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Power and potential: The economics of Egyptian construction and ICT

Young Egyptians' dissatisfaction with their employment prospects was a key driver of protests in 2011 and 2013. Since then, the country's political authorities have worked hard to create job opportunities for young Egyptians by boosting growth in the construction sector (infrastructure and public works), among other things. Since the sector also generates substantial revenues for the country's power elite, this has been a win-win strategy in the short-term. But overreliance on the construction sector has also created too many informal and unstable jobs that are a poor match for Egypt's many well-educated graduates. Cairo's growth strategy has not addressed some of the country's long-standing economic problems, such as informality and a low overall employment rate. Giving the country's promising ICT sector a boost similar to that of the construction sector to address such deficiencies and anticipate a looming debt crisis requires a paradigm shift with two elements. First, a deal between Egypt's political authorities and the power elite that buys time in exchange for future rents. Second, facilitation of private sector dynamism through regulatory encouragement and public seed funding for new business activity.

Introduction

A few years ago, the first stretch of the highway between Cairo and Suez ran mostly through empty desert. Today, the landscape is dotted with many new high-rise buildings and construction sites. Advertisements alternate with large portraits of President al-Sisi, reminding drivers who to credit for this rapid change. Even the occasional traveller has a hard time overlooking the centrality of the construction sector to Egypt's economy.

This brief explores how Egypt's government has sought to improve employment prospects for young Egyptians after the 2011 and 2013 uprisings in a bid to reduce

social discontent.¹ Providing work has become an essential element of the revised social contract under the leadership of President al-Sisi. However, many of the newly created jobs are temporary, of low-quality (e.g. unskilled) and have been generated by boosting the construction sector through deficit financing. In contrast, the political authorities have largely

1 The brief benefited from the support and insights of two Egyptian researchers who prefer to remain anonymous. My thanks go to both of them for their contribution. I am also indebted to Mirette Mabrouk (Middle East Institute) and Peter Haasbroek (Clingendael) for their helpful review. Its contents naturally remain my own responsibility.

ignored Egypt's reasonably well-developed ICT sector, which also has the potential to generate jobs, but of a higher quality than the construction sector. In addition, the ICT sector can indirectly create new jobs in other sectors of the economy by acting as a performance improvement driver.² According to a recent World Bank report, for example, digitalising the economies of the Middle East and North Africa could increase GDP per capita by up to 46 per cent over the next three decades.³ Moreover, Ministry of Communication and Information Technology (MCIT) data suggest that the ICT sector is already Egypt's fastest-growing economic sector (16.1% in 2022 and 15.2% in 2020).⁴ With this in mind, the brief also examines obstacles and opportunities for job seekers in both sectors to find decent work and for employers to hire competent staff. Finally, the brief offers suggestions for policy makers on how to support a retooling of Egypt's employment generating model with a view to creating more and better-quality jobs. These jobs will be necessary to stimulate the economic dynamism the country needs to increase its fiscal revenues in the face of a looming debt crisis. This task became more urgent in light of recent discussions between Cairo and the International Monetary Fund (IMF), since additional loans are tied to a reduction of the state's presence in the economy. The core of the suggestions made centre on the need to reduce the military's footprint in the economy to boost the private sector.

However, this is difficult to accomplish due to the military's political influence. For this reason, the brief recommends that European policy makers focus on limiting the military's footprint in those sectors where its influence is low at present and that have high growth and employment potential, such as manufacturing and ICT.

As to its methodology, the brief compares the construction and ICT sectors because they have opposite characteristics in terms of state-led employment promotion strategies. On the one hand, the construction sector is central to the Egyptian political authorities and power elite in terms of the revenue it generates, the clientelism it enables and the volume of low-skilled employment opportunities it produces. It is also heavily influenced by government policies. In contrast, the ICT sector has a significant private sector component and generates high-skilled jobs while also boosting growth in other economic sectors. However, it does not currently benefit from state-led employment or growth promotion initiatives.⁵ The brief builds on its predecessor, *Trading short-term gains for long-term costs: The Egyptian political economy under al-Sisi*⁶ (summarised below in Box 1), which analyses the broader Egyptian political economy in which sectoral policies are nested.

2 Shah, S. Menon, S., Olajide Ojo, O. and Naghi Ganji, E. 2020. 'Digitalisation in Sustainable Manufacturing – A Literature Review, IEEE International Conference on Technology Management', Operations and Decisions (ICTMOD).

