Performance of Spanish Construction Companies in International Markets with Emphasis on Africa

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1. Introduction

In the last fifteen years, international contractors have shifted their focus to new and emerging markets. These companies target regions that can provide a considerable business growth, even if they are located in countries under political and economic uncertainty. At the same time, although almost every country has been entered by an international contractor, there are still areas with massive potential for business growth that remain unexplored.

The main objective of this research is to analyze and select the features that an International Contractor should have to successfully enter the African Market. Even if it is currently being developed, the African Market is different is different from any other. Not only because of its political and social background, but also because it is in Africa where the deposits of the most critical and valuable raw materials are hidden.

This document is structured in four parts. First, a detailed analysis of international contractors is presented. This study is conducted paying special attention to the revenue and the market share of each player, and the subsequent trends over a 9-year period 2011-2017. Second, the international activities of major Spanish companies are analyzed. Third, the African market is investigated. The strongest players and the African construction market are evaluated taking into consideration their strategic movements to reach their current status. Fourth, the features that are required to enter the African market are explored and conclusions are drawn.

2. Background analysis

2.1. Introduction

In order to provide a solid background for this research project, the international contracting business is analyzed in depth. Paying attention to the major players, their market share and the markets in which they have been active over the years.

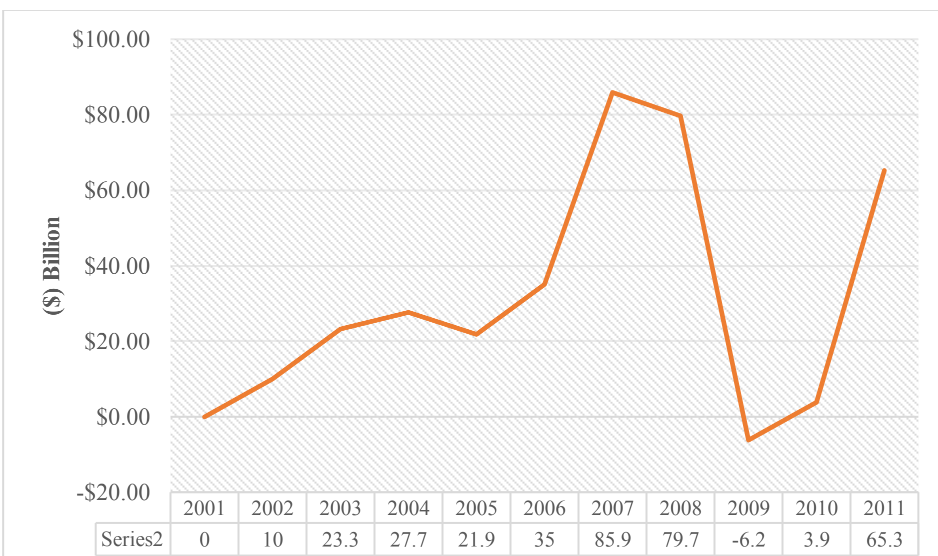
The data that is explored goes from 2011 to 2017. 2011 is one of the most important years in the international contracting business, because during this year, Europe's construction community underwent a major change as Germany's largest contractor, Hochtief AG, fell under the control of Spain's ACS Group. Hochtief AG was the top contractor in both Asia and United States, while ranked amongst the top 5 largest contractors in Canada. ACS Group on the other hand, was the second largest contractor in the Latin American/Caribbean market while holding a good position in the North American market. In that moment, the strategy developed by ACS after buying the German company, consisted of keeping Hochtief AG functioning as a separate company, helping ACS enter new markets like Asia Pacific. At the same time, Hochtief AG was about to put its focus on the energy, transportation infrastructure, and urban construction sectors.

Seven years later, the ACS Group is the largest international contractor in the world. A position that was acquired in 2014 and that has been under ACS's control for the last four years. Consequently, given that the largest player holds its strategic position as a consequence of a move made in 2011, it is worth starting this investigation in that specific year.

2.2. Until 2011

A revenue analysis is provided with the purpose of stressing the importance of 2011 in the international markets. This analysis compares the situation in 2011 with the situation in the preceding ten years. From this evaluation, it can be easily inferred that the impact of the sovereign debt that hit European construction programs at that time is important. This situation motivated European constructors to invest in emerging markets, leading to a significant business growth in the international constructing business.

As it can be deduced from Figure 1, one of the largest changes in revenue of the last ten years took place in 2011, putting an end to the crisis that hit the world the preceding two years. In fact, in 2011, 53.6% of the International Construction companies increased its international revenue compared to 2010.



[1]

Figure 1. Trend in international contractor revenue ($) billions.

[1] The Figure 1 shows the **change in billions of dollars** between each year

International revenue fell 6.6% to $94.18 billion in Europe. It also fell 6.6% in the Middle East to $72.43 billion, and 6.5% to $32.61 billion in the US. By contrast, international contracting revenue rose 25.6% to $34.05 billion in Latin America and the Caribbean, 6.7% to $60.59 billion in Africa and 4.7% to $76.64 billion in Asia and Australia. This shift in focus led to upheaval for major international contracting firms.

As a direct consequence of the uncertainties in 2009 and 2010, a critical event took place in the market. After a nearly year-long takeover battle, the Spanish builder ACS SA succeeded in amassing a majority stake in the German construction giant Hochtief AG. ACS's bid for Hochtief AG was contentious, in part because it took advantage of what some critics call a loophole in corporate German takeover law. In Germany, would-be buyers are required to submit a tender offer for all shares of a potential target once they amass a 30% holding, with a minimum bid of the average share price over the previous three months. But if the buyer fails to secure enough shares for a majority, it does not have to make additional tender offers. It can just keep buying shares on the open market until it eventually acquires a majority.

ACS, which started with a 29% stake in the German company, officially launched its offer for Hochtief in December and soon after raised its bid in an offer that valued Hochtief at €4.97 billion ($7.1 billion.) Hochtief fought to keep ACS from gaining a majority interest and sold a discounted 9.1% stake to Qatar Holding LLC in an effort to dilute ACS's holdings.

After the bid ended in January, ACS held a 33.5% stake in Hochtief through the tender offer and other stock purchases. Already, ACS had replaced some supervisory board members, and Hochtief's chief executive offered his resignation in April after the company's Australian unit posted big losses and the company cut its expected pretax profit target for 2011 to half of 2010's €756.6 million.

2.3. Year 2011

The situation lived in the first months of 2011 can be described by quoting Karl-Heinz Strauss, CEO of Austria's PORR AG in 2011, *"The current crisis represents the greatest challenge the construction industry has faced in decades"*. In that sense, Figure 2 shows how the revenue and the market share are split amongst the different markets in 2011.

Figure 2. Revenue share 2011 ($billions and %)

Despite some global upheavals and uncertainty, the world construction market showed surprising strength for large contractors in 2011. According to the data presented in Figure 1, after being flat for two consecutive years (2009 and 2010), revenue for large international contractors grew in 2011.

The changes in the international construction market had a major impact on the strategic plans of the largest player in the market. Europe's fiscal health motivated large contractors to search out new markets. In fact, according to many experts (e.g., K. Burak Ozselcuk, business development manager of Turkey's TAV Construction), companies started pursuing markets and projects that they would not have considered in the past. Taking advantage of this fluid situation, ACS made what could be described as an important move, a move that has already been explained in depth.

2.4. Revenue trend analysis

In the following chapters, Figures 3 and 4 are attached. These Figures are analyzed in depth during the conclusions of this chapter.

