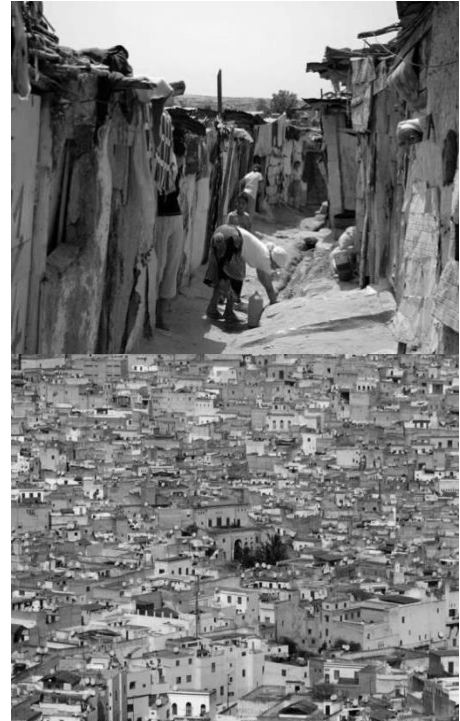




CFG Group

**MOROCCO
REAL ESTATE
EQUITY PRIMER**

**UNVEILING
SOLID FUNDAMENTAL
STORIES BEHIND
THE PSYCHOLOGICAL
CURTAIN**



Summary | Investment case

RECOMMENDATION

We recommend to **buy** Addoha (CS: ADH) with a price target at **MAD 46.1 per share** representing an **upside potential of 71%**.

We recommend to **buy** Résidences Dar Saada (CS: RDS) with a price target at **MAD 261 per share** representing an **upside potential of 71.5%**.

SUMMARY

Whether you are screening for anti-momentum stocks, following the Greenblatt's motto "Buy low, Sell high", looking for stocks in distress climbing the hill, or haunting opportunities to invest in companies "who have learned from their mistakes", do not look any further: **Moroccan real estate stocks offer a compelling investment opportunity.** While we think that we are approaching the end of the nightmare, and that **the sector will soon enter a bullish territory**, we cannot emphasize enough the importance of stock selection. It is true that stocks tend to trade in sympathy with each other when bad news hit the market, but this is only happening because there is a general belief that the social housing market fundamentals have weakened causing a series of adverse events in the sector.

This is why, we first show in this report that market fundamentals are healthy.

Indeed, some adverse evolutions of the sector's key indicators triggered bearish sentiments while they should be analyzed in their specific context. **1/As a matter of fact, the slowdown in the production of social housing does not mean that the demand is anemic, but instead that the success in this business is reliant on a deep know-how without which high margins are barely yielded. It is a business with high entry barriers, where many entrants (neophytes) found their way out quite fast.** The evolution of housing starts for social and economical housing are bell-shaped with the top of the bell located in 2011 after the 2010 fiscal reform which provided an attractive regulatory and fiscal framework to spur the segment. Social housing production is now converging back to the pre-2010 era i.e. to normal levels.

If Addoha and Résidences Dar Saada emerged as the winners in an industry where many developers shied away from the business, it is because they have in their DNA the capability to steer real estate projects affectively. **2/As competition is lessening, ADH and RDS will be benefiting from a market that will probably be undersupplied as shown by our estimates of the demand for social housing in the period 2014-2020^E.** In our base case, we find that 60% of households can afford social housing thanks to the impetus resulting from demographic growth and urbanization but also thanks to a favorable regulatory and fiscal framework as well as proper housing finance mechanisms that have allowed the supply of a housing product that is bridging the affordability gap. Henceforth, **we estimate demand for social housing at 610,200 units for the 2014-2020^E period, and even when considering that there is no inventory of households who would acquire social housing at the end of 2014, we find that demand stands at 490,200 units for the period or 81,700 units per annum to be compared to a production of social housing that stood at 66,766 units in 2014** (production which is following a downward trend).

Although we derive estimates for the demand of social housing at the national level and show that social housing is indeed undersupplied, **3/ we do insist on the fact that there are regional discrepancies and that developers will need to go look for this demand at its actual location. We find as a matter of fact that the Casablanca-Rabat axis is the region where the bulk of the demand is located.**

A bottom-up analysis of ADH and RDS does corroborate the bullish sentiment triggered by our macroeconomic analysis.

ADH have re-engineered their corporate strategy to re-focus on cash generation and increasing dividends. The progress of the strategy has been showing so far that not only these objectives will be achieved, but also and more importantly that **1/ADH might become one of the best yield stories in the Casablanca stock exchange.**

RDS is a great story of a developer engaged in a high growth cycle. RDS have an excellent track record of beating their own guidance. Despite strong fundamentals, RDS has been suffering from a general climate of reluctance to invest in the sector. As a result, **2/RDS offers today a wonderful investment opportunity with a very nice entry point.**

It is important to emphasize that the two developers are now facing an unprecedented opportunity to serve a healthy demand undersupplied as a result of high entry barriers to an industry where value creation cannot materialize unless the developer possesses multiple know-hows. It is also important to highlight the fact that there is an experience curve that the two developers are leveraging and which explains the convergence of many of their visions today. Some of the previous competitors of the two companies are distressed which translate into wonderful land acquisition opportunities. Healthy balance sheets are at the center of Management preoccupations, and top-notch risk management processes are being implemented to ensure business perpetuation. **3/Finally, amid an unbeatable regulatory and fiscal framework, and a favorable macroeconomic context, value creation cannot happen unless the developer's corporate strategy is appropriate and we show in the report that this concern is to be discarded.**

The reader will find sections addressing elements of value creation and valuation in the sector as well as more information on the sui generis nature of the social housing industry. Finally, a literature review of studies around the subject and frequently asked questions are gathered at the end of the report.

Note from the authors

This write-up is an attempt to decrypt the market where the publicly-traded Moroccan real estate developers operate.

The transcendental motivation of this paper is to equip investors with a maximum of data and information to make a sound investment decision based on fundamental indicators beyond a general climate of reluctance to invest in the sector.

While all our findings are for the most part data-driven, we are aware that on the ground, the (multivariate) equations can be very often more complex than what we present. We choose to simplify most of the concepts and invite our readers to explore them in more elaboration.

