Morocco: Growth Diagnostics

Jubing Ge
Mufitcan Atalay
Yingjia Liu

1. Executive Summary

Morocco's growth in the past 20 year has been consistently positive as it has moved from a mostly agricultural economy to industry and services. This was a result of education reform, infrastructure improvement, economic reform, and privatization that has taken place in the last 20 years. Taking advantage of its privileged geographic position as it is on the edge of continental Europe, Morocco has been able to integrate itself into several European supply chains. Even with all these achievements and sustained political stability, Morocco's GDP growth rate as well as the shift from agriculture toward industry and services has slowed down. If Morocco's is to continue growing at a similar rate to the mid 2000s and become an upper middle income country then it must figure out **how Morroco can increase the productivity and competitiveness of economic activity**.

Our team's binding constraint analysis suggests that the low quality of trade and transport-related infrastructure has limited business activity and caused unequal economic development. On the other hand, as Morocco expands its domestic service industry, its current banking system was incapable of sufficiently supporting this strategy. Thirdly, we also find that the government's day-to-day interactions with business are a significant barrier to firm activity in Morocco. These factors all lead to increased costs and decreased productivity of economic activity and firms in Morocco.

As possible solution and achieve economic development, we have made four public policy recommendations for the Government of Morocco:

1. Promote connectivity via transportation networks across Morocco
2. Improve the business environment through legal reforms and standardization of bureaucratic activity
3. Improve private financial environment and bank efficiency by increasing competitiveness in the domestic banking industry
4. Taking advantage of Morocco's francophone heritage to export goods such as aluminum structure to rapidly growing Sub-Saharan Africa

2. The Morocco Context

2.1 History

The Kingdom of Morocco is a country located in the northwest corner of Africa with a population of 36.472 Million. Part of the North African region known as the Maghreb, Morocco is bordered by Spain, Algeria and Mauritania. Human inhabitance in Morocco can be found as early as 190000 BC, becoming a significant part of many states throughout history such as Phoenicia, the Roman Empire, the Islamic Caliphate and more recently the French and Spanish Colonial Empires.

The current royal dynasty, the Alaouite dynasty, can trace its beginnings to 1631 as princes of Tafilalt and eventual Sultan of Morocco in 1666 in Fez. Many coastal areas of Morocco such as Tangier and Casablanca have a long history of European rule that precedes colonization or were ruled by independent city states often associated with piracy in the Mediterranean such as Rabat and Salé. Unlike neighboring Maghreb regions, Morocco was not made a full protectorate by the French until 1912, however the northern coast of Morocco was a part of the Spanish Empire since the 1860s.

Morocco achieved independence in 1956 after the return of its banished Sultan and became a Kingdom. Morocco held elections in 1963, but the parliament was suspended by King Hasan II, establishing one of the most authoritarian states in Africa until his death in 1999. Large Christian and Jewish communities in urban centers around Morocco dwindled; Currently Arab-Berbers and Muslims make up 99% of the population. Since the rule of Mohammed VI in 1999, Morocco has followed a policy of privatization and structural reforms that has led to stable inflation rates. Additionally, Mohammed VI has instituted significant political and social reforms such as more women's rights, recognition of the Berber language as a state language and delegating more authority to the prime minister.

2.2 Economic and Social Context

Morocco has a nominal GDP per capita of $3,441 (2019 estimate) and a nominal GDP of $119.040 billion (2019 estimate), making it the 5th largest economy in Africa and 10th largest economy in the Middle East. Roughly 80% of the economy is employed in the informal, with services accounting for exactly 50% of the GDP, industry (mostly mining, construction and textile manufacturing) account for 25.9%, while the rest is agriculture. Morocco, unlike many of its peer countries in North Africa, has a very large percentage of the population still employed in agriculture, with at least 35% of the employed population working in Agriculture. Female labor force participation rate is similar to other North African countries around 24.2%, but is well below the average of countries classified as Upper Middle Income by the World Bank at 43.2% and even the average of countries classified as Middle Income by the World Bank at 36.8%.

	Morocco	Algeria	Tunisia	Egypt	Argentina	Turkey	Chile	Spain
Population (millions, 2018)	36.029	42.228	11.565	98.423	44.494	82.319	18.729	46.796
GDP (Billion USD, 2018)	117.9	173.7	39.9	250.9	519.8	771.4	298.2	1,419.0
GDP per capita (USD, 2018)	3,222	4,114	3,447	2,549	11,683	9,370	15,923	30,323
GDP per capita, PPP (USD, 2018)	8,611	11,759	11,009	11,643	23,300	28,139	24,763	40,483
Urbanization rate (%)	62	73	69	43	92	75	88	80
Projected 2027 growth Rate (%, CID)	4	2	5	7	2	5	3	3
Complexity ranking (CID)	90	108	44	68	72	38	69	32
Exports (as % of GDP)	39	26	49	19	14	30	29	35
Employment in Agriculture (%, ILO)	35	10	13	24	0.05	18	9	4
Gini Index	40	28	33	32	41	42	44	35
HDI Rank (UNDP, 2018)	121	82	91	116	48	59	42	25

Table 1.1: Morocco, its peers and benchmark countries illustrated

Despite common mischaracterizations of the Middle East and North Africa, Morocco has a diverse climate with 95% of the Moroccan population living in Mediterranean, oceanic or alpine climates. Large urban centers such as Casablanca, Rabat and Tangier account for large parts of economic activity, with Casabalanca representing almost 1/3 of all economic activity in Morocco.

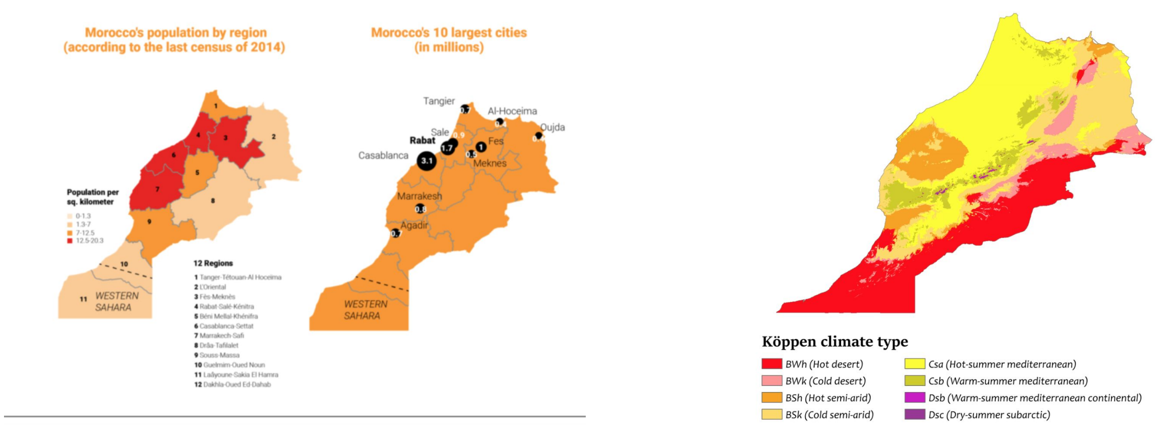
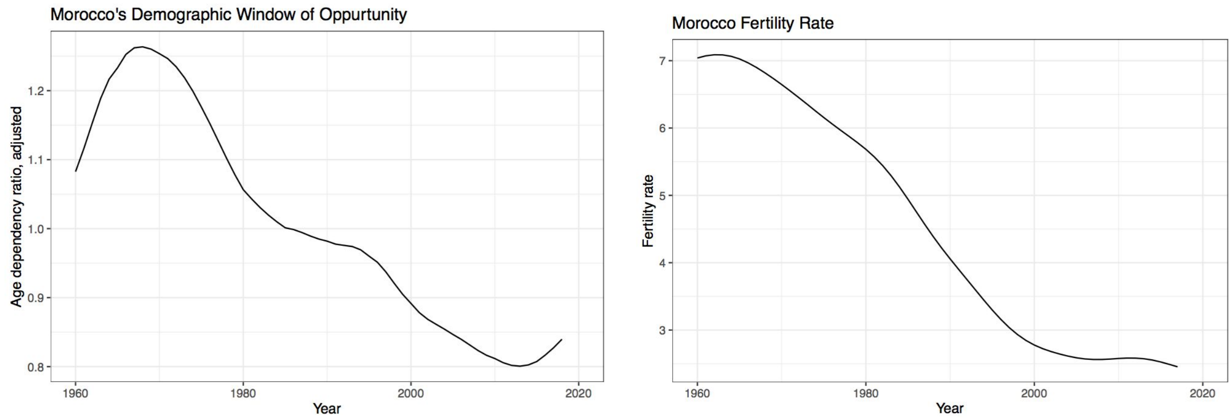


Figure 2.1.1-3: Moroccan population distribution, cities and climate

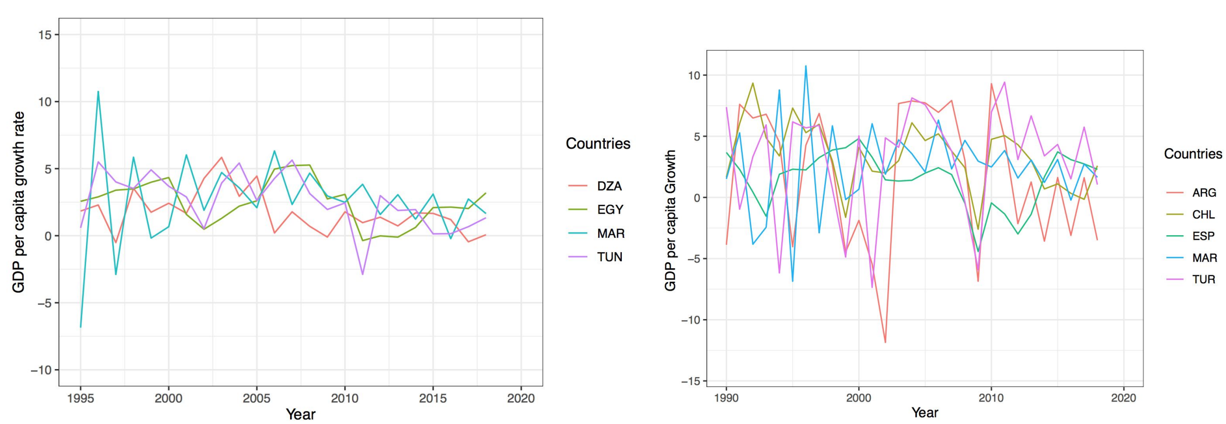
Demographically Morocco has a declining population growth rate of 1.25%, which is mostly due to steeply declining fertility rates in the past 20-30 years. In addition to this, the adjusted age dependency ratio shows that Morocco is still in the demographic window of opportunity. Life expectancy at 76 is similar or above other North African countries and is at the same level as the average of countries classified as Upper Middle Income by the World Bank. 99% of the population identifies as Arab-Berber and Muslim.



Figures 2.2.4-5: Morocco's adjusted age dependency ratio and fertility rate

2.3 Growth Story

Before 1999 growth rates in Morocco were quite volatile, but since 1999 Morocco has had consistently positive growth rates. Regionally, these growth rates were either highest in North Africa or above the average of North African countries since 1999. GDP per capita level growth was particularly high during the 2000s due to high rainfall. With respect to benchmark countries, we see a similar pattern where Morocco tends to be around average of the benchmark countries and much more consistently positive than the benchmark countries since 1999. In this respect it can be said that Morocco's past policies have been largely successful.



Figures 2.3.1-2: GDP per capita growth rate vs peer countries and benchmark countries

However, there has been a slowdown in economic growth in the past 5 years or so, dropping Morocco to average growth over the past 5 years to below 2.5%. While with respect to its peers and some of its benchmarks this growth is still above average, nonetheless this could possibly foreshadow the beginnings of a possible downturn, acting as a warning sign for a change in policy before the state of the economy gets worse.

Moroccan exports have grown quite rapidly since 1999 when exports totaled $12 billion dollars, reaching $46.8, representing a 383% increase in exports. A large amount of this increase came from minerals, machinery and services. The growth in minerals can be explained by the fact that Morocco contains Morocco contains 75% of the world's known phosphate reserves[1]; however, if you look at the last new products added to Morocco's export basket, it is clear that more complex products like cars and car parts have been playing a larger role more recently. It is a good sign that newly added export products are more complex and that growth in exports have been fueled by these more complex exports in the past. Nonetheless, Morocco's current export basket is not particularly complex, even though it is quite diverse in terms of sectors.

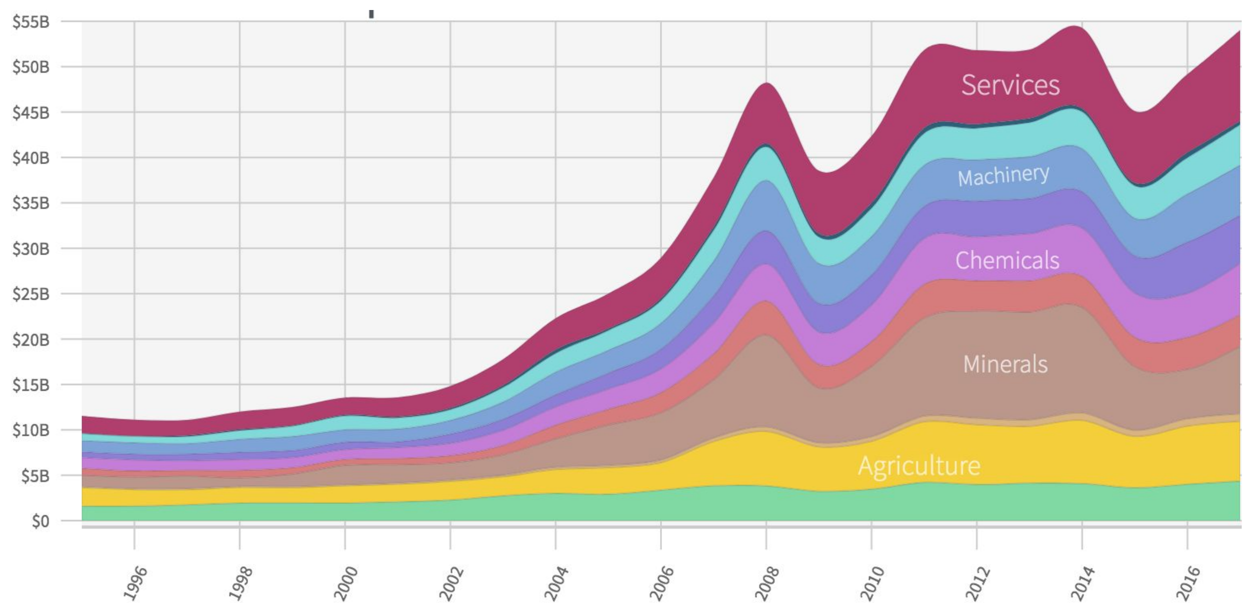


Figure 2.3.3: Moroccan exports over time

[1] Alex Kasprak, "The Desert Rock That Feeds the World," *The Atlantic*, November 29, 2026.

