a gradual decline starting in 2012 and culminated in an economic contraction in 2014. The Gaza economy was particularly impacted in this period by the Israeli destruction of illegal tunnels used for smuggling between Gaza and Egypt and by the war with Israel (Operation Protective Edge) in 2014. Donor budget support for the WBG had earlier contributed to public sector-led economic growth, but after 2009, official development assistance decreased, straining the PA budget. Furthermore, movement restrictions imposed by Israel and a tight fiscal situation contributed to declining private and public sector investment, resulting in lowered competitiveness of the WBG economy. Moreover, most of the private sector investment that took place focused on residential construction rather than capital equipment and infrastructure in productive, tradable sectors such as agriculture and manufacturing.<sup>5</sup>

While WBG GDP growth rebounded in 2015, it was at a relatively low rate of 3.4%, reflecting continued low levels of foreign investment and donor assistance, as well as Israeli policy impediments, such as the suspension of clearance revenue transfers to the PA early in 2015. Nevertheless, Gaza's economy grew at 6%, faster than the West Bank's 2.6% growth, fueled by an up-tick in reconstruction activity following the 2014 war with Israel, as well as by the easing of some economic restrictions by Israel.

Overall, the frequent periods of political and military conflict between Israel and WBG have had serious and negative impacts on overall growth rates. There has also been a widening disparity in growth between the West Bank and Gaza, particularly after 2006 when the Israeli closure policy on Gaza began and trade was effectively eliminated. Since 1994, real GDP per capita in the West Bank has increased by 52% while GDP per capita in Gaza has decreased by 26%. It is an alarming reality that Gaza is poorer today than it was 23 years ago.

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<sup>5</sup> IMF, pg. 14, "West Bank and Gaza" Selected Issues, September 11, 2013.

**Table 2.1 GDP Growth Rates in the West Bank and Gaza**

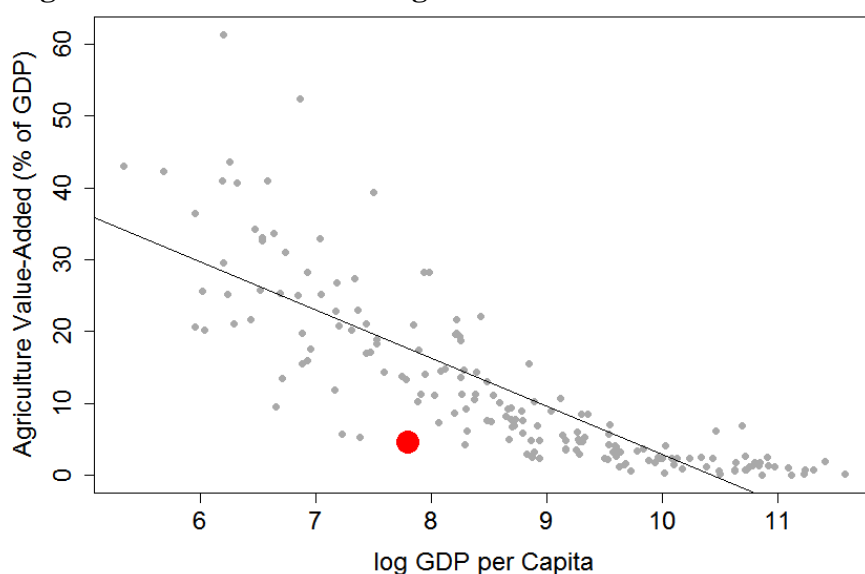
Average Real GDP Growth Rates					
	<u>1995-99</u>	<u>2000-02</u>	<u>2003-05</u>	<u>2006-08</u>	<u>2009-15</u>
<b>West Bank &amp; Gaza</b>	3.80%	-12.80%	8.50%	-0.10%	2.80%
West Bank	5.60%	-13.40%	6.30%	6.60%	3.10%
Gaza	0.50%	-11.10%	12.90%	-13.70%	2.30%

Source: PCBS

## 2.2 Growth Decomposition

Examining the breakdown of total GDP into sub-components through growth decomposition can be helpful to obtain information about the drivers of the economy and how it changes over time. As shown in Figure 2.3 the Palestinian economy has followed service-oriented growth trajectory since the conclusion of the 1993 Oslo Accords. Services as a percentage of GDP has steadily grown from 60% in 1994 to 72% today with a concomitant decline in agriculture from 13% to 4.5%. The contribution of industry to overall GDP has declined slightly, but the manufacturing component of industry remains strong and has changed little over the past 20 years. Although these trends are typical for many developing countries, WBG’s high share of services (72%) and low share of agriculture (4.5%) makes it an outlier for a country of its level of economic development and is more typical of an upper-middle or even high income country. The data suggests that the Palestinian agriculture sector is underperforming and producing below expected output. As Figure 2.2 below shows, the agriculture sector represents a very small share of GDP given the WBG’s level of development.

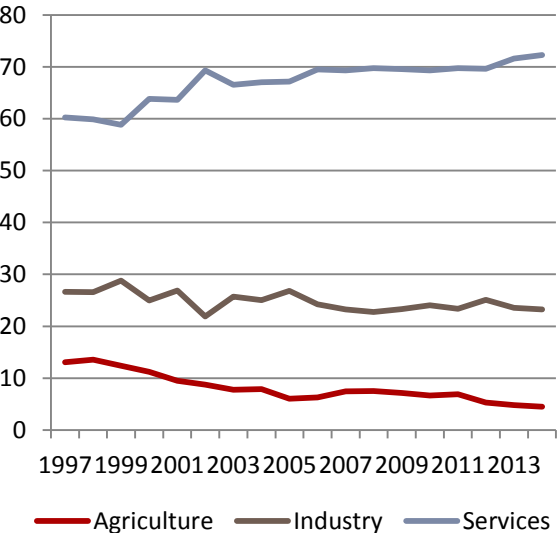
**Figure 2.2 Relative share of agriculture sector for income level**



Source: WDI

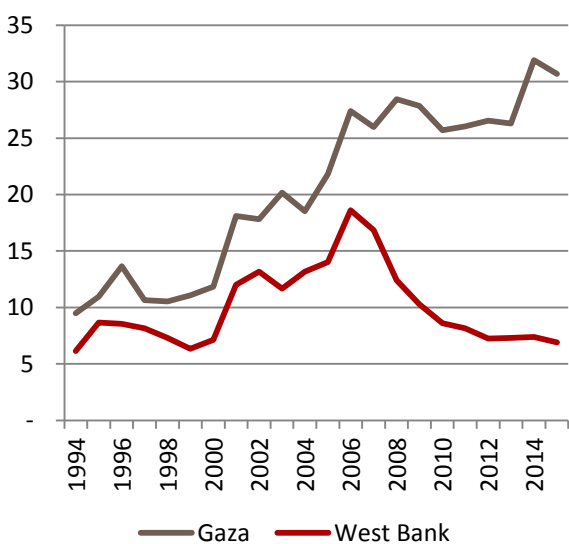
An alternative growth decomposition provided by the Palestinian Central Bureau of Statistics shows the breakdown of GDP into private sector, government, and tax components. The most noteworthy trend is an overall decline in private sector contributions to GDP and the corresponding increase in government spending through public administration and defense. The rise in government contribution to GDP reflects increased public sector employment and a preference for many workers to find steady and high-wage government jobs. When disaggregated by region, as shown in Figure 2.4, the public sector in Gaza plays a significantly higher role in economic output compared to the West Bank, and the difference between regions really became stark after the 2006 Hamas takeover of Gaza and the restrictions to movement, access, and trade imposed on Gaza. Since then, private sector growth and productivity have declined significantly and left the government with a larger role in the economy as a percentage of GDP.

**Figure 2.3 West Bank and Gaza, Value-Added by Sector, World Bank (% of GDP)**



Source: WDI; PCBS

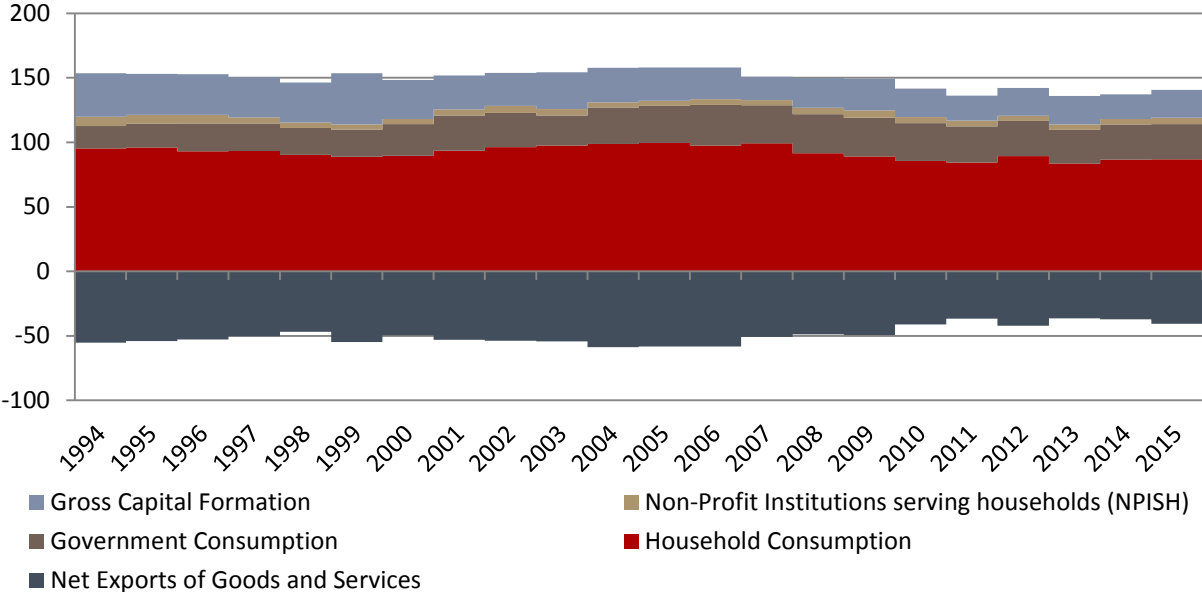
**Figure 2.4 Value-Added by Public Administration and Defense (% of GDP)**



A second major trend in the growth pattern is an overwhelming economic reliance on consumption. Figure 2.5 displays the expenditure components of Palestinian GDP from 1994 to 2015. The share of private household consumption makes up a significant portion of GDP with an average of 92% for this period, though it has declined to 86.9% as of 2015. Government spending is the second highest contributor to GDP growth, which is not surprising given the increase in contribution by public administration and defense to GDP growth since 1994. Meanwhile, gross capital formation (a proxy for investment) went from 33.8% of GDP in 1994 to 21.7% in 2015. The large trade deficit (-40.7% in 2015) makes this aspect of the WBG’s economy unique given that it is far bigger than any comparator country, and the majority of its trade is with one country (Israel). The trade imbalance has improved steadily as a result of a rise

in exports from 13.3% of GDP in 1994 to 21.5% in 2015. The microeconomic chapter elaborates further on the trade dynamics.

**Figure 2.5 WBG Expenditure Components as percent of GDP**

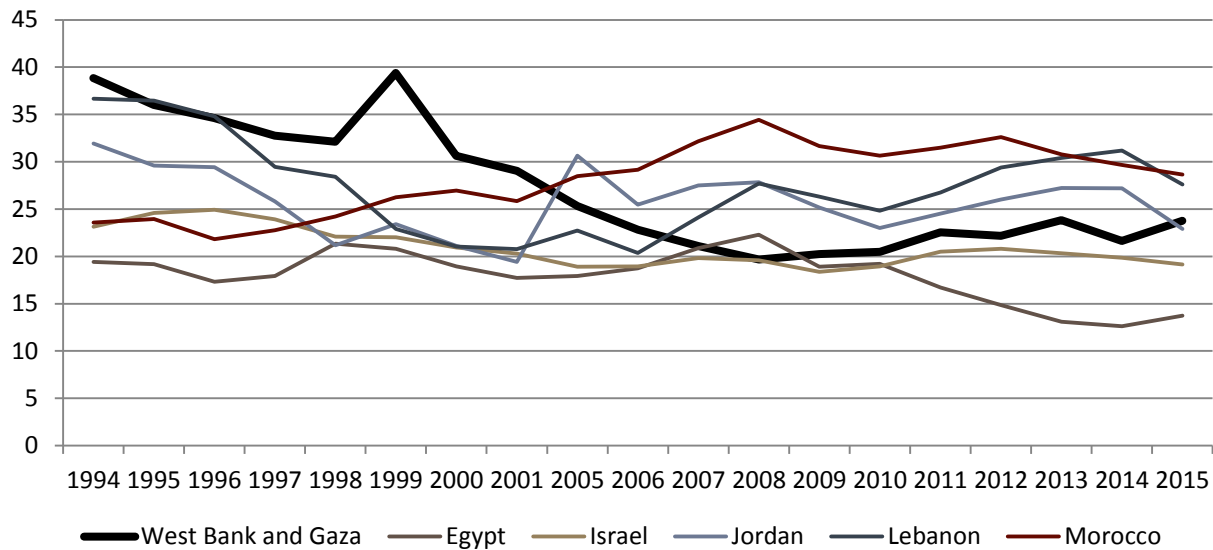


Source: PCBS

### 2.3 Private Investment

Private investment is an important contributor to economic growth, and an examination of investment levels and trends is important to better understand the contributions and challenges to private sector led growth. Unfortunately there is limited data on private capital formation in the WBG, but looking at the broadest levels of investment (gross fixed capital formation), WBG ranks near the median of the comparator countries, as shown in Figure 2.6. In fact, total investment levels ranked third in 2015 among comparators at 23.7% of GDP.

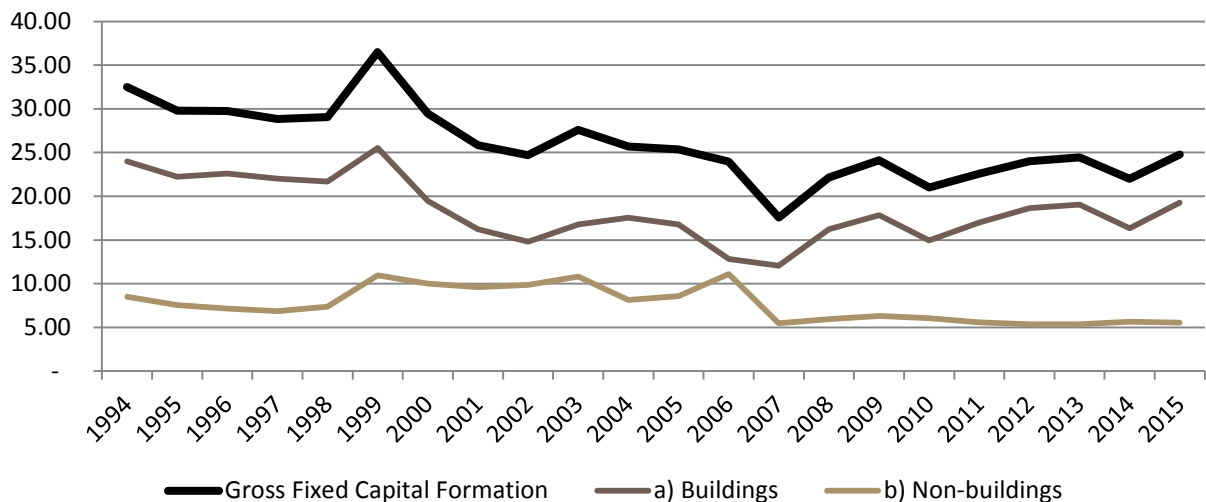
**Figure 2.6 WBG and Comparators Gross Fixed Capital Formation as Percentage of GDP**



Source: WDI

Disaggregating this data for the WB and Gaza, it is evident that investment in real estate and related construction makes up the bulk of gross capital formation, as evident in Figure 2.7. The likely explanation for this is that given the economic uncertainty due to political, security, and economic instability, investment in real estate is seen as most secure. Unfortunately for the growth of other parts of the economy, non-real estate investment has not risen to more than 11% of Palestinian GDP.

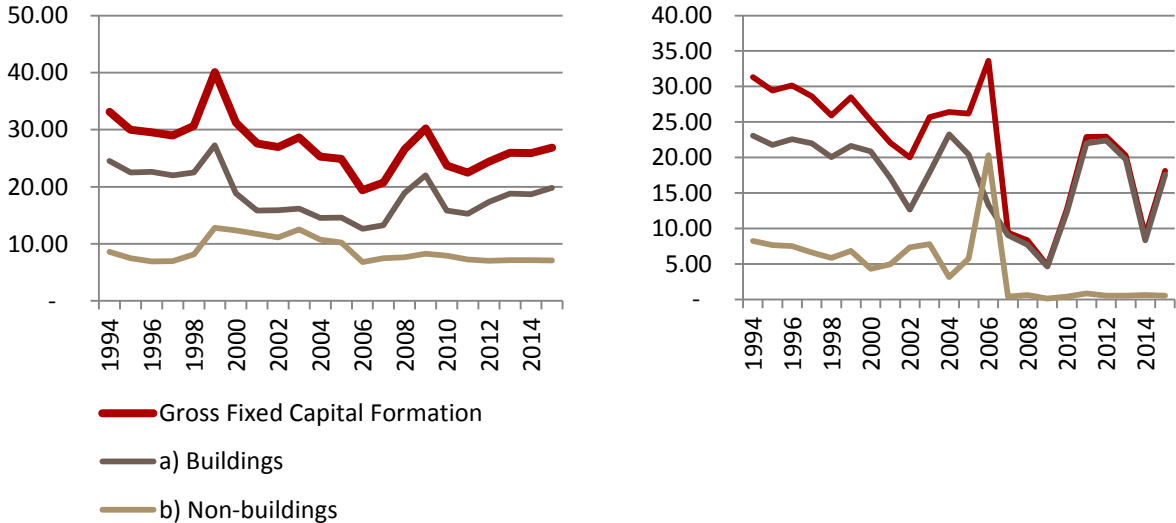
**Figure 2.7 WBG Gross Fixed Capital Formation and Components as Percentage of GDP**



Source: Palestinian Central Bureau of Statistics (PCBS)

For the West Bank, investment in buildings has been steadily increasing since 2006, whereas all other investment has remained flat at less than 8% of GDP (Figure 2.8a). For Gaza, real estate investment has been the bulk of gross capital formation and, due to the collapse on other investment, the only significant investment since 2007 (Figure 2.8b)

**Figure 2.8 Gross Fixed Capital Formation and Components in West Bank (left) and Gaza (right) as percent of GDP**

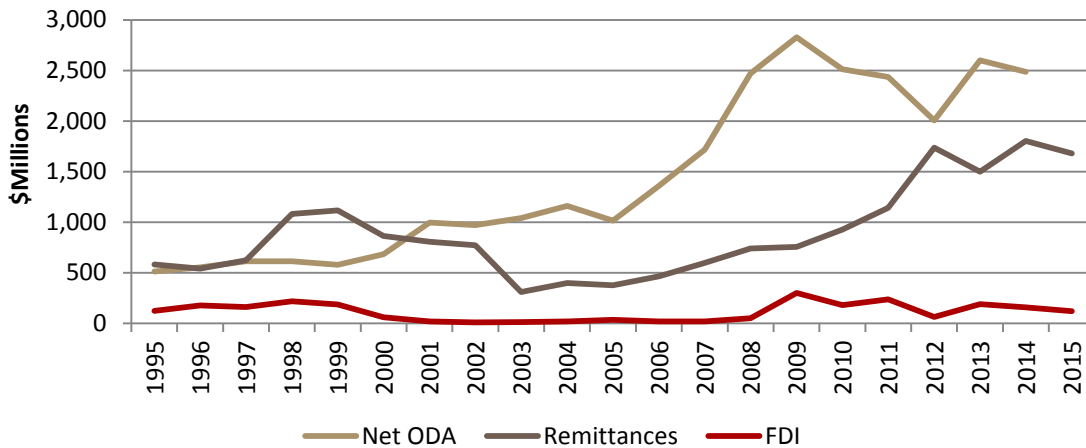


Source: PCBS

### 2.4 Capital Inflows

The West Bank and Gaza has received most of its capital inflows from official development assistance and remittances, as evident from Figure 2.9. Capital inflows from foreign direct investment (FDI) have been very low and are in fact the lowest among all comparator countries. Official development assistance in particular jumped from \$580 million in 1999 to almost \$1 billion just two years later, and they have remained the largest source of capital inflows since then. Remittances are the second most important source of capital inflows. While remittances significantly declined to less than half a billion USD from 2003 to 2006, they recovered in 2005 and have remained over \$1 billion since 2011. FDI decreased significantly in 2000 during the time of the second Palestinian Intifada and remained low through 2008. After increasing to more than \$300 million in 2009, FDI levels leveled out to similar levels seen in the late 1990s. According to UNCTAD, FDI inflows cumulative 2006-2015 was less than \$1.5 billion, and averaged less than 1% of GDP during this period.

**Figure 2.9 FDI, Net ODA, and Remittances for WBG (nominal values)**



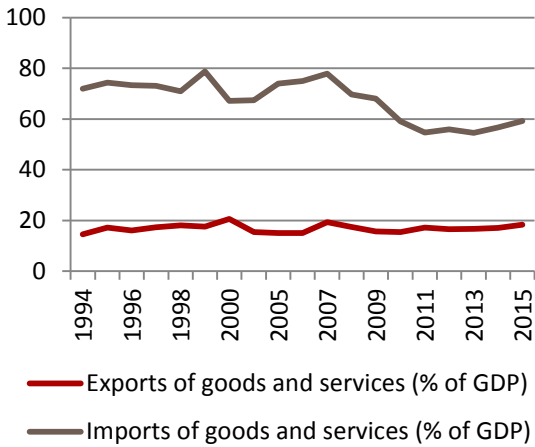
Source: WDI

## 2.5 Trade

Trade can be a significant driver of economic growth as it increases competition, expands markets for producers, and lowers prices for consumers. However, in the West Bank and Gaza, and particularly Gaza, trade is highly constrained, and the economy is not open to full and autonomous trade relations with other world economies. The key aspect of Palestinian trade is its uncommon reliance on a single trading partner, Israel, for the bulk of trade activities, including both imports and exports. WBG also runs a substantial trade deficit, which currently stands at 41%. While a trade deficit is not inherently detrimental to economic growth, WBG's trade deficit is by far the highest among comparators and reflects a serious imbalance in their trade relationships that is in large part caused by political rather than economic factors. The challenges posed by political and security instability, including physical access between the West Bank and Gaza, likely contributes to the low export levels. One of the most damaging aspects of Palestinian trade is the absence of any airport or seaport in either the West Bank or Gaza. Given that the territories lack a functioning airport or seaport, the only outlets to foreign markets are through land crossings controlled by Israel. Even trade to Jordan must pass through Israeli security control.



**Figure 2.10 WBG Exports and Imports (% of GDP)**



Source: WDI

Exports of goods and services have consistently been 20% (or less) of GDP for the past two decades, and imports as a share of GDP declined from 70% of GDP during the 1990s to less than 60% of GDP today. The majority of this trade is exclusively with Israel.

## 2.6 Labor Market Dynamics

The Palestinian population living in the West Bank and Gaza was 4.8 million in 2016, of which 2.9 million (60%) live in the West Bank and 1.9 million (40%) in Gaza. Although the population growth rate is 2.8% overall (but slowing), it is much higher in Gaza (3.3%) than in the West Bank (2.5%). The working-age population (15+) has been increasing at a very rapid 3.6% per year, although it has slowed from a higher 3.9% annual growth rate a decade earlier and will continue to slow to below 3% over the next decade. As in many other countries in the Middle East, young people under 25 comprise a majority of the population, and they are entering their prime adult working years.<sup>6</sup>

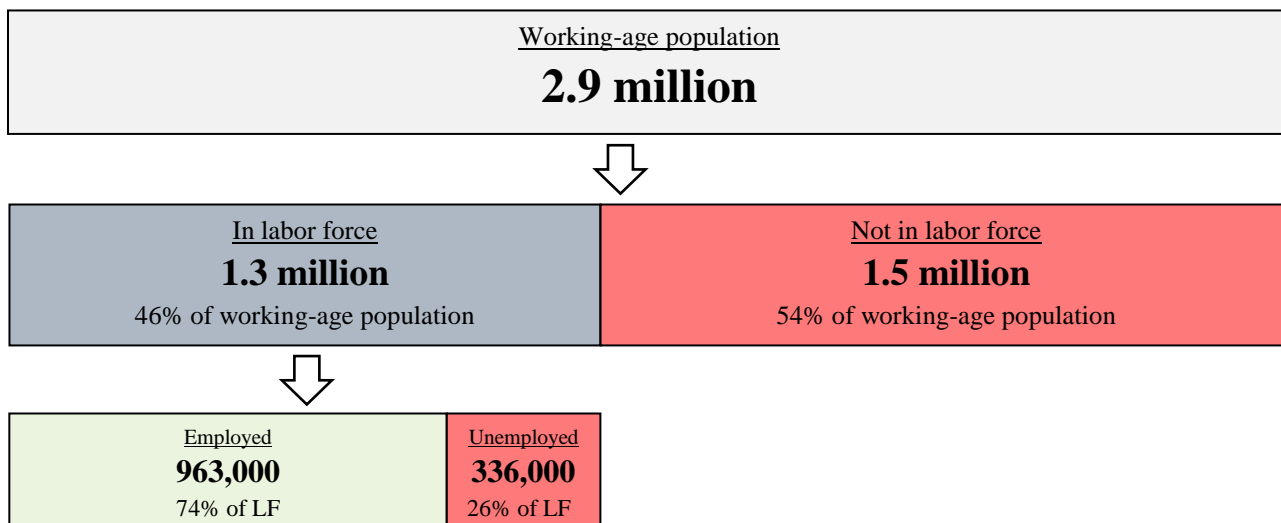
Of the total population of 4.8 million, 61% (2.9 million) are of working age (15-64). However, many Palestinians, including most women, are not active in the labor force. The total labor force, which consists of those people employed or actively looking for work, is made up of only 1.3 million Palestinians, or 45.8% of the working-age population. Of those, 26% are unemployed.

Another key feature of Palestinian trade is that WBG is not a member state of the World Trade Organization (WTO) and therefore does not benefit from membership privileges such as dispute resolution and most-favored-nation status. Despite not being a WTO member, WBG has signed international trade agreements with the United States, Canada, and the European Union, and other interim or partial agreements with the European Free Trade Association, Russia, Turkey, Jordan, Egypt, and Saudi Arabia. The PA is also part of the Greater Arab Free Trade Area.

The Palestinian economy does not benefit from any significant exposure to the global economy.

<sup>6</sup> Demographic details obtained from ILOStat.

**Figure 2.11 Labor Market Disaggregation**



Source: PCBS

There are also noticeable geographic and gender dynamics at play in the labor market. The unemployment rate in Gaza is 41% compared to just 17.3% in the West Bank, which is consistent with a number of other economic indicators such as the lower economic growth rates, higher poverty, and higher dependence on government spending in Gaza compared to the West Bank. In addition, a significant gender divide exists with 71.9% of men in the labor force compared to just 19.1% of women. Women are also much more likely to be unemployed (39.2%) than men (22.5%). Only about 12% of working-age women are actually working in a job, since most are not counted in the labor force. It is important to note that these are official statistics and do not reflect household and informal employment. The informal sector is very large in WBG and is discussed in detail in Chapter 5.

Despite moderately strong GDP growth, overall unemployment has remained high (in the range of 23-26%). Government efforts to reduce unemployment have resulted in a large and expanding public sector workforce, and the public sector wage bill now stands 17% of GDP. This is higher than Tunisia (13%), Egypt (8%), and Jordan (5%).<sup>7</sup> Moving forward, the Palestinian territories need to create 750,000 jobs just to prevent the current unemployment rate of 23% from increasing through 2030, and 1 million jobs to bring the unemployment rate down to 10% by 2030.<sup>8</sup> This would essentially double the number of employed persons.

## 2.7 Poverty and Inequality

Estimates of the poverty rate in West Bank and Gaza vary by the source and the poverty line used. The first source is the set of official reports on the results of the Palestinian Expenditure

<sup>7</sup> IMF, West Bank and Gaza Selected Issues, Sept. 11 2013.

<sup>8</sup> Portland Trust, "Beyond Aid." November 2013. Status quo scenario assumes average growth of 6.6%, and the scenario of 10% unemployment assumes annual growth of 8.2%.

and Consumption Surveys (PECS), administered by the Palestinian Central Bureau of Statistics (PCBS). This PCBS data source estimates that a large share of the population – most recently 25% or more – lives in poverty, many in extreme poverty, as defined by the Palestinian definitions. The second source is PovcalNet, the World Bank’s online tool for analyzing national poverty data. PovcalNet data implies that poverty in the WBG – as measured by an internationally comparable poverty line – is below 1%.

Both sources are based on the same underlying set of household surveys. The differences between them almost entirely reflect the very different poverty lines used in each: The “relative poverty line” used by the Palestinian Authority to measure poverty in 2009 is estimated to be \$7.60 per person/day, whereas the International Extreme Poverty Line (IEPL) used to measure “extreme poverty” among developing countries is \$1.90 per person/day.

According to data from PovcalNet, the prevalence of extreme poverty in WBG is far lower than in any of the comparator countries.<sup>9</sup> The other notable point is that WBG achieved near-zero rate of extreme poverty at a much lower level of average household consumption (\$411 per person per month at 2011 PPP) than Israel (\$937), and slightly lower than Turkey (\$438).

Table 2.2 summarizes the prevalence of poverty in the WBG territory based on the national Palestinian Authority poverty line (as explained above, estimated to be \$7.60 per person). The prevalence of poverty has long been substantially higher in Gaza than in the WB, and this gap has widened over time. As a result, 57.3% of all Palestinian residents living below the poverty line in 2011 lived in Gaza. Urban poverty rates have recently surpassed those in rural areas. This pattern is probably a reflection of the high rates of poverty in the densely populated, urbanized Gaza, rather than evidence that living standards in rural areas are actually higher. The residents in refugee camps, who make up 9% of the total Palestinian population, have the highest poverty rates at 35.4%.

**Table 2.2 Patterns of poverty in West Bank and Gaza, 2003-2011**

(Percent living below national poverty line)

	2003	2005	2006	2009	2010	2011	Contributions to total, 2011
<b><i>Palestinian Territory</i></b>	35.5	29.5	30.8	26.2	25.7	25.8	100.0
West Bank	30.9	22.3	24.0	19.4	18.3	17.8	42.7
Gaza	44.7	43.7	50.7	38.3	38.0	38.8	57.3
<b><i>Locality</i></b>							
Urban	32.0	24.9	29.3	26.2	25.8	26.1	73.7
Rural	38.5	32.5	29.5	26.6	21.9	19.4	13.1
Refugee Camp	41.2	39.9	38.6	26.2	32.4	35.4	13.2

Source: PCBS, “Poverty in the Palestinian Territory,” various issues.

<sup>9</sup> PovcalNet provides no poverty estimates for Egypt, Jordan, or Lebanon due to concerns about the accuracy of the 2011 Purchasing Power Parity exchange rates estimated for those countries.

In terms of inequality, growth in the WB and Gaza has been inclusive. Among the comparators with available data, WBG has the highest share of income held by the poorest 40% of the population. Moreover, based on the most recent available survey, real median consumption per person grew 1.8% per year from 2004-2009. This growth rate was identical to that achieved by Israel (1986-2010), faster than Morocco (1.3% per year 1984-2007), and somewhat slower than Tunisia (2.4% per year 1985-2010) or Turkey (2.3% per year 1987-2013). In addition, the measure of inequality known as the Gini coefficient<sup>10</sup> is lowest in WBG among comparator countries. In short, the available evidence strongly suggests that economic growth in WBG is highly inclusive, implying that its main challenge is to achieve and sustain faster growth.

**Table 2.3 Inequality Indicators: Gini Coefficient and Bottom 40% Income Share**

Country	Gini	Bottom 40% Income Share	Year
Israel	42.78	14.23	2010
Morocco	40.72	17.04	2006
Turkey	40.18	16.33	2013
Tunisia	35.81	18.33	2010
WBG	34.46	19.62	2009

Source: WDI

## 2.8 Conclusion

Despite the early promises for stable economic growth due to the prospects for peace following the Oslo Accords, the Palestinian economy has experienced erratic growth due to the instability of the political and security situation. Key conflict events, such as the second Palestinian Intifada and war in Gaza, have particularly destabilized the economy, and today the West Bank and Gaza are nearly completely split in both economic and political terms. The two regions have followed drastically different growth trajectories since 2006, and today Gaza is poorer than it was in 1994. Household and government consumption is the main driver of economic activity and has crowded out the savings and investment necessary for faster growth. Moreover, the primary capital inflows are remittances and development assistance rather than FDI. In addition, WBG's economy is highly import-dependent and reliant on Israel as its main trading partner. All in all, this paints a challenging set of circumstances for economic growth prospects. As long as barriers to trade, access, and movement remain high, the Palestinian economy will continue a path of low growth and high joblessness.

<sup>10</sup> The Gini coefficient is a measure of the “extent to which the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution.” A Gini index of 0 represents perfect equality in the distribution of income, while an index of 100 represents perfect inequality. (Source: World Bank Development Research Group)

## 3 FINANCE

### 3.1 Introduction

This chapter examines the role of finance in facilitating private sector investment in the West Bank and Gaza. Its underlying assumption is that reasonable access to and cost of financing are critical to private sector growth and, therefore, to economic growth. In this regard, the data for WBG paint a picture of firms that are disconnected from financial markets and not seeking external financing. As discussed in other parts of this analysis, a likely argument that can be made is that firms in WBG are reacting to factors that keep firm size sub-optimally small and therefore in no need of external financing. Therefore, since private sector firms in WBG are largely disconnected from financial markets, the unavoidable conclusion is that access to finance is not a binding constraint to private sector investment.

This observation (reflected in the data that we discuss below) is also noted in the 2016 report, “What’s Holding Back the Private Sector in MENA: Lessons from the Enterprise Survey,” (MENA ES Report) produced jointly by the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB) and the World Bank (WB). Specifically, the report states, “[The Middle East and North Africa Enterprise Survey (MENA ES)] economies have a smaller share of credit constrained firms than other regions of the world. But this is not driven by successful loan applications; instead, many firms report that they have enough capital and thus do not need a loan.”

Importantly, it does not follow that the financial sector is necessarily actively courting the interest of the private sector to apply for loans. According to the MENA ES reports, banks in the region are, in fact, highly conservative in their lending practices. Thus, despite comparatively high volumes of available credit, only a small segment of the private sector, primarily comprised by large firms, is financed by the formal financial sector.<sup>11</sup> Furthermore, lending to the public sector is substantial both within WBG and throughout the MENA region. Although this does not necessarily mean that there is widespread “crowding out” of the private sector by the public sector, it does suggest that the financial sector is heavily invested in public sector lending.<sup>12</sup> Thus, even if private sector demand for credit were to increase to more growth-oriented levels, highly conservative bank lending practices and a heavy focus on lending to the public sector could eventually pose a barrier to private sector growth if not corrected.

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<sup>11</sup> “What’s Holding Back the Private Sector in MENA? Lessons from the Enterprise Survey,” p.35.

<sup>12</sup> Crowding out is occurs when increased government borrowing leads to reduced private sector investment, typically, by driving up interest rates, although a system of credit rationing can also be employed to the same effect. In this instance, however, since private sector demand for credit is so low, government borrowing cannot be said to crowd out the private sector. Nevertheless, high exposure to the public sector by banks can lead to a lack of portfolio diversification which, in turn, can lead to systemic risk.

## 3.2 Examining the data

**Table 3.1 Banking sector characteristics**

<b>Economy</b>	<b>Deposits (% of GDP)</b>	<b>Loans to deposits</b>	<b>Credit to government (% of GDP)</b>	<b>Credit to private sector (% of GDP)</b>
Egypt	60	48	35	29
Jordan	94	76	41	70
Lebanon	228	38	72	84
Morocco	89	81	17	71
Tunisia	55	128	5	69
West Bank and Gaza	64	43	12	24
<b>MENA</b>	<b>85</b>	<b>59</b>	<b>25</b>	<b>48</b>

Source: World Bank MENA ES Report, 2016

Looking at Table 3.1 from the MENA ES Report, we find that private sector credit as a percentage of GDP is especially low for WBG and we find the same pattern when we compare WBG to a group of comparators using a wider set of factors and focus on data from 2014.<sup>13</sup> Here we see that WBG improves but continues to stand out in terms of low private sector credit (Table 3.2). Importantly, although the private sector's share of credit did increase for WBG between 2012 and 2014, the Palestinian territories still lagged behind the MENA region average and the vast majority of the IGD comparator countries.

**Table 3.2 Private Sector Credit and Real Interest Rates for Comparator Countries (2014)**

<b>Country</b>	<b>Credit to the Private Sector (% GDP)</b>	<b>Average Real Interest Rate</b>
Egypt	25	0.18
Jordan	69	5.4
Lebanon	96	6.0
Tunisia	75	--
Turkey	70	--
Israel	65	2.5
<b>WBG</b>	<b>33</b>	<b>4.2</b>
<b>MENA</b>	<b>41</b>	<b>--</b>

Source: World Bank Global Financial Development Database (credit data), and WDI (real interest rates)

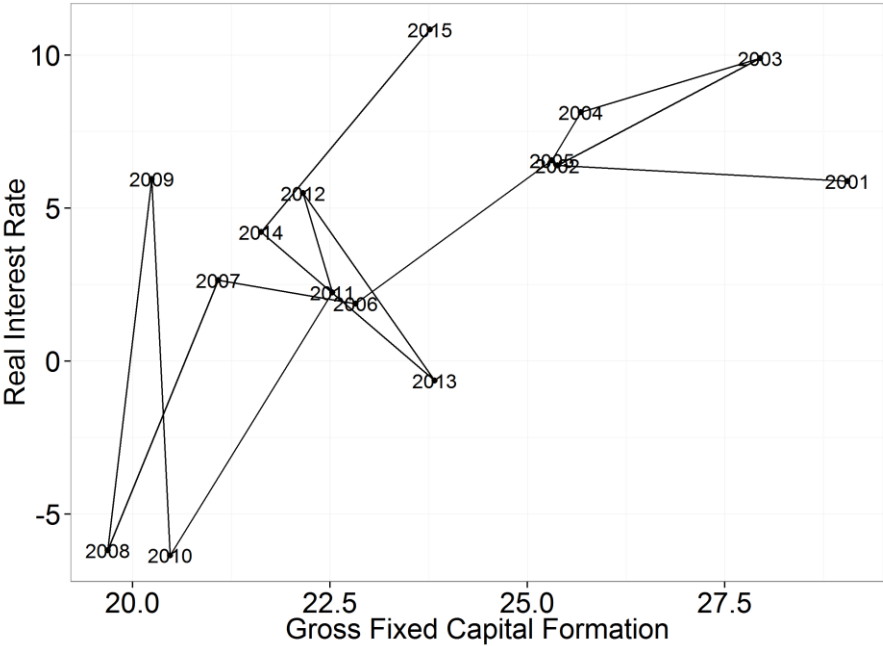
However, on its own, low private sector credit cannot tell us whether what we observe in the data primarily arises from low demand or low supply. To investigate this further we need to examine a wider range of indicators. Specifically, when low levels of investment are driven by a low supply of credit, this will typically be reflected in unusually high interest rates and/or collateral requirements. However, the real interest rates in WBG are not atypically high (Table 3.2). In fact, at 4.2%, real interest rates in WBG were slightly lower than for most of its comparators (where data were available).

<sup>13</sup> We choose 2014 out of an abundance of caution to ensure that data do not reflect the lingering effects of the global financial crisis (2008-2012).

Additionally (see Table 3.1), savings deposits as a percentage of GDP although not extremely high for WBG, were also not unusually low. In fact, WBG performed better on this score than the average for either low-income or middle-income countries over the same period. This also supports the idea that low demand, rather than low supply, is driving the observed low private sector investment in the Palestinian Territories.

Another compelling piece of evidence supporting the idea that demand rather than supply is driving equilibrium investment in the region comes from examining the data presented in Figure 3.1. The figure plots real interest rates against equilibrium investment levels between 2001 and 2015. Looking closely at the period 2001-2002 and the period 2008-2010 demonstrates the clear lack of correlation between interest investment demand and investment supply. Specifically, between 2001 and 2002 equilibrium investment changed dramatically while real interest rates increased only slightly. Conversely, between 2008 and 2010, real interest rates shifted dramatically—increasing significantly between 2008 and 2009 before falling again—while equilibrium investment stayed nearly unchanged. What this suggests is that demand for credit is not reacting to changes in the price of credit, which is what we would expect to see if supply rather than demand were the main determinant of equilibrium investment.

**Figure 3.1 Real Interest Rate and Gross Fixed Capital Formation**



Source: WDI

Turning our attention to collateral requirements, a similar pattern emerges. Specifically, we find that collateral requirements for WBG are low when compared to the MENA region average (see Table 3.3). Only 131% of the total loan value is required in WBG compared to the 203% average for the MENA region. But how does this stack-up when comparing collateral requirements against some of the comparator countries?

**Table 3.3 2013 Value of Collateral needed by Firm Size (% loan value)**

Country	Average	Small	Medium	Large
Jordan	127	122	144	127
Egypt	273	296	317	156
Tunisia	252	259	246	241
Turkey	199	193	213	188
Lebanon	208	184	250	195
Israel	121	126	111	119
WBG (2006)	158	136	194	103
WBG (2013)	131	N/A	91	N/A

Source: World Bank Enterprise Survey, 2006 & 2013

Note: Data for WBG are presented for 2006 and 2013 because individual data for 2013 by firm size are not available.

Table 3.3 shows data on collateral requirements for WBG and a subset of its comparators. Here WBG appears roughly in line with its comparators, with Lebanon being a clear outlier. This suggests that, as with interest rates, collateral requirements do not reflect a region suffering from an unusually low supply of credit relative to demand.<sup>14</sup>

Another critical piece of the puzzle is reflected in how firms themselves see access to credit when it comes to defining barriers to doing business. Interestingly, only large firms in WBG of 100+ employees ranked access to finance as one of the top three constraints to doing business in the 2013 West Bank and Gaza Enterprise Survey. This represents just 1% of the private sector as almost 99% of all firms in the West Bank and Gaza region have less than 100 employees, while 87% employ only 5-20 employees. This compares to an average of 67% in the rest of the MENA region. (See the microeconomics chapter for a more detailed discussion of firm size).

**Table 3.4 Use of financial services by firm size in West Bank and Gaza**

Note: Numbers in brackets represent world averages for the same year

Indicator	Small Firms	Medium Firms	Large Firms
Bank loan/line of credit	4% (29)	19% (42)	33% (51)
Require collateral	69% (77)	67% (82)	53% (81)
No need for loan	72% (47)	83% (45)	62% (47)
Using bank to finance investment	10% (22)	9% (28)	12% (31)

Source: World Bank Enterprise Survey, 2013

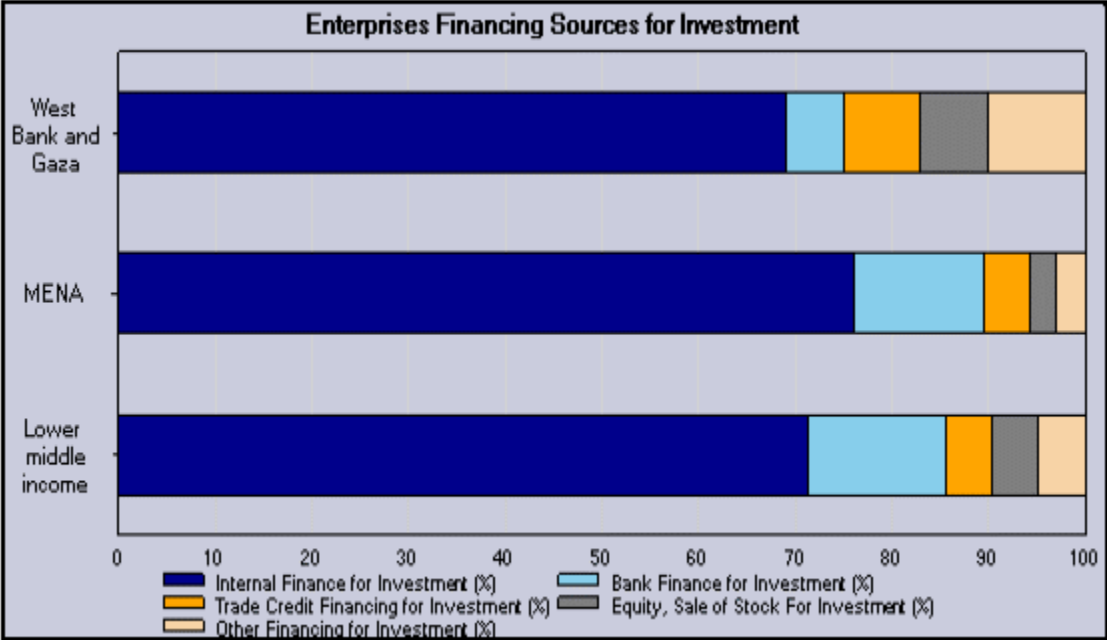
Examining a wider set of indicators having to do with how firms use financial services continues the same pattern that we have already seen; firms in WBG are largely disconnected from financial markets. For example, only 4% of small firms in WBG have a bank loan or line of credit compared to nearly 30% for the rest of the world (ROW). As much as 72% of small firms report that they do not even need a loan compared to nearly 50% for the ROW and only 10% are

<sup>14</sup> The argument that collateral requirements can be expected to be higher in countries where demand for credit outstrips supply is not as straightforward as a similar argument that can be made for interest rates. In fact, with nothing constraining financial markets from adjusting, the expectation is that interest rates should fully adjust upward to reflect higher demand than supply for credit. In general, collateral requirements should be associated with the perceived riskiness of the loan and not the supply of credit versus the demand for credit.



using banks to finance investment, compared to 22% for the ROW. Indeed, for WBG, even medium and large firms show a similar pattern of disconnectedness to the financial sector.

