ALTERNATIVE POLICY SOLUTIONS

POLICY PAPER

Unleashing the employment potential in the manufacturing sector: Developing SME finance and the way forward

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Alternative Policy Solutions is a non-partisan, public policy research project at The American University in Cairo. Using rigorous, in-depth research and a participatory process of consultations with a diverse range of stakeholders, we propose evidence-based policy solutions to some of the most difficult challenges facing Egypt. Our solutions are innovative, forward-looking and designed to support decision makers' efforts to introduce inclusive public policies.

The views and propositions expressed by Alternative Policy Solutions are those of the project's researchers and consultants and do not reflect the opinions of The American University in Cairo. Inquiries and requests regarding the project's activities should be addressed to the project's team directly.

Table of Contents

List of Figures	5
List of Tables	6
List of Acronyms	7
Acknowledgements	8
1. Executive Summary	8
2. Introduction	9
3. Literature Review	11
4. Policy Context	14
4.1. Regulatory framework	14
4.1.1. A unified definition for SMEs	14
4.1.2. Institutional reforms	15
4.1.3. Access to finance and tax and fee exemptions	15
4.1.4. Incentives for formalization	16
4.2. Policies and initiatives	16
4.2.1. Enhancing the manufacturing sector	16
4.2.2. Enhancing access to banking finance	17
4.3. Why does access to finance remain a major obstacle despite the CBE initiatives?	18
4.3.1. Limited finance remains an obstacle for manufacturing SMEs	18
4.3.2. Reasons not to apply for loans	21
4.3.3. Defining SMEs: criteria contradictions	22
5. Policy Options	25
6. Policy Recommendations	29
7. Conclusion	32
8. References	33
9. Appendices	39

List of Figures

Figure 1 *Evolution of the Top 10 Business Environment Constraints, as Perceived by Small Firms (5-19 Workers) in the Manufacturing and Non-Manufacturing Sectors in 2013, 2016 and 2020*	19
Figure 2 *Evolution of the Top 10 Business Environment Constraints, as Perceived by Medium Firms (20-99 Workers) in the Manufacturing and Non-Manufacturing Sectors in 2013, 2016 and 2020*	20
Figure 3 *Reasons Why Manufacturing Firms Do Not Apply for Loans, by Firm Size, in 2013, 2016 and 2020*	21
Figure 4 *Distribution of Firms by Categories of Annual Sales and by Firm Size in 2013, 2016 and 2020*	23
Figure 5 *Percentage of Small and Medium Manufacturing Firms Who Perceived Finance as a Major or Very Severe Obstacle by Annual Sales in 2013, 2016 and 2020*	24

List of Tables

Table 1 *Unified Definition of MSMEs According to the New MSME Law*	14
Table 2 *Percentage of Small Firms (5-19 Workers) Who Took a Loan in the Previous Fiscal Year for Selected Annual Sales Categories*	25

List of Acronyms

CAPMAS	Central Agency for Public Mobilization and Statistics
CBE	Central Bank of Egypt
FRA	Financial Regulatory Authority
MTI	Ministry of Trade and Industry
MSMEDA	Micro, Small, Medium Enterprises Development Agency
MSMEs	Micro, Small and Medium Enterprises
SMEs	Small and Medium Enterprises

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1. Executive Summary

In Egypt, the manufacturing sector was the most employment-intensive sector from the 1980s to the mid 2000s. The potential of employment generation is reinforced by the manufacturing sector's higher proportion of small and medium enterprises (SMEs) than that of the private sector as a whole. SMEs are considered a main job-creation engine in both developed and developing countries, and are more likely to provide formal employment than the microenterprises that dominate employment in the private sectors of developing countries. Yet the share of the manufacturing sector in total jobs, including that of manufacturing SMEs, has declined over the past decades, reflecting what is known as the "missing middle".

Limited or lack of access to finance is recognized as one of the major obstacles SMEs face; accordingly, the Central Bank of Egypt (CBE) has launched many initiatives to financially support SMEs. However, despite these numerous initiatives, there is no evidence of the funding's reach to SMEs in the manufacturing sector and/or its impact on their employment growth and sustainability. Access to finance from banks remains marginal among SMEs, particularly among those in the manufacturing sector. The impact of these initiatives on employment generation therefore remains questionable.

This paper examines the extent to which Egyptian SMEs in the manufacturing sector benefited from the numerous funding initiatives recently implemented in Egypt and puts forward policy recommendations to facilitate more effective financing that boosts their employment generation capacities. Based on the Enterprise Surveys data of 2013, 2016 and 2020 and interviews with different researchers, experts, practitioners and stakeholders, our findings show that insufficient access to finance remains a major constraint for manufacturing SMEs. Funding initiatives were not appropriately

directed toward the most credit-constrained companies. Moreover, the unified definition of micro, small and medium enterprises (MSMEs)—based solely on the business turnover and paid capital, without accounting for the firm's number of employees—can introduce biases in access to finance in favor of relatively large enterprises.

Moreover, finance programs for SMEs are most effective when they target credit-constrained firms with the potential to grow or make effective use of the finance. Priority should be given to segments which are most exposed to funding constraints, namely, small enterprises in the manufacturing sector with an annual business turnover between EGP1 million and 10 million. To promote this, bank employees should be well trained to select the right firms, conduct a thorough credit analysis and deal with SMEs' features.

The recently enacted Law 152/2020, which regulates the development of MSMEs, seems to go in the right direction, as it adopted a unified definition of micro, small and medium enterprises and offered tax and non-tax incentives for SMEs and for SME-lending institutions. However, there should be a coordinated strategy to alleviate credit constraints for manufacturing SMEs; this strategy should entail developing a mix of banking and non-banking financial services that are reliable, accessible and interconnected. This should also be accompanied by efforts to increase the profitability of SMEs, especially those in the manufacturing sector, through enhancing the business environment's taxation system and reducing the length and complexity of administrative procedures. Without a coordinated strategy and identification of the main owners and stakeholders, as well as a rigorous monitoring and evaluation system, the gap in access to finance for SMEs could widen further, and the efforts towards SMEs finance could be for naught.

2. Introduction

The Egyptian labor market suffers from its private sector's lack of dynamism, particularly that of its small and medium-sized enterprises (SMEs),[1] often referred to as the "missing middle" (World Bank, 2014). These are considered a main job-creation engine in both developed and developing countries, and are more likely to provide formal employment than the microenterprises that dominate employment in the private sectors of developing countries. They play an important role in poverty reduction, social inclusion and innovation (Abisuga-Oyekunle et al., 2019; Loewe et al., 2013). In Egypt, there has been a sluggish growth of SMEs since the 1990s. The private sector has thus been unable to absorb the labor supply and provide decent jobs in a context of a continuous public sector employment decline. Precarious work has become the norm (Assaad, 2014).

The manufacturing sector[2] is widely considered to be the driving force of economic and productivity growth and a key contributor to higher wages for low- and middle-skilled workers (International Monetary Fund [IMF], 2018; Haraguchi et al., 2016). In Egypt, the manufacturing sector was the most employment-intensive sector from the 1980s to the

1 Until the MSMEs law 152/2020 was adopted, three definitions of SMEs coexisted, using different criteria (number of workers, annual revenues, paid-up capital, industrial/non-industrial sector) according to the CBE, Central Agency for Public Mobilization and Statistics (CAPMAS) and the previous law governing SMEs (Law 14/2004) (OECD, 2018). The challenges arising from the lack of a unified definition are discussed in the Policy Options and the Policy Recommendations sections. In this section 'SMEs' refers to the CAPMAS definition: small enterprises employing between five and 49 workers and medium enterprises employing between 50 and 99 workers.

2 Here we are referring to the manufacturing sector as defined by the United Nations' last international standard industrial classification (United Nations, 2008). According to this nomenclature, the manufacturing sector encompasses 24 subsectors (at the 2-digit classification): manufacture of food products; beverages; tobacco products; textiles; wearing apparel; leather and related products; wood and products of wood and cork (except furniture), and articles of straw and plaiting materials; paper and paper products; printing and reproduction of recorded media; coke and refined petroleum products; chemicals and chemical products; pharmaceutical, medicinal chemical and botanical products; rubber and plastics products; other non-metallic mineral products; basic metals; fabricated metal products, except machinery and equipment; computer, electronic and optical products; electrical equipment; machinery and equipment not elsewhere classified; motor vehicles, trailers and semi-trailers; other transport equipment; furniture; other manufacturing; and repair and installation of machinery and equipment.

mid 2000s (El-Ehwany & El-Megharbel, 2009).[3] More recently, Zaki et al. (2018) found that the manufacturing sector is the most important sector in terms of employment generation, followed by construction. They also found that employment growth's contribution to value-added growth is particularly important in the manufacturing sector, as it accounts for 70% of value-added growth, whereas productivity gains account for only 30%. Employment growth has a substantially higher effect on the sector's output growth rate (3.7%) than that of productivity growth (1.8%). This is achieved through different channels: higher productivity, better paid jobs, increased demand for skilled labor, enhanced technical changes and linkages with the services sector. Moreover, real monthly wages in the manufacturing sector—though they sharply fell over the last two decades—remain above the national average and are even among the highest real monthly wages by sector since 2012 (Said et al., 2019).

The manufacturing sector represents one of the main economic activities of SMEs (El-Said et al., 2014), and is therefore considered a major vector for employment generation (Zaki et al., 2018). The potential of employment generation is reinforced by the manufacturing sector's higher proportion of small and medium enterprises (SMEs) than that of the private sector as a whole (see Appendix Figure 1). The largest manufacturing subsectors in terms of employment (in descending order) are in food products, wearing apparel, furniture, non-metallic mineral products, fabricated metal products, textiles, wood products, rubber and plastic products, electrical equipment, chemical products and pharmaceutical products (see Appendix Table 1). More than three quarters of manufacturing employment is concentrated in those industries.

However, while once the second largest sector in terms of employment after agriculture in the late 1990s, manufacturing is now ranked as the fourth largest employer in 2018, after agriculture, wholesale and retail trade, and construction (see Appendix Table 2). The share of manufacturing in total private sector employment was about 18% in 1998. Yet it has been shrinking, reaching 14% in 2018, declining by 22% over the last two decades. This trend has been observed among both men and women. Between 1998 and 2018, the share of manufacturing in total male private sector employment decreased from 19% to 14.5%. The fall was even sharper among female private sector employment, where the share of manufacturing decreased from 16% to 11% (see Appendix Table 2).

Another alarming finding is the declining share of manufacturing in SMEs' employment.[4] Manufacturing represented 46% of employment in the small firms in 1996 and declined by almost half to 24% in 2017. As for the share of manufacturing in medium-sized firms, it dropped from 51% in 1996 to 28% in 2017 (Assaad et al., 2019). A striking deindustrialization in the overall economy and SMEs requires further investigation and the evaluation of current policies.

Limited or lack of access to finance is considered one of the major obstacles for SME growth (Ayadi & Sessa, 2017; Hampel-Milagrosa et al., 2015).[5] Moreover, there is strong evidence that financial deepening and access to finance, targeting SMEs, can contribute to substantial job creation (Dao & Qian Liu, 2017; Kumar, 2017; Ayyagari et al., 2016; Beck, 2013). In order to facilitate access to finance and SME growth, and by extension generate employment, the CBE launched many initiatives to financially support SMEs. For example, in 2016 it instructed national banks to devote at least 20% of their total lending to SMEs. In 2018,

3 In this paper the manufacturing and the mining sectors are aggregated.

4 According to the Establishment Censuses (including only employment inside establishments).

5 SMEs face other numerous obstacles and constraints that hinder their capacity to grow and absorb the growing labor force. The literature is quite abundant in highlighting these constraints: entrepreneur's poor financial literacy and skills; access to lands with infrastructure; energy pricing; business environment (e.g. unpredictability of taxation, and other fiscal, regulation and administrative constraints); low value chain; and no access to international trade (El-Said et al., 2014; Loewe et al., 2013).

the CBE adopted a scheme of EGP200 billion to finance 350,000 small and medium enterprises with competitive interest rates (Organisation for Economic Co-operation and Development [OECD]/European Union [EU]/European Training Foundation [ETF], 2018). More recently, in December 2019, the CBE launched another large program (EGP100 billion) to support financing medium-sized companies in the manufacturing sector.

Despite these numerous initiatives, there is no evidence on the reach of this funding to manufacturing SMEs and/or its impact on their growth and sustainability. Access to finance from banks remains marginal among SMEs, particularly among those in the manufacturing sector. The share of manufacturing in employment also continues to fall. The impact of these initiatives on employment generation patterns therefore remains questionable.

The main objective of this policy paper is to examine the extent to which SMEs in the manufacturing sector benefited from these funding initiatives and propose solutions to make said initiatives more adequate and/or adapted to SMEs.

This policy paper is based on a desktop review and a descriptive analysis of the Enterprise Surveys data of 2013, 2016 and 2020. Our findings are complemented by interviews with different researchers and stakeholders (CBE, financing and support organisms to SMEs and to the manufacturing sector such as the International Labour Organization [ILO], the Deutsche Gesellschaft für Internationale Zusammenarbeit [GIZ], the Federation of Egyptian Industries [FEI] and the Financial Regulation Authority [FRA]).[6]

This paper is divided into three main sections and a conclusion. The literature review summarizes the literature on SME financing constraints and their potential determinants, and the link between access to finance and SME growth and employment generation, particularly in the manufacturing sector. The subsequent section on the policy context presents an overview of the regulatory framework, policies and initiatives that aim to enhance the growth of the SMEs in the manufacturing sector. The subsequent sections on policy options and recommendations offer some practical solutions to ease access to finance for SMEs, as it constitutes a major challenge to enterprise growth and employment generation. These solutions are based on recent data from Enterprise Surveys and on best practices around the globe and in countries similar to Egypt.

3. Literature Review

In a systematic review, Kersten et al. (2017) show that limited access to finance is often cited as a major constraint to SMEs in low- and middle-income countries. In Egypt, previous studies demonstrated that access to finance is a major obstacle for SME growth (Ayadi & Sessa, 2017; El-Said et al., 2014). It is estimated that SMEs access only 10% of banking finance (Saif, 2011). The sector and the enterprise size matter. According to the Enterprise Surveys data of 2020, more than 70% of SMEs in the manufacturing sector state that access to finance is an obstacle. Despite the relatively high employment intensity of the manufacturing sector and its contribution to job creation, small enterprises can be particularly constrained by a finance gap. This challenge is more pronounced in the textiles and garments sector as it relies on relatively expensive equipment (Hampel-Milagrosa et al., 2015).

In comparison with medium firms, small firms are more likely to have limited access to finance and to perceive access to finance as a more severe obstacle. The same applies to enterprises in the manufacturing sector in comparison with enterprises in non-manufacturing sectors (see Appendix Table 3).

6 The list of interviewees is presented in Appendix (2). The interviews were conducted between end of May 2020 and end of October 2020.

Several reasons are presented to explain this phenomenon: the informal status of the vast majority of SMEs; the rigid precautionary measures of the Egyptian banking system; the lack of financial literacy among SME entrepreneurs; and the high interest loans (Ayadi & Sessa, 2017; Hampel-Milagrosa et al., 2015).

In developing countries, informal SMEs face much bigger financial challenges than formal firms as formal financing initiatives are primarily geared toward formal businesses. Thus, the informal status substantially affects the ability of SMEs to benefit from formal funding, and consequently their ability to grow and eventually formalize (Stein et al., 2013). In Egypt, smaller firms are more likely to be informal and thus less likely to obtain funding (see Appendix Figure 2).

Very few banks—and mostly national banks—lend money to SMEs. Nasr (2009) and El-Said et al. (2014) showed that banks prefer to lend to large firms, while smaller firms usually present greater risks related to their relative instability, insufficient sales and revenue records, lack of administrative and business documents (registration, license, tax cards) and less reliable financial statements. Consistent with the literature (Banerjee & Duflo, 2014), interviews with bank officials responsible for SME funding also confirmed that banks are risk-averse to SMEs, as they offer fewer guarantees and are associated with higher operation costs and lower returns compared to larger firms and treasury bond investments.