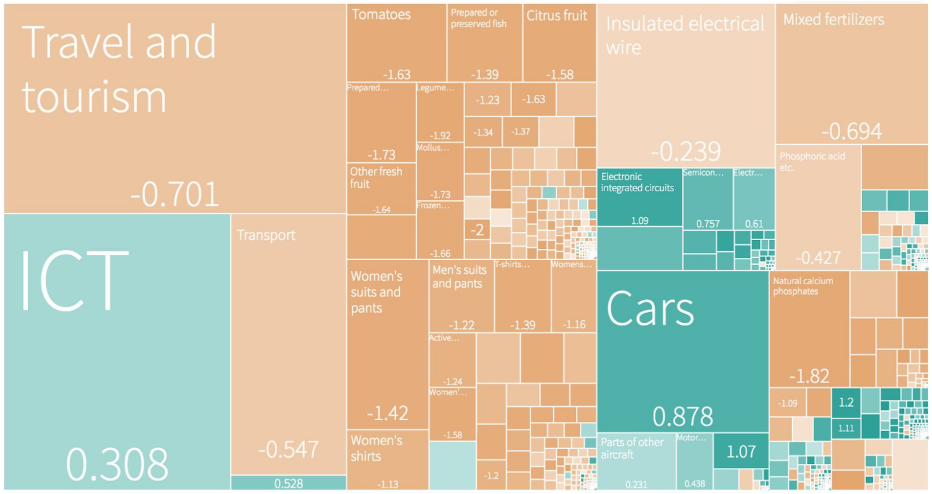


Figure 2.3.4: Moroccan exports in 2017 by complexity

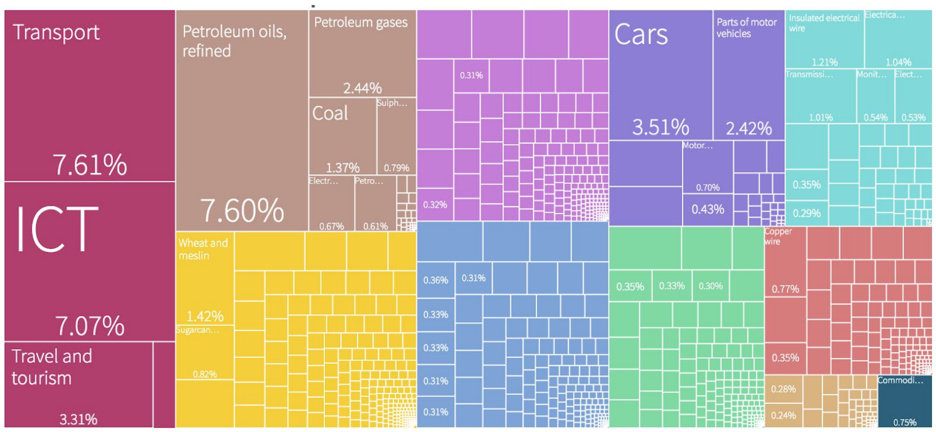


Figure 2.3.5: Moroccan exports in 2017 by sector

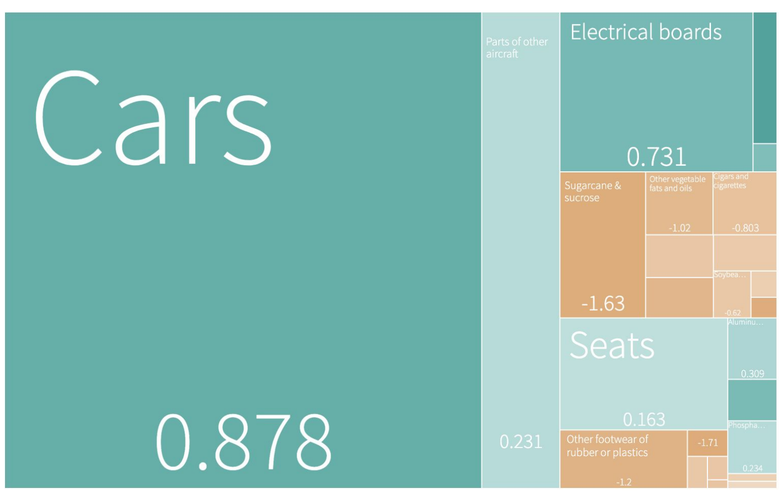


Figure 2.3.6: New Moroccan export added in 2002-2017, by complexity

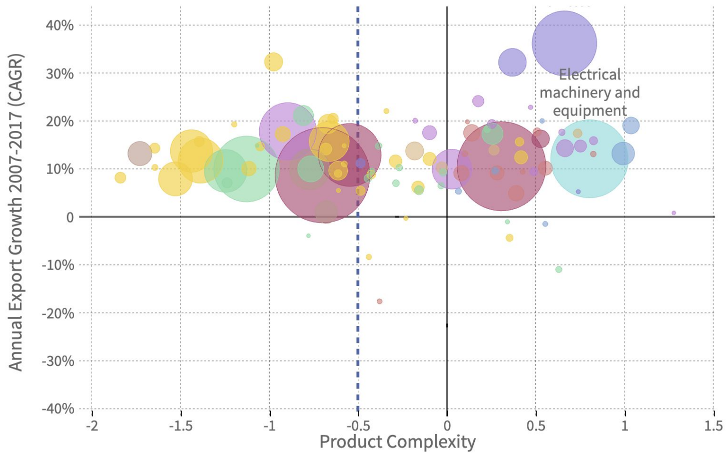


Figure 2.3.7: Growth of export goods in Morocco and Complexity, 2002-2017

Between 2002 and 2017, Morocco was not a high performer within its peer group in terms of number of export products added to its export basket, but these products were high-value added goods that lead to the highest total increase in exports due to newly added goods. Morocco's over performance of its peer group to its benchmark group in almost every single category can be explained by the fact that the benchmark countries are richer and are therefore less likely to add a large number of goods. In terms of complexity and diversity, Morocco overachieved relative to its benchmark countries, but this can also be explained in a similar manner. Morocco achieved below average improvements in export diversity and complexity relative to its peers, which is a potential sign that Morocco's steady growth of the past 20 or so years may be coming to an end.

2002-2017 values/countries	Morocco	Algeria	Tunisia	Egypt	Argentina	Turkey	Chile	Spain
New Products	25	2	41	58	11	22	8	22
USD per capita	132	6	134	32	36	91	10	84
Total Value (Billion USD)	4.7	0.236	1.53	3.09	1.6	7.4	0.194	3.93
Diversity rank change	6	-5	13	16	-9	4	-14	1
Complexity rank change	9	-6	16	16	-13	18	-1	-9

Table 2.3.1: Morocco vs peers and benchmarks with respect to exports

2.4 Political Economy

Politics of Morocco take place in a framework of a parliamentary constitutional monarchy, whereby the Prime Minister of Morocco is the head of government, and of a multi-party system. Executive power is exercised by the government. Legislative power is vested in both the government and the two chambers of parliament, the Assembly of Representatives of Morocco and the Assembly of Councillors. The Moroccan Constitution provides for a monarchy with a Parliament and an independent judiciary.

On June 17, 2011, Mohammed VI announced a series of reforms that would transform Morocco into a constitutional monarchy. Before 2011 electoral rules were structured such that no political party could ever win more than 20 percent of the seats in the parliament. While these political reforms since the ascension of Mohammed VI to the throne have improved political engagement, voter turnout at national elections remains below 50% (43% in 2016 and 45.6 % in 2011). More importantly, while these reforms have improved the autonomy of the government the King still maintains the constitutional right to to terminate the tenure of any minister, to dissolve the Parliament after consultation with the two assemblies, suspend the constitution, call for new elections, or even rule by decree. Additionally, the judges to the supreme court of the Morocco governors to the 12 administrative regions are still appointed by the King.

In such a political environment, the political economy of Morocco continues to revolve around the King. Furthermore, the Société Nationale d'Investissement (SNI) or National Investment Company, a holding company that owns the largest banking, retail and telecoms company in Morocco, is majority owned by members of the Moroccan royal family. Both politically and economically, significant control is in the hands of the King of Morocco.

2.5 Growth Question

It is clear from the state of the Moroccan economy in the past 20 years and social-political reforms instituted by King Mohammed VI that Morocco is a well managed country. The addition of cars and high complexity goods into its exports are signs that bode well for the future of the Moroccan economy, but warning signs that the current state of affairs could come to a halt are present. Average economic growth in the last 5 years has fallen below 2.5%, unemployment rates have remained high, especially for people with intermediate and higher education, youth, and the urban population. Specifically, Morocco’s overall unemployment rate has remained at about 10% in the past 15 years.

The question for Morocco is to sustain this level of growth into the future by establishing itself as an upper middle income country. In this sense Morocco has to make a “jump” economically from its current state to that of its benchmark countries. The magnitude of this difference and how large of a challenge this “jump” presents can be very easily seen when comparing GDP per capita when measured with purchasing power parity.

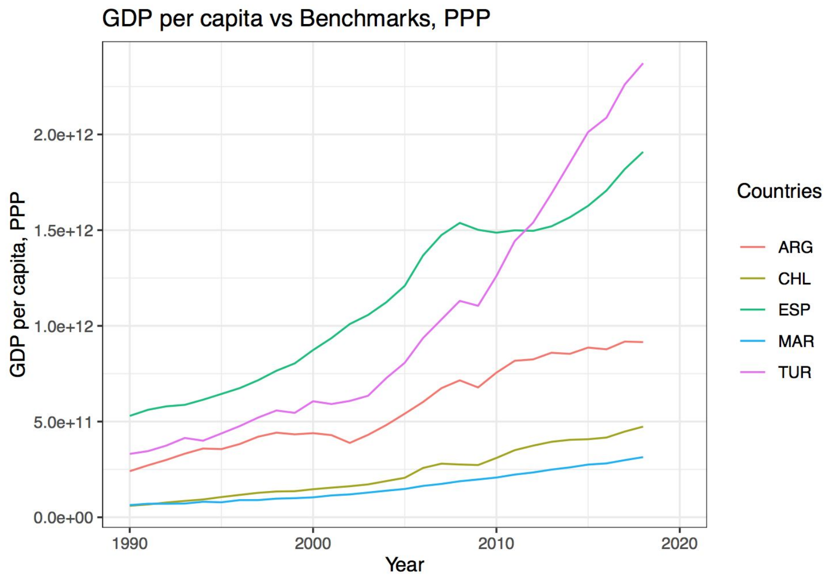


Figure 2.5.1: GDP per capita, PPP vs benchmark countries

It is clearly not possible for Morocco to just “jump” to upper middle income status through rapid economic growth in the short term. Morocco must position itself such that it can slowly increase its per capita growth rate, which is only possible through increases in productivity. In this sense the central question for Morocco is not necessarily the development of a single industry, but the overall increase in the productivity of Moroccan firms so that Moroccan goods can become more competitive in the global economy and draw investment from abroad. The growth question can therefore be postulated as:

How can Morocco increase the productivity and competitiveness of economic activity?

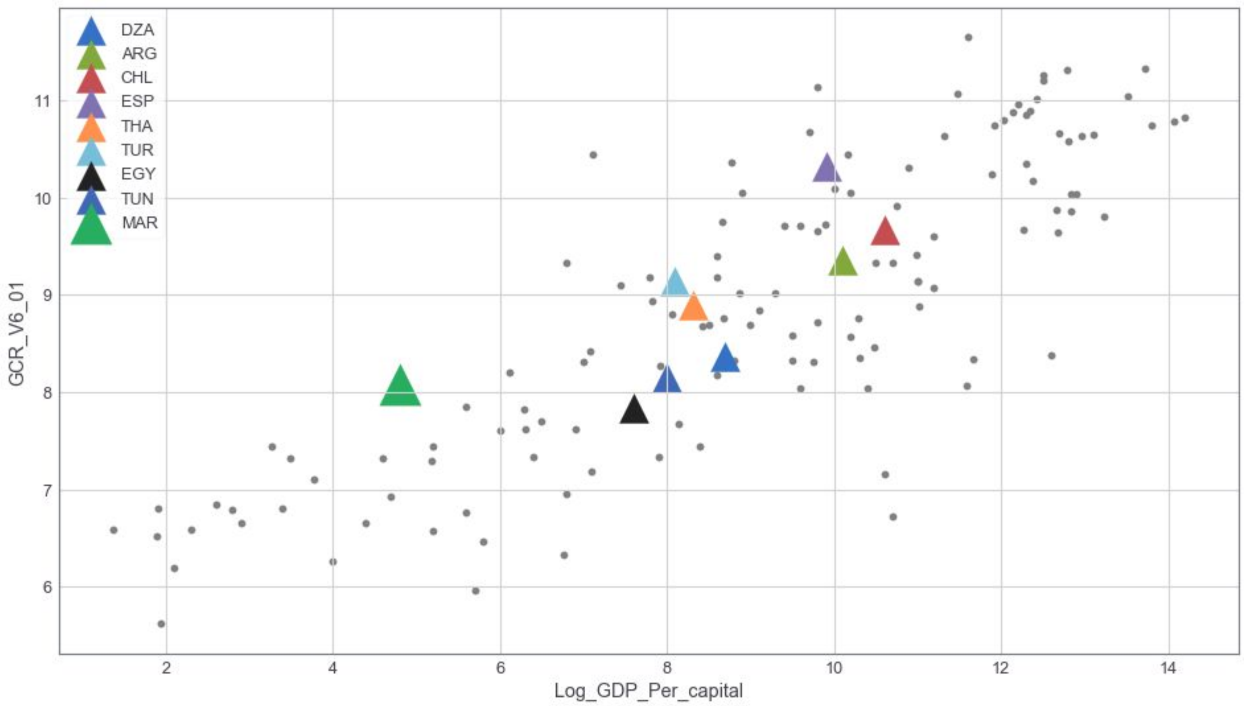
3. Dismissed Constraint Analysis

3.1 Human Capital

Generally speaking, human capital currently is not a binding constraint for Morocco's economy, but it may become a binding constraint in the long run, given that Morocco is positively pursuing its economic reformation by increasing the service department weight.

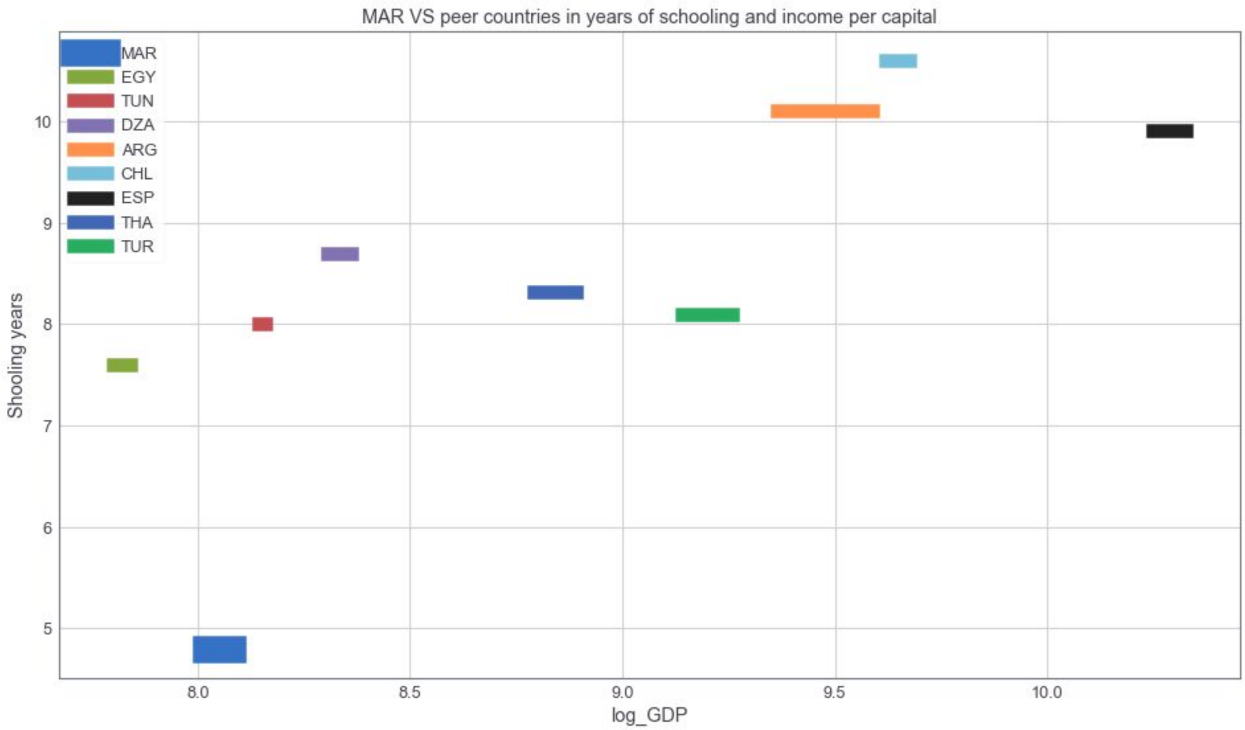
From the quantity and quality of Morocco's human capital perspective, Morocco's educational output is at a global low level, especially when comparing its peer countries. Graph 3-1-1 Countries' GDP per capita and schooling years in 2018 show that Morocco is in the middle level (the green triangle). For comparison, the peer countries are all in a similar schooling year position with Morocco but are associated with higher GDP per capita. This indicates Morocco has a lower capacity to convert its education to GDP per capita.