3 'Digital Economy Could Reap Huge Benefits for Middle East and North Africa', 2022. World Bank, 16 March, <https://www.worldbank.org/en/news/press-release/2022/03/16/digital-economy-could-reap-huge-benefits-for-middle-east-and-north-africa> (Accessed 10 January 2023).

4 'ICT Sector Achieves Highest Growth Rate of 16.3% for Fourth Year in Row', 2022. Ministry of Communications and Information Technologies, 4 September, https://mcit.gov.eg/en/Media_Center/Press_Room/Press_Releases/66436 (Accessed 10 January 2023).

5 The findings of the brief are based on a review of the literature about the Egyptian economy, 14 qualitative interviews with experts, entrepreneurs and policy makers, as well as two focus groups with 24 employers and jobseekers in the ICT and construction sectors. Interviews and focus groups were conducted in Egypt between October and November 2022. Discussion centred on perceptions of current employment status and opportunities in terms of wages, formality/informality, skills/education, and gender differences.

6 Colombo, M. 2023. *The Egyptian Political Economy under al-Sisi*. Clingendael, 6 March, [The Egyptian political economy under al-Sisi | Clingendael](https://www.clingendael.nl/en/publications/the-egyptian-political-economy-under-al-sisi) (Accessed 10 January 2023).

Box 1 The pillars of Egypt's political-economic model

Egypt's economy has traditionally been state-centric with a limited contribution from the private sector. It is the political authorities that define development strategy with minimal input from ordinary citizens. The power elite, particularly the military, heavily influences the definition of economic priorities. Public strategies are highly conditioned by political considerations, such as generating fiscal revenues in the short term and preserving the influential status of individuals in the power elite.

Against this backdrop, Egypt's economy has relied mostly on the construction and extractive sectors, both of which have an increasing military footprint. This strategy has boosted GDP but has yet to generate the fiscal revenues needed to finance public expenditure in a sustainable manner, or to create a sufficient number of high-quality jobs for longer-term growth. The war in Ukraine has further hampered the economy by making imports more expensive and causing the Egyptian pound to lose value. Cairo has a weak manufacturing sector and is not self-sufficient in agriculture, which means it relies heavily on imports. Egypt is the world's largest wheat importer.⁷

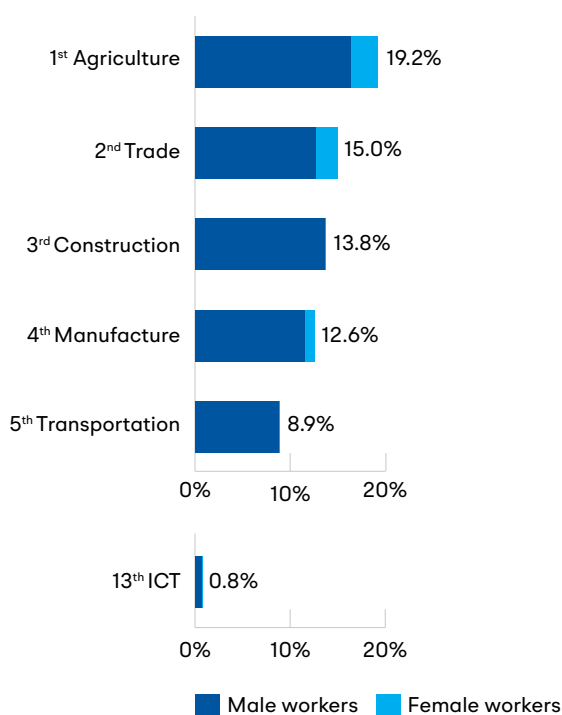
**Jobs and legitimacy:
Egypt's 'new' social contract**

At first glance, Egypt appears to have featured a high degree of continuity in its formal power structure and social contract since the establishment of the Republic in 1952. Political authorities continue to dictate national economic priorities and expect obedience from ordinary citizens in exchange for a modest level of basic services and a reasonable level of employment. The power elite is still largely composed of a network of military officers and business entrepreneurs who are closely connected to the political authorities and primarily involved in the public sector. The government's economic strategy has historically centred on non-manufacturing sectors, including the Suez Canal and, to a certain extent, tourism. This strategy did not help to solve some of Egypt's long-standing issues, especially low-quality jobs and insufficient fiscal revenues.