The lack of sufficient financial education or financial literacy (in terms of bookkeeping, financial documents, business plans) is relatively widespread among SMEs, which prevents them from providing the information required by banks to grant loans (Plakalović, 2015). El Saady (2001) and Hampel-Milagrosa et al. (2015) argue that in Egypt, many SMEs are not capable of providing reliable financial documents (such as business plans and financial statements), constituting an impediment to a loan application, which is also consistent with results from several interviews.

The complexity of the banking loan application procedures (administrative and legal procedures) and the collateral requirements represent another impediment for SMEs. This is demonstrated internationally (Binks et al., 1992) and in Egypt (Houssien, 2014; Nasr, 2009). Other obstacles, such as a minimum required deposit amount, high interest rates and difficulty in repaying the loan were also documented in Egypt. This explains why SMEs may be discouraged from dealing with banks or taking a bank loan (Nasr, 2009; Tolba et al., 2014). Most of them (especially the micro and small enterprises) depend on their social networks in order to obtain the needed funds (Houssien, 2014).

Achy and Selim (2017) compiled a literature review regarding the determinants of access to formal finance for micro, small and medium-sized enterprises in developing countries. Previous research identified the relationship between the characteristics of the firm owner or manager and access to finance. Some studies showed that gender, age, education and experience matter. Female entrepreneurs were less likely to obtain a formal loan; more educated firm owners had better access to formal finance; and age had an ambiguous impact on credit access. Other studies analyzed the relationship between the firm's characteristics (size, sector, age) and financial constraints. The older the enterprise, the more likely it was to obtain a formal loan as it had more connections and a better reputation; bigger firms were more likely to access finance as they present a lower credit risk and can offer more adequate collateral.

Using data on micro and small enterprises in Egypt, Achy and Selim (2017) found results contradicting the literature in terms of impact of the entrepreneur's age, gender and education on access to finance; moreover, they found that micro firms (with less than five workers) and newly established firms were more likely to have access to finance, further contradicting the literature. These results could be explained by the fact that micro-enterprises benefited from the Micro, Small, Medium Enterprises Development Agency's (MSMEDA)

microcredit programs, formerly known as Social Fund for Development, which were dedicated to funding struggling establishments.

The relationship between access to finance and employment is not straightforward. On the one hand, firms can use loans to increase their capital investment, which will not necessarily translate into more jobs, which depends on the degree of labor-capital substitutability or complementarity (Dao & Qian Liu, 2017; Ayyagari et al., 2016). On the other hand, firms can use loans to hire and train more people, and thus can expand in terms of employment. Hampel-Milagrosa et al. (2015) and the World Bank (2008) both note that some studies showed that the finance gap, i.e. the credit supply side, hinders the firm's growth and job creation, while other studies found that job creation is also conditional on other factors such as infrastructure and labor regulations.

The study by Ayyagari et al. (2016) is based on two large Enterprise Survey databases which cover several dozen developing countries and thousands of enterprises; Ayyagari et al. (2016) show that there is a strong positive link between greater access to finance and employment growth. The study also shows that the impact of access to finance on employment growth indeed differs depending on firm size. Increased finance will lead to higher employment growth in MSMEs than in large firms. Moreover, the impact on employment generation is larger for firms that are more dependent on external rather than internal financing.[7]

Dao and Qian Liu (2017) confirm that improving access to finance will have a positive impact on employment, which varies depending on firm size. As small firms are more financially constrained and more labor-intensive than large firms, reducing small firms' finance constraints contributes more to employment growth. Similarly, they find that more jobs will be created in labor-intensive enterprises than in capital-intensive enterprises. However, this result obtained at the firm level has not yet been demonstrated at the macroeconomic level, insofar as other factors come into play such as the wage level, the aggregate cost of financing, and the behavior of enterprises that are not constrained by access to external finance.

Dinh et al. (2010) show that the impact of easing access to finance on firm-level job growth is also dependent on the sector and the firm's age. Obtaining a loan has a larger positive impact on job creation in the manufacturing sector than it does in the sales and services sectors. Younger firms which contribute more to net job growth are more likely to generate jobs through securing funding than maturer firms. This is because both manufacturing and young SMEs are more credit-constrained than those in the services sector and older firms, respectively.

While empirical studies based on Enterprise Surveys demonstrate that increased access to finance results in more jobs, impact evaluation studies of SME financing programs in developing countries are scarce. Evaluating the impact of these programs on job creation at the firm level is even rarer (Kumar, 2017). However, meta evaluations of programs aimed at increasing access to finance for SMEs in developing countries highlighted a number of results:

- The impact of these programs on job creation is relatively low. However, this impact varies depending on the country and the targeted sector. The impact is greater if the program targets the most financially constrained enterprises and the more labor-intensive firms.

- The complementarity of the type of financing and the firm's stage of development impacts these programs' success on job creation. Certain types of financing are more suited to firms at

7 External financing refers to financing outside the firm such as informal funding (from family and friends) or formal funding (e.g. bank loans, leasing, factoring, or venture capital), as opposed to internal financing such as retained profit for investment.

a certain stage of development. For instance, equity and venture capital financing have greater results in terms of job growth for high growth SMEs and startups.

- Most importantly, SME financing programs are more effective in terms of job creation when combined with entrepreneurial skills training.

4. Policy Context

4.1. Regulatory framework

The regulatory framework is of great importance to SME growth. It helps to dispel the mutual mistrust between entrepreneurs and that between SME owners and the government and banks (Loewe et al., 2013). Nevertheless, it could explain the stagnation of small enterprises (Altenburg et al., 2017). Therefore, in recent years, the Egyptian government has enacted multiple laws and modified existing ones to regulate and improve SMEs' access to finance. It also adopted a business strategy for SME lending in late 2015.

4.1.1. A unified definition for SMEs

Law 141/2014, known as the Microfinance Law, was the main law governing micro and small enterprises. In this law, the size of micro and small enterprises was defined according to the paid-up capital and/or number of workers.[8] A major drawback of this law was the absence of a definition of medium-sized firms. In July 2020, the MSMEs law was adopted by the Parliament, replacing the Microfinance Law.[9] This law expands the regulation to medium-sized enterprises and introduces a unified definition of MSMEs; regulations regarding their funding; the facilitation of MSME financing entities (such as business incubators and accelerators, funding entities) and formalization incentives. One major development of this new law is the adoption of a unified definition of MSMEs based on several criteria: the annual business turnover; the paid or invested capital for recently established enterprises (less than two years of age); and the sectoral activity (industrial vs non-industrial activity). This definition is very close to the CBE's current definition and is summarized in Table (1).

Table 1
Unified Definition of MSMEs According to the New MSME Law

Criteria			Firm Size (in EGP)		
Years of activity	Annual business turnover/ Paid or invested capital		Micro enterprise	Small enterprise	Medium enterprise
Active for more than 2 years	Annual business turnover		< 1 million	1 million-50 million	50 million-200 million
Active for 2 years or less	Paid or invested capital	Industry project	< 50,000	50,000-5 million	5 million-15 million
		Non-industry project	< 50,000	50,000-3 million	3 million-5 million

Source: Shehata Partners, 2020; Official Gazette, 2020

8 A small enterprise is "every company or individual establishment practicing an economic production, service, or commercial activity with a paid-up capital of no less than EGP 50,000 and no more than EGP 1,000,000, and not exceeding 50 workers". A micro enterprise is defined as "every company or individual establishment that practices an economic production, service, or commercial activity with a paid-up capital of less than EGP 50,000".
9 The Microfinance Law remains in effect until the executive regulations of the new law are issued.

One major drawback of this definition is that the number of employees is not included in the criteria, while it is included in the CAPMAS definition and the Enterprise Surveys conducted by the World Bank (Enterprise Surveys 2013, 2016, 2020). Subsequently, small and medium enterprises targeted by the CBE's financing initiatives and that of other funding entities are considerably larger than small and medium enterprises defined by the number of workers.

4.1.2. Institutional reforms

In order to reduce the fragmentation of the SME policy framework, the MSMEDA was established in 2017 under the direction of the Ministry of Trade and Industry (MTI) by the prime ministerial decree 947/2017. The MSMEDA became the main entity responsible for introducing SME policies and strategy as well as their implementation (OECD, 2018). It also became in charge of the duties of the Social Fund for Development, the Industrial Training Center (ITC) and the Industrial Modernization Center (IMC) (Assaad et al., 2019). However, the fact that MSMEDA takes on both regulatory and implementation roles could be problematic due to the risk of conflicts of interest (interview with Annachiara Scandone, June 18, 2020).

Since it was established in 2009, the Financial Regulatory Authority (FRA) is the sole entity supervising all non-banking transactions, replacing various authorities (the Capital Market Authority, the Insurance Supervisory Authority, and the Mortgage Finance Authority). In response to the difficulties SMEs encounter in obtaining financing from the banking sector, the FRA attempts to increase SMEs' access to larger and more diversified financing by granting licenses to non-banking corporations such as leasing and factoring companies.[10] Law 176/2018 defined the conditions under which financial leasing and factoring can work. According to this law, in order to operate, leasing and factoring companies have to obtain an FRA license and are required to have a minimum of EGP10 million. The advantages of factoring and leasing financing techniques are further discussed in the policy options and policy recommendations sections.

4.1.3. Access to finance and tax and fee exemptions

In October 2020, the Egyptian Parliament approved Law 201/2020,[11] which extends financial regulations and practices to SMEs, and explicitly allows non-banking finance institutions and non-asset-based lending to support SMEs. By formally regulating these non-bank microfinance institutions, SMEs have more access to credit.[12]

One very important feature of the new MSME law 152/2020 is that it not only grants incentives to SMEs, but also extends incentives to entities which fund and support MSMEs, such as banks, financial institutions, incubators and accelerators. These incentives include non-tax and monetary incentives (Shehata, 2020; Official Gazette, 2020; interview with Sherif Samy, October 25, 2020).

Furthermore, in order to ease access to formal finance, the Movable Collaterals Law 115/2015 was enacted and became effective in March 2018. This law allows banks to accept moveable/intangible assets and securities as collaterals, instead of only accepting real estate and other immovable collaterals like plants. The lack of sufficient collaterals is one of the greatest obstacles that SMEs face in Egypt. According to the World Bank

10 Factoring is a financial management technique that allows companies to benefit from an advance payment of their receivables (such as customer invoices) before the due date. Invoices are transferred to a factoring company which is in charge of managing the receivables of the firm. Leasing is a financing technique that allows a firm (the lessee) to rent an asset (mainly capital equipment) from a leasing company (called the lessor) under a specified contract, for a specified period of time and in return for payment. In some cases, the lessee can acquire ownership of the asset at the end of the contract.

11 Amending Microfinance Law 141/2014.

12 Microfinance is defined as any financing to any economically productive activity which doesn›t exceed the value set by the Egyptian Financial Supervisory Authority (Nayel, 2014; Abd al-'Ati, 2019).

collection of development indicators, the value of the collateral in Egypt represented 158% of the loan value in 2016 (World Bank, Global Financial Development, 2016).

Egypt's new Investment Law 72/2017, enacted primarily to encourage foreign direct investments, also promotes—via a reduction of 30% of investment costs—investment in micro and small enterprises and in specific manufacturing subsectors, such as automotive production, wooden, furniture, printing, packing and chemical industries, pharmaceutical, mineral, textile and leather production and food production. Moreover, it gave a significant incentive to the manufacturing sector; this took the form of a refund of 50% of the land price for industrial projects whose production began within two years of the land purchase date (Eldib Advocates, 2014; Sharkawy & Sarhan, 2017). However, even though the Industrial Development Authority (IDA) was given control over industrial land by Law 7/1991, which regulated state-owned land, the development of infrastructure and utilities work in industrial zones is conferred to the private sector, which might induce a rise in land price, maintenance and service costs (Salah, 2019).

4.1.4. Incentives for formalization

The new MSMEs law provides tax and non-tax incentives for SMEs to encourage them to turn into formal entities. SMEs would benefit from a flat tax rate over a three-year period regardless of their revenue and an exemption from license and land registration fees. SMEs will also be eligible for five-year credit facility agreements that will be applicable once registering their facilities at the commercial registry (Ahram Online, 2019; Egypt Today, 2019; Enterprise, 2019).

4.2. Policies and initiatives

4.2.1. Enhancing the manufacturing sector

Currently, there are two strategies for the macro framework under which the manufacturing sector operates.

The MTI initiated a development strategy for the period 2016-2020 that aims to achieve two main targets. The first is to reach an annual industrial growth rate of 8% (compared to that of 6.4% in 2018). To achieve this goal, public and private investment in the manufacturing sector are to be increased from EGP43 billion in the fiscal year 2015/2016 to nearly EGP100 billion by the end of 2020.

The second target is to raise the share of manufacturing in GDP from 18% to 21%; this should result in a rise in the export growth rate of 10%. In order to achieve this goal, the MTI plans to make available at least 60 million m^2 of industrial land by amending the process of allocation and licensing of industrial land. The MTI also defined general goals for the development of MSMEs, such as improving the legislative and institutional framework, developing an electronic interactive platform for service provision and decision making, developing business services, encouraging entrepreneurship and facilitating access to finance (MTI, 2017).

Egypt's sustainable development strategy, known as 'Vision 2030', foresees substantial development in the manufacturing sector. This strategy targets ambitious goals without defining the means of achieving them, such as creating decent and productive job opportunities; increasing GDP per capita to reach the level of high-middle-income countries; integrating the informal sector into the economy; maximizing the value added of the manufacturing sector and motivating and promoting investment (Moisseron, 2019; Government of Egypt, 2016).

4.2.2. Enhancing access to banking finance

Over the last five years, the CBE has become a major player and facilitator of access to finance for SMEs, and some of its initiatives have targeted SMEs in the manufacturing sector in particular. In 2016, the CBE mandated national banks to dedicate a minimum of 20% of their total loan portfolio to the financing of SMEs (OECD, 2018). Banks were allowed to extend these loans from the required reserve at maximum interest rates of 5% and 12% for small and medium firms respectively (Oxford Business Group, 2019). There is no data to verify whether commercial and non-commercial banks have reached this threshold, but according to interviews, there was mixed evidence in this regard. Interview results indicated that the percentage of the banks' capital used as loans to SMEs might still be substantially lower than 20%, even though Banque du Caire recently reported that it was able to reach this quota (based on an interview with a representative from the bank). Other interviewees confirmed that it was difficult for banks to reach out to small businesses, as the risks and costs that banks face while dealing with small firms, especially those in the manufacturing sector, remain high. Most of the funding was directed to either medium enterprises, or large corporations, which established affiliations with small firms in order to be able to benefit from preferential interest rates.[13]

In 2017, CBE injected EGP30 billion to the banking sector to encourage funding micro enterprises at a competitive 5% interest rate. Around 10 million customers are supposed to profit from this initiative (OECD, 2018; Enterprise, 2017). In parallel, the CBE became an important shareholder of the Credit Guarantee Company by acquiring 20% of its shares, and in 2017 it injected an EGP2 billion financial assurance amount. This amount served as a trust fund to encourage banks to lend to SMEs that have little or no collateral (OECD/EU/ETF, 2018; Oxford Business Group, 2019). In 2018, the CBE launched a four-year financial scheme of EGP200 billion to fund SME projects through short-term facilities for working capital, and exempted banks from the reserve requirements of specific credit facilities for SME financing (OECD, 2018). In December 2019, the CBE dedicated EGP100 billion to loans at a 10% diminishing interest rate targeted to medium-sized manufacturing firms. In an attempt to alleviate the economic consequences of the COVID-19 crisis, in March 2020 the rate was reduced to 8% (Egypt Today, 2020). This initiative initially concerned firms whose annual revenues ranged between EGP50 million and 1 billion. In April 2020, this cap was removed, allowing even larger firms to benefit from this program (CBE, 2020).

More recently, in September 2020, in order to alleviate the economic consequences of the COVID-19 pandemic, the National Bank of Egypt signed a EUR800 million agreement with the European Investment Bank for SME financing (Enterprise, 2020).

To complement these funding initiatives, the Egyptian Banking Institute launched an SME portal that provides information as well as statistical and research data on financial instruments, funding and training opportunities for SMEs (OECD, 2018).