2.4.1. Revenue share in %

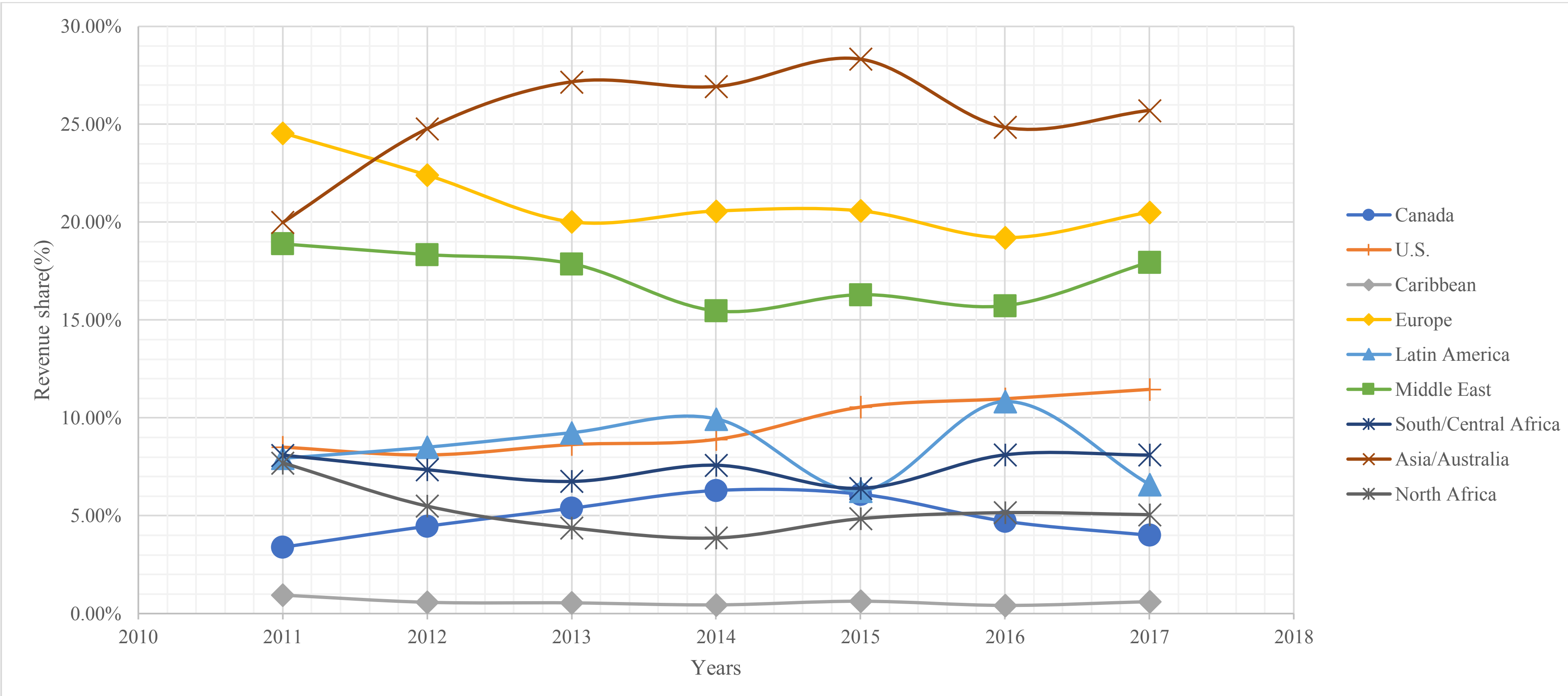


Figure 3. Revenue shares (%) by geographical area

2.4.2. Revenue share in $billion

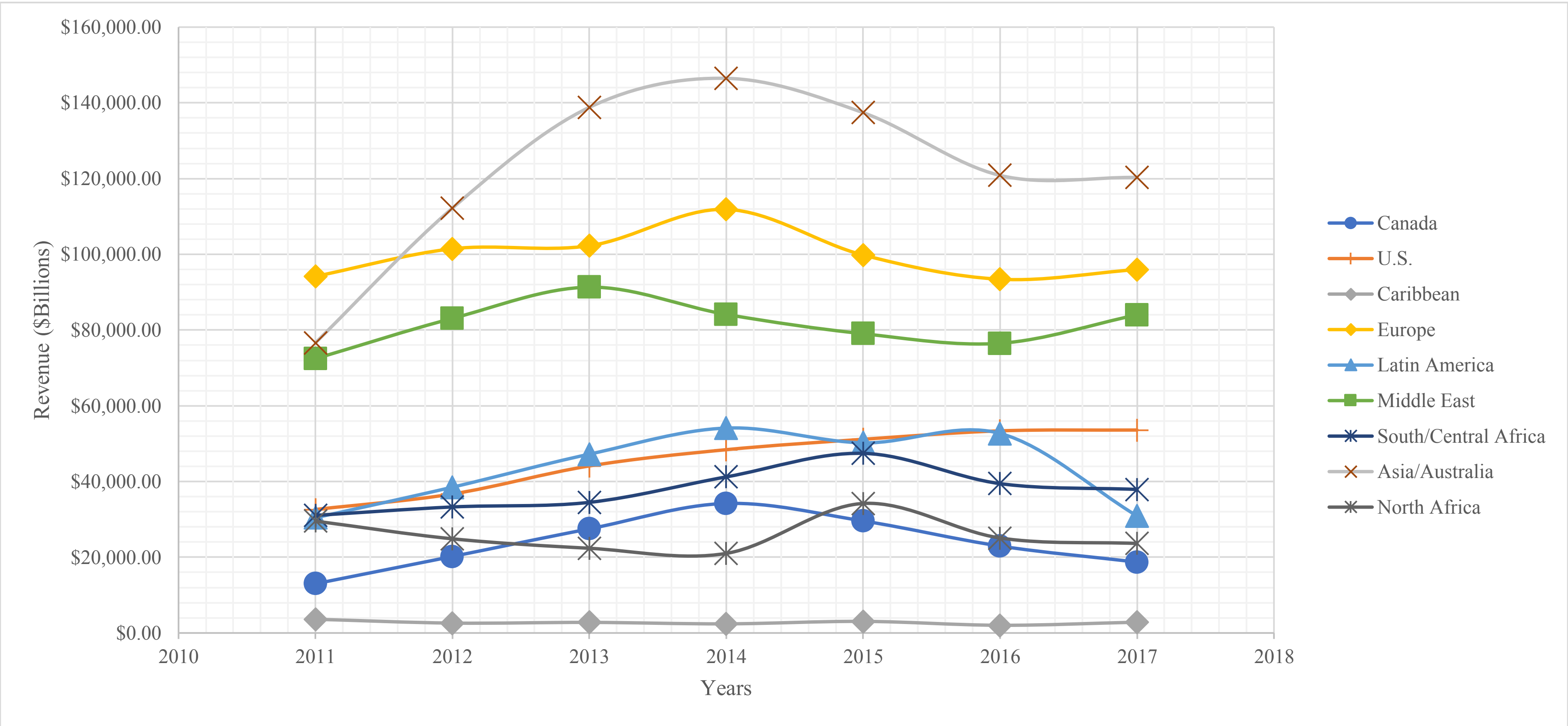


Figure 4. Revenue ($billion) by geographical area

2.5. Revenue trend conclusions

The analysis of this data has been carried out in three steps. First, a study of the market share and the revenue of each market has been conducted. Second, the most significant trends concerning the economic growth and the market share have been stressed and numerically examined. As a third and last step, conclusions have been added.

A closer look at Figures 3 and 4 shows that the Asian, European and Middle Eastern markets are larger than the rest by a difference of more than $30 billion. However, these three markets have shown completely different behaviors in the last seven years.

On the one hand, European and Middle Eastern markets have shown similar trends since both markets have operated under similar financial conditions. Figure 4 shows that European market's setback came one after the setback of the Middle Eastern market. It can be seen that the impact of the crisis pops up in 2014 in the Middle East, whereas it was not until 2015 when it appears in Europe.At the same time, it can be said that the Middle Eastern market is doing better than the European market since its average growth rate per year for the last 3 years is higher than the European market's average growth rate per year during the same period. This finding is confirmed by Figure 3 where the Middle Eastern situation is seen to be more comfortable, since its market share grew by 14% from 2010 to 2017, whereas the Europeans' market share grew by only 7% during the same period. The fact that the Middle Eastern market is experiencing a healthier situation might be a direct consequence of the fact that the impact of the crisis was undergone before by this market, and subsequently it is in a later stage of its economic recovery.

On the other hand, the Asian market has shown a very different trajectory. Experiencing an enormous growth from 2011 to 2014, this market seems to have reached equilibrium, having a revenue of $120,000 billions and 25% of the market share. Building upon the fact that this market had an average growth rate of 25% per year during the last seven years and an average growth of 5% in market share, it is undeniable that it has been doing well during this period. In either case, having a closer look at the given data, it can be detected that the positive tendencies have been decreasing in the last years. This trend is visibly detected through the colors in Table 1, going from a strong green in the early stages of 2012 and ending up in a medium yellow in 2017 that corresponds to a 0% growth rate.

Table 1. Growth rates (revenue) per year

REVENUE	2011	2012	2013	2014	2015	2016	2017	AVERAGE
Canada	-	55%	36%	24%	-14%	-22%	-18%	39%
U.S.	-	13%	20%	10%	6%	4%	0%	14%
Caribbean	-	-28%	7%	-14%	27%	-34%	40%	-12%
Europe	-	8%	1%	9%	-11%	-6%	3%	6%
Latin America	-	27%	23%	15%	-7%	5%	-41%	21%
Middle East	-	15%	10%	-8%	-6%	-3%	10%	6%
South/Central Africa	-	7%	4%	20%	15%	-17%	-4%	10%
Asia/Australia	-	46%	24%	6%	-6%	-12%	0%	25%
North Africa	-	-16%	-10%	-6%	63%	-27%	-6%	-11%

In the lower part of the Figure 4 appear the rest of the markets. Among them, the American market happens to be the most remarkable one, showing a positive uninterrupted tren that ends up with a revenue of $53,000 billion in 2017. However, this positive trend has been decreasing yearly, starting with a 13% in 2012 and ending up with a 0% in 2017. Its market share, averaging a 5% growth in the last seven years seems to have reached a constant rate of growth, since it has been growing at a 4% rate in the last two years. All things considered, this market is facing the most comfortable conditions as a direct consequence of a sustainable and efficient process of growth.

Placed in the range of $20,000-$50,000 billion are the South/Central African market, the North African market, the Canadian market, the Caribbean market and the Latin American market.

The Canadian market should be separated from this group, due to the fact that its political and social conditions are completely different, and therefore it deserves an individual study. As it can be concluded and numerically proven, the growth rate of the Canadian market has gone from a maximum of 55% in 2012, to a minimum of -18% in 2016. So, even if the average revenue growth of this market is +39%, it has a negative tendency and consequently, it can be misunderstood. Regarding the growth rate in the market share, the Canadian market averages a growth rate of 5% over the period 2011-2017. Nevertheless, this fact might be misinterpreted because looking at the last 3 years, it can be observed that the trend has been negative. Thus, the average growth in the market share for the last 3 years has been -13.6%. Henceforth, it can be concluded that the Canadian market reached its maximum in 2014 and has been uninterruptedly decreasing since. All this information is gathered in Table 2.

Table 2. Market share percentage change per year

REVENUE	2011	2012	2013	2014	2015	2016	2017	AVERAGE
Canada	-	32%	21%	17%	-3%	-23%	-15%	5%
U.S.	-	-5%	7%	3%	18%	4%	4%	5%
Caribbean	-	-39%	-5%	-19%	42%	-34%	46%	-1%
Europe	-	-9%	-11%	3%	0%	-7%	7%	-3%
Latin America	-	7%	9%	8%	-37%	73%	-39%	3%
Middle East	-	-3%	-3%	-13%	5%	-3%	14%	0%
South/Central Africa	-	-9%	-8%	12%	-16%	27%	0%	1%
Asia/Australia	-	24%	10%	-1%	5%	-12%	3%	5%
North Africa	-	-29%	-20%	-12%	25%	6%	-2%	-5%

On the other hand, the rest of the markets can be gathered in the same group. These markets have undergone trends mainly as a direct consequence of their political and social circumstances. Circumstances attracted investors, but almost in every case, resulted in political heads in jail. However, it is worth reviewing the situation in the South/Central African market. This is the only market that has undergone what can be considered as a sustainable growth in the last two years, undergoing an enormous growth in 2016 and keeping it constant during 2017. This situation will be analyzed in depth in the later chapters of this document.

Overall conclusions:

- ❖ Asian, European and Middle Eastern markets' revenue is $30,000 billion higher than the remaining markets.
- ❖ The European and Middle Eastern markets have shown similar trends since both markets have undergone similar financial conditions.

- The fact that the Middle Eastern market is experiencing a healthier situation might be a direct consequence of the fact that the 2008 crisis impacted this market early, and that subsequently this market is in the later stage of its economic recovery.
- After experiencing an enormous growth from 2011 to 2014, the Asian market seems to have reached equilibrium having a revenue of $120,000 billion and 25% of the market share.
- The Canadian market reached its maximum (both in market share and revenue) in 2014 and has been uninterruptedly decreasing since.
- The North African, Latin American, Caribbean and South/Central African markets have undergone erratic tendencies mainly as a direct consequence of their political and social circumstances.
- The South/Central African market is the only market that has undergone what can be considered sustainable growth in the last two years, undergoing an enormous growth in 2016 and keeping it constant in 2017.