But with the decline of pan-Arabism, the political authorities' claim to power has shifted from promoting an ideological project (pan-Arabism, Arab socialism) to delivering tangible improvements in the lives of ordinary citizens – which has made job generation more important. In other words, the continued hold on power of Egypt's political authorities has been increasingly contingent on improving the material well-being of both the power elite and ordinary citizens. The protests that swept Egypt from 2011 until 2013 deepened this trend. They indicated growing dissatisfaction with the government's output performance and signified that regime change had become a real possibility rather than an abstract concept. The protests also showed that the military segment of the power elite can quickly 'trade' ruling political authorities when this serves its interests, as happened with former President Mubarak. With this in mind, it has become increasingly important for President al-Sisi to deliver rapid material gains and payoffs to the power elite, as well as generate job opportunities for ordinary citizens. The short-term importance of both priorities has superseded the need for long-term growth to ensure continued loyalty from both the power elite and ordinary citizens. Among other things, this has resulted in a gradual expansion of the influence of the military power elite over the economy.

7 Español, M. 2022. 'Egypt Diversifies Wheat Suppliers as Large International Purchases Resume', *al-Monitor*, 28 July, <https://www.al-monitor.com/originals/2022/07/egypt-diversifies-wheat-suppliers-large-international-purchases-resume#ixzz80YmeXd5l> (Accessed 2 May 2023).

Figure 1 Egypt's top five employment sectors in comparison with the ICT sector



Source: Central Agency for Public Mobilization and Statistics (CAPMAS)

Under the government’s current economic strategy, growth is being driven by a network of power elite members whose business opportunities are directly or indirectly tied to the government. The strategy has focused on the construction and extractive sectors as they generate substantial financial streams and a good volume of low-skilled job opportunities. For example, revenues from oil sales, train fares, car fees and housing sales are easier to collect than other forms of taxation.⁸ Both sectors have produced quick gains to solidify the loyalty of the power elite and coopt citizens. As they are

8 In fact, Egypt collects a very small percentage of public revenue in the form of taxes from private companies (7 per cent of total state revenues when excluding the Suez Canal and government companies selling oil and related products). (Cfr. Sayigh, Y. 2022. ‘Retain, Restructure, or Divest? Policy Options for Egypt’s Military Economy’, *Carnegie Middle East*, <https://carnegie-mec.org/2022/01/31/retain-restructure-or-divest-policy-options-for-egypt-s-military-economy-pub-86232> (Accessed 24 February 2023).

inherently reliant on government ‘benevolence’ in the allocation of permits and land usage, they are easy to stimulate. Of the two, the construction sector is the more interesting from an employment generation perspective, while the extractives sector generates a large and centralised stream of rents.⁹ As shown in Figure 1 above, Egypt’s economic development strategy has not resolved long-standing problems such as a high level of informality and too few jobs for educated Egyptians, but has rather exacerbated them.

More jobs = better jobs? Taking a closer look at the construction sector

There are several reasons for Egypt’s economic reliance on the construction sector. First, the sector offers employment opportunities for citizens with different levels of educational attainment, ranging from the highly educated (e.g. architects, engineers) to those who are lower educated (e.g. construction workers).¹⁰ Second, as indicated, the sheer size of its projects generates vast numbers of jobs, which is helpful in the face of a young and growing population of which significant cohorts enter the labour market each year. A third reason is that construction has a positive spill-over effect on other sectors by upgrading the quality of the infrastructure used by the rest of the economy.

9 Kamal, A. 2019. ‘Which Sectors Drive Egypt’s Growth And Employment?’. *Economics*, 6(2): 57-70, 3 January, <https://sciendo.com/de/article/10.2478/eoik-2018-0019> (Accessed 13 February 2023).

10 The difference in education level in Egypt varies widely across different sectors of the population. World Bank data show that 29% of Egyptians are illiterate, while 38% have a tertiary education degree. Cfr. ‘Literacy rate, adult total (% of people ages 15 and above) – Egypt, Arab Rep.’. *World Bank*, <https://data.worldbank.org/indicator/SE.ADT.LITR.ZS?locations=EG> (Accessed 18 January 2023) and ‘School enrollment, tertiary (% gross)’, *World Bank*, <https://data.worldbank.org/indicator/SE.TER.ENRR> (Accessed 18 January 2023) and ‘Employment Impact of Infrastructure Investments in Egypt’, 2017. *International Labour Office*, 20 July, https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_575881.pdf (Accessed 11 January 2023).