The MSMEDA has granted loans directly or indirectly through banks to 200,000 micro and small enterprises, with a paid-up capital ranging between EGP50,000 and 1 million. However, only a small share of loans (8%) was dedicated to manufacturing firms (MSMEDA, 2019).

The launch of numerous funding initiatives by the CBE as described above is a positive development. Because of how recent these funding initiatives are, there is little evidence on their impact on firm performance, growth and job creation. Moreover, despite the fact that all of these measures were announced as dedicated to SMEs, the definition of firm size used by the CBE resulted in the exclusion of small firms in favor of larger ones.

13 This is based on an interview with a high-ranking official in a banking institution.

4.3. Why does access to finance remain a major obstacle despite the CBE initiatives?

4.3.1. Limited finance remains an obstacle for manufacturing SMEs

To see if these initiatives were successful in lessening the constraint of limited finance for SMEs, we employed descriptive analysis based on data from the Enterprise Surveys of 2013, 2016 and 2020 (Enterprise Surveys 2013, 2016, 2020). The Enterprise Surveys data are periodically representative random samples of private sector firms. The survey excludes firms in agricultural and extractive industries, public enterprises (or those fully owned by the government), financial enterprises and those employing fewer than five workers. Inference can be done for the manufacturing and service sectors, including retail, wholesale, accommodation and ICT (Kuntchev et al., 2013).

In 2013, access to finance was the second most important obstacle that small firms perceived as affecting their operation. This was true for SMEs in both the manufacturing and non-manufacturing sectors. Even though small firms became less likely to perceive access to finance as the most important obstacle, firms in the manufacturing sector were apparently less likely to benefit from these initiatives than those in the non-manufacturing sector.

Between 2013 and 2020, the percentage of small manufacturing firms that perceived access to finance as the most important constraint declined from 19% to 10%; among these firms, the ranking of access to finance fell to the 5th most important obstacle in 2020 (Panel A of Figure 1).

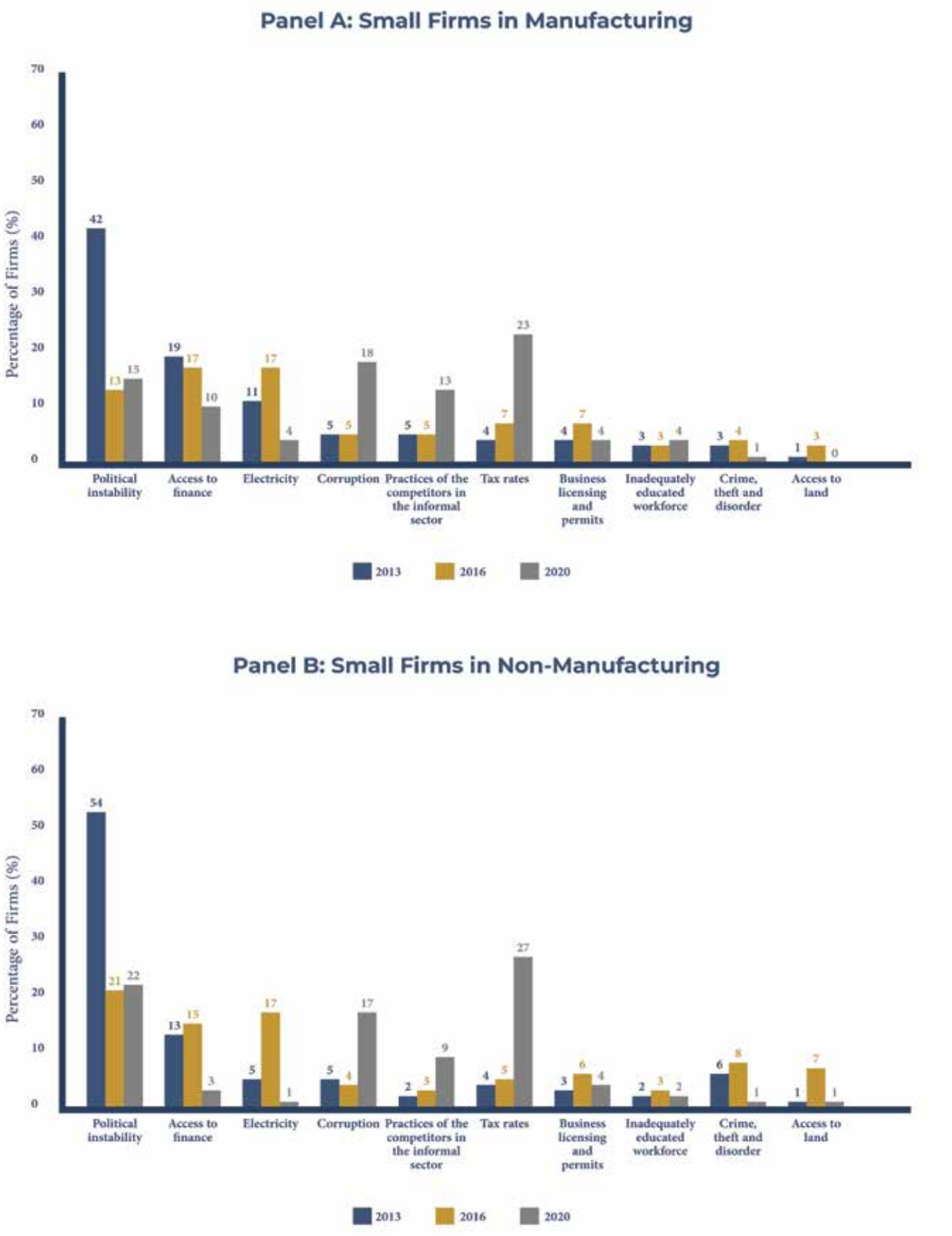
By comparison, the percentage of small firms in non-manufacturing sectors that considered access to finance as the most important constraint declined from 13% to 3%. For these firms, access to finance became the 8th most important obstacle (Panel B of Figure 1).

Turning to the medium-sized enterprises, the lack of access to finance was ranked as the third most important obstacle for both manufacturing and non-manufacturing sectors in 2013. In 2020, it ranked 8th for manufacturing firms and 5th for non-manufacturing firms. More specifically, around 9% of medium-sized manufacturing firms perceived access to finance as the most important obstacle in 2013, which further declined to 5% in 2020 (Figure 2). In non-manufacturing sectors, only 6% of medium-sized firms in 2013 indicated that access to finance represented the most important constraint; this slightly increased to 8% in 2020.

Thus, this reflects that small firms are more likely to perceive access to finance as the most important obstacle. Moreover, funding initiatives seem to be more effective for medium enterprises than for small firms in lessening their perceived burden of access to finance, as shown in its lower ranking in 2020 compared to 2013. Access to finance seemed to improve more for small non-manufacturing firms than their manufacturing counterparts. Between 2013 and 2020, for small non-manufacturing firms, its ranking among the top 10 business environment constraints fell six places (2nd to 8th), compared to a fall of three places (2nd to 5th) for small manufacturing firms.

Figure 1

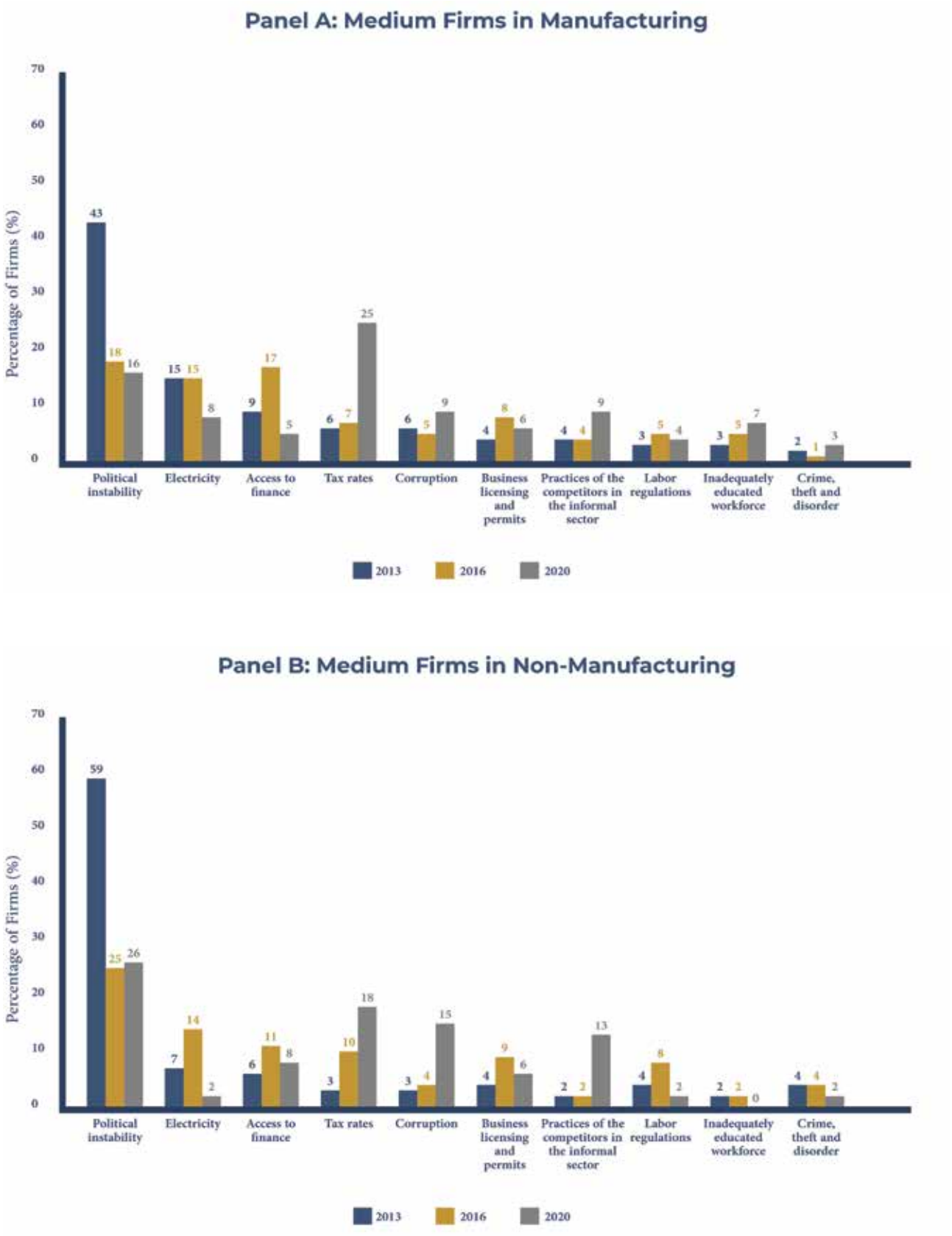
Evolution of the Top 10 Business Environment Constraints, as Perceived by Small Firms (5-19 Workers) in the Manufacturing and Non-Manufacturing Sectors in 2013, 2016 and 2020



Source: Authors' calculations based on Enterprise Surveys, 2013, 2016, 2020

Figure 2

Evolution of the Top 10 Business Environment Constraints, as Perceived by Medium Firms (20-99 Workers) in the Manufacturing and Non-Manufacturing Sectors in 2013, 2016 and 2020



Source: Authors' calculations based on Enterprise Surveys, 2013, 2016, 2020

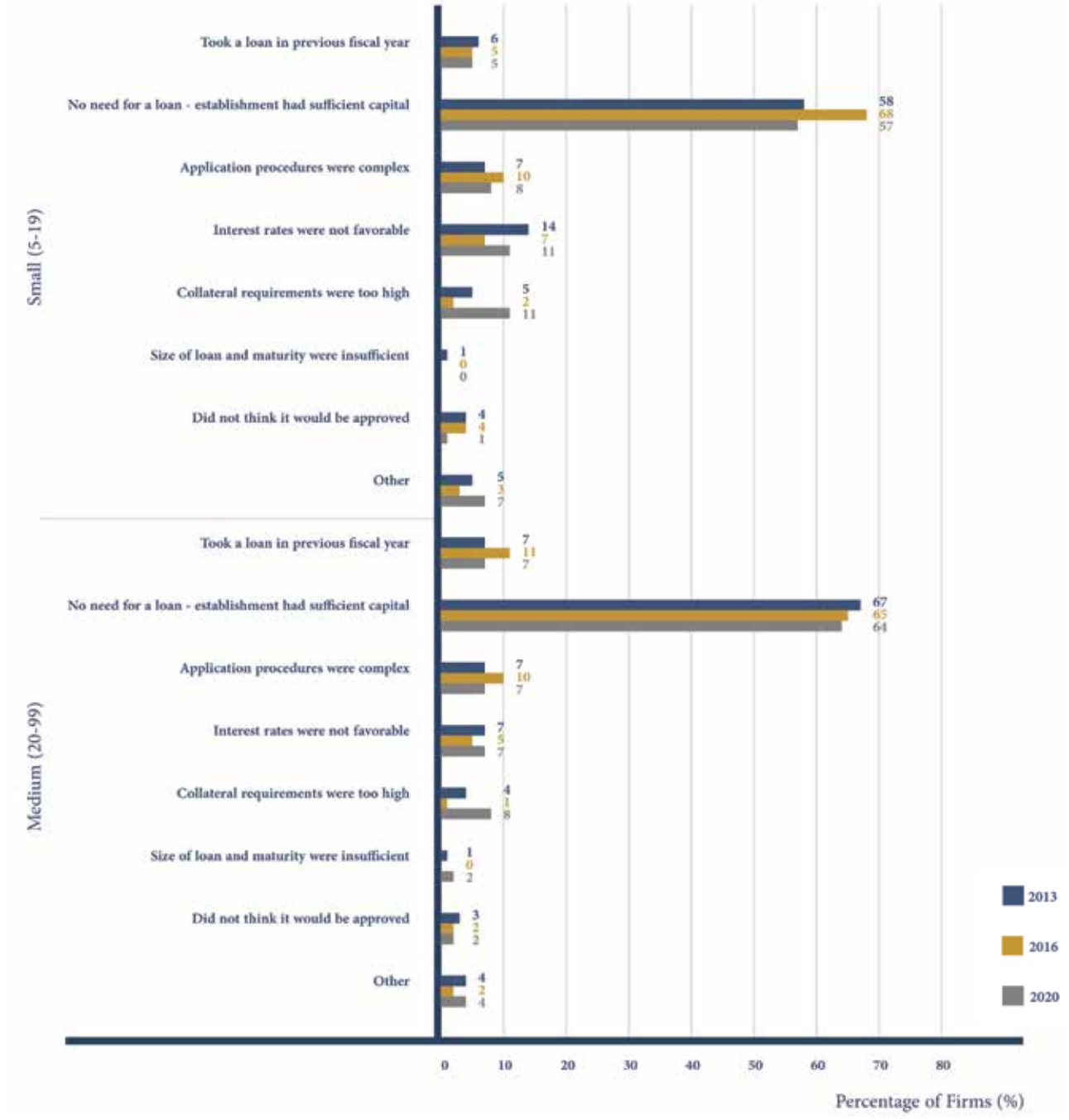
4.3.2. Reasons not to apply for loans

Figure (3) shows that the percentage of manufacturing SMEs who took a loan in a reference period (last fiscal year) is quite low. Small firms are less likely (5-6%) than medium firms (7-11%) to take a loan. The most important reason that manufacturing SMEs do not take a loan is the lack of need, as the establishment had sufficient capital. Medium firms are more likely than small firms to report this reason. More than two thirds of medium firms (67-73%) do not need loans, compared to slightly more than half (57-58%) of small firms.

On the other hand, a third of small firms did not take loans in 2020, either because application procedures are complex (8%), or interest rates were not favorable (11%), or collateral requirements were too high (11%). Despite the new Moveable

Figure 3

Reasons Why Manufacturing Firms Do Not Apply for Loans, by Firm Size, in 2013, 2016 and 2020



Source: Authors' calculations based on Enterprise Surveys, 2013, 2016, 2020

Collaterals Law, the percentage of firms who reported not taking a loan due to onerous collateral requirements increased substantially between 2013 and 2020. Interviews suggested that there are issues in applying the Moveable Collaterals Law, especially arising from the complex and lengthy procedures of the pricing/evaluation of moveable assets. These procedures require the formation of a three-party committee to assess said assets.