2.6. Market sector analysis

Nine different areas can be differentiated in construction: transportation, petroleum, buildings, power, industrial, water, manufacturing, sewer/waste and telecommunications. This section is organized in two parts. First, the classification of these different areas through revenue and market share. And second, the conclusions of the analysis are carried out. To carry out this analysis, Figures 5 and 6 are attached.

2.6.1. Market sector trends

2.6.1.1. Sector Revenue in $ billions

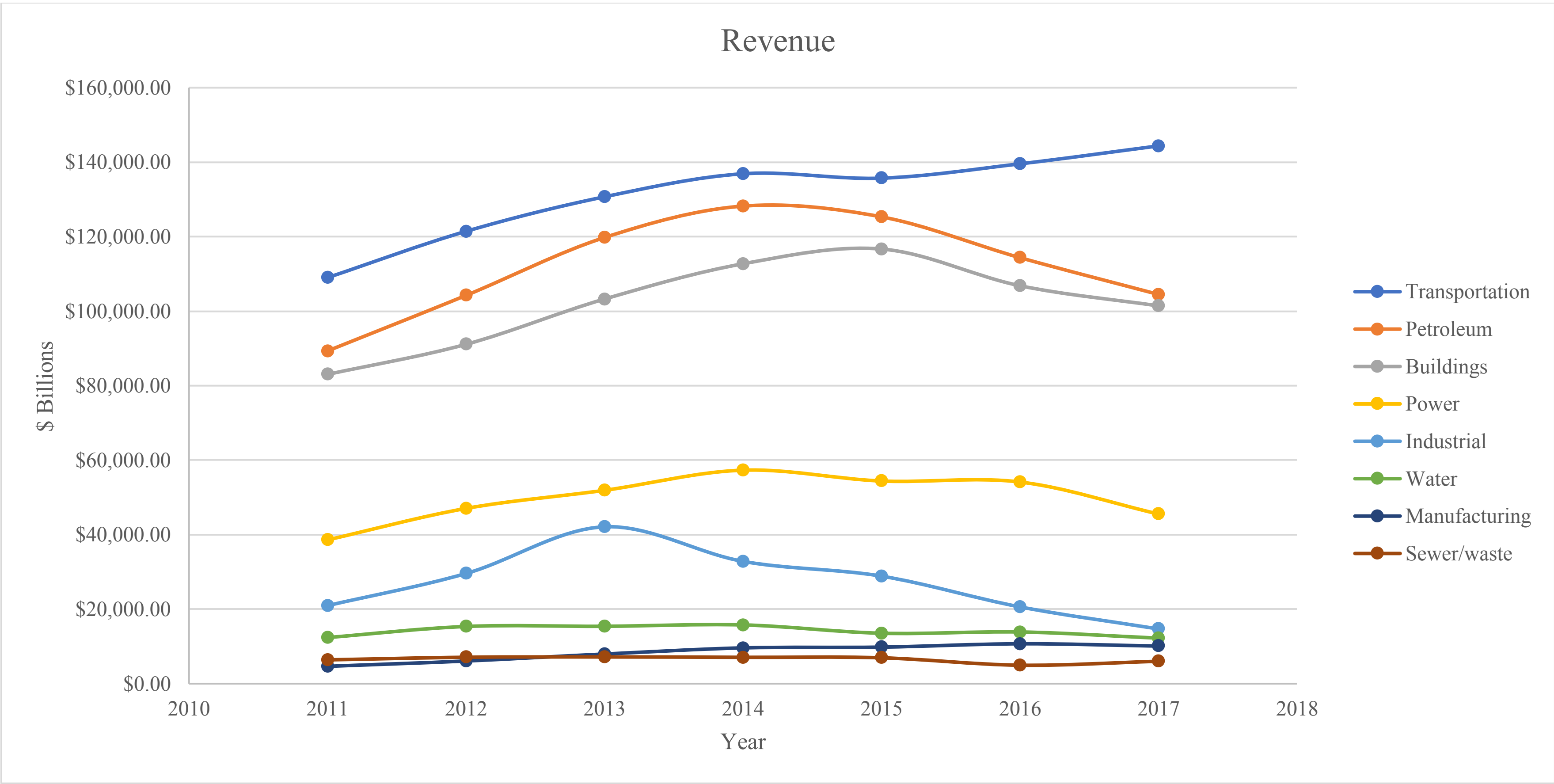


Figure 5. Revenue in $ billions

2.6.1.2. Market share by sector

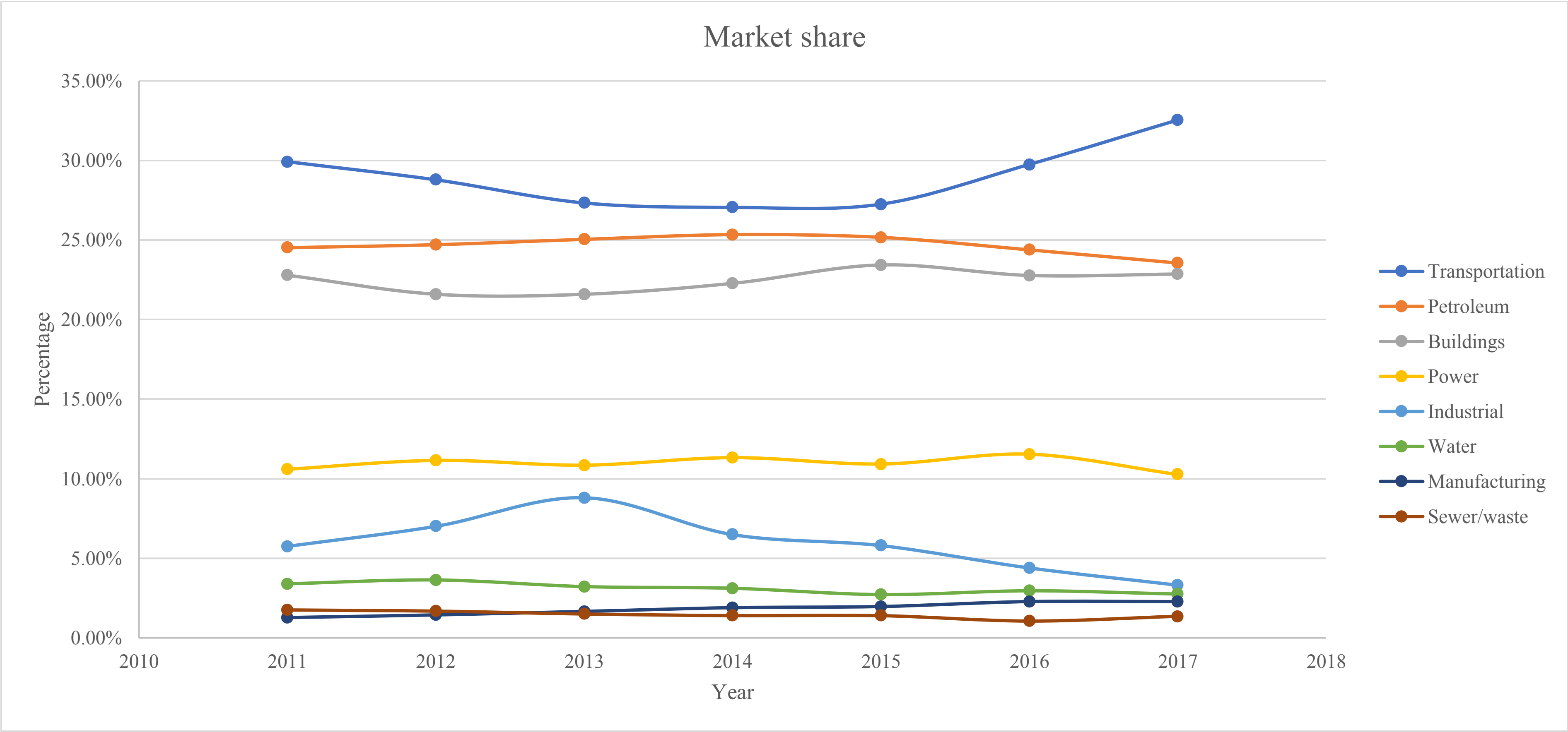


Figure 6. Sectors' market share

2.6.2. Conclusions of Market analysis

Taking a look at Figures 5 and 6, it can be concluded that the sectors in international contracting business have remained in the same position in terms of revenue and market share in the last seven years. This information is surprising, since many of these sectors had to compete against new market players in the last years and at the same time, had to fight new market policies and regulations. This situation refers to sectors like petroleum, that had to fight against new policies that supported renewable energies during this time.

Carrying out a more specific breakdown, it is observed that the growth in revenue of each of the sectors has undergone different trends. There are three sectors: industrial, sewer/waste and manufacturing, that should be stressed, since they have faced the largest changes. The Industrial sector went from growing at a rate of 40% in 2012 and 2013 to a negative growth of -22% in 2014. This trend has remained practically constant since 2014 and it would be reasonable to think that it will keep this way from now on. On the other hand, the sewer/waste sector has undergone positive changes in the last two years. From 2012 to 2015 this field grew slowly at a positive rate. However, in 2016 experienced a negative growth of -29%, while one year after, in 2017 it grew at a rate of +20%. From this evidence, it can be deduced that as soon as governments raise awareness about efficient management, waste turn into a convenient field to invest. So, assuming that this topic will not fall apart in the near future, it can be forecast that it will remain growing at a positive rate. In the same group, but under different circumstances, the manufacturing sector must be underlined. From 2012 to 2016 the manufacturing sector grew at an average rate of 19%, establishing a revenue of $10,707 billion, but in 2017, the growth went down to 6%. Considered as one of the most important sectors of the 21th century, manufacturing is far from reaching its peak. Consequently, it could be predicted that it will keep growing in the near future, holding its position as the sector with the largest average growth rate. In that way, all this information is gathered in Table 3.