**Figure 3.2 Enterprises Financing Sources for Investment**



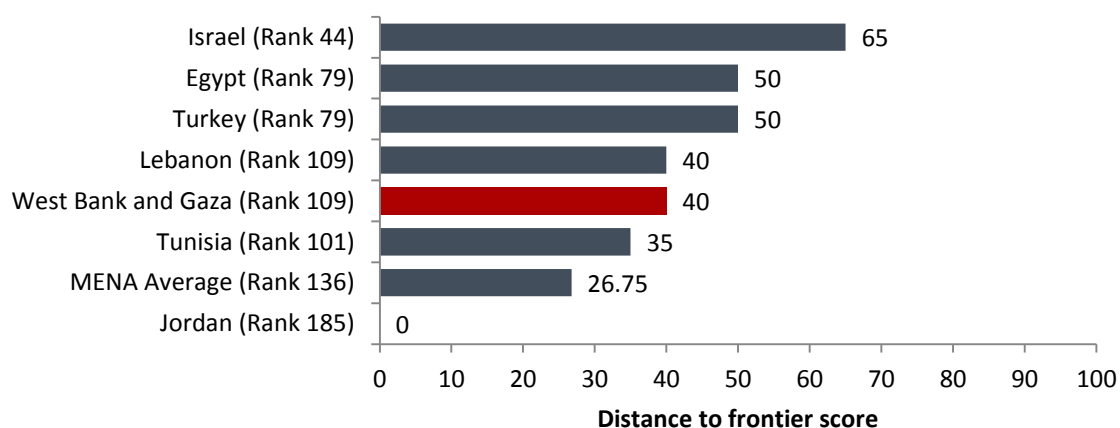
Source: World Bank Enterprise Survey, 2013

The graph above again shows the minor role that bank financing plays for investment in WBG. Bank finance, represented by the light blue bar, is the low in WBG and below the averages for the MENA region and lower-middle income countries.

Finally, we look at barriers to accessing credit. Specifically, the indicator, which looks at the strength of credit reporting systems and the effectiveness of collateral and bankruptcy laws in facilitating lending, shows that for WBG the ease of getting credit, although weak by absolute standards, is not out of line with regional norms.

### Figure 3.3 Ease of Getting Credit

Distance to frontier score for WBG and comparators<sup>15</sup>



Source: World Bank Doing Business Report, 2016

### 3.3 Conclusion

Although the percentage of credit going to the private sector in WBG is on the low side, there is strong evidence that this is a demand-side and not a supply-side problem. Specifically, interest rates and collateral requirements are not unusually high when contrasted against data from the comparator countries. More importantly, firms in WBG overwhelmingly (as high as 62% to 83% of firms, depending on firm size) identify themselves as not needing a loan. This compares to an average 47% of firms worldwide. With firms in WBG so clearly disconnected from the financial market and with evidence that banks do have funds to lend—the supply of credit is not unusually low in WBG—we can easily conclude that finance is not a binding constraint to growth.

<sup>15</sup> The *distance to frontier score* aids in assessing the absolute level of regulatory performance and how it improves over time. This measure shows the distance of each economy to the “frontier,” which represents the best performance observed on each of the indicators across all economies in the *Doing Business* sample since 2005. This allows users both to see the gap between a particular economy’s performance and the best performance at any point in time and to assess the absolute change in the economy’s regulatory environment over time as measured by *Doing Business*. An economy’s distance to frontier is reflected on a scale from 0 to 100, where 0 represents the lowest performance and 100 represents the frontier. For example, a score of 75 in DB 2016 means an economy was 25 percentage points away from the frontier constructed from the best performances across all economies and across time. A score of 80 in DB 2017 would indicate the economy is improving. In this way the distance to frontier measure complements the annual ease of doing business ranking, which compares economies with one another at a point in time.

## 4 MICROECONOMIC RISKS AND DISTORTIONS

### Introduction

Microeconomic risk and distortion is the binding constraint to economic growth in the West Bank and Gaza. In particular, political instability and the corresponding restrictions to movement, access, and trade inhibit private sector entrepreneurship, investment, and growth. This chapter investigates the many challenges facing private sector firms and the ways the political environment at the national and international level impacts decision making at the firm level. We apply a number of formal IGD tests to identify the specific ways political instability manifests itself in private sector decision making. We find high transaction costs to be especially burdensome to firms and that these costs have limited the growth of the Palestinian private sector. Palestinian firms are unusually small, informal, and family-oriented, and we identify theoretical and empirical evidence to show that these small firms are less effective at dealing with the challenges of a risky, high transaction cost business environment.

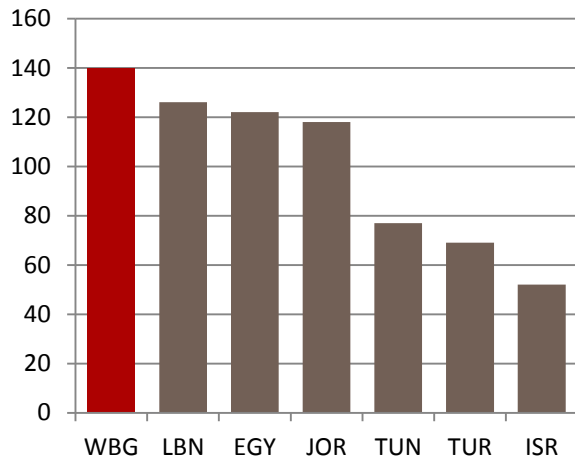
This chapter also discusses many microeconomic risks and distortions that are not binding constraints to economic growth. Our research shows that land access, taxes, business regulation, and corruption are not the binding constraints to private sector growth in the West Bank and Gaza at this time.

### 4.1 Global Performance on Microeconomic Indicators

#### 4.1.1 Business Environment Rankings & Indicators

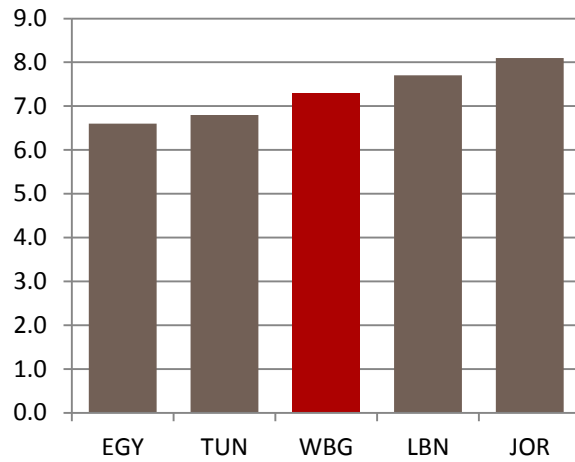
The 2016 World Bank Ease of Doing Business Index ranked the West Bank and Gaza at 140 out of 190 countries, which was the lowest ranking among the comparator countries. Israel ranked 52, the best performance of the group, followed by Turkey at 69 and Tunisia at 77. While the West Bank and Gaza are excluded from the Fraser Institute's global Economic Freedom rankings, they are featured in their 2016 report, *Economic Freedom in the Arab World*. For this reason, only the Arab comparator countries are included in the Economic Freedom charts. The West Bank and Gaza ranked in the middle of this group, with a score of 7.3.

**Figure 4.1 Ease of Doing Business Index**



Note: lower rankings are better  
Source: WDI, 2016

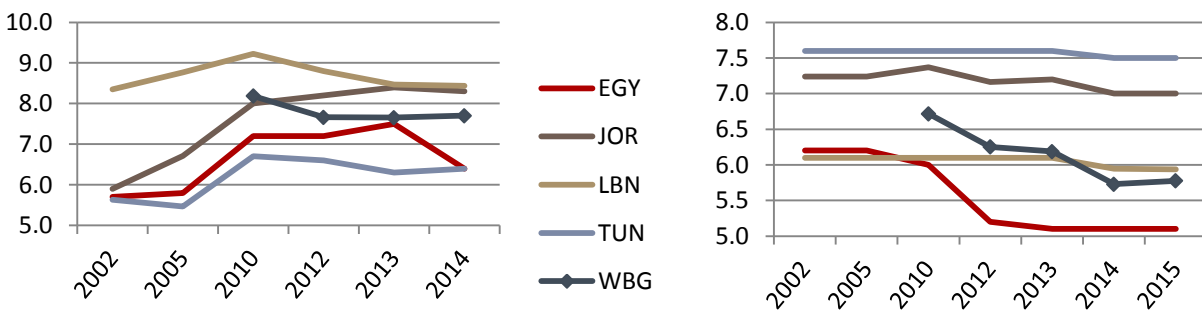
**Figure 4.2 Economic Freedom Rating**



Note: higher indexes are better  
Source: Fraser Institute, 2016

The Fraser Institute's Economic Freedom rating is comprised of five components: (1) size of government, (2) legal systems and property rights, (3) sound money, (4) freedom to trade internationally, and (5) regulation of credit, labor, and business. Each of the five components is normalized on a scale of zero to 10, then the average is taken to compute the overall rating. Higher indexes are better. Figure 4.3 below details the changes across these indicators from 2002-2015.

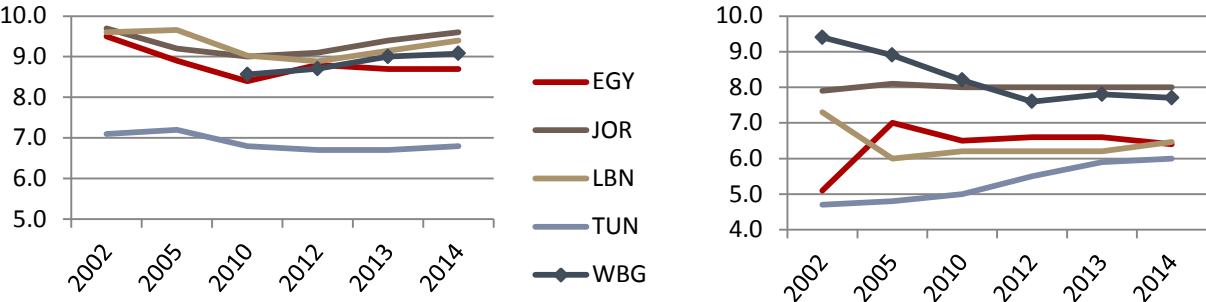
**Figure 4.3 Size of Government (left) and Legal Systems & Property (right)**



Source: Fraser Institute, 2016

The West Bank and Gaza have seen little change in recent years in terms of size of government, after a small decline in their score between 2010 and 2011. There has been a steady decline in their score on legal systems and property rights, declining from a high of 6.7 in 2010 to 5.7 in 2015. WBG now ranks as the second lowest among peer countries, above Egypt and nearly tied with Lebanon.

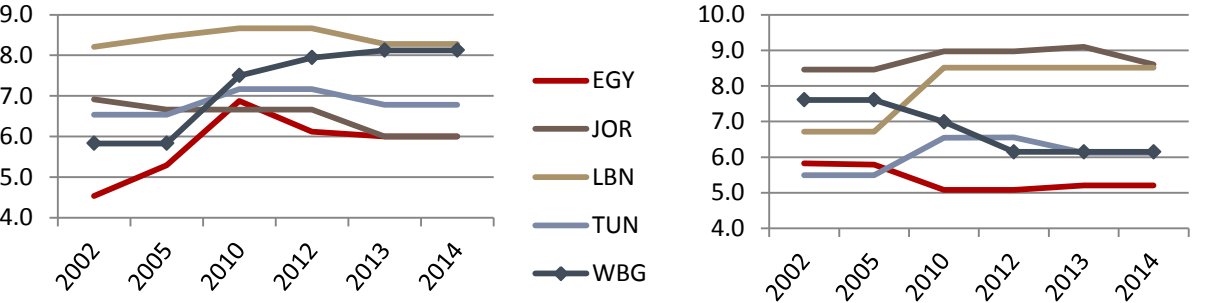
**Figure 4.4 Sound Money (left) and Freedom to Trade Internationally (right)**



Source: Fraser Institute, 2016

WBG ranks highly for sound money, though the fact that they rely on the Israeli Shekel rather than having their own currency puts them in a unique situation compared to their peer countries. They rank highly among Arab comparators on the freedom to trade internationally, second only to Jordan. This likely represents a case where standardized indicators do not accurately capture the complexity of the Palestinian context.<sup>16</sup> The challenges that Palestinian firms face in trading internationally will be covered in detail in the section on trade.

**Figure 4.5 Credit Market Regulations (left) and Labor Market Regulations (right)**

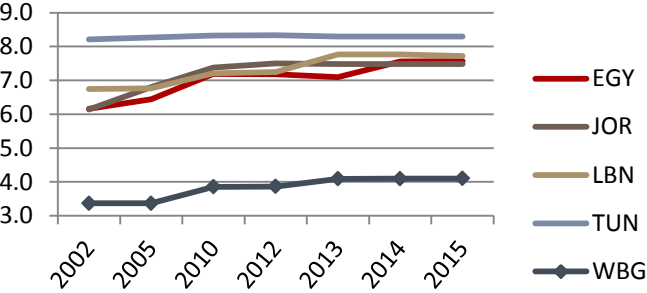


Source: Fraser Institute, 2016

<sup>16</sup> The Fraser Institute’s index on Freedom to Trade Internationally is a composite of three indicators covering tariffs, exchange rate distortions, and exchange rate and capital controls. These capture internal barriers to trade. In the case of the West Bank and Gaza, the barriers to trade are primarily imposed externally, and thus this indicator presents an imprecise picture of the freedom to trade.

WBG ranks among the highest of comparators on credit market regulations, approximately tied with Lebanon. This variable captures whether credit is available in a “timely, cost-efficient manner to credit-worthy individuals and businesses that freely seek it.”<sup>17</sup> This follows significant improvement between 2005 and 2010, and gradual improvement in subsequent years. The Fraser Institute’s rankings for WBG on labor market regulations, which capture indicators on difficulty of hiring and firing, and rigidity in hours, showed a gradual decline over the past 12 years. WBG now falls towards the bottom of peer countries, tied with Tunisia and scoring above Egypt.

**Figure 4.6 Business Regulations**



Source: Fraser Institute, 2016

The West Bank and Gaza stand out among their comparator countries with the lowest ranking of the quality of business regulations. This measure captures indicators on the ability of individuals to open and close businesses. WBG scored 4.1 in 2015, while the comparator average was 7.8. On this measure the West Bank and Gaza ranked the lowest of the 21 Arab countries studied.<sup>18</sup>

The *Doing Business* rankings for WBG and comparators are shown in Table 4.1 below. Across all indicators, the West Bank and Gaza’s highest rankings in 2017 came from getting electricity (70) and registering property (93), while the lowest rankings came from starting a business (169) and resolving insolvency (169). At 84.5 places behind, the WBG ranks furthest from the comparator average in starting a business. The next furthest rankings come from resolving insolvency (-67.5 places), construction permits (-67 places), and protecting minority investors (-62.5 places). The WBG scored above the comparator average in three indicators: paying taxes (+5.3 places), registering property (+3.7 places), and getting electricity (+1.2 places).

<sup>17</sup> *Economic Freedom of the Arab World*. Fraser Institute, 2016.

<sup>18</sup> *Ibid*

**Table 4.1 Doing Business Rankings (2017)**

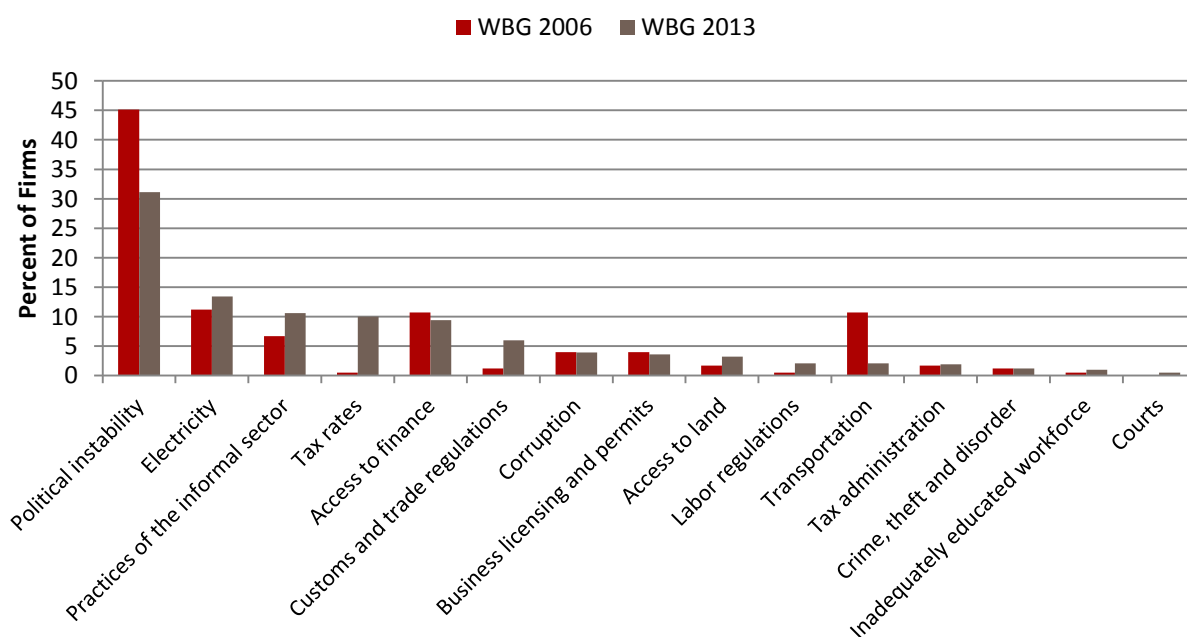
Note: Lower values are better (rank out of 190 economies)

	WBG	EGY	ISR	JOR	LBN	TUN	TUR
Starting a Business	169	39	41	106	139	103	79
Construction Permits	157	64	71	109	135	59	102
Getting Electricity	70	88	71	48	122	40	58
Registering Property	93	109	126	96	103	92	54
Getting Credit	118	82	44	185	118	101	82
Protecting Minority Investors	158	114	9	165	145	118	22
Paying Taxes	101	162	96	79	67	106	128
Trading Across Borders	99	168	59	50	134	92	70
Enforcing Contracts	122	162	89	124	127	76	33
Resolving Insolvency	169	109	31	142	143	58	126
Overall	140	122	52	118	126	77	69

Source: WDI, 2017

Political instability was the most frequently cited obstacle faced by firms in both the 2006 and 2013 rounds of the World Bank’s *Enterprise Surveys*, though notably the share of firms citing political instability as their biggest obstacle decreased from 45.1% in 2006 to 31.1% in 2013. The high share of firms citing political instability in 2006 is unsurprising, as it was that year that Hamas won elections in Gaza, becoming the *de facto* government.

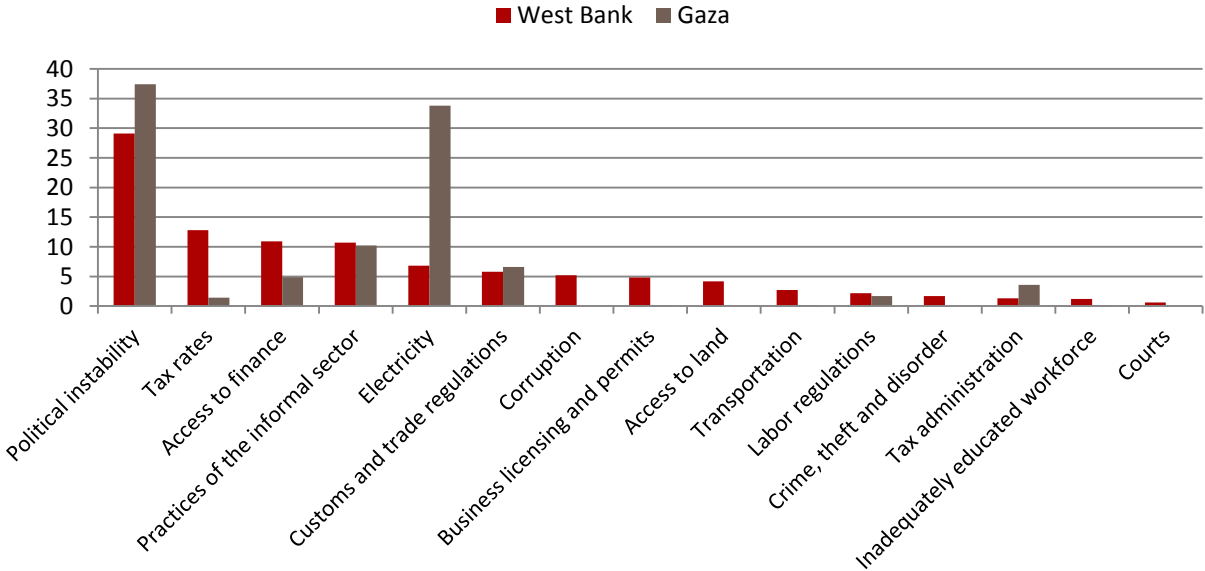
**Figure 4.7 Largest Obstacle Faced by Firm (2006 & 2013)**



Source: World Bank Enterprise Survey, 2013

In 2013, the most frequently reported obstacle faced by firms in was political instability in both the West Bank (29.1%) and Gaza (37.4%). A close second in Gaza was access to electricity (33.8%), while just 6.8% of firms cited electricity as their largest obstacle in the West Bank. More firms in the West Bank cited tax rates (12.8% vs. 1.4%) and access to finance (10.9% vs. 4.9%) than in Gaza. In general, the firms in the West Bank cited a wider range of biggest obstacles, whereas responses in Gaza were much more concentrated in two areas: political instability and access to electricity.

**Figure 4.8 Largest Obstacle Faced by Firms (West Bank & Gaza, 2013)**



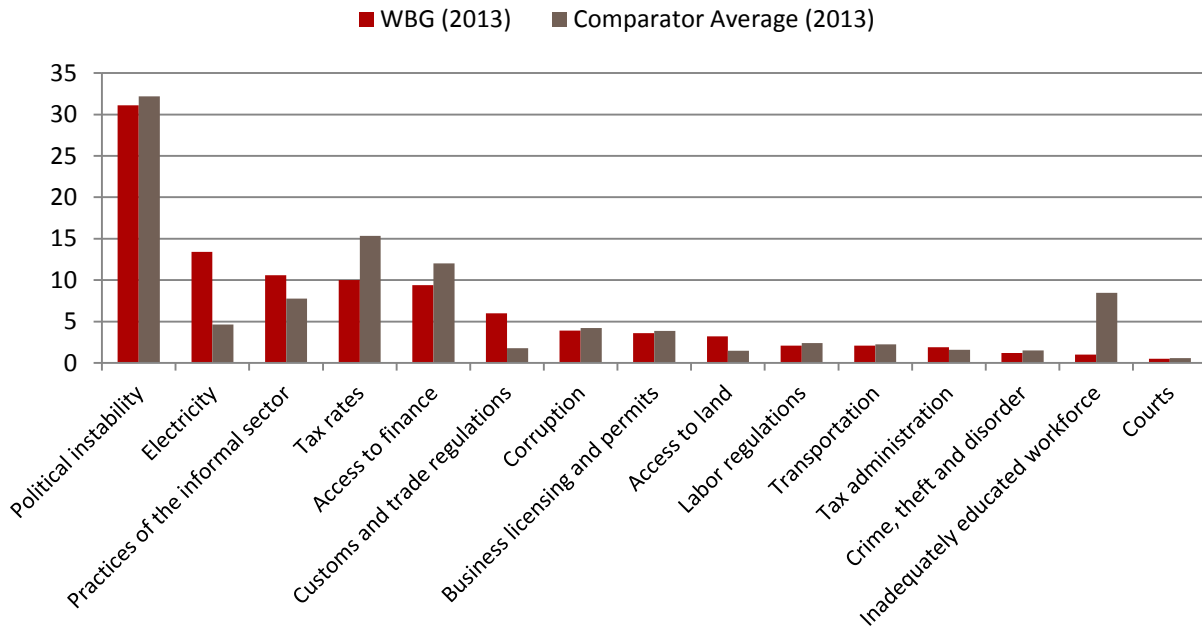
Source: World Bank Enterprise Survey, 2013

While political instability is the most frequently reported obstacle by firms, it is not unique to the West Bank and Gaza. In fact, on average firms in comparator countries cite political instability as their biggest obstacle at a similar rate.

Figure 4.9 4.9 below shows how the largest obstacles reported in the West Bank and Gaza compare with the peer countries. There were a number of other notable differences. First, access to electricity was reported as the biggest constraint by 13.4% of firms in the WBG, but by just 4.6% in comparator countries. Tax rates and access to finance were reported less frequently in the WBG than comparators. While 8.5% of firms in the comparator countries stated that an inadequate educated workforce was their largest obstacle, just one percent of firms in WBG agreed.



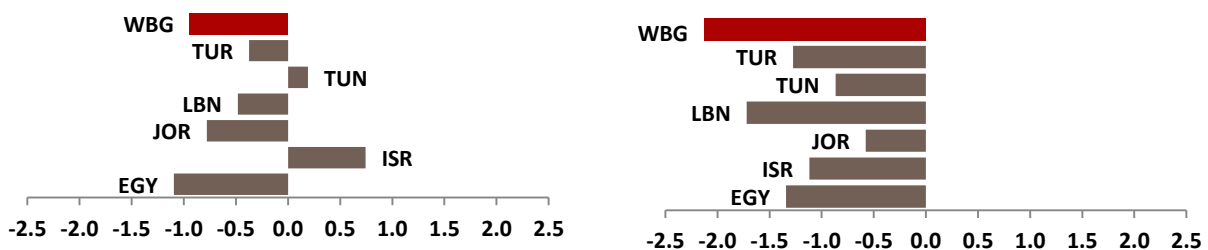
**Figure 4.9 Largest Obstacle Faced by Firms (WBG & Comparator avg., 2013)**



#### 4.1.2 Governance Indicators

The World Bank’s Worldwide Governance Indicators (WGI), which ranks countries on a series of six indicators, are shown below for WBG and comparators. Note that aggregate indexes are scored from a high of 2.5 (good governance) to a low of -2.5 (poor governance). The WBG ranks second-lowest among its comparators in *voice and accountability*, which measures “the extent to which a country’s citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.”<sup>19</sup> The West Bank and Gaza rank lowest among the peer countries for *political stability and absence of violence*, at -2.13, though none of the comparators scored above zero on this index.

**Figure 4.10 Voice and Accountability (left) and Political Stability & Absence of Violence (right)**

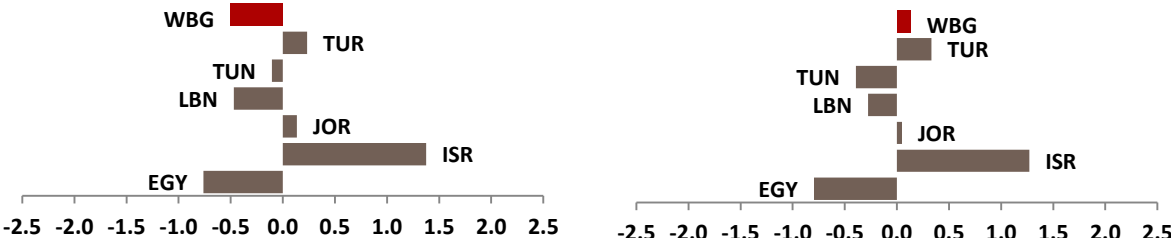


Source: World Governance Indicators, 2016

<sup>19</sup> Kaufmann, Kraay. *The Worldwide Governance Indicators project*. The World Bank and the Natural Resource Governance Institute, Brookings Institution, 2016.

The WBG ranked toward the bottom of the comparators on *government effectiveness*, above Lebanon and Egypt. This indicator captures various measures of the quality of public service, degree of civil service independence, and quality of policy implementation. The indicator on *regulatory quality* was the only variable for which the WBG scored above zero, ranking above Jordan, Lebanon, Tunisia, and Egypt.

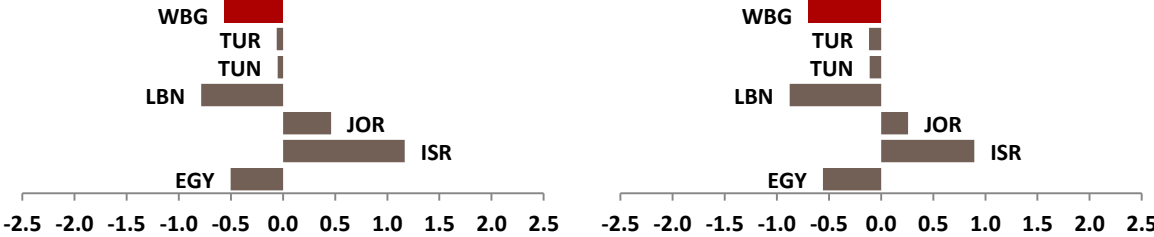
**Figure 4.11 Government Effectiveness (left) and Regulatory Quality (right)**



Source: World Governance Indicators, 2016

For the indicator on *rule of law*, which captures the extent to which the population has confidence in and obeys rules of society, including police, the courts, property rights, and contract enforcement, the WBG ranked second to last, just above Lebanon. The WBG also ranks second to last, just above Lebanon, on *control of corruption*.

**Figure 4.12 Rule of Law (left) and Control of Corruption (right)**



Source: World Governance Indicators, 2016

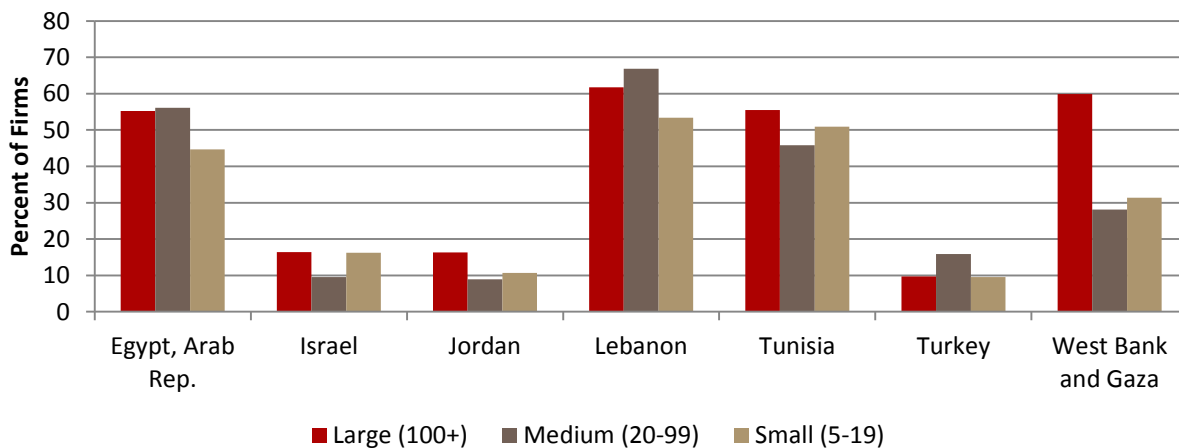
These indicators represent the context within which investors are making decisions. With poor scores across all six governance indicators, and only *regulatory quality* scoring above zero, the risks investors face are immense. The rest of the chapter will examine political stability and risk, land access and land tenure, trade and customs, business regulatory environment, tax rates and administration, and corruption using the HRV framework to test whether each represents a binding constraint to growth.

## 4.2 Political Stability and Risk

Political instability, deriving from the conflict with Israel and the resulting restrictions on land access, trade, and free movement of people and goods, is the syndrome that links the issues constraining private sector investment in the West Bank and Gaza. Political instability was the most frequently cited biggest obstacle by Palestinian firms in the 2013 Enterprise Survey, reported by a third of firms. Because many of the other obstacles identified are results of the political situation, and because the term political instability is not clearly defined by the Enterprise Survey, it can be difficult to disentangle causes from effects.

There was more heterogeneity in the share of firms identifying political risk as a major constraint by firm size in the West Bank and Gaza than in the comparator countries. Twice as many large firms (60%) identified political risk as a major constraint than small and medium firms (~30%). This was unique to the WBG. In the comparator countries where over 50% of large firms cited political risk as a major constraint, a similar share of small and medium sized firms reported it as well. While the majority of employment in the MENA region is in large firms, the opposite is true in the West Bank and Gaza, where only approximately seven percent of employment is in large firms.<sup>20</sup> The economy of the West Bank and Gaza is characterized by a prevalence of small firms and high degree of informality. The reasons for this are explored in the section on firm structure.

**Figure 4.13 Percent of firms identifying political risk as a major constraint (by firm size)**

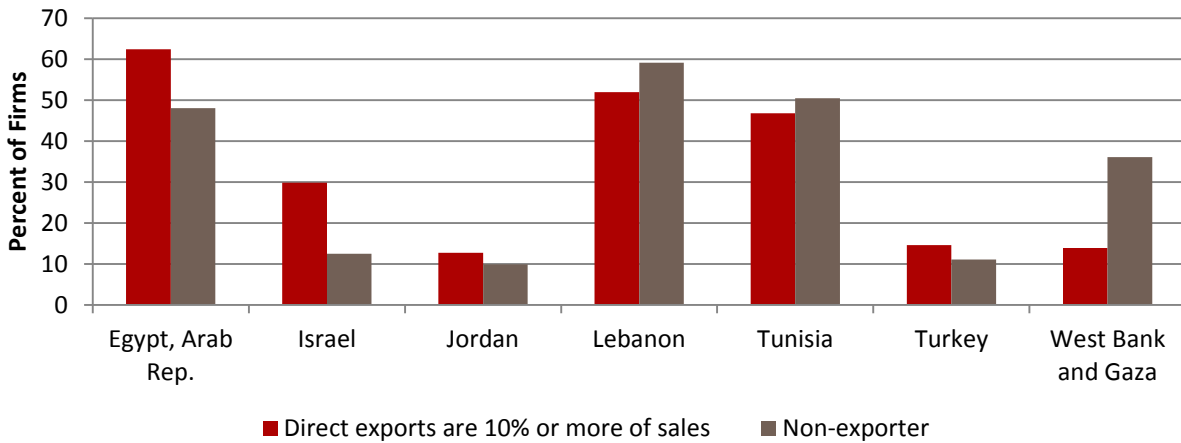


Source: Enterprise Survey, 2013

There are also significant differences in how political instability appears to affect firms by exporting status. Less than half as many firms where direct exports make up 10% or more of sales reported that political risk was a major constraint than non-exporting firms.

<sup>20</sup> *What's Holding Back the Private Sector in MENA? Lessons from the Enterprise Survey*. European Bank for Reconstruction and Development, European Investment Bank, and The World Bank, 2016, p. 60.

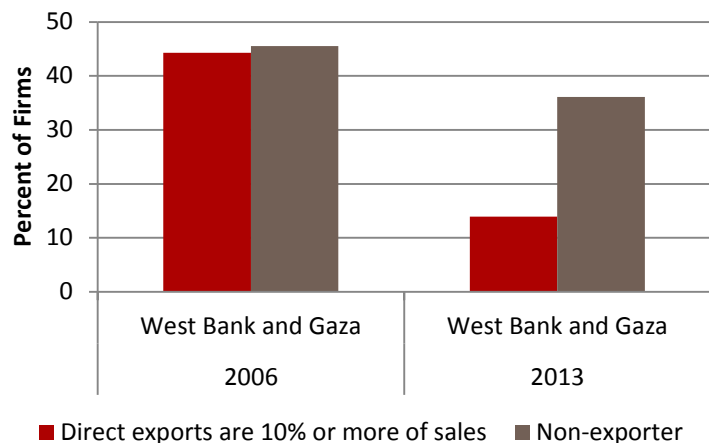
**Figure 4.14 Percent of firms identifying political risk as a major constraint (by exporter status, 2013)**



Source: Enterprise Survey, 2013

The difference between exporting and non-exporting firms reporting political risk as a major constraint appears to be a new phenomenon. As shown in Figure 4.15, approximately 45% of both exporting and non-exporting firms reported political risk as a major constraint in the 2006 round of the *Enterprise Survey*. In the 2013 round of the survey, the rate of non-exporters reporting political risk as a major constraint dropped nine percentage points to 36.1%, while the rate for exporters dropped over forty percentage points to 13.9%. This shift may be partially explained by the Hamas takeover of Gaza in 2007, and the subsequent closure policy on Gaza by Israel and Egypt. In 2006, exporting firms were located in both the West Bank and Gaza, whereas in 2013 there were effectively no exporting firms in Gaza. While disaggregated data was not available for the 2006 Enterprise Survey, in 2013 firms reported political risk as a major constraint significantly more often in Gaza (37.4%) than in the West Bank (29.1%).

**Figure 4.15 Percent of firms in WBG identifying political risk as a major constraint (by exporter status, 2006 & 2013)**



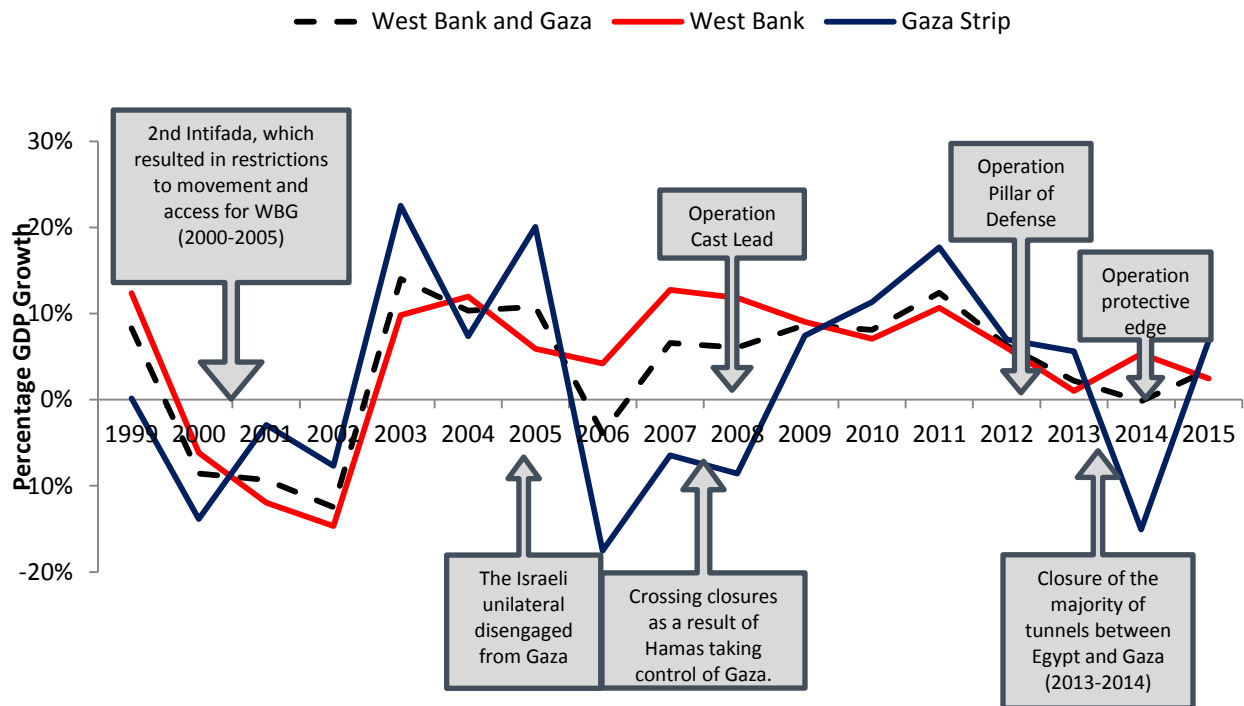
Source: Enterprise Survey, 2013

## Impulse Response Test for Political Stability and Risk as a Binding Constraint

The second diagnostic test, known as impulse response, states that movements in the constraint should produce significant movements in the objective function. If political instability and risk is a binding constraint, then we should observe increases in investment and economic growth when the political stability improves.

This is in fact what we see. The political instability in the West Bank and Gaza has led to significant volatility in economic growth. As Figure 4.16 shows, growth has fluctuated considerably over the last two decades and corresponds closely with political events. This recurrent cycle of volatility and violence has been crippling to the Palestinian economy, and is self-perpetuating. Literature shows that political instability and violence lead to lower levels of economic growth, increasing poverty, which then leads to further instability and violence. This is seen in the fact that “on average, a country that has experienced major violence over the period from 1981 to 2005 has a poverty rate 21 percentage points higher than a country that saw no violence.”<sup>21 22</sup> This evidence strongly suggests that private investment is linked to, and constrained by, political instability.

**Figure 4.16 Political Events and Economic Growth (constant 2004 US\$), WBG**



Source: Palestinian Central Bureau of Statistics  
Produced by the Economic Analysis and Data Services (EADS) team

<sup>21</sup> *World Development Report: Conflict Security, and Development*. The World Bank, 2011.

<sup>22</sup> *West Bank and Gaza Investment Climate Assessment: Fragmentation and Uncertainty*. The World Bank, 2014.

While political instability and violence lead to regular shocks to the economic growth rates, the Palestinian economy also suffers long-term losses due to the unresolved political situation, such as lack of access to land and resources.<sup>23</sup>

Political instability is a pervasive issue at all levels of the Palestinian economy. In addition to the impact on firms, it has led to chronic fiscal deficit for the PA. The political split between the West Bank and Gaza and the Gaza closure policy have only exacerbated this problem. This topic is covered in more detail in chapter 5, *Macroeconomic Risks*.<sup>24</sup>

### 4.3 Land Access and Land Tenure

Access to land is fundamental for economic activity. Not only is it a critical input for productive activities including agriculture and industry, but it is also a means for storing wealth. Land access in the West Bank and Gaza is of particular significance as it is one of the most densely-populated areas of the world, together averaging 735 people per square kilometer. While investors in the West Bank and Gaza face significant risk as a result of limited access to land, we do not find evidence that land access and land tenure are the binding constraint to economic growth in the West Bank and Gaza.

The West Bank and Gaza rank 13<sup>th</sup> for highest population density in the world, preceded mostly by city states and small islands. Gaza is much more densely populated than the West Bank, at 5,046/km<sup>2</sup>, the fifth-highest in the world (WDI 2016). The population density figures for the West Bank over-estimates the actual availability of land, given that 61% is almost completely off-limits for development (see Table 4.2). While the actual population density of the West Bank is 453 people per km<sup>2</sup>, the de facto population density, using just Area A and Area B land area where Palestinians can actually invest, is 1,161 people per km<sup>2</sup>.<sup>25</sup>

Land access is challenged by the fact that the 1995 Oslo II Accords divided the West Bank and Gaza into three areas, known as Areas A, B, and C. Each area has different civil and security arrangements between Israeli and Palestinian authorities. Note that these arrangements now apply only to the West Bank, as Israel disengaged from Gaza in 2005.<sup>26</sup>

**Table 4.2 Distribution of Land in the West Bank**

	Share of Land	Civil Control	Security Control
<b>Area A</b>	11%	PA	PA
<b>Area B</b>	28%	PA	Joint PA-Israel
<b>Area C</b>	61%	Israel	Israel

Source: The World Bank, 2013.

<sup>23</sup> *Are C and the Future of the Palestinian Economy*. The World Bank, October 2, 2013.

<sup>24</sup> *West Bank and Gaza Investment Climate Assessment: Fragmentation and Uncertainty*. The World Bank, 2014.

<sup>25</sup> Author's calculations

<sup>26</sup> *Israel's Disengagement Plan: Renewing the Peace Process*. Israel Ministry of Foreign Affairs, April 2005.

The Oslo Interim Agreement called for a gradual transfer of the majority of Area C to Palestinian jurisdiction, to be completed by 1997. This transfer has not occurred, and economic activity is severely restricted outside of Areas A and B.<sup>27</sup> As shown in the map in Figure 4.17, Areas A and B are primarily made up of Palestinian settlements and the surrounding areas, which are in turn surrounded by Area C land. Movement through Area C to access other “islands” of Areas A and B is restricted with checkpoints, road closures, settlements, and physical barriers.