Beyond the aforementioned venture, we want this report to be a resource for an investor who is exploring the sector to understand the specifications of the Moroccan Market. Indeed, if Morocco's success in fighting slums and reducing the housing deficit is praised around the globe, it is because pioneering legal frameworks and innovative housing finance mechanisms have been engineered.

Finally, the investment recommendations written in this report are indeed given in the context of our macroeconomic study. However, and beyond the top-down approach suggested by this document, a thorough bottom-up fundamental research of the companies is used to generate these investment recommendations.

Figure 1-Social housing project in Deroua, South of Casablanca



Source: Résidences Dar Saada

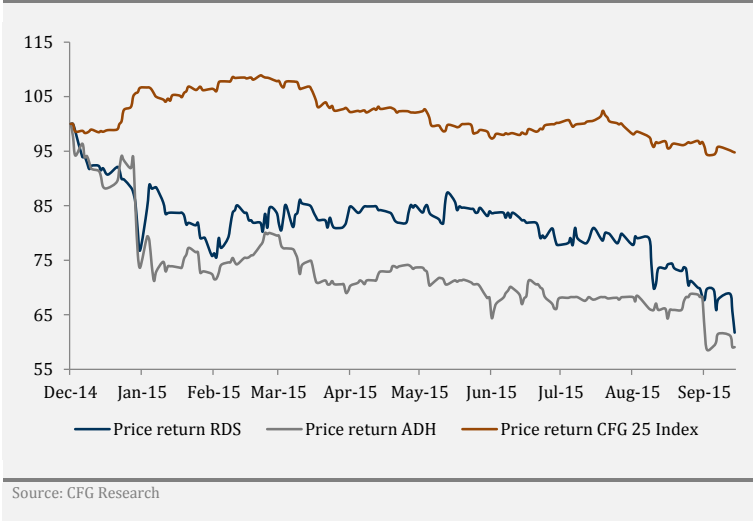
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Introduction: Motivation & Scope of the study

Morocco social housing business: “It is not the strongest that survives but the most adaptable”

Figure 2- Value¹ of MAD 100 invested in ADH, RDS and the CFG 25 Index at the time of RDS IPO (Dec 18th 2014)



This research piece is being written amid an absolutely anemic performance of Moroccan real estate stocks. The naïve interrogation that arises almost naturally is whether this pallid performance is a telling barometer. Going further, if there is evidence that the business environment is indeed in ill health, could we argue that the current weaknesses are only symptomatic of short-term issues that will be soon overcome?

This is a cardinal question from an investment standpoint. Indeed, the answer can suggest whether at the sector level, performances are approaching a nadir in which case the bulls should start roaring.

The Real Estate players publicly-traded in the Casablanca Stock Exchange, have an important portion of their revenue coming from the social housing activity². The Moroccan real estate stock market is in fact a social housing story. It is thus critical to have a comprehensive understanding of this business. The social housing business is the main focus of this paper. Basically, the companies that we are focusing on are in the business of supplying housing to low-income households. It means that the success of this business is dependent upon the existence of low-income households who can afford to acquire this housing product. In other terms, not only do we need a pool of low-income households in need of housing but also a sound macroeconomic context, favorable legal frameworks and adapted housing finance mechanisms.

Referring back to the questions expressed above, a weakness in the market would mean either a lack of demand or a fragility of either the economy or the mechanisms put in place to supply housing for the poor. We discard in our paper both eventualities. Now, the real mission statement of the publicly-traded developers has evolved to become the production of housing that matches the existing demand. The selection of projects to be developed is solely driven by the conviction that there will be acquirers for the type of housing produced. This inherent flexibility might suggest that these players will be able to sustain their business beyond changes in the macroeconomic and demographic landscapes.

In order to invest in Moroccan real estate stocks, one should have the confidence that developers can adapt to the changes in the need for housing so that need could almost always translate into demand.

¹ All the returns are price returns and henceforth do not include dividends.

² Indeed, social housing accounts for the bulk of both units delivered and revenue in value of the two Real-Estate developers that we are currently covering i.e. Addoha (ADH) and Residences Dar Saada (RDS).

Abstract: Investment Thesis

ADH and RDS offer a compelling investment opportunity with a decent entry point

Whether you are screening for anti-momentum stocks, following the Greenblatt's motto "Buy low, Sell high", looking for stocks in distress climbing the hill, or haunting opportunities to invest in companies "who have learned from their mistakes", do not look any further: Moroccan real estate stocks offer a compelling investment opportunity.

While we think that we are approaching the end of the nightmare, and that the sector will soon enter a bullish territory, we cannot emphasize enough the importance of stock selection. It is true that stocks tend to trade in sympathy with each other when bad news hit the market, but this is only happening because there is a general belief that the social housing market fundamentals have weakened causing a series of adverse events in the sector.

This is why, we first review in this report and show that market fundamentals are overall healthy and that it is more important than ever for real estate developers to be sensitive to the needs of the market and to constantly adapt to those. We then present the general sentiment in the market and review the two stocks that we are covering. We recommend buying the two stocks that we are covering: ADH and RDS.

"Moroccan real estate stocks offer a compelling investment opportunity"

"We cannot emphasize enough the importance of stock selection"

"We show that the market fundamentals are overall healthy"

"We recommend buying the two stocks that we are covering: ADH and RDS"

Figure 3 - ADH and RDS since their IPO vs. the CFG25 Index (Prices in MAD)



Source: CFG Research

Part I: The Social Housing Market

The story of social housing, backbone of the real-estate industry in morocco

Social housing emerged as an innovative housing product in a context where the government was focusing on designing a regulatory and fiscal framework favorable to spur production and reduce the **housing deficit (Figure 13)**. Beyond encouraging developers to produce, it was also important to forge a product that will be adapted to the populations in need of housing by instituting finance mechanisms to bridge the affordability gap.

Note on the scope of the study: We focus on social housing (also known at the MAD 250k housing) without tackling the low property value housing (price-capped at MAD 140k) since this latter is almost a no-subject for the publicly-traded real estate developers.