More building projects require more construction materials (e.g. steel, cement), creating job opportunities for extracting and manufacturing enterprises. A final reason is that the military has a strong footprint in the construction sector and securing the continued support of this part of the power elite is vital for the political authorities. Providing economic opportunities is one way of doing so.

In recent years, the construction sector has also become highly attractive for foreign direct investments (FDI) because it offers opportunities to generate revenues fast, with investment being guaranteed by public funds. Furthermore, large public works have a strong symbolic value for the Egyptian political authorities, projecting the image of a new Egyptian *grandeur*. Examples of this policy are the New Administrative Capital¹¹ and the expansion of the Suez Canal.¹² Despite the main aim of these projects being to attract much-needed FDI (new capital) and boost revenues (Suez), they have also been widely advertised across the country to boost the prestige of the al-Sisi presidency.

On the surface, the government's efforts to prioritise construction increased the supply of jobs, with the percentage of workers employed in this sector growing from 12.3 per cent in 2015¹³ to 13.8 per cent in 2022.¹⁴ The total number of workers in the construction sector is currently estimated to be around

3.7 million, reaching 5.5 million when taking into account related occupations (e.g. building construction, civil engineering, and specialised construction activities), temporary, and seasonal workers.¹⁵ That the sector's growth has provided appreciable job opportunities for young Egyptians, especially those with limited education, is a view widely shared among respondents in both interviews and focus groups. For example, an entrepreneur who leads a small contractor company recognises that 'the government did a great job to close the gap between demand and supply in this sector and is still continuing to work on it.'¹⁶ Additionally, official data show that workers in this sector are paid better than others in Egypt, with an average weekly salary of 1,089 Egyptian pounds (around 41–42 euros) compared with an average of 915 EGPs (around 35 euros).¹⁷ This salary is also higher than most wages in the public sector, with the average salary for education staff being 549 EGPs (around 21 euros) and that of health workers 666–696 EGPs (22–23 euros). Finally, the government has paid particular attention to ensuring that economic benefits are shared among a large set of entrepreneurs through sub-contracts to distribute the revenues. As explained by one respondent, public works typically involve a substantial number of smaller companies working on specific aspects of the project.¹⁸ A think tank expert calls it the 'triple P' format: Public, Private, Partnership.¹⁹ These public works are commonly organised under a pyramid scheme, with contractor companies categorised into seven levels that determine their access to projects. Under the current system, the government scores each company, which determines their access to projects. Those with

11 Walsh, D. and Yee, V. 2022. 'A New Capital Worthy of the Pharaohs Rises in Egypt, but at What Price?', *The New York Times*, 13 October, <https://www.nytimes.com/2022/10/08/world/middleeast/egypt-new-administrative-capital.html> (Accessed 24 January 2023).

12 'Suez Canal Expansion due to Finish in July 2023'. 2022. Reuters, 16 January, <https://www.reuters.com/business/suez-canal-expansion-due-finish-july-2023-sca-chairman-2022-01-16/> (Accessed 15 January 2023).

13 Bruni, M. 2018. 'Egypt Labour Market Report. Demographic Trends, Labour Market Evolution and Scenarios for 2015–2030', CAPMAS and IOM, 26 March, https://publications.iom.int/system/files/pdf/egypt_labour_market_report.pdf (Accessed 15 January 2023).

14 CAPMAS, 2022. 'Egypt in Figures', https://www.arabdevelopmentportal.com/sites/default/files/publication/egypt_in_figures_lml.pdf (Accessed 18 January 2023).

15 CAPMAS, 2020. 'Annual Bulletin on Employment, Wages & Working Hours', <https://censusinfo.capmas.gov.eg/Metadata-en-v4.2/index.php/catalog/574> (Accessed 14 January 2023). This number might be more realistic, as it includes some of the informal workers.

16 Interview with an entrepreneur in the construction sector, 30 October 2022.

17 *Ibid.*

18 Interview with an entrepreneur in the construction sector, 8 November 2022.

19 Interview with a think tank researcher, 18 November 2022.

a better score have access to more complex and lucrative public works.

Despite these positive results, interviews show that overreliance on the construction sector to generate employment has had the side effect of maintaining the largely informal character of the overall job market, increasing the number of unskilled jobs and limiting job diversification. To begin with, because the construction sector features many informal jobs, its growth has maintained – even expanded – the historically large informal segment of the Egyptian economy to the detriment of the formal economy. As a respondent put it insightfully, ‘the ample supply of workers allows employers to offer poor contracts and low salaries.’²⁰ In 2020, the Central Agency for Public Mobilization and Statistics (CAPMAS) estimated that the percentage of workers employed informally, and therefore deprived of contracts and social security, to be 87 per cent in 2017–2018.²¹ A civil servant working in the construction sector assessed the current percentage of informal employment at around 75 per cent.²² Having a largely informal economy has several disadvantages, including greater job insecurity, lower growth prospects and reduced tax revenues.