Area C, representing close to two thirds of the West Bank, is under full Israeli civil and military control, and is sparsely populated and economically under-utilized. Thirty-eight percent of Area C is reserved by Israel to serve settlements and security objectives.<sup>28</sup> Security restrictions, uncertainty created by recurrent destruction of infrastructure and encroachment on private land, and an arduous permit process have led to very low levels of investment. A 2013 study by the World Bank estimated that removing restrictions on economic activity and production in Area C would amount to \$3.4 billion, which is 35 percent of Palestinian GDP in 2011.<sup>29</sup> While this headline figure is striking, large assumptions underlay the claim.<sup>30</sup>

Building permits for Area C are incredibly rare and hard to obtain, with only a handful approved each year. The process for applying for a permit involves submitting proof of ownership and a series of other documents to one of six Local Planning Offices with a payment of 400 ILS (\$109 USD). In most cases the individual applying for a building permit must also seek legal counsel before submitting their application.<sup>31</sup> Between 2010 and 2014, 2,020 applications for building permits in Area C were submitted by Palestinians. According to data from the Israeli Civil Administration, just 33 permits, or 1.5%, were approved.<sup>32</sup>

For the approximately 300,000 Palestinians currently living in Area C, it is virtually impossible to receive permits for any building, which are even required for basic residential structures including fences. This means that many individuals build without permits, which leaves them at risk of receiving demolition orders. According to OCHA, 14,087 demolition orders have been made, with 2,802 demolition orders have been executed, displacing thousands.<sup>33</sup>

Restrictions on development in Area C have led to land shortages and highly inflated prices in areas A and B. In many locations, land prices are too high for anything other than high-value

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<sup>27</sup> Ibid

<sup>28</sup> *The Economic Effects of Restricted Access to Land in the West Bank*. The World Bank, October 20, 2008.

<sup>29</sup> *Area C and the Future of the Palestinian Economy*. The World Bank, October 2, 2013.

<sup>30</sup> Although the *Area C* report makes conservative estimates of the economic benefits of Area C, the report made the large assumption of doing away with what has been identified as the binding constraint, as described by the authors here: "it also had to be assumed that other restrictions on economic activity, such as those that impede free movement of people, goods and capital have been lifted. In other words, a counterfactual world with a reasonably sound investment climate has been created for the West Bank."

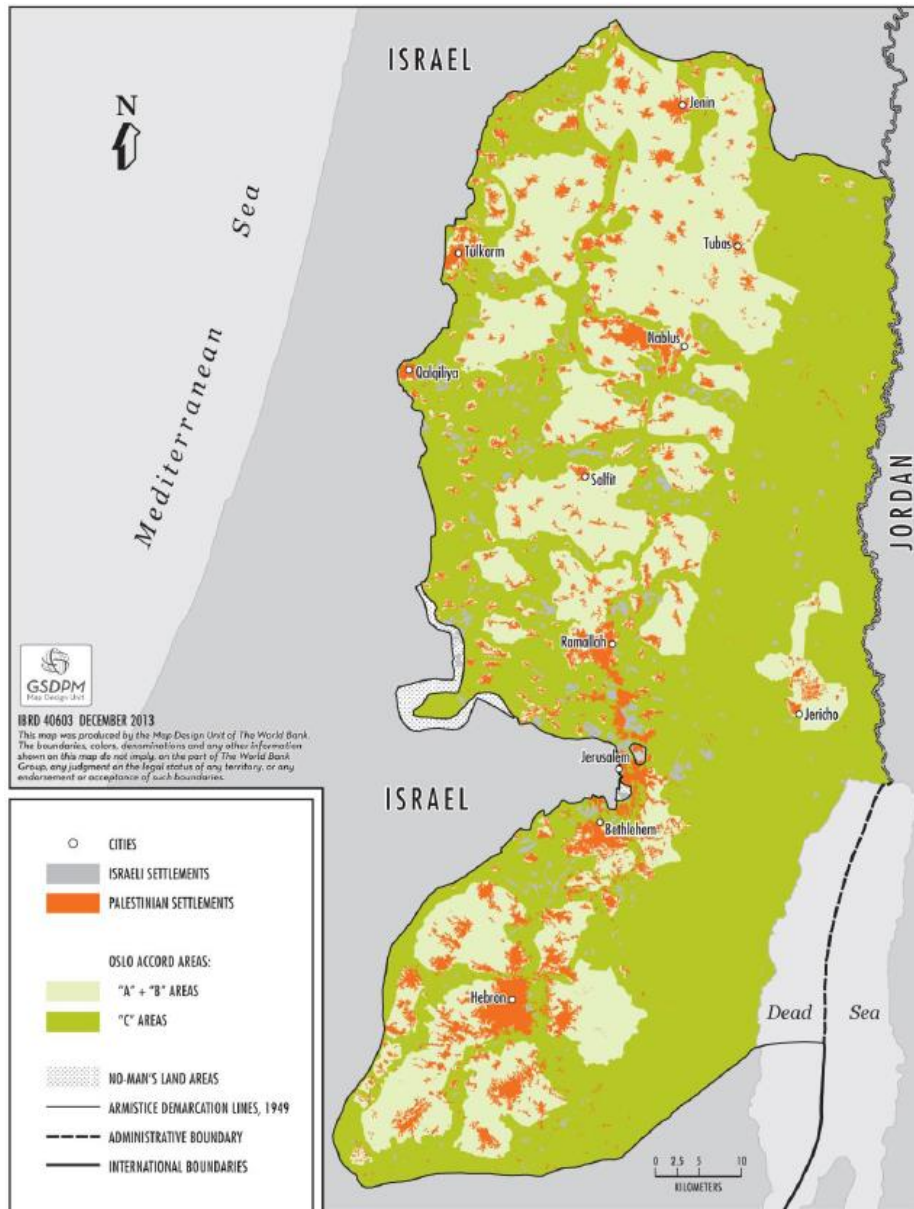
<sup>31</sup> *Fact Sheet: Building Permits in Area C of the West Bank*. Norwegian Refugee Council: Information, Counselling and Legal Assistance Programme in the occupied Palestinian territory.

<sup>32</sup> *Under Threat: Demolition Orders in Area C of the West Bank*. UNOCHA, 2015.

<sup>33</sup> Ibid

commercial developments, or high-rise apartment buildings. This lack of access to land has contributed to a general housing shortage in the West Bank.<sup>34</sup>

**Figure 4.17 Map of Division of Land in the West Bank**



Source: Area C and the Future of the Palestinian Economy. The World Bank, October 2, 2013.

Historically, land registration in PA controlled areas has been held back by institutional capacity. The Palestinian Land Authority (PLA) was established in 2002, with authority over land surveys and registration. Prior to this, the responsibilities were divided between the Ministry of Justice,

<sup>34</sup> *The Economic Effects of Restricted Access to Land in the West Bank*. The World Bank, October 20, 2008.



and the Ministry of Housing. The lack of institutional capacity meant that the majority of land outside of major population areas remained unregistered, making it risky for investment.

Donors have funded numerous land registration activities in recent years in an attempt to improve this situation, though they have not been particularly successful. For example, in 2012 the World Bank approved a \$6 million grant to support the PA in registering 22,000 acres of land. At the midterm, less than 7,000 acres had been registered. The World Bank concluded that most of the bottlenecks identified were “within the control of the PLA, and include highly centralized decision making and the lack of an incentives system to reward good performance.”<sup>35</sup>

**Table 4.3 Doing Business Rankings for Registering Property**

Economy	Procedures (number)	Time (days)	Cost (% of property value)	Quality of land administration index (0-30)
West Bank and Gaza*	7	51	3	13.5
Egypt, Arab Rep	8	60	0.5	7
Israel	6	81	8.3	14
Jordan	7	21	9	20.5
Lebanon	8	34	5.9	16
Tunisia	4	39	6.1	11
Turkey	7	7	4	21.5
MENA	5.7	30.5	5.9	12.5

Source: World Bank Doing Business Ratings, 2016

\*Data from Ramallah only

The West Bank scores towards the bottom of its peer group in the World Bank’s *Doing Business* rankings for registering property.<sup>36</sup> There are seven procedures to register land in Ramallah, which is similar to the MENA average of 5.7, and the comparator average of 6.6. WBG also scores poorly for days to register land at 51, compared to a MENA average of 30.5 and a peer country average of 40.3. The cost of land registration in Ramallah (3%) is lower than both the MENA average (5.9%) and the comparator average (5.6%). On the quality of land administration index, which is a sum of five indexes covering reliability of infrastructure, transparency of information, geographic coverage, land dispute resolution, and equal access to property rights, WBG scores 13.5 out of a maximum of 30, below the peer group average of 15, but above the MENA average of 12.5.<sup>37</sup>

While the *Doing Business* ratings for land registration in Ramallah show many areas for improvement, the land registration and tenure is even more challenging outside of Area A in the West Bank, and in Gaza. In Gaza, the legal and regulatory framework for land registration is complicated by a number of factors. First, land laws and regulations were first developed during

<sup>35</sup> *Second Land Administration Project Implementation Status & Results Report*. The World Bank, January 26, 2015.

<sup>36</sup> Note that this data is from Ramallah, so it only represents the situation there, though it may broadly represent land representation in all Area A of the West Bank where the PA is in full control.

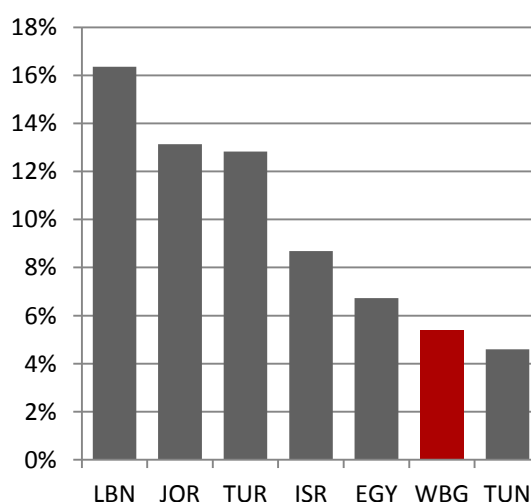
<sup>37</sup> *Doing Business Report*. The World Bank, 2016.

the Ottoman period (1517 – 1917), then modified or expanded under the British Mandate (1917 – 1948), Egyptian administration (1948 – 1967), Israeli control (1967 – 1994), Palestinian National Authority control (1994 – 2007), and now under the *de facto* government controlled by Hamas (2007 – present). The *de facto* government inherited a dysfunctional system of “inconsistent and overlapping land laws” which is further complicated by crowded refugee camps, poor infrastructure, high population density, and frequent military conflict between Israel and Hamas.<sup>38</sup>

### 4.3.1 Shadow Price Test for Land Access as a Binding Constraint

Given the limited access to land in the West Bank and Gaza, one may expect that land prices would be unusually high. Anecdotally, the high cost of land was mentioned in multiple interviews conducted by the team while in Ramallah. This issue is also raised by other reports on the business climate. The World Bank’s Investment Climate report notes that real estate prices in the commercial center of Ramallah are “on par with commercial property in some of the megacities of the world.”<sup>39</sup> This has resulted in much of the available capital being invested in high rise apartment buildings, which has crowded out other land uses such as agriculture and industry.<sup>40</sup>

**Figure 4.18 Rent as a share of total costs**



Source: Enterprise Survey 2013, author’s calculation

Despite this, we do not find that the cost of land is prohibitively high for firms. Using data from the 2013 Enterprise Surveys, we calculated firms’ rent as a share of their total costs. Figure 4.18 shows that for firms in the West Bank and Gaza, total rental costs of land and buildings constituted an average of 5.4% of their total costs.<sup>41</sup> This was the second-lowest rate among comparators. Furthermore, just 3.2% of firms interviewed in WBG reported that access to land was their biggest obstacle. While this is the second highest among comparators, below Jordan’s 4.8%, and higher than the comparator average of 1.5%, it highlights the fact that other constraints are much more salient to firms in both WBG and the comparators.

<sup>38</sup> *A Guide to Housing, Land and Property Law in the Gaza Strip*. Norwegian Refugee Council, October 2015.

<sup>39</sup> *West Bank and Gaza Investment Climate Assessment: Fragmentation and Uncertainty*. The World Bank, 2014.

<sup>40</sup> *The Economic Effects of Restricted Access to Land in the West Bank*. The World Bank, October 20, 2008.

<sup>41</sup> Total firm costs were calculated by summing the eight cost categories captured in the Enterprise Surveys: total rental cost of land and buildings, total labor cost, cost of raw materials and intermediate goods used in production, total annual cost of fuel, total annual cost of electricity, total rental cost of machinery, vehicles and equipment, other costs of production, and total annual cost of finished goods or materials bought to resell.

Investors in the West Bank and Gaza face significant risk as a result of limited access to land, high cost of land in the commercial centers, poorly enforced property rights, and risk of appropriation outside of Area A. Despite these immense challenges, we do not find evidence that land access and land tenure are the binding constraint to economic growth in the West Bank and Gaza.

#### 4.4 Transaction Costs

One of the definitive characteristics of the Palestinian economy is the constraint of movement, access, and trade both within the West Bank and Gaza and internationally. These constraints manifest themselves in the form of higher costs to businesses, increased transportation time, reduced competition, and restricted access to buyers and sellers. Together this collection of constraints is known as transaction costs.

Transaction costs are broadly defined as the costs incurred to connect a buyer and a seller in a market, and they come in many forms. Transaction costs include shipping costs, the cost of formal financing, administrative fees, regulatory fees, indirect costs incurred in order to comply with regulatory requirements, and opportunity costs. Long wait times at border crossings and security checkpoints, for example, result in higher labor costs per shipment and fewer shipments made per week than would be allowed with a less-restrictive trade environment.

Transaction costs affect both domestic and international markets. If, for example, a German grocery store wants to purchase olive oil from the West Bank, the olive oil producer must transport the oil to the Israeli border, unload the shipment from the Palestinian truck, reload the shipment onto an Israeli truck (known as back-to-back), clear Israeli customs, transport to the Israeli port, and ship by sea to Germany. Throughout this process, the olive oil producer incurs direct costs such as the cost of fuel and salaries for drivers as well as indirect costs such as regulatory requirements and the opportunity cost of idle shipping containers awaiting customs clearance. The process of back-to-back transfer not only wastes time but also results in damage to goods, particularly perishables that require rapid transit and a cold-chain. This situation differs drastically from an alternative example in which a Palestinian grocery store buys olive oil from a producer across town with almost no transaction costs. Even domestically, however, Palestinian firms face serious transaction costs including indirect routes and multiple security checkpoints. A 2008 World Bank study found that the trip from Hebron to Jenin, a distance of just 89 miles, can take up to 3.6 hours on a good day and 7.4 hours on a bad day.<sup>42</sup> The long travel times and high variation is not for lack of infrastructure but rather the result of political and economic barriers. Indeed, transaction costs take many forms.

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<sup>42</sup> World Bank, 2008, *Palestinian Trade: West Bank Routes*, 2008 <http://documents.worldbank.org/curated/en/998391468339072118/pdf/468070ESW0P1081alTradeWBRoutesDec08.pdf>

High transaction costs are one of the most binding constraints to economic growth in West Bank and Gaza. In the HRV IGD model, transaction costs fall at the end of a long line of causal relationships. Investment and entrepreneurship are low because of low returns to economic activity. Returns to economic activity are low because of low appropriability, which refers to the expectation that any profit from an investment will not be returned to the investor.

Appropriability is low because of government failure, particularly the failure to resolve the Israeli-Palestinian conflict and the lack of economic autonomy in West Bank and Gaza.

Government failure manifests itself in high transaction costs that discourage business risk-taking and make Palestinian firms less competitive than international competitors. In this section, we present a series of formal tests to analyze the role of transaction costs and the effects they have on the Palestinian economy.

#### **4.4.1 Trade and Customs**

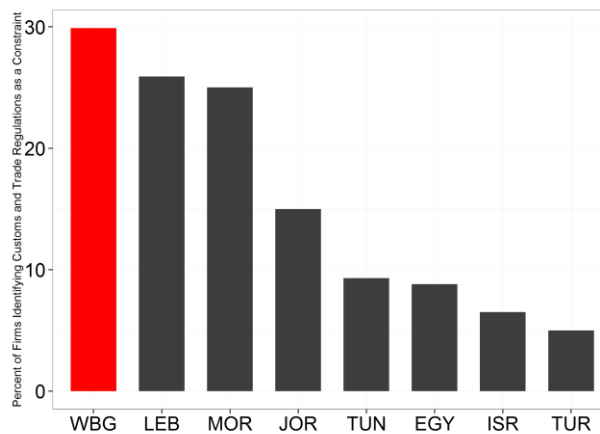
One of the primary drivers of transaction costs in the Palestinian economy is trade and customs. International trade in West Bank and Gaza is particularly constrained, and the challenges are directly linked to the lack of Palestinian autonomy to control its borders, access, and shipping. Since the 1994 Paris Protocol, Israel has maintained full control of all border crossings for West Bank and Gaza, with the exception of the Rafah border crossing with Egypt following the Israeli disengagement from Gaza in 2005.<sup>43</sup> Based on security concerns, Israel imposes a number of direct and indirect restrictions on Palestinian trade, such as a limit on the types of goods imported via the dual use list, lack of access to their own seaports and airports, limited working hours at border crossings, and security requirements that impose offloading and onloading of goods at border crossings (known as “back-to-back”). Together, these direct and indirect trade restrictions increase the cost of international trade and limit the ability of Palestinian firms to find international customers and suppliers. Restrictions and requirements can be arbitrary and change with little notice, thus increasing the risk to international traders and their customers. Just-in-time delivery cannot be guaranteed.

The challenges of Palestinian trade are apparent in both qualitative discussions with business leaders and quantitative indicators of trade and customs performance. As shown in Figure 4.19 below, nearly 30% of Palestinian firms surveyed in the 2013 Enterprise Survey say that customs and trade regulation is a major constraint to private sector business activity, the highest among comparators. This result is almost unchanged from the previous survey in 2006. The bottom line is that trade and customs, measured as both a major constraint and the top constraint, have remained a consistent obstacle to private sector growth according to Palestinian business owners.

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<sup>43</sup> Now under Egyptian control, the Rafah border remains essentially closed off with only brief and intermittent openings permitted by the Egyptian government.

**Figure 4.19 Percent of Firms Identifying Customs and Trade Regulation as a Major Constraint**

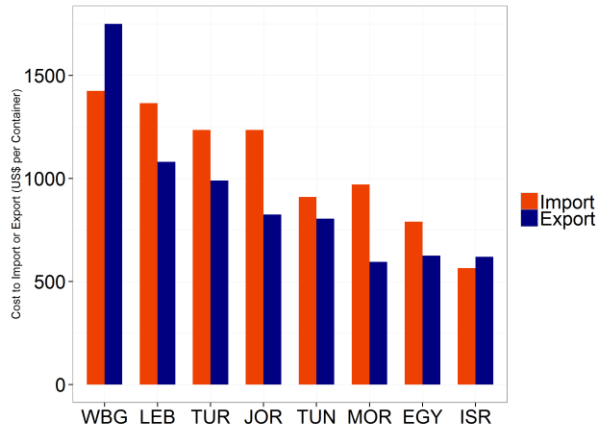


Source: Enterprise Survey, 2013

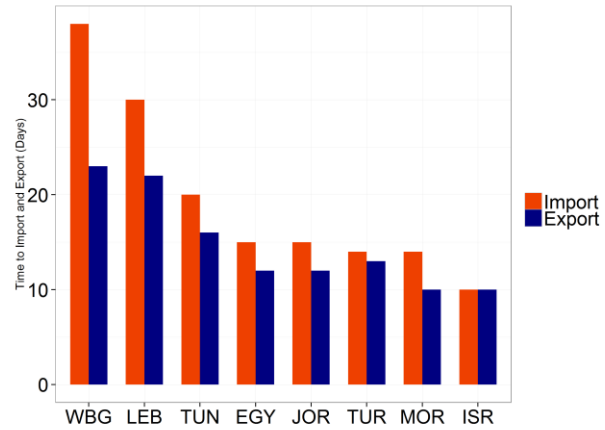
#### 4.4.2 Test of Shadow Prices

To test for transaction costs as a constraint, we can use two tests from the IGD methodology: 1) the shadow price of the constraint, and 2) camels and hippos. For the test of shadow prices, we can examine the cost of international shipping. The efficiency of international trade can be measured both in cost to import or export and the time required to ship a container to or from trade partner. In both these measures, WBG ranks last among all the comparators. As shown in Figure 4.20, the cost to export a single container is \$1,750, which is nearly \$700 more than the second comparator, Lebanon, and more than \$1,000 higher than WBG's largest trading partner, Israel. The story on imports is similar: WBG's import costs of \$1,435 put it at the highest of all comparators. Likewise, we see similar trends in the time to import and export with WBG having the longest trade times for both imports (38 days) and exports (23 days). Most comparators can trade in half that time. The impact of high trade costs and trade times has a negative impact on private business since the cost of shipment must be absorbed either through higher prices (which make Palestinian products less competitive) or through reduced company profits (which reduce appropriability and the incentives for private sector growth).

**Figure 4.20 Cost to Import and Export (US\$ per container)**



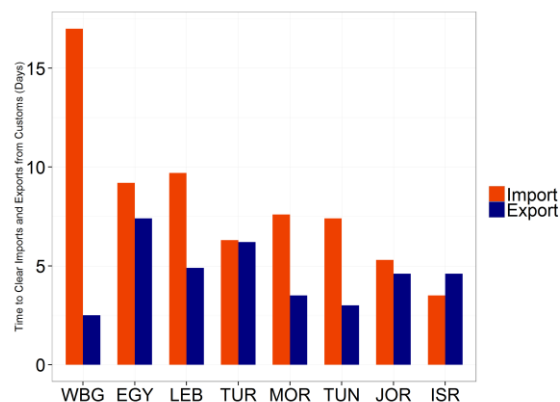
**Figure 4.21 Time to Import and Export (Days)**



Source: Doing Business, 2014

Another measure of trade and customs restriction comes from the 2013 Enterprise Surveys. Here, the data tells a somewhat different and confounding story. On one hand, the Enterprise Survey reveals that WBG has by far the longest time to clear customs for imports at 17.0 days. However, the time to clear direct exports is just 2.5 days, the lowest among all the comparators. It is not entirely clear why we see this contradiction in the data from Doing Business as well as the numerous interviews and conversations the research team conducted with Palestinian economic stakeholders. One possible explanation is that there is no Israeli security check for exports, and Israeli ports are among the best in the region in terms of logistics processes and infrastructure, so Palestinian exporters may benefit from these advantages. A second possible explanation is methodological. The Doing Business statistics are based on *de jure* procedures for the entire export process while the Enterprise Survey is more narrow in its definition and only asks about time to clear customs once goods have reached the point of exit.

**Figure 4.22 Days to Clear Imports and Exports from Customs**



Source: Enterprise Survey, 2013

### 4.4.3 Test of Camels and Hippos

A second test of transaction costs is the test for camels and hippos— i.e., what thrives and what does not in the Palestinian economy can reveal what constraints exist. Although many statistics are grouped into West Bank and Gaza as a single unit, the difference between the two regions in terms of international trade is stark. Since the Gaza war in 2008, and based on Israeli security concerns about Hamas re-armament, Israel has essentially eliminated international trade to and from Gaza, and imposed strict import controls via the dual use list to limit the kinds of intermediate goods Gazan manufacturers can import. The dual use list has been particularly harmful to the furniture and metals industries, both of which have historically been strengths of the Gazan economy. The result is an export basket originating almost entirely from the West Bank, not Gaza. The table below shows the precise figures with nearly a billion dollars of exports from the West Bank in 2014 compared with just \$6 million from Gaza. Presumably, a lifting of trade restrictions on Gaza would result in a substantial increase in export value to more proportionally align with the output generated in the West Bank.

**Table 4.4 Total Exports by Region (US\$ millions)**

	2012	2013	2014	2015
West Bank	777	899	938	954
Gaza	5	2	6	4

Source: PCBS

West Bank and Gaza also separate themselves in a number of key indicators from the Enterprise Survey trade and customs report. As shown in the table below, Gaza's foreign trade presence is almost non-existent with just 1.8% of firms exporting directly or indirectly during the 2013 survey year. This compares to more than a third of West Bank firms, which indicates that although the constraints to trade are high, a substantial number of firms do find a way to export in at least some minimal capacity. Correspondingly, almost all sales in Gaza (98.5%) are to domestic firms compared with 79.5% in West Bank, while 60.8% of West Bank inputs are of foreign origin compared to just 37.3% for Gaza. Given these findings, it is not surprising to see that economic output in Gaza is substantially lower than that of the West Bank. Although there is no single optimal level of trade volume, the levels seen in Gaza are exceedingly low and place a significant damper on economic growth prospects for this region. The lack of trade results in fewer customers for Gazan goods and significant loss in productivity and profits since firms cannot take advantage of lower prices and capitalize on their sectors with demonstrated comparative advantage.

**Table 4.5 Select Enterprise Survey Trade Indicators**

	<b>West Bank</b>	<b>Gaza</b>
% of Firms Exporting Directly or Indirectly (at least 1% of sales)	37.2	1.8
% of Firms Exporting Directly (at least 1% of sales)	32.7	1.8
% of Sales that are Domestic Sales	79.5	98.5
Proportion of Total Inputs that are of Foreign Origin	60.8	37.3

Source: Enterprise Survey 2013

The trade situation in West Bank is also severely constrained. The most pressing problem for West Bank exporters is the lack of access to diverse markets outside of Israel. As shown in the table below, 81% of exports and 65% of imports are tied to Israeli trade. The concentration of trading markets place serious limitations on the productivity and profitability of Palestinian firms. These limits include a small customer base, higher prices for inputs, reduced competition, and an inability to fully capitalize on sectors with demonstrated comparative advantage.

**Table 4.6 Top Export and Import Partners (Goods)**

<b>Export Partners</b>	<b>Export %</b>	<b>Import Partners</b>	<b>Import %</b>
Israel	81.0	Israel	65.0
Jordan	9.5	Turkey	5.6
UAE	1.5	China	4.6
Saudi Arabia	1.2	Jordan	3.2
Qatar	1.0	Egypt	2.2

Source: Observatory of Economic Complexity

Despite the numerous trade restrictions, we do see opportunities for Palestinian firms to perform well in international trade. In terms of domestic policy, the legal foundation is in place for trade growth. The PA has free trade agreements with the United States, Canada, and the European Union, and other interim or partial agreements with the European Free Trade Association, Russia, Turkey, Jordan, Egypt, and Saudi Arabia.<sup>44</sup> The question is whether or not these firms can actually bypass the local constraints to take full advantage of international markets with competitive prices and high-quality products.

#### **4.4.4 Test of Camels and Hippos by Sector**

We can also apply the camels and hippos test by sector. If transaction costs truly are constraints to growth, then we expect firms that rely on physical international trade to be scarce, and firms not reliant on trade to be more prevalent. We can formally test this hypothesis with data on one of WBG's fastest growing sectors: information and communications technology (ICT) services. ICT is unique in that many services can be provided without sending people or physical goods across borders; access to an internet connection is all that is needed for a skilled ICT worker in

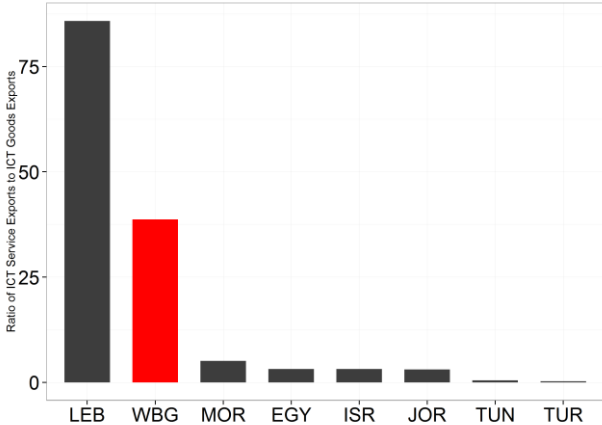
<sup>44</sup> Palestine Investment Promotion Agency, <http://www.pipa.ps/page.php?id=1bafecy1814508Y1bafec>



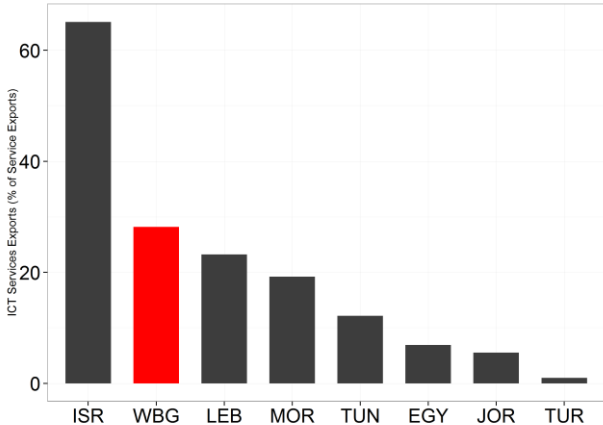
the West Bank or Gaza to access customers in any country in the world. Figure 4.23 below shows ICT service exports as a percentage of total service exports. WBG ranks second behind Israel, which is a far more advanced and technologically sophisticated economy. It is not surprising to see Israel rank so high in terms of ICT, but WBG does stand out among the other lower-income comparators.

The amount of ICT service exports does not itself provide evidence of the camels and hippos test for trade and customs. However, the second figure below, Figure 4.24, ICT service exports as a percentage of total service exports. Two countries clearly stand out: Lebanon and West Bank Gaza, which indicates that these countries export a very high value of ICT services but very few ICT goods. In 2014, WBG exported \$225 million dollars of ICT services compared to just \$5.8 million in ICT goods, meaning WBG exported 39 times more on the services side than the goods side. Lebanon’s ratio was even higher given its services exports of \$3.7 billion compared to just \$43 million in goods.<sup>45</sup> Not surprisingly, both of these countries ranked first and second in the measures of trade and customs restrictions presented earlier in this section. Israel, on the other hand, has a very low ratio since it exports a large value of ICT goods in addition to its substantial services sector. For the Israeli economy, ICT services and goods are complementary, but WBG is not able to take advantage of this arrangement. The ratio indicates that WBG has the technological capability in its workforce and certain comparative advantages in the international technology market. However, the same workforce is not able to take advantage of its skills and resources to develop, build, and export physical ICT products. WBG is well-positioned to grow its ICT services sector given its young, well-educated workforce and low cost of labor.

**Figure 4.23 Ratio of ICT Service Exports to ICT Goods Exports**



**Figure 4.24 ICT Services Exports (% of Service Exports)**



Source: WDI and USAID calculations

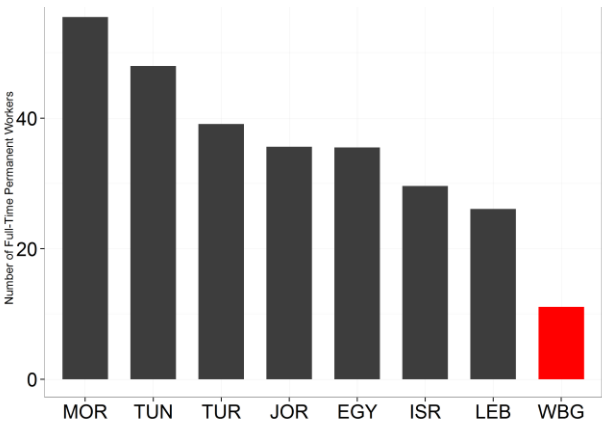
<sup>45</sup> Lebanon is an even larger outlier than WBG due to high levels of private investment, relatively good infrastructure, and a highly skilled workforce. However, the recent growth trends in the ICT sector have been driven by investment and entrepreneurship in services rather than goods.

Trade and customs are clearly a constraint to economic growth in West Bank and Gaza. The cost to import and export ranks the highest among all comparators, and survey findings reveal that firms perceive trade barriers to be among the most burdensome constraints to growth. We also see evidence in the camels and hippos test for the ICT services sector: WBG is excelling in ICT service exports because it can take advantage of its well-trained workforce and labor costs and circumvent the costly and timely border restrictions.

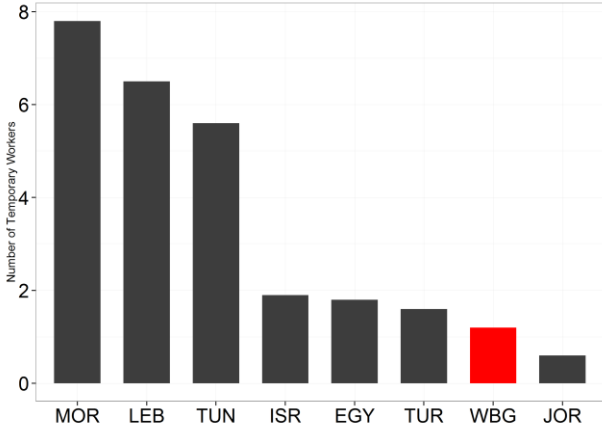
**4.4.5 Firm Structure**

Palestinian firms stand out among the comparators for being particularly small and informal. The average number of full-time permanent employees in a Palestinian firm is just 11.1, which is not only the lowest among comparators, as shown in the figure below, but is among the lowest of any country in the world. In addition, the number of temporary workers is also very low both relatively and in absolute terms, so we do not see evidence of a substitution effect by which firms replace permanent employees with temporary ones. In addition, WBG is a major outlier among comparators in terms of total workforce employed by small firms. An EBRD (2016) review of Enterprise Survey data found that employment in West Bank and Gaza firms is heavily skewed toward small firms. The results show that 61% of all employment is in small firms (5-19 employees), 32% in medium firms (19-99), and just 7% in large firms (100+). For reference, none of the comparator countries have more than 20% of total employment in small firms or less than 40% in large.

**Figure 4.25 Firm Size: Average Number of Full-Time Permanent Workers**



**Figure 4.26 Firm Size: Average Number of Temporary Workers**



Source: Enterprise Surveys, 2013

Moreover, the survey data available only covers firms in the formal sector, and other data indicates that informal firms are even smaller on average. A review of survey data by Al-Falah (2014) finds that 60% of informal firms in WBG hire just one worker compared to 42% of firms

in the formal sector. 67% of Palestinian informal workers are unpaid family members compared to just 6% in the formal sector.

Firm structure has a very real impact on the economy as a whole since a large body of economic research has found that small and/or informal firms are less productive than formal firms (see, for example, La Porta and Shleifer, 2008; Al-Falah, 2014; WTO, 2015). This is reflected in both the wage rates and measures of output per worker. For example, Al-Falah finds that informal Palestinian workers are paid 27% less than workers in the formal sector, and the inability for small firms to achieve efficiency gains through economies of scale results in low overall productivity. Furthermore, MSMEs face high fixed costs, such as the cost of information and certain regulatory requirements, which gives an advantage to larger firms that benefit from economies of scale.

All of these transaction costs make Palestinian firms less competitive, but MSMEs are especially burdened by high transaction costs. As a case in point, we interviewed one successful Palestinian businessman who told us he can ship approximately \$150,000 worth of dates in a container, and although the company may have to pay \$500-\$1,000 more to ship than competitors in other countries, the extra cost is not so high as to make the deal unprofitable. However, for a MSME, particularly a family-owned micro-enterprise, a shipment of that size is not feasible.

The constraints to international trade hurt the economy by allowing low-productivity firms to thrive when they would otherwise go out of business in the face of more competition. Melitz (2003) found that trade improves overall economic output in part through an increased competition for labor, which drives up wage rates. Since only the most productive firms can pay higher wages, the less productive firms are forced out of the market. Although this outcome is bad for individual firms in the short term, the long-term result is higher national economic growth rates resulting from higher overall productivity.

The general findings of the research on firm size point to two important and related facts that are particularly relevant to the Palestinian economy. First, Palestinian firms are concentrated in a category of small, family-oriented, informal units, and second, we know that these types of firms are less productive than large, formal firms. Since the total private sector output is the sum of all output of individual firms, the implication is that there is a real and significant structural inefficiency in the aggregate national economy caused by low average productivity at the firm level.

#### **4.4.6 Test of Transaction Costs by Firm Size**

To further test for transaction costs as a constraint to growth, we can apply the camels and hippos test to a series of Enterprise Survey findings and disaggregate by firm size. We hypothesize that small firms are less able to efficiently operate in a high transaction cost environment, and therefore we expect small firms to report more negative results on transaction cost indicators than large firms. The table below summarizes the findings for six indicators of transaction costs

taken from the 2013 Enterprise Surveys. Indicators 1 and 2 are for customs and trade regulation, 3-5 concern imports and exports, and 6 examines transportation costs. As such, the transaction costs examined here are primarily for international rather than internal trade. The question presented here is not just whether small firms are less efficient than large firms, but whether or not they are less efficient relative to large and small firms in the comparator countries. To answer this question, we use a test of differences by which we calculate the difference between large and small firms in WBG with the large and small firms in the comparator countries.

**Table 4.7 Transaction Cost Constraints by Firm Size**

		Small	Medium	Large	Difference (Small minus Large)	Difference (Med. minus Large)
<b>1. Customs and Trade Regulation as a Major Constraint (% of firms)</b>	WBG	28.8	37.9	23.2	5.6	14.7
	Comparators	14.2	13.2	15.5	-1.3	-2.3
	Difference				<b>6.9</b>	<b>17.0</b>
<b>2. Customs and Trade Regulation as the Biggest Obstacle (% of firms)</b>	WBG	4.7	15.3	3.5	1.2	11.8
	Comparators	2.4	2.6	4.4	-2	-1.8
	Difference				<b>3.2</b>	<b>13.5</b>
<b>3. Days to Clear Imports from Customs</b>	WBG	17.2	16.3	9.5	7.7	6.8
	Comparators	6.4	7.8	5.9	0.5	1.9
	Difference				<b>7.2</b>	<b>4.9</b>
<b>4. Days to Clear Direct Exports through Customs</b>	WBG	2.4	2.8	4.4	-2	-1.6
	Comparators	5.0	4.7	4.1	0.9	0.6
	Difference				<b>(2.9)</b>	<b>(2.2)</b>
<b>5. Days to Obtain an Import License</b>	WBG	38.6	25.4	11.0	27.6	14.4
	Comparators	16.4	30.7	11.8	4.6	18.9
	Difference				<b>23.0</b>	<b>(4.5)</b>
<b>6. Transportation as a major constraint (% of firms)</b>	WBG	33.9	36.4	27.0	6.9	9.4
	Comparators	11.0	11.9	15.3	-4.3	-3.4
	Difference				<b>11.2</b>	<b>12.8</b>

Source: World Bank Enterprise Survey and author's calculations

The results show that small firms in WBG are relatively less efficient than large firms, which lends support to the theory that transaction costs are a constraint to economic growth in WBG. Of the six indicators, five show substantial negative results for small firms (the one exception is days to clear direct exports). Small firms are more likely to find customs and trade regulation to be a major or biggest obstacle; they require more days to clear imports; they require more days to

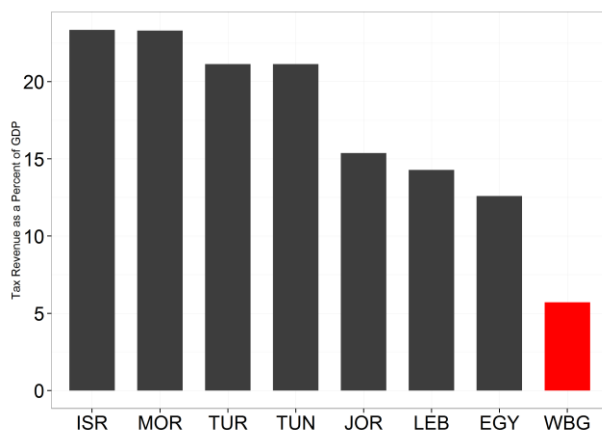
obtain an import license; and they are more likely to identify transportation as a constraint. The large firms, on the other hand, are much more likely to resemble large firms from the comparator countries, which is particularly true for the indicators for trade and regulation as the biggest obstacle (3.5% vs. 4.4%), days to clear direct exports (4.4 days vs. 4.1 days), and days to obtain an import license (11.0 days vs. 11.8 days). Overall, firms of all sizes struggle to overcome high transaction costs, but large firms demonstrate higher efficiency than small firms.

Another interesting result from this data is that medium-sized firms are by far the most burdened by customs and trade regulations. Nearly 38% say customs and trade regulation is a major constraint, and 15.3% identify it as the biggest obstacle. It is not immediately clear why medium firms perceive themselves as more burdened by trade and customs than their small and large counterparts, but one theory is that medium-sized firms are looking for growth opportunities in international markets to either expand their customer base or reach more international suppliers and are struggling to achieve those goals.

#### 4.5 Tax Rates and Administration

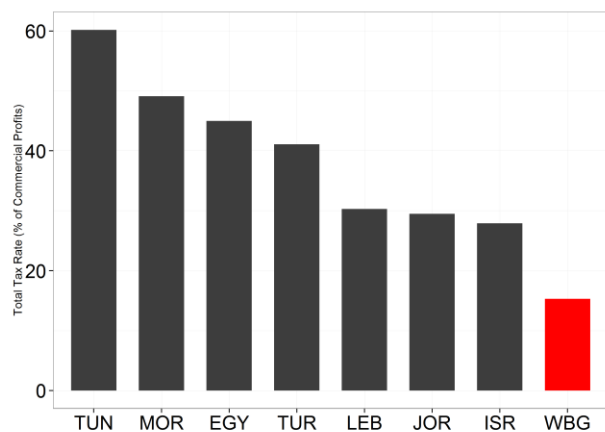
Overly burdensome tax rates and tax administration impose costs on business, reduce profits, discourage economic expansion. However, taxes are necessary to raise funds to pay for social services, maintain public infrastructure, compensate public employees, and provide national security. The challenge for every government is to find the right balance of tax policies that promote the country’s social goals while simultaneously enabling private sector economic growth.

**Figure 4.27 Tax Revenue as a Percent of GDP**



Source: WDI

**Figure 4.28 Total Tax Rate (% of Commercial Profits)**

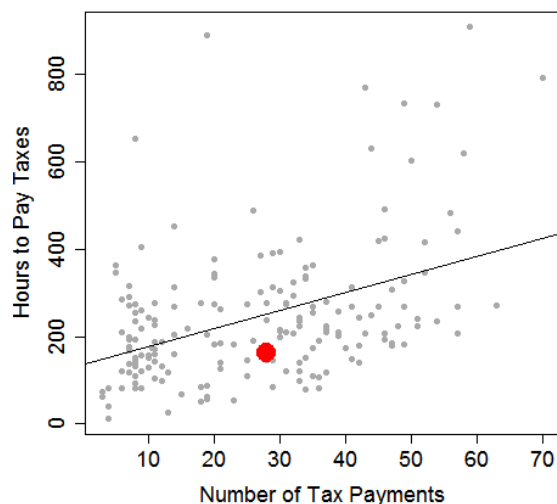


West Bank and Gaza offers the most competitive tax rates of any of the comparators. As shown in the figures above, WBG also has the most competitive corporate tax rate at just 15.3% of commercial profits. This is nearly half the rate of Israel (27.9%), and just a quarter of the rate of

profits paid in Tunisia (60.2%). In terms of total tax revenue, WBG tax revenues are valued at just 5.7% of GDP,<sup>46</sup> which is by far the lowest among the comparator countries and is less than half of the second-lowest country, Egypt, at 12.6%. Israel has the highest rate at 23.4%, which is a typical rate for highly developed countries that offer extensive and high-quality social benefits and public services, such as those found in Western and Northern Europe.

WBG also offers attractive tax incentives for new investment. Under the Law on the Encouragement of Investment in Palestine,<sup>47</sup> preferable tax rates are granted to new businesses in certain sectors or that meet certain thresholds for size, exports, and sourcing. The incentives include a 0% income tax for agriculture projects, a 5% income tax for a period of five years for the industrial and tourism sectors and other businesses that meet certain requirements, and a 10%

**Figure 4.29 Tax Burden (Number of Payments and Hours to Pay)**



Source: WDI

income tax for an additional three years following the initial five year period. In addition, fixed assets and spare parts are, in most cases, exempt from customs duties.

In addition to low tax rates, the administrative burden required to file taxes is also fairly competitive. The figure below shows two variables for tax burden: the number of tax payments made per year on the horizontal axis and the number of hours required to complete taxes on the vertical axis. WBG is on the lower end of both measures with 28 payments and 162 hours per year for an average medium-sized firm.