Note on the difficulty in accessing the data: The ministry of housing, town planning and urban policy publishes times series of **total production and housing starts** which can per se suggest the general trends for social housing. Indeed, the production of the remaining types of housing has been very stable in comparison with the swings in the production of social housing as a result of key changes in the regulatory framework that rules the MAD 250k dwelling industry. The ministry also supplies the evolution of production and housing starts for what they call “economical and social housing”. This category includes plots, social housing dwellings, low property value housing as well as any type of housing designed for low-income households. Although, this times series is not pure social housing data, it is suggestive of a couple of trends that we would like to shed the light on. We do have nonetheless a production figure for MAD 250k dwellings starting 2012.

Figure 4- Résidences Dar Saada project in Deroua, South Casablanca



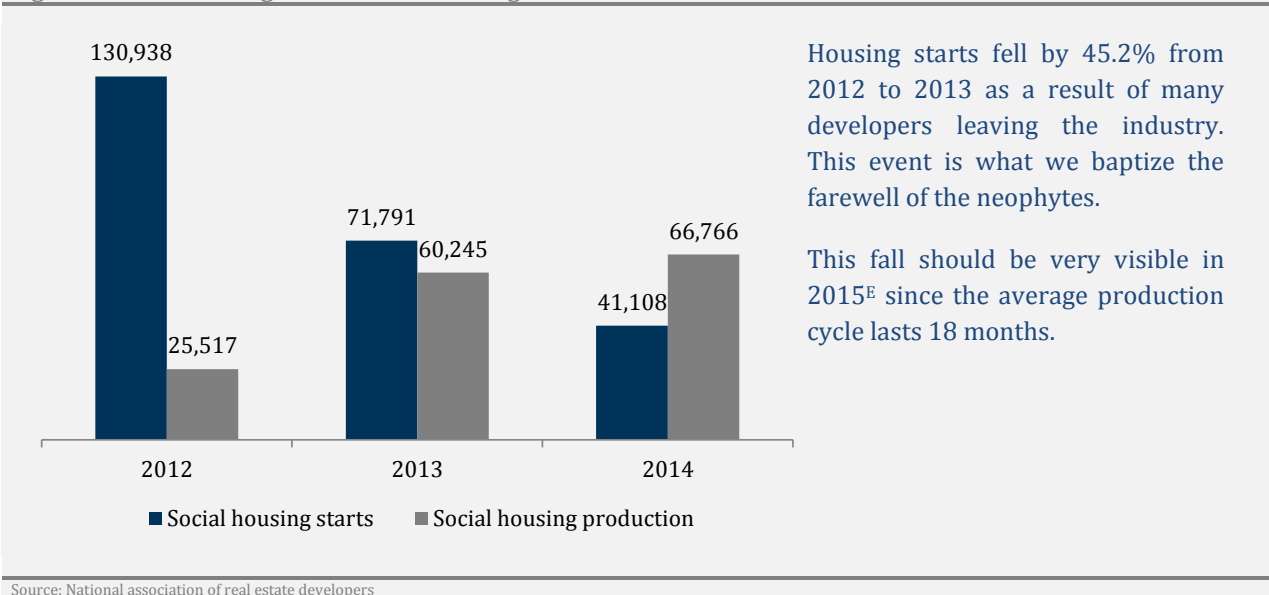
Source: Résidences Dar Saada

Preliminary question: Relevance of narrating the social housing production story

The farewell of the neophytes

Our study is all about revealing the solid fundamental story clouded as a result of a general climate of reluctance to invest in the sector. Some adverse evolutions of the sector's indicators triggered bearish sentiments while they should be analyzed in their specific context. More importantly, it is essential to analyze whether the underlying adversity does translate into a threat for the developer. Indeed, in the case of social housing for instance, the slowdown in production does not mean that the demand is so anemic that production is being readjusted, but instead that the success in this business is reliant on a deep know-how without which high margins are barely yielded. It is a business with high entry barriers, where many entrants (neophytes) found their way out quite fast. First, we look at the evolution of housing starts and production for social housing from 2012 to 2014. (This data is clean MAD 250 dwelling data).

Figure 5- Social housing -Evolution of Housing Starts and Production from 2012 to 2014



But who are the neophytes? When did they enter and why did they so? Also, while it is comforting to understand the reasons behind this plunge, it is essential to gauge whether production has not fallen much lower than before these neophytes entered the industry, and this is what we verify using the data supplied by the Ministry of housing although it is not pure social housing data.

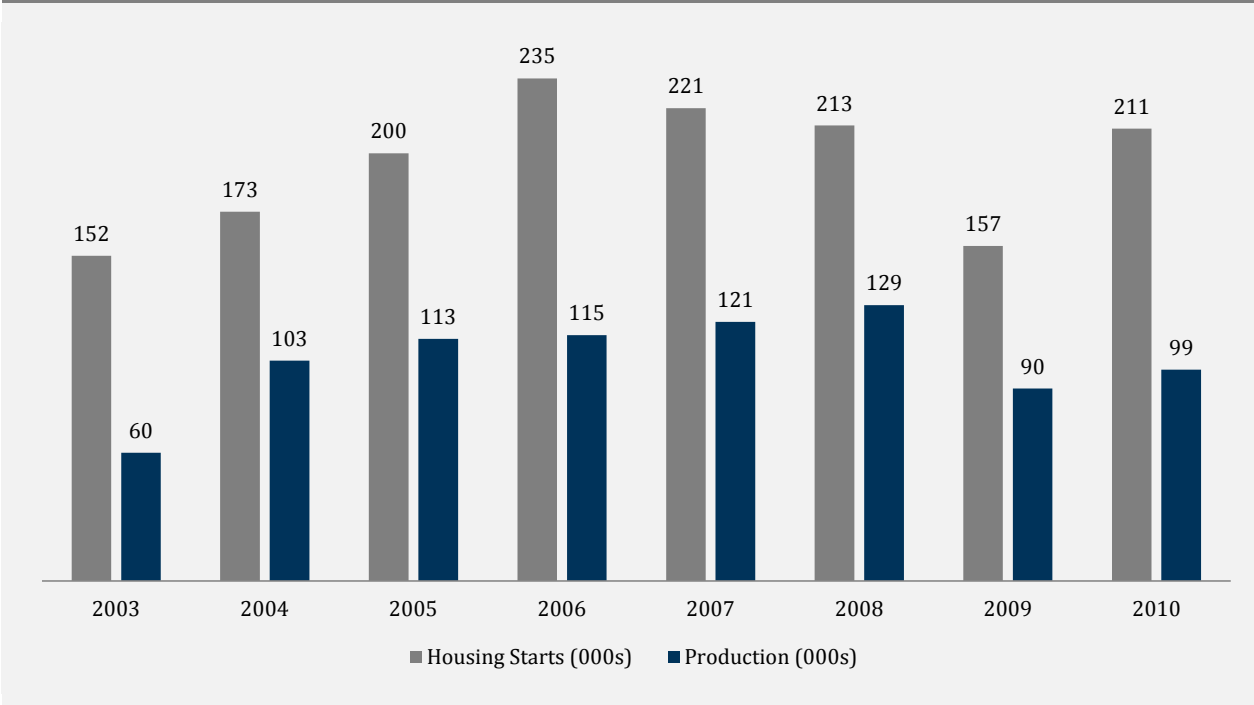
We answer all these interrogations as we narrate the story of the industry.