Another related issue is that government investment and promotion have increased wages in the construction sector, which has reduced the appeal of working in other sectors. The resulting labour shortages have negatively affected manufacturing in particular.²³ The high demand for jobs in the construction sector also enables entrepreneurs to reduce benefits

and lower the quality of working conditions.

A respondent argued that: ‘the government turns a blind eye to entrepreneurs’ malpractices in the construction sector because it cannot provide job opportunities in other sectors.’²⁴ This problem clearly emerged in interviews with entrepreneurs, who complained about the lack of qualified and experienced workers. A recurring complaint is that subcontracting companies hire workers who are not qualified for their roles, which has a negative impact on the quality of work and its completion time.²⁵ An expert added that some workers hold several jobs at the same time, since working in the construction industry does not provide stable revenue and often does not provide sufficient income for workers despite higher salaries.²⁶ In fact, a more detailed analysis suggests that unskilled manual labour is readily available but finding specialised employees is difficult. An entrepreneur put it like this: ‘the supply of jobs outstrips the demand for work but within that equation there is a significant shortage of skilled labourers.’²⁷

Furthermore, education is a significant problem that hinders productivity growth. There is a critical gap between the skills taught in Egypt’s educational institutions and those required by employers. This issue is prevalent across various sectors, including the construction industry. For instance, an expert stated that ‘curricula are outdated, and educational styles are not suitable for mastering new technologies in the current construction sector market.’²⁸ This disparity is particularly evident among technicians and blue-collar jobs, where experience is valued more than degrees.²⁹ One entrepreneur lamented that he is ‘struggling to find a good candidate with a reasonable educational background and

20 Interview with a technician, Focus Group, 10 October 2022.

21 Ebeid, H. and Hussein, S. 2022. ‘Building Resilience Blocks: how to Improve the Quality of Work for the Egyptian Construction Precariat?’, EuroMeSCo <https://www.euromesco.net/wp-content/uploads/2022/01/Paper-N%C2%BA50.pdf> (Accessed 13 January 2023).

22 Interview with a researcher, 20 November 2022.

23 Cfr. Steenberg, V. and Wihardja, M. M. 2021. ‘Pathways to Middle-Class Jobs in Indonesia’, *World Bank*, June, <https://openknowledge.worldbank.org/handle/10986/35848?locale-attribute=en> (Accessed 18 January 2023).

24 Interview with a silicone technician, Focus Group, 10 October 2022.

25 Interview with an entrepreneur in the construction sector, 8 November 2022.

26 Interview with an entrepreneur in the construction sector, 8 November 2022.

27 Interview with a think tank researcher, 25 November 2022.

28 Interview with an entrepreneur in the construction sector, 8 November 2022.

29 Interview with a think tank expert, 14 October 2022.

an adequate level of skill'.³⁰ The discrepancy between job requirements and qualifications in the construction sector can be attributed to two factors: the poor performance of the Egyptian education system and specific challenges faced by technical schools. Regarding the former, Egyptian degrees do not certify that a candidate is equipped with the necessary skills for the job market according to international standards. In the World Economic Forum's 2018 report, Egypt scored 2.9 out of 7 in the "skills pillar", which assesses the general level of skills in the labour force, as well as the quantity and quality of education. This ranking placed Egypt 99th out of 134 countries.³¹ With respect to higher technical education for the construction sector, several studies indicate that curricula are not up to date. For example, there is a significant emphasis on memorisation rather than the development of creativity, technical skills and innovative thinking.³² Despite recent investment in vocational schools, Egypt needs better educational facilities and more resources. For example, its over-reliance on private tutoring negatively affects poor families.³³

On a final note, with regards to employment practices and prospects in the construction sector, it is useful to add that foreign states (especially in the Gulf) compete for scarce highly-skilled Egyptian construction workers. Neither is the construction sector suited to increasing female labour participation, due to its poor working conditions and emphasis on manual labour, administrative opportunities for better-educated women notwithstanding. The sector employs a small number of female workers, which the CAPMAS estimates to be around 0.6 per cent in 2022.³⁴