4.3.3. Defining SMEs: criteria contradictions

An important factor that may explain the low rates of access to finance relates to the definition of SMEs. Before the new MSME law, there was no unified definition for SMEs in Egypt. SMEs are defined based on the number of employees according to CAPMAS, the main statistical arm of the Egyptian government, with micro firms employing less than five workers, small firms employing between five and 49 workers, medium firms employing between 50 and 99 workers, and large firms with 100 workers or more (Loewe et al., 2013; Rashed & Sieverding, 2014).[14]

As for the CBE, the size of the firms is based on the annual sales/revenues. Table (1) summarizes the definitions of small and medium firms, which are mostly based on the annual sales of already existing establishments and paid capital for newly established projects. The CBE funding initiatives targeted small firms defined as those with annual sales between EGP1 million and 50 million, and medium firms as those with annual sales between EGP50 million and 200 million. The CBE definition for SMEs also includes the number of employees, yet the latter is only indicative and should not be used as the binding definition for SMEs.[15] This definition holds for the banking, non-banking (microfinance institutions) and governmental sectors (MSMEDA).

Somewhat similar to the CAPMAS definition, the World Bank classifies firms employing 5-19 workers as small, those employing 20-99 workers as medium, and those with 100 workers or more as large (World Bank, 2020). This is the definition used in implementing the Enterprise Surveys data. Figure (4) shows the distribution of annual sales categories for small (5-19 workers), medium (20-99 workers) and large (100+ workers) establishments. It clearly illustrates that there is a strong mismatch between the firm size definitions used by the World Bank, which are based on the number of workers, and those based on annual sales used by the CBE.

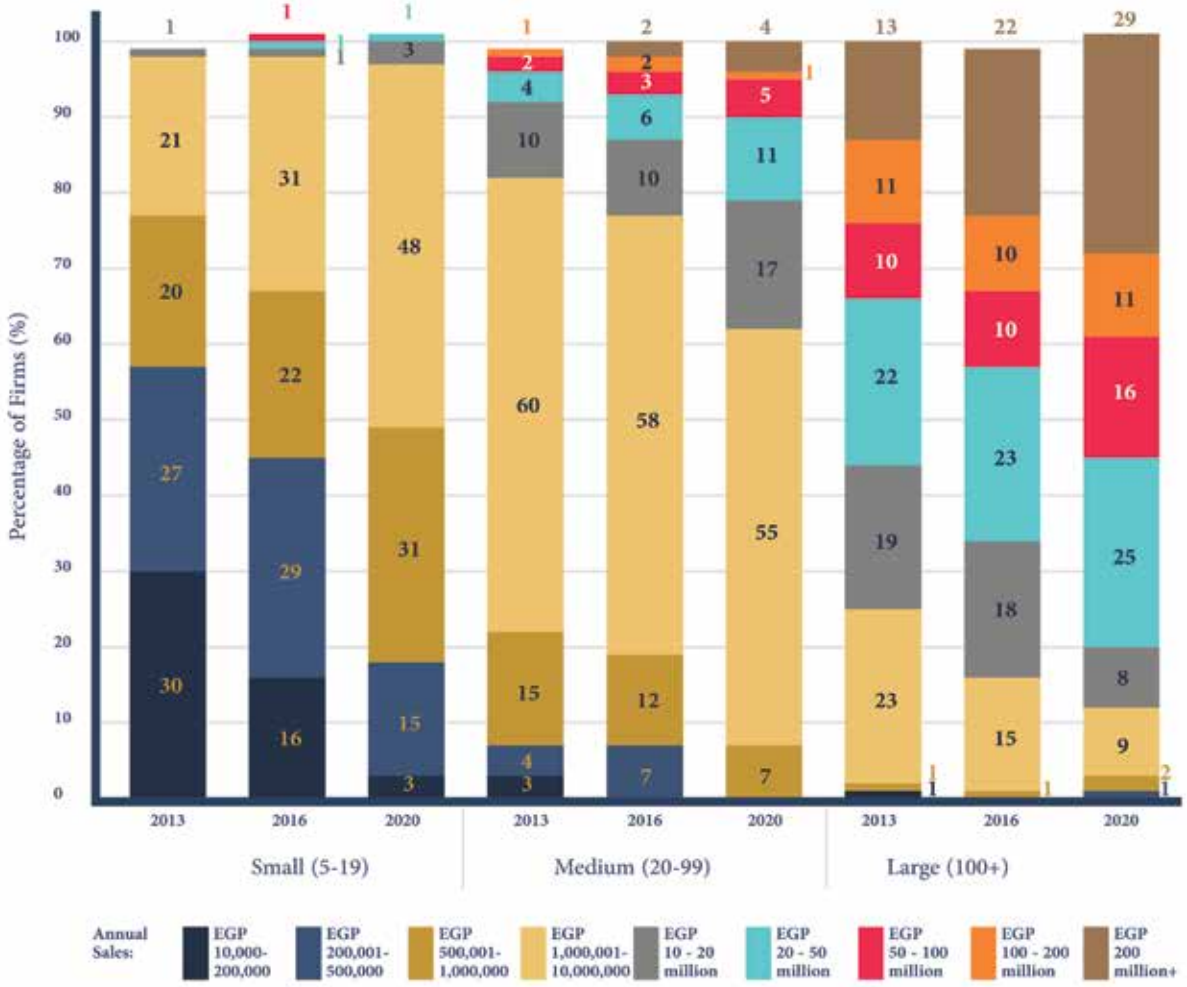
In 2013 and 2016, around 87% and 77% of small firms (5-19 workers) respectively had annual sales below EGP1 million, the threshold above which a firm is considered small according to the CBE definition. The CBE therefore treats a majority of small firms (5-19 workers) as micro firms. Moreover, the majority of medium firms (20-99 workers) earn between EGP1 million and 50 million per year (74-83% during 2013-2017), which is the range of sales used to define a small firm. Thus, CBE initiatives for small firms, as defined by annual sales, target instead medium-sized firms in terms of the number of workers. Similarly, access to finance programs for medium firms as defined by CBE are more targeted toward large enterprises (100+ workers). These firms are more likely to earn between EGP50 million and 200 million annually.

14 Evidence-based research on SMEs in Egypt mostly rely on the 'number of employees' definition of SMEs (Assaad et al., 2019; El-Said et al., 2014; Hampel-Milagrosa et al., 2015; Hendy & Zaki, 2013).

15 The MSMEDA classifies micro and small firms according to the size of the loan. Micro firms are those that can take up to EGP25,000 as a loan. Small firms are those whose loan range between EGP10,000 and 2 million. Based on this classification, firms that take loans between EGP10,000 and 25,000 can either be classified as micro or small, however the distinction is made upon the formality of the firm. Informal firms that have loans lower than EGP25,000 are considered micro, while formal firms having loans greater than EGP10,000 are considered small.

Figure 4

Distribution of Firms by Categories of Annual Sales and by Firm Size in 2013, 2016 and 2020



Source: Authors' calculations based on Enterprise Surveys, 2013, 2016, 2020

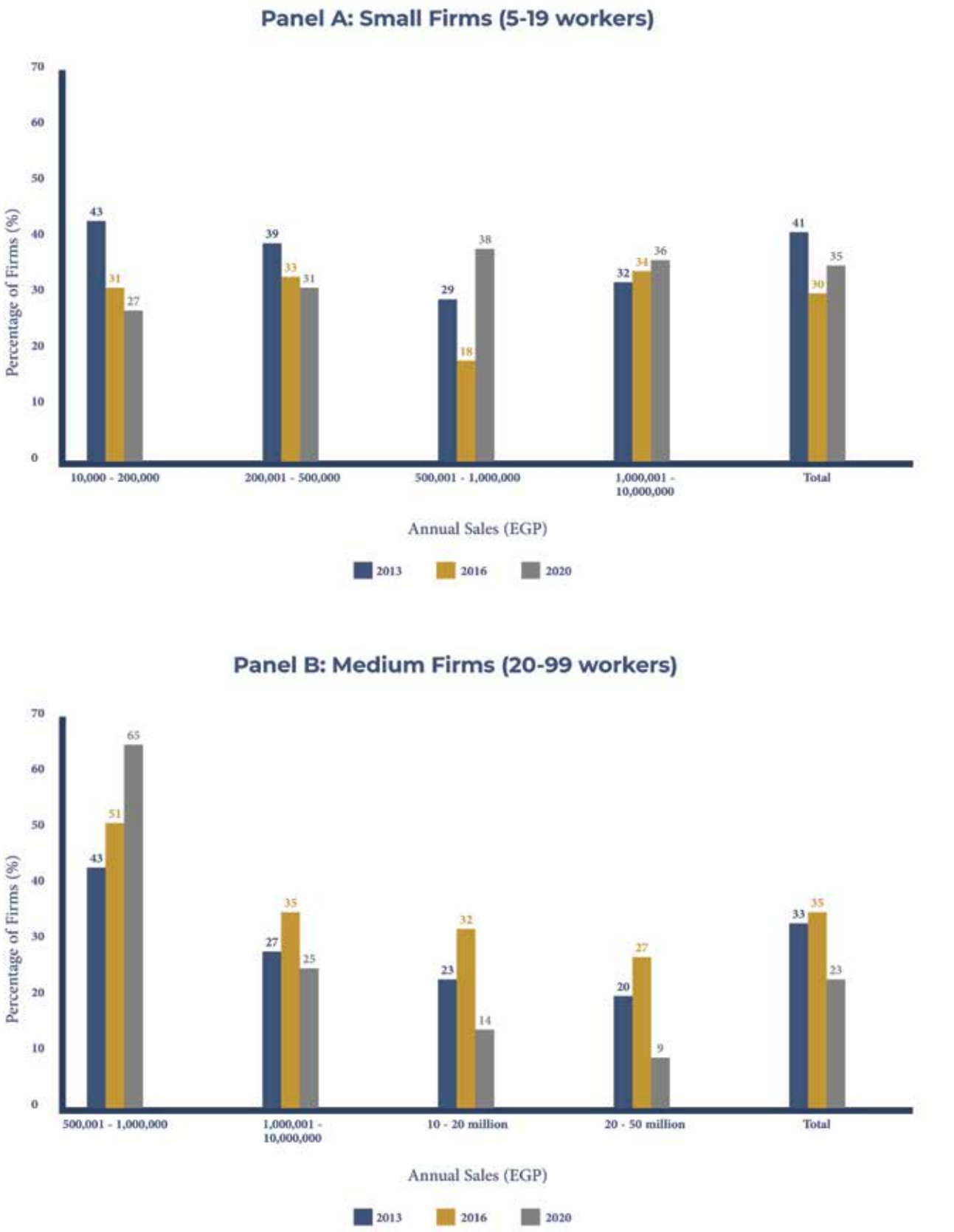
Disclaimer: The numbers in this figure have been rounded to the nearest integer. Therefore, numbers presented may not add up precisely to the totals provided and percentages may not precisely reflect the absolute figures.

This finding may explain why, over time, medium firms (20-99 workers) were more likely than small firms (5-19 workers) to perceive access to finance as a less important obstacle, since funding initiatives targeted firms with larger annual sales than those typically exhibited by small firms.

Overall, small firms (5-19 workers) are more likely than medium firms (20-99 workers) to be credit-constrained, i.e. to perceive that access to finance represents a severe or a very severe obstacle. Between 2013 and 2020, the percentage of credit-constrained firms decreased for both small and medium firms. Yet the percentage decline of credit-constrained firms was greater among medium firms (by around 10 percentage points from 33% to 23%) than among small firms (by 6 percentage points from 41% to 35%). While small firms became more likely in 2020 to exhibit annual sales ranging between EGP500,000 to 1 million and EGP1 million to 10 million, they also became more likely to perceive finance as a major or a very severe obstacle.

Figure 5

Percentage of Small and Medium Manufacturing Firms Who Perceived Finance as a Major or Very Severe Obstacle by Annual Sales in 2013, 2016 and 2020



Source: Authors' calculations based on Enterprise Surveys, 2013, 2016, 2020

5. Policy Options

In order to enable SMEs in the manufacturing sector to grow and generate jobs, there must be a coordinated strategy of solutions to alleviate their credit constraints. This should entail developing a mix of banking and non-banking financial services that are reliable, accessible and interconnected. This set of solutions should also be accompanied by efforts to increase the profitability of SMEs, especially those in the manufacturing sector, through enhancing the business environment's taxation system, and the speed and cost of bureaucratic procedures. The following section puts forward some suggestions based on the above analysis of the national context, and other countries' experiences.

- **Monitor and evaluate funding initiatives**

There is a pressing need for the evaluation of the various SME financing programs. Even though several meta evaluations of SME financing programs in developing countries have been carried out, very few have evaluated programs that specifically targeted employment growth at the firm level (Kumar, 2017). To our knowledge, in Egypt, no impact evaluation of SME financing programs on output, employment, firm performance, wages or productivity has been implemented or has been made available to the research community.

Moreover, despite the CBE's 2016 stipulation that banks are required to allocate 20% of their capital/ portfolio to SME loans, it is not clear whether or not banks have met this stipulation.

- **Better targeted SME finance programs**

Programs that facilitate access to finance around the globe were most effective for credit-constrained firms that are able to use credit efficiently (Kersten et al., 2017). SME finance programs need **to be better targeted to firms that are credit-constrained**, particularly in the manufacturing sector, and to firms that have the potential to grow or make effective use of the financing. Previous research suggested that the potential to grow can be examined on the basis of past profitability (Banerjee et al., 2004), whereas the efficient use of financing can be reflected by the ability to export (Kersten et al., 2017). Figure (5) shows that in Egypt, small firms (5-19 workers) with annual sales between EGP500,000 and 1 million and those between EGP1 million and 10 million were the most likely to be credit-constrained. These firms represent the majority of small firms in the manufacturing sector (Figure 4). Although the segment of small firms with annual sales between EGP1 million and 10 million saw a rise in their share over time, reaching 48% of small firms (Figure 4), and were eligible—in theory—for the CBE directed lending program, they became less likely to take a loan in 2020 (6.9%), compared to 2013 (10.5%) and 2016 (9.1%) (Table 2).

Table 2

Percentage of Small Firms (5-19 Workers) Who Took a Loan in the Previous Fiscal Year for Selected Annual Sales Categories

Annual sales (EGP)	2013 (%)	2016 (%)	2020 (%)
10,000 - 200,000	11.2	4.8	7.1
200,001 - 500,000	3.8	3.7	3.5
500,001 - 1,000,000	6.1	11.4	5.7
1,000,001 - 10,000,000	10.5	9.1	6.9

Source: Authors' calculations based on Enterprise Surveys, 2013, 2016, 2020

Egypt also has room to implement finance programs targeted to innovation, research and development (R&D) or technological upgrading, especially in the manufacturing sector. The international evidence shows that these programs result in positive impacts on firm performance and revenue, which increase with firm size and loan size (Kersten et al., 2017). The effect of these programs is most beneficial for large, exporting firms or small, new R&D intensive firms.

- **Financial literacy training**

In general, small and/or informal enterprises lack adequate financial education necessary to apply for formal funding, or to use efficiently the loans they receive, regardless of loan type. They can also hold multiple books (Malhotra et al., 2007). Therefore, it is crucial to provide owners of small firms and their staff, especially accountants, with financial literacy training (International Labour Office, 2015).

The United Nations Conference on Trade and Development (UNCTAD) developed a capacity-building program, Empretec, that provides SMEs in developing countries with the required institutional framework to build entrepreneurial capabilities and foster their business growth through training, business development services, networking and access to finance (UNCTAD Secretariat, 2001). More specifically, Empretec teaches business owners how to prepare business plans, assists them in forming linkages between their businesses and larger national and foreign corporations and helps them in setting long term growth strategies. Business owners benefit from being part of Empretec's larger global network, where they gain connections with fellow businesses with similar needs and specializations. UNCTAD (2001) also points out that businesses that are part of the business development program are more likely to obtain bank loans. Consequently, the Empretec network may be considered a loan guarantor without it providing actual guarantees or collateral. A recent impact evaluation of Empretec made clear how their training programs had impacted many outcome variables in developing countries, such as sales, profitability and employment. The impact on sales was the highest in Venezuela and Mauritius, producing increases in sales of 40% and 60% respectively. With respect to employment, the improvement was more prominent in Argentina, which witnessed a 110% increase in employment within one year. For other countries, the change was less impressive; in Benin, only one to five additional jobs were added within one year (UNCTAD, 2018). This demonstrates that other country-specific factors can impact how training affects employment levels.