Everything else held equal (demand held equal), a lower supply is a great opportunity for the publicly-traded social housing developers.

Before 2010, things worked until they did not

Housing starts of the social and economical housing category increased from 2003 to 2006 before starting to decrease in 2007 and 2008 which required the intervention of government to re-accelerate the production of housing and further tighten the structural housing deficit. Indeed, production decreased in 2009 and 2010. Per contra, housing starts did soar by more than 34% in 2010 as a result of the reform legislated in the 2010 budget bill.

Figure 6- Housing Starts and Production of social and economical housing in Morocco in the period 2003-2010



Source: Ministry of Housing, Town Planning and Urban Policy

As a matter of fact, social housing is one of the major tools used by government to tighten the housing deficit, and government has made it their priority to sustain healthy levels of production of social housing.

The 2007 fall in housing starts motivated a reform of the fiscal and regulatory framework legislated in the 2008 budget bill and shown in the table below.

Figure 7- Main elements regarding social housing in the 2008 budget bill

Taxation (Article 19)	Corporate tax stands at 17.5% and then increases by 2.5 points every fiscal year from 2011 to 2015 vs. a reduction of the corporate tax by 50% previously
Project requirements (Article 247)	The developer signs agreements with the government to build at least 1500 units vs. 2500 units previously

Source: 2008 budget bill

The regulatory framework ruled in 2008 barely stimulated an increase in production. Indeed, housing starts resumed their plunge in 2008 and 2009. Despite the corporate tax decrease and the reduction of the size of

the mandatory production to sign an agreement with government, developers were not attracted enough to launch new projects. The important information here is that social housing which is an apartment currently price-capped at MAD 250k used to sell at MAD 200k at that time putting substantial pressures on the potential on the project IRR.

Euphoric times

In 2010, the Ministry of Economy and Finance put in place a couple of fiscal reforms to encourage the production and the acquisition of social housing units. A social housing unit was redefined as housing within a surface hovering between 50m² and 100m² and price-capped at MAD 250k excluding the VAT. The sizable increase of the capped-price of a social housing unit from MAD 200k in the 2008 budget bill to MAD 250k in the 2010 budget bill boosted considerably the attractiveness of the social housing industry. The reform also waives the VAT for the acquirer of social housing provided that the unit is bought from a real estate developer, a company or a person who has an agreement with the government and providing that the transaction is wholly monitored by a notary. More importantly, the unit acquired has to be the primary residence of the acquirer for a minimum period of four years. The 2010 budget bill incentivized the production of social housing via the following benefits to developers: All of corporate tax, registration fees, stamp duty, local authority tax, registration duty, and the tax on cement are waived. These incentives are tributary of the signature of an agreement with the government stating that the developer will produce at least 500 social housing units within five years of the receipt of the building permit. This requirement is less heavy than the 1,500 units required in the 2008 budget bill.

“The sizable increase of the capped-price of a social housing unit from MAD 200k in the 2008 budget bill to MAD 250k in the 2010 budget bill boosted considerably the attractiveness of the social housing industry”

The reform also waives the VAT for the acquirer of social housing provided that the unit is bought from a real estate developer, a company or a person who has an agreement with the government and providing that the transaction is wholly monitored by a notary.

“The regulatory and fiscal framework legislated in the 2010 budget bill is valid until 2024: long-term visibility for developers who engage in a business with a 15 year fiscal stability. (Interesting from an equity investment standpoint since the main drivers of profitability should remain constant for the horizon mentioned)”

The regulatory and fiscal framework legislated in the 2010 budget bill is valid for a period of 10 years from 2010 until the end of 2019. However, if a developer signs an agreement in 2019, then the rules in the 2010 budget bill will be grandfathered until 2024. This long-term visibility is encouraging for developers who engage in a business where fiscal stability is provided for at least 10 years. (Also interesting from an equity investment standpoint since the main drivers of profitability should remain constant for the horizon mentioned).