In terms of international rankings, WBG places 101 in the World Bank's Doing Business indicator for tax payment, which ranks near the median value among the comparators.<sup>48</sup> WBG's strengths lie in its competitive statutory tax rates and relatively efficient tax filing administration. On the negative side, the post-filing tax administration is particularly poor with a score of just 38 out of a possible 100 (where 100 is the best performing country). The low post-filing score is driven by two low component scores: 1) an average VAT refund processing time of 54.2

<sup>46</sup> Tax revenues are so low because of WBG's unusual means of revenue generation: only 16% of total government revenue is collected from domestic taxation. The majority, 55%, comes from clearance revenues, 22% from grants and donor assistance, and 7% from non-tax revenues. In fact, a good case can be made that the low level of taxation contributes significantly to a fiscally unsustainable path for WBG and the resulting austerity will slow economic growth. See Chapter 5 (Macroeconomic Risk) for more details.

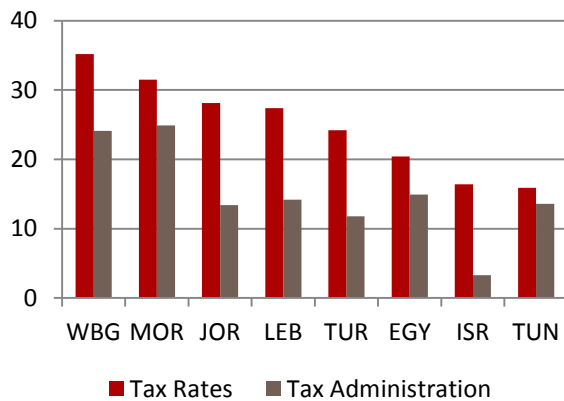
<sup>47</sup> Law No. 1 of 1998 and Its Amendments. This law, among other things, established the Palestine Investment Promotion Agency. See the text of the law for details and requirements for all tax incentives.

<sup>48</sup> For full details of tax rates, tax payment times, and scores, see the World Bank Doing Business Report, 2017.

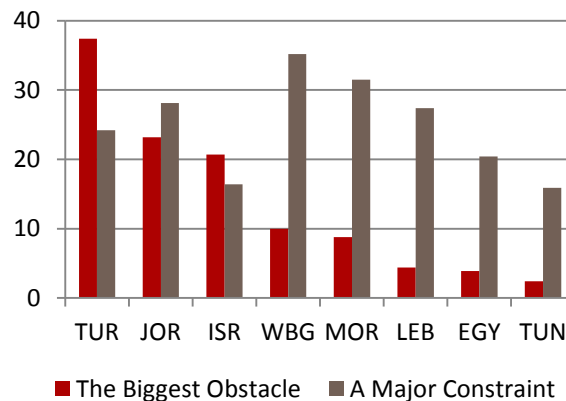
weeks—more than a year!—and 2) an average corporate income tax audit of 28.7 weeks. Both of these values are worst among the comparators, and the VAT refund processing time is particularly burdensome since it keeps cash out of the hands of businesses for an entire year. The delay results in a significant opportunity cost to firms since that money could have been put towards productive uses such as paying off debts, hiring new workers, or investing in new equipment.

Despite the competitive tax rates and tax administration burden, survey data from the World Bank Enterprise Surveys actually finds that private sector firms perceive tax rates to be a significant constraint to growth. According to the survey results, a full 35% of business owners say tax rates are a constraint to growth—the highest of any of the comparator countries. These scores are consistent when disaggregated by territory, with 37.1% of firms in the West Bank and 29.3% in Gaza claiming tax rates as a major constraint. WBG also ranks second among comparators in the percentage of firms identifying tax administration as a major constraint. Even Tunisia, with a 60% statutory profit tax and a ranking of 106 in paying taxes, has survey results of less than a half of WBG.

**Figure 4.30 Percent of Firms Identifying Tax Rates and Tax Administration as a Constraint**



**Figure 4.31 Percent of Firms Identifying Tax Rates as the Biggest Obstacle or a Major Constraint**



Source: Enterprise Survey, 2013

It is not immediately clear why we see this contradiction between policy and perception. Not only are statutory rates low, but anecdotally, not a single person interviewed during the team’s in-country meetings mentioned taxes unless specifically asked about the subject. Our meetings included a wide range of stakeholders in government, international organizations, academia, and private business, and there was a clear consensus that tax rates and administration did not place a major constraint on the economy relative to other political-economic issues. A closer look at the survey data shows that although WBG has the highest percentage of firms identifying tax rates as a major constraint, only 10% of firms identify it as the biggest obstacle to growth. For WBG, the leading obstacle was political instability (31.1% of firms) followed by access to electricity

(13.4%), which is essentially an extension of the political situation since Israel controls the electricity generation capacity and the price of fuel.

There is little the PA can do to improve the business climate through lower taxes, and there is room for only moderate improvement in tax filing administration. Yes, the post-filing performance is very poor, but that is only one component of many in the overall tax burden placed on private sector firms. Taken in context, the evidence, both quantitative and qualitative, favors the conclusion that tax rates and tax administration do not constrain private sector investment decisions in the West Bank and Gaza.

## **4.6 Business Regulatory Environment**

### **4.6.1 Introduction**

The business regulatory environment is a critical determining factor of private sector economic growth. Regulations are non-monetary government-mandated requirements that impose indirect costs on firms through administrative burden, compliance mandates, or limitations to certain economic activities. Unlike taxes and fees, the cost of regulations are borne through less direct means such as higher overhead, higher salaries, foregone business opportunities, and rigid hiring and firing practices, to name a few. However, there are positive aspects to regulation as well, and if fairly administered and reasonably applied, they can create net positives for society. Some regulations promote positive externalities, such as environmental protection and workplace safety, or promote a fair and transparent playing field for firms to compete.

In WBG, the overall business regulatory environment is poor and lags behind the comparators on many international indicators of business regulation. However, we do not find the regulation to be a binding constraint to growth because we find no evidence of firms circumventing formality to avoid regulation. We also find the level of informality to be on par with a country of WBG's level of economic development.

Like many aspects of the Palestinian economy, Israeli policy poses a challenge to an economic analysis of West Bank and Gaza since it is hard to separate the effects of the Israeli political and security controls from the domestic policy of the Palestinian governments. This reality is complicated by the further distinction between the Fatah-controlled West Bank and Hamas-controlled Gaza and the policy, governance, and institutions between the two groups. For example, the dual use list is a form of regulatory burden that seriously impacts Palestinian businesses, but it is not controlled by Palestinian governments in either region. That being said, there are many changes that the Palestinian government can make to improve the regulatory environment using its own domestic policy.



## 4.6.2 International Regulatory Rankings

One common measure of regulatory quality and efficiency is the World Bank Doing Business Report. In the 2017 rankings, WBG was last among comparators with a rank of 140 (out of 190 countries) and a distance-to-frontier score of 53.21 (where 100 is the leading country). The rankings are slightly misleading since the distance to frontier (DTF) scores are so similar; Jordan, Egypt, and Lebanon are all within four points of WBG, so the differences in regulatory quality between these countries are minimal. However, the top four comparators, and most of the world's economies, score significantly better, and there remains much room for improvement on a number of measures.

**Table 4.8 Overall Doing Business Rankings**

Country	Doing Business Overall Rank	Doing Business Distance to Frontier
Israel	52	71.65
Morocco	68	67.50
Turkey	69	67.19
Tunisia	77	64.89
Jordan	118	57.30
Egypt	122	56.64
Lebanon	126	55.90
<b>WBG</b>	<b>140</b>	<b>53.21</b>

Source: World Bank Doing Business 2017

Doing Business ranks countries on 10 separate indicators and combines these together to form the overall score. As shown in the radar chart below, WBG's low overall ranking of 140 is driven by particularly bad scores for starting a business (169), resolving insolvency (169), protecting minority investors (158), and construction permits (157). Electricity and property registration are the least burdensome, but even those are only average relative to global standards. Again, these highlight problems internal to the WBG economy and not those imposed from outside. Although much could be written on the details of these regulatory procedures, a few illustrative examples highlight areas of improvement. Under the starting a business indicator, it takes 36 days to receive a business license from the Ramallah municipal government and an additional 7 to 21 days to receive approval of certain human resources policies with the Ministry of Labor. Fees are also high. The process to obtain a construction permit for a warehouse requires no less than 20 distinct procedures that together cost a company 14.5% of the warehouse value. This compares to just 3.3% for countries in the Middle East and North Africa and 1.6% for OECD high-income countries.

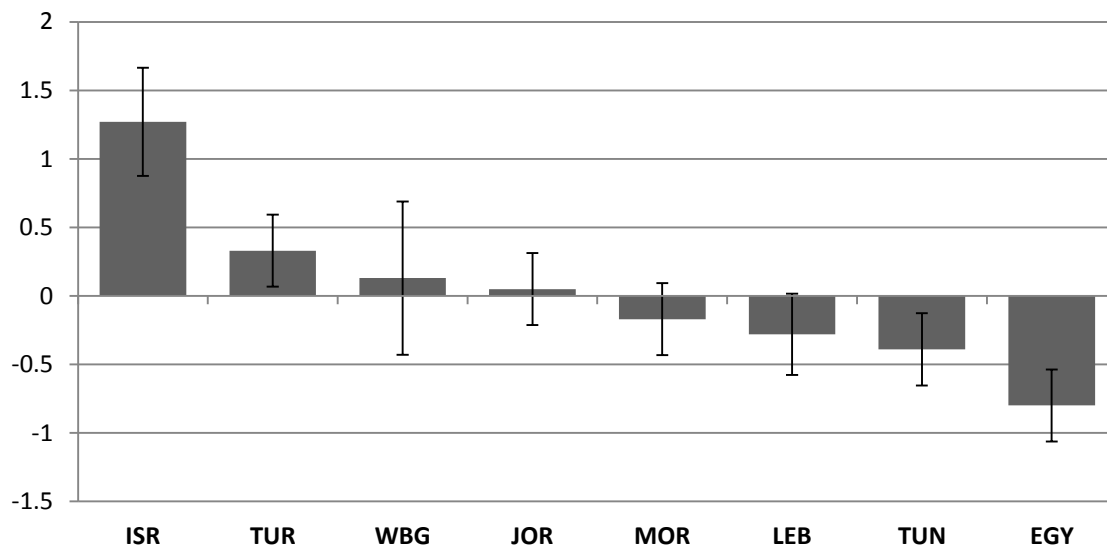
**Figure 4.32 WBG Doing Business Rankings (outside is best; center is 190)**



Source: Adapted from World Bank Doing Business 2017: Equal Opportunity for All Economy Profile

Another leading indicator of regulatory burden comes from the World Bank’s World Governance Indicators (WGI). Among the WGI indicators is a measure of regulatory quality, which “captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.” Scores range from approximately -2.5 to 2.5, with higher numbers indicating better governance. As shown in the figure below, the West Bank and Gaza actually performs better on the WGI indicator than in the Doing Business Report, although an important caveat is the high degree of uncertainty in the data (only 2 data sources are available for WBG compared to 7-12 for the others, so 90% confidence intervals are wide). Despite the uncertainty, a reasonable conclusion is that WBG falls somewhere in the middle of the comparators and is certainly not an outlier on this measure of regulation.

**Figure 4.33 Regulatory Quality from World Governance Indicators**



Source: World Bank World Governance Indicators

A final measure of business regulation comes from the Fraser Economic Freedom rankings. In the 2016 Economic Freedom of the Arab World Annual Report, the Fraser Institute ranks West Bank and Gaza as the lowest among comparators in their measure of business regulation. WBG scores a 4.1 out of 10 compared to 8.3 for Tunisia, 7.7 for Lebanon, 7.7 for Morocco, 7.6 for Egypt, and 7.5 for Jordan.

### **4.6.3 Tests for Business Regulation as a Constraint**

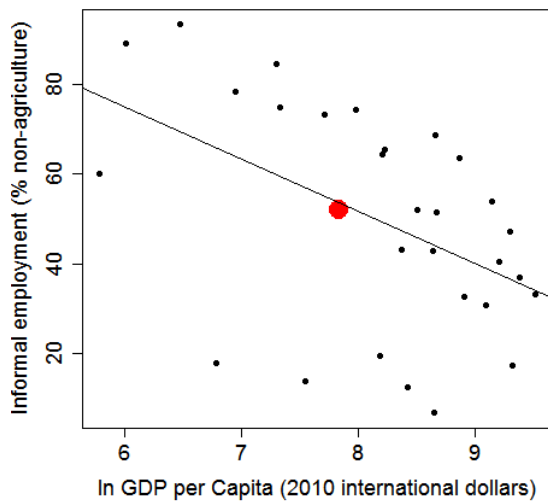
Although the overall findings are moderate-to-negative for business regulation, we can further test for bindingness of the constraint with the application of the HRV test for circumvention. If regulation truly poses a constraint on private business, then we expect businesses to bypass the constraint by moving into the informal sector of the economy where the business can avoid regulations, taxes, and fees. In theory, a rational profit-seeking firm will establish itself in or move to the informal sector if the benefits of doing so (e.g. less regulation and tax, higher profits) outweigh the costs (e.g. less access to formal finance, loss of legal protections).

The size of the informal sector in any economy is notoriously difficult to measure given that informality is, by definition, outside of official channels of government oversight. However, there are research efforts, including informal sector surveys, to address this question. WBG conducted a survey of informal business in 2008, and research conducted by Belal Al-Falah (2014) for the Palestinian Economic Policy Research Institute estimates that 50% of firms in WBG operate informally (45.3% in the West Bank; 65.7% in Gaza). In terms of employment, 36.3% of total private sector employment is informal.

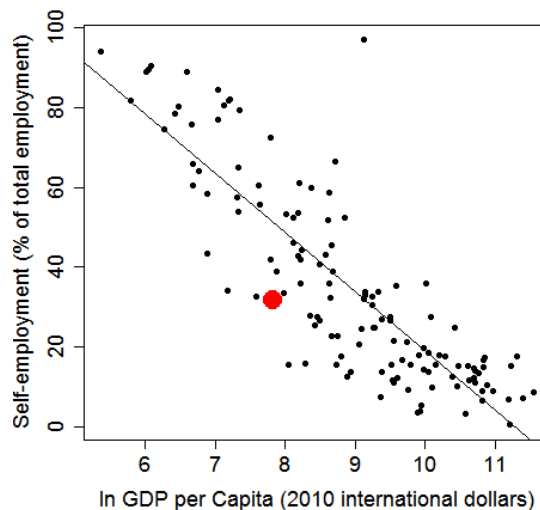
These numbers appear high on their own, but in fact they are consistent with levels expected for a country in WBG's stage of economic development. Previous research on cross-country

comparisons of informality shows a strong negative correlation between economic development and the size of the informal sector (e.g., La Porta and Shleifer, 2008). We build on that research with more up-to-date data from the World Bank. The regression model below shows the percentage of non-agriculture informal employment for 30 low- and middle-income countries, and WBG’s informality percentage of 51.9 places it right on the trend line for a country of its level of income. The regression analysis for a second indicator, self-employment, serves as a proxy for informality and also sheds light on the degree of circumvention. Relative to its level of economic development, WBG is actually below its expected level of self-employment. Together, the evidence here supports the argument that firms are not circumventing the regulatory environment through informal channels.

**Figure 4.34 Informal Employment (% of total non-agriculture employment)**



**Figure 4.35 Self-Employment (% of total employment)**



Source: WDI

The argument against circumvention is further enhanced by data from Palestinian survey data. Al-Falah (2014) finds that only 18% of entrepreneurs in the informal sector consider formalization costs to be a disincentive to formalize, and a full 75% see no need to join the formal sector at all. In other words, the relatively minor benefits of formality simply do not justify the cost of formalization. Most firms could afford to be formal if they chose, but they simply see no reason to pursue the option. The reasons for this could be many, but as discussed in the finance chapter, most Palestinian firms use family networks, personal savings, and other informal borrowing channels to finance their businesses, yet one of the primary benefits of formality according to La Porta and Shleifer (2008) is access to external finance. Since we have determined that finance is not a constraint to private sector business growth, we can infer that the high degree of informal financing is a product of demand for this type of financing—not a shortage of credit supply in the formal banking sector. We see a revealed preference among

many firms, particularly small firms, for informal financing, and as long as that preference exists, there will be little incentive to pursue formality.

In summary, WBG offers a poor business regulatory environment relative to the comparator countries. Procedures and costs to start a business, construct a new building, and enforce contracts, among others, are far behind the leaders, and the overall business climate is average at best. Despite these challenges, we do not find evidence of private sector firms circumventing the formal sector to avoid regulations or taxes. The level of informality in the Palestinian economy is consistent with the country's level of economic development and the result of low demand for the benefits offered in the formal economy.

#### **4.7 Corruption and Investment**

A large body of research finds a negative relationship between corruption and economic growth and development.<sup>49</sup> Transparency International defines corruption as the “abuse of entrusted power for private gain” and notes that the effects of corruption are substantial, undermining “people’s trust in political and economic systems, institutions and leaders.” Corruption creates a major financial and administrative burden on firms, and discourages both foreign and domestic private investment. This analysis will first look at the West Bank and Gaza’s ranking in global corruption indicators. Next, it will examine the prevalence of corruption observed by individuals and firms in WBG.

The Palestinian Authority (PA) has faced a number of large-scale corruption scandals in the past, but in recent years has worked to develop and implement effective anti-corruption policies.<sup>50</sup> Despite the policy-level improvements, the West Bank and Gaza still score low in the control of corruption in the World Governance Indicators (WGI), as shown in Figure 4.36. While WBG has seen improvements shown some improvement since 2000, their score has been volatile, and remains among the lowest of the comparators.

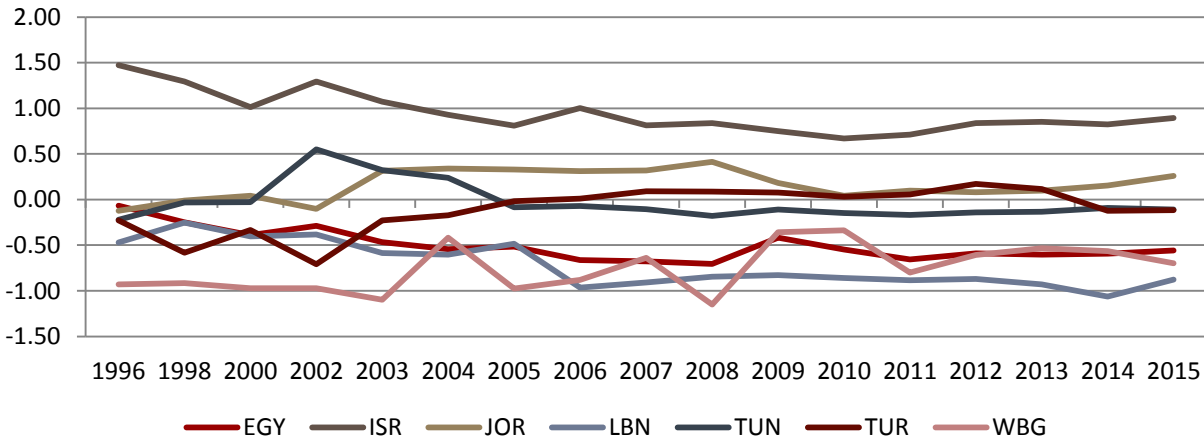
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<sup>49</sup> See Murphy, Shleifer and Vishny (1993), Mauro (1995, 1996), Keefer and Knack (1995), Triesman (2000), Tanzi and Davoddi (1997), Gupta, et al. (1998), Elliott (1997), Wei (1997a), Brunetti, et al. (1997), Lambsdorff (1999), Rose-Ackerman (1997) and Bardhan (1997).

<sup>50</sup> *Overview of corruption and anti-corruption in Palestine*, U4 Anti-Corruption Research Centre, 2012.

**Figure 4.36 Trends in the Control of Corruption**

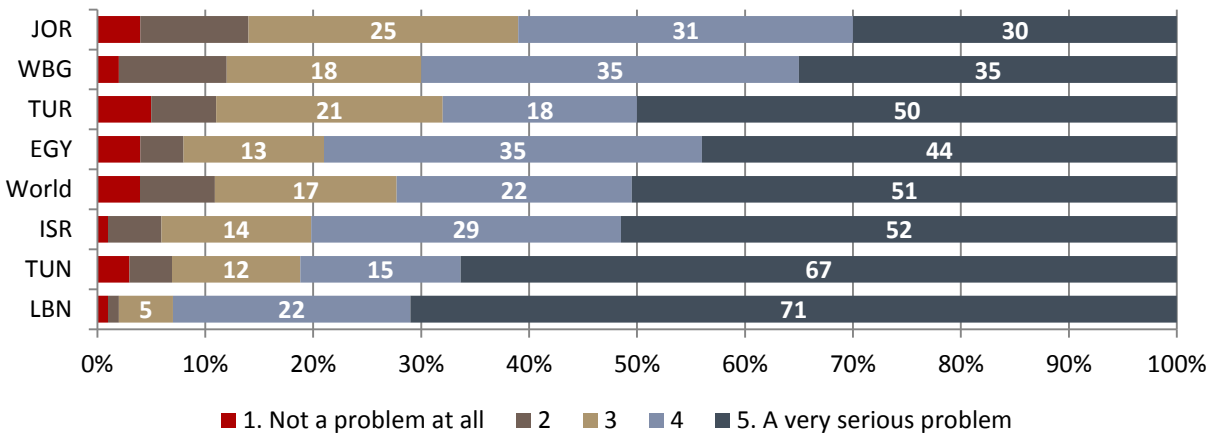
Note: The scale used is from 2.5 (high control of corruption) to -2.5 (low control of corruption)



Source: World Governance Indicators, 2015

Despite the overall low score in the control of corruption, the public perception of corruption in the WBG is mixed. The results from Transparency International’s Global Corruption Barometer survey in 2013 show that thirty-five percent of respondents believe that corruption is a very serious problem in the public sector (ranked 5 on the Likert scale). This is the second lowest of the comparators. The global average is 51%. When looking at both those who ranked corruption in the public sector as a 4 and a 5 on the Likert scale, the WBG is the third highest ranked, after Jordan and Turkey, and just above the world average.

**Figure 4.37 To what extent do you think that corruption is a problem in the public sector in this country?**

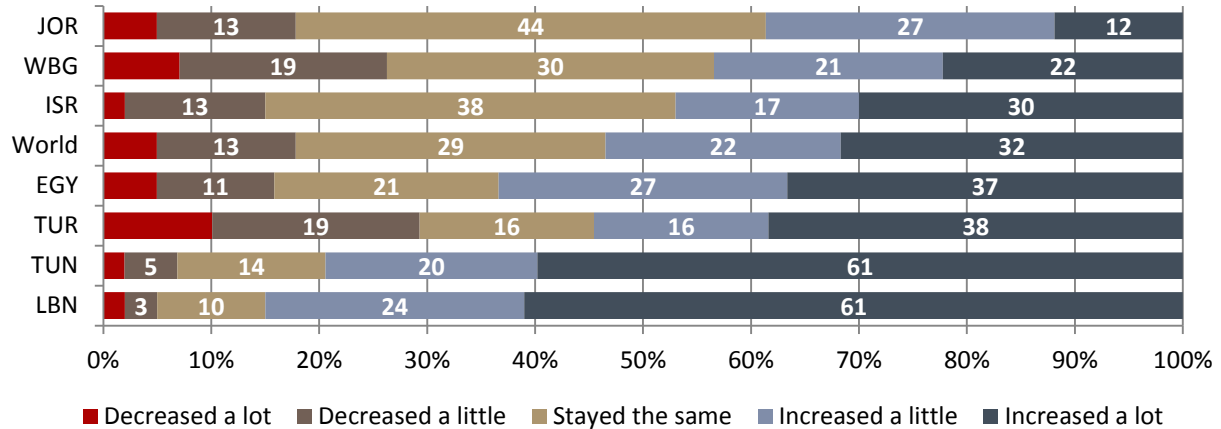


Source: Global Corruption Barometer, 2013

In a similar trend, twenty two percent of respondents in the WBG believed that the level of corruption had “increased a lot” over the past two years, which was the second-lowest among the

comparators. The most common response was that levels of corruption stayed about the same (30%). Just seven percent thought that corruption had “decreased a lot.”

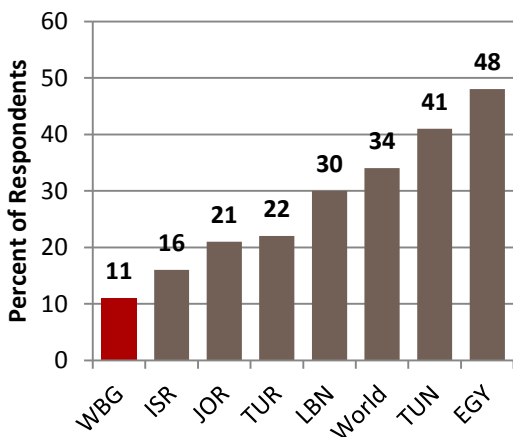
**Figure 4.38 Over the past 2 years, how has the level of corruption in this country changed?**



Source: Global Corruption Barometer, 2013

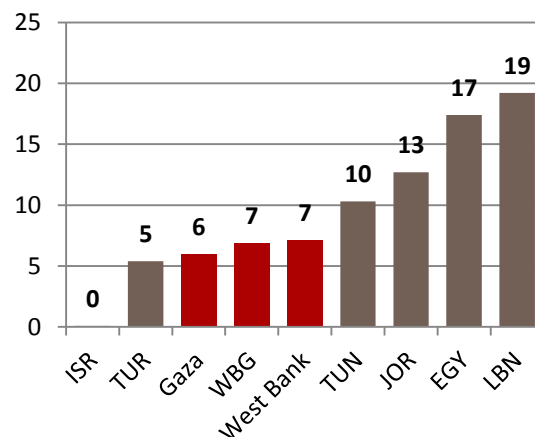
Respondents in the West Bank and Gaza were the least likely to say that they had ever been asked to pay a bribe among comparator countries, with just eleven percent reporting that they had. The highest rate was in Egypt, where 48% of respondents reported being asked to pay a bribe. Similarly, the results from the World Bank’s Enterprise Survey shows that a relatively low share of firms has experienced at least one bribe payment request. The WBG average is 6.9% (with 6% in Gaza, and 7.1% in the West Bank). Israel and Turkey perform better than WBG, at 0.1% and 5.4% respectively. The highest rates were in Egypt (17.4%) and Lebanon (19.2%).

**Figure 4.39 Percent of respondents who have ever been asked to pay a bribe**



Source: GCB, 2013

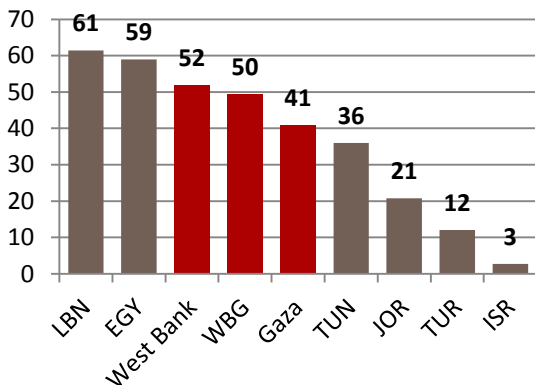
**Figure 4.40 Percent of firms experiencing at least one bribe payment request**



Source: Enterprise Survey, 2013

Despite relatively low rates of individuals and firms receiving bribe requests in WBG, the perception of corruption remains high. Approximately fifty percent of firms in WBG identify corruption as a major constraint. This compares with a high of 61% in Lebanon and a low of 2.7% in Israel.

**Figure 4.41 Percent of firms identifying corruption as a major constraint**



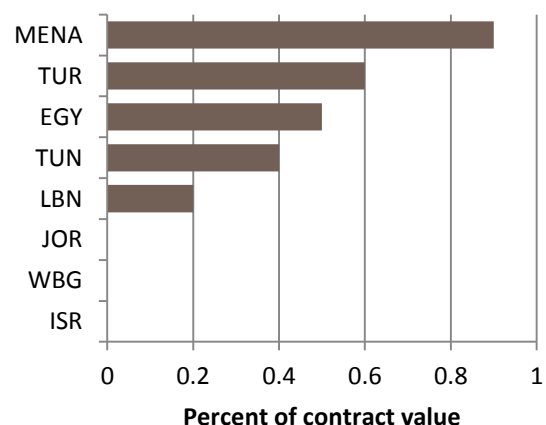
Source: Enterprise Survey, 2013

This discrepancy between individuals and firms perception that corruption is a major issue despite few individuals or firms being asked for a bribe has been explained by the World Bank as the possible result of three factors: “1) the delayed impact of reforms on perceptions of corruption; 2) the high demand for scarce public services available, fueling the perception of public sector corruption and; 3) general dissatisfaction with government performance in fighting impunity and prosecuting corrupt public officials.”<sup>51</sup> The public perceives the most corrupt institution in the WBG to be political parties, which likely stems from the high-profile cases of corruption in the PA’s past (Global Corruption Barometer, 2013).

#### 4.7.1 Shadow Price Test for Corruption as a Binding Constraint

While firms perceive corruption to be a major constraint, only 6.9% of firms reported ever being asked to pay a bribe. In fact, firms in the West Bank and Gaza reported that no gifts were expected to secure a government contract. Firms in Israel and Jordan also reported not being required to pay a bribe to secure a government contract, while firms in Lebanon, Tunisia, and Turkey reported gift values of 0.2 – 0.6% of the contract value. The regional average is 0.9% of contract value. This implies that the shadow cost of this form of corruption is not high in the West Bank and Gaza.

**Figure 4.42 Value of gift expected to secure a government contract (% of contract value)**



The PA’s first anti-corruption plan was passed in 2002, which focused primarily on oversight of the policy, strengthening the independence of the judiciary, and promoting separation of powers. This was followed in 2004-2005 with the Palestinian Reform Programme, and in 2008-2010 with

<sup>51</sup> Overview of corruption and anti-corruption in Palestine, U4 Anti-Corruption Research Centre, 2012.



the Mid-Term Reform and Development Plan. While gaps in institutional capacity still exist, the World Bank notes that these reforms have been successful at improving public financial management.

While corruption remains a problem in the West Bank and Gaza and is an area for continued policy reforms, the data does not indicate that it is a binding constraint to growth. Perceptions of corruption remain high, possibly due to the delayed impact of reforms on perceptions, but the cost to firms remains low. In fact, just 3.9% of firms in WBG stated that corruption was their largest obstacle, making it the seventh most reported obstacle.

## **4.8 Conclusion**

Microeconomic risk and distortion are detrimental to private sector activity in the West Bank and Gaza. Firms identify political instability as the most significant factor obstructing economic growth, and many of the issues in the economy stem from the overarching instability of the unresolved Israeli-Palestinian conflict. The issues of movement, access, and trade pose real and significant barriers to private businesses who would like to expand and compete but are unable to achieve these goals because people, money, and goods cannot easily move across borders or checkpoints. The research presented here identifies a number of specific ways in which the political situation impacts private sector decision making, most notably the high transaction costs of doing business in WBG. Unfortunately, the high transaction costs have harmed the majority of Palestinian businesses, which tend to be small and informal and do not operate efficiently in a high transaction cost environment. We conclude that the Palestinian economy suffers major losses in overall economic output due to transaction costs. Finally, our analysis finds that land access, taxes, business regulation, and corruption are not binding constraints to growth.

## 5 MACROECONOMIC RISKS AND DISTORTIONS

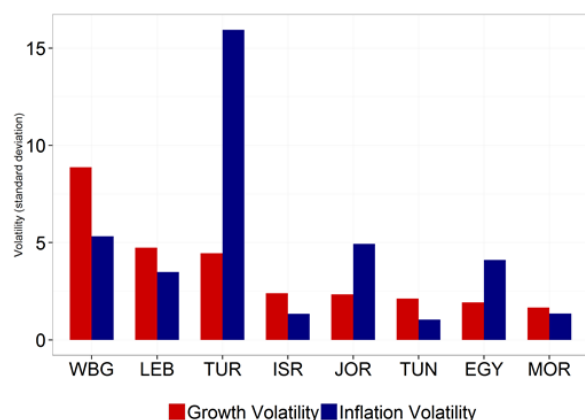
### 5.1 Introduction

The macroeconomic conditions in the West Bank and Gaza though not of imminent concern, do show signs of potential weakness that could contribute to larger and ongoing problems over the longer term, if not addressed.<sup>52</sup> More specifically, although improving, the fiscal balance could benefit from an expansion of the domestic revenue base coupled with a shrinking of public sector expenditures to cover the wage bill. Additionally, macro disruptions due to political unpredictability have created volatility in the pattern of growth. If firms anticipate lower expected returns to investments due to political uncertainty, firms will likely take decisions to lessen their exposure to risk, leading to lower levels of investment. Indeed, it is not unlikely that such conservative decisions in the face of uncertainty are already being taken by firms in the region, given observed low levels of domestic private sector investment in the region. That is, avoidance of risk is possibly one factor behind the observed small firm size in WBG where average firm size appears to be sub-optimally small. Ironically, although firms may be reluctant to expand due to political uncertainty (normally by taking on debt or equity financing), larger firms are generally more able to withstand negative shocks and risks associated with uncertainty.

### 5.2 Volatility of Economic Growth and Inflation

Since 2000, economic growth in the West Bank and Gaza has been highly volatile, with dramatic swings between strong growth (10-15% per year) and severe contractions (as much as -15% per year), and everything in between. The volatility of growth and inflation can be measured through the standard deviation of annual growth and inflation rates. The figure below shows growth and inflation volatility statistics for the West Bank and Gaza and comparator countries. WBG has the highest growth volatility (red bar) but medium-range inflation volatility (blue bar).

**Figure 5.1 Growth and Inflation Volatility of Comparators, 2000-2015**



Source: WDI

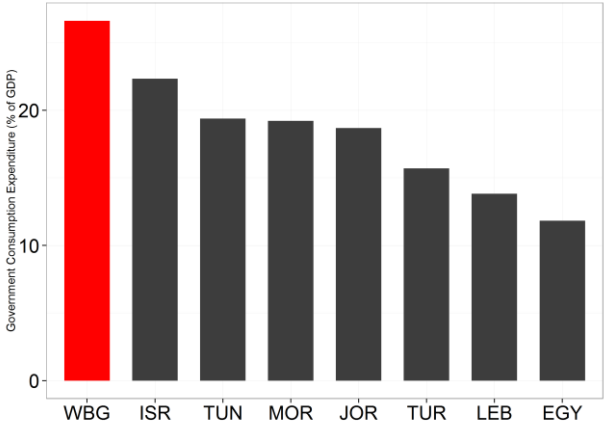
<sup>52</sup> Government statistics presented in this chapter reflect official government data from the Palestinian Authority and do not include data from the de facto Hamas government in Gaza.

The relative inflation stability is explained by the close monetary and trade relationship between the Palestinian and Israeli economies. WBG does not have its own currency or central bank and instead uses the Israeli shekel as its official currency. Because the Palestinian economy is so intertwined with Israel, it would seem reasonable for prices to shift in a similar pattern over time, and in general, we do see evidence of this relationship. Average inflation rates in WBG, however, have been about twice as high over the past 15 years compared with Israel despite almost zero real growth in the Palestinian economy. A likely cause is that food and fuel prices make up a much larger share of total consumption in WBG, so increases in international food and fuel prices have a larger impact on inflation.

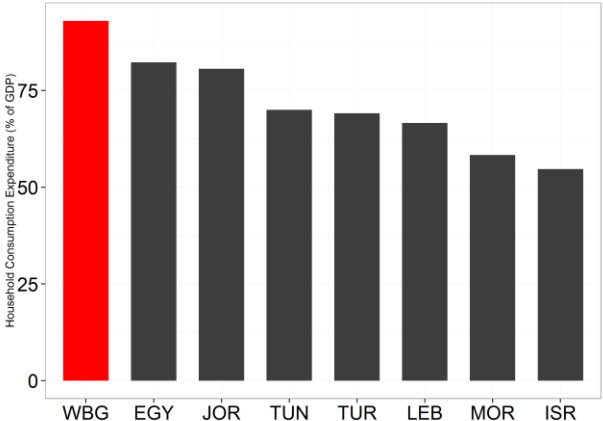
### 5.3 Consumption, Savings, and Investment

The Palestinian economy is largely a consumption economy. As shown in the figures below, WBG has the highest levels of household consumption (93% of GDP) and government consumption (27% of GDP) of any of the comparators.

**Figure 5.2 Government Consumption (% of GDP)**



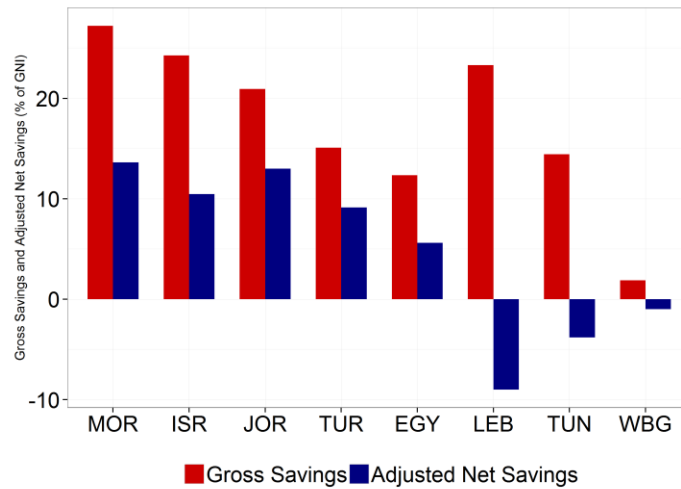
**Figure 5.3 Household Consumption (% of GDP)**



Source: WDI

As shown in 5.5, WBG has by far the lowest gross savings rate at just 1.9% of GNI (as of 2014), while the adjusted net savings rate, which subtracts the cost of replacing fixed capital, is *negative* 1.0% of GNI. Although the adjusted net savings rate is higher than Lebanon and Tunisia, a negative net savings rate is an indication of poor growth prospects since long-term output can only improve through a shift to higher gross savings and investment.

**Figure 5.4: Gross Savings and Adjusted Net Savings (% of GNI), 2014**



Source: WDI

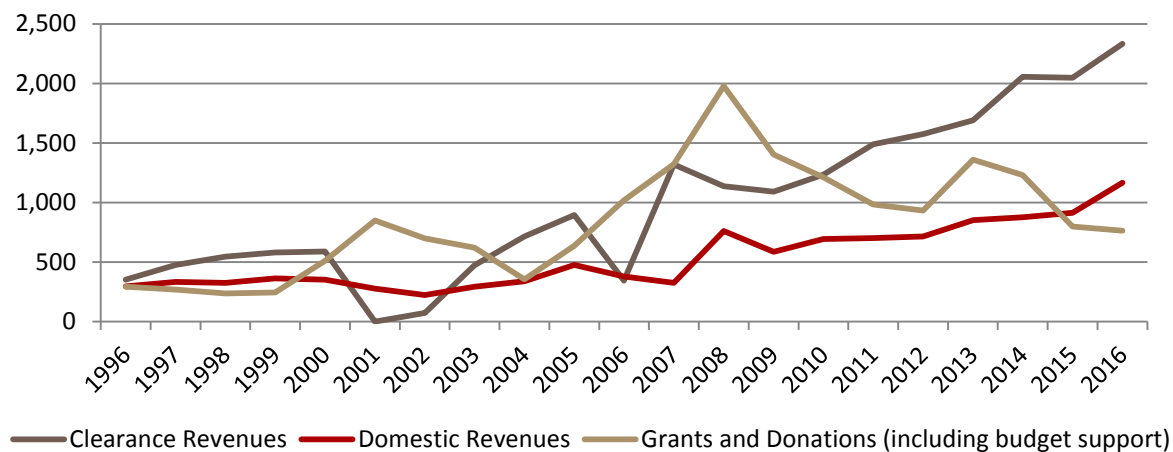
## 5.4 Public Finance

Public finances in the West Bank and Gaza face significant long-term challenges. Since the establishment of the Palestinian Authority in 1994, the government has been dependent on foreign aid to close funding gaps and generate consistent revenue streams due to the volatility of the political situation and Israeli restrictions on the movement of goods and people. Such vulnerability has negatively impacted the size and nature of domestic economic activity as well as the revenues and expenditures of the PA.

PA revenues come from three primary sources:

1. **Clearance revenues** (customs, excise, VAT, purchase tax). These taxes are collected by Israel on goods imported from or through Israel, and then transferred to the PA on a monthly basis. They are estimated at 56% of the total revenues. Israel imposes a 3% collection and processing fee on all revenues.
2. **Domestic revenues** (income tax, VAT, customs on cars, non-tax revenues). These taxes and fees are collected by the PA and constitute around 24% of the total revenues. Domestic tax revenue makes up just 5.7% of GDP— by far the lowest among the comparator countries.
3. **Donor support.** The PA is highly dependent on foreign assistance for budget support and development assistance, which total 20% of revenues. Donor funds are critical to limit the budget deficit and meet recurring obligations such as salaries for public sector employees.

**Figure 5.5 Revenue by Type (nominal, USD millions)**



Source: PMA

The modern history of public finance in the West Bank and Gaza has gone through four main stages:

The first stage (1995 – 1999): The PA was only capable of covering its recurrent expenditures. Thus, the PA utilized foreign budget support to cover its development costs that were invested in rehabilitating its infrastructure and building its institutions.

The second stage (2000 – 2005): After the outbreak of the second uprising (Intifada), economic and social indicators declined as a result of an economic closure policy imposed by Israel and significant reductions in the number of Palestinian laborers working in Israel. To offset the impact of these factors, the PA was forced to employ large numbers in the public sector, and increase public spending on unemployment benefits, health care provision, and other social services. The resultant increase in public spending and decline in revenues led to large budget deficits.

The third stage (2006 – 2007): This was one of the most difficult stages and followed the formation of the Hamas-led cabinet in March 2006. The PA was unable to pay the salaries of its employees after Israel withheld the clearance revenues it collects on behalf of the PA, and donors declined to transfer financial aid to the Hamas-led government. Furthermore, the 2007 divide between the West Bank and Gaza exacerbated the budget problem. The PA continued to transfer around 45% of its budget to Gaza (mainly to pay non-working PA public sector employees) while PA revenues from Gaza declined from 28% in 2005 to around 13% in 2016, according to the International Monetary Fund (IMF).

The fourth stage (2008 – 2016): Since 2008, revenues have grown and expenditures have increased. Meanwhile, there has been a steady downward trend in donor budget support from \$1.76 billion (26% of GDP) in 2008 to \$608 million (5% of the GDP) in 2016.

Despite revenue increases, the declining budget support has translating into a rising budget deficit. Unlike fully sovereign states, the PA is not in a position to issue traditional bonds and sovereign debt in order to generate revenue (or properly pay back such bonds), nor can it access international financing mechanisms under the IMF or the World Bank. It has, therefore, financed these deficits through borrowing from domestic banks, borrowing from regional and international lending mechanisms, and the accumulation of arrears to private sector suppliers and the pension fund. These practices continue to the present.

As mentioned, clearance revenues comprise the majority of the PA Treasury's operating budget. According to the World Bank, clearance revenues could be \$285 million higher per year in the absence of "fiscal leakages" from under-reported bilateral trade with Israel and undervaluation of Palestinian imports from third countries, a lack of information sharing on Palestinian customs declarations received by Israel, among other concerns.<sup>53</sup> On the other hand, the income tax revenues account for only 7% of the total revenues compared to 47% in Egypt and 22% in Jordan.<sup>54</sup> The poor contribution of income tax revenues can be attributed to tax evasion, insufficiently broad tax brackets, and generally low tax rates.

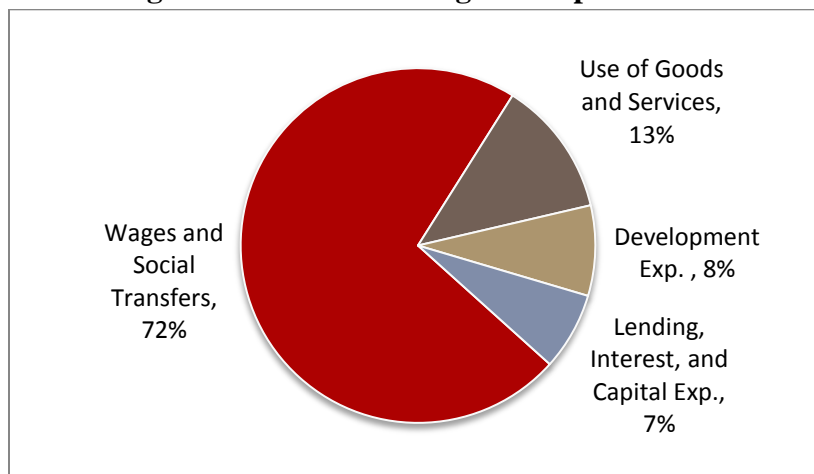
An overwhelming percentage of the PA budget is used for wages, social assistance, and operations, leaving little room for new investment. The PA spends 72% of its expenditures on salaries and wages for its public sector employees and social assistance to vulnerable families, and around 13% on the use of goods and services to run the PA ministries and institutions. Thus, almost no funds remain for public investment in infrastructure or developmental projects (Figure 5.6).