Table 3. Revenue growth rate

Revenue growth rate	2011	2012	2013	2014	2015	2016	2017	Average
Transportation		11%	8%	5%	-1%	3%	3%	5%
Petroleum		17%	15%	7%	-2%	-9%	-9%	3%
Buildings		10%	13%	9%	4%	-8%	-5%	4%
Power		22%	10%	10%	-5%	0%	-16%	4%
Industrial		41%	42%	-22%	-12%	-29%	-29%	-1%
Water		24%	0%	2%	-14%	3%	-12%	1%
Manufacturing		31%	31%	21%	2%	9%	-6%	15%
Sewer/waste		11%	1%	-1%	-2%	-29%	21%	0%
Telecommunications				1%	1%	1%	1%	1%

The industrial sector remains the leading sector in the market. Even though it has been decreasing the last five years, its revenue is still about $14,000 billion. While the sewer/waste and manufacturing sectors are growing, and are expected to keep growing, their revenue is still amongst the lowest of the market with $10,000 and $6,500 billion, respectively.

While industrial, sewer/waste and manufacturing are undergoing changing trends, buildings, power, petroleum, water, and manufacturing are fields that have encountered less variation during this period.

It is worth paying special attention to the petroleum, power and buildings sectors since their latest trends have remained constant in the last years. These three sectors average a growth rate of 3.5%. But this data is misleading. In fact, during the last three years, the petroleum, buildings, and power sectors have seen their revenue decrease at a rate of about 8%. While this might be a transitional situation for the buildings and power sectors, petroleum refineries are facing recently created policies that support the development and implementation of renewable energies. Consequently, forecasting a negative tendency for the petroleum sector is considered. The remaining sectors, including transportation and water have shown completely different behaviors.

Transportation can be considered as the most constant sector. Its revenue growth has not undergone changes beyond 10% in any of these years and its revenue has remained on the top of the list. On the other hand, the water sector experienced a huge growth of 24% in 2012 and has struggled to keep its revenue constant in the last 5 years.

In terms of market share, it is worth stressing that since there have not been appreciable changes, four different groups can be formed. These groups are differentiated through colors in Table 4.

Table 4. Market share of every sector from 2011 to 2017

Market Share	2011	2012	2013	2014	2015	2016	2017
Transportation	30%	29%	27%	27%	27%	30%	33%
Petroleum	25%	25%	25%	25%	25%	24%	24%
Buildings	23%	22%	22%	22%	23%	23%	23%
Power	11%	11%	11%	11%	11%	12%	10%
Industrial	6%	7%	9%	6%	6%	4%	3%
Water	3%	4%	3%	3%	3%	3%	3%
Manufacturing	1%	1%	2%	2%	2%	2%	2%
Sewer/waste	2%	2%	1%	1%	1%	1%	1%
Telecommunications				1%	1%	1%	1%

Overall conclusions:

- Every sector's position in the market, both in terms of market share and revenue has remained constant in the last seven years.
- Governments raised about efficient waste management. As a result, it is predicted that the sewer/waste sector continue growing in the following years.
- The manufacturing sector is far from reaching its peak. It can be stated that this field will remain as the field with the highest average growth rate.
- The transportation sector has led the market both in terms of revenue and market share in the last seven years.
- Every sector has kept the market share in the last seven years.

2.6.3. Performance of Spanish companies

In this chapter, an analysis of the biggest Spanish contractors is performed. The goal is to describe the status of the three largest Spanish companies that are operating in the international market. Two metrics are used to perform this analysis: the revenue of each company (international and total) and the position that these companies hold in the international market. Both of these metrics are attached in the Tables 5 and 6. Once the analysis is concluded, it will be used to discuss whether it is worth for these companies to expand to Africa.

Table 5. International revenue (Source: ENR Magazine)

	INTERNATIONAL REVENUE						
	2011	2012	2013	2014	2015	2016	2017
ACS, Actividades de Construcción y Servicio	$6.562,40	$31.147,50	$42.772,00	$44.053,80	$38.707,50	$32.071,80	$-
Hochtief Aktiengesselschaft	$27.424,70	$31.870,70	$34.653,30	$34.485,00	$29.299,30	$24.515,00	$-
Ferrovial	$3.346,30	-	-	$7.416,50	$8.365,60	$7.576,80	$-

Table 6. Total revenue (Source: ENR Magazine)

	TOTAL REVENUE						
	2011	2012	2013	2014	2015	2016	2017
ACS, Actividades de Construcción y Servicio	$20.631,80	$42.082,90	$50.654,60	$51.029,30	$46.081,10	$38.574,30	$-
Hochtief Aktiengesselschaft	$28.979,70	$33.774,90	$36.452,70	$37.012,80	$31.118,80	$25.598,00	$-
Ferrovial	$6.110,60	-	-	$10.861,20	$11.618,60	$10.671,10	$-

The analysis performed in this study starts in 2011, when Hochtief Aktiengesselschaft (from now on, Hochtief) was not part of ACS, Actividades de Construcción y Servicio (from now on, ACS) yet. At the same time, Ferrovial, which is the third largest international contractor from Spain held a good position in the overall ranking. This ranking classifies companies measuring their revenue in the different markets. In that sense, in 2011 ACS appears in 12th position, three spots ahead of Ferrovial, 15th. At that time Hochtief was the largest international contractor and was administrated by German engineers. Some months later, after what could be described as the most important strategic move of the decade carried out by ACS, Hochtief ended up being bought by ACS.

From that year on, ACS has held the first position in the international contractors' ranking, whereas Hochtief has held the second position. In other words, the personnel responsible for leading ACS has managed to keep the two companies at the top for more than seven years.

On the other hand, Ferrovial as the third largest Spanish company has survived in the top 20 of this ranking for 7 consecutive years. It should be noted that during 2012 and 2013 Ferrovial has not been ranked by the ENR Magazine for reasons unknown.

To evaluate the economic performance of these companies, two different metrics can be used, the international revenue (revenue obtained from businesses and operations conducted internationally) and the total revenue (including national and international revenues).

The following conclusions can be drawn looking at Tables 6 and 7:

- ACS's revenue grew by 375% the year after the acquisition of Hochtief.
- ACS's revenue increased every year in the 2011-2014 period. Nevertheless, from 2014 on, its revenue, both international and total have been decreasing.
- The same exact situation applies for Hochtief. After increasing its revenue from 2011 to 2014, it has decreased since
- Paying attention to Ferrovial, its revenue grew from 2011 to 2014, and from that year on it has remained almost constant.

As a conclusion, Spanish companies hold good positions in the international market. Nevertheless, they are losing strength since the competitiveness has increased in these markets. In fact, regulatory laws like the one that tries to keep international contractors from entering the Chinese market are playing an important role in this situation.

All things considered, it is worth continuing the analysis of Spanish companies, looking at their positions in the different markets. One can draw a strategic plan knowing the markets where these companies are strong and the markets they have not penetrated yet.

Reviewing their performance in 2017 in the seven largest markets: Asia, Europe, United States, Middle East, Latin America, Canada, and Africa, the Spanish companies are positioned as follows:

ACS:

- Second position in Asia
- Ninth position in Europe
- First position in the United States

- First position in Latin America
- Fourth position in Canada

Hochtief:

- Third position in Asia
- Second position in the United States
- Seventh position in Canada

Ferrovial:

- Sixth position in Europe
- Ninth position in the United States

All in all, Spanish companies have a very strong position in international markets. However, none of the Spanish companies is among the top 10 of the Middle Eastern or African markets. Looking at these markets, it must be stressed that the top 5 companies in the African market are Chinese companies.

By checking the ranking from 2011 to 2017, it is easy to see that Chinese companies have been growing and reaching higher positions. Given that they seem to have reached their goal of dominating the African market, it is worth analyzing the approach the Chinese companies took to reach the top ranks and why the African market is so important for Chinese construction companies. The other market that Spanish companies have not managed to control is the Middle Eastern market.

3. Entering the African Market

3.1. Introduction

It goes without saying that the increased openness and globalization of the construction market brings all around benefits to those construction companies that expand into international markets. According to (Gunhan & Arditi, 2005), the internationalization process can be carried out by following a structured method that allows contractors to make decisions based on facts, minimizing risks and threats.

To determine if a company can expand its business to international markets, and to define the best entry model available, the company must undergo a two-step methodology. Shown in Figure 7.

First, the company has to make sure whether expanding into a new international market is a good decision. In that way, the company must make sure that it has the resources and the organization required to successfully reach the objectives. This process is split into an internal readiness test and an external readiness test. In the second step, the company has to analyze if the possible benefits of conducting the internationalization exceed the disbenefits. If the result is positive, the model recommends an entry mode.

All these steps can be conducted numerically, paying attention to different factors that have played an important role in previous internationalization processes. At the end, the goal is to have a framework that allows construction companies to evaluate if they are ready to go ahead with their strategic planning.

All things considered, once a company has analyzed and evaluated its current situation and has decided to penetrate another market, an entry mode must be selected. Usually, entry mode alternatives relative to international construction consist of lone operation, joint venture operation, and operation through a subsidiary. Nevertheless, given that the African government are short of cash, the largest players of this market prefer an innovative model to break into this market. They pick Public-Private Partnerships.

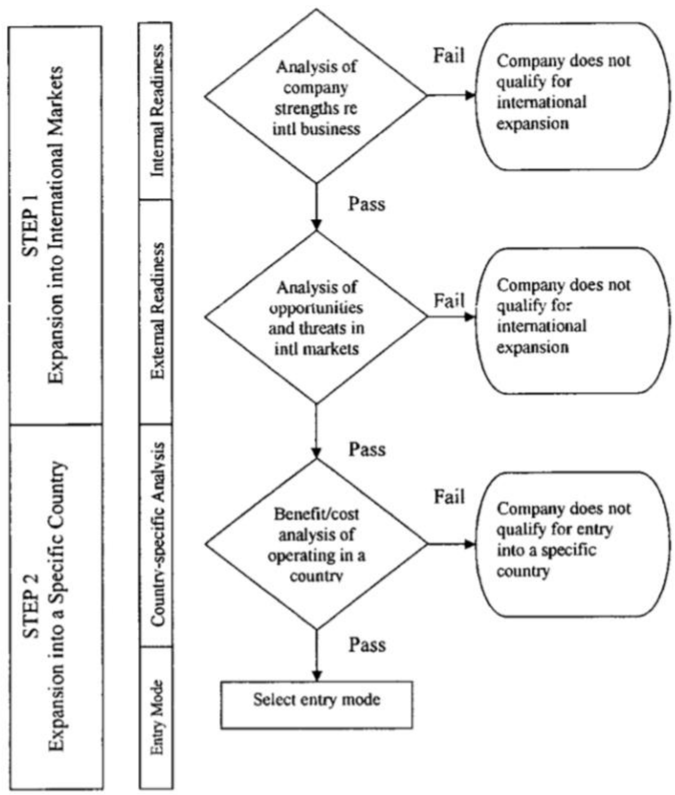


Figure 7. Internationalization process (Source: *(Gunhan & Arditi, 2005)*)

3.2. Public-Private Partnerships

A Public-Private Partnership is an agreement between a properly empowered local, regional or state authority and a private partner with a clear share of responsibilities and risks with the purpose of satisfying a given public need. However, depending on the country concerned, the term can cover a variety of transactions where the private sector may be given the right to operate a facility for an extended period a public service, ranging from relatively short term management contracts through concession contracts, to joint ventures where there is sharing of ownership between the public and private sectors. These contracts are becoming more and more common in both developing and developed countries. May governments find themselves in a position in which their budgetary limitations prevent them from providing their countries with the required infrastructure facilities.