Figure 8- Main elements regarding social housing in the 2010 budget bill

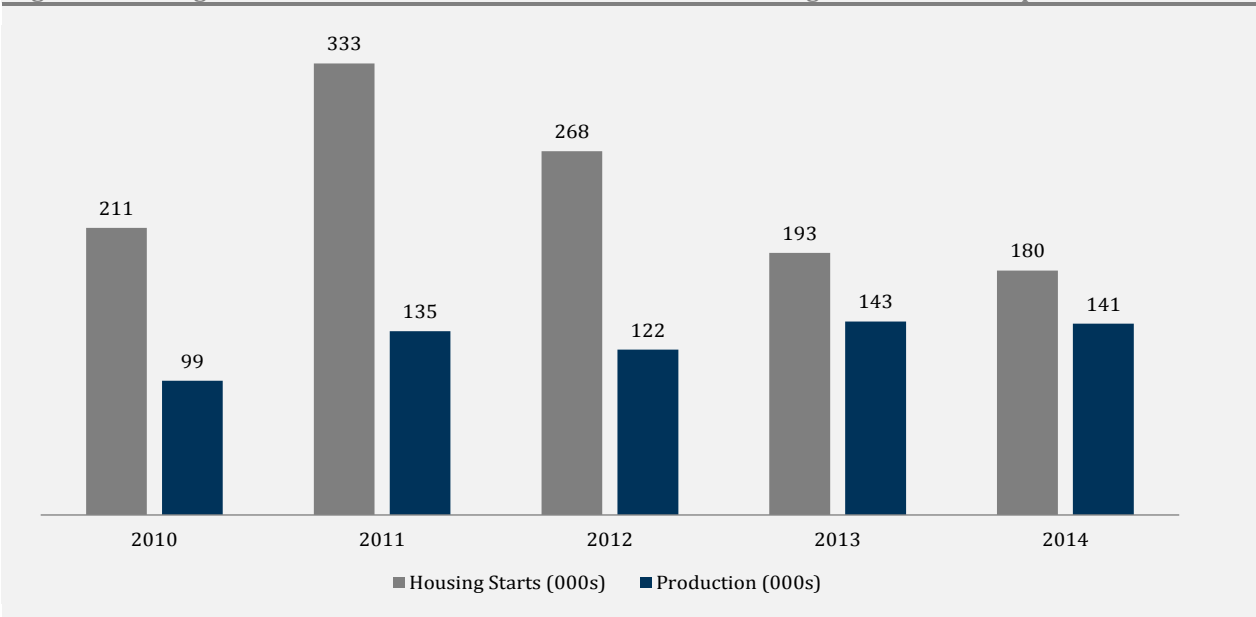
Acquirers	<p>The VAT is waived for the acquirer under the following conditions:</p> <ol style="list-style-type: none"> 1/ The unit is bought from a real estate developer, a company or a person who has an agreement with the government and providing that the transaction is wholly monitored by a notary. 2/ More importantly, the unit acquired has to be the primary residence of the acquirer for a minimum period of four years. 3/ Provide the government with a first- or second-rank housing collateral
Developers	<p>Fiscal and regulatory framework valid from 2010 to 2020 (actually until 2025 if last agreement signed in 2010);</p> <p>A social housing units has a surface between 50m² and 100m² and is price-capped at MAD 250k;</p> <p>Agreements with government to build at least 500 units for a maximum of 5 years after the authorization to build is issued;</p> <p>All of orporate tax, registration fees, stamp duty, local authority tax, registration duty, and the tax on cement are waived</p>

Source: 2010 budget bill

Note on the advantage for acquirers of housing: Government waives the payment of the VAT. The government pays this VAT to developers via the notary who orchestrated the transaction in order to monitor every transaction and verify that the acquirer of housing is compliant with the conditions of the 2010 budget bill. This process can be lengthy in some cases.

As a result of the 2010 fiscal reform, housing starts soared in 2011 which translated into higher production figures in 2013 and 2014.

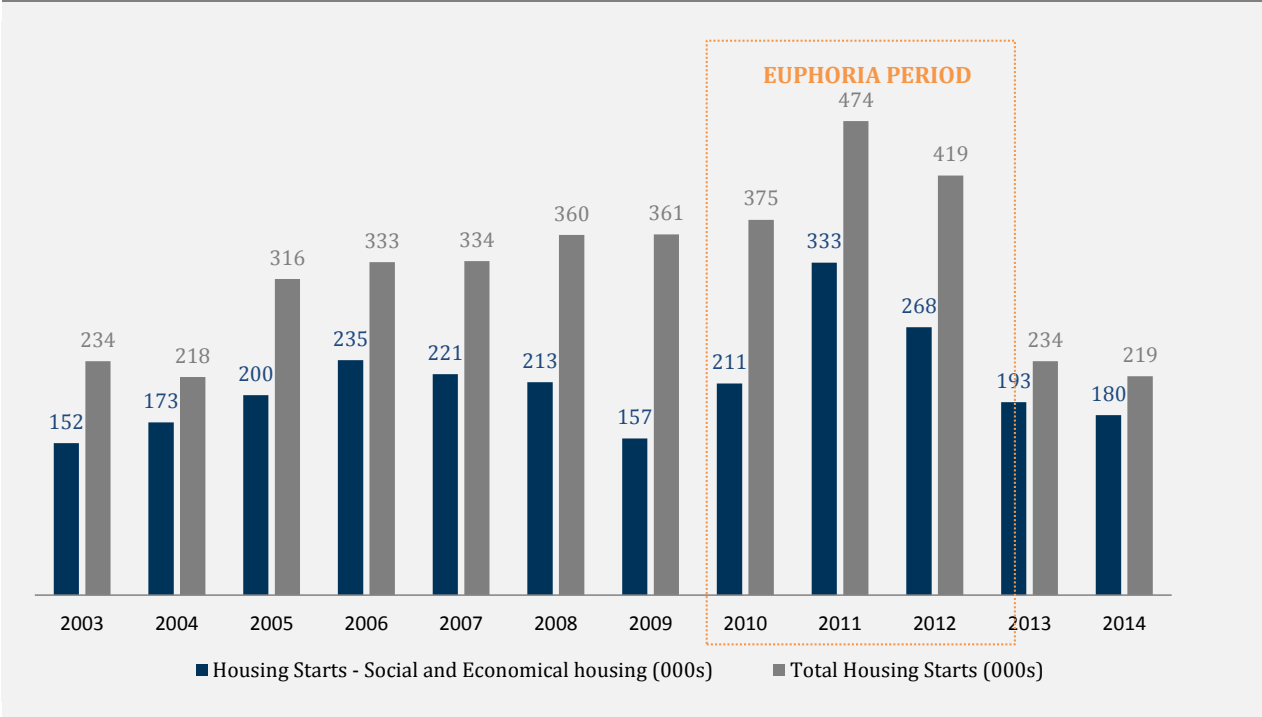
Figure 9- Housing Starts and Production of social and economical housing in Morocco in the period 2010-2014



Source: Ministry of Housing, Town Planning and Urban Policy

This important fiscal reform has attracted many opportunistic players to the social housing market including non-professional individuals who had invested in lands. Indeed, the housing starts figures are bell-shaped with the top of the bell located in 2011 immediately after the fiscal reforms of 2010 which provided both developers and acquirers with substantial tax incentives in order to spur the segment.