In conclusion, although the strategy of generating job opportunities by prioritising the construction sector has partially fulfilled its promise – for example, those employed in the sector do benefit from higher wages – it also shows clear limitations. More jobs are not better jobs and neither are they sustainable without recurrent public capital investment, for which the government has to borrow. Moreover, interviews show that the sector does not generate many stable jobs. The hierarchical implementation of public works, competition for jobs (given large numbers of annual labour market entrants) and the mismatch between education and the job market have remained obstacles to providing better work opportunities, especially for young and educated Egyptians. On balance, construction sector dynamism has probably served the interests of the power elite – particularly the military, which has invested highly in the sector – more than those of citizens. Otherwise put, it has primarily benefited large entrepreneurs with political connections, as well as smaller entrepreneurs who work as sub-contractors. However, the high costs of major construction projects have forced political authorities to work with (international) business partners to complete such works. Strong overreliance on the construction sector also forces Egypt to continuously attract foreign investment to boost economic development with public works that are not always urgent or necessary. It is for all these reasons that the

30 Interview with an entrepreneur in the construction sector, 8 November 2022.

31 Klaus Schwab, K. 2018. 'The Global Competitiveness Report', *World Economic Forum*, <https://www3.weforum.org/docs/GCR2018/05FullReport/TheGlobalCompetitivenessReport2018.pdf> (Accessed 6 January 2023).

32 'How will Egypt Reform its Education System?', 2020. Oxford Business Group, <https://oxfordbusinessgroup.com/reports/egypt/2020-report/economy/forging-ahead-new-reforms-investment-and-initiatives-are-aimed-at-fixing-ongoing-problems-and-transforming-perceptions-of-education> (Accessed 6 January 2023).

33 European Training Foundation, 2022. 'Vocational and Technical Education Guiding Career Development in Egypt', 15 November, <https://www.etf.europa.eu/en/news-and-events/news/vocational-and-technical-education-guiding-career-development-egypt> (Accessed 25 April 2023); Habibi, N. and El-Hamidi, F. 2016. 'Why Are Egyptian Youth Burning Their University Diplomas? The Over Education Crisis in Egypt'. Middle East Brief, Brandeis University, Crown Center for Middle East Studies, 102, September, <https://www.brandeis.edu/crown/publications/meb/MEB102.pdf> (Accessed 17 January 2023).

Schomaker, R. 2015. 'Accreditation and Quality Assurance in the Egyptian Higher Education System'. *Quality Assurance in Education*, 23(2), 149-165, <https://eric.ed.gov/?id=EJ1055961> (Accessed 14 January 2023).

34 *Ibid.*

current model appears unsustainable in the medium-to-long term and risks disappointing citizens' expectations for better job opportunities.

Underutilised potential: the ICT sector

The information and communication technology sector (ICT) has featured less prominently than the construction sector in Egypt's strategy to boost employment. There are at least four reasons for this. First, the ICT sector is smaller than Egypt's construction sector and therefore has less employment potential in absolute terms. The most recent estimation by CAPMAS indicates that the ICT sector employs only 220,000 workers,³⁵ comprising around 0.8 per cent of the total workforce in Egypt. This is 1/18 of the construction workforce.³⁶ Second, ICT requires a more specific skills set (e.g. coding). Under the prevailing social contract, political authorities have prioritised job creation for the large number of citizens who have not completed tertiary education, to ensure their loyalty. The aim is to avoid giving them reasons to either instigate or join protests that could pose a threat to political stability and the political authorities' hold on power. Third, the ICT sector is highly internationalised, meaning that job opportunities are at least as much the result of international competition as they are of economic decisions by the government. Currently, a large percentage of ICT workers perform their activities remotely for international companies.³⁷ Finally, the ICT sector is mostly privately owned, which makes it difficult for political authorities to take political credit for providing job opportunities. For the same reason, the payoff for members of the power elite is lower. In brief, investing in the ICT sector serves Egyptian political authorities less well than investing in the construction sector

with regards of their goal to cement their power. Taken together, these elements suggest that the ICT sector can make a substantial contribution to the Egyptian economy, especially by generating new jobs for the urban educated middle class and by serving as a driver of growth for other sectors through digitalisation.