Figure 3-1-1 The relationship between GDP per capita and years of schooling



However, this low level of education capability didn't constrain its economic development. Figure 3-1-2 illustrates the relationship between Morocco and its peer countries' schooling years and capital development in a time-series manner, and the figure indicates that Morocco's economy has seen a not small growth with the same level schooling year. This means even Morocco hasn't seen an increase in its education quantitative, and the economy still has a great increase anyway.

Figure 3-1-2 MAR VS peer Countries in years of schooling and income per capita



What's more, Morocco's current education situation fits its economic pattern and can meet the economy's development requirements. 3-1-3, 4, 5 illustrate Morocco's enrollment rate level among other countries.

Figure 3-1-3 MAR VS peer Countries in primary school enrollment rate and income per capita

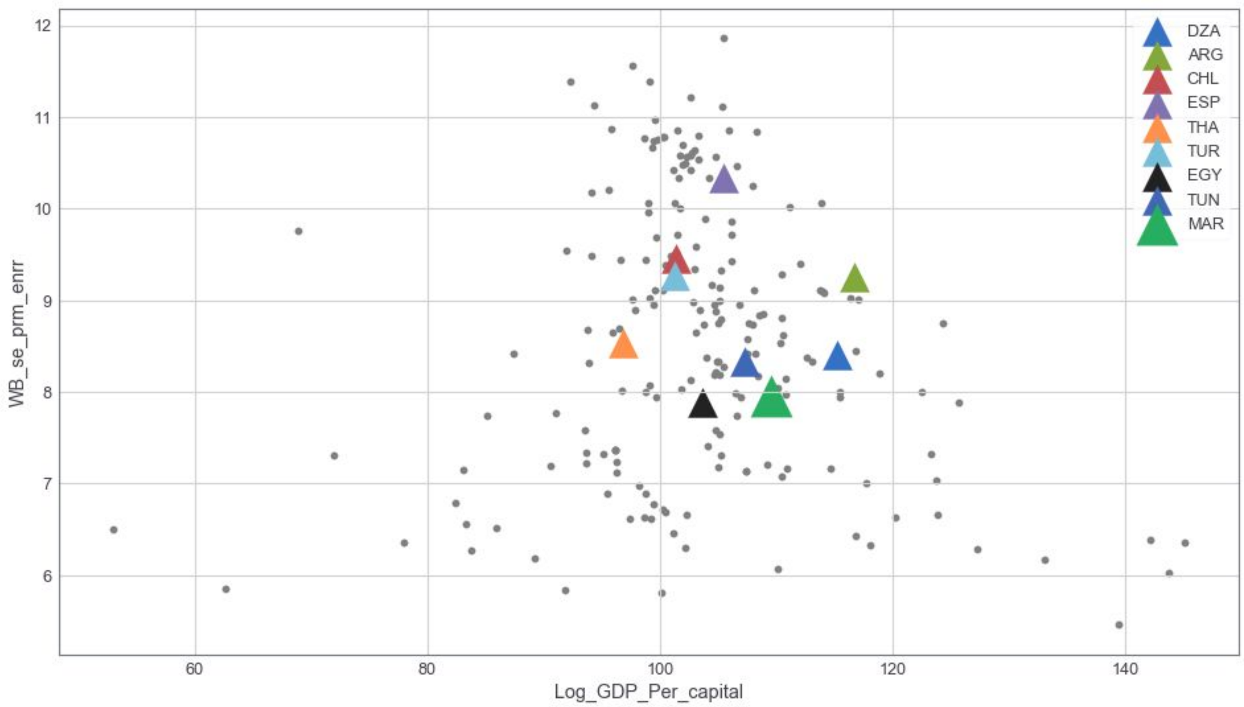


Figure 3-1-4 MAR VS peer Countries in secondary school enrollment rate and income per capita

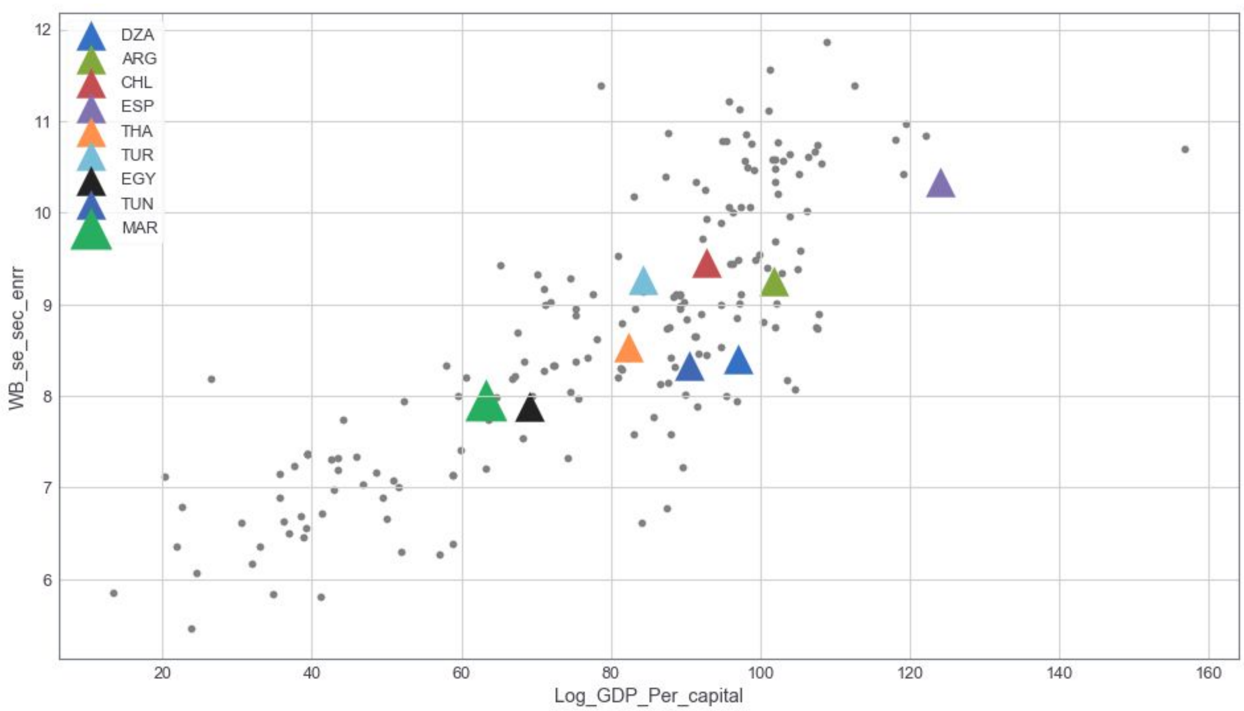
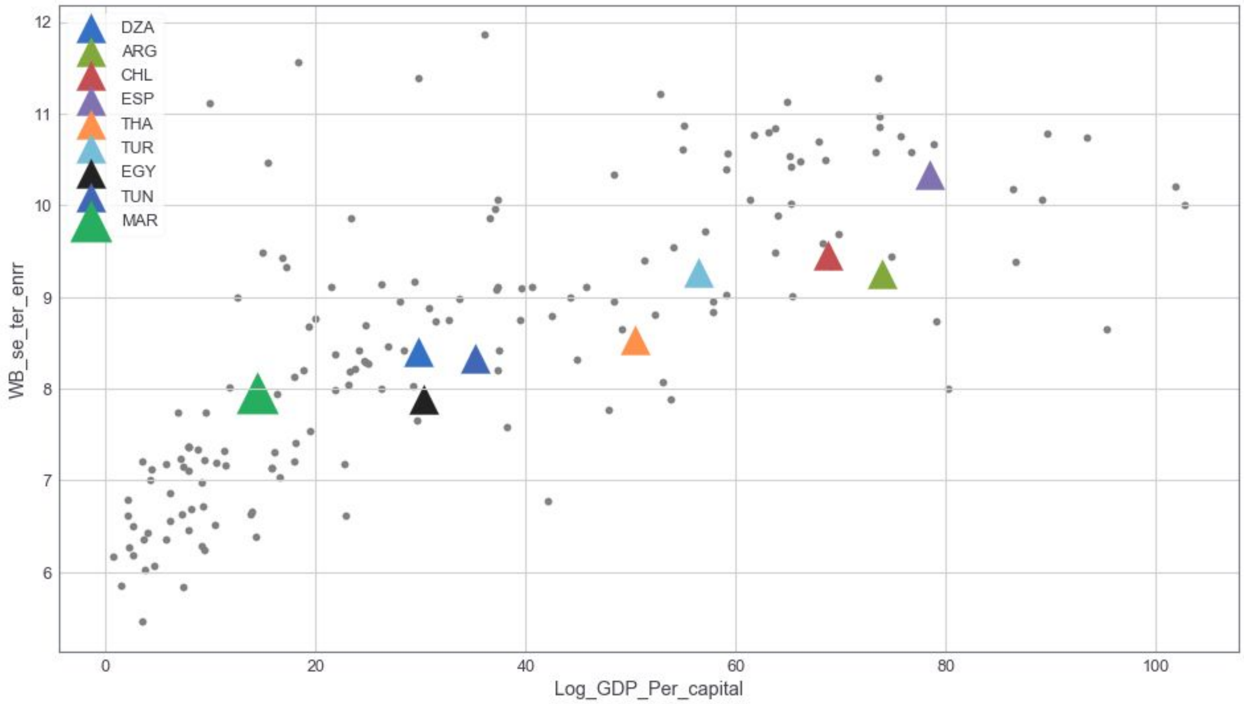


Figure 3-1-5 MAR VS peer Countries in tertiary school enrollment rate and income per capita



In all three-level enrollment, Morocco is all at the international middle level. Besides, its primary school enrollment is in the middle class among peer countries, and the secondary and tertiary level lags far behind its three peer countries by checking the enrollment rate to contribute to the economy. Graph 3-1-6 and 3-1-7 showed Morocco's primary, secondary, and tertiary enrollment rates compared with its GDP per capita from 1971 to 2017. Those data indicate that Morocco's primary education constantly boosts up GDP per capita. Secondary education contributed to GDP in history but now shows a flatter and low correlation relationship, and tertiary education has long been in a low correlation with GDP. This figure can explain why Morocco's educational level was behind its peer countries but fit its economy feature. Traditionally speaking, the agriculture sector, a low complexity sector, occupies the largest share of Morocco's economy, people don't need higher education to be able to meet the needs of agriculture production. For comparison, the industrial sector only occupies the smallest share of Morocco's economy, and its service sector just surpassed agriculture to be the largest economy share. We can safely conclude that the majority of Morocco's population only engages in the low complexity industry.

Figure 3-1-6 MAR VS peer Countries in secondary school enrollment rate and GDP growth

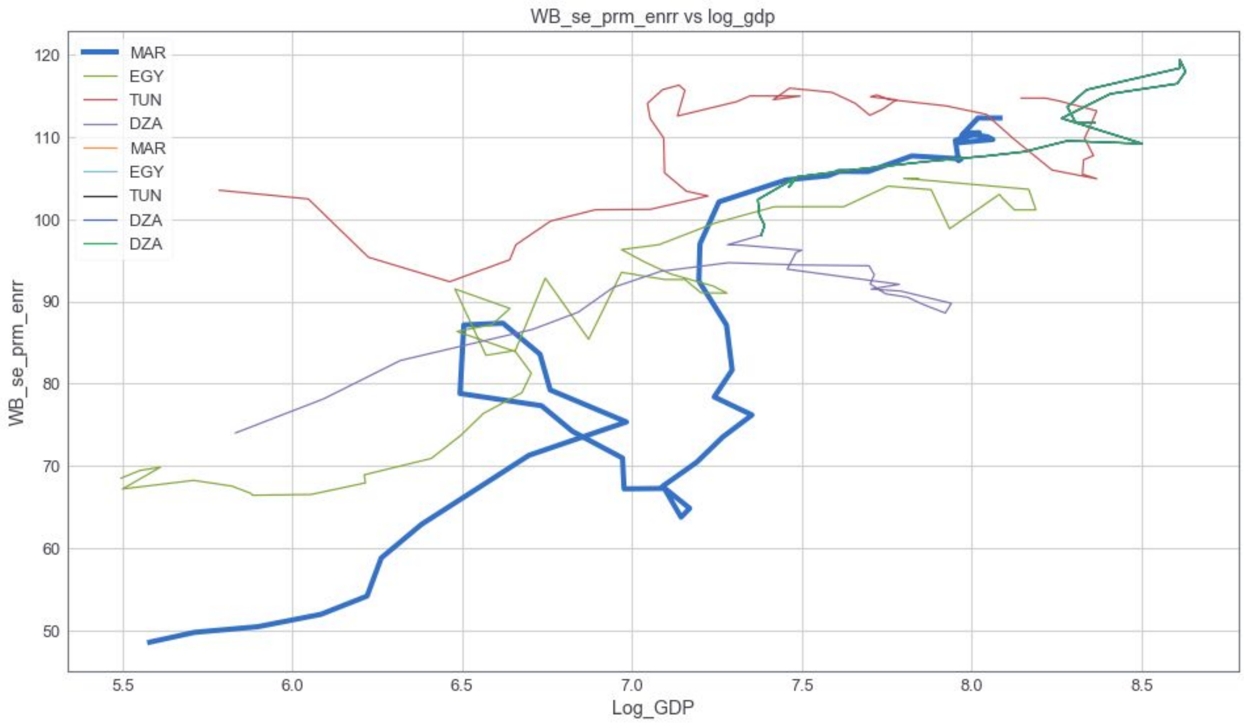
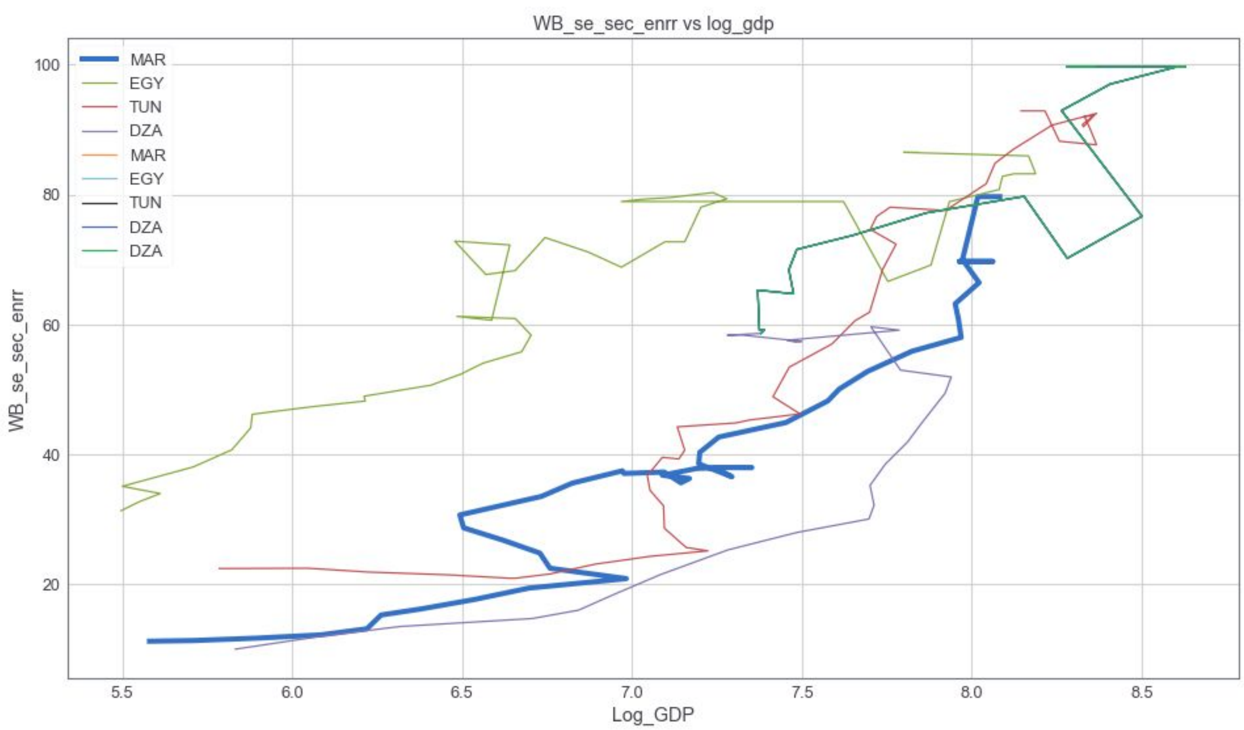


Figure 3-1-7 MAR VS peer Countries in secondary school enrollment rate and GDP growth



Morocco's economic pattern and industrial structure make Morocco less attractive to foreign employees. From figure 3-1-8 (2017) and 3-1-9 (2018) shows the difficulty of a country to attract foreign workers, we can see that Morocco is all at the mid-low level, either at the global or peer countries.