These circumstances apply to Africa, where governments had to look for new models to make the private sector invest in their public projects.

According to (Turina & Car-Pusic, 2005) five models can be used to implement PPP projects:

1. Service contracts
2. Operation and management contracts
3. Leases
4. Concessions
5. Build-Operate-Transfer (BOT) contracts and variants

As shown in Figure 8 this classification is based on the level of private sector involvement, duration of the concession period and the level of risk and responsibility of the private partner. Hybrids of these options can also often be found in practice.

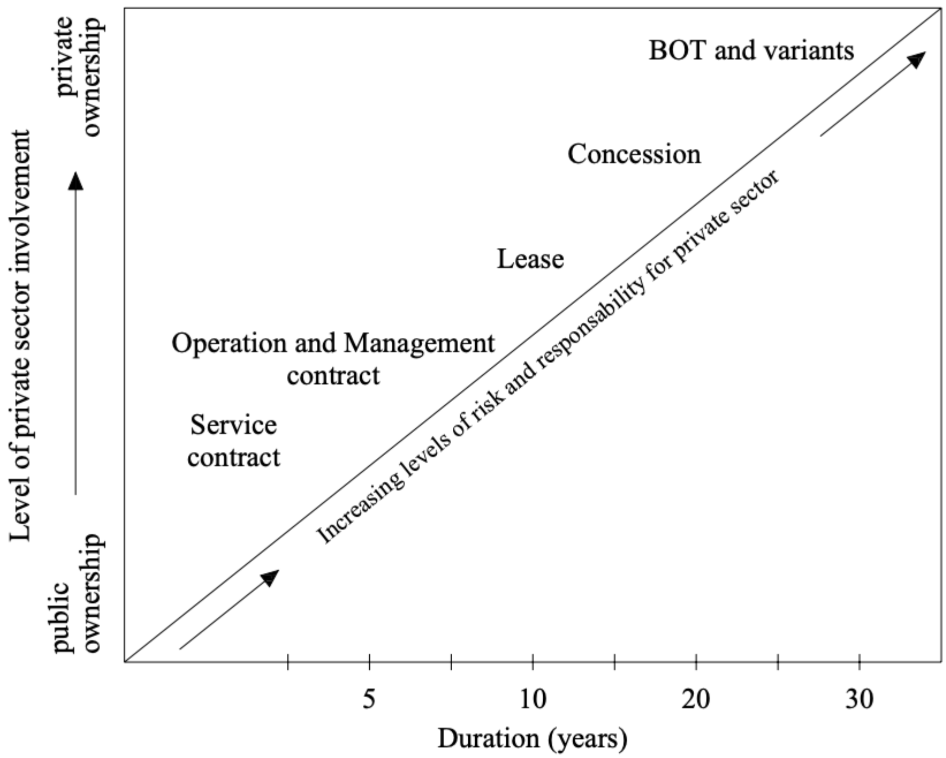


Figure 8. PPP types (Source: *(Turina & Car-Pusic, 2005)*)

Given that Africa is an underdeveloped continent, the level of risk and responsibility for private sector is very high. Thus, BOT is the most common type of PPP implemented in this region.

BOT (Build Operate Transfer) defines the way of contracting the building of large infrastructure. The private company has the responsibility of building the infrastructure and once the infrastructure is built, the private company operates it for a previously negotiated concession period typically (15-30 years). This model fits the needs of Africa, since they are not able to finance large infrastructure projects like ports or railways.

3.2.1. Spanish companies implementing PPPs

Since the objective of this report is justifying the penetration of a Spanish company into the African market, it is worth analyzing the performance of Spanish companies when implementing PPP agreements.

According to (Kurihara, 2016), Spanish companies are leading the PPP global market, with ACS and Ferrovial carrying the largest contracts.

The PPP market can be divided into categories by field, such as water supply, telecommunication and transportation. In fact, is in the transportation field where Spanish companies happen to be the leaders. This situation is observed in Figure 9.

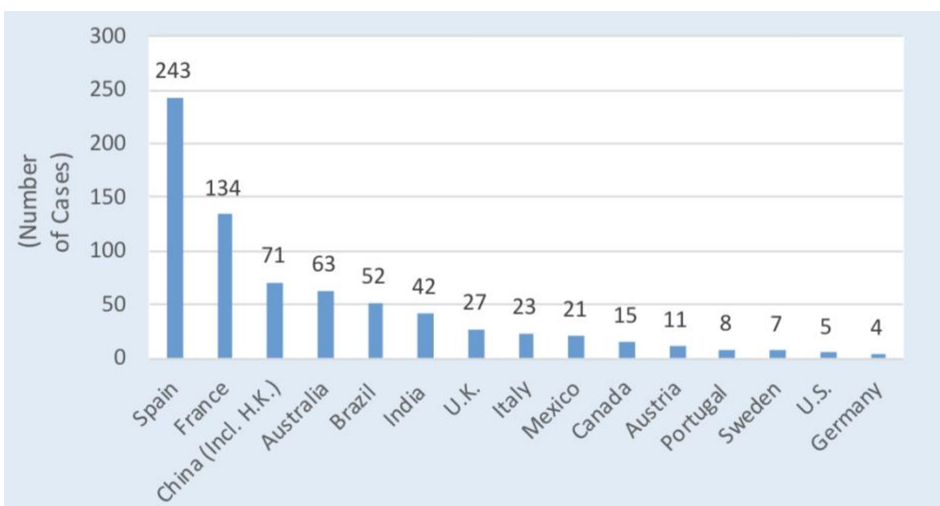


Figure 9. Number of Transportation Infrastructure PPP Projects in the world by nationality of participating companies (Source: *(Kurihara, 2016)*)

When the performance of the Spanish companies is analyzed in the period 1984 to 2014, five Spanish construction companies are ranked amongst the top 10. Thus, in this period, 49% of the total revenues were held by these five Spanish companies . These companies are listed in Table 7.

Table 7. Contract price and number of transportation infrastructure PPP projects in the world by participating company (Source: Public Works Financing)

Ranking	Company name	Nationality	Contract price ($ million)	Number of projects
1	ACS	Spain	75,200	56
2	Ferrovial	Spain	74,300	33
3	Vinci	France	70,800	36
4	Macquarie	Australia	48,200	43
5	Bouygues	France	44,700	27
6	John Laing	U.K.	32,900	16
7	Egis Projects	France	24,100	25
8	Sacyr	Spain	22,900	22
9	FCC	Spain	21,200	43
10	OHL	Spain	19,900	21

Note: Transportation infrastructure includes roads, railways, airports, and ports. Contract price is the aggregate amount in the period from 1985 to 2014. Number of projects is as of 2014, except for John Laing whose data is as of 2013.

Based on the data provided in the preceding chapters, even if Spanish companies excel in PPP projects, they have not penetrated the African market, while leading the Asian or Latin American markets. The fact that made Spanish companies go ahead with these two markets is related to Spanish banks. During the 20th century, Spanish financial institutions increased investments and loans in Latin America, where they had a competitive edge against any other European bank. In fact, as of the end of 1999, the assets of BBVA and Banco Santander held in Latin America accounted for 29% and 35%, respectively, of the total assets of each of these banks (Casilda & Calderón, 2000). These banks took advantage from both the public and private entities involved in the mentioned PPP projects, financing both sides while gaining market share in those regions. This strategy was used again in the U.S. market.

Per Public Works financing magazine, from 2009 to 2013, the total contract price of the toll road PPP projects implemented from 2009 to 2013 in the U.S. was approximately $15 billion. Of this volume of work, $9.2 billion worth of work was undertaken by Ferrovial and ACS, which constituted 60% of the total investment in PPP projects. This strategy was carried out by these firms and was supported by Spanish financial institutions in penetrating the U.S. market.

All things considered, the studied Spanish companies have demonstrated to be ready to penetrate into the African market, not only because of their current economic wealth, but also because of their experience in PPP infrastructure projects that proved to be effective, efficient and successful in more competitive markets. In fact, ACS decided to start testing the African market in 2017, when through a joint venture between Tedagua (ACS's subsidiary) and Eiffage (a French company), ACS won a contract to implement a PPP project in the water supply field in Djibouti. This PPP project was classified as a BOT contract type. These companies kept the rights to operate the infrastructure for five years. This is a short period given that it is a BOT. However, this project is supported by the European Union, in an innovative program whose goal is to improve the water supplies of the underdeveloped countries.

3.2.2. Chinese companies in Africa

Even if it they seem to operate separately, Chinese companies respond to the Chinese government's orders. The fact that Chinese construction companies have been so aggressive in Africa the last ten years, is nothing but the execution of a strategic plan designed and implemented to exploit African natural resources.

In 2011, the presence of Chinese companies in the African continent was not extensive. However, after long periods of continuous investment, by 2017, the African construction market was led by Chinese contractors.

A significant point in this relationship ocurred in 2015. In 2015, according to (McGroarty, 2015), the Chinese government strengthened its position in the African market. Quoting the author:

"China's President Xi Jinping on Friday pledged $60 billion in financing for development across Africa, aiming to reaffirm his country's commitment to the continent despite the economic turmoil caused by slowing growth of the world's second-largest economy."

In the same article, the author attached the words of China's president, Xi Jinping, during his meeting with the African leaders:

"*These plans are aimed at addressing three issues holding back Africa's development, Namely inadequate infrastructure...professional and skilled personnel, and funding."*

As a consequence of the slower economic growth in China, prices of oil, copper and iron produced by countries such as Angola, Zambia and South Africa went down in 2015. However, China decided to double its investment to reach $60 billion (in 2012, China had already invested $30 billion in a three-year plan 2012-2015).