The example of the Uwezo fund in Kenya also sheds light on the conditions of a successful finance training program. The Uwezo fund was established in Kenya to extend finance to youth, women and the disabled to help them promote their businesses. The fund is administered by the Ministry of Youth. The ultimate aim of this scheme is to generate productive self-employment for these targeted groups. The Ministry also organizes entrepreneurial training — a prerequisite for accessing the Uwezo funds (Mutiso & Muigai, 2018). Such training has proven to be quite successful and effective; 72% of the change in SME performance can be explained by these training programs, which are positively associated with saving, record-keeping, credit management and budgeting, all of which are essential to SME survival (Mutiso & Muigai, 2018).

In another more detailed evaluation of the Uwezo training, Chepkoech (2016) notes two obvious shortcomings. Firstly, the majority of trainees received this training after accessing the fund, which implies that funds may have been misused or misallocated. Secondly, the majority of the training covered proposal writing, which, while important, suggests that less attention was paid to equally important topics such as record-keeping and financial management. Indeed, the majority of

trainees interviewed in the study reported that the training was inadequate. Therefore, it is necessary to combine directed loan programs with business development services (BDS) such as speeding licenses, connections with other/bigger suppliers and financial training for staff.

- **Developing banking services**

As shown in Figure (3), an increasing share of firms—particularly small firms—do not take loans because of collateral requirements. Therefore, the law allowing banks to **use moveable assets as collaterals** is an important step towards easing the process of providing adequate collateral to the bank. Although the law was made effective in March 2018, banks were not adequately capable of lending against moveable assets due to several challenges, including the pricing process of these assets, the timely liquidation in case of defaults, and the weak insurance environment (based on interviews with World Bank representatives). Therefore, efforts are needed to activate and better operationalize this law by creating a collateral registry, improving the regulatory environment and adopting quick measures for liquidation.

Another mechanism by which the government could facilitate access to finance for formal firms who lack qualifying collateral assets is a partial credit guarantee program. In general, banks perceived guarantee funds as the most influential programs in access to finance, more so than interest subsidies, direct credit programs, and regulatory subsidies such as those allowing lower provisions (Beck et al., 2005). Such programs should encourage banks to lend to small firms as the risk of default is partially assumed by the government. It is crucial to verify the success of these credit guarantee programs in extending the outreach of banks to small firms that have not borrowed previously, rather than providing the banks with an option for cheaper loans for their existing clients.

One successful example is the partial guarantee fund (NGF) in Colombia, where the government provides 48% of the loan to the bank in case of default within 30 days of filing the complaint (Arráiz et al., 2014). As the loan is only partially covered by the government, banks assume some risk and still have the incentive to undertake a credit investigation, and firms are incentivized not to take excessive risk. According to Arráiz et al. (2014), beneficiary firms from this program expanded more in terms of output and employment than their non-beneficiary counterparts.

As for cash-flow loans, Cassano et al. (2013) evaluated a European Bank for Reconstruction and Development (EBRD) program which promoted cash-flow loans through banks and other financial institutions for SMEs in Bulgaria, Georgia, Russia and Ukraine. The rationale of cash-flow loans is to enable firms who lack collateral assets to take a loan that is backed instead on expected cash flows or revenues. The study found that SMEs are more easily and better qualified for cash-flow loans than collateral loans. Moreover, this type of cash-flow lending necessitated providing technical assistance to bank employees so they could properly analyze small borrowers' cash flows and their associated credit risks (Cassano et al., 2013; Kersten et al., 2017). Successful case studies included the capacity building of bank employees in SME finance and cash-flow analysis (Malhotra et al., 2007). This is an important investment to improve the SME know-how of banks (International Labour Office, 2015; Malhotra et al., 2007).

Cash-flow loans already exist in the Egyptian banking system, yet small firms are not likely to benefit from these loans due to consistency/quality problems in financial statements, lack of information on their business cycle and transactions, and the existence of multiple books in some cases (Malhotra et al., 2007). Thus, the effectiveness of this type of loan would highly depend on the availability, transparency and

consistency of SMEs' financial statements, again highlighting the need for financial literacy training.

- **SME-adapted non-banking financial services**

Factoring represents a potential area of opportunity for small industries. When supplying for large buyers, small suppliers are compelled to wait before receiving their payments from these buyers. Factoring is when small suppliers "sell" their invoice (known as accounts receivable by the seller) to a factor, usually a bank or a financial institution. This factor purchases the accounts receivable at a lower price (discounted by an interest rate in addition to service fees). Then the factor collects the payments from the buyers.

Reverse factoring occurs when the factor pays the buyers' invoice to the suppliers in a shorter time frame in exchange for a discounted price. It is an approach of factoring that works better in contexts of high fraud or very little credit information. Hence it is not a lending technique, but a way of providing immediate cash flows to small-sized suppliers in return for their production. Factoring is particularly useful in a context of weak legal systems as it is not a lending technique (Beck et al., 2005). Moreover, reverse factoring represents a better alternative for "high risk and informationally opaque" small firms (Malhotra et al., 2007, p.75) because it requires very little information about the buyer (Beck et al., 2005).

Factoring is still underdeveloped and not well known among enterprises (De Vries, 2004) despite evidence of its success in many countries. One of the most famous successful cases is the Nacional Financiera (NAFIN) reverse factoring program in Mexico, where the NAFIN development bank provides an online platform for factoring services to SME suppliers. The platform connects them to large buyers and enables many factors, including banks and other financial institutions, to compete to offer the best interest rates. The program also provided thousands of small enterprises with financing to maintain their working capital. The program also reduced the potential for fraud as the large buyers submitted to the factor the amount of payments due to small sellers. Additionally, factoring represents an important tool for small exporters in particular, since they usually need to wait a long time before receiving their payables (Auboin et al., 2016).[16]

Furthermore, Vasilescu (2010) showed that while textiles and clothing sectors were the industries which benefited the most from factoring, other manufacturers like those of industrial and farm equipment, office equipment, electronics and processed food are also likely to use factoring services. Klapper (2006) and Malhotra et al. (2007) point to the use of electronic channels as one of the most important lessons learned from this program. Providing factoring services online helped reduce the cost and time of transactions.

As mentioned before, factoring is still at an embryonic stage. However, according to interviews with experts, it is increasing and promising.

Leasing also represents an interesting alternative financing solution for SMEs. Leasing is a means of non-bank financing in which a company (the lessee) can use an asset provided by an intermediary (the lessor) in exchange for regular payment for a specified period of time. The asset can be machinery, equipment, vehicles, and properties. At the end of the lease period, depending on the terms of the contract between the two parties, the asset may return to the lessor, be transferred to the lessee, or sold to a third party. The asset is usually selected by the lessee and acquired by the lessor (IFC, 2017; Kraemer-Eis & Lang, 2012).

16 Around the world, factoring was also successful in providing access to finance to small firms, e.g. in Poland (Piguła & Paduszyńska, 2015).

Contrary to a bank loan, which is guaranteed by collaterals and the firm's credit history, leasing relies on the lessee's cash flows and profit created by the use of the leased asset rather than by the ownership of the asset (Kraemer-Eis & Lang, 2012). In the event of default or bankruptcy, the lessor can quite easily recover the asset which remains its property during the contract period (Mol-Gomez-Vasquez et al., 2020; World Bank, 2018a). For these reasons leasing is particularly interesting for young firms and SMEs, which often face difficulties in obtaining bank credit due to insufficient guarantees and/or short credit history (Kraemer-Eis & Lang, 2012). Mol-Gomez-Vasquez et al. (2020) noted that in the European context, leasing is an adequate alternative financing technique for less developed countries, as banks can be more risk-averse when the regulatory and legal frameworks are relatively weak. Leasing could also facilitate the formalization of SMEs by creating a credit record that could be used afterwards when applying for a bank loan (World Bank, 2018a).

According to the FRA's reports, the practice of leasing has increased in Egypt. The value of leasing transactions has risen sharply from EGP2.5 billion in 2006 to EGP7.5 billion in 2018. However, the share of leasing activities dedicated to the acquisition of land and real estate in total leasing activities increased sharply from 12% in 2006 to 69% in 2018. This occurred to the detriment of productive assets (heavy equipment, equipment and devices, and production lines), whose share in total leasing activities declined from 29% in 2013 to 17% in 2018, after increasing in the end of the 2000s (see Appendix Figure 3). Moreover, in 2018 only 27 leasing companies were operating out of 227 registered companies (FRA, 2010, 2012, 2014, 2018).

Although leasing has experienced a strong growth over the past fifteen years, its volume of activity remains marginal. As highlighted by various studies and reports on this non-banking means of financing, it is particularly suited to the Egyptian situation and should be financially and institutionally supported to take full advantage of its growth potential (IFC, 2017). The various FRA reports have nevertheless shown that leasing is more and more used to finance the purchase of land and real estate while its financing of capital equipment is declining. This trend is explained by the higher risk associated with capital goods, particularly its depreciation value, unlike real estate whose value is strongly rising in Egypt and are consequently preferred for leasing (Interview with Sherif Samy, October 25, 2020). It is therefore crucial that equipment needs in the manufacturing sector are assessed and that equipment leasing in particular is supported and incentivized.

We can infer from the various studies and reports on non-banking finance mentioned above that leasing and factoring can play an important role in easing finance constraints and as an alternative and a complementary means to banking finance. Reverse factoring represents a potential area of opportunity for small industries in the manufacturing sector.

6. Policy Recommendations

A number of short-term and long-term steps need to be undertaken. These will be detailed below.

a. Monitor and evaluate funding initiatives

Due to the absence of impact evaluation studies and M&E programs, it is imperative that the government starts by evaluating all SME programs aimed at facilitating access to finance. This will enable the identification of problems which in turn will help to amend future programs.

The results of these evaluations must be made transparent and available to both researchers and program donors/funding entities. Since the Ministry of International Cooperation and the

Ministry of Planning currently have evaluation and monitoring departments, we recommend that these evaluations fall under their purview. The Ministry of International Cooperation can evaluate programs when the funding comes from a regional or international institution and the Ministry of Planning can evaluate those for which the funding source is a national institution.

Another necessary policy is the development of quantitative data on loans directed to SMEs to assess the effectiveness of these initiatives. This could be done through conducting nationally representative firm-level data (McKenzie, 2011) or surveys among banks, in order to understand the attitudes of both banks and SMEs towards these initiatives, and the factors determining whether banks disburse SMEs loans, and whether SMEs apply for such loans.

b. Design finance programs better targeted toward SMEs

Once monitoring and evaluation programs have been conducted, the next step is to design funding programs that are better targeted toward SMEs. Four specific policies must be undertaken to ensure that these financing programs fulfill their objective:

1. **Prioritize funding for small enterprises:** Directed loan programs for these firms must be developed. The executive regulations of the MSME law have not yet been enacted. We therefore propose that the executive regulations of this law, currently in the making, integrate a funding priority to the segments most exposed to funding constraints and are most likely to use credit in an efficient way, based on their past profitability and the strength of their supply chain. These include companies whose annual business turnover is between EGP500,000 and 1 million (the upper bracket of micro-enterprises), as well as small manufacturing enterprises with an annual business turnover between EGP1 million and 10 million (the lower bracket of small enterprises). Such loan programs should be regularly assessed and potentially revised every two or three years, depending on their results in reaching the right segment and their effects on employment, output and firm performance.

2. **Target innovation and R&D enterprises:** Furthermore, these programs should target innovation, R&D or technological upgrading in the manufacturing sector. The new MSMEs law specifies that the industrial sector constitutes one of the key sectors of MSMEs and therefore benefits from fiscal and non-fiscal incentives. We recommend that the executive regulations of this law further specify the sectors concerned, particularly the sectors that are the most labor-intensive, most tradable, and fastest growing in terms of job creation. For instance, some of the most employment-generating manufacturing subsectors also have a large share of SMEs, this includes the food, electrical equipment, textile and pharmaceutical sectors (see Appendix Figure 4).

3. **Promote moveable assets as collateral and ease collateral requirements:** Efforts are needed to create a collateral registry, improve the regulatory environment and adopt quick measures for liquidation to encourage banks to lend against moveable assets. Moreover, with the CBE funding initiatives approaching their end, it is highly recommended that the government starts piloting a partial credit fund guarantee program that—if appropriately designed and rigorously monitored and evaluated—could spur a leap in access to finance, growth and sustainability among small firms.

4. **Promote non-banking services:** The IFC report (2017) highlighted three lessons learned from the practice of leasing in Africa over the past ten years relevant to

the Egyptian context. First of all, a dialogue between the different actors (central bank, regulatory entities, financial institutions, SMEs and researchers) is crucial in order to determine what the obstacles are (in terms of regulatory constraints, risks of recovering lease assets in the event of default) to the development of leasing finance. Second, the development of leasing finance must be part of a national strategy and must receive governmental financial support (as is the case in Cameroon and Ethiopia). Third, an assessment of equipment needs specific to the manufacturing sector would improve the practice of leasing. Moreover, introducing online factoring will also have important backward linkages to other sectors such as ICT, could leverage from the growing financial digitalization and could help create and foster value chains.

c. Design and execute training for SMEs and bank employees

One of the problems associated with existing finance programs and identified throughout the literature and interviews is the inability of SMEs to handle all financial transactions related to loan-taking. A skills gap was also identified within the banking sector. Therefore, some bank employees will also need to undergo some training of their owning to better manage their SME clients.

We recommend tying access to funds to financial training where training takes place before enabling access to funds, in order to avoid the misallocation of scarce resources. This training must cover a diverse range of topics essential to business management yet also focus on financial literacy topics.

Because the MSMEDA is chiefly responsible for coordinating efforts to support SMEs, including the provision of management and skills training (Assaad et al., 2019), it could be the main entity responsible for implementing these services, in coordination with the corresponding bank in charge of the loan, the MTI and the CBE. To enable the delivery of high-quality BDS, donors should provide the MSMEDA with training on financial literacy, including how to prepare correct balance sheets and have regular accounting books, how to submit a loan application and use the credit effectively. Moreover, to improve and facilitate the ease of access to BDS in Egypt, a website and/or an online platform should be created, containing all the papers needed to establish a business, apply for a loan, submit tax statements, build financial statements and benefit from non-financial services and various training programs offered in the market. This online platform should include all resources in the business domain and could follow the example of the Egyptian Knowledge Bank, which aggregated multiple educational resources.

In order to select the firms most likely to use the credit efficiently, bank employees should be well trained to conduct thorough credit analysis and check said firms' past performance, via receiving the appropriate credit course. To overcome the cost of this course, banks can introduce a condition of retaining employees who receive this course for four or five years. The Nile University initiative 'NilePreneurs' is a good example of partnering with national and private banks to create BDS hubs within them. This CBE-funded initiative aims at establishing 30 business development centers in 16 governorates. This initiative should be assessed and expanded if proven to be effective.

The Financial Services Institute of the FRA could also play a major role in developing its training activities for entrepreneurs and SME management.

7. Conclusion

The manufacturing sector and its SME segment are considered drivers of job creation. In Egypt, both these sectors have seen their share in total employment decline over the past decades. Numerous studies have described the lack of dynamism within the private SME sector as the "missing middle".

Although SMEs encounter many difficulties (informal, regulatory constraints, access to the international market, etc.) limiting their development, recent data from the Enterprise Surveys clearly identify the insufficient access to finance as a major constraint. Moreover, the literature clearly shows that larger access to finance not only contributes to the growth of SMEs but also to the employment growth at the firm level. Therefore, the recent financing initiatives for SMEs enabled by the CBE and the MSMEs law appear encouraging.