Figure 10- Housing Starts in Morocco in the period 2003-2014

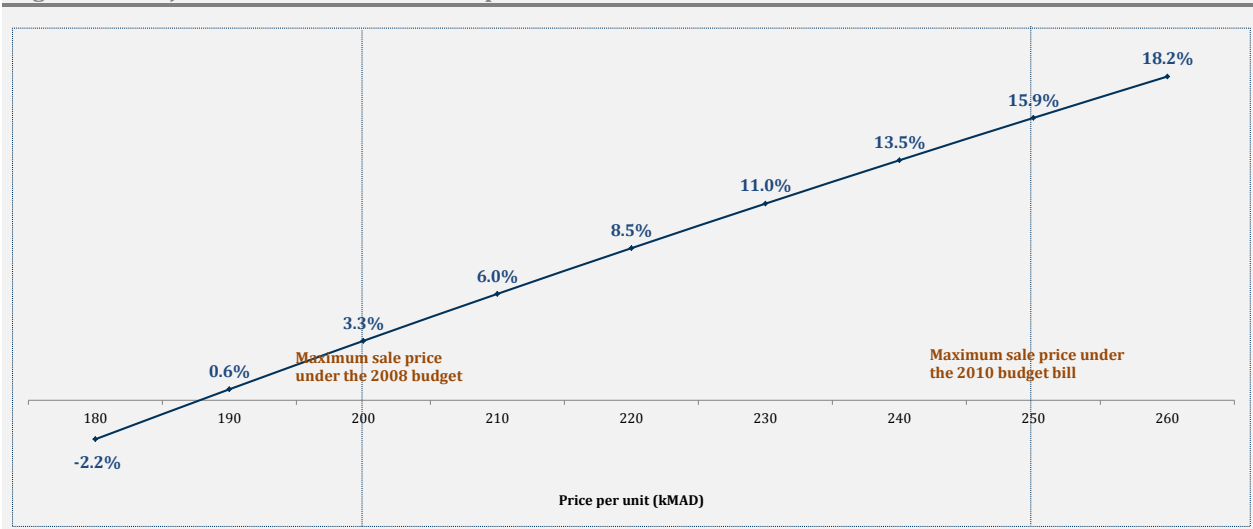


Source: Ministry of Housing, Town Planning and Urban Policy

The observation of the indicators for all types of housing reveals the same lineation than for the social and economical housing category. Indeed, the national figures are almost a perfect translational motion upwards of this category of housing which indicates the importance of this segment in the real estate sector in Morocco.

Measure of the impact of the change in the capped price for social housing on the project IRR

Please refer to the section titled **(Detailed analysis of the internal rate of return of a social housing project)** for all the details regarding our base scenario to compute the project IRR for a social housing project. In 2008, the minimum number of units required to sign an agreement with government is 1500 units. We use this number of units in our assumptions. In order to simplify the exercise, we also use a corporate tax of 0% while it was not the case in 2008. We then compute the project IRR for different sale price scenarios. This analysis clearly shows the attractiveness engendered by the 2010 budget bill framework and the euphoria that followed. It is also interesting to see that below a price of 200k per unit, it is barely possible to yield a positive project IRR (with no corporate tax).

Figure 11- Project IRR under different sale price scenarios


Source: CFG Research

Current Environment: Back to pre-euphoria levels or heading towards the new normal?

Since 2013, production of social housing has been cooling down. The first driver behind the decrease in social housing production is tied to the nature of the business. Indeed, there are very high entry barriers to producing social housing: There are many administrative burdens that one can only alleviate by having a deep know-how of the system. Moreover, having access to strategic lands situated where the demand exists is actually a real Gordian knot. Furthermore, the acquisition of big lands to build social housing projects requires a sizable financial capability creating a high entry barrier to a capital-intensive industry. As a result, many “non-professional” players are vanishing from the industry. Also, since some large real estate players find themselves in need of cash, they made the

strategic choice of reducing the size of their production. The need of cash came as unsold units number started to climb as a result of mistakes made by developers who built projects that outsized the local demand and who were focusing on increasing production and sales volumes at the expense of cash generation. At many instances, the market interpreted the phenomenon of unsold inventories as being the result of a diminishing social housing demand. **A cardinal question that we will be investigating is whether the future of the industry is going to look like the pre-euphoria period or whether we will be witnessing a change of shape of the social housing industry in which case it is critical to gauge the ability of real estate developers to adapt to this change and to sustain their business beyond macroeconomic, urban and social transformations.** From an investment standpoint, it is critical to see the slowdown in housing starts and production as a return to equilibrium rather than as a deterioration of the fundamentals of the sector. There have been a few amendments to the 2010 fiscal reform that we are highlighting below. We particularly highlight the 2012 amendment that allow an investor-lessor to acquire social housing as an important reform to bridge the down payment affordability gap as well as to find an alternative for populations who cannot or do not want to get a mortgage.

“The Casablanca-Rabat axis is today the only region where demand for social housing is plentiful”

“From an investment standpoint, it is critical to see the slowdown in housing starts and production as a return to equilibrium rather than as a deterioration of the fundamentals of the sector”

Figure 12- Amendments to the 2010 fiscal reform legislated in 2012, 2013 and 2014

2012 - Encouraging the acquisition of investors-lessors of social housing to bridge the downpayment affordability gap

The investor-lessor can buy at least 25 units in a project for the purpose of renting them *vs. an acquisition solely possible for primary residence previously;*

The investor-lessors benefits during 20 years from the exemption of the VAT, the corporate tax and the income tax for both revenue and capital gains;

An agreement needs to be signed between the investor-lessor (necessatrily a company) and the government, the units need to be acquired during the 12 years following the signature of the agreement and need to be rented during the 6 months following the acquisition;

The monthly rent is fixed at MAD 1,200. This monthly rent was increased to MAD 1,200 in the 2015 budget bill to further boost the social housing market

2013

1/ Change of the definition of a social housing unit surface to a surface between 50m² and 80m² *vs. between 50m² and 100m² previously;*