Three years later, the Forum on China-Africa Cooperation (FOCAC) took place. As in 2015, Xi Jinping announced $60 billion in new financing for Africa. Unlike in 2015, the Chinese government put $50 billion, $10 billion less than pledged in 2015. The difference came from private Chinese investments. According to (Tiezzi, 2018), the government-supplied total included $20 billion in new loans and $15 billion in foreign aid, plus an additional $15 billion in two “special funds”.

In 2015, China was celebrating its sixth year being Africa’s top trade partner, reaching $222 billion in commercial agreements. The same exact year happened to be important in their relationship, since China decided to keep investing in Africa when its economic growth was in doubt. Now, after three years, its relationship is stronger than ever.

According to (Tubei, 2018), Chinese contractors are currently funding massive projects in Africa. These projects are presented in Table 8.

Table 8. Largest Chinese projects in Africa

Project	Location	Budget (African Rand)
Mombasa-Nairobi Standard Gauge Railway	Kenya	R57.7 billion
African Union headquarters	Addis Ababa, Ethiopia	R3 billion
ECOWAS Headquarters	Abuja, Nigeria	R475.7 million
Ghana's bauxite exploration	Accra, Ghana	R150 million
Angola's Caculo Cubaca Hydropower plant	Dondo, Angola	R67.7 billion
Congo's special economic zone	Pointe-Noire, Congo	Rights over the zone
Nigeria's Edo State Oil refinery	Edo State, Nigeria	R30.1 billion
Zambia's cement factory	Zambia	R7.5 billion
Egypt's new city	Egypt	R301.1 billion
Zimbabwe's new parliament	Zimbabwe	Expected cost: R2.1 billion Chinese donation

3.2.3. Belt and Road initiative (BRI)

The current status of Chinese companies in Africa is a consequence of the strategic plan of the Chinese government. Even if it seems to be the result of a well-structured PPP action plan implemented by Chinese construction companies, these companies are nothing but one of the tools of a biggest goal, the Belt and Road initiative (BRI).

BRI is described by (Kuo & Kommenda, 2018) , as a Chinese Marshall Plan; "*A state-backed campaign for global dominance, a stimulus package for a slowing economy,* *and a massive marketing campaign for something that was already happening Chinese investment around the world."*

The BRI is expected to cost more than $1trillion. To date, Chinese companies have secured more than $340billion in construction contracts along the Belt and Road. In that sense, Figure 10 shows the cumulative quantity spent to this date.

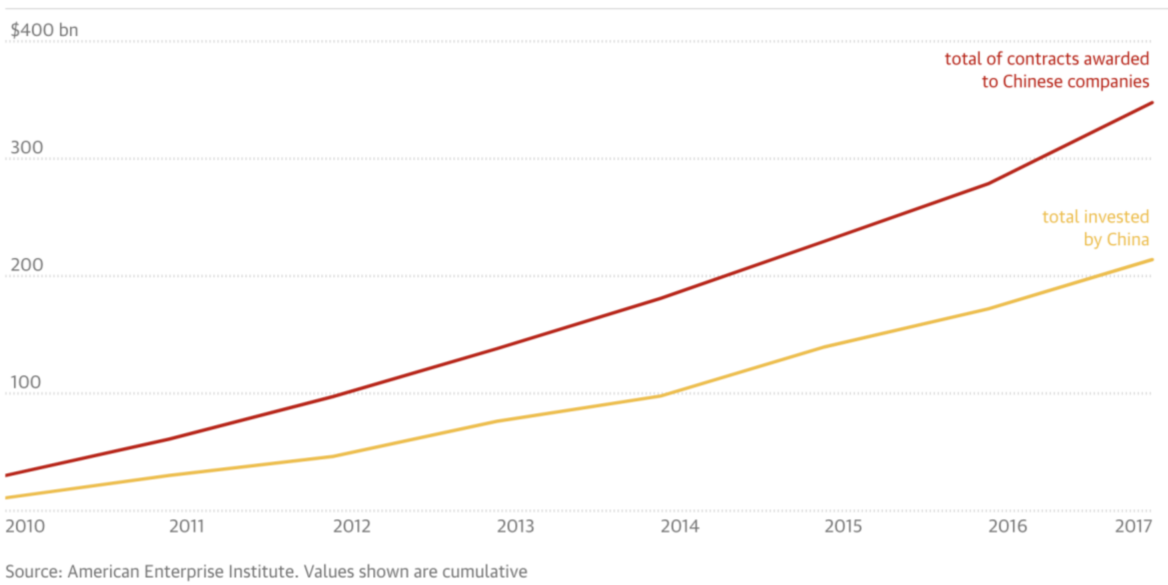


Figure 10. Cumulative expenditure of the Chinese government (Source: American Enterprise Institute)

One may ask about the risks that this project might suppose for the countries involved. For example, Malaysia and Pakistan have recently shown their concerns regarding the action plan of this project. According to the Center of Global Development, eight more Belt and Road countries appear to be in the same situation. The eight affected nations - Djibouti, Kygyzstan, Laos, the Maldives, Mongolia, Montenegro, Pakistan and Tajikistan – are among the poorest in their respective regions and will owe more than half of their foreign debt to China.

In Figure 10, the BRI map is shown.

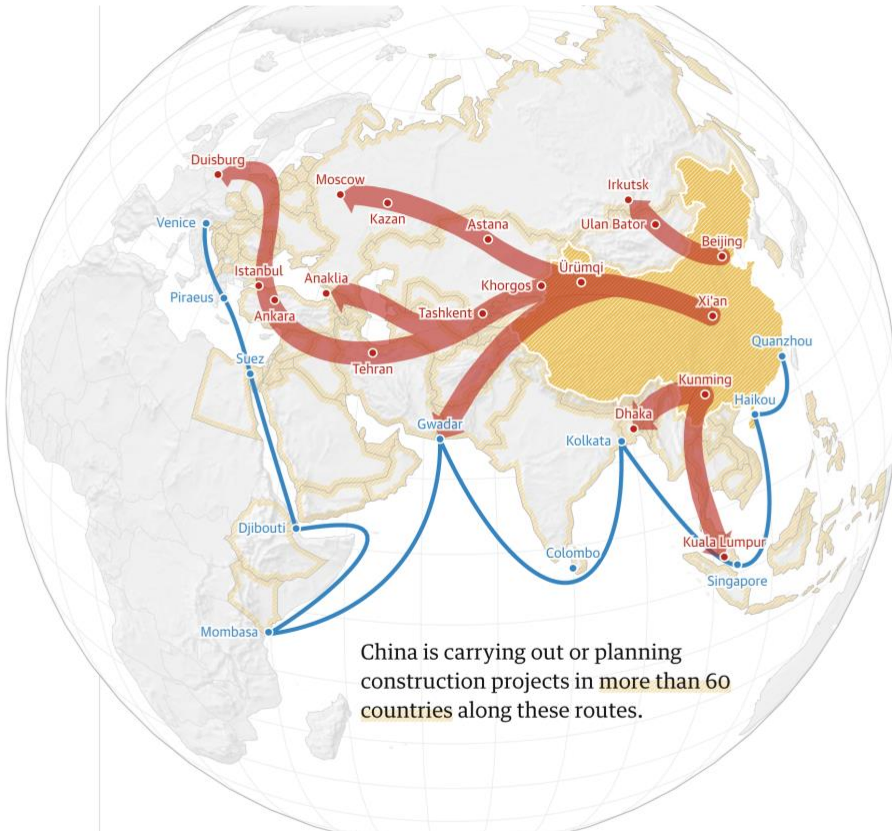


Figure 11. Belt and Road iniative's map (Source:Center of Global Development)

China lends money to countries involved in very high risk environments. In these situations, the leverage that China has as lender is used for different purposes unrelated to what seems the original objective. One of the most important cases among is the case of Pakistan. This scenario is analyzed in depth in the next section, since the investment by China is the same amount invested in Africa. The analysis of the outcome of this investment will shed light on what Africa might face in the near future.

3.2.4. Pakistan's analysis

The purpose of this section is to analyze the current situation of Pakistan, a region in which the Chinese government invested $60 billion and where the economic situation is even better than Africa. Given that the modus operandi of the Chinese government has been similar to the one pursued in Africa, this analysis is expected to shed some light on the future of Africa.

(Page & Shah, 2018) describe the situation in Pakistan. Pakistan's economic standing is similar to a company that has difficulty repaying the borrowed money. In Figure 12, both Pakistan's external debt and Pakistan's gross external financing needs are illustrated along with the percentage of the Pakistan's GDP that these values represent.

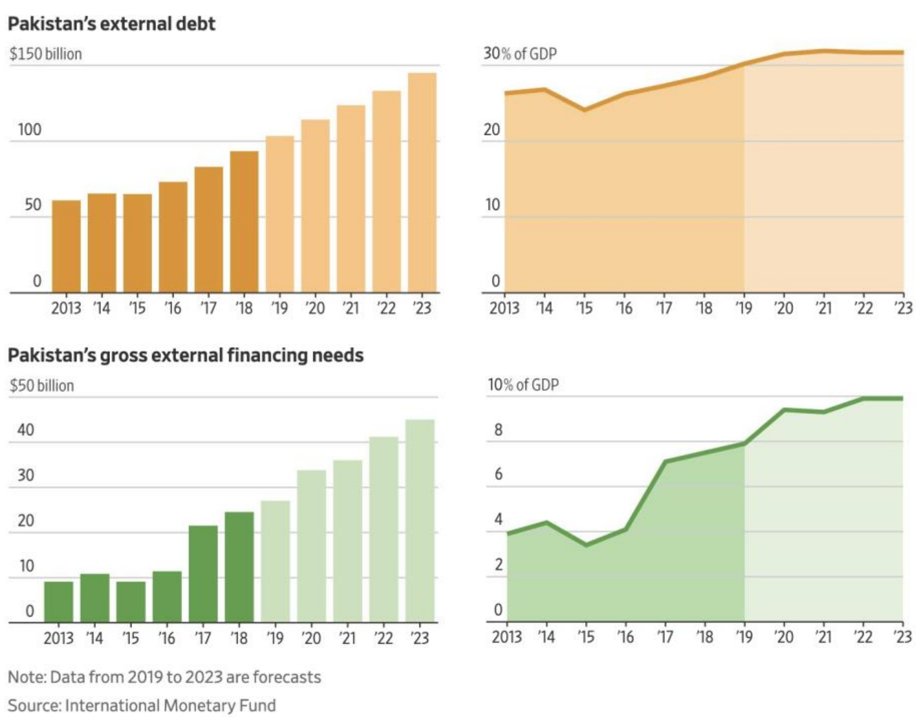


Figure 12. Pakistan's external debt vs GDP

It was in 2015 when $62 billion were invested by China in Pakistan. From 2015 to 2018, many projects have been completed and many others are planned. A complete breakdown of the projects is shown in Figure 13.