However, the numerous initiatives to increase the supply of financing do not seem to have resulted in a full relaxation of the financing constraint SMEs face. This policy paper highlights the fact that the CBE finance initiatives were not appropriately directed toward the most constrained companies. Moreover, the unified definition of MSMEs, based solely on the business turnover and paid capital without accounting for the firm's number of employees, can introduce biases of access to finance in favor of relatively large enterprises.

This paper has suggested a number of recommendations based on best practices around the world. The little evidence on the impact of the recent CBE financing program necessitates regular impact evaluations of SME finance programs which aim to facilitate their access to finance. For reasons previously explained, it is further necessary to collect nationally representative firm-level data and/or conduct comprehensive surveys among banks.

To be effective, financing programs for SMEs must target those which are the most constrained and which demonstrate growth potential. The smallest companies among SMEs (whose annual business turnover ranges between EGP 1 million and 10 million) being the most financially constrained should be prioritized. But lending to these SMEs also represents a relatively higher cost and risk for banks. To overcome this, it is necessary to train bank employees in the management of credit applications specific to SMEs. There are also a number of manufacturing sectors within these enterprises that are more promising than others and should be better targeted. The government should also look at other ways of supporting these enterprises financially, whether by introducing a partial credit fund guarantee program or encouraging factoring or leasing services for small enterprises. These solutions have had a positive impact in some countries and are considered viable options for the Egyptian context.

Equally crucial is the need to combine direct loan programs with business development services (BDS) such as speeding licenses, connections with other/bigger suppliers and financial training for firms. Financial training should be tied to access to finance in such a way that training takes place *before* enabling access to credit, in order to avoid misallocation of scarce resources. Moreover, to improve and facilitate the ease of access to BDS in Egypt, a website and/or an online platform should be created, containing all the documents needed to successfully run and finance a business.

8. References

Abd al-'Ati, M. (2019). *The government agrees to amend the law regulating microfinance activities.* [al-hukuma tuafiq 'ala ta'adil qanun tanzim nashat al-ttamwil mutanahi al-ssighar]. [In Arabic]. *Almasry Alyoum*. Retrieved 16 December 2020, from https://www.almasryalyoum.com/news/details/1439008

Abisuga-Oyekunle, O. A., Patra, S. K., & Muchie, M. (2019). SMEs in Sustainable Development: Their Role in Poverty Reduction and Employment Generation in Sub-Saharan Africa. *African Journal of Science, Technology, Innovation and Development, 0*(0), 1–15.

Achy, L., & Selim, R. (2017). *Micro and Small Enterprises in Egypt. Access to Finance and Job Creation Dynamics.* ERF Conference on Regional Cooperation Peace and Development: Issues and Lessons for MENA, Jordan.

Ahram Online. (2019). *Draft law on SMEs offers several tax incentives: Minister - Economy - Business.* Retrieved 16 December 2020, from https://cutt.ly/HjtSPVN

Ali, N. (2014). The Informality of Micro and Small enterprises in Egypt: A Cross-section Analysis. *Mondes en développement*, 166(2), 87-100.

Altenburg, T., Hampel-Milagrosa, A., & Loewe, M. (2017). A Decade On: How Relevant is the Regulatory Environment for Micro and Small Enterprise Upgrading After All? *The European Journal of Development Research,* 29(2), 457-475.

Arráiz, I., Meléndez, M., & Stucchi, R. (2014), Partial credit guarantees and firm performance: evidence from Colombia. *Small Business Economics*, 43(3), 711–24.

Assaad, R. (2014). Making Sense of Arab Labor Markets: The Enduring Legacy of Dualism. *IZA Journal of Labor & Development,* 3(1), 1–25.

Assaad, R., Krafft, C., Rahman, K. W., & Selwaness, I. (2019). *Job Creation in Egypt: A Sectoral and Geographical Analysis Focusing on Private Establishments,* 1996-2017 (ERF Policy Research Report).

Atieno, R. (2009). *Linkages, access to finance and the performance of small-scale enterprises in Kenya* (No. 2009/06). WIDER Research Paper.

Auboin, M., Smythe, H., & Teh, R. (2016). *Supply Chain Finance and SMEs: Evidence from International Factoring Data* (Issue 6039). Center for Economic Studies and ifo Institute (CESifo).

Ayadi, R., & Sessa, E. (2017). *Micro, Small and Medium Sized Enterprises Development in Egypt, Jordan, Morocco & Tunisia.* MSMEs' Development in the Southern Mediterranean Countries. EMNES Studies No 3. Euro-Mediterranean Network of Economic Studies.

Ayyagari, M, Juarros, P., Martinez Peria, M. S., & Singh S. (2016). *Access to Finance and Job Growth: Firm-Level Evidence across Developing Countries.* World Bank Group. Policy Research Working Paper No 7604.

Banerjee, A., Cole, S., & Duflo, E. (2004). Banking Reform in India. In S. Bery, B. P. Bosworth, & A. Panagariya (Eds.), *India Policy Forum,* 2004 (Vol. 1, pp. 277–332). Brookings Institution Press.

Banerjee, A.V., & Duflo, E. (2014). Do Firms Want to Borrow More? Testing Credit Constraints Using a Directed Lending Program. *The Review of Economic Studies,* 81(2), 572-607. https://doi.org/10.1093/restud/rdt046

Beck, T. (2013). 'Bank Financing for SMEs - Lessons from the Literature', *National Institute Economic Review,* accessed at https://doi.org/10.1177/002795011322500105.

Beck, T., Demirguc-Kunt, A., & Levine, R. (2005). SMEs, Growth, and Poverty: Cross-Country Evidence. *Journal of Economic Growth*, 10(3), 199–229. https://doi.org/10.1007/s10887-005-3533-5

Binks, M.R., Ennew, C.T., & Reed, G.V. (1992). Information Asymmetries and the Provision of Finance to Small Firms. *International Small*

Business Journal: Researching Entrepreneurship, 11(1), 35–46.

Cassano, F., Jõeveer, K., & Svejnar, J. (2013). Cash flow vs. collateral-based credit. *Economics of Transition and Institutional Change*, 21(2), 269–300. https://doi.org/10.1111/ecot.12016

Central Agency for Public Mobilization and Statistics. (1997). *General census of population, housing and establishments 1996.*

Central Agency for Public Mobilization and Statistics. (2007). *General census of population, housing and establishments 2006.*

Central Agency for Public Mobilization and Statistics. (2013). *Economic census results 2012/2013.*

Central Agency for Public Mobilization and Statistics (2018). *Final results of the general census of the population, housing and establishment 2017.*

Central Agency for Public Mobilization and Statistics. (2020). *Results of the fifth economic census for Egypt by economic activity and governorates 2017/2018.*

Central Bank of Egypt. (2020). *Circular dated 4 April 2020 regarding widening the scope of the private sector industry initiative by removing the turnover cap.*

Chepkoech, E. (2016). *Factors influencing performance of Uwezo Fund Supported projects in Bomet County Kenya.* Nairobi: University of Nairobi.

Dao M.C., & Qian Liu, L. (2017). *Finance and Employment in Developing Countries; the Working Capital Channel.* IMF Working Paper, WP/17/189.

De Vries, H. (2004). Factoring: the perceived role in cash management for New Zealand SMEs. *International Journal of Entrepreneurship and Small Business, 1*(3/4), 363-379.

Dinh, H.T., Mavridis, D.A., & Nguyen, H.B. (2010). *The Binding Constraint on Firms' Growth in Developing Countries.* The World Bank Policy Research Working Paper No 5485. The World Bank Development Economics Operations and Strategy Unit.

Dovis, M., & Zaki, C. (2018). *Global Value Chains and Business Environment: Which Factors Do Really Matter?* Working Papers 1270, Economic Research Forum.

Egypt Today. (2019). *SMEs draft law includes simplified tax system, measures.* Retrieved 16 December 2020, from https://cutt.ly/sjtSIhj

Egypt Today. (2020). *Central Bank of Egypt issues loan guarantees worth LE100B for banks to fund investors.* Retrieved 16 December 2020, from https://cutt.ly/MjtSRIk

Eldib Advocates. (2018). *How Regulations In Egypt Are Aiming At Facilitating Business for SMEs.* Retrieved 16 December 2020, from https://cutt.ly/PjtSWCf

El-Ehwany, N., & El-Megharbel, N. (2009). *Employment Intensity of Growth in Egypt with a Focus on Manufacturing Industries.* ECES Working Paper No.130. The Egyptian Center for Economic Studies.

El-Hamidi, F., & Baslevent, C. (2013). *Micro and Small Enterprises (MSEs) in Urban Economies: a Comparative Study of Egypt and Turkey At the Province Level.* Working Papers 761. Economic Research Forum.

El-Megharbel, N. (2008). *Consolidating the Linkages between SMEs and Large Enterprises in the Manufacturing Sector in Egypt*, ECES Working Paper No. 140. The Egyptian Center for Economic Studies.

El-Saady, R. (2011). The Role of SMEs in Mediterranean Economies: The Egyptian Experience. In *Panorama: The Mediterranean Year: Economy and Territory. Productive Structure and Labor Market. Med 2011.* (pp.224-227). European Institute of the Mediterranean and the CIDOB Foundation.

El-Said, H., Al-Said, M., & Zaki, C. (2014). Small and Medium Enterprises Landscape in Egypt: New Facts from a New Dataset. *International Journal of Entrepreneurship and Small Business, 20*(3), 286–309.

Enterprise. (2017). *CBE Microfinance to push out EGP 30 bn in subsidized financing to as many as 10 mn borrowers within four years.* Retrieved 16 December 2020, from https://cutt.ly/SjtSmho

Enterprise. (2019). *Draft SMEs Act gets early nod from House committee.* Retrieved 16 December 2020, from https://cutt.ly/cjtSbxM

Enterprise. (2020). *Private sector recovery stalled in August* –PMI. Retrieved 16 December 2020, from https://cutt.ly/zjtScLX

Enterprise Surveys. (2013). Available at: http://www.enterprisesurveys.org. The World Bank.

Enterprise Surveys. (2016). Available at: http://www.enterprisesurveys.org. The World Bank.

Enterprise Surveys. (2020). Available at: http://www.enterprisesurveys.org. The World Bank.

Financial Regulatory Authority. (2010). Quarterly Bulletin of Financial Leasing Activity Indicators from 1/10/2010-31/12/2010. [al-nashrat rub' al-sanawiya li-mu'ashirat nashat al-tta'gir al-ttamwili 'an al-fatra min 1/10/2010 hata 31/12/2010] [In Arabic].

Financial Regulatory Authority. (2012). Quarterly Bulletin of Financial Leasing Activity Indicators from July-September 2012. [al-taqrir al-rub' al-sanawi nashat al-tta'gir al-ttamwili al-rub' al-thalith 2012] [In Arabic].

Financial Regulatory Authority. (2014). Quarterly Bulletin of Financial Leasing Activity Indicators from April-June 2014. [al-taqrir al-rub' al-sanawi nashat 'an al-tta'gir al-ttamwili al-rub' al-thani min 'am 2014] [In Arabic].

Financial Regulatory Authority. (2018). Quarterly Bulletin of Financial Leasing Activity Indicators from January-March 2018. [taqrir shahr maris li-nashat al-tta'gir al-ttamwili] [In Arabic].

Giugale, M. M., El-Diwany, S., & Everhart, S. S. (2000). Informality, Size and Regulation: Theory and an Application to Egypt. *Small Business Economics, 14*(2), 95–106. https://doi.org/10.1023/A:1008164103537

Government of Egypt. (2016). *Sustainable Development Strategy: Egypt's Vision 2030.*

Hampel-Milagrosa, A., Loewe, M., & Reeg, C. (2015). The Entrepreneur Makes a Difference: Evidence on MSE Upgrading Factors from Egypt, India, and the Philippines. *World Development, 66,* 118–130. https://doi.org/https://doi.org/10.1016/j.worlddev.2014.08.005

Haraguchi, N., Cheng, C.F.C., & Smeets E. (2016). *The Importance of Manufacturing in Economic Development: Has this Changed?* Department of Policy Research and Statistics Working Paper Series 1/2016. Vienna: UNIDO.

Hendy, R., & Zaki, C. (2013). On informality and productivity of micro and small enterprises: Evidence from MENA countries. *International Journal of Entrepreneurship and Small Business, 19*(4), 438–470. https://doi.org/10.1504/IJESB.2013.055486

International Finance Corporation. (2017). *Equipment Leasing in Africa. Handbook of Regional Statistics 2017.* Washington, DC: International Finance Corporation.

International Labour Office. (2015). Small and medium-sized enterprises and decent and productive employment creation. *In International Labour Conference; Report IV*. https://doi.org/10.1787/861275538813

International Monetary Fund. (2018). *World Economic Outlook: Cyclical Upswinging, Structural Change.* Washington, D.C., April.

Kersten, R., Harms, J., Liket, K., & Maas, K. (2017). Small Firms, Large Impact? A systematic review of the SME Finance Literature. *World Development, 97,* 330–348. https://doi.org/https://

doi.org/10.1016/j.worlddev.2017.04.012

Klapper, L. (2006). The role of factoring for financing small and medium enterprises. *Journal of Banking and Finance 30*(11), 3111-3130. https://doi.org/10.1016/j.jbankfin.2006.05.001

Kraemer-Eis, H., & Lang, F. (2012). *The Importance of Leasing for SME Finance*. European Investment Fund Research & Market Analysis Working Paper 2012/5.

Kumar, R. (2017). *Targeted SME Financing and Employment Effects: What do we Know and What could be Done Differently?* Jobs Working Paper N°3. The World Bank.

Kuntchev, V., Ramalho, R., Rodríguez-Meza, J., & Yang, J. S. (2013). *What Have We Learned from the Enterprise Surveys regarding Access to Credit by SMEs?* Policy Research Working Papers. The World Bank. https://doi.org/doi:10.1596/1813-9450-6670

Loewe, M., Al-Ayouty, I., Altpeter, A., Borbein, L., Chantelauze, M., Kern, M., Niendorf, E., & Reda, M. (2013). *Which Factors Determine the Upgrading of Small and Medium-Sized Enterprises (SMEs)?* The Case of Egypt. Bonn: German Development Institute.

Malhotra, M., Chen, Y., Criscuolo, A., Fan, Q., Hamel, I. I., & Savchenko, Y. (2007). *Expanding Access to Finance.* In World Bank Institute Resources. The World Bank. https://doi.org/doi:10.1596/978-0-8213-7177-0

McKenzie, D. (2011). How Can We Learn Whether Firm Policies Are Working in Africa? Challenges (and Solutions?) For Experiments and Structural Models†. *Journal of African Economies, 20*(4), 600–625. https://doi.org/10.1093/jae/ejr024

Micro, Small and Medium Enterprises Development Agency. (2019). *MSMEDA Achievements Report* [Taqrir Injazat Tanmiyat al-Mashruʿat al-Mutawassita wa-l-Saghira wa-l-Mutanahiyat al-Sughr]. [In Arabic].

Ministry of Trade and Industry. (2017). *Industry and Trade Development Strategy 2016-2020.*

Moisseron, J., Fazzani, S., & Guesmi, K. (2019). Assessing EU – Mediterranean Policies in the Field of Industry from a Bottom-up Perspective : The Case of Egypt. *MEDRESET Policy Papers, 7*(26), 2–44.

Mol-Gómez-Vásquez, A., Hernández-Cánova, G., & Köeter-Kant, J. (2020). Economic and Institutional Determinants of Lease Financing for European SMEs: An Analysis Across Developing and Developed Countries. *Journal of Small Business Management.*

Mutiso, D.A.N., & Muigai, D.R.G. (2018). An Assessment of Financial Literacy and the Performance of UWEZO Funded SME's in Kirinyaga County, Kenya. *Journal of Economics and Sustainable Development, 9*(6), 10-17.

Narooz, R., & Child, J. (2017). Networking responses to different levels of institutional void: A comparison of internationalizing SMEs in Egypt and the UK. *International Business Review, 26*(4), 683–696. https://doi.org/10.1016/j.ibusrev.2016.12.008

Nasr, S. (2009). *Are Banks in Egypt Catalysts for Economic Development?* Oxford Business and Economics Conference (OBEC).