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<sup>53</sup> The World Bank Economic Monitoring Report to the Ad Hoc Liaison Committee (April 19, 2016)

<sup>54</sup> PCBS report "Fiscal Sustainability of the Palestinian National Authority: Experience and Future Prospects"

**Figure 5.6: PA 2016 Budgeted Expenditures**



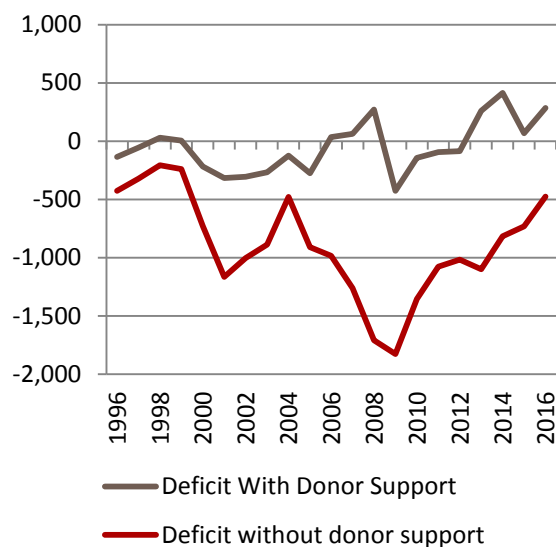
Source: MOFP

The PA will continue to face a significant budget deficit and accumulated debt, although the fiscal situation has improved since 2008 even in the absence of donor budgetary support.<sup>55</sup> In 2015, The PA's average monthly expenditures were \$325 million. Domestic revenues yielded \$76 million, and the clearance revenues from Israel were \$171 million, leaving a deficit of about \$78 million per month. The PA relies on donor support to fill this gap, and when such support is insufficient, it leaves a large deficit with clear impacts on the PA's sustainability and ability to operate. Thus, budget constraints remain an impediment to public investments. However, when looking at trend data for both the deficit and debt, we see the fiscal situation improving. Although annual deficits are still quite substantial, the 2016 deficit without donor support was -\$476 million compared to -\$1,827 million in 2009.

In addition, the ratio of debt to GDP is also improving as the annual fiscal deficits decline. As shown in Figure 5.8, total debt-to-GDP fell from a peak of 26% in 2007 to 20% in 2015, the lowest the level since 2001. The reduction in debt-to-GDP ratio is due mostly to a decline in the value of foreign debt from 19% in 2007 of GDP to 8% in 2015 while domestic debt has only increased moderately over this same time period.

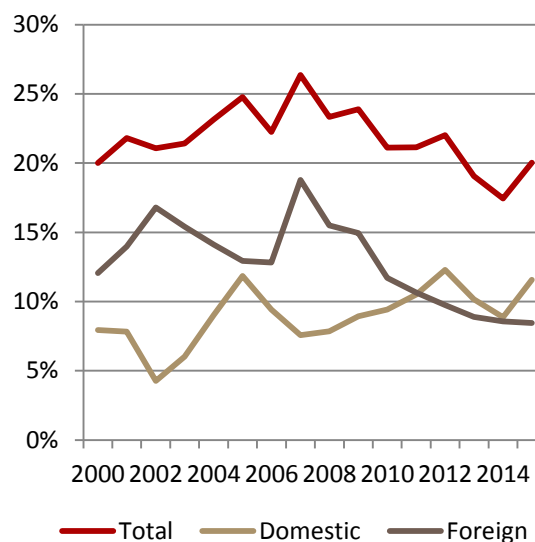
<sup>55</sup> One reason for improved domestic revenues is better enforcement of tax laws, which has resulted in higher revenues despite lower tax rates. Between 2005 and 2016, the commercial tax rate (as a percent of profit) fell from 22.5% to 15.3% while annual domestic tax revenues increased from \$231 million to \$626 million.

**Figure 5.7: Fiscal Deficit With and Without External Budgetary Support**



Source: PMA

**Figure 5.8: Debt as a Percentage of GDP**



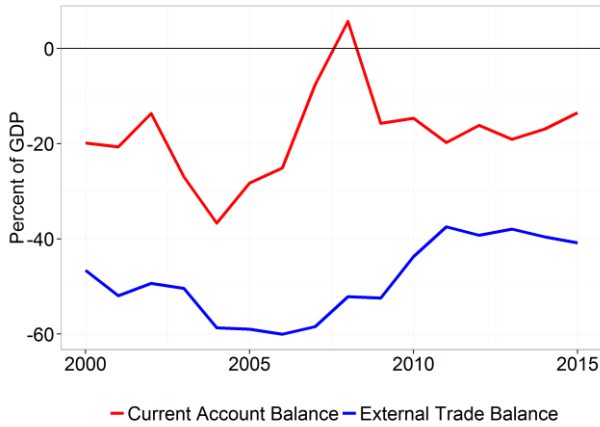
## 5.5 The Balance of Payments

The Palestinian economy has been closely integrated with Israel since 1967. Since this time, trade between WBG and Israel became internal, reflecting a de facto customs union trade regime. The result today is a high degree of Palestinian dependence on the Israeli economy. Trade volumes with Israel are very large: in 2015, trade with Israel made up 84% of Palestinian exports and 60% of Palestinian imports. WBG has always maintained a very large trade deficit, although the value of imports has actually fallen since its peak in 2007 when imports were valued at 78% of GDP. Exports, however, have remained mostly static over the past 15 years.

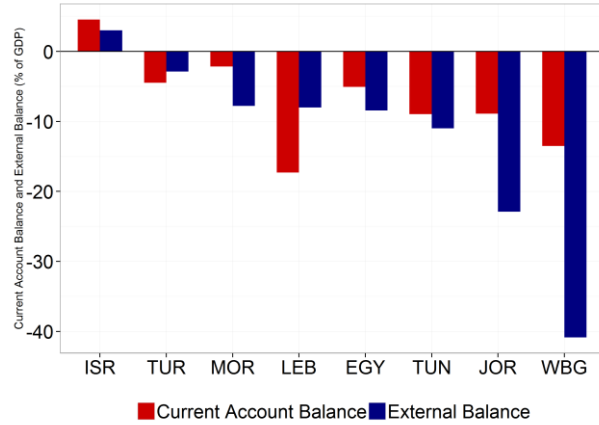
The two graphs below show the current account balance and external trade balance for WBG over time (left) and the same data for the comparator countries in 2015 (right). The trade deficit in WBG is by far the largest of any of the comparator countries at -41% of GDP. This deficit drives the overall external balance into large negative territory, which currently stands at -13.5%. Among comparators, only Lebanon has a more negative current account. The current account deficit in the WBG has actually improved some in recent years, up from -19.8% in 2011. This upward tick was due to a decrease of the value of net current transfers.



**Figure 5.9: Current Account Balance and External Trade Balance (% of GDP), 2000-2015**



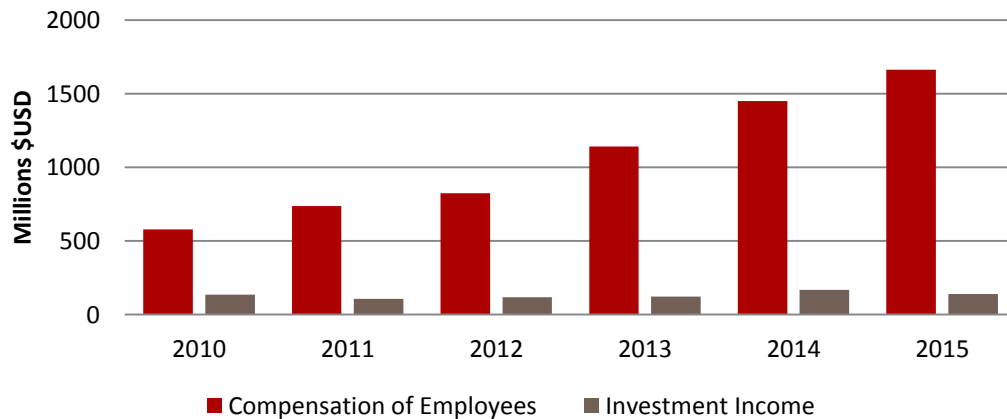
**Figure 5.10: Current Account Balance and External Trade Balance (% of GDP), 2015**



Source: WDI

The net income account has been on an increasing trend since 2010, totaling \$1.7 billion in 2015 compared to \$599 million in 2010. The rise is due to the increase in the compensation of employees, which increased from \$578 million in 2010 to \$1.66 billion in 2015. Compensation of employees received from abroad contributed 89% of the total received on income account, while investment income accounted for the rest (Figure 5.11).

**Figure 5.11: Compensation of Employees and Investment Income from Abroad**



Source: PCBS

Net current transfers decreased from \$1.991 billion in 2010 to \$1.422 billion in 2015 due to the decrease in inflows from donors (from \$1.144 billion in 2010 to \$387 million in 2015). Capital transfers received from abroad fluctuated during this time, reaching their highest level in 2010

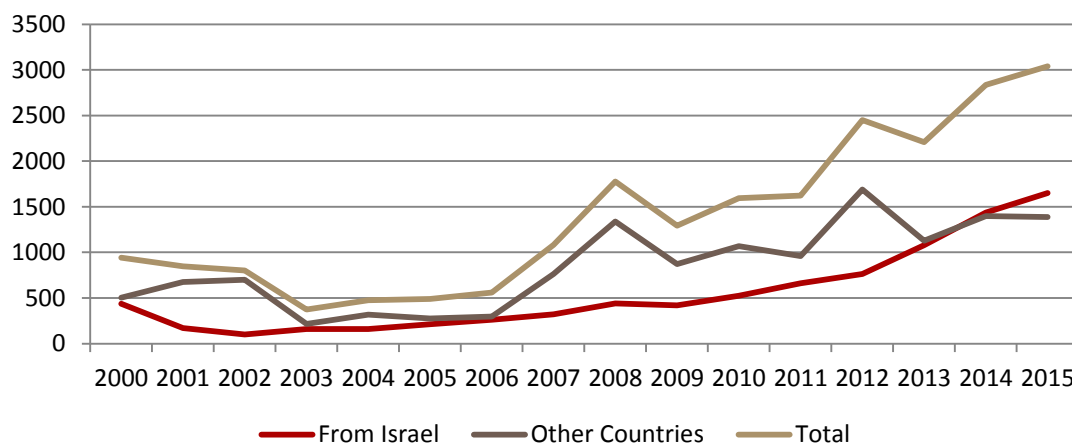
(\$828 million), but gradually decreased after that, reaching their lowest value in 2015 (\$490.7 million).

## 5.6 Remittances

In 2015, remittances to the WBG reached \$3.039 billion, including \$1.651 billion in remittances from the Palestinian day-workers commuting between WBG and Israel. This makes the Palestinian economy one of the largest recipients of remittances in the world in terms of the percentage of remittance to GDP. Remittances as percentage of the GDP in the WBG in 2015 were around 24%, the largest in the MENA region, and significantly higher than Lebanon (16%), Jordan (14.3%), Morocco (6.9%) and Egypt (5.5%).

From 1995 to 1999, personal remittance inflows were on a steady rise driven mainly by the increase in the remittances of the Palestinian day-workers in Israel following the relatively stable political conditions after the Oslo Accords. Remittances of the Palestinian workers in Israel dropped in 2001 and 2002 after the outbreak of the Second Intifada and the decision by Israel to restrict the number of Palestinian workers in Israel. Remittance payments gradually recovered from a low point of just 4% of GDP in 2003 to 13% of GDP by 2015. According to the Palestine Monetary Authority, Jordan and the Gulf countries are the main sources of remittances after Israel.

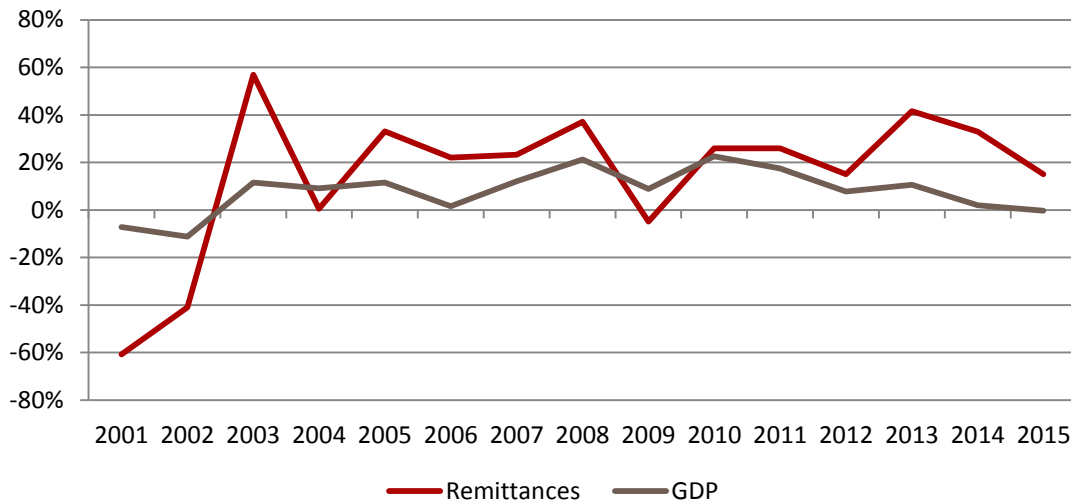
**Figure 5.12: WBG Remittances in millions USD (nominal numbers).**



Source: PMA

Remittance inflows, especially from the workers in Israel, play an important role in economic growth. As seen in Figure 5.13 below, during years when remittances from decreased, economic growth slowed down, and when remittances increased, economic growth also increased. Although the GDP figures exclude income from abroad (remittances), such remittances are spent on consumption which contributes, among other factors, to economic growth.

**Figure 5.13: Annual Growth Rates of Remittances and GDP**



Source: PMA

According to a study done by the Palestine Economic Policy Research Institute (MAS), a \$1 increase in remittances will immediately increase consumption by 52 cents, investment by 48 cents, imports by 26 cents, and income by \$1.33. However, remittance inflows remain susceptible to the political instability in the region and the economic conditions in countries with a large Palestinian diaspora.

## 5.7 Conclusion

Although the volatility of macroeconomic indicators may pose a risk to the economy over the longer term, it is also likely that the macroeconomic conditions are at least partially symptoms of the political situation that define the Palestinian-Israeli relationship rather than macro constraints in the more traditional sense. For example, on the government side, fiscal health is strained by a heavy reliance on external partners to provide revenue. These include the Israeli government, which collects and disburses clearance revenues on behalf of the PA and can withhold payment for political purposes, and the international donor community, which provides a full 20% of total government revenues. Moreover, the Palestinian economy is highly dependent on income earned abroad, particularly Palestinians working in Israel, and on remittance payments from the Palestinian diaspora. Still, there are some signs of strength, for example, in terms of the fiscal deficit, and some areas where the Palestinian Authority could take unilateral definitive action to improve the situation such as addressing the public sector wage bill.

## **6 MARKET FAILURES**

### **6.1 Introduction**

Market failure arises when private firms forego certain private economic activities that would improve overall social welfare, such as an increase in overall economic output or other non-monetary benefits. A variety of market failures arise when private and public incentives are not aligned or the normal price mechanisms of the private marketplace do not exist. Market failure is often thought of in context of public goods, such as national defense and environmental protection, but it also occurs within the private sector itself. The focus of this chapter is on market failures that cause private sector firms to forego economically profitable activities that would expand the range of goods and services produced in an economy and ultimately improve overall economic output.

The IGD methodology examines two types of market failure in particular: coordination externalities and information externalities. Coordination failure is a “chicken-and-egg” problem caused by scale economies or the absence of non-tradable inputs, such as human capital and infrastructure, which are necessary for certain business activities (Rodrik 2004). Coordination failure arises when the creation of a new market for a product or service requires simultaneous action by different economic actors because unilateral incentives are not sufficient or simply do not exist. The second failure, information externalities, is a form of free riding problem that discourages economic actors from discovering new business opportunities. The process of “self-discovery” of the profitability of a new business sector in an economy requires risk and experimentation by entrepreneurs and firms, but these actors will only accept these risks if they can protect the returns to their investment if they succeed. The presence of intellectual property rights, patent laws, and R&D can be used to test information externalities as a constraint to economic growth.

### **6.2 Export Diversification**

Coordination and information externalities can prevent private sector firms from developing new goods and services, or in the words of Dani Rodrik (2004), “blunt the incentives for productive diversification.” To test the impact of these externalities, we can analyze the export basket of the Palestinian economy over time to find evidence of economic diversification and willingness for firms to develop new products and industries. The West Bank and Gaza is the smallest and most insular of all the comparator countries, and the Israeli border restrictions place a unique and particularly limiting constraint on the amount and types of goods that are exported. However, there are methods to assess the responsiveness of the Palestinian economy to these economic and political constraints and the ways Palestinian firms adapt over time in response to these constraints.

Visually, we can see the diversification of the Palestinian economy in the product space mapping from by the Harvard Atlas of Economic Complexity. The product space was developed to

visually represent the theory that new productive activities with a natural comparative advantage are most likely to occur near current productive activities in an economy. The two images below show the types of products exported from WBG in 2005 (left) and 2014 (right). Colored circles indicate an export product, and the colors indicate sector groupings. The lines connect products that are closely related and often produced in tandem, such as, say, leather footwear and textile footwear. Products in the center are most closely related to a higher number of other products and are the best candidates for export diversification. The product space provides visual mapping of the logic of coordination and information externalities: the non-tradable inputs required to make one good can be adapted for use in other similar goods. The skills and machinery necessary to make textile footwear are quite similar to those used for the production of leather footwear.

**Figure 6.1 Product Space Mapping of WBG: 2005 (left) and 2014 (right)**



Source: Harvard Atlas of Economic Complexity

The product space maps reveal two important trends in the Palestinian economy over the past decade. First, we see a development in the number of products exported in the bottom right and upper right quadrants in an area that contains a high number of products in the stone and agricultural sectors. The growth in density of these activities indicates that Palestinian businesses have been successful at developing more exportable products that use similar factors of production as those used in 2005. A second trend is a decline in the number of more technologically sophisticated products in the chemical and machinery sectors, which are represented on the left-hand side of the map. Finally, it is important to note that the size of the commodity export market in West Bank and Gaza has grown dramatically over the past decade. The map on the left from 2005 only includes exports valued at \$48.6 million while the map on the right captures \$920 million in exports from 2014. The massive growth in exports of nearly 20 fold has occurred in products spaces near existing sectors rather than in new, unexplored sectors.

As the value of Palestinian exports has grown over time, the number of products has actually declined slightly. As shown in the table below, WBG exported 578 unique products in 2007 compared to just 560 in 2015—a decline of 3.1%.<sup>56</sup> However, of the four comparator countries

<sup>56</sup> Products are counted using HS 4-digit commodities from UN Comtrade.

with available data, WBG had the largest increase in real export value at 24%. As a comparison, Israel increased export value by just 4% yet achieved a 9% increase in export diversification.

**Table 6.1 Export Products by Country**

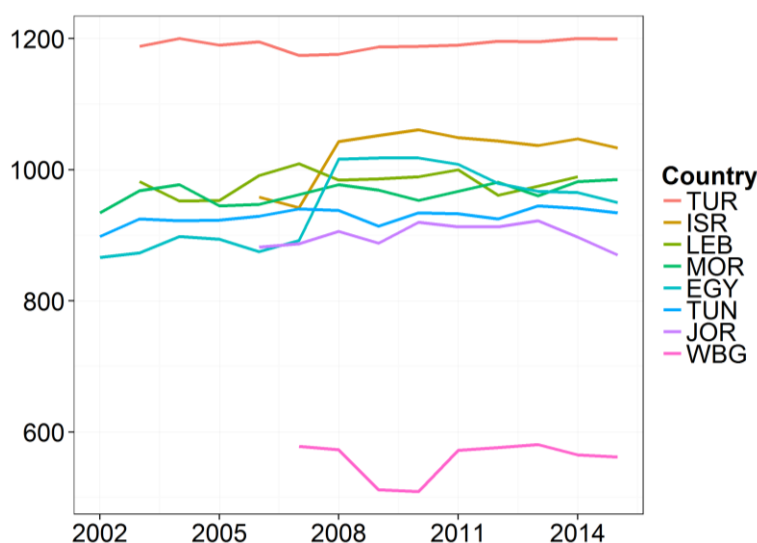
Country	2007 Export Count	2015 Export Count	Change in Export Count	2007 Export Value (\$M*)	2015 Export Value (\$M*)	Change in Export Value
<b>TUR</b>	1,174	1,195	1.8%	112,799	132,337	17%
<b>EGY</b>	1,015	946	-6.8%	17,000	20,209	19%
<b>MOR</b>	962	982	2.1%	15,360	20,273	32%
<b>ISR</b>	942	1,030	9.3%	56,878	58,935	4%
<b>TUN</b>	940	930	-1.1%	15,947	12,947	-19%
<b>JOR</b>	887	868	-2.1%	7,272	8,196	13%
<b>WBG</b>	578	560	-3.1%	713	881	24%

Source: UN Comtrade;

Note: Trade values adjusted to 2010 constant dollars.

The graph below presents similar information but for every year of data availability going back to 2002. WBG is far below the comparator countries in terms of number of export products and is a clear outlier in the data. The line also shows a drastic reduction in export diversification following the 2008 Gaza war and the corresponding trade restrictions.

**Figure 6.2 Number of Export Commodities**



Source: UN Comtrade

These trends show that there are two paths to export growth. Countries can either achieve growth through diversification into new products, or alternatively, increase concentration of existing products. WBG has certainly taken the latter approach, and it provides some evidence of possible coordination and information externalities. If we look at specific products, 8 of the 20 top

Palestinian export commodities in 2015 were not on the list in 2007, so there is evidence of churn as industries develop, compete, and discover export opportunities. For example, export of waterproof footwear was nearly eliminated in 2015, but it was replaced by an even higher value of trade in textile footwear. And over the past decade, Palestinian firms have significantly expanded exports in olive oil, dates, cucumbers, toilet paper, and tiles, and the stone industry has expanded production in finished products, which require more skilled labor and have higher value add. The major declines were in iron and steel scrap, metal rods, and plastics, all of which were impacted by restrictions following the 2008 Gaza war. Items on the dual use list include aluminum rods, metal pipes, and certain polymers, so it is no coincidence that many of the biggest export reductions were related to the dual use list and the types of products Palestinian firms could import as raw materials.

In general, however, the overall picture of the sophistication, diversity, and dynamism of the WBG export economy has changed very little. The country has been historically strong in stone, furniture, shoes, leather, and agriculture, and these sectors remain the core the export economy. The challenge for the Palestinian economy is to complement, rather than substitute, its export portfolio over time.

Finally, it should be noted that the market failures analysis is severely limited by the lack of key international indicators of export diversification and sophistication. WBG is not included in one common measure of export sophistication, EXPY, provided by the World Integrated Trade Solutions database, and another indicator for export diversification, the Herfindahl Index, is not provided since WBG is not a member state of UNCTAD, which calculates this indicator. These unfortunate data limitations restrict the completeness of the market failures analysis.

### **6.3 Information Externalities**

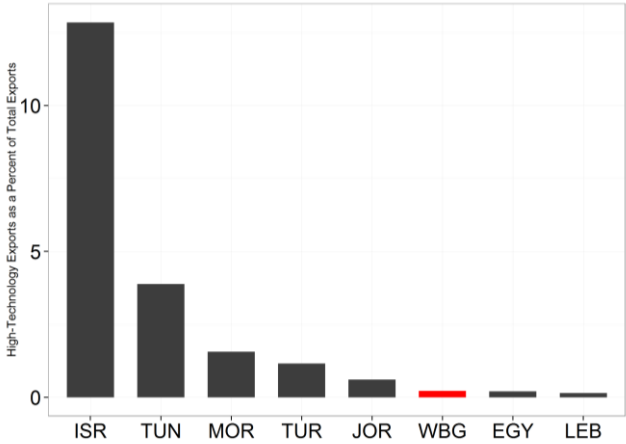
The lack of export diversification in the Palestinian economy provides some evidence that coordination and information externalities are a constraint. We can look more specifically at information externalities to assess the degree of innovation and product development through intellectual property rights, including patent and trademark laws, the prevalence of research and development (R&D), and the existence of high-technology exports. Hausmann, et al. (2008) point out that countries do not need to reinvent an R&D-intensive industry since this knowledge can be imported, and often cheaply. However, firms must still experiment with the profitability of new sectors and technologies in context of their country's economy, geography, and political situation, and the outcome is not obvious, nor is a positive return guaranteed. This process of economic experimentation is known as "self-discovery."

To test for information externalities and self-discovery, we can look at intellectual property and R&D components both statically and over time. To begin, WBG is a very low technology economy with minimal exports in high technology industries, as identified by the OECD. Examples of high-technology exports include aircraft, computers, and pharmaceuticals, the latter

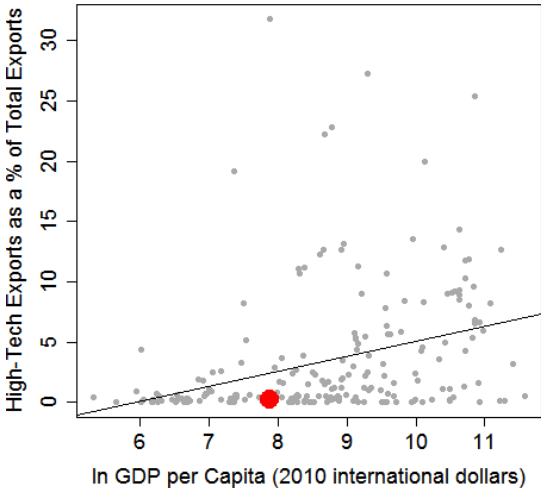
of which accounts for a small contribution from the Palestinian economy. As shown in Figure 6.3, just 0.2% of total Palestinian exports were identified as high technology in 2015. Israel, not surprisingly, has by far the highest percentage at 12.8%, while Tunisia, Morocco, Turkey, and Jordan are substantially higher than WBG. Egypt and Lebanon have equally low percentages of high-tech exports, so while WBG depends almost exclusively on medium and low-tech exports, it is not alone among comparators. Moreover, high-technology exports are not required for economic growth and poverty alleviation. As shown in Figure 6.4, which plots high-tech exports and GDP per capita, many wealthy countries, such as the Gulf oil states, produce very little technology and instead rely on their natural resources to finance technology imports, and some high-tech economies, such as Vietnam, are still quite poor since they rely on low-cost, low-skill labor to manufacture products like computers and telephones that are designed and engineered elsewhere.

WBG does not have access to significant natural resource wealth outside of the stone and marble industry, and its labor costs are too high to compete with Southeast Asian countries like Vietnam. For these reasons, WBG’s low exports in technology manufacturing are not necessarily a problem for economic growth; the country’s comparative advantages lie elsewhere.

**Figure 6.3 High Technology Manufacturing Exports as a Percent of Total Exports**



**Figure 6.4 High Technology Exports as a % of Total Exports (all countries)**

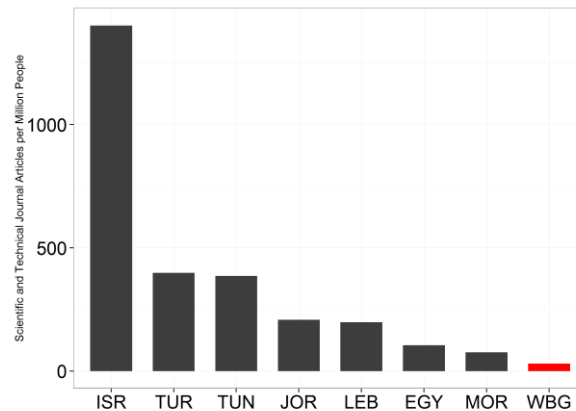


Source: WDI

In terms of R&D, WBG ranks lowest or among the lowest on several proxy indicators for innovation and self-discovery. One such indicator is the number of scientific and technical journal articles published per million people, and WBG is the lowest among all comparators.



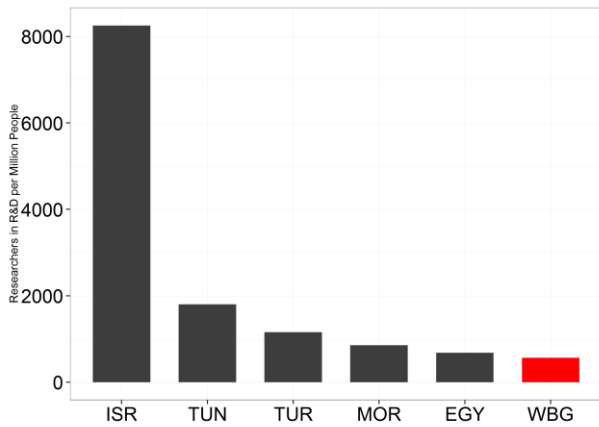
**Figure 6.5 Scientific and Technical Journal Articles Published per Million People**



Source: WDI

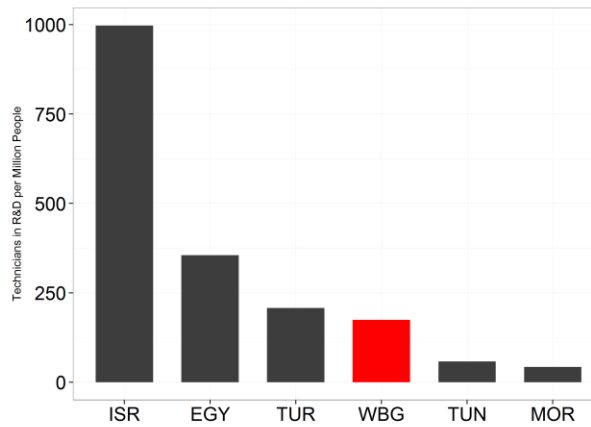
Low research output is not necessarily a constraint, however, since scientific and technical knowledge can be imported from other economies, or the growing economic sectors in the economy do not require high levels of R&D. As Rodrik (2004, 4-5) writes, "an expansion of an economy's scientific and technological capacity will not endow it with the needed productive dynamism unless there is adequate demand for innovation by the business sector." In other words, it is necessary to tease out supply and demand for R&D since low supply of technical knowledge could be the result of low demand. One proxy indicator to test the R&D constraint is the number of researchers and technicians engaged in R&D activities in the economy. As figures 6.6 and 6.7 show, WBG has the lowest rate of R&D researchers, but is about average in terms of technicians. As the lowest income country among the eight comparators, these results are not unusual. The scatter plots below, which show the relationship between R&D and GDP, reveal that the level of R&D employment is exactly as expected given WBG's level of economic development.

**Figure 6.6 Researchers in R&D per Million People**

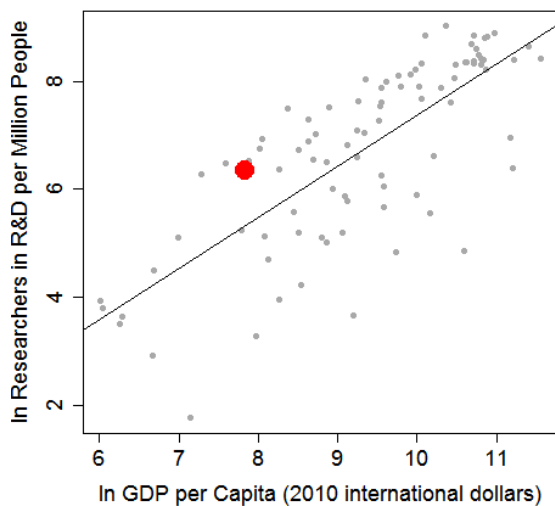


Source: WDI

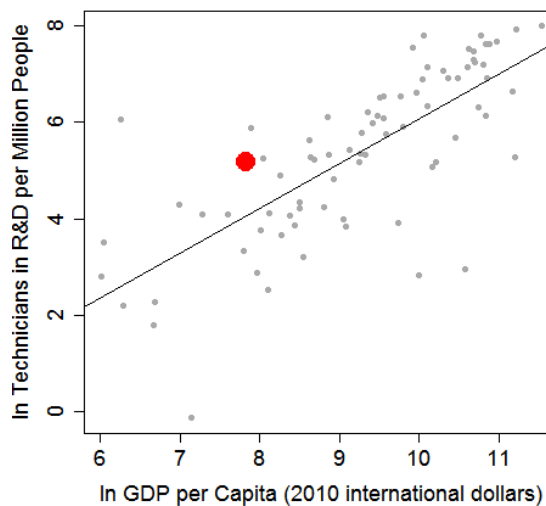
**Figure 6.7 Technicians in R&D per Million People**



**Figure 6.8 Researchers in R&D per Million People (log scale)**



**Figure 6.9 Technicians in R&D per Million People (log scale)**



Source: WDI

## 6.4 Conclusion

While market failures, in the form of coordination externalities, do pose a constraint to the Palestinian economy, it is not large, and it is certainly not the most binding. The primary evidence lies in the failure to diversify exports over the past decade. WBG has achieved export growth through expansion of key existing products rather than diversification through new

products. It is important to remember that the issues surrounding export diversification, technological innovation, and R&D are symptoms, not root causes, of the economic conditions and restrictions placed on the Palestinian economy. There is evidence of innovation, as suggested by the change in leading export products over the past decade. As constraints are placed on the Palestinian economy, including revisions to and enforcement of the dual use list, private sector firms have shown the ability to innovate and expand under a restrictive political and economic environment. Technology and research are low, but not unusually low for the level of economic development in West Bank and Gaza, so we conclude that information externalities are not a constraint. The problem lies on the coordination side where the private sector fails to expand and complement existing sectors of the economy.

## 7 HUMAN CAPITAL

### 7.1 Summary

Human capital is not a binding constraint to private sector investment and economic growth in the West Bank and Gaza, nor are workforce issues the main driver of poor employment outcomes.

Human capital is the stock of skills and knowledge embodied in labor. It encompasses not just the mere completion of years of education, but also the quality and suitability of education and skills gained contributing to employability, as well as the overall health and availability of the working population. To understand the role of human capital as a potential binding constraint, we analyze growth from the perspective of the private sector firm—in other words, what do enterprises require from entrepreneurs and wage labor to form and thrive?

Human capital poses a constraint to economic growth if many enterprises and entrepreneurs cannot secure sufficient labor with the desired skills and traits at a competitive cost. It becomes a *binding* constraint when private sector firms face human capital obstacles and costs that outweigh other factors. Although improving workforce skills and health will almost always have some marginal, positive impact, human capital would only pose a binding constraint to economic growth if the demand for skilled labor substantially exceeded the supply. If this were true, there would be a shortage of skilled labor and premiums paid to obtain the needed skills would be high.

Therefore to determine whether scarcity of human capital is a constraint to growth, we look for evidence that human capital produces high returns, or that high costs are imposed on the private sector, or that the private sector seeks to avoid investments that rely on human capital or to circumvent labor inputs, or we might expect to see gaps filled by immigration of skilled labor from abroad. As will be demonstrated below, there is little empirical evidence to support the hypothesis that human capital is a binding constraint on private investment and growth in either the West Bank or Gaza, and on the contrary there is more evidence to suggest that the demand for skilled labor is significantly less than the supply.

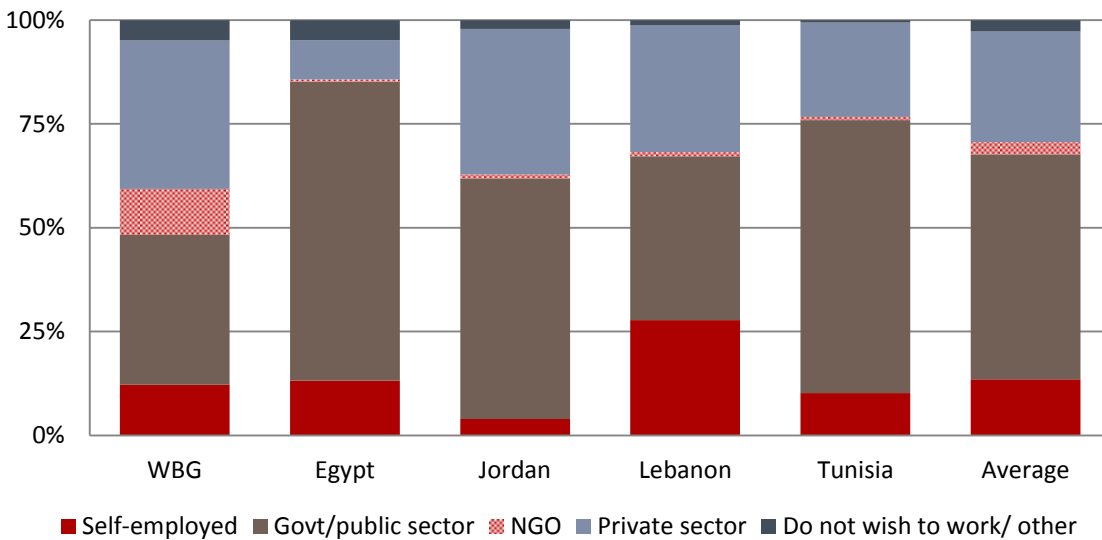
However, some qualifications should be made: there are a few sectors and occupations (such as skilled mechanics and technicians) for which labor conditions are likely tight enough to play a constraining factor, and the especially low level of labor force participation among women – and the severe occupational segregation which they face – limit the degree to which women can benefit directly from changing economic conditions.

### 7.2 Public Sector Distortions of the Labor Market

Public sector employment distorts the labor market, particularly for more educated Palestinians and especially for the growing number of highly-educated women. There is strong evidence of

public sector queueing, with many university-educated Palestinians preferring to wait for public sector jobs post-graduation. This is consistent with perceptions in the region – especially among the highly educated – that public sector employment is more favorable than the private sector. About 51% of Palestinians preferred to be employed in the public sector, similar to most other MENA countries (except in Morocco, where the number is lower).<sup>57</sup> Also, as shown in Figure 7.1 below, nearly half of Palestinian youth aspire to work in the public sector or with an international NGO serving the public. Public sector wages in Gaza have been consistently higher than private sector wages – often as much as 30-40% higher.<sup>58</sup>

**Figure 7.1 Desired Future Employment of Current Students (%)**



Source: Source: Results from School-to-Work Transition Studies (SWTS), as reported in ILO, "Labor Market..." Transitions of Young Women and Men in MENA." November 2016.

Among geographic regions in the world, MENA has had one of the most rapidly growing labor forces. The labor force for the West Bank and Gaza grew an average 4% per year since 1990, exceeding its job creation rates.<sup>59</sup> Furthermore, jobs were primarily created in low-value added sectors and in the public sector. For men, the largest number of jobs created between 2000 and 2015 were in wholesale and retail trade, public administration, and construction. For women, most jobs were created in education, health services, and public administration. In all, about 22% of the Palestinian workforce is employed by the public sector. This high rate of public sector employment is often attributed to the inability of the private sector to absorb more workers as a result of restrictions on movements, investments, exports and imports and the high population

<sup>57</sup> Gallup World Poll Survey, 2010.

<sup>58</sup> "Labor Force Participation and Wages in Palestine for the Period 2000 to 2011." Issam Abu-Ghallow. University of Southern Mississippi. August 2014.

<sup>59</sup> ILOstat, measuring 1991 to 2015.

growth.<sup>60</sup> However, reduced economic demand – attributed to poor business climate conditions – out-weighed other factors, implying that it is lack of demand for labor from the private sector that drives poor employment outcomes.

There is a significant gender pay gap in the West Bank and Gaza, as the average daily wage was 32% higher for men than for women (in general) and 26% higher among recent graduates.<sup>61</sup> The gender pay gap is driven less by lower pay for same work than by occupational segregation. In other words, occupations more frequently filled by women, such as clerks, administrative assistants, nurses, and teachers, generally receive lower wages, while occupations shared equally between men and women tend to have more similar wages, as is found in the public sector.

### **7.3 Access to Education**

Access to education is not a major issue in the West Bank and Gaza, although there are certainly challenges in terms of travel and access in certain areas like Jerusalem, Area C, and Gaza. Generally speaking, the PA has achieved remarkable successes in terms of improving access to education. Over the past two years classroom construction has expanded at a rate of 2.6% per year while student population has increased by 1.7%, which indicates that facilities are probably expanding sufficiently to reduce over-crowdedness. Educational affordability is also not an issue as public schools are almost free (only small registration fees of about NIS 80 (\$22) are collected from each student on an annual basis) and textbooks are distributed widely. Education is compulsory in grades 1-10. UNRWA provides free education to refugees for grades 1-9. Private schools absorb 9% of students and charge tuition fees that are affordable for most middle class households.

Although the PA is facing growing fiscal pressures and has not had adequate resources to invest properly in education, there is little evidence that this has constrained economic growth or job creation. The total amount spent on education in 2015 was \$655 million, of which wages and salaries comprised 81% of spending. The remaining spending was directed towards pension fund allocations, small and ad hoc capital investments, and other items. Overall education expenditure as a share of GDP decreased from 6.8% in 2009 to 5.2% in 2015. Although public spending on education has traditionally remained about 20% of total public spending, overall it has not been as robust in the past due to the PA's tighter fiscal outlook.<sup>62</sup>

### **7.4 Schooling, Enrollment, and Educational Attainment**

After decades of sustained progress in basic schooling, most Palestinians now attain moderate or high levels of education. There is near universal literacy – 96.3% – as in the West Bank and Gaza. Women, in particular, have made tremendous gains, improving from 70-80% literacy rates

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<sup>60</sup> Job creation numbers calculated from ILOStat. Public sector employment cited in ETF, “Labour Market and Employment Policies in Palestine.” 2014.

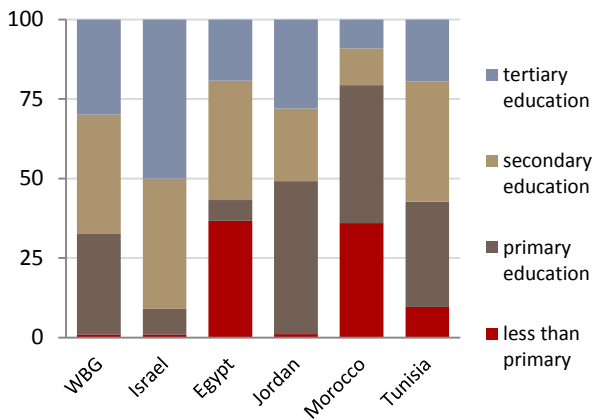
<sup>61</sup> PCBS, Labor Force Survey, 2015, Tables 42 and 66.

<sup>62</sup> IMF, Report to the AHLC, August 2016.

in the 1990s to almost 95% today, bringing them close to par with men. Among youth, literacy rates are nearly similar for young men and women.

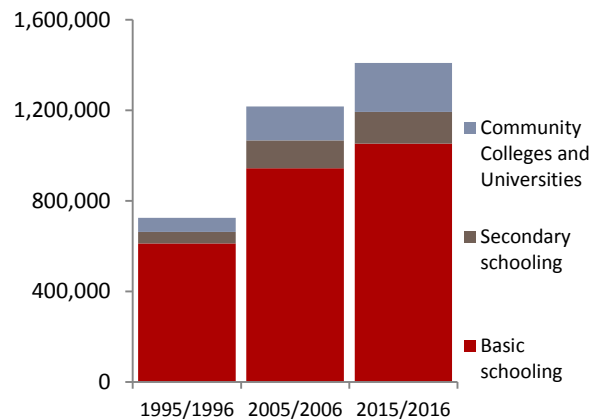
However, when labor markets are extremely weak, high levels of school enrollment may oversaturate the labor market if economic growth is not commensurate, and decrease the chances of graduates to obtain employment – or to force them to migrate or settle for lower wages. This is in fact the case for most Palestinians since school enrollment rates have increased over the past decades and are now relatively high in both the West Bank and Gaza. Around 95% of the Palestinian population has completed secondary school, and in the West Bank over 50% enroll in tertiary education – compared to only an average 30% for MENA. Most of the Palestinian labor force has a secondary or tertiary level education, higher than other comparators, and the labor force has shifted from being composed mostly by workers with complete primary schooling, to one where secondary schooling (or higher) predominates.

**Figure 7.2 Education Level of Labor Force (average 2011-2013)**



Source: WDI, Education Statistics

**Figure 7.3 Enrolled Students by Stage**



Source: MOEHE, PCBS, “Palestine in Figures”

### 7.5 Transition from basic education to secondary education, and trend of higher dropout rates among boys

A pattern has been developing over the past few years of decreasing enrollment of boys at higher levels of education, and higher dropout rates among boys. Although the overall transition rate from basic education to secondary education is relatively high compared to other countries, almost a third of students, mostly male, drop out before completion. Specifically, the transition rate from basic education to secondary education is 88% (85.3% male; 90.5% female), and the gross enrollment rate in secondary education is 70% (60% male; 80% female). Dropout rates are also higher in the West Bank than in Gaza. These facts suggest that the lure of working in lower-

skill or manual labor jobs in Israel or the settlements (occupations not typically filled by women and not available for those living in Gaza) may motivate some of the dropout trend. In fact, 41.7% of the West Bank dropouts surveyed reported that they were working, and the dropouts reported that they had not been able to spend more time studying because of work commitments.<sup>63</sup>

### **Box 8.1: Description of Education System under the Palestinian Authority**

The education system consists of basic education (grades 1-10), secondary (grades 11-12), and post-secondary and higher education. Secondary education consists of three optional branches. The first option is academic, lasting two years and followed by the general secondary exam “Tawijih” required for university. A second option is vocational education lasting two years and focusing on one of four streams: agriculture, industrial, commercial, or nursing. Finally, vocational training may be offered for two years or more to prepare skilled or semi-skilled workers.