Figure 3-1-8 MAR VS peer Countries in easy of finding skilled employees (2017)

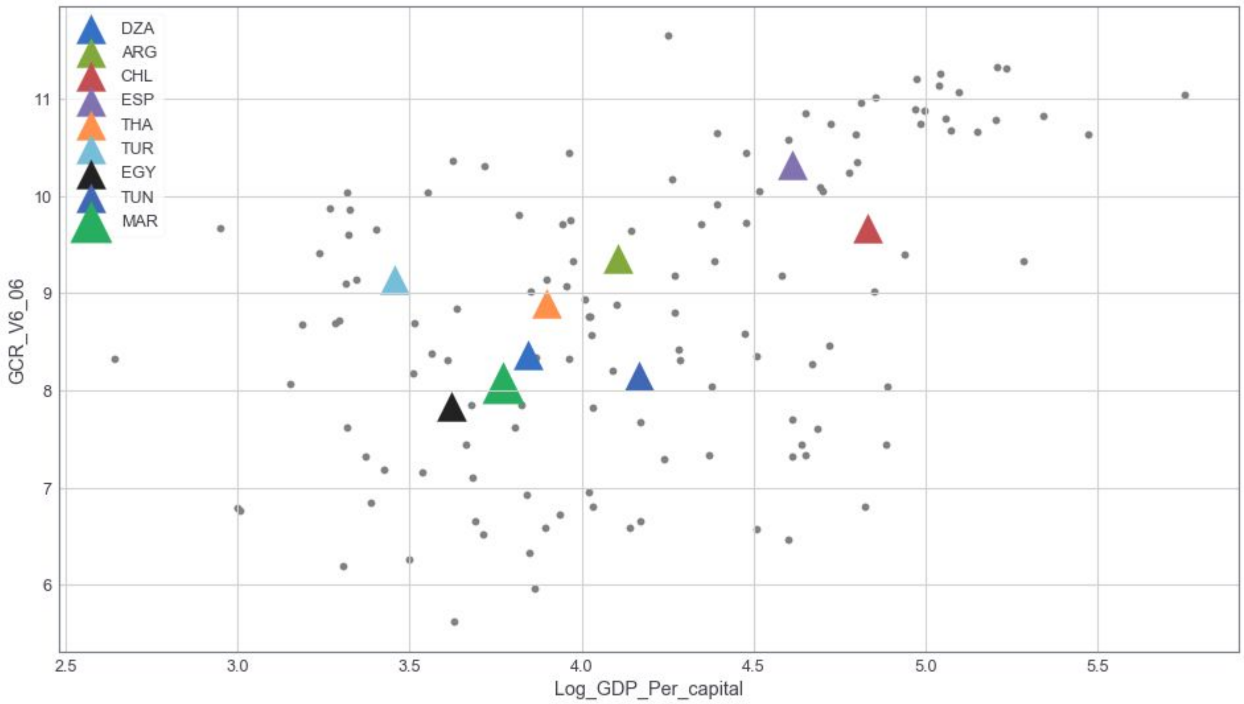
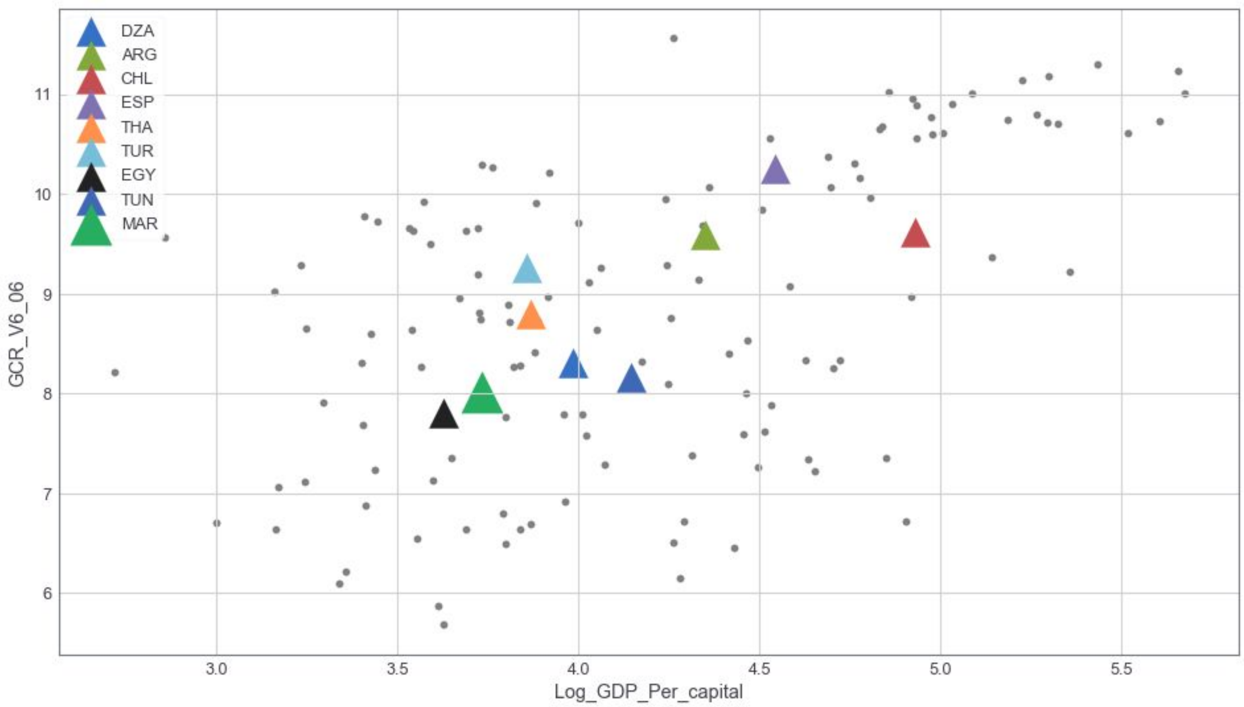


Figure 3-1-9 MAR VS peer Countries in easy of finding skilled employees (2018)



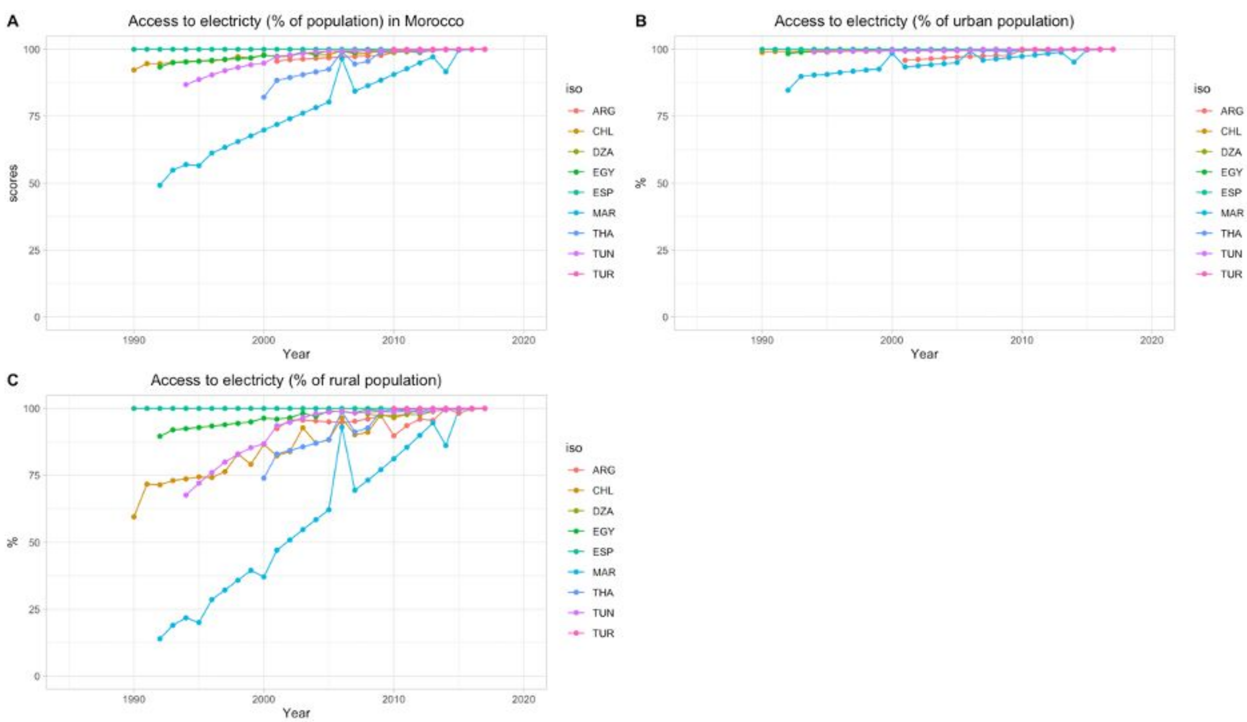
To conclude: There is no evidence to support Morocco's human capital is a binding constraint to its economy, at least currently not. Although at a low educational level, this human capital level is just fitting Morocco's economy features and structure. However, as a trend has been showing up, Morocco is pursuing its economic reformation, and hope the service sector will undertake a more critical contribution to its economy, the currently low-level human capital could be a binding constraint in the future.

3.2 Electricity

Evidence shows that electricity is not a binding constraint for Morocco. From the 1990s, Morocco has made great efforts in electrification, especially rural electrification. Morocco performs well regarding reliable electricity supply, and high efficiency to get an electricity connection. However, a high level of dependence on energy imports makes Morocco vulnerable to global energy market fluctuation.

The rural electrification rate in Morocco has improved significantly since the middle of 1990s. The rural electrification rate increased from 12.5% in the 1990s to nearly 100% after 2015, as Figure 3-2-1 shows, as a result of the Global Rural Electrification Programme (PERG). Back in the 1990s, Morocco had the lowest electrification rates, both rural and urban, among its benchmarking and peer countries. Morocco did make great progress to electrify the whole country in the past twenty years.

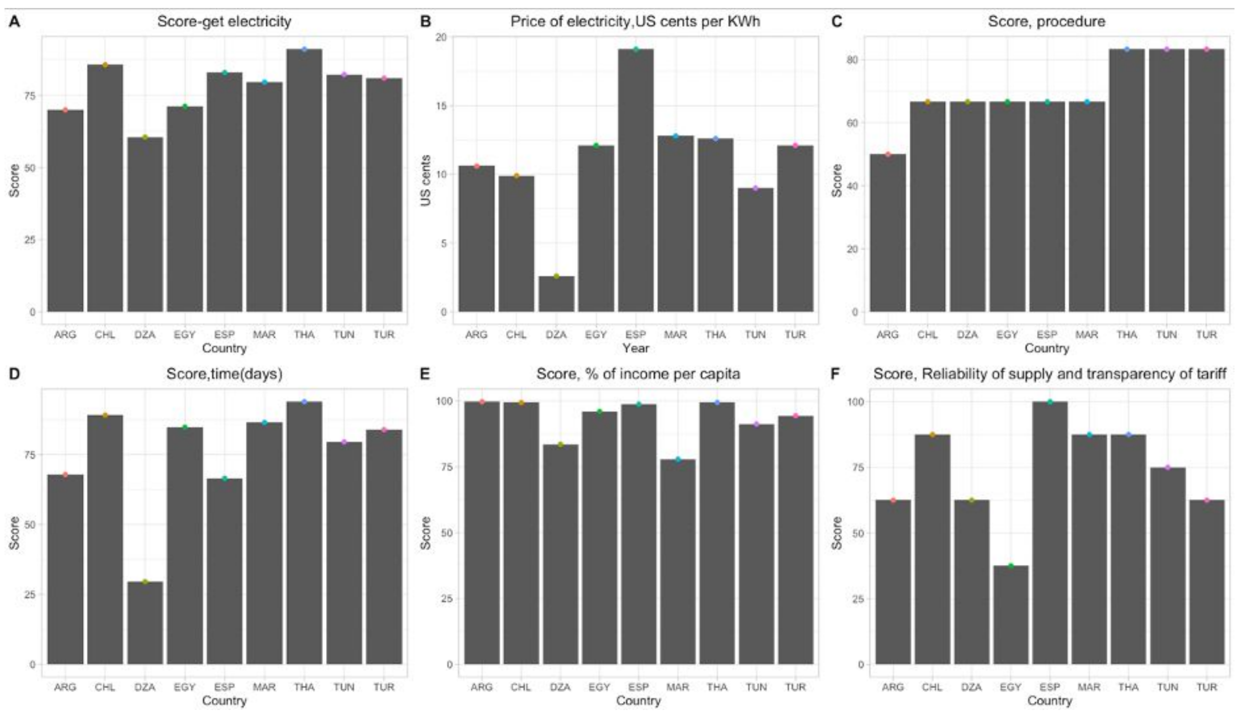
Figure 3-2-1 Access to Electricity



Morocco ranks 34th for “Getting electricity” in the Ease of Doing Business index by the World Bank, which is higher than most of the low-to-middle income countries. This indicator is a useful proxy for the broader performance of the electricity sector. In detail, such high rank is attributed to the efficiency of the connection process and the reliability of power supply and transparency of tariffs.

As figure 3-2-2-D shows, the median duration to complete a procedure with minimum follow-up and no extra payments is relatively high among its benchmarking and peer countries. As Figure 3-2-2-F shows, Morocco has a high score in “Reliability of supply and transparency of tariffs index”, indicating that power outages in Morocco are neither long-lasting nor frequent. Also, the average number of procedures to get an electricity connection is 4 in Morocco, which is lower than that of the average of the Middle East & North Africa region and the average of OECD high income countries. and the average Morocco’s score for procedure is lower than 70, as in Figure 3-2-2-C. Thus, it does not take more procedures to get an electricity connection. This indicates that Morocco’s connection process has a high efficiency.