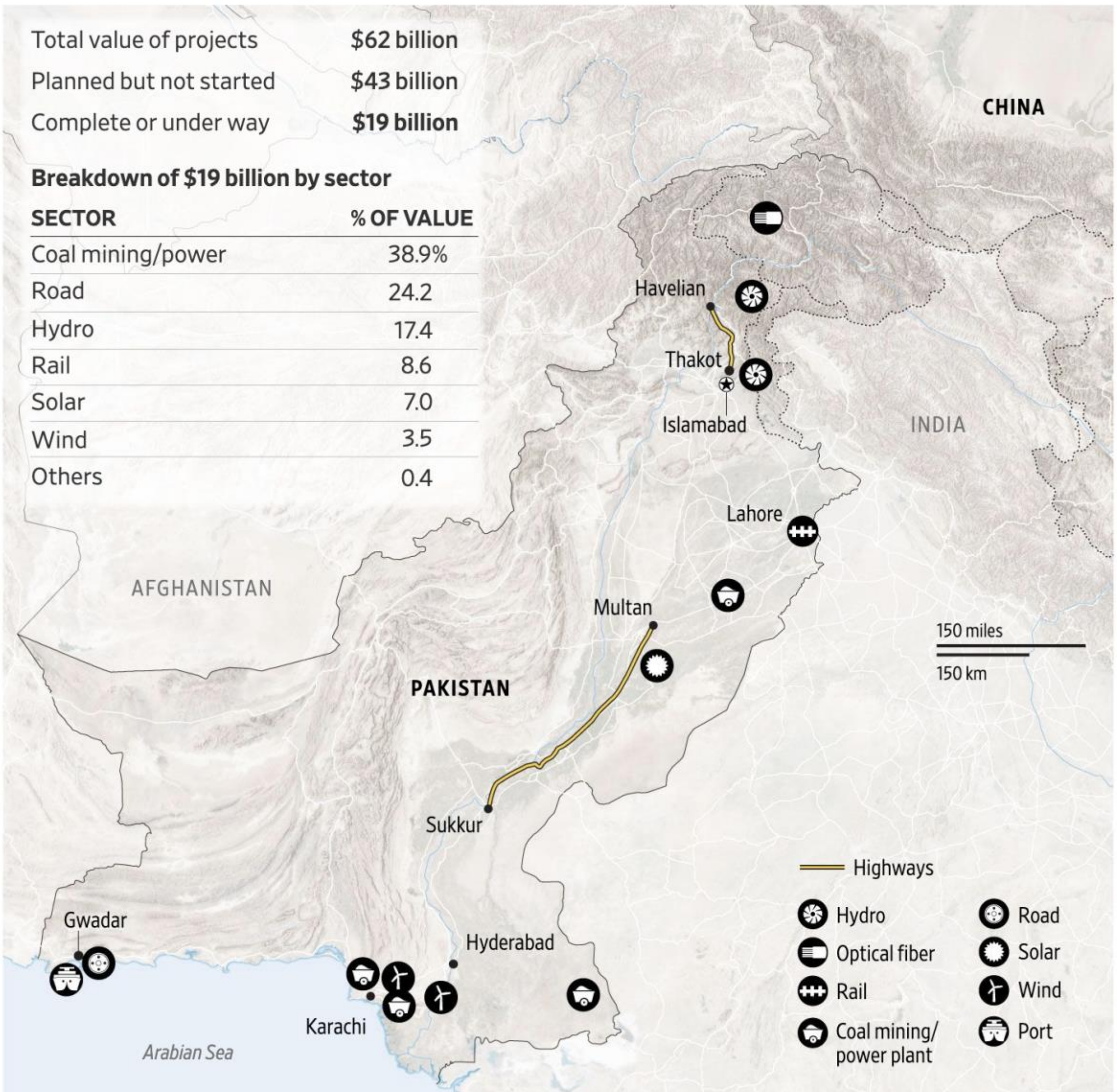


Figure 13. Breakdown of the projects taking place in Pakistan (Source: Government of Pakistan)

Among these projects, Pakistan's first metro, known as "the Orange Line", which was not included in China-Pakistan Economic Corridor project in the beginning, has ended up being a source of problems.

The problem arose in July 22 (2018), with a general election in Pakistan scheduled for July 25, when the opposition started to ask for the details about the financing of Chinese projects. Indeed, at that time, Pakistani officials said that Pakistan's new government was likely to seek a bailout from the International Monetary Fund, the nation's first since 2013. This bailout was expected to include restrictions on borrowing and spending, forcing Pakistan to restrict its Belt and Road program with China.

At the same time in Malaysia, the second-biggest recipient of Belt and Road loans after Pakistan, a new government lead by Mahathir Mohamad, who at age 92 was beginning his second stint as prime minister after turning the country into an economic powerhouse in the 1980s and 90, suspended work that month on a $20 billion Chinese railway project. Furthermore, Malaysian government stated that Chinese projects were to be reviewed, since the defeated departing leader Najib Razak was accused of corruption.

Another countries in the BRI initiative also showed their concerns. During July Myanmar was renegotiating a $10 billion Chinese port project while Nepal have already halted plans for two Chinese-built hydroelectric dams.

Nowadays, Pakistan government has turned to Gulf nations. Saudi Arabia and United Arab Emirates are ready to financially support Pakistan, investing $20 billion. In addition, Saudi Arabia and U.A.E are set to provide immediate loans to Pakistan of up to $12 billion. This loan is expected to help Pakistan while battling its payment crisis.

On the other hand, according to (Shah, 2019) Finance Minister Asad Umar has been talking with the IMF since October. Now, with the Gulf funds, the IMF loan required is much smaller and therefore, Pakistan is expecting the IMF to meet some terms.

From all this information, the following conclusions are inferred:

- ❖ All the deals involved in the Belt and Road initiative are opaque deals, in which none of the specifics have been made public.
- ❖ Chinese government has invested in countries where the economic situation did not guarantee the repayment of the initial investment.
- ❖ Countries like Pakistan and Malaysia are reviewing their deals with the Chinese government, since their precedent leaders are accused of corruption.
- ❖ Pakistan, which received a similar investment to the one received by Africa, is now undergoing a debt crisis. This crisis is trying to be solved by the new government by asking for loans to U.A.E and Saudi Arabia along with the IMF.

Among these conclusions, is important to stress that the Chinese government invests money in countries that prove to be far from prepared economically. These countries always count with strategic positions that Chinese seem to be pursuing.

3.3. Africa's current situation

The purpose of this chapter is to describe the current scenario in Africa, paying special attention to different approaches taken by the countries that have already invested or somehow, collaborated with African leaders in precedent years. By this analysis, the objectives of the implemented strategies are going to be studied separately. Once these objectives and strategies are accordingly examined, the role that Spanish construction companies could play will be shortly described.

According to an article of The Economist, nowadays, the biggest sources of foreign investment in Africa are from America, Britain and France, with China receiving attention for its aggressive investing strategy. At the same time, India and Singapore appear to be willing to put their money on African projects. However, even if these countries are on the top of the list, each of them is following and executing a completely different strategy. Among other reasons, every country is seeking different outcomes for its investment, which results in a singular investing behavior for each of them. That said, two different kind of investments can be distinguished; the ones looking for a strategic location and the ones looking for Africa's natural resources. Other options might be worth considering but for this chapter these are the ones that are going to be analyzed.

3.3.1. Strategic location

Among the reasons that support foreign investment, the strategic location of some regions of Africa can be highlighted. An example that can help understand this situation is the horn of Africa. Thanks to its proximity to the Suez Canal, and given its location, it is considered as an ideal place for those who want to take part in the Asia-Europe trades.

To give an idea of the current situation of the Horn of Africa, it is worth underlining the port built in Djibouti. According to (Paris, 2019), China Merchants Port Holdings took control of operations at Djibouti's Doraleh Container Terminal, by building a multipurpose cargo facility backed by the Chinese and African governments. The Chinese government sees Djibouti as part of its BRI project. Thus, this port is proving to be crucial for Chinese companies to deliver as much cargo as possible in the shortest time to European markets.

The situation in Djibouti is far from being stable. A Dubai-based company, DP World, was granted a 25-year concession to run the Doraleh Container Terminal back in 2004. However, this contract did not stop the Djibouti government from tossing out the agreement and nationalizing the container terminal. After that, Djibouti brought in Chinese businesses in return for investment and state financing. As a logical reaction, DP-World sued the Djibouti government and is now waiting for the trial to take place in London.

Djibouti is also known for its military bases. Both the Chinese and Americans have built military bases close to the port. Americans claim that the purpose of that military base is to monitor sea traffic and to curtail al-Shabaab, an East African terrorist group, while Chinese say that their military base is built to secure the operations in the container terminal.

Apart from the United Arab Emirates (U.A.E), China and the U.S., there are more countries willing to invest in the Horn of Africa. Given the way the Djibouti government has coped with foreign investments recently, and adding the military presence of the Chinese and the Americans, investing in the Horn of Africa does not guaranteed success as operating any infrastructure safely in Djibouti seems to be problematic.

3.3.2. Commodities, natural resources

Investments in commodities appear to be lucrative as South Africais the largest producer of platinum, gold, and chromium in the world. At the same time, northern Africa consisting of Algeria, Egypt, Libya, Mauritania, Morocco, Tunisia, and Western Sahara is known for its extensive crude oil reserves. In fact, over 10% of the crude oil imported to Europe comes from Libya.

Africa possesses many natural resources, but in many cases does not have the technological or operational resources to extract these materials. Therefore, Africa has historically tended to adopt liberal legal frameworks and in some cases, fiscal incentives to motivate foreign investors. Thus, investors build the required infrastructure to extract and export the natural resources.

Many of these natural resources play an important role in western economies, since many products are made with them. Given their importance, their price fluctuates and African governments have not acted ethically in managing the agreements that were previously signed.