Nayel, M. (2014). Egypt Issues First Microfinance Law. Financial System Development. Retrieved 16 December 2020, from https://cutt.ly/bjtSlO1

Open Access Micro Data Initiative. (2013). Labor Market Panel Surveys (LMPS), http://erf.org.eg/data-portal/. Version 1.0 of Licensed Data Files; ELMPS 1998. Egypt: Economic Research Forum (ERF).

Open Access Micro Data Initiative. (2016a). Labor Market Panel Surveys (LMPS), http://erf.org.eg/data-portal/. Version 4.2 of Licensed Data Files; ELMPS 2006. Egypt: Economic Research Forum (ERF).

Open Access Micro Data Initiative. (2016b). Labor

Market Panel Surveys (LMPS), http://erf.org.eg/data-portal/. Version 2.2 of Licensed Data Files; ELMPS 2012. Egypt: Economic Research Forum (ERF).

Open Access Micro Data Initiative. (2019). Labor Market Panel Surveys (LMPS), http://erf.org.eg/data-portal/. Version 2.0 of Licensed Data Files; ELMPS 2018. Egypt: Economic Research Forum (ERF).

Organisation for Economic Co-operation and Development/European Union/European Training Foundation. (2018). *The Mediterranean Middle East and North Africa 2018: Interim Assessment of Key SME Reforms.* Paris: OECD Publishing.

Official Gazette. (2020). *Law No. 152/2020.* [In Arabic].

Oxford Business Group. (2019). *New lending initiatives increase access to finance for Egypt's SMEs.* Oxford Business Group. Retrieved from https://cutt.ly/AjtSjTd

Piguła, E., & Paduszyńska, M. (2015). Factoring as a special means of financing SMEs' activities – the case of enterprises in the Lodz area. *Finanse i Prawo Finansowe, 3*(3), 103–117.

Plakalović, N. (2015). *Financial literacy of SMEs managers.* Managing Intellectual Capital and Innovation for Sustainable and Inclusive Society: Managing Intellectual Capital and Innovation; Proceedings of the MakeLearn and TIIM Joint International Conference 2. ToKnowPress.

Rashed, A., & Sieverding, M. (2014). *Micro and small household enterprises in Egypt: Potential for growth and employment generation.* Economic Research Forum Working Paper Series No. 831.

Riba, M. (1999). *Growing Micro and Small Enterprises in LDCs. The "Missing Middle."* Netherlands: UNCTAD/ITE/TEB/5, 5-106.

Said, M. Galal, R., & Sami, M. (2019). *Inequality and Income Mobility in Egypt.* Economic Research Forum Working Paper Series No. 1368.

Saif, I. (2011). *Challenges of Egypt's Economic Transition*. The Carnegie Papers. Lebanon: Carnegie Middle East Center.

Salah, F. (2019). *Opportunities and Challenges In Egypt's New Industrial Zones.* Retrieved from: https://cutt.ly/GjtSfYw

Sharkawy & Sarhan. (2017). *The New Investment Law Incentives for SMEs and Solar Power Facilities.* Sharkawy & Sarhan Law Firm. Retrieved from https://cutt.ly/NjtSGPf

Shehata Partners. (2020). *Overview of the New SMEs Law.* Retrieved from https://cutt.ly/9jtSJcu

Silvestre, B.S. (2015). Sustainable supply chain management in emerging economies: Environmental turbulence, institutional voids and sustainability trajectories. *International Journal of Production Economics, 167,* 156–169.

Stein, P., Ardic, O.P., & Hommes, M. (2013). *Closing the Credit Gap for Formal and Informal Micro, Small, and Medium Enterprises.* International Finance Corporation, World Bank Group, Washington DC.

Tadesse, B. (2014). Access to finance for micro and small enterprises in Debre Markos town Ethiopia. *Global Journal of Current Research, 2*(2), 36-46.

Tolba, A., Seoudi, I., & Fahmy, K. (2014). Factors influencing intentions of Egyptian MSME owners in taking commercial bank loans. *Journal of Small Business & Entrepreneurship, 27*(6), 497-518.

United Nations Conference on Trade and Development. (2018). *Empretec Network: Impact and Success Stories.* Retrieved from: https://cutt.ly/ojtDsbr

United Nations Conference on Trade and Development Secretariat. (2001). 'Combining Business and Financial Services'. In UNCTAD (Eds). *Improving the competitiveness of SMEs in developing countries: The Role of Finance to Enhance Enterprise Development.* (pp.141-148). Retrieved from: https://cutt.ly/CjtDnW4

United Nations. (2008). International Standard Industrial Classification of All Economic Activities (ISIC), Rev.4. Department of Economic and Statistical Affairs. Statistics Division. Statistical Papers Series M No.4, Rev.4.

Vasilescu, L.G. (2010). Factoring – *financing alternative for SMEs.* 5th Annual MIDES International Conference, Kavala, 13–23.

White, S. (2018). *Creating better business environments for micro and small enterprises.* Technical Report, Donor Committee for Enterprise Development.

World Bank. (2008). *Finance for all? Policies and Pitfalls in expanding access.* Washington, DC: The World Bank.

World Bank. (2014). *Arab Republic of Egypt - More jobs, better jobs : A priority for Egypt.* Retrieved from https://cutt.ly/0jtFr6A

World Bank, Global Financial Development. (2016). Value of collateral needed for a loan (% of the loan amount). Generated December 15th.

World Bank. (2018a). *Improving Access to Finance for SMEs. Opportunities through Credit Reporting, Secured Lending and Insolvency Practices.* Retrieved from https://cutt.ly/5jtD7yr

World Bank. (2018b). *Egypt - Private Sector Development for Inclusive Growth Development Policy Financing Project (English).* Retrieved from https://cutt.ly/6jtDCXd

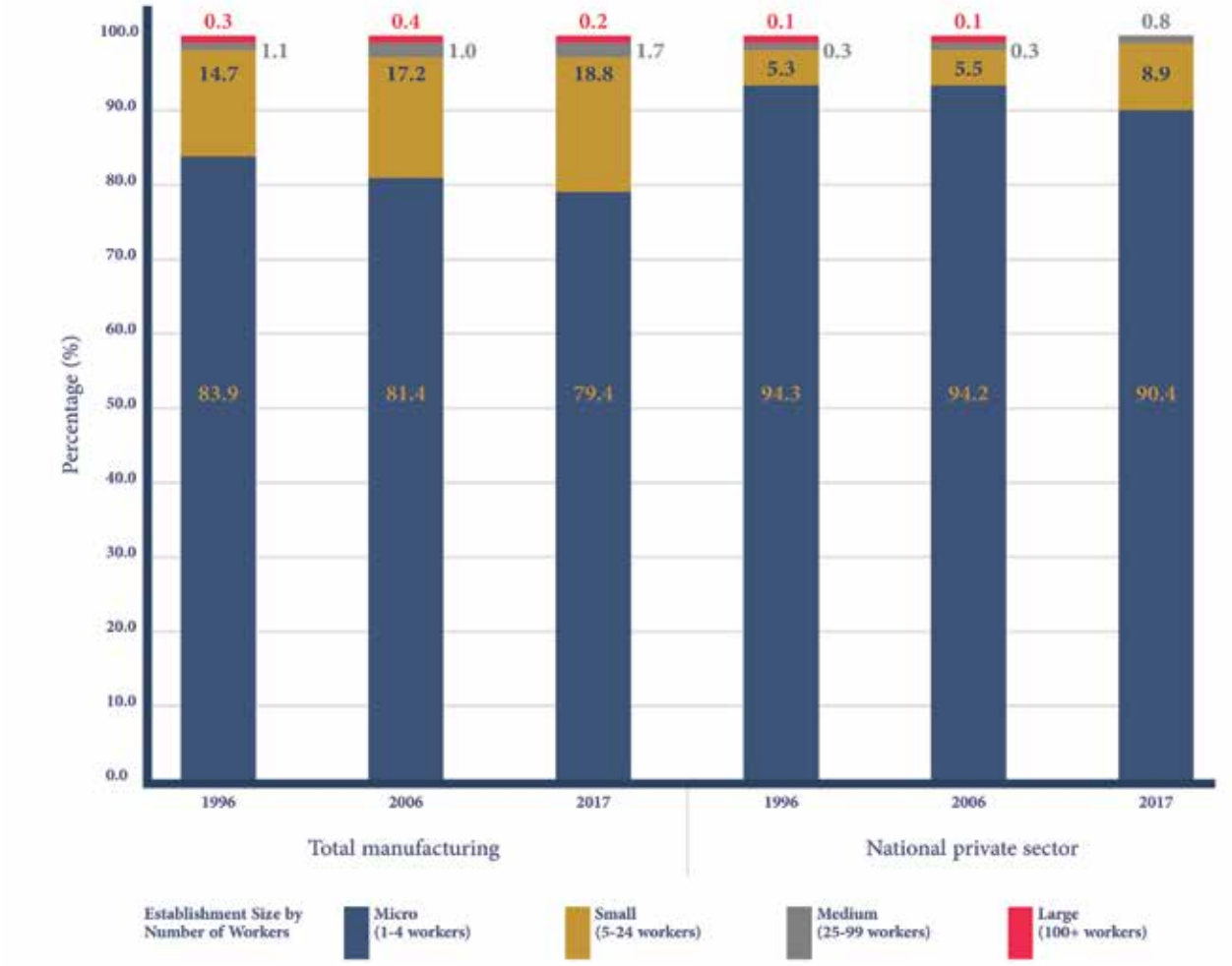
World Bank (2020). *Enterprise Surveys - Egypt 2016 Country Profile.*

Zaki, C., Alshyab, N., Goaied, M., & Seleem, N. (2018). *Employment Intensity and Sectoral Output Growth: A Comparative Analysis for MENA Economies.* EMNES Working Paper 19.

Appendix 1 – Tables and Graphs

Appendix Figure 1

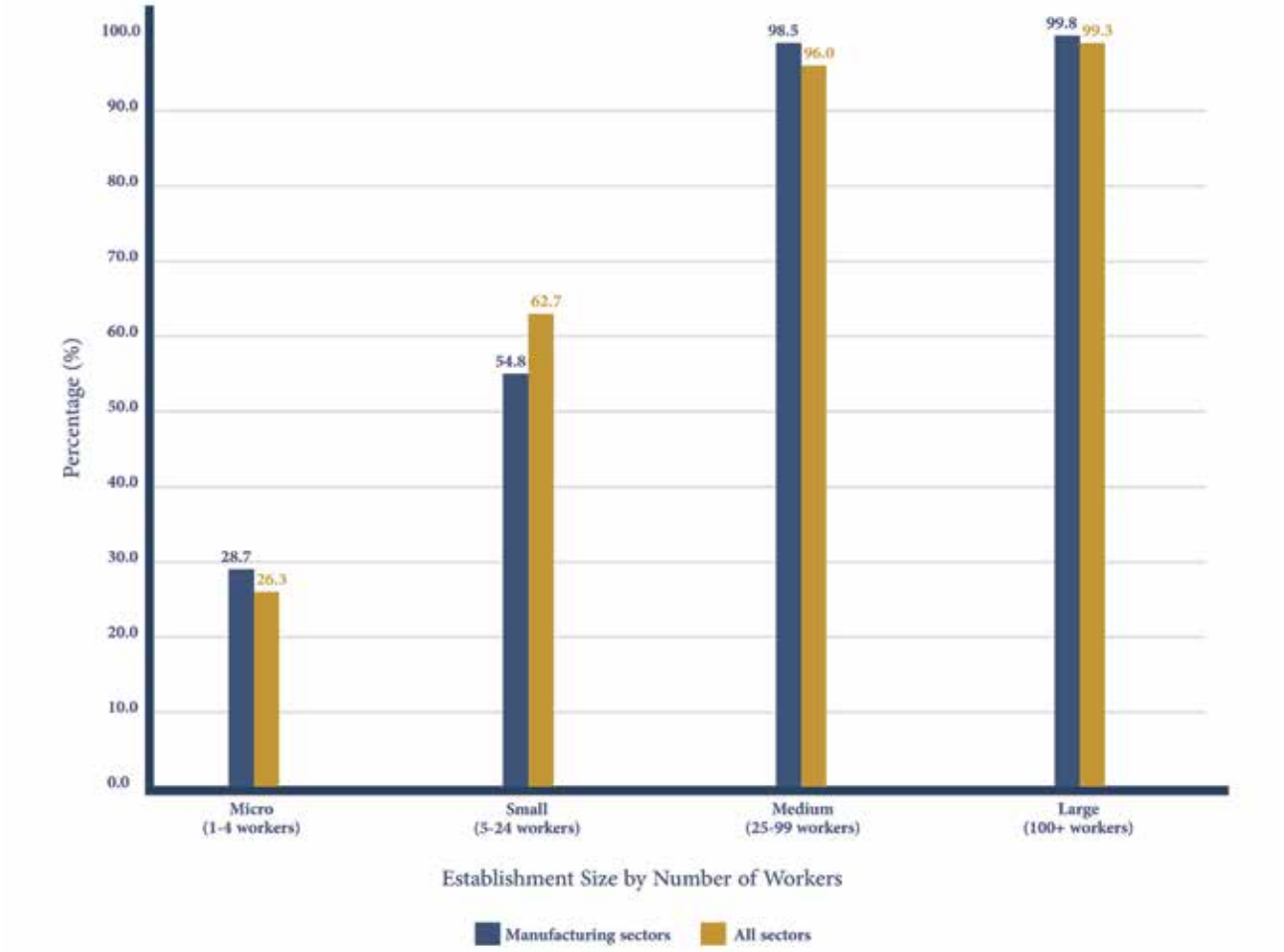
Distribution of Firms by Size in 1996, 2006 and 2017



Source: Authors' calculations based on Establishment Censuses (CAPMAS 1997, 2007, 2018).

Appendix Figure 2

Proportion of Formal Firms by Establishment Size: Manufacturing Sector Versus All Private Sectors in 2013

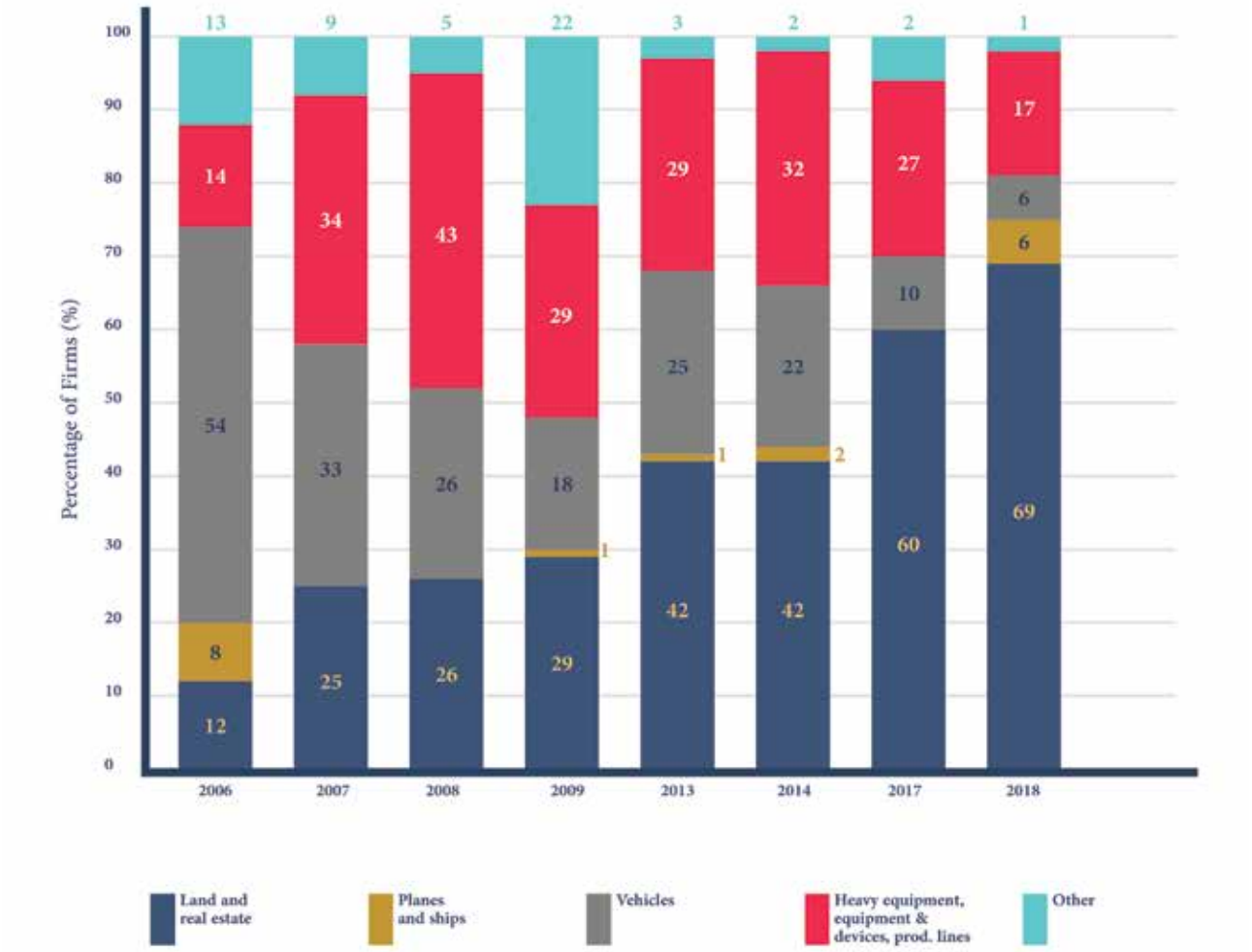


Source: Authors' calculations based on CAPMAS, 2013

Disclaimer: The numbers in this figure have been rounded to the first decimal place. Therefore, numbers presented may not add up precisely to the totals provided and percentages may not precisely reflect the absolute figures.