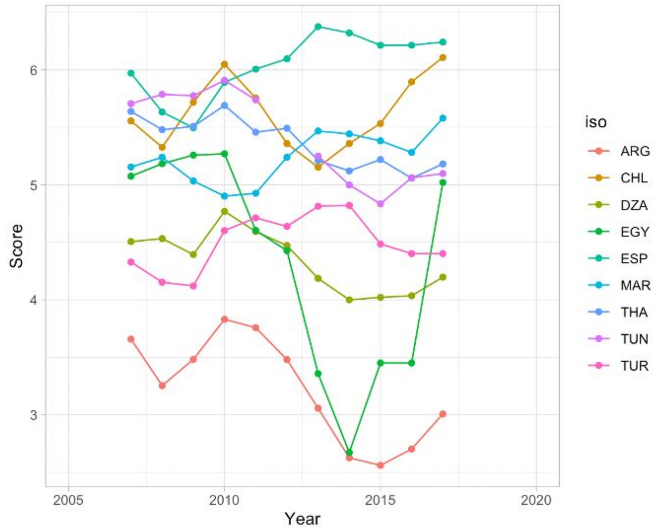
Figure: 3-2-2: Morocco’s performance in Doing Business-Getting Electricity



Source: World Bank

Regarding the quality of supply, as data from World Economic Forum Global Competitiveness Index shows in figure 2-b-3, Morocco has a relatively high score, which is only lower than the two high-income countries Spain and Chile among its benchmarking and peer countries. That means people do not complain much about the lack of interruptions and lack of voltage fluctuations. Moreover, Morocco’s electricity price is relatively low at 12.5 cents per kWh.

Figure 3-2-2: Quality of electricity supply, 1-7 (best)

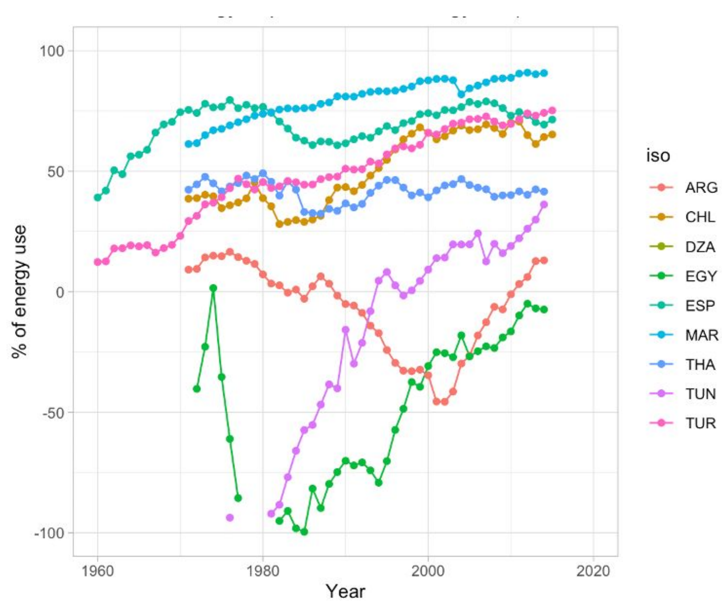


Source: World Economic Forum

To conclude, electricity is not a binding constraint for Morocco as the vast majority of Morocco has access to reliable electricity as a result of the successful power sector reforms. Also, electricity does not limit business development.

However, we should be alert to the fact that Morocco highly relies on imports for energy consumption. As Figure 3-2-4 demonstrates, Morocco imports approximately 85% of its energy use majorly from Spain and the United States. Such a high level of dependence on oil imports makes Morocco vulnerable to market disruptions and price volatility. Thus, developing domestic sources of energy would help with energy security.

Figure: 3-2-4 Morocco energy import, net, % of energy use



3.3 Macroeconomic state of the Government

For the most part, concerns regarding Moroccan government's macroeconomic indicators are not very strong. Since 1999 and the ascension of King Muhammad VI to the throne inflation has been stable and capital stock accumulation has been increasing in Morocco. Importantly, for a developing middle income country like Morocco, current account balance as a percentage of GDP is fairly stable, oscillating around 0. The government debt to GDP ratio has been relatively stable as well.

In Morocco, macroeconomic indicators of stability like inflation are much less volatile than its peers in North Africa and even benchmark countries, excluding Spain. In fact, in this respect Morocco resembles Spain. Even with indicators such as capital stock accumulation or government debt to GDP ratio, Morocco is trending in the right direction to quell any fears of macroeconomic instability, which cannot be said of many of its peer or benchmark countries. It is therefore possible to conclude that concerns surrounding the long term financial viability and stability of the Moroccan government are not a binding constraint

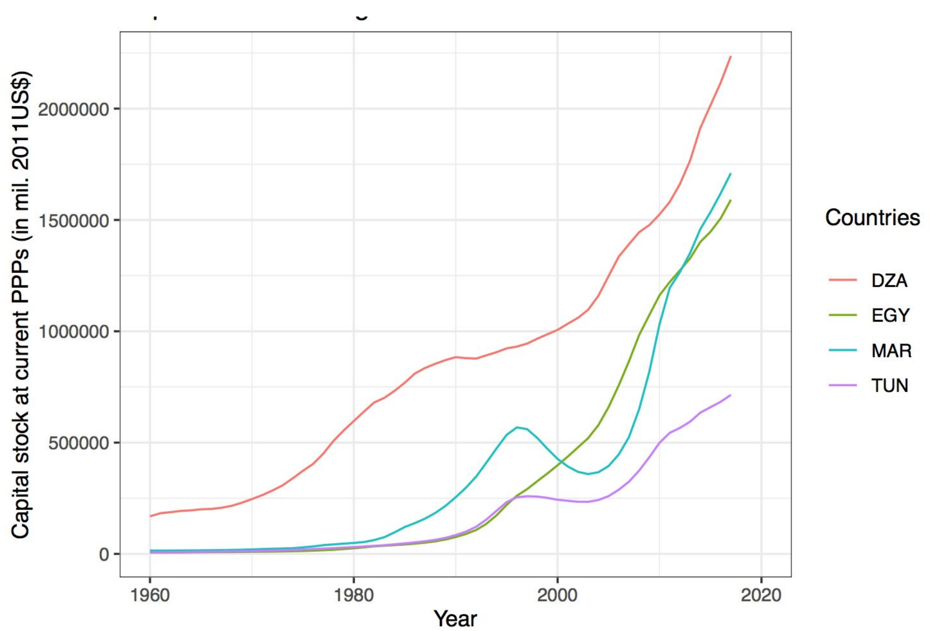


Figure 3.3.1: Capital stock accumulation Morocco vs peer countries

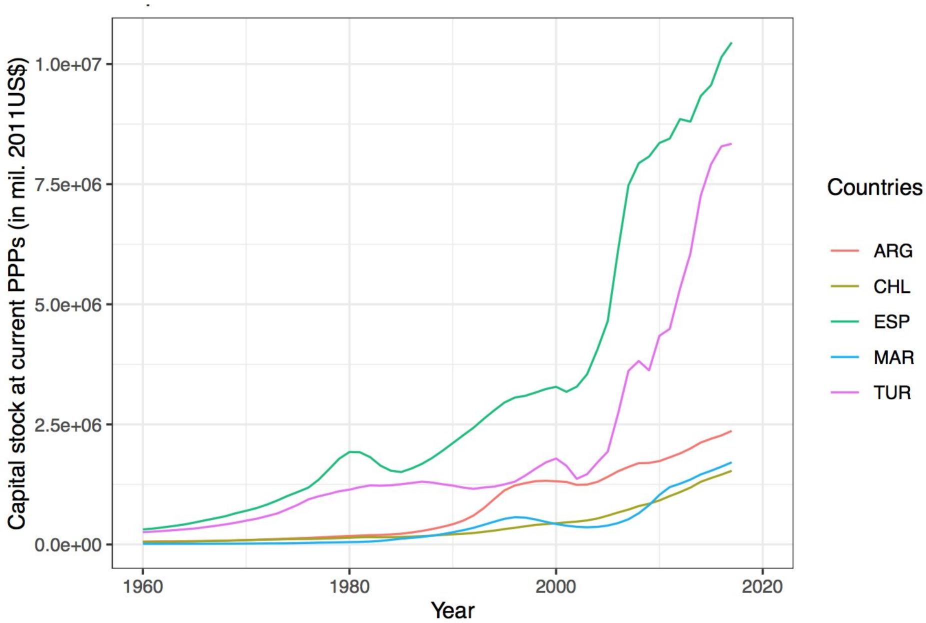


Figure 3.3.2: Capital stock accumulation Morocco vs benchmarks

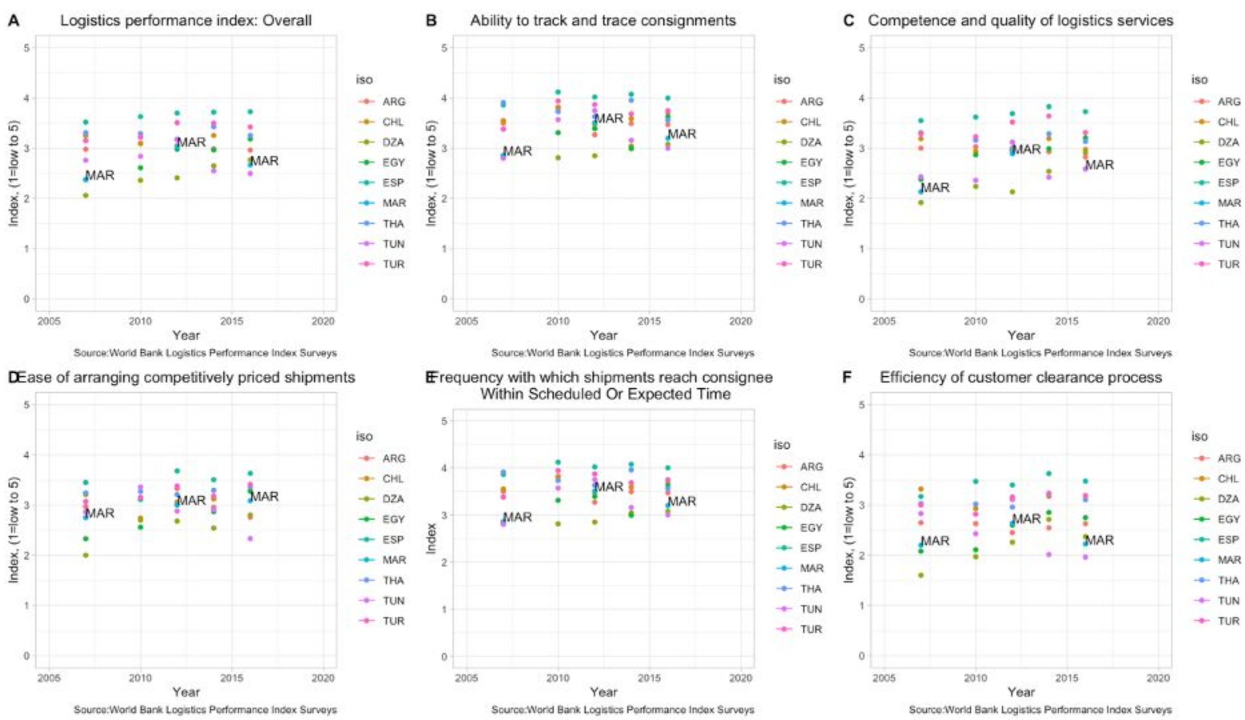
4. Syndrome

4.1 Transportation

Transportation infrastructure is a binding constraint in Morocco. Especially, logistics performance needs development, to improve business environment and attract investment.

Morocco has a poor performance in terms of logistics and international shipments quality, as it ranks the 109th for the overall logistics performance, which is one of the lowest among its benchmarking and peer countries as the figure below shows. In detail, Morocco does not perform well in the logistics competence and quality of logistics services, frequency with which shipments reach consignees within scheduled or expected time, ability to track and trace consignments, and efficiency of customer clearance process.

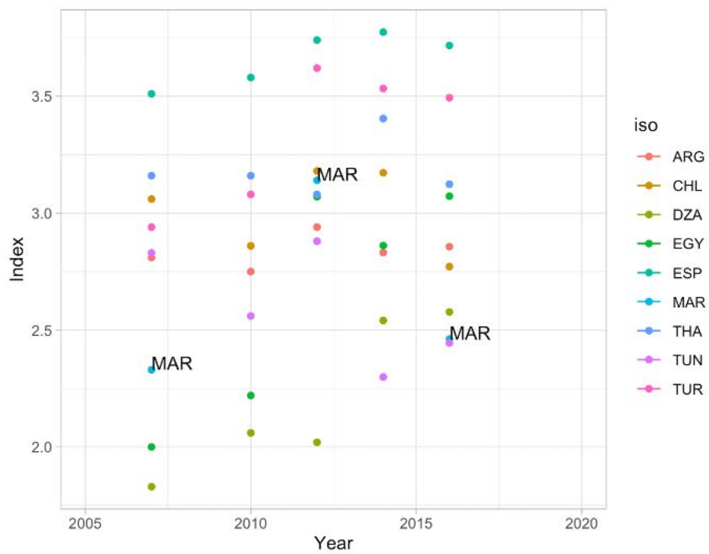
Figure 4-1-1: Logistics Performance Index



Source: World Bank

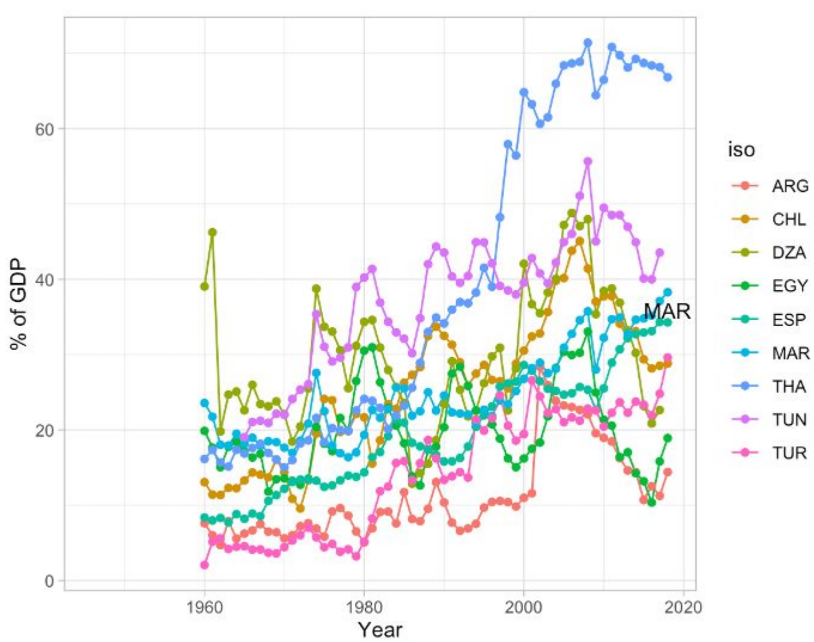
Even worse, Morocco has the lowest score in quality of trade and transport-related infrastructure, as Figure 4-1-2 shows. Such a low performance in logistics will limit Morocco's development as its exports as a percentage of GDP increase in the past decades, as Figure 4-1-3 shows. Quality delivery and logistics performance are important to developing the private sector and attracting foreign investment. The low scores of logistics performance related indicators.

Figure 4-1-2: Logistics performance index:
Quality of trade and transport-related infrastructure, (1=low to 5=high)



Source: World Bank and Turku School of Economics, Logistic Performance Index Surveys

Figure 4-1-3: Exports of goods and services as a percentage of GDP



Source:World Bank

About transportation, in detail, Morocco's development has been constrained mostly by inland transportation, with room for improvement in air transportation and port infrastructure.