When examining employment opportunities in the ICT sector, it becomes evident that there is more potential for growth than is currently being utilised. One respondent emphasised that 'Egypt has a competitive advantage compared with neighbouring countries thanks to its long tradition in this sector.'³⁸ Since the 1990s, in fact, several ICT companies have outsourced their activities to Egypt. Despite recognised efforts to support ICT growth, especially by the MCIT,³⁹ Egypt's political authorities could do more to make this sector a real driver of the economy. The main issue is that, for several reasons, Egyptian start-ups currently struggle to move beyond their initial success. Still, respondents argue that Egypt's lack of sufficient highly-skilled ICT workers is one of the main obstacles to growth. This is surprising when considering that Cairo produces around 50,000 graduates with an IT-related degree per year out of a total of 480,000 university graduates.⁴⁰ However, respondents stress that the Egyptian education system provides fresh graduates with only basic IT skills, which are insufficient to enter the current job market. Many jobseekers have to attend expensive additional courses to increase their employability. This translates into unequal access to the job market, since Egyptian graduates come from different economic backgrounds. For example, one participant in the focus group pointed out that 'the ICT sector is very broad and, in university, the students get only basic knowledge. Many additional courses and self-development are

35 CAPMAS, 2022. 'Egypt in Figures', https://www.arabdevelopmentportal.com/sites/default/files/publication/egypt_in_figures_lml.pdf (Accessed 18 January 2023).

36 *Ibid.*

37 This point emerged in several interviews with ICT experts and entrepreneurs.

38 Interview with an ICT expert, 5 November 2022.

39 This ministry was established in 1998.

40 Egypt's ICT Industry Expected to drive Economic Growth, 2022. Oxford Business Group, <https://oxfordbusinessgroup.com/reports/egypt/2022-report> (Accessed 19 January 2023).

required to specialise.⁴¹ A technician team leader added: ‘At the moment, the ICT sector is growing very fast and new investors require a very high level of skills. Consequently, individuals with obsolete knowledge and skills will find no jobs.’⁴² One expert respondent suggested that ‘industry and business should work closely with academic institutions, whether private or public, to identify the required skill sets’⁴³ to overcome the mismatch between demand and suitably qualified staff.

Respondents also pointed to the highly competitive global environment in which ICT companies operate as a key factor contributing to the lack of highly-skilled ICT staff to boost the domestic economy. Such individuals can find better opportunities by working remotely. As an ICT entrepreneur stressed, ‘the competition for hiring workers has become one between the national market and the global one.’⁴⁴ Moreover, according to a respondent working for an Egyptian ICT business incubator, local companies face tight competition from ‘the bigger Western companies like Microsoft and Vodafone, which have opened subsidiaries in Egypt and can easily afford higher salaries’.⁴⁵ As another respondent in a focus group pointed out, ‘the turnover rate between firms is very high as juniors can easily shift to other firms with better offers. Hence, Egyptian firms usually suffer from a lack of human resources.’⁴⁶

Finally, obstacles to job generation via ICT sector growth include government-imposed limits on private investment in internet infrastructure, and Egyptian companies’ limited access to private and public capital. Regarding the need for private investment in internet infrastructure, one respondent indicated that setting up data centres in the country is complicated due to

intrusive political regulations. As an ICT expert pointed out, ‘an investor cannot just build a data centre. There are only a few private data centres in Egypt associated with telecommunication companies. All others are built by government agencies or state-owned enterprises.’⁴⁷ Such practices limit the prospects of foreign companies investing in Egypt when their business model is data-based. Regarding access to private and public capital, a respondent working for the World Bank pointed out that it is difficult for private companies to access capital via banks as the latter prefer to invest in traditional projects that come with a financial guarantee from the government.⁴⁸ According to a respondent who works as an incubator for Egyptian start-ups, it is also complicated for companies to access public stimulus funds due to the amount of paperwork and delays in getting a decision.⁴⁹

Egypt’s political authorities thus face a dilemma. They can accept a substantial foreign presence in the ICT sector that can provide their citizens with job opportunities via the private sector, but this limits their influence and benefits for the power elite. Or they can encourage a stronger domestic ICT sector, but this cannot be done through the usual statist approach and requires time to bear fruit. In both cases, greater job generation will have to be realised by methods that ‘undermine’ central economic control, producing political consequences. Nevertheless, a targeted government effort to support ICT growth could make a difference, when focusing on removing the key obstacles to growth faced by small companies. Interviews highlighted the importance of promoting high-quality ICT-related courses in Egyptian universities, supporting local start-ups with investment capital, and creating a better context for private investments.