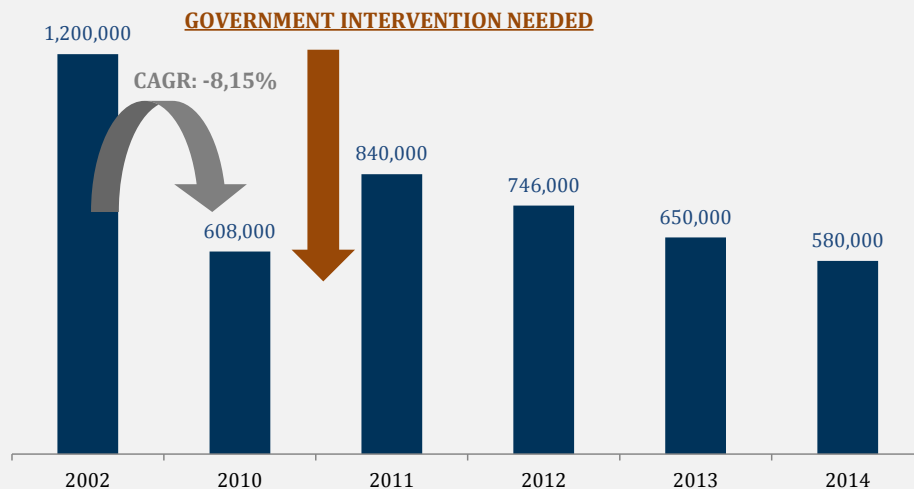
2/VAT is now waived for an acquirer although a partner owns already a primary residence *vs. indivision agreement previously;*

Source: 2010 budget bill

Decrypting the evolution of the housing deficit

In 2002, the structural need for housing stood at 1.2 million units. This deficit was reduced to 608,000 units in 2010 before climbing back to 840,000 units in 2011. An intervention of government in 2010 helped resume reduce the deficit starting 2012 thanks to a spike in housing starts after the 2010 budget bill was legislated. Since 2011, the deficit has been scaling down to stand at 746,000 units in 2012, 650,000 units in 2013 and finally 580,000 units in 2014.

Figure 13- Evolution of the housing deficit from 2002 to 2010 and then from 2010 to 2014



Source: Ministry of Housing, Town Planning and Urban Policy

Macroeconomic Fundamentals

Reviewing the indicators of the sector

Garbage in – Garbage out

Whenever we are faced with the gargantuan task of giving a diagnosis of the social housing market in Morocco, we do seem very optimistic. We do find that it is mainly because we are usually benchmarked to morose sentiments backed by the weakness of some fundamental indicators. Our approach is also data-driven. Now, it is essential to select the indicators that apply to the social housing business. The first and quickest health check is to determine whether social housing is still selling. For that, we look at the pre-sales of ADH and RDS. In H1 2015, Résidences Dar Saada who have projects mainly located in the Casablanca-Rabat axis pre-sold 2,596 units (up 7% YoY) while ADH pre-sold 6,579 units excluding high-end housing (down 30% YoY). The decline in ADH’s pre-sales is mainly due to their current corporate strategy baptized “Cash Generation Plan” and which put heavy restrictions on the launch of the production of new tranches and henceforth on pre-sales as in order to focus the commercial efforts on selling inventories of unsold units. Addoha’s inventories of unsold units are mainly located outside of the Casablanca-Rabat axis. A further diagnosis of a social housing project that sell well and quickly; shows that they are primarily located in the Casablanca-Rabat axis. It reveals an important attribute of the social housing market in Morocco: It is a totally flat and sterile perspective to analyze the market as a whole while there are tremendous regional discrepancies. As we will explain in more details in the sections that follow, the Casablanca-Rabat axis is today the only region where demand for social housing is plentiful. We then review a couple of indicators of the sector:

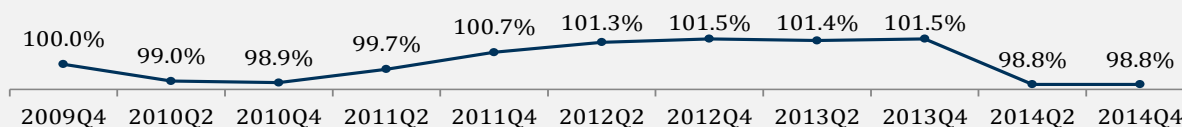
“The first and quickest health check is to determine whether social housing is still selling. For that, we look at the pre-sales”

“It is a totally flat and sterile perspective to analyze the market as a whole while exist tremendous regional discrepancies”

“The Casablanca-Rabat axis is today the only region where demand for social housing is plentiful”.

Real Estate Price Index³

Figure 14- Evolution of the real estate price index (base 100 in Q4 2009)



Source: Moroccan Central Bank – Bank Al-Maghrib

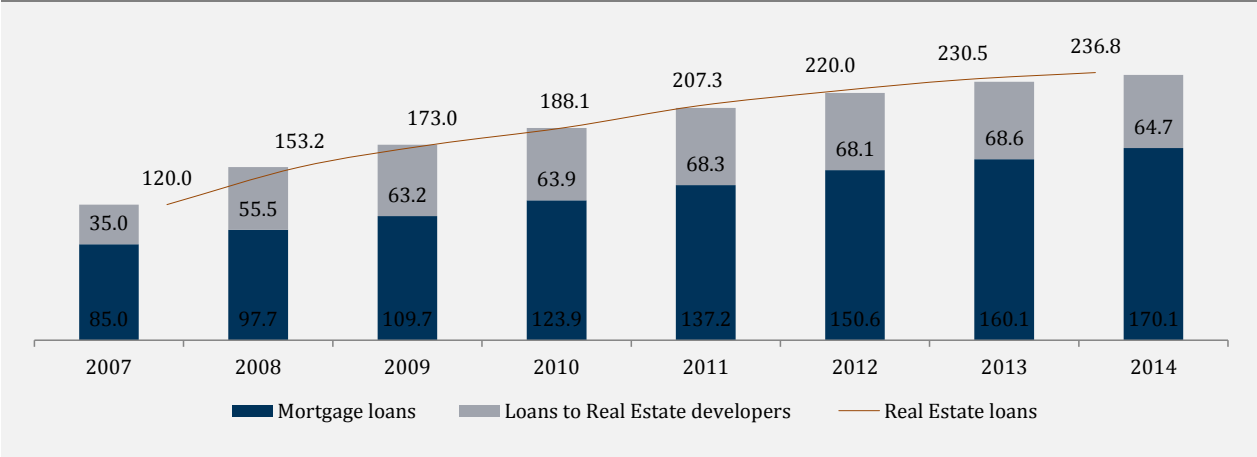
Although this indicator is not relevant to the social housing business, and can be lead to make a “garbage-in garbage-out” conclusion regarding revenues of developers in the social housing industry, it does to some extents gauge the trend of real estate prices in Morocco. Indeed, social housing units are price-capped but can sell in some cases at lower prices than MAD 250k per unit in times where general real estate prices are