A good example of this situation is described by (Wexler & Patterson, 2018). According to this whom, African mining companies based in the Republic of the Congo, Congo government and foreign mining companies negotiated a price for cobalt before initiating the construction of the required infrastructure to extract this material. Given the importance of this material, which is used in cellphones and for making the lithium ion batteries that are installed in electric vehicles, its price has fluctuated significally since the agreement was signed. Actually, when the price of cobalt started to rise, African mining companies based in Congo asked for a contract review. Logically, foreign investors rejected all those requests and African mining companies decided to unilaterally toss out those contracts with the support of the Congo government.

This incident that took place in the Republic of the Congo involves Glencore PLC, Randgold Resources and the African mining company Gécamines. Even if it seems to be an isolated case, it is not. The conclusion that has to be inferred from this scenario is clear.

Africa's natural resources play an important role in the world's economy, since they are used to build many high-tech items. As a consequence, their prices vary every year. Nevertheless, given the uncertainty that surrounds the political environment of Africa and the lack of capital and skills to extract the natural resources, African government have always been obliged to operate under investors' terms so that the investment could be guaranteed. However, as it has been explained before, African government has not proved to be trustworthy in any of these cases. Even if this case in the Republic of the Congo seems to be isolated, similar incidents took place in Libya, being oil the natural resource foreign investors came for.

In short, after analyzing two of the most common reasons that motivate investors to invest their money in Africa, the conclusion is straightforward. Africa tends to promise many incentives to attract investors. Nevertheless, if the business starts to make more money than expected, African companies ask for contract reviews that have ended up in nationalizing African resources.

3.3.3. Performance of Spanish companies

This document started analyzing the top international contractors, and the major sectors where these contractors invest. All this information's purpose was nothing but providing a background that could be used to understand Africa's circumstances.

After that, the major players in Africa were described, paying special attention to China. Since the Belt and Road Initiative is one of the largest projects nowadays and given that Africa is supposed to play a key role in it, this plan was also studied and evaluated in depth. Furthermore, given that the investment plan that China is willing to implement in Africa was implemented and executed in Pakistan years before, it was studied. One more time, the objective of this study was nothing but trying to forecast the possible economic and political situation of Africa.

Beyond this, Africa's behavior towards business agreements was analyzed in the last chapters. Specifically focusing on deals related to commodities or infrastructures, two of the most common kind of businesses in Africa.

All this information, helped in the process of carrying out a SWOT analysis for a Spanish company willing to penetrate the African Market. That said, and given the know-how that the Spanish constructors have in PPPs and the experience related to carrying out these kind of deals in places where corruption is an issue, the SWOT analysis shows the following results:

• Know-how in PPPs
• Experience in penetrating politically unstable and underveloped countries
• Experience in dealing with corruption
STRENGHTS
WEAKNESSES
• Spanish companies lack the capital of many of their competitors
• Do not have military presence
• Spanish projects cannot have the size of their competitors'.
OPPORTUNITIES
THREATS
• Africa's resources make it eligible for a PPP model
• Strategic locations for the international commerce
• Continuosly growing market
• Closeness to Spain
• Military presence in many locations
• Africa's external debt is considerable compared to its GDP. Risk of repayment.
• Africas has nationalized resources before

4. Conclusions

In the last chapter of this report Africa's situation has been described. As a conclusion, Africa stands out for offering a wide range of opportunities. It does not only count with a crucial strategic location that could play in favor of all those willing to increase their position in the transportation of goods across Asia and Europe, but also with a countless number of natural resources. At the same time, Africa is also notable for its political uncertainty, corruption and for the number of cases in which the government has tossed out agreements without previous notice.

Africa can still be considered as an underdeveloped continent. At least, in terms of infrastructure and GDP, there is no reason to support the opposite. The bright side of this scenario is that Africa needs help in every front regarding infrastructure, from water supply to telecommunications. These circumstances turn Africa into a huge niche for those international contractors anxious to diversify their portfolio and operate in a yet to be exploited market.

In a certain way, Africa resembles Latin America a decade ago. Leaving aside its cultural differences, both places are represented for their corruption and political uncertainty while offering a wide range of opportunities. However, there is a difference that could result in a whole different outcome. Africa's geographical position adds a lot of value, and as it was mentioned in previous chapters, this feature has made Africa a target market for Chinese companies. As the information provided shows, the Chinese government made an unprecedented investment while supporting its BRI initiative. Looking at Africa's current GDP, and even assuming an infeasible growth rate, Africa does not seem prepare to cope with the repayment of the borrowed money.

Even if this new scenario generated as a consequence of China's investment does not look like a major issue, countries like Pakistan or Sri Lanka prove otherwise. As it was studied in section 3.2.4, Pakistan is undergoing a financial crisis after China's investment. The constructed infrastructures were expected to generate more money and since the objectives have not been met, Pakistan is dealing with a financial crisis that will not be resolved if it does not borrow money from another source. In any case, Pakistan's government is trying to avoid the solution that Sri Lanka's government adopted when they decided to transfer one of their ports' ownership to the Chinese government, as part of their repayment plan.

In short, China's investment will have an inevitable impact on Africa's financial health. It might end up well, with the Chinese-financed infrastructures help Africa grow sustainably. Or it might end up bad, with Africa undergoing a financial crisis that unlocks new opportunities for foreign investors. Regardless of the outcome, the conclusion is that the **timing** will play a key role for those willing to penetrate the African market through PPPs.

Apart from making a huge investment, the Chinese government has also generated competitiveness, since many other countries seeking for that strategic location have followed different strategies to achieve a position of strength. That is the case of the US (Camp

Lemonnier, Djibouti) among many others like France, Japan, Italy or Saudi Arabia. At the end, having the control of Djibouti means having access to Europe (through the Suez Canal), Africa and Asia at the same time, and therefore many countries have decided to seek control of this location. All these countries justify their military presence in Africa by saying that their unique goal is to secure and protect all the international trades that occur there.

In terms Politics, the Horn of Africa -Ethiopia, Eritrea, Djibouti, Somalia and Somaliland- has been influenced by the US since 1991, when the Americans allied with Ethiopia during the revolution that brought Ethiopia’s present ruling party to power; Ethiopian People’s Revolutionary Democratic Front (EPRDF). Ethiopia is considered the most influential region of the Horn of Africa, and the US remains supporting it nowadays.

Apart from the US, the UAE and other Gulf States are now playing an important role in Africa’s economy. Their relationship began in the 1973 oil-crisis, when oil-producing Arab countries cut down production to punish Western countries that supported Israel in the Yom Kippur War. Horn countries suddenly faced soaring inflation as a consequence of the crisis. Countries like Somalia, Djibouti, Egypt or Sudan appealed to their cultural and religious ties with the Gulf countries in an intent to gain help in dealing with their payment crisis and political uncertainty. Arab nations seized the opportunity to increase their influence in the Horn of Africa while securing key loyalties. The end of the cold war in 1990 caused a shift in their relationships since the Horn of Africa underwent many changes. Nowadays, these relationships are back, and the Gulf States are active players pursuing deals in Africa.

The competitiveness that has been generated in the Horn of Africa has led to many changes in the approach taken by the Chinese. In fact, China has announced its decision to cut down investment in Ethiopia until its current debt payment is restructured. China was building a major infrastructure to interconnect other African regions to the Horn of Africa, and has decided to stop investing since the Chinese government is not willing to provide its competitors with infrastructures that could facilitate the transportation of any kind of natural resources. In any case, China is still the player with the most diversified portfolio of projects and by far the market leader in the construction segment. In Figure 14 this is clearly stated.

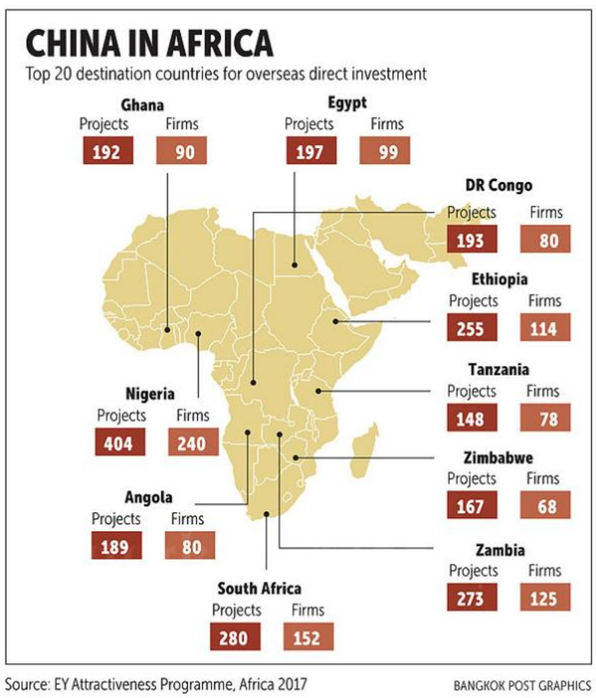


Figure 14. China's projects in Africa (Source: EY)

All this information leads to think that the largest battle for infrastructure contracts will take place in the Horn of Africa, while the western and center of Africa will be ignored for many of the largest players in the construction industry. This is the niche that Spanish construction companies could penetrate.

As it was stated in previous chapters, Spanish construction companies have taken part in many PPPs, three more times than Chinese construction companies. In fact, Spanish companies base their revenue stream in this kind of contracts and conquered the Latin American market implementing this approach. Their know-how in penetrating markets defined by corruption and instability is recognized. Beyond that, Spanish companies count with the flexibility of being able to build any kind of infrastructure and have already experienced cases where their partners nationalize the infrastructure or tossed out the agreement. These facts make Spanish companies eligible for penetrating the African market.

Spanish companies should be able to follow the same approach that has proven successful in previous cases. The Spanish government is responsible for sending diplomats and commercial attachés to the targeted regions, in order to understand the political, social and financial needs of that region and act accordingly.

This approach worked out in Latin America and should be applicable to the African market too. However, it should be noted that there are two more facts that should play an important role in the Spanish companies' decisions. On the one hand, Chinese companies are already constructing infrastructures in almost every region of Africa. Therefore, many of these regions will see how their financial health will be dependent on the yield of these infrastructures. Spanish companies should adapt their offer to these circumstances. On the other hand, the most competitive part of the market will be based on the Horn of Africa. The Spanish government must send diplomats to these countries, specifically the ones that are not officially allies of any other market players like Somalia or Eritrea. Understanding their needs while proving their effectiveness with projects in Western and Central Africa could make Spanish companies eligible to build and operate their ports and other infrastructure projects.

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