41 Interview with a head section engineer, 12 November 2022.

42 Interview with a technical team lead, 12 November 2022.

43 Interview with an ICT expert, 5 November 2022.

44 Interview with an ICT entrepreneur, 2 December 2022.

45 Interview with an incubator expert, 9 December 2022.

46 Interview with a software sales and marketing director, 12 November 2022.

47 Interview with an ICT expert, 15 November 2022.

48 Interview with a World Bank expert, 4 November 2022.

49 Interview with an incubator expert, 9 December 2022.

Conclusions

Under al-Sisi's presidency, Cairo has partially fulfilled the expectations of its citizens regarding better employment opportunities. This is because many jobs that have been created are of low quality and offer poor working conditions. This is a consequence of an economic strategy that prioritises the interests of the power elite and consolidates al-Sisi's rule through investments in new infrastructure projects. While the booming construction sector has provided jobs, particularly for low-skilled Egyptians, they come at a high cost since their upkeep is expensive. Egypt's overreliance on a sector dominated by informality has also produced unstable incomes for many employees, which impedes the stable growth of domestic consumption.⁵⁰ Furthermore, the limits of growth via construction are becoming increasingly evident in the form of high inflation and mounting foreign debts.⁵¹ This makes Egypt dependent on continuous loans and investments from foreign countries and major financial institutions. Egypt is now the IMF's second-largest debtor. Its foreign debts having quadrupled since 2014. Should capital inflows decrease in the coming years, Cairo will struggle to provide job opportunities for its many unskilled new labour market entrants. This scenario is likely to have negative effects on long-term political stability since it undermines Egypt's social contract.

This state of affairs points to a need for change in the current model for generating jobs in Egypt. Such a change requires the political authorities to shift their focus from construction to sectors like ICT that can generate both fiscal revenues and employment opportunities in a more sustainable fashion. Yet this requires a lighter regulatory touch and a more targeted investment promotion strategy that relies more heavily on the private sector. A complementary

strategy to maintain support from the power elite would also be required. Decent growth in the ICT sector has so far occurred in the absence of strong government support, which begs the question of what could be accomplished with more robust backing by the country's political authorities. However, greater investment by itself will not be sufficient. Some political reform is inescapable, and the following measures could help lift the sector to a higher level of growth and performance:

- Establish a small network of high-level educational institutions to equip talented students with up-to-date ICT skills. Access to these colleges and universities can be facilitated through scholarships. Partnerships with foreign institutions and companies can help scale up such an endeavour.
- Ensure that curricula are updated more regularly and in line with international skills standards as well as good practices to facilitate students' access to the job market after their graduation.
- Encourage foreign investment and business opportunities in the ICT sector by revising regulations that hinder private investment in data centres and internet infrastructure. The government's current efforts to maintain its influence in these two areas have been largely counterproductive.
- Diversify public investment from the construction sector to ICT. Investments in the fintech industry are an especially promising catalyst since government sources indicate that these already increased from US\$190 million to \$850 million in 2022 alone, without public intervention.⁵²

50 'Egypt Consumer Confidence', *FX Empire*, <https://www.fxempire.com/macro/egypt/consumer-confidence> (Accessed 10 January 2023).

51 'International Debt Statistics' 2016. *World Bank*, <https://openknowledge.worldbank.org/handle/10986/23328> (Accessed 10 January 2023).

52 El Sawy, N. 2022. Venture Capital Investments in Egypt Expected to cross \$1bn in 2022, *The National News*, 14 March, <https://www.thenationalnews.com/business/2022/03/14/venture-capital-investments-in-egypt-expected-to-cross-1bn-in-2022/> (Accessed 10 January 2023).







Even more urgent than introducing a new set of reforms is a paradigm shift that starts prioritising growth over loyalty. In the face of a deteriorating economic situation, Cairo should impress on its power elite that economic growth is in its own long-term interest and that future rents will diminish if the current short-term focus on construction and extractives persists. It is in this context that ICT can serve as a growth catalyst given, as numerous studies have highlighted, its productivity-enhancing role for other economic sectors. A thriving ICT sector will not meet

all demand for employment but it can, for example, help businesses expand their market by enabling e-commerce strategies that in turn can increase employment across the economy. International partnerships can also enable small and medium-sized Egyptian companies to increase their international presence, thus enabling further innovation. Such a shift can generate further employment for young citizens. As a path towards growth, the ICT sector is clearly signposted – but it will need to be followed.

About the Clingendael Institute

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