In the TVET system, vocational secondary schools offer two-year programs that produce skilled craftspeople. This type of training remains unpopular among most students and parents/guardians, and demand for most vocational training is weak. TVET enrollment as a share of total enrollment in secondary education is only about 2%, and has been on a downward trend for the past decade. Enrollment among women has declined to near zero (source: UIS.UNESCO data).

At the tertiary level, the formal TVET system allows students to continue their education at university level while non-formal TVET options provides little opportunity for further education (UNESCO-UNEVOC, “World TVET Database: Palestine.” November 2012).

Management of TVET training is fragmented, being offered through the government (MOEHE; Ministry of Labor; Ministry of Social Affairs), UNRWA, various donors and NGOs, and the private sector. The Higher Council for Technical and Vocational Education and Training was established in 2005 to develop and promote a national strategy, and to coordinate different TVET efforts. In practice, however, coordination has been elusive.

High educational attainment, especially at tertiary levels, is one indicator that human capital is unlikely to be a current binding constraint for the country. Gender differences in both the West Bank and Gaza were *less* severe than elsewhere in the region, particularly among younger Palestinians.

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<sup>63</sup> UNRWA “School Dropouts: An Agency Wide Study.” September 2013.



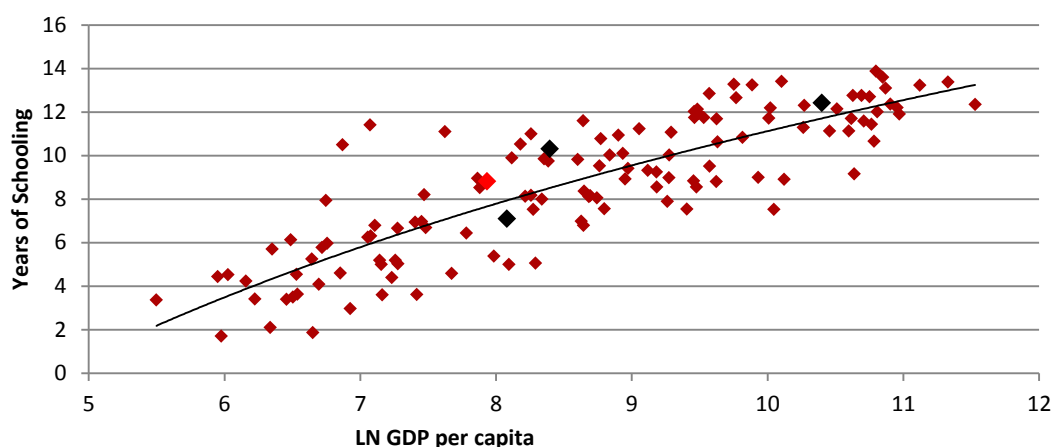
**Table 7.1 Educational Attainment by level among Palestinians (15 and older)**

	Gaza	West Bank	All Palestinians
<b>Illiterate or can read and write</b>	8.0%	9.9%	9.2%
<b>Elementary, preparatory, or secondary</b>	70.4%	73.8%	72.6%
<b>Associate diploma, bachelor, or above</b>	21.6%	16.3%	18.2%

Source: PCBS, Statistical Yearbook 2016

As noted in the IMF’s 2013 growth diagnostic, education indicators in the West Bank and Gaza compare favorably with the other countries, and among peer countries in the MENA region.<sup>64</sup> Average years of schooling (among those older than 25) is relatively high compared to the average income level in the West Bank and Gaza.

**Figure 7.4 Educational Attainment\* vs. GDP per capita (\$)**



\* For 25+ population

Source: UNESCO (2015) and Barro-Lee

Despite relatively high levels of educational attainment, it may be possible that low and deteriorating educational quality lead to such poor educational outcomes that it constrains healthy private sector expansion. In a sense, poor educational quality depreciates the years of educational attainment. According to some economic studies, employers report that despite high unemployment it is difficult to find qualified workers with the right skills.<sup>65</sup> This was noted in particular (and anecdotally) for niche industries that require especially high technical skills.

<sup>64</sup> The IMF’s growth diagnostic is summarized in the IMF note “West Bank and Gaza Key Issues,” September 2013.

<sup>65</sup> For example, the IMF’s growth diagnostic (September 2013) did not identify human capital issues as a binding constraint to economic growth, but did cite statements made by some employers that it could be difficult to find workers with the right skills needed for the job.

**Table 7.2 Economic Sectors with Strong Potential for Job Growth**

<b>Sector</b>	<b>Economic and Employment Contribution</b>	<b>Principal Constraints</b>
<b>Agriculture</b>	4.9% of GDP (2012); 11.5% of workforce; 20+% of working women.	Stuck in low productivity, the sector suffers from insufficient water for irrigation as the largest constraint; also sub-optimal crop allocation, poor economies of scale, and weak distribution channels.
<b>Construction</b>	About 14% of GDP (2012); 14.4% of workforce. Rapidly growing but susceptible to volatility.	More than 40% of Palestinian construction workers are employed in Israel or the settlements; more would do so if they were permitted. Palestinian construction is constrained by access to raw materials and building supplies, and in some cases, offering more affordable products.
<b>ICT and other digital services</b>	About 1% of GDP (2012); less than 1% of workforce.	There is currently an extensive and well-qualified talent pool of IT workers. Nonetheless, the number of qualified candidates for high-end software jobs is low. Employers cite difficulties finding students who are ready to work and instead may invest in training lasting months. Overall, the biggest constraints are lack of travel accessibility to/from key customers, and risks associated with business continuity (regulations, stability, and ease of entry/exit).
<b>Hotels and tourism</b>	2.5% of GDP (2012); about 2% of employment.	Underdeveloped tourism infrastructure and products limit appeal. The West Bank is perceived as unsafe by many and access to Gaza is restricted.

Source: The Portland Trust, “Beyond Aid: A Palestinian Private Sector Initiative for Investment, Growth and Employment.” November 2013.

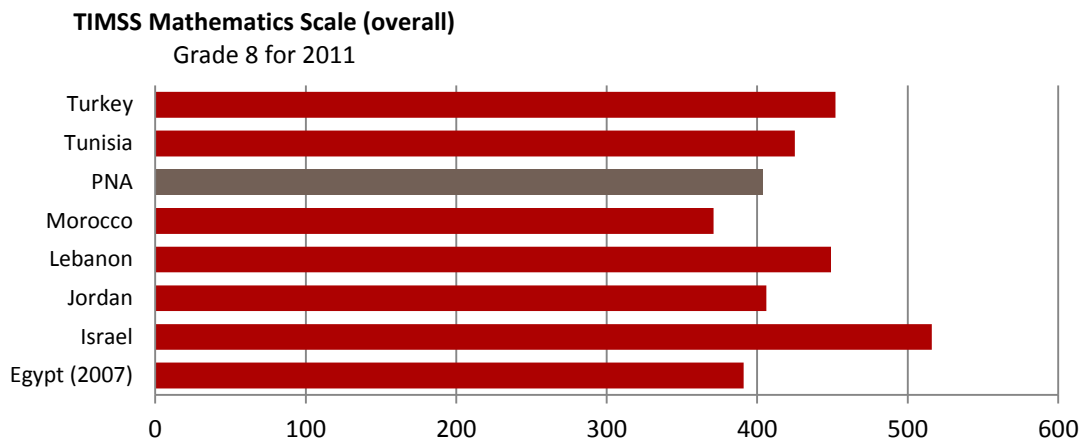
The poor quality of the educational system was brought up occasionally in discussion with Palestinian stakeholders – but never as a first concern or without prompting. Some indications of poor educational quality noted by USAID/WBG’s education team include:<sup>66</sup>

- 60% of teachers are unqualified to teach per Ministry’s standards and need training;
- Persistently low achievement rates in international and national examinations;
- Heavy enrollment in humanities and social sciences (74%), and lower enrollment (24%) in sciences at the secondary and tertiary education levels;
- Complaints from employers about quality of university graduates, and similar complaints from universities about quality of school graduates.

<sup>66</sup> Summary of conversation with USAID/West Bank & Gaza Education team, Bassam Kort.

Benchmarking the Palestinian average score on the Trends in International Mathematics and Science Study (TIMSS) support the hypothesis that educational quality (at least in mathematics) is not strong. In fact, only Morocco (where education has been flagged in the past as a severe economic constraint) ranks lower among the comparator countries.

**Figure 7.5 TIMSS Mathematics Scale (Overall, Grade 8 for 2011)**



Source: National Center for Education Statistics (NCES), part of the U.S. Dept of Education.

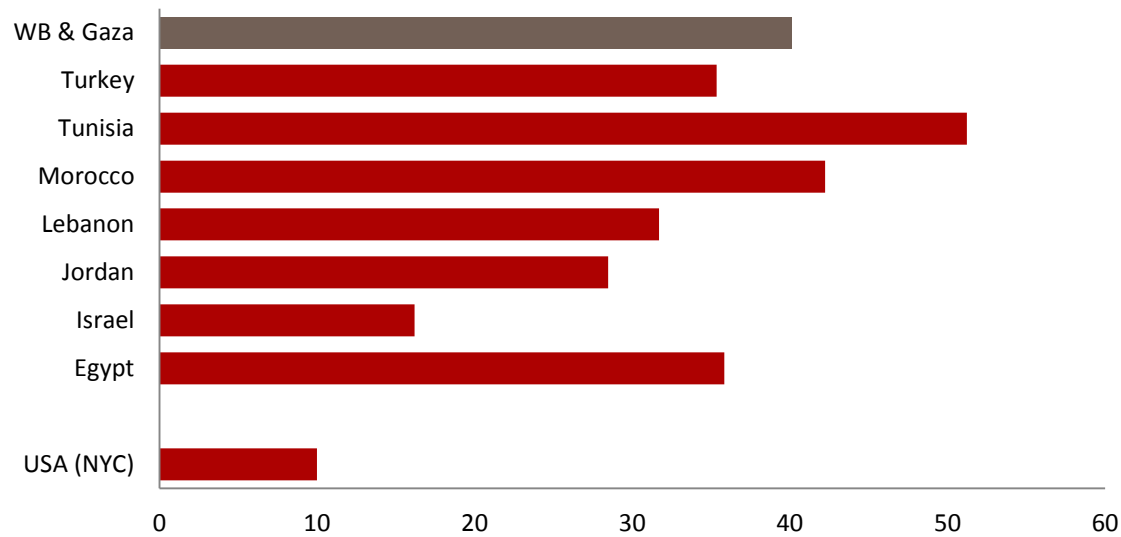
However, as mentioned earlier, private businesses do not often mention workforce issues as a top concern relative to other possible concerns that likely impose more severe burdens. Anecdotally, firms in the IT sector do not identify limitations in the workforce talent pool as a binding constraint.<sup>67</sup> According to World Bank Enterprise Surveys, only 2.1% of firms reported labor market regulations as their top constraint in the most recent (2013) survey, and even fewer – only 1% – identified an inadequately educated workforce as their top constraint. Earlier iterations (2006) of the same survey also showed extremely low numbers for this response. Table 7.3 shows that few private firms reported an inadequately educated workforce as a *major* constraint – much less the *top* constraint. Interestingly, this issue seems to be severe only for large firms, which may have already overcome other constraints.

Business environment surveys consistently find that labor regulations in WBG are not particularly burdensome, and other growth diagnostics have not concluded that labor market rigidity is a binding constraint to the Palestinian economy.<sup>68</sup> Nonetheless, a comparison of recent indicators on labor market rigidities collected by the World Bank shows that employment practices in the formal sector are more rigid in the West Bank (specifically, Ramallah) than among comparator countries. In part this may explain the high prevalence of informal employment (even among formal, registered firms), especially of Palestinian youth.

<sup>67</sup> Portland Trust, “Beyond Aid.” Page 30.

<sup>68</sup> IMF, Sept 2013; and University of Pavia, “Growth Diagnostic for Palestine.” 2010.

**Figure 7.6 Rigidity of Employment Score (0, less restrictive to 100, most restrictive)**



Source: Constructed from the World Bank's Doing Business 2017 indicators on Difficulty of Hiring, Difficulty of Firing, and Rigidity of Hours.

Consultations with private sector representatives and other stakeholders supported the conclusion that private investment was not constrained either by labor regulations, tight labor markets, or other human capital constraints. Senior members of PalTrade, which represents larger, export-oriented firms, and the Palestinian Federation of Industries (PFI), did not raise labor or workforce issues as a business constraint. A separate meeting with the Federation of Palestinian Chambers of Commerce, Industry, and Agriculture, with which all private businesses must register, revealed that only in a few especially dynamic sectors (e.g. specialty stone and marble manufacturing, pharmaceuticals) do private businesses feel constrained primarily by the scarcity of appropriately skilled labor.<sup>69</sup>

<sup>69</sup> Stakeholder consultations held December 7-8, 2016.

**Table 7.3 Percent of firms identifying an inadequately educated workforce as a major constraint (survey 2013)**

	All	Small	Med	Large
WBG	5.8	6.3	1.4	<b>25.3</b>
West Bank	7.1			
Gaza	1.8			
Egypt	11.7	13.6	8.9	7.2
Israel	12.2	12.8	12.2	4.8
Jordan	9.5	6.1	16.6	16.2
Lebanon	15.3	17.0	11.7	15.9
Morocco	<b>31.8</b>	<b>37.8</b>	<b>26.2</b>	<b>24.6</b>
Tunisia	<b>29.1</b>	<b>23.1</b>	<b>36.9</b>	<b>31.1</b>
Turkey	10.4	9.0	10.8	19.8
South Africa (2007)	8.7	6.4	10.4	11.3

Source: Enterprise Surveys (2013)

Interestingly, a strong majority of youth (age 15-29) asked for their opinions on the main obstacles to finding a job reported that there were “not enough jobs available.” Lack of work experience and job requirements that were too high were far less popular responses.<sup>70</sup>

## 7.6 Low Economic Returns to Education

If skilled, educated workers are relatively scarce compared to what the market demands, then private firms should be willing to pay a premium for their labor. In general, the Palestinian economy is not characterized by high private rates of return, which means that most Palestinians are not able to translate higher levels of education into higher wages or income. A low rate of return is typically a strong piece of evidence to support the hypothesis that the demand for high-skilled labor is low, and therefore that human capital is not a binding constraint to economic growth.

<sup>70</sup> “Not enough jobs” – 62.6% in in 2015 and 55.6% in 2013. Other responses were less than 10%. See two editions of the ILO publication, “Labor Market Transitions of Young Women and Men in the Occupied Palestinian Territory.” Work4Youth Publication Series No. 20 (September 2014) and Work4Youth Publication Series No. 44 (July 2016).

### Box 8.2 Methodology to estimate private returns to education

One way to measure if firms are paying a high premium for educated workers is to estimate the returns to additional years of schooling using a Mincer regression. In very simple terms, a Mincer regression uses household survey data to measure the effects of an additional year of education on wages, while controlling for other individual characteristics. Typically, the equation estimated is:

$$\ln W = \beta_0 + \beta_1 S_i + \beta_2 E_i + \beta_3 E_i^2 + e$$

Where

W = Hourly wages (measured as a logarithm)

S = Completed years of schooling

E = Potential years of labor market experience

$E^2$  = a squared experience term to account for lifecycle earnings, since there is typically first an increase, then a flattening.

Once the equation is estimated,  $\beta_1$  may be interpreted as the percentage change in earnings for an additional year of schooling. Anything higher than 10% private return to one additional year of schooling is considered high, and may indicate a binding constraint. However, most recent estimates of the private returns to education in the West Bank and Gaza do not indicate very high returns, and therefore do not support the hypothesis that the labor market places a high value on extra years of education. On balance, this indicates that educational attainment is not a binding economic constraint.

Returns to schooling are relatively low in the West Bank and Gaza, averaging only 3.8% in 2008, and ranging from 4-5% from 2004-2007.<sup>71</sup> Returns were higher for the primary years, almost zero for secondary education, and moderately high for tertiary educational years. Tertiary education had extremely higher rates of return (in some cases above 20%) for women, indicating their high earnings potential in the public sector. More recent estimates indicate that the low rate of return on education has apparently persisted. The average rate of return to another year of schooling for 2011 was found to be 5.1% (4.4% for men and 7.3% for women), according to the standard Mincer regression. These rates of return are even lower than those found in Egypt and Tunisia, two countries for which human capital was not found to be a binding economic constraint in recent studies. At higher levels of education, returns were higher for women.<sup>72</sup>

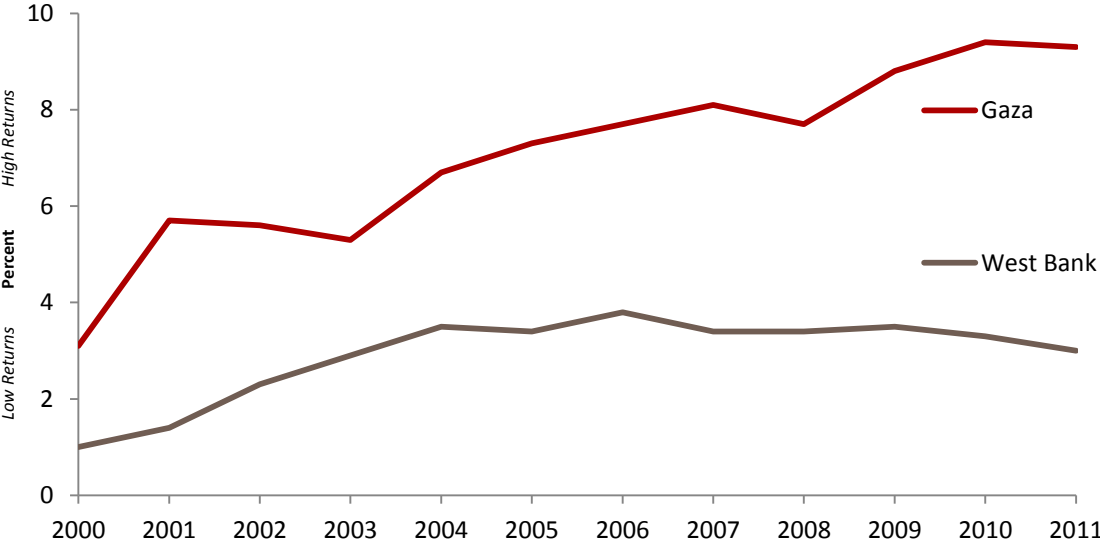
<sup>71</sup> “Comparable Estimates of Returns to Schooling Around the World,” Montenegro and Patrinos, September 2014.

<sup>72</sup> ERF, “Returns to Education: An Updated Comparison from Arab Countries.” Reham Rizk, April 2016.

In general, the Palestinian labor force exhibits a low return to schooling relative to neighboring countries.<sup>73</sup> Palestinian workers in Israel and its settlements are an important component of informal and low-skilled labor yet they earn high wages relative to workers remaining in the West Bank and Gaza. In fact, since Palestinian wages in the Israeli market are high for unskilled labor (relative to prevailing wages within the confines of the Palestinian-administered areas), the return to education can often be negative – suggesting that the Palestinian economy is not constrained at all by the quality or availability of Palestinians capable of working.

As shown in the chart below, returns to education over time have been rising in Gaza, possibly reflecting the much higher public sector hiring especially among highly educated Palestinians. In 2006 less than 20% of the university-educated workforce in Gaza was employed in the public sector while by 2011 that had risen to more than 60%, including nearly all university-educated women in the workforce.

**Figure 7.7 Wage Rate of Returns to an Additional Year of Schooling (includes wages of public sector employees)**



Source: “Labor Force Participation and Wages in Palestine for the Period 2000 to 2011.” Issam Abu Ghallous. University of Southern Mississippi. August 2014.

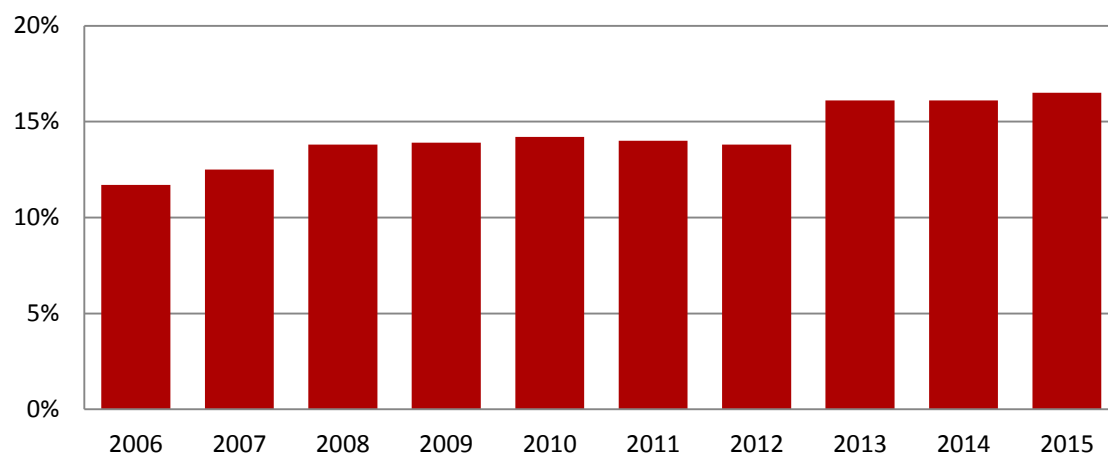
**7.6.1 Do domestic workers migrate or seek to leave, and how employable are they once they leave?**

In 2015, the number of Palestinians from the West Bank working in Israel and the settlements was about 115,000 – or 16% of the West Bank’s labor force.<sup>74</sup> Of those working in Israel and the

<sup>73</sup> Tareq Sadeq. ERF, December 2014.  
<sup>74</sup> Residents of Gaza are not currently permitted to work in Israel

settlements, 64.8% worked in the construction sector (almost all men). Of working men from the West Bank, almost 20% are employed in Israel or its settlements whereas only 1% of working women are employed in Israel or its settlements.<sup>75</sup> There is ample evidence to suggest that more Palestinians would choose to work in Israel or its settlements, where wages are considerably higher even for lower-skilled work, if it were logistically feasible for them to do so, supporting the argument that Palestinians (men, at least) are opting to relocate in order to work when permitted and able.

**Figure 7.8 Share of Employed West Bank Palestinians Working in Israel or its Settlements**



Source: PCBS Labor Survey. Numbers reported by the Government of Israel may differ slightly due to varying estimates of Palestinians working without a permit.

## 7.7 Distribution of Unemployment

Unemployment rates are higher among highly educated Palestinians than for those with only basic educations, just as in many other Arab countries. There is little evidence of scarcity among the labor pool of more highly educated Palestinians. The overall unemployment rate rose to 54.7% among young graduates (aged 20-29 years) with a bachelor's degree or an intermediate diploma (42.3% in the West Bank and 69.5% in Gaza). These high levels of surplus labor among cohorts with significant education indicate that education is not a binding constraint to economic growth. However, the exceptionally low levels of female participation in the labor force in both the West Bank and Gaza suggest strong gender barriers to economic participation. Even among highly educated women (those with 13+ years of education), 55% are engaged in housekeeping, additional education or training, or otherwise not in the active labor force (i.e. they are not seeking employment).<sup>76</sup> Furthermore, it is likely that most employed women with university degrees are working in the public sector.

<sup>75</sup> PCBS Labor Force Survey 2015. Palestinian employment in Israel has ebbed and flowed at several points in history. From the mid-1970s until 1993, working in Israel comprised about one-third of all Palestinian employment.

<sup>76</sup> PCBS Labor Force Survey Annual Report 2015.

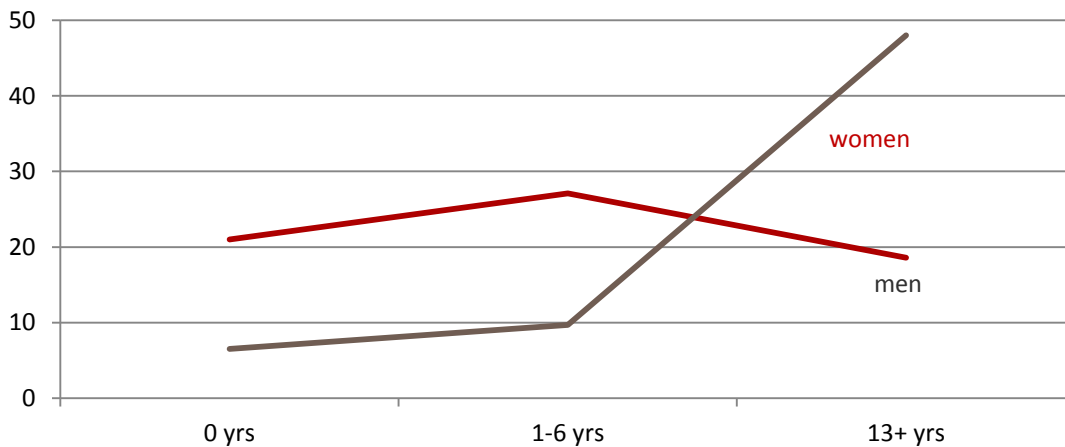


According to survey data from the PCBS, male unemployment rates in the West Bank do not vary much based on educational attainment. For example, the unemployment rate for men with 1-6 years of education was 17.4%, compared to 16.1% for those with 10-12 years, and 11.1% for those with 13+ years of education.

On the other hand, women in the West Bank with higher levels of education experience much higher unemployment rates. Unemployment rate for women with 1-6 years of education was 3.1%, compared to 13% for those with 10-12 years, and 37.4% for those with 13+ years of education. However, fewer than one in five working-age women in the West Bank are in the labor force at all. In Gaza, a similar story exists. Unemployment is universally high for men at all levels of education, while it becomes more common with higher education for women – save for those who can find a job in the public sector.

Data from the ILO youth-oriented School to Work Surveys (STWS) in 2013 and 2015 provide similar findings. The unemployment rate was highest among better educated young people. For those youth who had completed only basic education the unemployment rate was 26.8%, compared with 42.9% among tertiary graduate youth. However, once the findings are disaggregated by sex, it emerges that the unemployment rate for young men decreases with the completion of higher education, while the opposite is true for young women. As it is relatively common for women to drop out of the labor force altogether as well as to queue for increasingly rare jobs in the public sector, observing the male youth unemployment trends may be more instructive.

**Figure 7.9 Unemployment Rates by Years of Schooling**

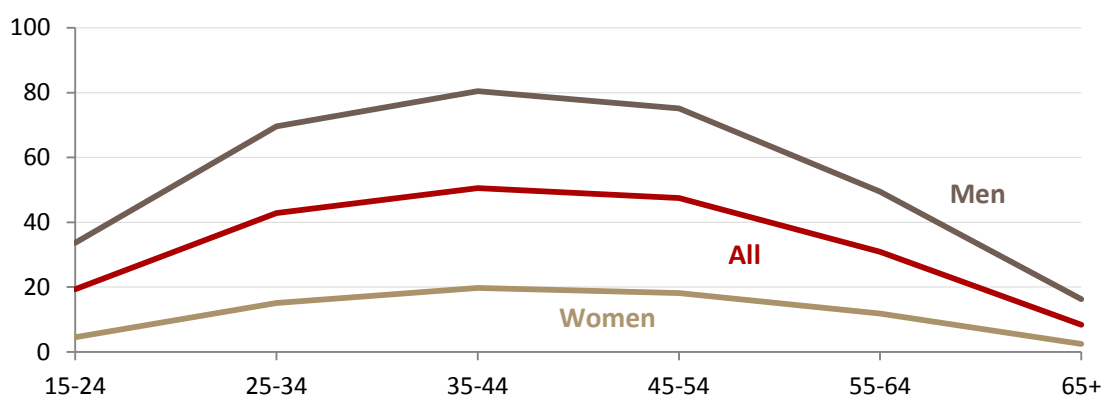


Source: PCBS Labor Force Survey, 2015

In the Gaza, unemployment rates are much higher across the board. As in the West Bank, male unemployment rates did not vary significantly by educational attainment, ranging around 40% regardless of educational level. Unemployment rates among women in the Gaza are also universally high, generally above 50%, regardless of educational level. However, 4 out of 5 Gazan women are not in the labor force at all.

**The gender gap in unemployment is relatively high.** The extremely high prevalence of informal employment among Palestinians traveling to work in Israel – and by contrast the very low prevalence of formal employment within Palestinian-administered territories – presents a significant employment barrier for women. According to the 2015 SWTS, informal employment is the norm for virtually every young employed person in the West Bank and Gaza. The majority of employed youth (57.4%) held an informal job in the formal sector while 37.6% worked in the informal sector. Only 5.1% of employed youth were in formal employment. The rest were working without the protection of the basic benefits that characterize formal employment. For instance, less than one third of these working youth had paid sick leave or medical insurance coverage, and access to these benefits actually diminished between 2013 and 2015.<sup>77</sup>

**Figure 7.10 Employment Rates (% of each age group who are employed)**



Source: PCBS, Labor Force Survey, 2015. Takes into account both low labor force participation and high unemployment rates.

### Other findings of the SWTS

The first round of the ILO’s school-to-work transition surveys (SWTS), conducted in 2013, reached 4321 interviewees (ILO, 2014). The second round, conducted in 2015, reached 4141 interviewees (ILO, July 2016).<sup>78</sup> The survey found that 51.5% of Palestinians (15–29 years old) had at most completed basic education. At the same time, there is an increasing trend towards completion of higher education. In 2015, 22.3% of youth had completed education at the tertiary level compared to 19.7% in 2013.

These ILO surveys revealed failed examinations and lack of interest in further education to be the major reasons for dropping out of school. The latter implies disenchantment on the part of

<sup>77</sup> The SWTS results are summarized in two editions of the ILO publication, “Labor Market Transitions of Young Women and Men in the Occupied Palestinian Territory.” Work4Youth Publication Series No. 20 (September 2014) and Work4Youth Publication Series No. 44 (July 2016).

<sup>78</sup> ILO, “Labor Market Transitions of Young Women and Men in the Occupied Palestinian Territory.” Work4Youth Publication Series No. 20 (September 2014) and Work4Youth Publication Series No. 44 (July 2016).

young people, and a feeling that investing in their education would not bring them a sufficient rate of return in terms of job opportunities. These survey results seem to validate the hypothesis that there is a growing perception among young Palestinians that further education is not likely to lead to improved employment outcomes. In fact, the opposite may be true and further education may now be losing out to low-skill work opportunities in Israel or in Israeli settlements located in the West Bank.

The SWTS also reveal the utter lack of labor mobility for Palestinian women. Among Palestinian youth who reported moving from the original place of residence, 4.7% of young men reported moving for work or employment reasons, while not a single young woman reported this as a reason for moving. The majority of young women who reported moving attributed their move to marriage. For many of these reasons, only 7.1% of the young women participating in this survey reported being employed.

## **7.8 Stakeholder Perceptions**

Many stakeholders supported the view that poor private sector economic prospects limited employment opportunities for the highly educated and, that in times of relative peace, the unemployment rate among those with less education would be lower as a result of the availability of low-skill work (absent public sector employment opportunities).

Furthermore, enterprise surveys of Palestinian firms revealed low levels of formal training offered to employees among most firms (with the exception of very large firms, of which there are only a handful). Furthermore, the share of firms offering formal training decreased from 2006 to 2013, with medium size firms in particular sharply reducing formal training for employees. Only about 3% of firms in Gaza offer formal training, compared to 14% in the West Bank.<sup>79</sup> This is significant because when a high percentage of companies offer formal training to their employees it is an indication of broad need that firms correct by offering training themselves. In other words, it signals a scarcity of human capital. By contrast, when firms do not offer such training it suggests the opposite—that human capital is not a particularly scarce resource.

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<sup>79</sup> Enterprise Survey data, 2006 and 2013, from the World Bank's Investment Climate Assessment for the West Bank and Gaza, 2014. Survey results are at <http://www.enterprisesurveys.org/data/exploretopics/workforce>.

**Table 7.4 Percent of private sector firms offering formal training (2013)**

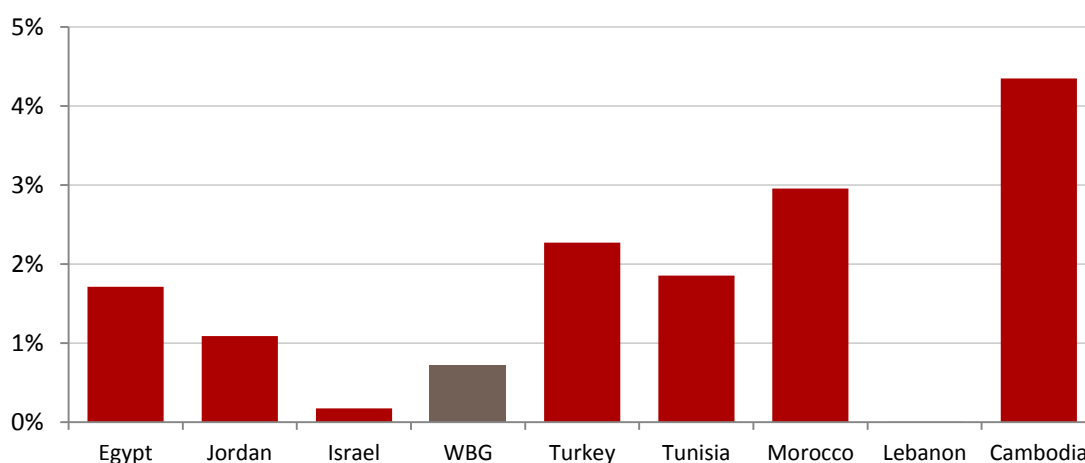
	All	Small (15-99)	Medium (20-99)	Large (100+)
<b>WBG</b>	11.1	11	10.9	35
West Bank	13.7			
Gaza	3.2			
Egypt	5.2	2.4	6.3	26.5
Israel	18.6	14.6	26.6	33.2
Jordan	3.4	0	7.4	23.1
Lebanon	26.6	16.8	40	58.3
Morocco	26.3	19.1	27.2	52.7
Tunisia	28.9	20.9	34.8	51.3
Turkey	28.4	19.1	34.7	73.7
South Africa	36.8	42.5	24.2	65.8

Source: Enterprise Surveys; Note: Surveyed firms includes manufacturing and services sector

If the scarcity of appropriate workforce or other human capital factors constrained economic growth, we would expect to see rising labor productivity (increasing output per worker) over a sustained period, as private businesses opted for investments less constrained by the workforce. In other words, the economy would show rising output faster than the growth of employment resulting in higher levels of output per employed worker. However, a comparison of the West Bank and Gaza versus the standard set of comparators and Cambodia (which faces severe human capital constraints) shows that, in fact, output per work has averaged less than 1% annually since 2000.

**Figure 7.11 Labor Productivity, Avg. Growth, 2000-2014**

GDP per person employed, 2011 PPP



Source: WDI

## Are low employment levels due *primarily* to a skills mismatch?

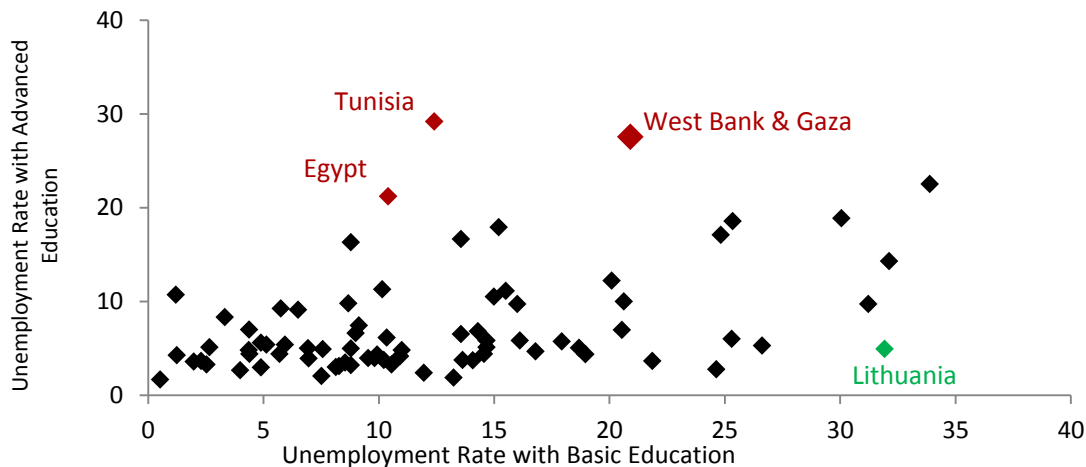
A qualifications mismatch due to “over-education” occurs when there is under-utilization of educated and skilled workers, i.e. when low economic growth results in a scarcity of jobs to absorb higher skilled workers who either remain unemployed or take up jobs for which they are overqualified.

Some mismatch is inevitable, as the labor market involves complex decisions by employers and workers and depends on many external factors. Most often, it is present in only a few occupations or economic sectors. The presence of skills mismatch is not uncommon. Studies of European countries report that between 10% and one-third of the employed are found to be over-educated (i.e. having more education than required by the job; however measurement techniques of this have proven to be somewhat difficult and not always conclusive).<sup>80</sup>

### 7.9 Tests for Skills Mismatches

Measuring the variance of relative unemployment rates differing by levels of education (as a proxy for skill level) is a common method to measure labor market mismatch, assuming that supply and demand in labor markets do not adjust quickly. In fact, the West Bank and Gaza (much like other Arab economies) stands out among other countries, showing higher unemployment rates for those with advanced educations. By contrast, most other countries show higher unemployment rates for those with less education. Given that many university-educated working Palestinians are employed in the public sector, the apparent mismatch between educational attainment of the workforce and job availability would no doubt be even more skewed.

**Figure 7.12 Labor Mismatch: Unemployment Rates vs. Education**



Source: Source: ILOStat; Unemployment Rates are average 2011-15.

<sup>80</sup> Skills and capabilities mismatch in the labor market, and methodologies to detect them, are discussed in-depth in ILO, “Global Employment Trends for Youth 2013: A generation at risk” and the European Training Foundation’s “Measuring Mismatch in ETF Partner Countries – A Methodological Note (2012).”

It is likely that employment opportunities in Israel, where wages are significantly higher, and in the public sector are accentuating perceptions of skills gaps in certain professions. In one survey, employers in the construction and tourism sectors report the greatest difficulty in filling job vacancies (76% and 74% respectively), followed by the ICT sector (62%), agriculture/agribusiness (56%), industry and other services (54%). As for filling job vacancies with the necessary technical skills, employers from the tourism sector (58%) report the greatest difficulty, followed by industry and construction (47% each), ICT (42%), agriculture (36%) and other services (33%). Employers from the agricultural sector believe that the skills gap is severe (58%) at a higher rate than employers from other sectors (tourism-48%; industry-47%; ICT-40%; construction-35%).<sup>81</sup>

## **7.10 Health**

Prevailing health conditions of the labor force do not appear to constrain investment decisions. Health issues are not discussed in other recent growth diagnostics. However, according to the most recent WHO Health Profile (2015), Palestinians benefit from a well-established vaccination program, with no known pockets of unvaccinated children and very high coverage of measles and DPT3 vaccines.<sup>82</sup> There is a low prevalence of HIV infection among the general population, and the population is considered to be at low risk for malaria and tuberculosis.

Palestinians in the West Bank and Gaza do not experience relatively poor health conditions, specifically it has relatively low rates of death by communicable disease and maternal, prenatal and nutrition conditions. Also, under-5 mortality rates are at par or lower than many other countries at similar income levels.

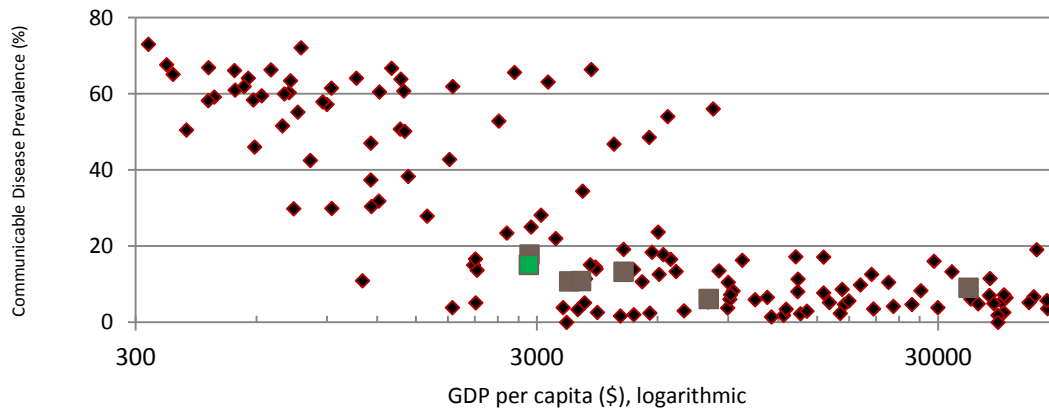
Health issues do not appear as top responses in business surveys, nor were they mentioned in consultations with Palestinian stakeholders.

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<sup>81</sup> CARE. "Skills Gaps and Development in the Occupied Palestinian Territory." January 2015.

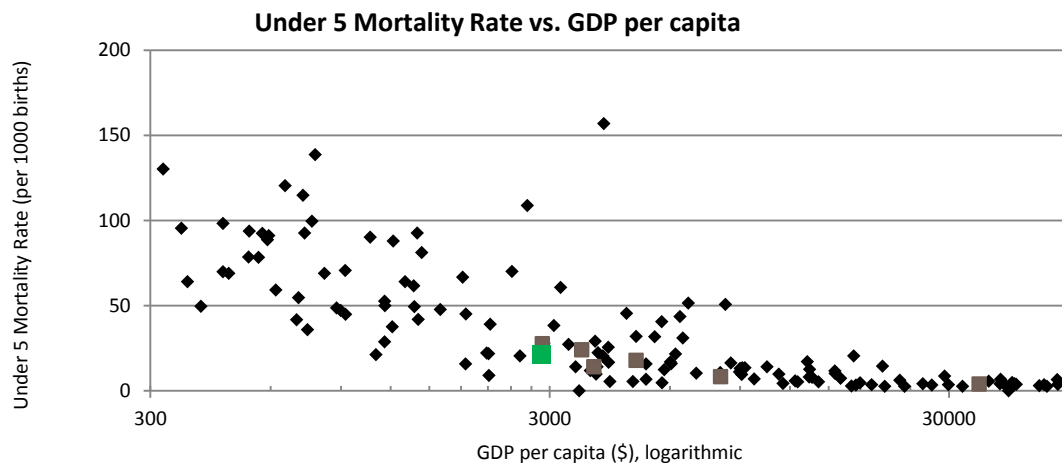
<sup>82</sup> "Health conditions in the occupied Palestinian territory, including east Jerusalem, and in the occupied Syrian Golan." WHO, 12 April 2013; and the WHO Palestine Health Profile, 2015.

**Figure 7.13 Cause of death, by communicable diseases and maternal, prenatal and nutrition conditions (% of total)**



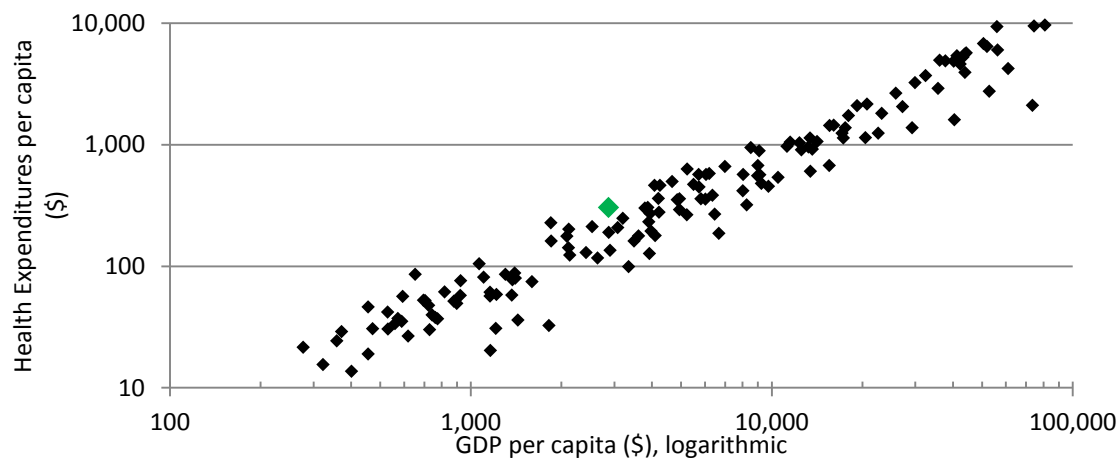
Source: WHO, 2013

**Figure 7.14 Under 5 Mortality Rate vs. GDP Per Capita**



Source: WHO, 2013

**Figure 7.15 Health Expenditures vs. GDP Per Capita**



Source: WHO, 2013

**Table 7.5 Beds per 1000 Population (2012/2013)<sup>83</sup>**

Country	EGY	ISR	JOR	LEB	MOR	TUN	WBG	West Bank	Gaza
<b>Beds per 1,000</b>	0.5	3.3	1.8	3.5	0.9	2.1	1.3	1.2	1.4

Source: WHO, 2013

<sup>83</sup> Although this is not a reliable overall indicator of health systems, it perhaps reveals the limited public resources available for health and, if anything, is another indicator of the need for the Palestinian authorities to strengthen fiscal stability.