Appendix Figure 3

Distribution of Leasing Activities by Activity Type, 2006-2018

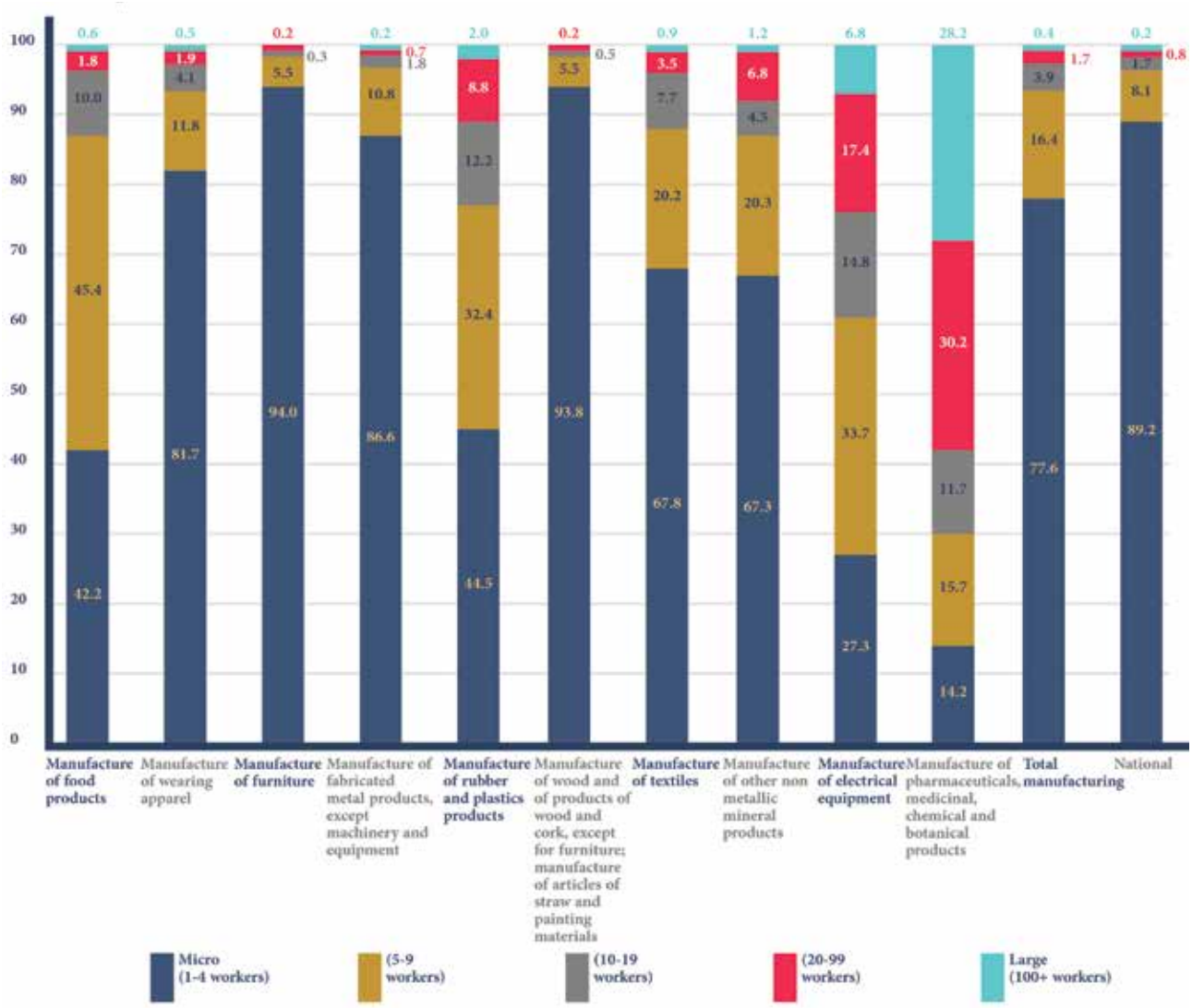


Source: Authors' calculations based on FRA 2010, 2012, 2014, 2018

Disclaimer: The numbers in this figure have been rounded to the nearest integer. Therefore, numbers presented may not add up precisely to the totals provided and percentages may not precisely reflect the absolute figures.

Appendix Figure 4

Distribution of Establishments by Size (Number of Workers) in the Top Manufacturing Subsectors in Fiscal Year 2017/2018



Source: Authors' calculations based on CAPMAS, 2013

Note: Almost 99.9% of establishments in the manufacturing sector belong to the private sector.

Disclaimer: The numbers in this figure have been rounded to the first decimal place. Therefore, numbers presented may not add up precisely to the totals provided and percentages may not precisely reflect the absolute figures.

Appendix Table 1
Top Subsectors in the Manufacturing Sector by Gender, Ages 15-64

	Total		Men		Women	
	Number of workers	Percentage (%)	Number of workers	Percentage (%)	Number of workers	Percentage (%)
Manufacture of food products	727,511	23.1	672,159	23.6	55,352	17.7
Manufacture of wearing apparel	363,286	11.5	239,779	8.4	123,507	39.6
Manufacture of furniture	347,737	11.0	344,683	12.1	3,054	1.0
Manufacture of fabricated metal products, except machinery and equipment	300,404	9.5	294,238	10.4	6,166	2.0
Manufacture of textiles	223,194	7.1	189,470	6.7	33,724	10.8
Manufacture of other non-metallic mineral products	205,305	6.5	197,855	7.0	7,450	2.4
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	164,303	5.2	162,891	5.7	1,412	0.5
Manufacture of rubber and plastics products	113,407	3.6	106,427	3.7	6,980	2.2
Manufacture of electrical equipment	101,046	3.2	89,646	3.2	11,400	3.7
Manufacture of chemicals and chemical products	87,663	2.8	78,714	2.8	8,949	2.9
Manufacture of pharmaceuticals, medicinal chemical and botanical products	80,288	2.5	55,370	1.9	24,918	8.0
Total top manufacturing	2,714,144	86.0	2,431,232	85.5	282,912	90.8
Other manufacturing	440,163	14.0	410,908	14.5	29,255	9.2
Total manufacturing	3,154,308	100.0	2,842,142	100.0	312,166	100.0

Source: Authors' calculations based on CAPMAS, 2020

Appendix Table 2.1

Distribution of Employment by Economic Activity by Gender, Ages 15–64, Market Definition, Private Sector. Men are depicted in blue, Women are depicted in yellow and the Total is depicted in grey.

	Percentage (%)			
	1998	2006	2012	2018
Agriculture, forestry & fishing	32.1 29.0 31.7	30.4 54.9 35.6	24.1 41.0 26.3	21.5 32.8 23.2
Wholesale and retail trade; repair of motor vehicles and motorcycles	17.5 35.1 19.8	20.1 19.9 20.1	19.0 25.9 19.9	19.6 27.1 20.7
Construction	11.7 1.1 10.3	12.9 0.4 10.2	17.1 0.6 14.9	18.2 4.0 16.0
Manufacturing	18.8 15.8 18.4	16.3 11.4 15.3	16.4 12.0 15.8	14.5 10.9 14.0
Transportation and storage	6.9 0.5 6.1	8.6 0.7 7.0	9.6 0.6 8.4	11.5 0.6 9.9
Accommodation and food services	3.6 3.1 3.5	4.4 1.6 3.8	4.1 1.0 3.7	4.0 1.1 3.5
Other service activities	6.2 2.2 5.7	1.6 0.7 1.4	2.4 0.7 2.1	2.9 1.8 2.7
Professional, scientific and technical activities	1.0 1.6 1.1	1.1 1.2 1.2	2.2 2.5 2.2	2.0 2.3 2.0
Education	0.4 4.2 0.9	0.3 3.2 0.9	0.5 7.0 1.4	0.6 8.0 1.8
Human health and social work activities	0.3 4.2 0.8	0.4 2.0 0.7	0.4 3.7 0.8	0.7 5.6 1.5
Administrative and support service activities	0.0 0.0 0.0	0.5 0.3 0.4	1.2 0.7 1.1	1.3 0.8 1.2
Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use	0.0 2.3 0.3	0.6 1.8 0.8	0.3 2.4 0.5	0.6 2.5 0.9
Information and communication	0.2 0.3 0.2	1.2 1.1 1.2	1.1 1.2 1.1	0.7 0.9 0.7
Public administration and defense; compulsory social security	0.0 0.4 0.1	0.1 0.2 0.2	0.4 0.2 0.3	0.7 1.0 0.7

Appendix Table 2.2

Distribution of Employment by Economic Activity by Gender, Ages 15–64, Market Definition, Private Sector. Men are depicted in blue, Women are depicted in yellow and the Total is depicted in grey.

	Percentage (%)			
	1998	2006	2012	2018
Financial and insurance activities	0.4 0.3 0.4	0.3 0.4 0.3	0.4 0.4 0.4	0.3 0.6 0.3
Arts, entertainment and recreation	0.5 0.0 0.4	0.6 0.2 0.5	0.4 0.1 0.3	0.3 0.0 0.3
Water supply; sewerage, waste management and remediation activities	0.0 0.0 0.0	0.2 0.0 0.1	0.2 0.0 0.2	0.2 0.0 0.2
Real estate activities	0.1 0.0 0.1	0.0 0.0 0.0	0.1 0.0 0.1	0.2 0.0 0.2
Mining and quarrying	0.3 0.0 0.3	0.3 0.0 0.2	0.3 0.0 0.3	0.2 0.1 0.1
Electricity, gas, steam and air conditioning supply	0.1 0.0 0.1	0.1 0.1 0.1	0.1 0.0 0.1	0.1 0.0 0.1
Activities of extraterritorial organizations and bodies	0.0 0.1 0.0	0.1 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0
Total	100.0 100.0 100.0	100.0 100.0 100.0	100.0 100.0 100.0	100.0 100.0 100.0

Source: Authors' calculations based on Egyptian Labor Market Panel Surveys (Open Access Micro Data Initiative, 2013, 2016a, 2016b, 2019)

Disclaimer: Percentages in this table have been rounded to the first decimal place. There may therefore be discrepancies between the actual totals of the individual amounts in the tables and the totals shown.

Appendix Table 3

Obstacle Perception of Access to Finance by Enterprise Size and Sector in 2020

Manufacturing sector (%)					
Obstacle perception	Micro (1-4 workers)	Small (5-19)	Medium (20-99)	Large (100+)	Total
Does not apply	4.2	0.5	0.6	1	0.7
No obstacle	25.8	21.7	28.8	38.6	27.8
Minor obstacle	45.9	24	25.2	29.5	25.7
Moderate obstacle	13.4	19.2	22.3	19.7	20.4
Major obstacle	10.8	27.7	17.5	9	20.1
Very severe obstacle	0	6.9	5.4	2.2	5.3
Total obstacle	*70.1*	*77.8*	*70.4*	*60.4*	*71.5*
Total	**100**	**100**	**100**	**100**	**100**
Sample Size	**21**	**812**	**762**	**390**	**1,985**
Non-manufacturing sector (%)					
Obstacle perception	Micro (1-4 workers)	Small (5-19)	Medium (20-99)	Large (100+)	Total
Does not apply	3.6	0.7	1.4	0	0.9
No obstacle	50.2	30.2	31	44.2	31.8
Minor obstacle	7.9	21.2	19.2	14.7	19.9
Moderate obstacle	9.5	20.1	25.3	15.6	21.2
Major obstacle	28.7	22.7	20.6	24.9	22.3
Very severe obstacle	0	5.1	2.4	0.6	3.9
Total obstacle	*46.1*	*69.1*	*67.5*	*55.8*	*67.3*
Total	**100**	**100**	**100**	**100**	**100**
Sample Size	**22**	**628**	**325**	**96**	**1,071**

Source: Authors' calculations based on Enterprise Surveys, 2020

Notes: The sampling design of the Enterprise Surveys consists only of small, medium and large firms. Micro firms are excluded from the sampling design. The appearance of these micro firms may occur if the actual number of employees in the sample of firms changed to four employees or below during the fieldwork. This is why the numbers of micro firms are so low.

Disclaimer: Percentages in this table have been rounded to the first decimal place. There may therefore be discrepancies between the actual totals of the individual amounts in the tables and the totals shown.

Appendix 2 – List of Interviews

1. Chahir Zaki, Associate professor, Faculty of Economics and Political Sciences, Cairo University (12.05.2020)
2. Luca Fedi, Employment policies specialist, ILO Team for North and East Africa (31.05.2020)
3. Andreas Ruepp, Head of Access to Financial Services for SMEs, GIZ Egypt (31.05.2020)
4. Reem El Saady, National Program Manager, Small Business Support, EBRD (1.06.2020)
5. Katja Janischewski, Consultant Development Cooperation (03.06.2020)
6. Hayder Baghdadi, Regional program on financial inclusion in the Arab world, GIZ (8.06.2020)
7. Mohamed Amal, IMC (14.06.2020)
8. Hesham Bayoumi, Project Manager Senior Social Compliance Auditor (14.06.2020) and 15.06.2020)
9. Injy Amr Borai, Economist and Managing consultant (15.06.2020 and 6.10.2020)
10. Miguel Solana, Enterprise Development Specialist, ILO Decent Work Team for North Africa (04.06.2020)
11. Mohamed Kamal and Shady Fathy Nasr, IMC (18.06.2020)
12. Annachiara Scandone, United Nations Industrial Development Organization (18.06.2020)
13. Mohamed Kamel, CBE (18.06.2020)
14. Khaled Abdelazim, Federation of Egyptian Industries (22.06.2020)
15. Amirah El Haddad, Associate professor, Faculty of Economics and Political Sciences, Cairo University (23.06.2020)
16. Ahmed Gaber, Head of SME Strategy & Business Development, Banque du Caire (25.06.2020)
17. Khalid El Mahalawy, Investment Development Authority (06.07.2020)
18. Ahmed Abdel Gawwad, Financial Regulatory Authority (14.10.2020)
19. Laila El Khawaga, Professor of economics, Faculty of Economics and Political Sciences and former member of the CBE board (15.10.2020)
20. Doaa Yassin, MSMEDA (19.10.2020)
21. Laila Abdekader (Finance, Competitiveness & Innovation Global Practice), Mohamed Hisham El Shiaty, and Ola Nour (Senior Financial Sector Specialist), World Bank (20.10.2020)
22. Sherif Samy, former chairman of the Financial Regulatory Authority (25.10.2020)