The quality of roads is the most problematic one and will limit Morocco's development, especially trade. As Figure 4-1-4 demonstrates, the quality of road infrastructure, measured in scores, is just 4.5, which is the average among its benchmarking and peer countries. One reason for the low quality of road is the lack of paved roads. As figure 4-1-4 shows, only 70% of the roads in Morocco are paved. High quality of road will help increase the productivity of the agricultural sector, and make distribution easier. Especially, since the rural population is as high as 40% in Morocco, the lack of paved roads in rural areas has limited the rural population's access to basic social and economic services such as health. The low quality of road infrastructure restricts business and trade. Road cargo transport accounts for more than 75% of freight road, excluding phosphates, and thus it constitutes the major mode of domestic transport of goods in Morocco.[2]

Figure 4-1-4: Quality of road infrastructure, Score 1-7(best)

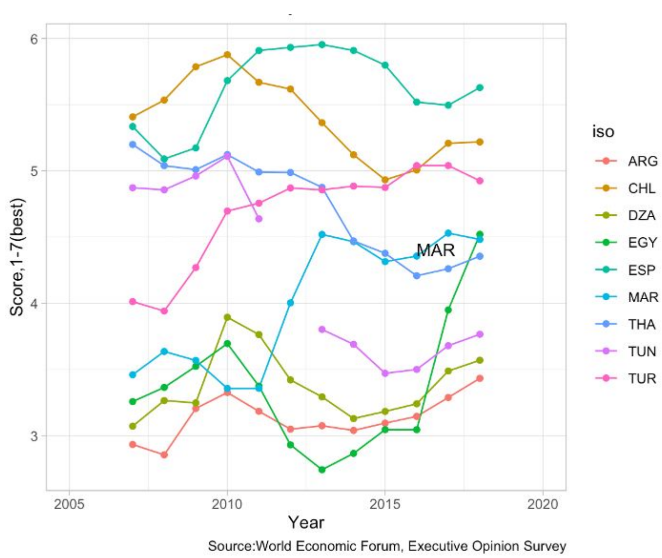
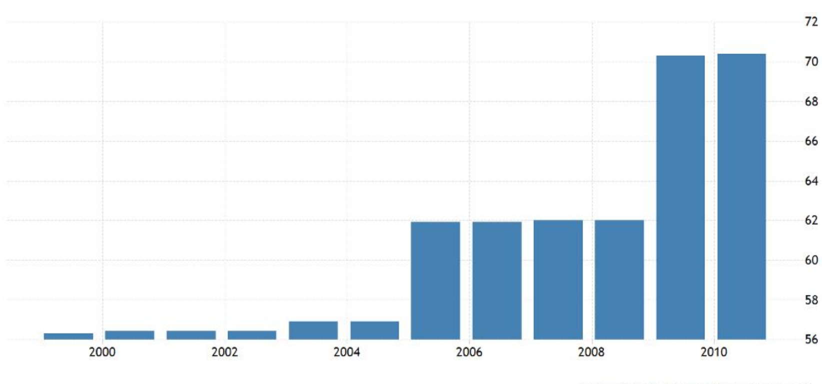


Figure 4-1-5: Roads, Paved (% Of Total Roads) in Morocco



[2]Oxford Business Group, 2019.

Rail transport has a weak coverage of the national territory and is outdated. Morocco has a very low number kilometres of railroad per 1,000 square kilometres of land, as Figure 4-1-6-B shows. Compared to all of its benchmarking and peer countries, Morocco only outperforms Algeria, 80% of whose land is occupied by the Sahara Desert. Even in the populated areas, as shown in Figure 4-1-8, the railway system has poor coverage. Also, there is a lack of connections between the Moroccan railway system with main sea ports and cities in the hinterland, and thus limits the development of hinterland.

Figure 4-1-6: Quality of railroad infrastructure

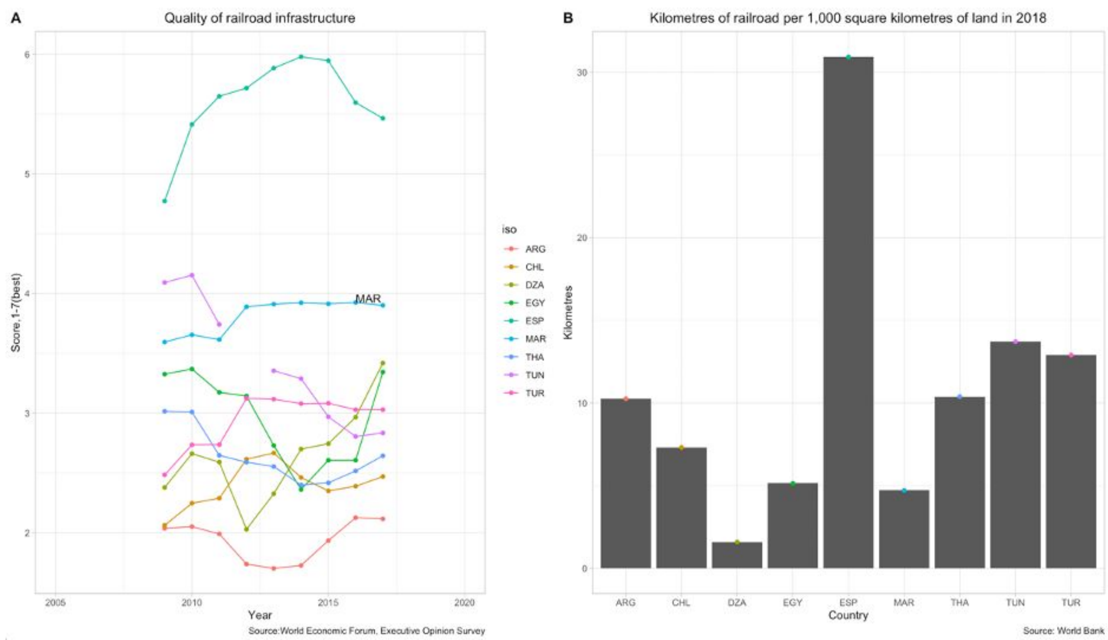


Figure 4-1-7: Rail transport map in Morocco

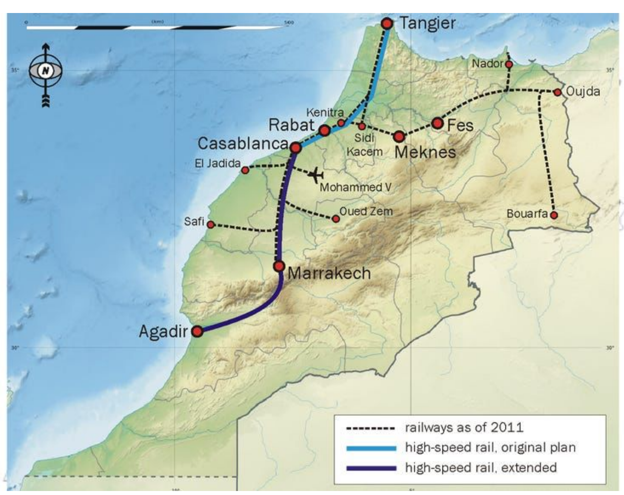
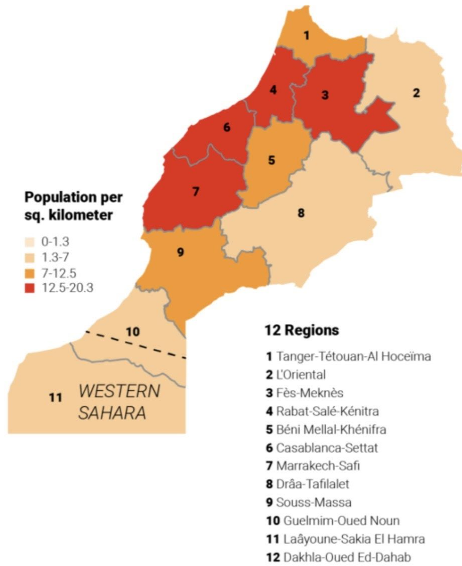


Figure 4-1-8: Morocco’s population by region



Air transportation also limits Morocco’s development. As Figure 4-1-9 A and B show, air transportation has a low quality and average efficiency compared to Morocco's benchmarking and peer countries. Additionally, as figure 2-a-7 demonstrates, Morocco has a really low number of available airline seat km/week among the countries. The quality of port infrastructure is relatively high for Morocco.

Figure 4-1-9 Quality of air transport infrastructure, 1-7 (best)

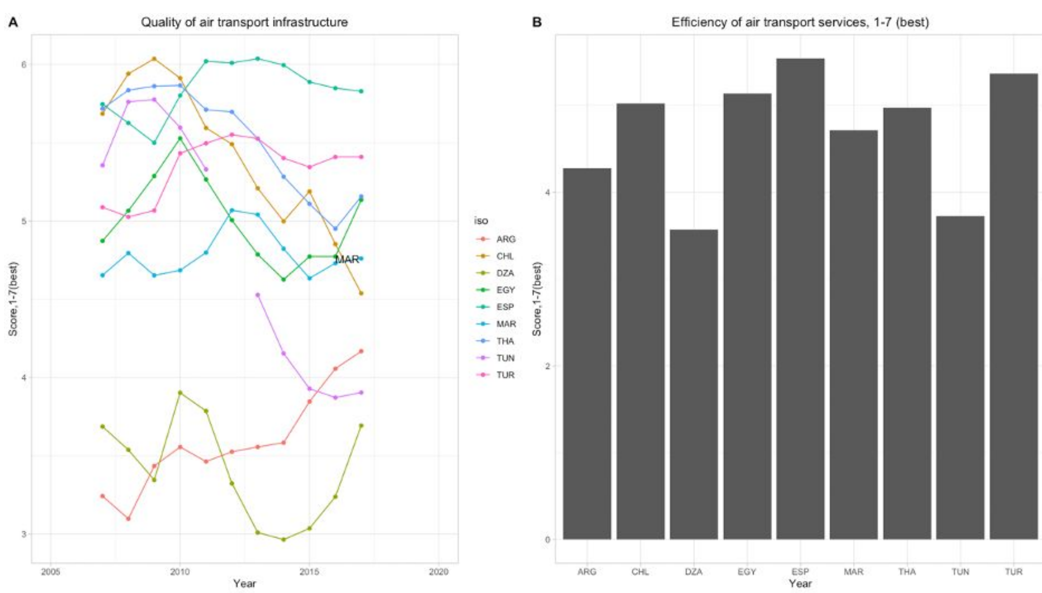
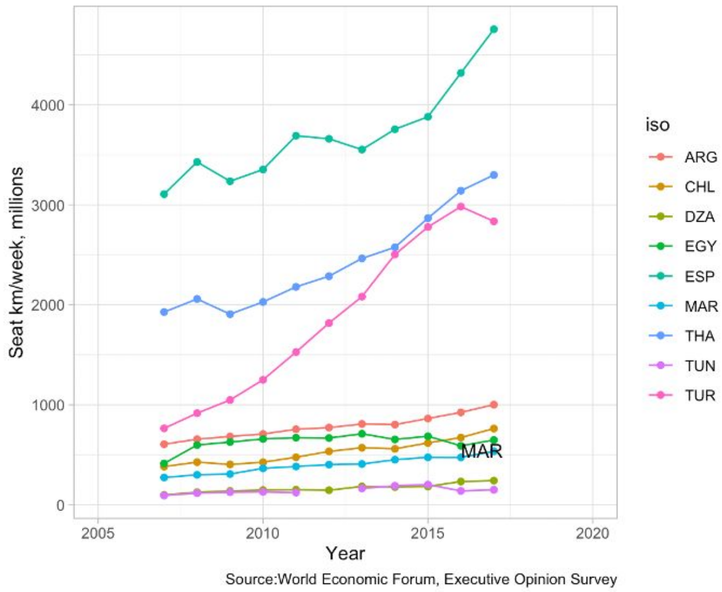


Figure 4-1-10: Available airline seat km/week, millions



The current ports infrastructure also needs improvement. Container port traffic has increased almost 350% in the past 20 years. However, the government has not done much to improve ports infrastructure to accommodate the increasing demands. News reported that the total volume of cargo throughput of the Casablanca port has continued to rise, but the corresponding services and equipment of the port have failed to keep up with the pace of development[3]. This results in overstaying cargoes, and full customs clearance procedures have been stuck in the port for a long time. Customs clearance procedures are too cumbersome and Morocco earns the lowest score for efficiency of customs clearance process.

Figure: Container port traffic in Morocco (TEU: 20 foot equivalent units)

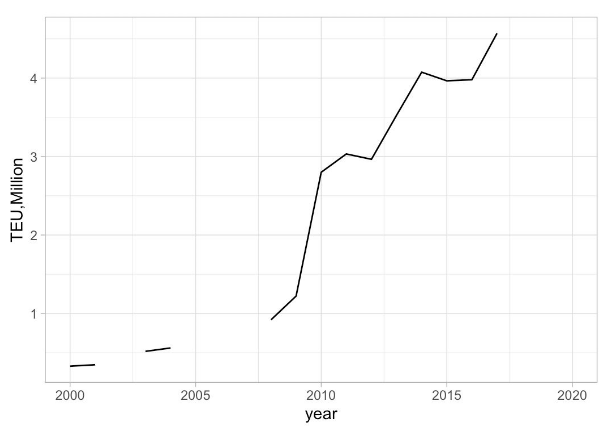
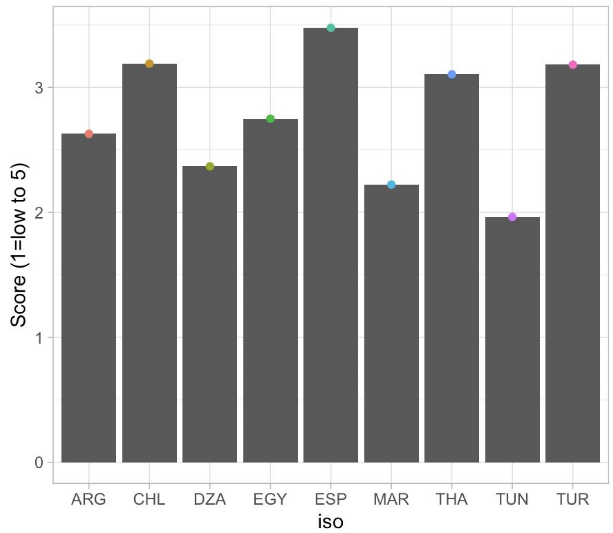


Figure: Logistics Performance Index: Custom Clearance Process (1=low to 5)

[3] http://www.ce.cn/cysc/jtys/zhwl/200709/17/t20070917_12934639.shtml



To conclude, in general, transportation infrastructure is a binding constraint. Especially, inland transportation does need improvement. The low logistics performance limits Morocco's development, especially under the circumstances that exports as the percentage of GDP has been increased to almost 40%. Also, the lack of transportation infrastructure in the hinterland has limited its development and thus has caused increased costs to businesses.

4.2 Finance

Finance might be a binding constraint for Morocco's economy. Morocco has long been an agricultural country. Before 2000, Morocco's agricultural population was the largest as a share of the country's total population. Although the pleasant climate makes Morocco's agricultural products demanding and competitive, due to the limited land area and natural endowment, it is difficult for the agricultural sector to support a sustainable, stable and healthy development of the Moroccan economy. Since the 2000s, Morocco has been actively seeking for economic reformation and is actively developing its services industry.

The Figure 4-2-1 shows that those efforts achieved their purpose, the change of Morocco's employment constitution indicates its population conducting service industry surpassed agriculture employment in 2012. At the same time, agriculture employment is constantly in a downtrend trajectory.