## 8 INFRASTRUCTURE

### 8.1 Introduction

Infrastructure promotes broad-based economic growth through the creation and management of public goods that are beneficial to all segments of society. Roads, for example, provide a key conduit for goods and services that help reduce costs for exporters and importers, as well as consumers who have wider access to international markets. Additionally, the efficient and stable supply of energy provides individuals and firms with the ability to reduce costs through lower energy costs and improve inefficiencies through increased productivity. Infrastructure also has a direct impact on poverty reduction, as it provides increased opportunities for income generation and access to services such as health and education. Inadequate infrastructure reduces returns on economic activity, thereby discouraging investment and posing impediments to faster economic growth.

This chapter provides an analysis of infrastructure in the West Bank and Gaza, including the water, energy, transportation, and ICT sectors. In order to determine if a particular sector poses a binding constraint to growth, up to four tests are applied. The tests determine whether the prices of accessing infrastructure networks are high or low, whether changes in the amount or quality of the infrastructure lead to changes in investment, whether individuals are attempting to bypass infrastructure deficiencies, and whether firms more likely to survive are those that are less dependent on the infrastructure constraint. This growth diagnostic does not attempt to apply every test to each sector, nor was detailed data always available for both the West Bank and Gaza. Rather, a combination of some of the tests using available data and anecdotal evidence from extensive interviews with relevant organizations and individuals was used to lead to our conclusions.

### 8.2 Sectors

#### 8.2.1 Water

Both water infrastructure and scarcity are potential binding constraints to economic growth in the Palestinian economy, particularly in productive and water-intensive sectors such as agriculture and manufacturing.

Palestinian residents of the West Bank and Gaza do not have access to sufficient supplies of water to meet household consumption standards or support broad-based economic growth. Average daily domestic water consumption currently stands at about 79.1 liters per person per day (l/c/d) compared to a World Health Organization recommended minimum of 100 liters per person per day.<sup>84</sup> With annual population growth at 2.5% in West Bank and 3.3% in Gaza, an

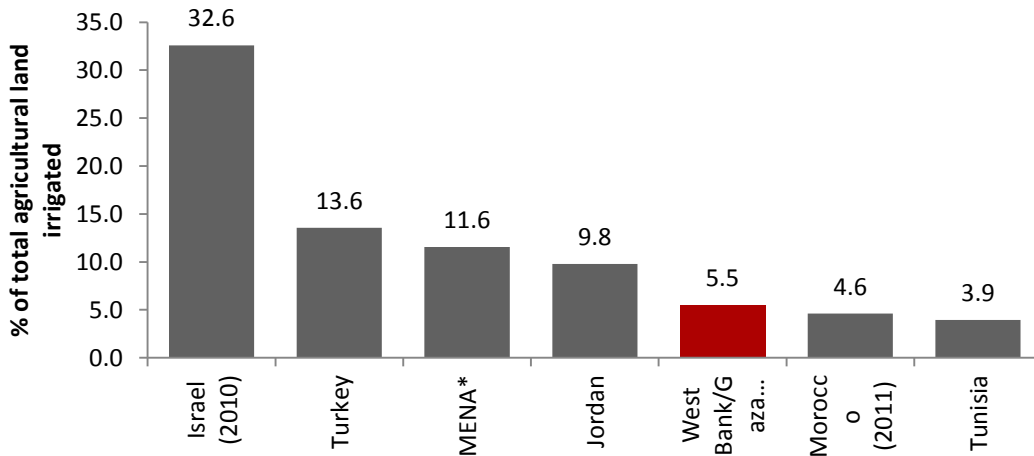
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<sup>84</sup> Water availability and use data are annual averages and it should be noted that actual water needs and availability fluctuate greatly throughout the year and across geographic regions.

increase in water supply of 35 million cubic meters (MCM) will be required over the next 5 years just to maintain the currently inadequate consumption rate of 79.1 l/c/d.

Water available for other uses, such as agriculture, industry, or tourism, is inadequate to enable the Palestinian economy to achieve sustainable economic growth. Figure 8.1 shows the percentage of total irrigated agricultural land in the West Bank and Gaza to be about half that of Jordan and six times less than Israel.

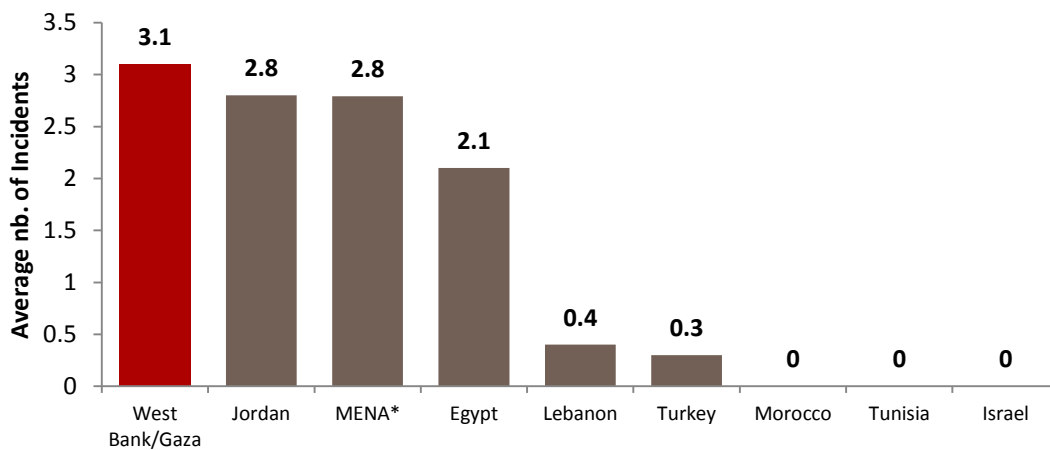
**Figure 8.1 Agricultural Irrigated Land (percentage of total agricultural land, 2013)**



Source: WDI; \*MENA average includes: Jordan, West Bank/Gaza (2011), Morocco (2011), Tunisia, Algeria, Iran, Malta, Syria, United Arab Emirates; Produced by USAID/EADS

According to the World Bank Group’s latest Enterprise Survey, as seen in Figure 8.2, West Bank and Gaza have the highest number of incidents of water insufficiencies per month, implying a serious disadvantage for water intensive industries, agriculture, and the productive sectors in general.

**Figure 8.2 Incidents of Water Insufficiency in a Typical Month, 2013**



Source: Enterprise Surveys ; \*MENA Average includes West Bank/Gaza, Jordan, Egypt, Lebanon, Morocco, Tunisia, Algeria (2007), Djibouti, Iraq (2011), and Yemen; Produced by USAID/EADS

Scarcity of water in the West Bank and Gaza is the result of a combination of factors. In the West Bank, the water provisions of the Oslo agreement established hard ceilings for allowable Palestinian extractions from existing aquifers and prevent the Palestinians from drilling new wells or increasing abstractions from existing wells. Further, with no direct access to the sea, large scale desalination, of the sort developed in Israel, is not an available option to meet growing demand for water in the West Bank.

According to the PA, annual water consumption in the West Bank reaches 104 MCM per year and up to 88 MCM for Gaza. The water supply situation in Gaza is especially dire. More water is being pumped from the Coastal Aquifer (the primary source of water for all of Gaza) than recharges during the rainy season. As a result, salty sea water is being pulled ever farther inland. In addition to seawater intrusion, application of agricultural fertilizers, pesticides and a lack of wastewater treatment have degraded groundwater quality to the point where most of the water that currently runs through the municipal network (and comes out of the tap) does not meet basic standards for human consumption. Only 3.8% of the water supplied meets WHO water quality standards and is considered potable. For drinking water, most residents of Gaza depend on purchases from private water sellers. Water from the tap is used mostly for cleaning and other similar purposes. Over-extraction of water for agriculture is rapidly decreasing water levels of the aquifer accelerating the salinity and nitrate levels.

The PA currently purchases 55 MCM and 5 MCM of water for the West Bank and Gaza, respectively, from Israel. Even with the additional water purchases from Israel, the PA is still unable to meet the current domestic and commercial demand for water. It is important to point out that industrial water consumption is included in domestic water consumption figures, making it difficult to know the exact demand for commercial use. What is clear, however, is that industry and agriculture have had a declining contribution to economic growth in the Palestinian economy, in part due to water constraints limiting these sectors' ability to become competitive and expand.<sup>85</sup>

Unless a political breakthrough were to lead to renegotiation of Oslo allocations from the West Bank aquifers, purchase of additional water from Israel is the most feasible source of supply in quantities needed to bridge the gap between supply and demand.<sup>86</sup> Efforts to reduce system losses and reuse of wastewater are necessary and being pursued, but the extra quantities generated through these approaches are insufficient to keep pace with population growth, let alone agricultural and industrial demand. Desalination of seawater is another option being aggressively pursued in Gaza, but this approach is constrained by issues relating to reliable and affordable energy, permits, financing and long lead times needed to design and construct the plants.

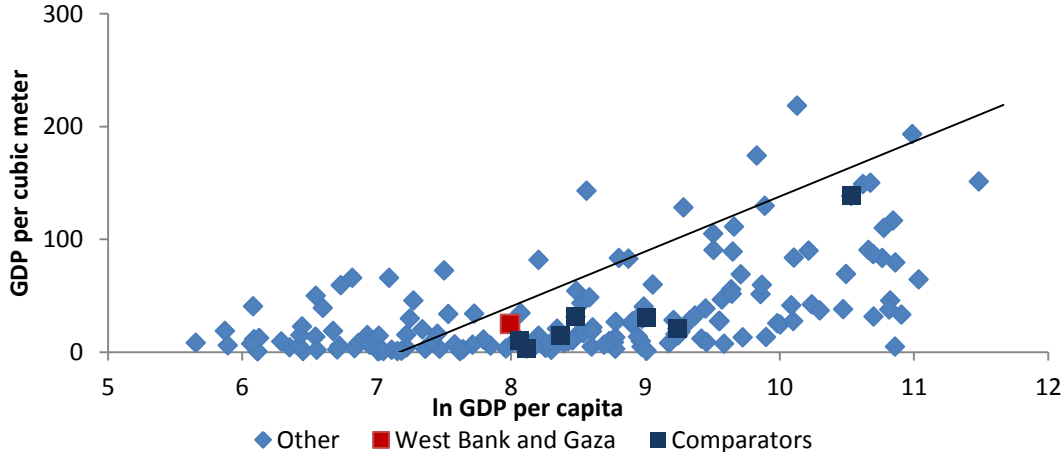
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<sup>85</sup> Future Water Needs in Palestine, Palestine Economic Policy Research Institute, 2009

<sup>86</sup> Palestinians currently have rights to 20 percent of the water in aquifers in the West Bank, while Israel has rights to 80 percent of the shared aquifers and all of the above-ground resources - Jordan River and Dead Sea

The price of domestic and commercial water in WBG averages about NIS 6/m<sup>3</sup> (\$1.64/m<sup>3</sup>) and is highly subsidized. Most water service providers do not collect enough revenue to provide adequate operations and maintenance to their systems. Donors provide virtually all capital for water network improvements and expansion and even cover some of the PA’s water related operating expenses. Therefore, the price of water is likely to increase significantly in the future. The price of water is not nearly as important as the supply. None of the water from municipal service providers is available to farmers, only a limited amount is available for industrial use, and the reliability and affordability of agricultural water service providers is questionable. As a result, water productivity relative to GDP per capita in the West Bank and Gaza is only slightly lower than the global trend and higher than Turkey, Tunisia, Morocco, and Egypt (Figure 8.3). Higher water productivity reflects the high cost of obtaining it, leading to the conclusion that water, for productive purposes, is expensive. Due to water shortages, as seen in Figure 8.2 above, or the lack of water availability altogether, many water intensive firms must incur the high costs of obtaining water through private wells or tankers. Illegal tapping and theft is also a problem, further supporting the conclusion that the cost of water is prohibitively high for commercial use.

**Figure 8.3 Water Productivity, Total (Constant 2010 US\$ GDP per cubic meter of total freshwater withdrawal), 2014**



Source: WDI; Produced by USAID/EADS

The problem of water scarcity is further exacerbated by the inadequacy of existing water sector infrastructure to deliver the required amounts of water to all locations where it is needed. Area C is particularly affected. Even if a political solution to the access restrictions were to be found, there is a lack of water wells, reservoirs and distributions systems available to support new irrigation opportunities.

Water losses in the West Bank and Gaza remain high (in excess of 30%) due to aging and deteriorated pipes, as well as illegal tapping. Poor or nonexistent wastewater infrastructure is leading to serious health and environmental concerns and a lost opportunity for agricultural irrigation. According to the World Bank, only 31% of Palestinians in the West Bank are

connected to a sewerage network, and only five to ten percent of Palestinian wastewater is treated.<sup>87</sup> Very little treated wastewater is currently reused for other uses, such as agriculture. According to a United Nations report, some 90,000 cubic meters of raw sewage flows from Gaza into the Mediterranean Sea or percolates into the Coastal Aquifer every day, creating an environmental hazard, raising the risk of waterborne disease outbreaks, and rendering the water increasingly useless for agriculture.<sup>88</sup> Capacity to collect and treat wastewater is low and is only being used by the private sector on a small scale basis.

More than 300 service providers supply water and manage wastewater, the majority of which face significant problems resulting from weak institutional capacity, insufficient revenue generation, and the aforementioned supply and loss issues.<sup>89</sup> These problems result in poor service and a lack of customers' willingness to pay water bills, further exacerbating the situation. The average selling price, according to a 2016 study commissioned by the Water Sector Regulatory Council, does not reflect the actual service provided to the consumer and does not cover the operational costs of the service providers.<sup>90</sup> In 2014, the new Water Law was enacted, mapping out the roles and responsibilities of the institutions involved in water management. Although a positive step towards improving water governance, much work is needed to effectively implement the law.

Moving into the future, challenges related to water scarcity and agricultural productivity will likely be exacerbated by climate change. Projections for changes in temperature in the eastern Mediterranean vary. However, overall, temperatures are projected to increase by approximately 2°C by 2055 and approximately 3°C by 2090. Cold periods and warm periods are expected to become shorter, but more prominent, over time. Climate change models project changes in future rainfall for the region to include a scenario in which precipitation is expected to remain the same or increase slightly. However, in two other scenarios, rainfall is expected to decrease and to exhibit more seasonal variation over the course of the 21st century, with annual rainfall projected to decrease by around 10 percent by 2055 and around 20 percent by 2090. In either case, rain will not replenish underground aquifers to satisfy even current demands. Further, there is likelihood of increases in drought events and heat waves during the summer seasons, as well as more drastic changes in temperature, and more intense rainfall events throughout the coming years. Sea level is projected to increase by 0.1-0.4 m by 2100 along the Gaza coastline.

In summary, the data and anecdotal evidence clearly show that water infrastructure deficiencies and scarcity are binding constraints to growth in the Palestinian economy.

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<sup>87</sup> Assessment Of Restrictions On Palestinian Water Sector Development, World Bank Group, 2009.

<sup>88</sup> Gaza in 2020, UNICEF, 2012.

<sup>89</sup> 2016-2018 Water Sector Reform Plan, Palestinian Water Authority, 2016

<sup>90</sup> Performance Monitoring of Water Service Providers in Palestine For the Year 2014, Water Sector Regulatory Council, 2016.

- Test 1 (Shadow Price of the Constraint - i.e. a low quantity consumed and a high market or shadow price): The quantity supplied and consumed of water in the West Bank and Gaza is low relative to both its income and regional peers. This, coupled with its high cost, indicates water is a binding constraint to economic growth.
- Test 3 (Attempts to Bypass the Constraint - i.e. firms incurring costs to overcome the constraint): Due to water constraints, farms and agribusinesses are using private wells or, in some cases, illegal tapping, for irrigation purposes. Although supporting data was not found, much anecdotal evidence from interviews with businesses and organizations exists regarding businesses purchasing water from tankers to ensure an adequate supply for industrial use. Since many firms in the Palestinian economy are incurring such costs, it indicates the reliability of the water supply could be constraining growth.
- Test 4 (Camels and hippos - i.e. - If infrastructure were a binding constraint, we would expect to see firms less intensive in that constraint be more likely to survive and thrive, and vice versa): Water intensive sectors, such as manufacturing and agriculture, as a percentage of overall GDP, have been in decline. At the same time, sectors far less dependent on water, such as ICT, have been faring better.

### 8.2.2 Energy

The data shows that electricity is a binding constraint to economic growth in the West Bank and Gaza. Local electricity generation is minimal, leaving the market heavily reliant on electricity imports. Approximately 95 percent of electricity supply to the West Bank is imported from Israel with the remainder coming from Jordan. 68 percent of electricity imports into Gaza come from Israel with the remainder coming from Egypt and the Gaza power plant.<sup>91</sup> Electricity supplied by Israel is provided by the government-owned Israel Electric Corporation (IEC) through approximately 286 Low Voltage (LV) and Medium Voltage (MV) connection points. Ten of these connection points supply Gaza while the remainder supply the West Bank. There are 173 connection point owners, including six distribution companies (DISCOs), multiple municipalities, and a small number of private entities (factories, etc.).<sup>92</sup> The MV lines in WBG, distributing power from the connection points, are administered by the IEC. Distributors are unable to verify IEC readings of meters in Area C (approximately 61 percent of the West Bank) or along the Israeli–Palestinian periphery.<sup>93</sup>

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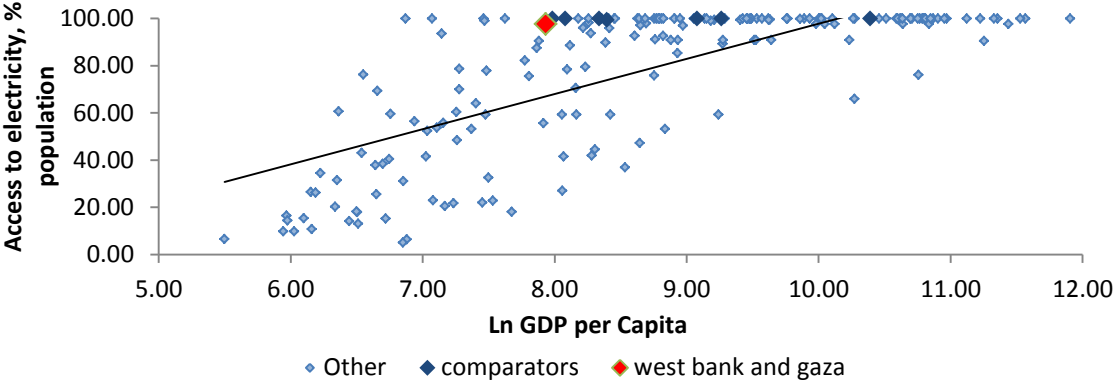
<sup>91</sup> The Gaza Power Plant produces at 1.5 NIS/kwh but sells at 0.5 NIS/kwh

<sup>92</sup> The six DISCOs are the Gaza Electricity Distribution Company (GEDCO), Hebron Electric Power Company (HEPCO), Jerusalem District Electricity Company (JDECO), North Electricity Distribution Company (NEDCO), Southern Electricity Company (SELCO) and the Tubas Electricity Distribution Company (TEDCO).

<sup>93</sup> The Oslo Interim Agreement specifies the following regarding regions in the West Bank: Area A: Full Palestinian civil and security control; Area B: Full Palestinian civil control and joint Israeli-Palestinian security control; Area C: Full Israeli control over security, planning, and construction.

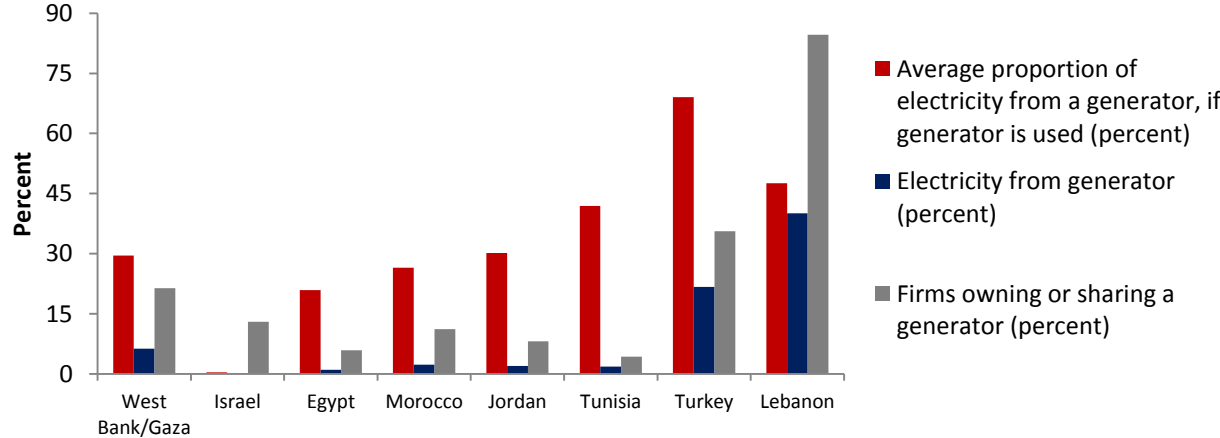
Figure 8.4 below shows that access to electricity in the West Bank and Gaza is high, but still lower than all of the comparator countries. The reliability of electricity, on the other hand, varies considerably. Availability of electricity in Gaza, for example, is limited to just a few hours per day and most businesses rely heavily on generators. In the World Bank 2013 Enterprise Survey for West Bank and Gaza, over 21% of firms surveyed owned a generator (Figure 8.5). Only two of the comparators have a higher percentage.

**Figure 8.4 Access to Electricity (percentage of population, 2012)**



Source: WDI; Produced by USAID/EADS

**Figure 8.5 Generator Use by West Bank and Gaza and Comparator Countries, 2013**

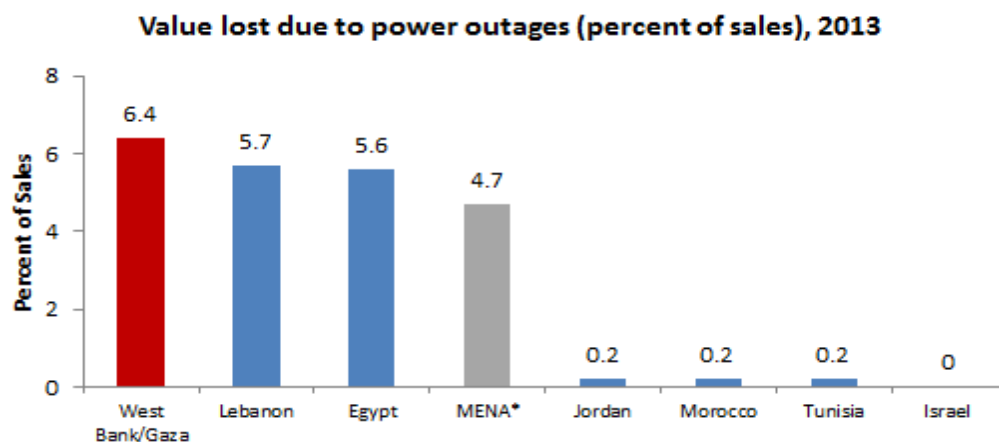


Source: Enterprise Surveys

The West Bank consumes 860 MW of power annually, but demand reaches 1100 MW. 32% of all electricity consumption in the WBG is commercial. Businesses report that the supply meets only 75% of demand, which is estimated to be growing at 7-8% annually. Annual electricity demand in Gaza, which consumes 200 MW annually, is 450 MW. 88% of Gazan businesses

report a lack of electricity as a serious obstacle to growth and firms lose 22% of production due to power outages. As seen in Figure 8.6 below, firms in the West Bank and Gaza lose more sales due to power outages than any of the comparator countries. The combination of low supply and heavy demand is increasingly leading to outages.

**Figure 8.6 Value Lost Due to Power Outages (percent of sales), 2013**



Source: World Bank, Enterprise Surveys

\*MENA average includes West Bank/Gaza, Lebanon, Egypt, Jordan, Morocco, Tunisia, Israel, Djibouti, Iraq (2011), and Yemen

Produced by the M/CIO's Economic Analysis and Services (EADS) Team

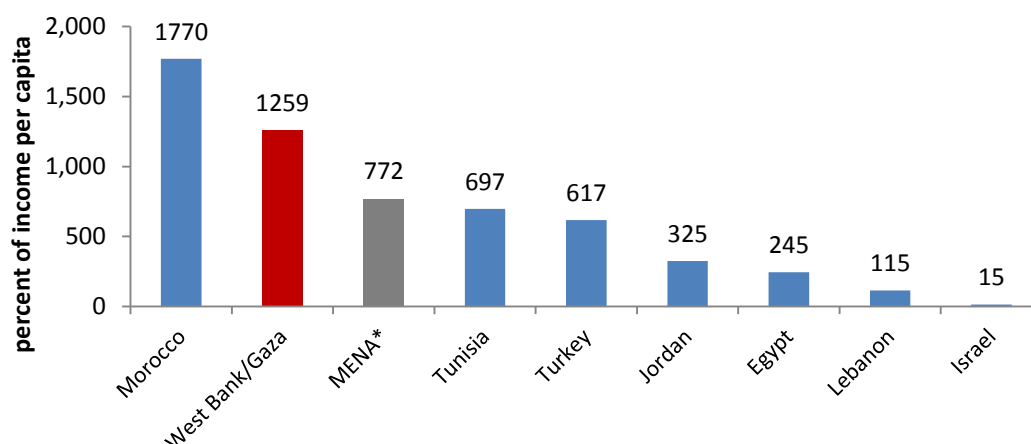
Source: Enterprise Surveys

From 2010-2013, West Bank electricity distributors only paid 63 percent of their bills to the IEC and Gaza distributors did not remit any payments to IEC, resulting in debt to the IEC of \$381.3 million in 2013. Although the power purchase contracts are between IEC and the connection point owners (and not the PA), outstanding payments owed to the IEC are either (i) deducted from the PA's clearance revenues (tax and customs transfers) by the Israeli Ministry of Finance and registered as "Net Lending" or (ii) are accumulated as debt owed to the IEC. Net lending represented a significant reduction in the PA's total revenues (about 13.5%) and outstanding debt grew to approximately \$330 million as of February 2014. According to a World Bank study, net lending has not been conducted in a transparent manner; however, some progress has been made recently, with IEC now sending regular invoices.

Energy costs in WBG are one of the highest in the region (Figure 8.7). The IEC sets the bulk supply tariff and the average price paid by the PA (DISCOS, municipalities, etc.) to the IEC is 0.47 NIS/kwh, which is basically the retail price Israeli consumers pay. The PA believes it should be entitled to a wholesale tariff as the IEC's largest customer and should not have to pay non-applicable components such as a "renewable energy" charge and contributions to the IEC pension plan. The Palestinian Electricity Regulatory Council (PERC) has set the Palestinian retail tariff since 2011 based on a cost-plus approach to cover electricity purchases from IEC, operating expenses, and a profit margin. The average price of electricity to the Palestinian end consumer is 0.57 NIS/kwh.



**Figure 8.7 Getting Electricity: Cost (percent of income per capita), 2016**



Source: Doing Business; \*MENA average includes: Morocco, West Bank/Gaza, Tunisia, Jordan, Egypt, Lebanon, Algeria, Bahrain, Djibouti, Iran, Iraq, Kuwait, Libya, Malta, Oman, Qatar, Saudi Arabia, Syria, and United Arab Emirates; Produced by USAID/EADS

Electricity losses average approximately 25%, with distributors facing difficulties collecting from refugee camps, PA public institutions, and areas under Israeli control (e.g. by the Jerusalem District Electricity Company (JDECO), which serves Jerusalem and the surrounding region, including Ramallah). About 8% of losses are technical (e.g. leakage), while 17% of losses are non-technical (e.g. theft, non-payment, refugee camps). Many distributors do not have the capacity or measurement tools to separate non-technical from technical losses. Due to these high losses, collections in the West Bank are only able to cover the cost of electricity purchased from the IEC and not the electricity distributor's operating and investment costs. However, distributors choose to pay operating expenses and shareholder dividends prior to paying IEC bills. Collection rates are improving in Gaza with the introduction of prepaid meters.

The PA has made significant progress towards reforming the electricity sector and creating an institutional framework that will enable improved sector oversight, increased efficiency, and more sustainable and affordable energy independence. In 2009, the PA passed an electricity law that establishes the following institutional roles:

- Palestinian Energy and Natural Resources Authority (PENRA) as the policy-making body;
- Palestinian Electricity Regulatory Council (PERC), established in 2010 to undertake regulatory functions, such as setting tariffs, issuing licenses, and monitoring sector performance; and,
- Palestinian Electricity Transmission Company (PETL), established in 2013 to act as a single buyer and manage transmission system operations.

- In addition, the Palestinian Energy and Environmental Research Center (PEC) is the national renewable energy and energy efficiency research and development institution in WBG.

Furthermore, the law requires the consolidation of electricity distributors into four DISCOs in WBG. This has been a slow process and some 150 municipalities and village councils have yet to transfer their distribution services to the DISCOs.

In September 2016 the PA made a groundbreaking step by signing an agreement on principles with Israel that restructures the 2 billion NIS electricity debt owed to the IEC and transfers ownership and control over electricity distribution assets in the West Bank to the PA. Through the negotiations, the IEC debt was reduced to approximately NIS 650 million, to be paid in 48 equal installments once the PA and GOI execute a binding Power Purchase Agreement (PPA) within six months. Also as part of the deal, Israel will transfer to the PA control of the 270 connection points, sub-stations, feeder and transmission lines, and other power infrastructure. PENRA will then seek to consolidate its power network into a high-medium voltage transmission network of three high voltage lines to a small number of sub-stations leading to a more rational and more controllable distribution network. PENRA will also establish and build a National Control Center to monitor and control power throughout the system. The power will be sold by PETL via a Power Sales Agreement (PSA) to four distribution companies (DISCOs) and municipalities operating independently of the DISCOs.

Municipalities which previously collected electricity revenues but did not remit them to the PA will be required through a new Municipal Electricity Revenues Law to establish an electricity revenues bank account and report monthly to the PA Cabinet and PENRA on the amounts collected. The municipalities will be required to remit the collected funds to PETL for debt retirement minus a to-be-determined percentage to be retained for municipal operations. PENRA is also determining how it will pay for electricity usage in the municipalities of PA government offices or services paid for by the PA, such as hospitals.

PENRA is seeking donor support of USD \$125 million over five years to facilitate implementation of the agreement, of which USD \$27 million is needed during the first six months. Funds will be used to build PETL sub-stations and to develop or rehabilitate transmissions systems, purchase SCADA control equipment, billing and metering systems, technical assistance and capacity building, operating expenses for PETL, and for renewable energy programs.

Key to the successful implementation of the strategy will be the PA's negotiation with Israel over the purchase price of power. If a reasonable wholesale purchase price can be agreed, it would be a significant improvement over the high retail prices the PA has historically paid the IEC. This, coupled with a rational onward sales price, higher collection rates from municipalities and end-users and lower leakages, should enable the PA to generate sufficient revenues to cover

its costs and create a self-functioning electricity market in the West Bank. Another key assumption is that the necessary infrastructure, training and capacity building can be implemented in a timely and rational manner.

Finally, the PA hopes to reduce its energy dependence on Israel by increasing alternative supplies. The PA has launched a campaign to promote renewable energy, primarily solar, and is also seeking to build its own power stations in the West Bank. For example, a 450 MW power plant in Jenin is in the tender process and another is planned for the Hebron area. These power plants will be fueled by natural gas supplied either from Gaza or, more likely, from Israel.

If all the above steps can be successfully taken, the PA expects its sources of energy (by 2020) to comprise:

- 60% produced domestically from power plants;
- 10% from renewable energy
- 20-30% imported from Israel

In summary, electricity is a binding constraint to economic growth in the West Bank and Gaza. However, if implemented correctly, the new agreement between the PA and GOI has the potential to address this constraint in the West Bank over the medium-term horizon. There is no end in sight to the energy constraint in Gaza, however.

- Test 1 (Shadow Price of the Constraint - i.e. a low quantity consumed and a high market or shadow price): The supply of electricity in the West Bank and Gaza is significantly less than what the private sector demands. Reliability is a major problem and shortages are chronic. The low and inconsistent supply of electricity, coupled with the high cost, indicates electricity is a binding constraint to economic growth.
- Test 3 (Attempts to Bypass the Constraint - i.e. firms incurring costs to overcome the constraint): The reliability of electricity in the West Bank and Gaza is very low. As a result, firms are reducing their vulnerability to power outages by buying and maintaining diesel generators. These generators are expensive to operate relative to the price of networked electricity, so firms that use them are incurring a significant additional cost in order to avoid power outages. That a high percentage of firms in the Palestinian economy are incurring such costs to overcome the power outages is further evidence that the reliability of the electricity supply is a binding constraint to growth.

### **8.2.3 Transportation (roads, ports, crossing points)**

As an effectively landlocked territory, the West Bank and Gaza are totally dependent on roads as a means of domestic transport and all international trade is carried out through commercial crossings points with Israel, Jordan and Egypt. There are no functioning domestic or

international airports and despite a 42 kilometer Mediterranean coastline in Gaza, there is no seaport, fishing facilities are underdeveloped and fishermen only have access to a radius of 9 miles offshore. Currently, all passenger and commercial air transport passes through airports in Israel and Jordan and the majority of international sea freight passes through the Israeli seaports at Ashdod and Haifa, with a small, but growing, amount passing through the Allenby Crossing (Jordan) to Aqaba. There are no railroads in the West Bank or Gaza. The ports and road networks used by Palestinian firms in the West Bank and Gaza, Israel, and Jordan are of good quality and are generally sufficient in quantity given current Palestinian demand. In the most recent World Bank Enterprise Survey, only 2.1% of firms identified transportation as the top obstacle to their business operations.<sup>94</sup> While this percentage is higher than in four of the comparators, it is lower than Morocco, Israel, and Turkey.

As a result, and after extensive interviews with stakeholders in the Palestinian economy and analysis of available data, it is clear that the physical transportation infrastructure per se is not currently the most binding constraint to economic growth in West Bank and Gaza. However, it is crucial to point out that the West Bank and Gaza's domestic transportation infrastructure poses significant barriers to growth that could rise in profile over time as other more pressing constraints are improved, such as access and mobility issues related to the political and security situation with Israel and its total control of the import and export processes. Israel's control of commercial crossing points and most transport infrastructure development results in frequent and unpredictable road closures, usually due to security, as well as frequent and extended closure of crossing points, especially in Gaza. Capital investments on the Israeli side of the commercial crossing points, including infrastructure, mobile scanners, and container transfer areas has resulted in speeding up the inspection and clearance of cargo and enhancing the integrity of goods. However, significantly less investment on the Palestinian side has resulted in more congestion, delays, and increased transportation costs for traders. Additionally, the back-to-back transportation method delays delivery of goods, raises the cost of transportation, and causes increased damage of goods.<sup>95</sup>

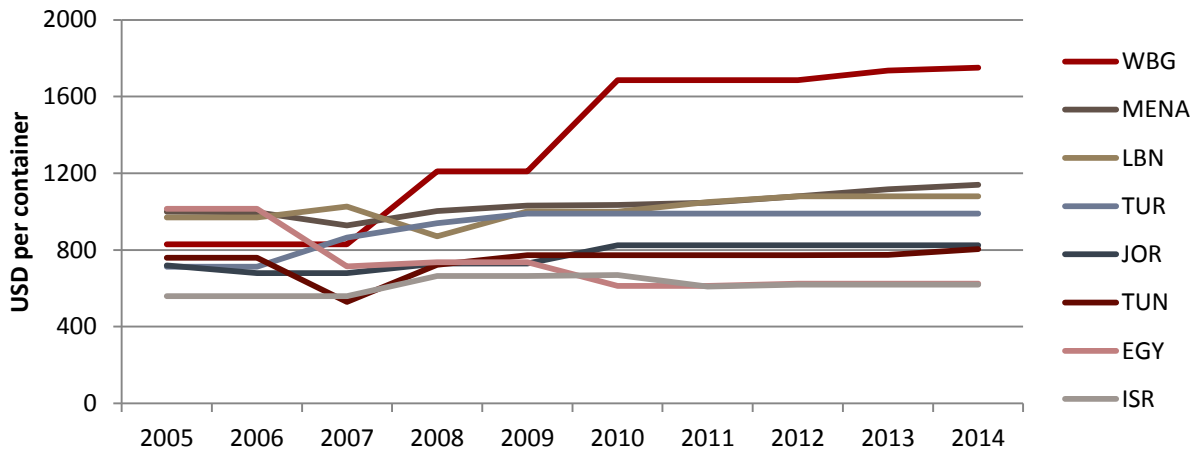
These movement and access issues are interconnected with transport infrastructure in that they prevent development of airports and seaports in the West Bank and Gaza and, most importantly, the efficient use of existing infrastructure in Jordan and Israel (ports and crossing points), all which drive up transaction costs for traders in the Palestinian economy (Figures 8.8 and 8.9Figure 8.9).

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<sup>94</sup> Enterprise Survey, World Bank Group, 2013.

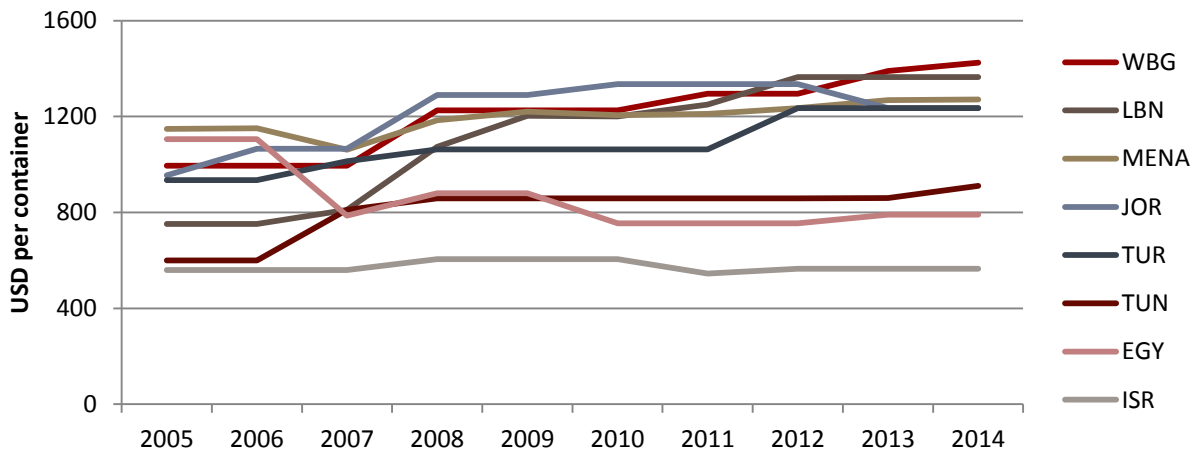
<sup>95</sup> The back-to-back method requires goods shipped from the West Bank and Gaza into Israel to be unloaded from Palestinian trucks and reloaded into Israeli trucks at the commercial crossing points prior to moving on to end destinations in Israel.

**Figure 8.8 Cost to Export (US\$ per container), 2005-2014**



Source: WDI

**Figure 8.9 Cost to Import (US\$ per container), 2005-2015**



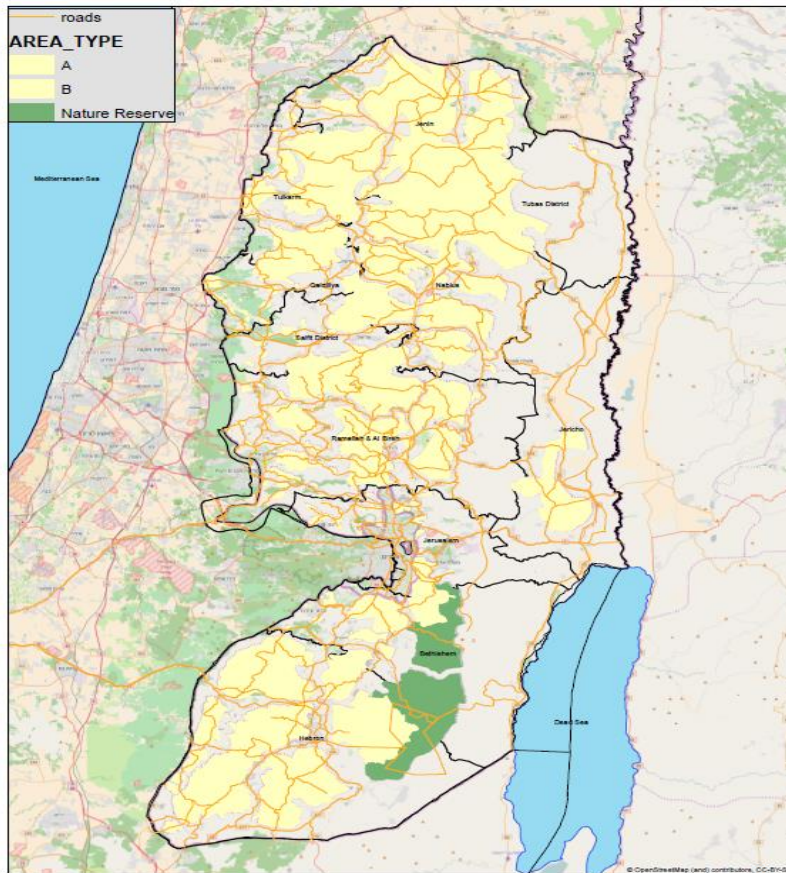
Source: WDI

While none of the in-person interviews with organizations, companies or key individuals identified transportation infrastructure as a major constraint, all parties identified the restrictive commercial crossing processes with their associated costs and delays as a major binding constraint to economic growth. One need only look to Figure 8.8 above to see that costs to export in the West Bank and Gaza are the highest, by far, among all of the comparators and costs to import are among the highest. While transport infrastructure is not, by itself, a binding constraint to growth, the evidence clearly shows that infrastructure deficiencies at the crossing points are part of the overall problem of high transaction costs to traders. Transaction costs related to movement and access issues are, indeed, a binding constraint to economic growth in the Palestinian economy and are discussed in much greater detail in the microeconomic risks chapter.

## Roads

Roads are the primary means of domestic transportation in the Palestinian economy and provide 100% of transport needs for passengers and freight. According to the Ministry of Public Works and Housing, the total length of the road network in the West Bank in 2015 is 3,675 km, of which 3,270 km are paved (see Figure 8.10 and Figure 8.11). The Gaza paved road network consists of 297 km, including 76 km of main roads, 122 km of regional roads, and 99 km of local roads.<sup>96</sup> Maintenance and construction resource requirements are approximately USD \$100 million per year.<sup>97</sup>

**Figure 8.10 Road Network in the West Bank**

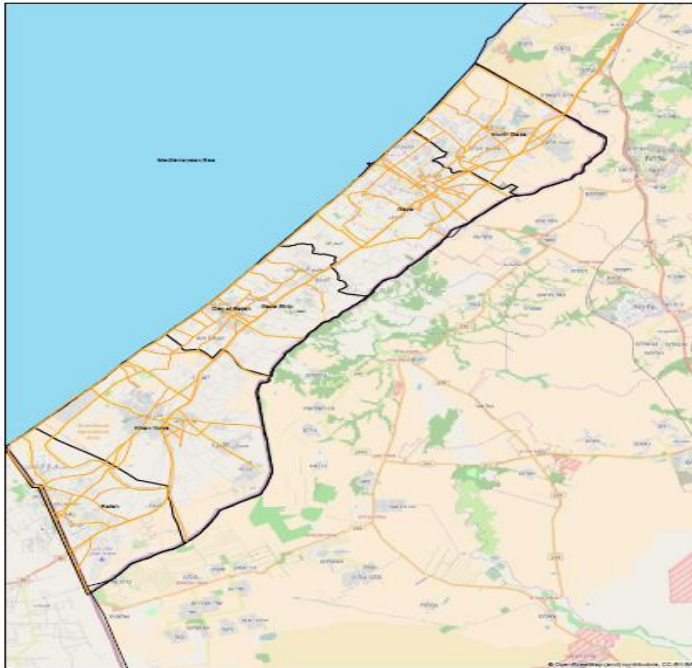


Source: USAID WBG Mission GeOMIS database

<sup>96</sup> PCBS, Transportation and Communication Statistics, Annual Report 2013, 2014.