Figure 4-2-1： Morrocco’s Employment among agriculture, service and industry sectors

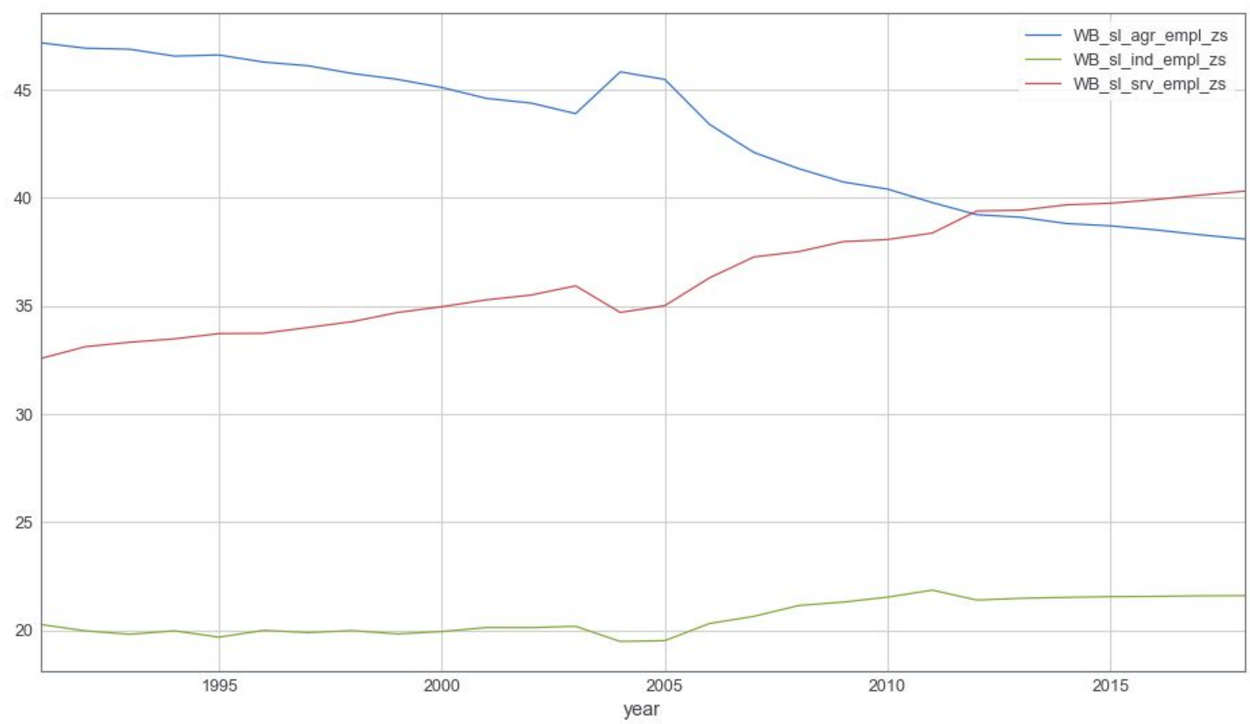
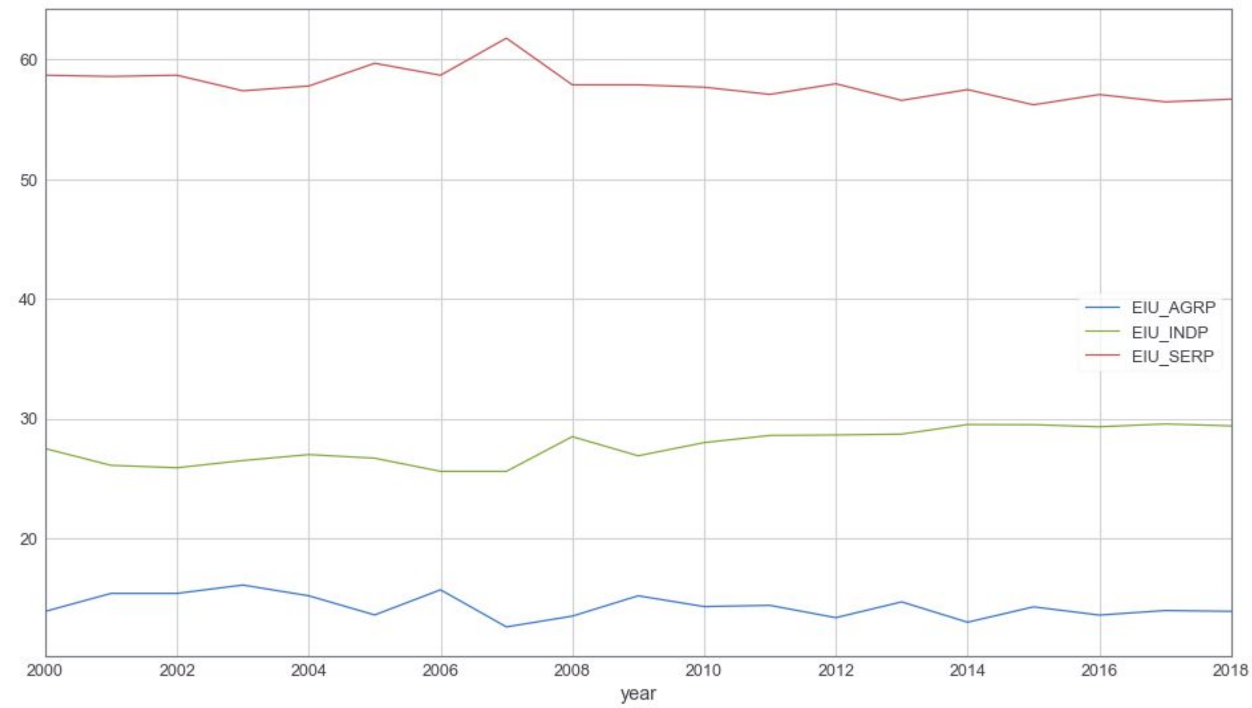
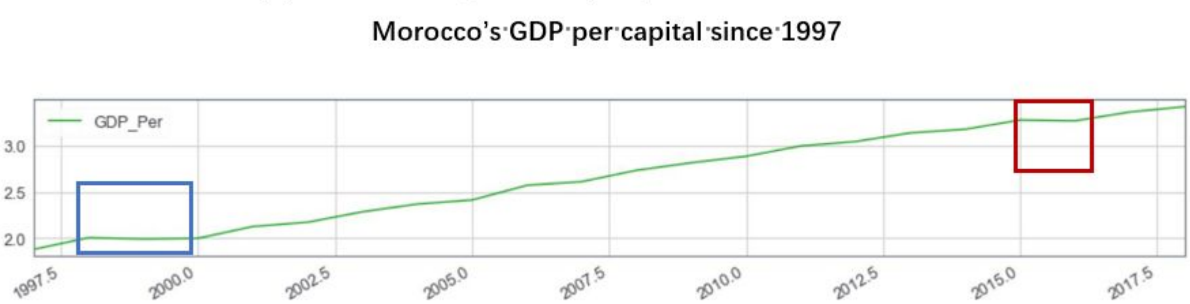


Figure 4-2-2: Comparison of the contribution to GDP among Industry, agriculture and service sectors



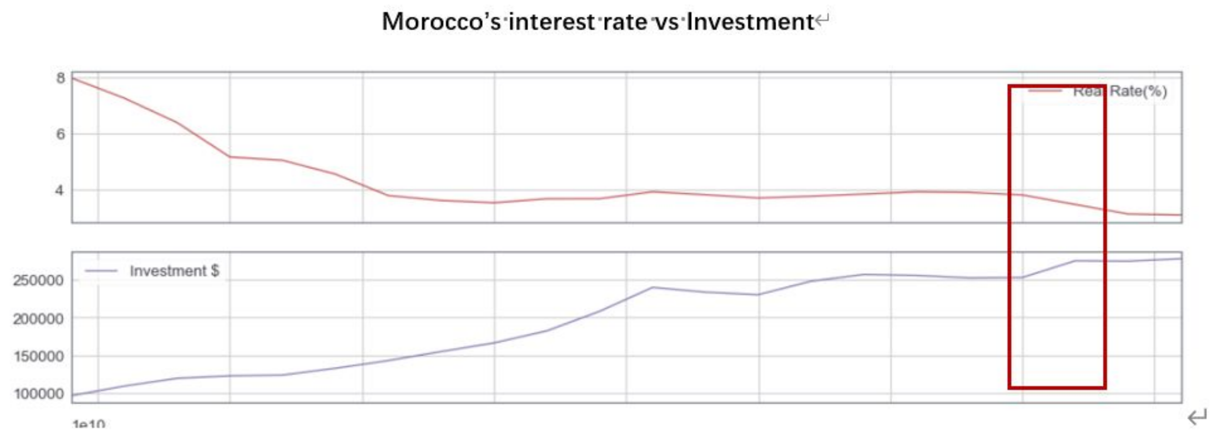
At the same time, Morocco's service GDP was stable in the largest as the GDP share. But those efforts didn't obviously reflect on its GDP growth. After 2000, Morocco's GDP presented a kind of concession and low-level condition, especially after 2015.

Figure 4-2-3



To stimulate the economy, Morocco actively pursues financial methods to stimulate economic growth by decreasing the interest rate and boosting up investment. Those efforts reflect on the interest rate and investment .

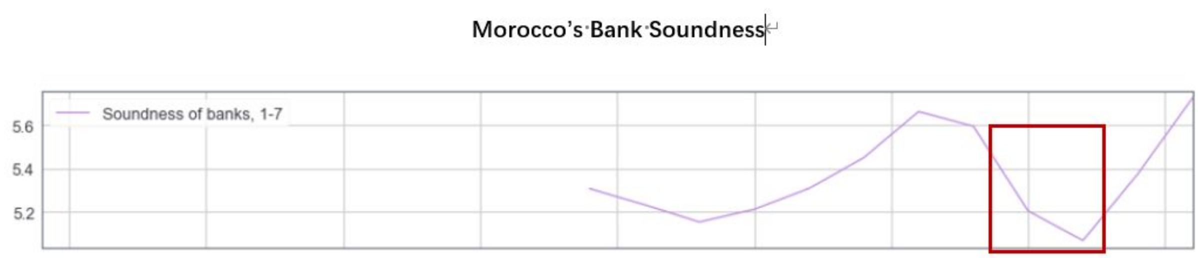
Figure 4-2-4



Following a simple financial simulation pipeline, a lower interest rate would decrease companies' capital cost so that let companies expand their productions. Another benefit is that a lower cost would increase companies' profit space and lower their price, which increases domestic social welfare and makes export competitive. So that we should see a deceased capital flight. On the contrary, the facts are contrary to our predictions. A significant capital flight happened at the same time.

From the graph of Morocco's Bank Soundness, we can clearly see that Morocco's bank system was in financial difficulties at this time. During the same period, the soundness index of Morocco's bank system had a clear slipper down, which can partly explain the shrinking domestic market.

Figure 4-2-5



The reason why Morocco's bank soundness decreased so large would be complicated and comprehensive, but mismanagement and vicious loans would be the main reasons. Because domestic business is in need of money to expand but Morocco's products didn't appeal in the external market, bad loans went up and exacerbated the bank system's balance sheet. Market easily went into a vicious cycle, the domestic business would find it hard to get new loans from the bank system, and their condition worsened which further deteriorated the bank's financial burden, so that we could see a significant capital flight in this period.

Figure 4-2-6

Morocco's Capital Flight

The logical chain of why finance is a binding constraint could be concluded as follows. Morocco's economy has long been limited to its economic structure. Although the Moroccan government has been actively promoting economic reformation by focusing on supporting the service sector and increasing employment in the service sector, that progress was hard to attract much foreign direct investment in the short term. Morocco's economic model is largely driven by domestic demand. It requires a well-functioning financial system to stimulate the domestic market and meet the fund requirement from corporates through appropriate financial policies. However, due to the overall problem of Morocco's banking industry, the financing and financial management of the early 2010s were not satisfactory. This has led to a lack of competitiveness in Morocco's exports and a lack of sufficient funding through an efficient financial system for the large number of funds needed for domestic consumption, limiting or even hindering economic growth. In the past two years, the Moroccan government has intensified the reform of the financial industry, and the Moroccan economy has shown a speedy growth momentum. In summary, it is the financial system that is currently hampering Morocco's economic development. At the same time, there are reasons to believe that Morocco's economic growth will be significantly improved with financial reform.

4.3 Microeconomics: day-to-day dealings with the Government

One of the main factors limiting businesses in Morocco is interactions with the government. Initially, Morocco may not seem that different from a lot of its peer and its benchmark countries as corruption levels according to Transparency International's Corruption Perceptions Index (CPI) are at a relatively similar level to its peers and and some of its benchmark countries, but in reality there are significant constraints to business activity in the efficiency and capacity of the governments in its day-to-day dealings with business.

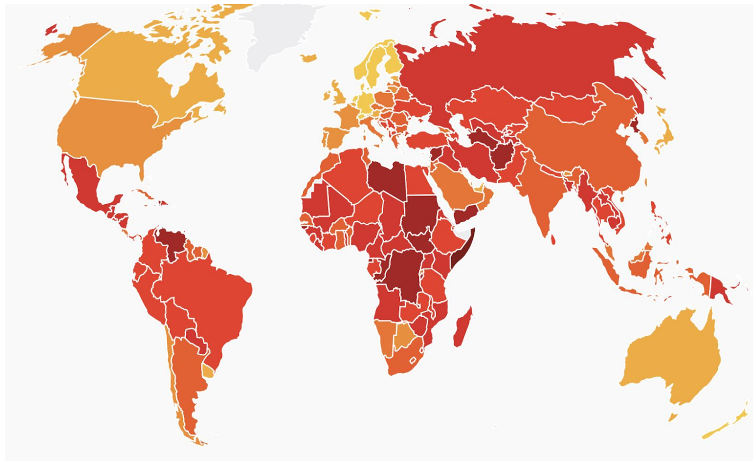


Figure 4.3.1: 2019 CPI results

Values from 2019/Country	Morocco	Algeria	Tunisia	Egypt	Argentina	Turkey	Chile	Spain
Time spent dealing with the requirements of government regulations (% of senior management time)	15.2	25.1	46.5	7	20.5	5.9	9.9	0.8
Time to resolve insolvency (years)	3.5	1.3	1.3	2.5	2.4	5	2	1.5
Average time to clear exports through customs (days)	7	14	3	8	7	3	11	5
Bribery incidence (% of firms experiencing at least one bribe payment request)	16.9	18.8	10.3	15.2	9.3	1.4	1.3	n/a

Table 4-3-1: Indicators for day-to-day interactions between government and businesses

Examples of the day-to-day inefficiency of the government can be found in nearly all elements of bureaucracy. One can easily paint a picture of Moroccan business that spends almost as much time preparing to deal with and dealing with bureaucracy as it does actually running the business. Additionally, from the indicators presented in above it is clear that Moroccan businessmen have to deal with a less efficient government than any of the benchmark cases and more importantly than even peer countries in North Africa. Indeed both Augier et al 2012[4] and Martínez-Zarzoso 2020[5] find that Moroccan firms have low total factor productivity (TFP), have a lower TFP than peer countries like Egypt and that this low TFP is consistent between exporting and importing firms in Morocco.

The poor performance of Morocco on these metrics is not just the status quo that firms have managed to work their way around, but are actual problems for firms. In the World Bank's Enterprise survey companies are asked their biggest obstacles and Morocco consistently ranks in the highest quartile for business licensing, dealing with the legal system and tax administration as obstacles to firms. This shows that not only is inefficiency a problem, but a problem with direct consequences to the economy.

[4] Patricia Augier, Marion Dovis, and Michael Gasiorek, "The Business Environment and Moroccan Firm Productivity," *Economics of Transition* 20, no. 2 (2012): pp. 369-399
[5] Inmaculada Martínez-Zarzoso, "Exporting and Firm Productivity: Evidence for Egypt and Morocco," *Middle East Development Journal* 12, no. 1 (February 2020): pp. 84-100

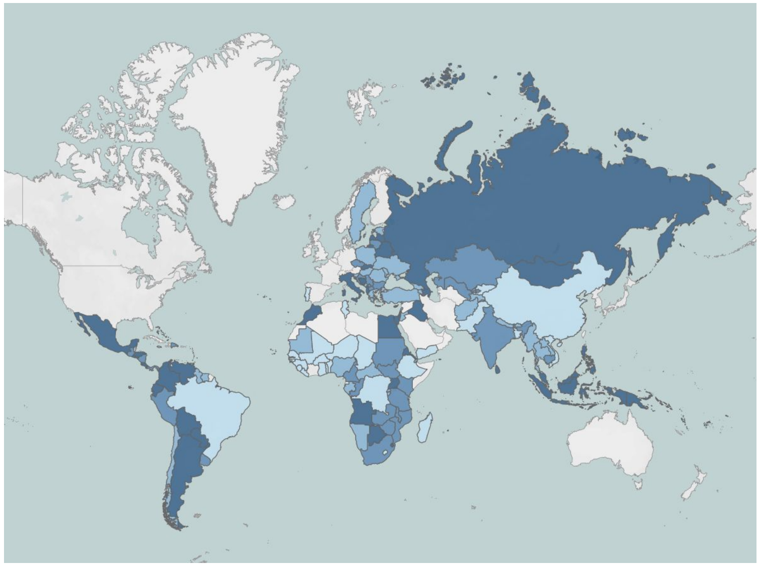


Figure 4.3.2: Business Licensing as an obstacle

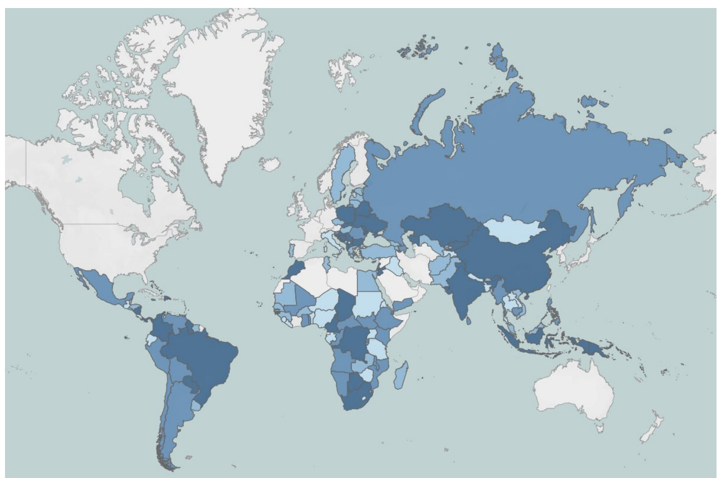


Figure 4.3.3: Courts and Judiciary as an obstacle

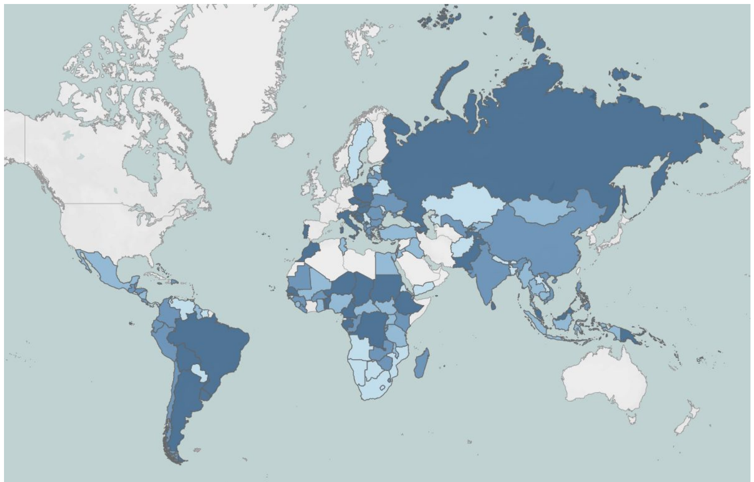


Figure 4.3.4: Tax administration as an obstacle

It would be ignoring the elephant in the room to not discuss the involvement of the Royal family and its entourage in the economy. As noted in section 2.4, the Société Nationale d'Investissement (SNI) or National Investment Company, a holding company that owns the largest banking, retail and telecoms company in Morocco, is majority owned by members of the Moroccan royal family. In fact, Morocco has always had a "large patronage network"[6] that allowed "The royal family and some families closely related to the palace … to set up important business groups and to become important economic actors"[7]. By circumventing the obstacles described above companies owned by the Royal family and those related to them become more competitive then non-connected firms, thus stifling new business creation and reinforcing those obstacles to non-connected firms.

[6] Mohammed Said Saadi, "Moroccan Cronyism," *Crony Capitalism in the Middle East*, 2019, pp. 146-170
[7] Ibid

5. Proposal for Solutions

5.1 Promote connectivity via transportation networks

To turn Morocco into a regional platform for industry, and integrate Morocco in regional and global supply chains, connectivity needs to be improved. Increased connectivity will reduce shipping costs for businesses, thus help businesses to run, and to attract investment. Also, economic development could spread nationwide, further reducing inequality.

The Morocco government also needs to improve the efficiency of internal distribution networks.Connectivity, especially roads, needs to be improved between major cities and Casablanca, which is Morocco's biggest city, and economic capital. The Great Casablanca contributes to 44% of the industrial production of Morocco, and 33% of national industrial exports.

Much more remains to be done to increase ports infrastructure, as container port traffic has increased almost 350% in the past 20 years. However, the government has not done much to improve ports infrastructure to accommodate the increasing demands. Given Morocco's low performance in efficiency of custom clearance process, we propose the government to simplify the custom clearance process and invest in the automation and digitalization of ports infrastructure through the application of IoT and AGVs.

Conventional rail lines should be expanded and upgraded. Despite the new 200-km long high-speed railway connecting Casablanca and Tangiers, railway in most of Morocco remains outdated and limited. Cities across the country that are currently not connected need to be connected to the rail network. Both passenger and freight railroads connecting to the ports for commercial use need to be upgraded. The ports include but are not limited to the Port of Safi, the Port of Nador, and the Port of El jadida.

The government could turn to public-private partnerships (PPPs) to finance a range of projects in the road, rail, port and logistics segments.

5.2 Improve business Environment

The current business environment in Morocco requires business to spend lots of time preparing to engage with bureaucracy and judiciary. This has a double affect as the manager spends more time dealing with the business environment than actually managing the company, thus lowering the productivity of the company and as money and time is spent dealing with the business environment increases costs and reduces the competitiveness of goods produced. The direct conclusion from this is that improvements in the business environment can be doubly effective and should be pursued with great fervor, however this is not so simple and easy.

Improvements in bureaucratic efficiency take time to be implemented and often necessitates disrupting existing, and therefore functioning, power dynamics inside the bureaucracy. Additionally, metric based evaluation of bureaucratic efficiency can lead to perverse incentives like bureaucrats inflating statistics, which can lead to even worse outcomes than already exist. The right approach in this context is to attempt to change laws, documents and forms so that it is easier for bureaucrats to follow them and harder to deviate from them. This requires the standardization of government infrastructure like the implementation of a e-government system that makes it harder for local and federal bureaucrats to circumvent rules as well as more abstract forms of government infrastructure like forms across different regions.

Changes relating to laws governing firms like bankruptcy can have a more immediate effect that can get rid of existing unproductive companies. This can make way for new and more productive companies as demand for goods will still exist. In this respect it is important to state that cronyism in Morocco presents a significant barrier to the effectiveness of these types of improvements. If large swaths of the economy are still governed by laxer rules due to their connections, it won't matter how much the bureaucracy or laws improve because politically connected low productivity firms will survive, obfuscating any improvements that could have occurred due these reforms.

Nonetheless, while recognizing the limits of policies to improve the business environment, these types of policies still represent an opportunity for policymakers to institute change with tangible results in the short to medium term.

5.3 Improve finance environment/ bank efficiency

Morocco's economic development is at a critical stage. On the one hand, the original agriculture-based economic model can hardly provide sustainable economic growth. Since the 2010s, Morocco has been actively developing its service sector and further driving economic growth through the export of the service sector. The development of the country's service sector requires an efficient and sound banking system to finance business development. Therefore, an important prerequisite for Morocco's domestic economic development is to improve the competitiveness of its Banks further.

Improving the competitiveness of domestic Banks first is to establish an efficient, reliable, and healthy domestic banking system. While providing precise and active financing for the development of domestic small and micro businesses, we should keep the non-performing loan ratio within a reliable range. At the same time, through a series of practical and effective ways to simplify the relevant procedures and procedures for the administrative review of financial financing as much as possible, to support the development of small and micro businesses in the service industry as much as possible, so as to provide a new engine for the economy.

Good domestic banking industry cannot develop without international expansion. The second policy recommendation is to internationalize the country's banking sector. Through the gradual expansion of sub-Saharan Africa, Eurasia, and even the Americas, it further improves the competitiveness of the domestic banking industry. One is to expand the business model of traditional commercial Banks through open and flexible financial policies. By absorbing international deposits, the bank has accumulated the capital base needed for sound development. At the same time, the banking industry's mixed operation can be considered to reduce the use cost of funds and improve the return rate of funds through various effective and flexible financial instruments. In short, a sound and robust banking sector will provide strong support for Morocco's domestic economic development.

5.4 Riding the Coattails of Sub-Saharan Africa

Many projections of regional growth rates show that the fastest growing region in the world in the short to medium term future will be Africa and specifically Sub-Saharan Africa. In fact Sub-Saharan Africa has more-or-less outperformed the world's average growth rate since 2000. Although seemingly unrelated, it is also important to note that 29 of the 54 countries in Africa are francophone with francophone countries in North Africa (Morocco, Algeria and Tunisia) being the richest among this set of countries.

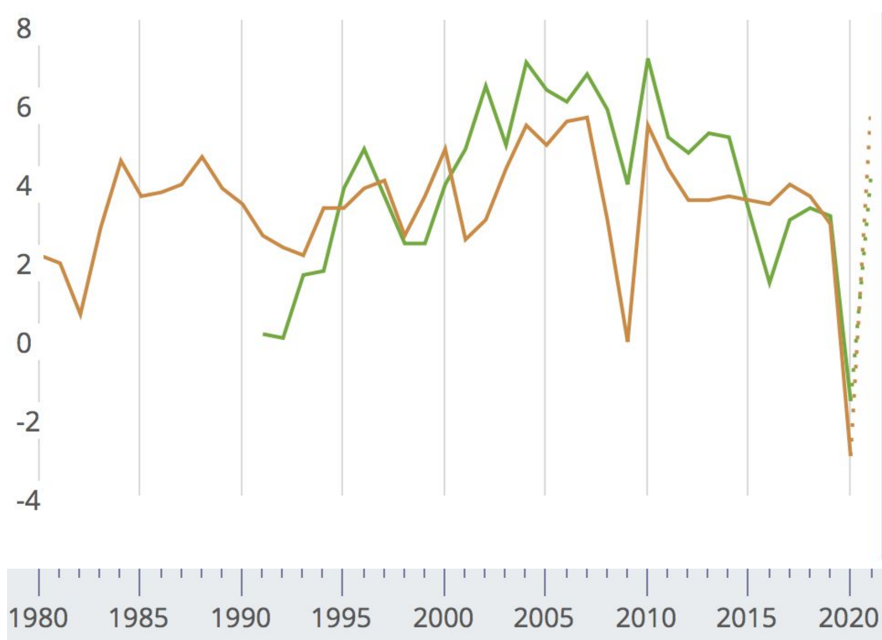


Figure 5.4.1: Growth rates of Sub-Saharan Africa (green) vs the world average

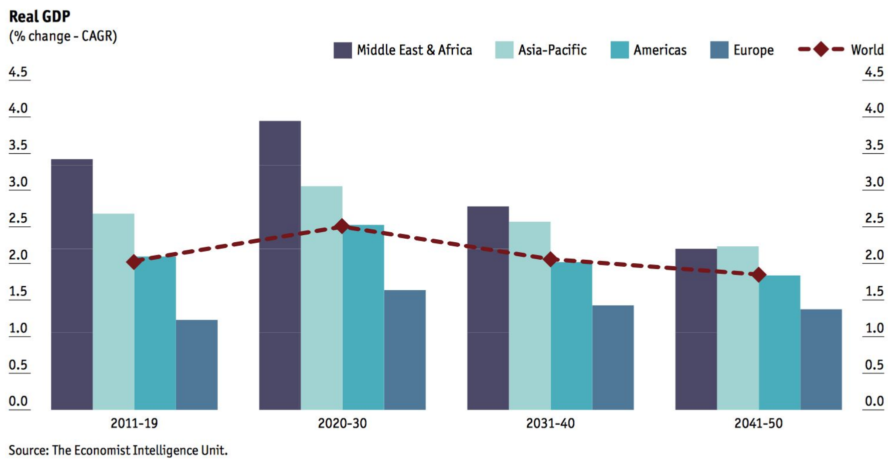


Figure 5.4.2: Growth projections across regions

The North African francophone countries have a comparative advantage with respect to the rest of the world to take advantage of the rapid economic and population growth in Sub-Saharan Africa because they are already francophone, they share a common historical legacy (being colonized by the french) and maybe most significantly they were not colonizers. Among the North African countries Morocco is uniquely well-positioned to take advantage of this situation because while Tunisia and Algeria have a higher GDP per capita than Morocco, Tunisia is too small in comparison to Morocco and other Sub-Saharan countries to take full advantage of its more complex economy and Algeria lacks the diversity, manufacturing capacity and complexity necessary to produce the goods demanded from Sub-Saharan Africa. In this respect Morocco's already diverse and relatively complex economy with its existing construction industry, rapidly growing car industry and agricultural production could potentially supply growing Sub-Saharan countries with a lot of imports they demand.

This could also allow Moroccan industry to expand into industries like aluminum structures. Aluminum structures are exported mostly by European and Asian countries with Germany and China being the two largest producers, however non-insignificant amounts are also exported by countries with similar levels of development to Morocco such as Vietnam, Colombia and South Africa. Importantly imports of aluminum structures have grown rapidly over the past 20 years in Africa from $60.7M to $448M, becoming a significant part of the global market.

PRODUCT NAME	"NEARBY" DISTANCE	OPPORTUNITY GAIN	PRODUCT COMPLEXITY	GLOBAL SIZE (USD)	GLOBAL GROWTH 5 YR
Aluminum tube or pipe fittings (7609 HS4)	◆◆◐◇◇	◆◆◆◆◐	◆◆◆◆◐	$909M	↑ 30.9%
Aluminum structures (bridges, towers etc) (7610 HS4)	◆◆◆◆◇	◆◆◆◇◇	◆◆◆◇◇	$11.3B	↑ 25.9%

Table 5.4.1: Aluminum structures as a potential industry for Morocco

Table 5.4.1 shows that Moroccan exports are already well-aligned to increase production of Aluminum structures due to Morocco's existing mining and metals industry. While this good is not necessarily high complexity or high-value added, demand for it has consistently been very and will stay so as Sub-Saharan African grows. Aluminum structures are not the only goods that will increase in demand as Sub-Saharan Africa grows economically and develops a middle class; there will be more demand for agricultural products, more demand for consumer products like cars and refrigerators. Morocco can take advantage of this and turn into a regional export powerhouse centered towards Africa in the long term by both attracting foreign investors to use Morocco as a base for production in Africa and by the development of local firms that can supply these types of goods. The ideal for Morocco would be to use the rapid growth in Sub-Saharan to increase its own growth, thereby riding on the coattails of growth that was essentially going to occur in Sub-Saharan Africa regardless of Morocco's involvement.