<sup>97</sup> 2011-2013 Transport Sector Strategy, Palestinian Ministry of Transportation.

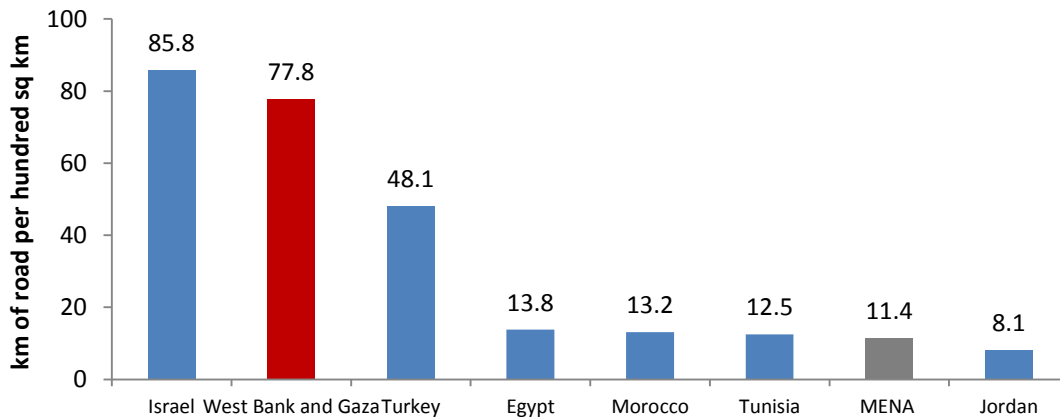
**Figure 8.11 Roads Network in Gaza**



Source: USAID WBG Mission GeoMIS database

In the West Bank, there are 0.79 km of roads per square kilometer, compared to 0.86 in Israel.<sup>98</sup> The West Bank has about half of the roads per million inhabitants as Israel but more than Jordan.<sup>99</sup> As demonstrated in Figure 8.12 below, the Palestinian road network is extremely dense compared to its comparators and second only to Israel, implying adequate coverage.

**Figure 8.12 Roads, Total Network (km per hundred sq. km), 2011**



**Source:** WDI; \*MENA Average includes: Iraq (2010), West Bank/Gaza, Syria, Iran (2010), Jordan, Morocco, Qatar, Egypt (2010), Kuwait, Oman, Bahrain, Algeria (2010); Produced by USAID/EADS

<sup>98</sup> World Bank, World Development Indicators

<sup>99</sup> World Bank, World Development Indicators, 2011.

Below is a table that shows total kilometers of roads - both paved and unpaved - in the West Bank. Only about 11% of the roads in the West Bank are unpaved.

**Table 8.1 Road Network Length in Kilometers in the West Bank by Road Type, 2015**

	Paved Roads			Unpaved Roads	Total
	Main	Regional	Local	Total Paved	
	656.7	1,120.9	1,492.3	3,269.9	404.7
					3,674.6

Source: Ministry of Public Works & Housing, 2015

Though road infrastructure is not currently a binding constraint to growth, this is not to say that improvements in the road network and institutions that oversee them are not necessary to enabling economic growth. Strategic interventions to unlock areas of congestion and improve throughput efficiency, especially at the commercial crossings, would contribute to lowering transport costs for the private sector. Moreover, approximately 45% of the roads are considered to be in bad condition with the remaining 55% considered fair to good, further indicating the need for institutional capacity building to improve planning and budgeting for operations and maintenance costs.<sup>100</sup>

The maps in Figure 8.10 and Figure 8.11 above shows the road network in the West Bank and Gaza, along with the complex division of Palestinian and Israeli jurisdictions that has existed since the 1993 Oslo Accords. It should be noted that since signing the Oslo Accords, Palestinians have exercised control over land use, road planning and maintenance only in the limited geographical area, known as Area A.<sup>101</sup>

## Air

The lack of an airport contributes to West Bank and Gaza transportation problems. Adequate airports exist in Israel and Jordan, but access to them is constrained by the crossing points. In-person interviews identified the production of high value perishable agricultural products, such as medicinal herbs and strawberries, as needing quick and reliable access to airfreight. Further, the lack of an international airport negatively impacts access and perceptions of international investors.

## Ports

The Gaza Port project was halted during the second intifada when the uncompleted structure was destroyed by Israeli forces. It is unlikely that port construction will resume until Gaza regains sovereignty over its territorial waters. The absence of a Palestinian-administered port, to serve the West Bank and Gaza, constrains economic growth, mainly due to the costly delays at crossing points and Israeli ports. That said Figure 8.13 below shows that the quality of the ports

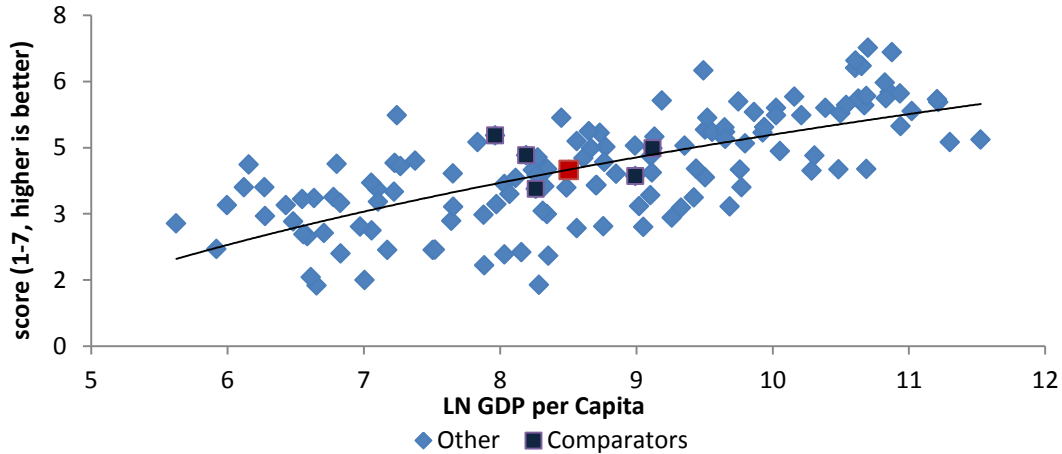
<sup>100</sup> Transport Sector Strategy Note, World Bank, 2007

<sup>101</sup> Accessibility in the region is governed by the Oslo I and Oslo II agreements signed between the Palestinians and the Israelis in the early 1990s. The Oslo II agreement divided the land use of the West Bank into the three major classes known as Areas A, B, and C



in both Israel and Jordan is relatively high. The Israeli ports of Haifa and Ashdod have capacity and modern terminal handling facilities.

**Figure 8.13 Quality of Port Infrastructure, Score (1-7, higher is better), 2015**



Source: WEF GCI; Produced by USAID/EADS

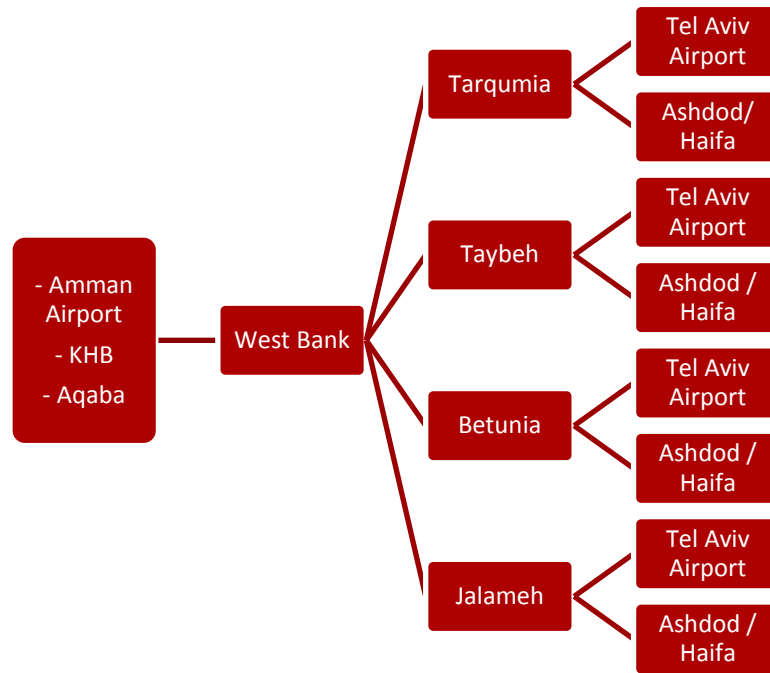
## Rail

The Palestinian Transport Master Plan includes construction of a railroad in the West Bank, to link historic cities with the eastern slopes and Jordan Valley. The line will then cross bridges to the East Bank and connect to the railroad between Jordan and Saudi Arabia. The PA has also developed economic feasibility studies and infrastructure assessments in order to implement a project to connect Gaza to neighboring countries as well as to construct a light rail between Gaza and the West Bank. Implementation and funding of these strategic projects are highly unlikely to begin anytime soon due to the ongoing security and political situation with Israel.

## Crossing Points

All imports and exports moving from the West Bank and Gaza into Israel and Jordan must pass through a commercial crossing point operated by Israel (Figure 8.14). There are four commercial crossing points between the West Bank and Israel - Jalameh, Taybeh, Betunia, and Tarqumiya. Allenby Crossing is the only commercial crossing point between the West Bank and Jordan. Karem Shalom is the only commercial crossing point between Gaza and Israel and Rafah, which is almost never used, is Gaza's sole crossing into Egypt.

**Figure 8.14 Commercial Crossing Points Between the West Bank and Israel**



Security and customs-related procedural issues, along with the required back-to-back method and a lack of key infrastructure at the crossings, such as warehouses, cold storage, or bottleneck-opening road improvements, combine to create serious impediments to trade that increase risks and drive up transaction costs for the private sector. While many of the issues are policy-related or procedural, some deal with infrastructure. A recent study by the Middle East Partnership Initiative (MEPI), which surveyed 60 Palestinian firms regarding transaction costs related to trade, identified problems with crossing point infrastructure as drivers of increased costs to traders.<sup>102</sup>

The survey results show a clear preference for Tarqumia commercial crossing for both import and export, which makes sense since Tarqumia serves the Hebron area, which is the manufacturing base of the West Bank. Security inspections of cargo are mandatory at each crossing, but the infrastructure to support the inspections differs widely. According to the MEPI study, Taybeh and Targumiya have x-ray scanning machines with simultaneous capacity of five containers, Jalameh has only one mobile scanner, and in Betunia the inspection is done manually.<sup>103</sup> The clear preference for Tarqumia, which is also best equipped for faster and efficient security screening, could imply that infrastructure is a constraint at the commercial crossings.

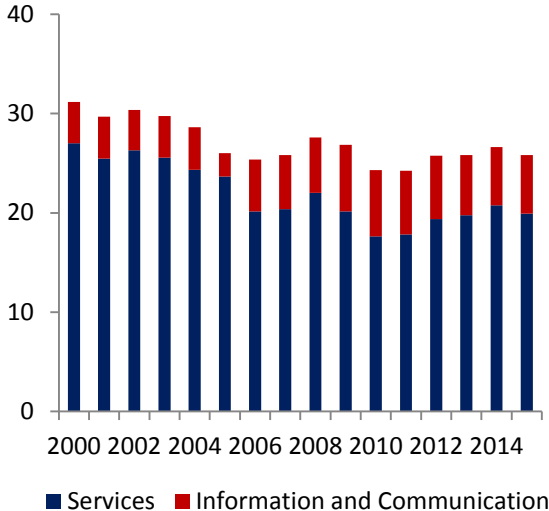
<sup>102</sup> Strengthening the Palestinian Private Sector through Reducing Trade Transaction Costs: A Comprehensive Research and Advocacy Program, Middle East Partnership Initiative (MEPI), 2015

<sup>103</sup> Bisan and Meitar are excluded as they are not official commercial crossing points.

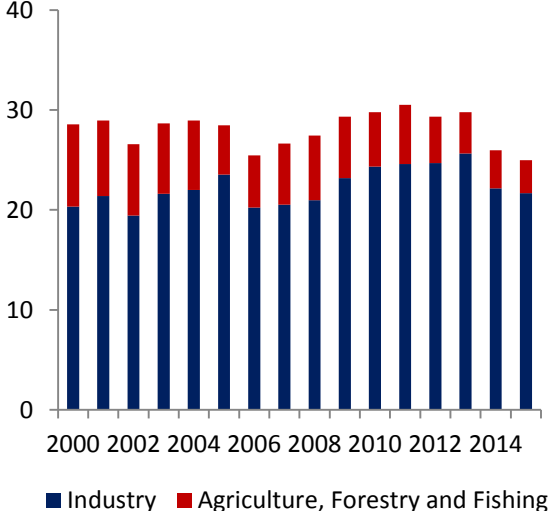
It is also important to point out the high volume of informal trade through Israeli middlemen who import and export, for a fee, on behalf of Palestinian businesses.<sup>104</sup> This willingness to incur costs in order to avoid the security inspections and added wait times from standards and customs procedures is another indicator that firms perceive the commercial crossings to be constraints to their operations.

Figure 8.15 and Figure 8.16 below shows the performance of the ICT, agriculture, and industry sectors since 2000. Agriculture and industry both rely heavily on transport infrastructure and must utilize the commercial crossings to import production inputs and export finished products. The ICT sector, on the other hand, relies far less on the crossings since much of the work is done electronically. The figures clearly show the ICT sector has more than doubled, as a percentage of GDP, since 2005. That the agriculture and industry sectors declined over the same period could be another indicator that the commercial crossings are constraining growth.

**Figure 8.15 ICT and Services, value added (% of GDP)**



**Figure 8.16 Agriculture and Industry Sectors, value added (% of GDP)**



Source: PCBS; Produced by USAID/EADS

While it is difficult to determine from the available data if commercial crossing point infrastructure alone is a binding constraint to economic growth, it is clear that it is part of the overall problem of high transaction costs. Strategic interventions to improve storage facilities and roads, coupled with policy reform and process improvements, have the potential to

<sup>104</sup> Strengthening the Palestinian Private Sector through Reducing Trade Transaction Costs: A Comprehensive Research and Advocacy Program, Middle East Partnership Initiative (MEPI), 2015

significantly improve throughput at the commercial crossings and lower transaction costs for Palestinian firms.

In summary, while the road networks and ports used by firms are not binding constraints to growth, transportation-related transaction costs, which include infrastructure deficiencies at the commercial crossing points, is a binding constraint to growth in the Palestinian economy. This constraint is covered in greater detail in the microeconomic risks chapter.

- Test 1 (Shadow Price of the Constraint - i.e. a low quantity consumed and a high market or shadow price): Road density per 100 square kilometers in the Palestinian economy is greater than all comparators other than Israel. While congestion and throughput can be improved in the road networks, especially at commercial crossing points, the overall quality and quantity of the road network, by itself, does not appear to be a binding constraint to economic growth. Lack of WBG ports is not a major constraint to near term economic growth since firms use the ports of Israel and Jordan, which are of good quality relative to their income levels.
- Test 3 (Attempts to Bypass the Constraint - i.e. firms incurring costs to overcome the constraint): Evidence shows firms are incurring costs in order to bypass procedural constraints at the commercial crossing points, indicating the crossing points are constraining growth. While part of the problem at the crossings is infrastructure-related - namely a lack of sufficient storage capacity and throughput constraints due to insufficient commercial roads - an arguably even larger part of the problem lies on the security, policy, and procedural side. As stated above, this is covered in much greater detail in the macroeconomic risk chapter.
- Test 4 (Camels and hippos - i.e. if infrastructure were a binding constraint, we would expect to see firms less intensive in that constraint be more likely to survive and thrive, and vice versa): Agriculture and manufacturing, which rely much more on the commercial crossing points than ICT and services, have both been declining as a percentage of GDP. The ICT sector has been faring far better, implying crossing points could be constraining economic growth.

#### **8.2.4 ICT**

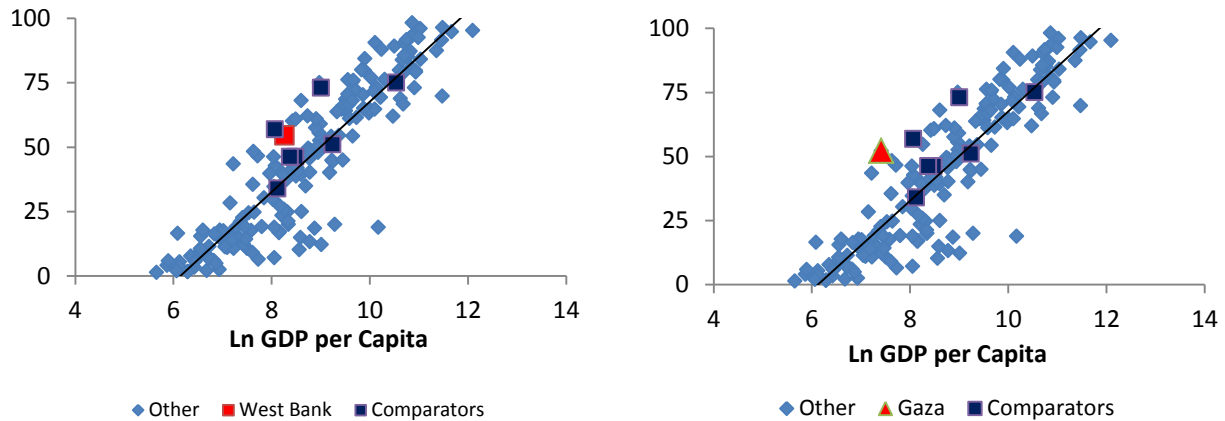
ICT infrastructure is not currently one of the binding constraints to growth in the Palestinian economy. With an average growth rate between 25 and 30 percent since 2000, the ICT sector has been one of the fastest growing sectors in the Palestinian economy.<sup>105</sup> This positive trend implies the telecommunications infrastructure is sufficient for the Palestinian private sector's needs. As seen in Figure 8.17 below, the rates of internet users in both the West Bank and Gaza are high relative to their income levels and when compared to several of the comparator countries.

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<sup>105</sup> West Bank and Gaza Investment Climate Statement, US Department of State, 2015.

Further, internet use has been increasing steadily over time since 2004 when the rate was just 11.9%.<sup>106</sup>

**Figure 8.17 Internet Users per 100 People, West Bank (left) and Gaza (right), 2014**

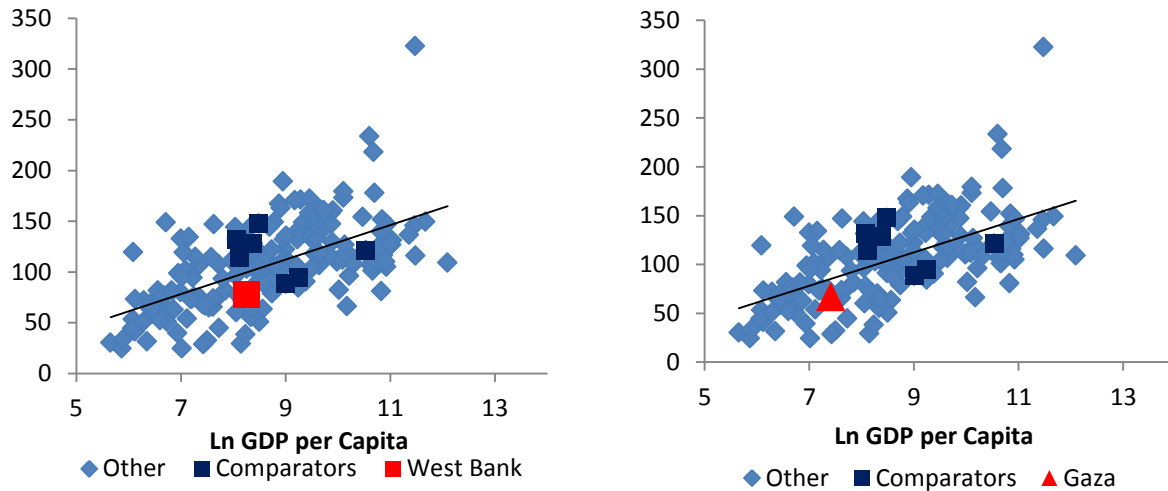


Source: PCBS; Prepared by USAID/EADS

The situation is similar regarding the rate of cellular subscriptions and fixed telephone subscriptions. As seen in Figure 8.18 below, the rate of cellular and fixed telephone subscriptions in both the West Bank and Gaza is roughly in line with a country of its income level and also within range of the levels in its comparator countries.

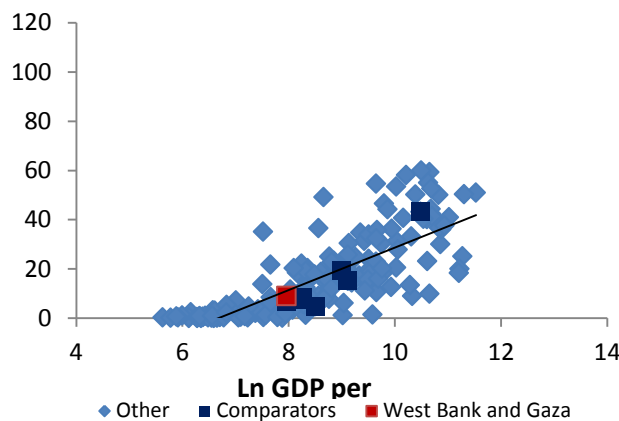
<sup>106</sup> Access and Use of ICT by Households and Individuals by Year, PCBS,

**Figure 8.18 Mobile Cellular Subscriptions per 100 People, West Bank (left) and Gaza (right), 2014**



Source: WDI

**Figure 8.19 Fixed Telephone Subscriptions per 100 People, 2015**

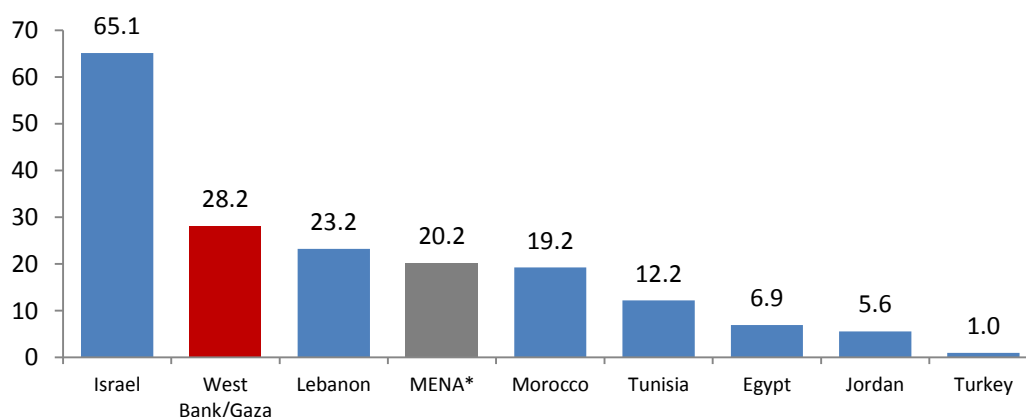


Source: WDI

It is important to note that although none of the in-person interviews with organizations, companies or key individuals identified ICT infrastructure as a major constraint to economic growth, several parties stated that the lack of spectrum to enable mobile telecommunications services as a serious issue that, if resolved, would have a tremendous positive impact the Palestinian economy. The PA does not have full control of the telecommunications sector in the West Bank and Gaza, as originally outlined in the Oslo Agreement. As a result, Jawwal and Wataniya, the two major telecommunications firms, are only able to offer 2G technology, with limited bandwidth at best, due to Israeli restrictions. Jawwal, for example, has not received additional spectrum since its first allocation in 1998. At the same time, Israeli telecommunications firms, which have sufficient infrastructure throughout the West Bank, provide ample bandwidth and 3G services covering all of the Israeli settlements. Since coverage

spills over from the settlements (located in Area C) into Areas A and B, and from Israel into Gaza, not surprisingly, many Palestinians opt to use the Israeli providers. This unauthorized competition negatively impacts the telecommunications sector in the West Bank and Gaza resulting in total revenue losses ranging from \$436 to \$1,150 million between 2013 and 2015.<sup>107</sup> The telecommunications sector contributes 4 percent to the GDP of the West Bank and Gaza. According to estimates by The Office of the Quartet, the impact the 3G rollout alone would increase the GDP growth rate by 1.5 percentage points, increase investment by approximately \$120 million, create 10,200 new employment opportunities, and provide an estimated \$54 million in revenue for the Palestinian Authority (PA) over the first two years.<sup>108</sup> Ultimately, the restrictions have increased costs for the Palestinian consumer. For mobile services, mobile data, fixed-telephony prices, and fixed broadband, Palestinian consumers face prices that are higher than the average for the Middle East and North Africa region.<sup>109</sup>

**Figure 8.20 ICT Service Exports (% of service exports, BoP), 2015**



Source: WDI; \*MENA average includes: Jordan, West Bank/Gaza, Morocco, Tunisia, Algeria, Malta, Lebanon, Egypt, Bahrain (2014), Djibouti, Kuwait, Oman, Saudi Arabia, Yemen; Produced by USAID/EADS

In summary, while the ICT sector will clearly benefit from increased spectrum and a resolution to the issues around unauthorized competition, overall growth trends in the industry, consistent increases in ICT use over the past decade, and the sector's performance compared to the comparators region (see Figure 8.20) conclude that ICT infrastructure is not a binding constraint to economic growth in the Palestinian economy.

<sup>107</sup> Telecommunication Sector Note in the Palestinian Territories: Missed Opportunity for Economic Development, World Bank Group, 2016

<sup>108</sup> Economic Impact of Mobile Communications Development on the Palestinian Economy, Office of the Quartet, 2015

<sup>109</sup> Telecommunication Sector Note in the Palestinian Territories: Missed Opportunity for Economic Development, World Bank Group, 2016

### 8.3 Conclusion

Both water infrastructure and scarcity are clearly binding constraints to economic growth in the Palestinian economy. The quantity supplied and consumed of water in the West Bank and Gaza is low relative to both its income and regional peers and its cost is high. Moreover, firms are using private wells or, in some cases, illegal tapping, for commercial purposes and anecdotal evidence from interviews with businesses and organizations indicates that businesses are purchasing water from tankers to ensure an adequate supply for industrial use. Water intensive sectors, such as manufacturing and agriculture, as a percentage of overall GDP, have been in decline while, at the same time, sectors far less dependent on water, such as ICT, have been faring far better.

Electricity is also constraining economic growth in the West Bank and Gaza. Electricity supply is significantly less than what the private sector demands, reliability is a major problem, shortages are chronic, and costs are high. As a result, many firms must incur additional operational costs to reduce their vulnerability to power outages by buying and maintaining diesel generators. Nevertheless, if the new energy agreement is implemented correctly and a competitive purchase price negotiated, electricity should become less of a constraint for Palestinians in the West Bank. There is no end in sight to the energy constraint in Gaza, however.

In terms of transportation infrastructure, road networks and ports do not appear to be binding constraints to economic growth. Road density per 100 square kilometers is greater than all comparators other than Israel. While congestion and throughput can be improved in the road networks, especially at commercial crossing points, the overall quality and quantity of the road network, by itself, does not appear to be a binding constraint to economic growth. Lack of ports is not a major constraint to near term economic growth since firms use the ports of Israel and Jordan, which are of good quality relative to their income levels. While the road networks and ports are not binding constraints to growth, evidence shows that firms are incurring costs in order to bypass procedural constraints at the commercial crossing points, indicating the crossings are constraining growth. While part of the problem at the crossings is infrastructure-related—namely a lack of sufficient storage capacity and throughput constraints due to insufficient commercial roads—an arguably even larger part of the problem lies on the security, policy, and procedural side, all of which are covered in much greater detail in the microeconomic risks chapter.

While the ICT sector will clearly benefit from increased spectrum and a resolution to the issues around unauthorized competition, it is not believed to be a binding constraint to economic growth.



## 9 NATURAL CAPITAL

### 9.1 Introduction

The West Bank and Gaza have a variety of adverse geographic characteristics that increase the risks to investment opportunities and raise costs for businesses. The country faces challenges of limited access to land and natural resources, and a forecast of increasing drought and water scarcity in an already water-stressed region. The natural capital challenges faced by the West Bank and Gaza are greatly exacerbated by and fundamentally rooted in the political situation, which are addressed in Section 10.2. Because of this, natural capital has not been identified as a binding constraint to growth. This chapter covers land resources, natural resources, and climate change and environmental risk. While referenced, water resources are covered in more detail in Chapter 8 (Infrastructure).

### 9.2 Land resources

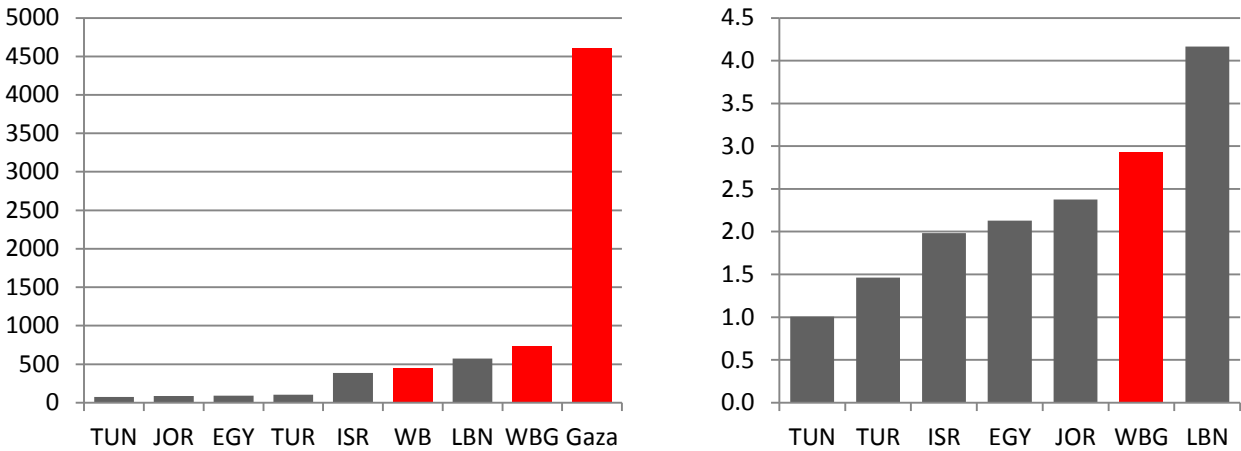
The West Bank and Gaza face significant challenges regarding land. The two territories are physically separated, with extremely limited access for people and goods to move between them. Additionally, the West Bank is a not contiguous area and instead consists of small pockets of Areas A and B (under Palestinian civil control) surrounded by Area C (under full Israeli control), with restrictions on movement and access throughout. The West Bank is landlocked, and while Gaza has nearly 40 kilometers of coastline, the territory has been under a land, sea, and air closure since 2007. Gazan fishermen are only allowed access to less than one third of the area allowed under the Oslo Accords.<sup>110</sup> The issues surrounding access to land and land tenure are covered in depth in Chapter 4 (Microeconomic Risks).

The West Bank and Gaza represent one of the most densely-populated areas in the world. This is primarily driven by the incredibly high population density in Gaza. The scarcity of land caused by high population density is likely to be further exacerbated by WBG's relatively high population growth rate, which is the second-highest among the comparators at 2.9%

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<sup>110</sup> *The Gaza Strip: The Humanitarian Impact of the Blockade*. UN Office for the Coordination of Humanitarian Affairs, November 2016.

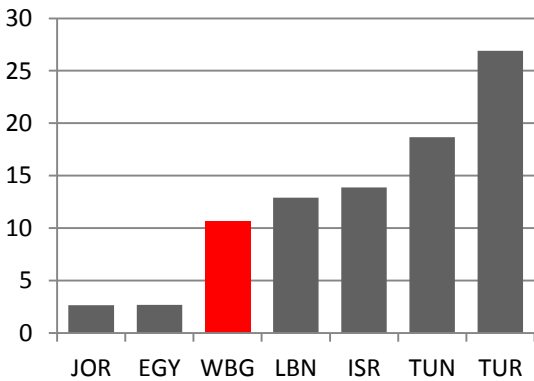
**Figure 9.1 Population Density (left) and Population Growth Rate (right)**



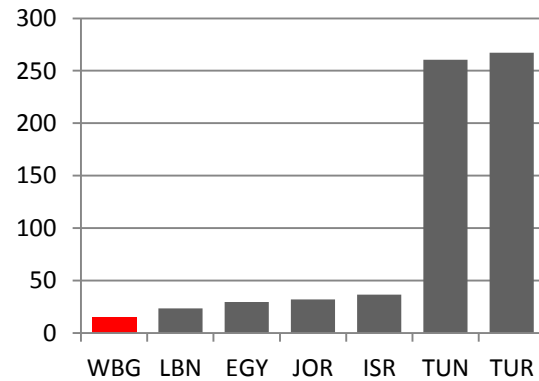
Source: WDI, 2016

These figures overestimate the actual availability of land in the West Bank. As discussed in Chapter 5 (Microeconomic Risks), 61% of the West Bank is classified as Area C, with full Israeli military and civil control. Economic activity in Area C is severely restricted.<sup>111</sup> While the actual population density in the West Bank is 453 people per km<sup>2</sup>, the de facto population density, excluding Area C, is 1,161 people per km<sup>2</sup>.<sup>112</sup>

**Figure 9.2 Arable Land (% of land area)**



**Figure 9.3 Arable Land (ha. per 1,000 people)**



Source: WDI, 2016

<sup>111</sup> *Area C and the Future of the Palestinian Economy*. The World Bank, October 2, 2013.

<sup>112</sup> Author's calculations

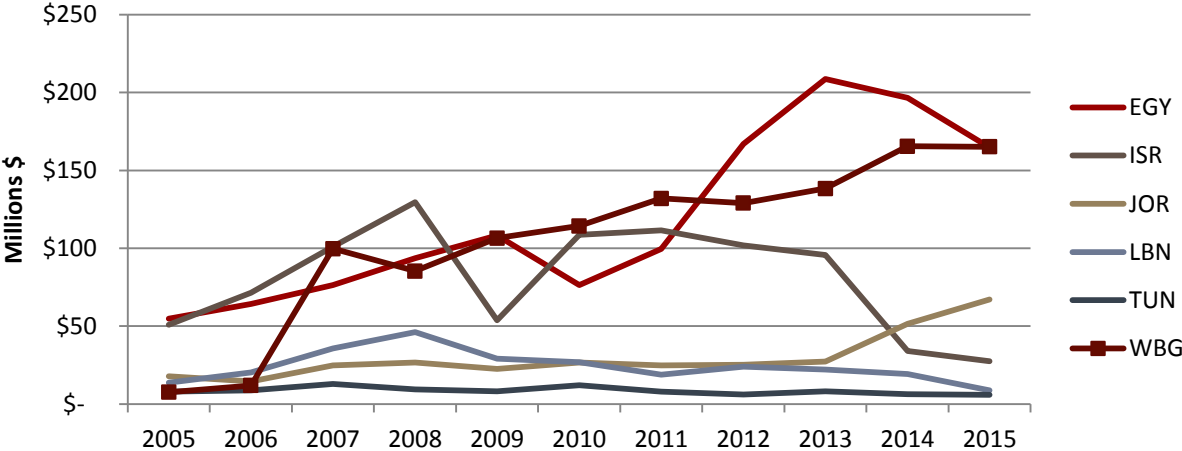
The West Bank and Gaza have a moderately low share of arable land (10.6% of total land area) compared to peer countries, though this does not take into account access issues. On a per capita basis, the West Bank and Gaza have the lowest ratio of arable land per person among the comparators, at 14.9 hectares per 1,000 people. This is a factor of both the high population density, and the moderately low share of arable land.

### 9.3 Mineral & Natural Resource Wealth

Natural resources are an important contributor to the economies of the West Bank and Gaza, with significant untapped potential. In the West Bank, the stone and marble industry is a large employer and the largest exporter. In Gaza, large natural gas reserves, while still untapped due to political constraints, represent a potential source of income in the future. The West Bank’s coast on the Dead Sea, though currently restricted, is also a potential source of future income from tourism and Dead Sea products.

The stone and marble sector is important for its contribution to GDP, employment, and exports. The industry is comprised of over 1,000 firms, representing 15,000 jobs (14% of the labor force).<sup>113</sup> In total it contributes approximately \$250 million, or two percent of total value added, to the Palestinian GDP.<sup>114</sup> Building stone was the largest export in 2014, representing 18% of total exports, and a total value of \$165 million.<sup>115</sup> While the vast majority of exports go to Israel (78%), the West Bank exported building stone to a total of 26 countries in 2014. After Israel, the largest export destinations were Jordan (9%), Qatar (4%) and Saudi Arabia (2.9%).<sup>116</sup> The West Bank was the world’s ninth largest producer by value in 2014, representing 1.4% of the world’s market.

**Figure 9.4 Building Stone Exports: 2005-2015**



Source: Observatory of Economic Complexity, 2017

<sup>113</sup> Palestinian National Export Strategy: Stone and Marble (2014-2018). Paltrade, 2013.  
<sup>114</sup> *Area C and the Future of the Palestinian Economy*. The World Bank, October 2, 2013.  
<sup>115</sup> Palestinian Exports, the Observatory of Economic Complexity. MIT, 2017.  
<sup>116</sup> Ibid

Figure 9.4 above shows the growth in exports of building stone for the West Bank and Gaza and comparators (excluding Turkey).<sup>117</sup> The growth in the West Bank's stone exports is noteworthy, increasing from \$7.7 million in 2005 to over \$165 million in 2015. This represents an average increase in exports of 18% per year. Turkey was by far the largest producer among the comparators in 2015 with exports of approximately \$1 billion, followed by the West Bank and Gaza with the second highest rate of exports.

While the stone and marble industry has managed to succeed in increasing exports in nominal terms, the industry's exports as a share of total exports has seen little change. According to the World Bank, the stone industry is constrained by restrictions such as the dual use list prohibiting the import of some machinery needed for production, and costly regulations related to export. Restrictions on land access are the most burdensome, with no new permits being issued to Palestinian firms to open quarries in Area C since 1994 despite provisions of the Oslo Accords allowing for new quarries. Many of the existing quarries in Area C have seen their permits expire, leading them to close down.<sup>118</sup> This represents a major hurdle for growth in the sector. Estimates suggest that Area C has an endowment of \$30 billion in stone, which is roughly three times the West Bank and Gaza's current GDP.<sup>119</sup>

Significant natural gas reserves have been discovered in the Eastern Mediterranean over the last two decades. The U.S. Geological Survey has estimated those reserves as up to 122 trillion cubic feet of technically recoverable natural gas in the exclusive economic waters of Cyprus, Lebanon, Israel, the Palestinian Territories, and Egypt.<sup>120</sup> Israel and Cyprus have both proven reserves, with Israel's reserve large enough to meet all domestic demand and allow for exports for decades.<sup>121</sup> Gaza Marine is estimated to hold one trillion cubic feet of natural gas, is located in much shallower waters and closer to shore than the two fields that have begun production off of Israel. Despite efforts by the Office of the Quartet and the United States to negotiate terms of production with Israel, the talks have not succeeded. The takeover of Gaza by Hamas in 2007 has made these talks more complicated, and less likely to succeed. While the successive rounds of conflict between Israel and Hamas have deterred investors in the sector, the large economic benefits to both the Palestinian and Israeli economies that would result from a successful negotiation of terms of extraction have kept this a priority in peace negotiations.<sup>122</sup>

The West Bank's coast on the Dead Sea, which is approximately 40 kilometers long based on 1967 borders, represents a valuable natural resource. The land surrounding the Dead Sea is classified as Area C (see map in Figure 4.17), which means that the Palestinian economy has not been able to benefit from this resource. Both Israel and Jordan have been able to develop

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<sup>117</sup> Note: Turkey excluded for readability (exports were over \$1 billion in 2015).

<sup>118</sup> *Area C and the Future of the Palestinian Economy*. The World Bank, October 2, 2013.

<sup>119</sup> *Ibid*

<sup>120</sup> U.S. Geological Survey, "Natural Gas Potential Assessed in Eastern Mediterranean," April 8, 2010.

<sup>121</sup> Boersma and Sachs. "Gaza Marine: Natural Gas Extractions in Tumultuous Times?" Foreign Policy at Brookings, February 2015.

<sup>122</sup> *Ibid*

significant tourism and cosmetic industries on their Dead Sea coasts. Annual hotel revenues in 2012 were \$291 million in Israel and \$128 million in Jordan. Meanwhile, Israel exports about \$150 million in cosmetics based on Dead Sea minerals per year, while Jordan exports close to \$30 million. While no exact estimates of the potential value of the Dead Sea to the Palestinian economy have been calculated, the income that Jordan and Israel derive from their Dead Sea shorelines has been used as a proxy.<sup>123</sup>

#### **9.4 Climate Change and Environmental Risk**

The West Bank and Gaza, located in the southeast Mediterranean region, is expected to see temperature rises which are higher than the global annual mean warming. The Intergovernmental Panel on Climate Change (IPCC)'s Fourth Assessment Report estimates warming of between 2.2 – 5.1<sup>0</sup>C over the 21<sup>st</sup> century. This is expected to correspond with significant reductions in annual precipitation rates, with a reduction of 10% by 2020, and 20% by 2050.<sup>124</sup>

The projected temperature increases and decreases in precipitation are particularly worrisome for the West Bank and Gaza, as the region is already facing significant water stress. The World Resources Institute (WRI) report on the top water-stressed countries finds that the West Bank and Gaza is highly water-stressed and by 2040 will be tied for the most water stressed country in the world.<sup>125</sup> Figure 9.5 below shows WRI's projections for water stress for the West Bank and Gaza and the comparator countries under a *business as usual* scenario.<sup>126</sup> Water has been a significant dimension in the conflict between Israel and WBG, and increasing water scarcity will only exacerbate those challenges. The issue of water scarcity is covered in more detail in Chapter 8 (Infrastructure).

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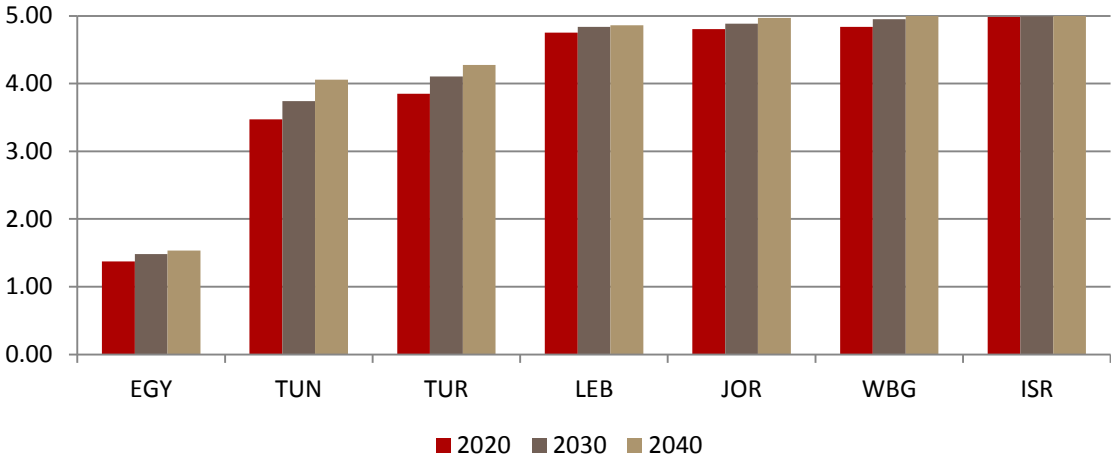
<sup>123</sup> *Area C and the Future of the Palestinian Economy*. The World Bank, October 2, 2013.

<sup>124</sup> *Climate Change Adaption Strategy and Programme of Action for the Palestinian Authority*. UN Development Programme, and Palestinian National Authority.

<sup>125</sup> *Ranking the World's Most Water-Stressed Countries in 2040*. World Resources Institute, 2015.

<sup>126</sup> A score of 0-1 represents low water stress, with a ratio of withdrawals to available water of less than 10%, while a score of 4-5 represents extremely high water stress, with a ratio of withdrawals to available water of over 80%.

**Figure 9.5 Water Stress Rankings: WBG & Comparators**



Source: WRI

**9.5 Conclusion**

The West Bank and Gaza are endowed with natural resources which make important contributions to the economy. Stone and marble is the largest export and a major source of employment. Other natural resources, such as the Dead Sea and Gaza Marine natural gas reserves represent untapped potentials for economic growth but are currently restricted due to the political situation. The West Bank and Gaza face serious threats from the effects of climate change, particularly through decreases in rainfall which will further stress the already limited water resources. The root of the challenges that the West Bank and Gaza faces with land, water, and natural resources is political, and thus natural capital itself is not a binding constraint to growth.

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