³ The real estate price indexes were jointly constructed by Bank Al-Maghrib and the Land Registry Office on the basis of the latter’s data. These quarterly indexes are calculated following the repeat-sales method that controls the heterogeneity of properties. This method does indeed take into account only the properties sold at least twice during the period under review. This mechanism captures changes in property prices nationwide and by major cities for the three major types, namely residential property, urban land and commercial property, as well as for the six real estate categories: apartment (a dwelling located in a collective building and comprising one or several rooms), house (a single or several-story individual dwelling with no garden), villa (an individual dwelling with a garden), urban land (plot of land located in the urban area), business premises (space fitted for commercial activity) and office (working premises). These indexes are calculated on the basis of data as of the 35th day following the quarter under review, which implies an update of historical data. This update may be important because of the lag between transactions and registrations and/ or the integration of property that was sold at least twice during the quarter.

following a downward trajectory. Also, this index can indicate a general trend regarding land prices as well and it is indeed relevant to emphasize the fact that the current market is full of opportunities to acquire cheap land (especially after many developers shied away from the industry after the euphoria period). Low prices of land should not justify however their acquisition by social housing developers since the decision to elect a project in a certain location should be IRR-driven (potential success thanks to a healthy demand) while nice margins should be there as a confirmation of the attractiveness of the underlying project. Then, we look at the evolution of real estate loans in the industry.

Mortgages and loans to real estate developers

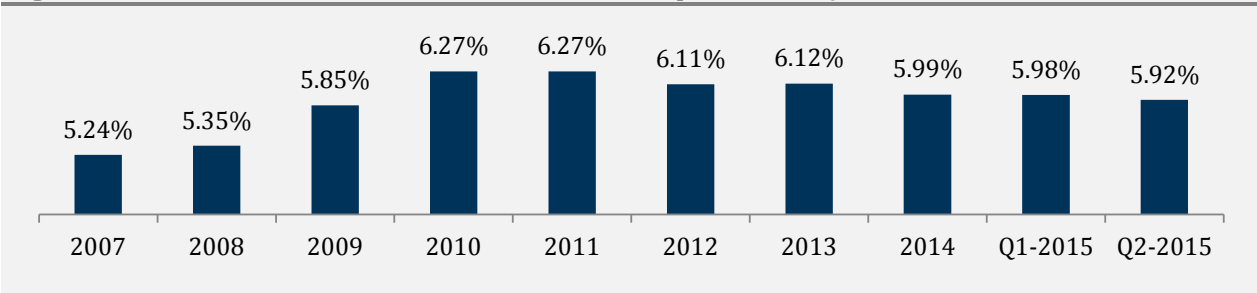
Figure 15- Annual Evolution of real estate loans (in billions of MAD) in the period 2007-2014



Source: Moroccan Central Bank – Bank Al-Maghrib

Loans to real estate developers are stagnating mirroring the evolution of housing starts. Regarding mortgages, they keep increasing in a context where interest rates are also decreasing as shown below:

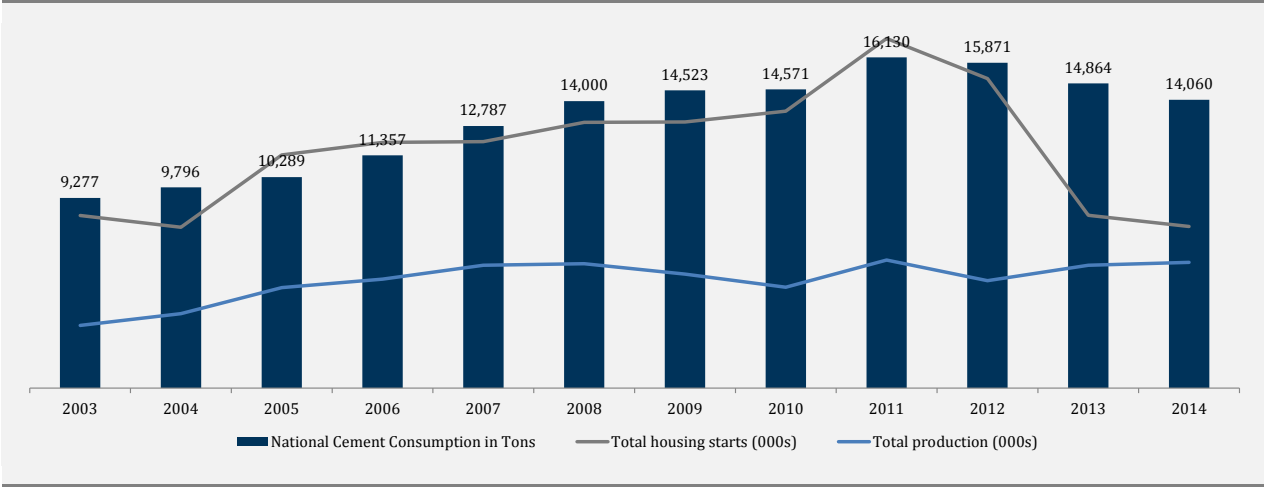
Figure 16- Evolution of real estate loans interest rates in the period 2007-Q2 2015



Source: Moroccan Central Bank – Bank Al-Maghrib

Another indicator that correlates well with housing starts is the consumption of cement. The housing sector accounts for 80% of the cement consumption in Morocco. As shown below, the euphoria that followed the 2010 fiscal reform and created a spike in housing production translated naturally into a surge in the consumption of cement. **More importantly, cement consumption illustrates the fact that in current times; indicators are going back to “normal levels” which is a central idea in this report.**

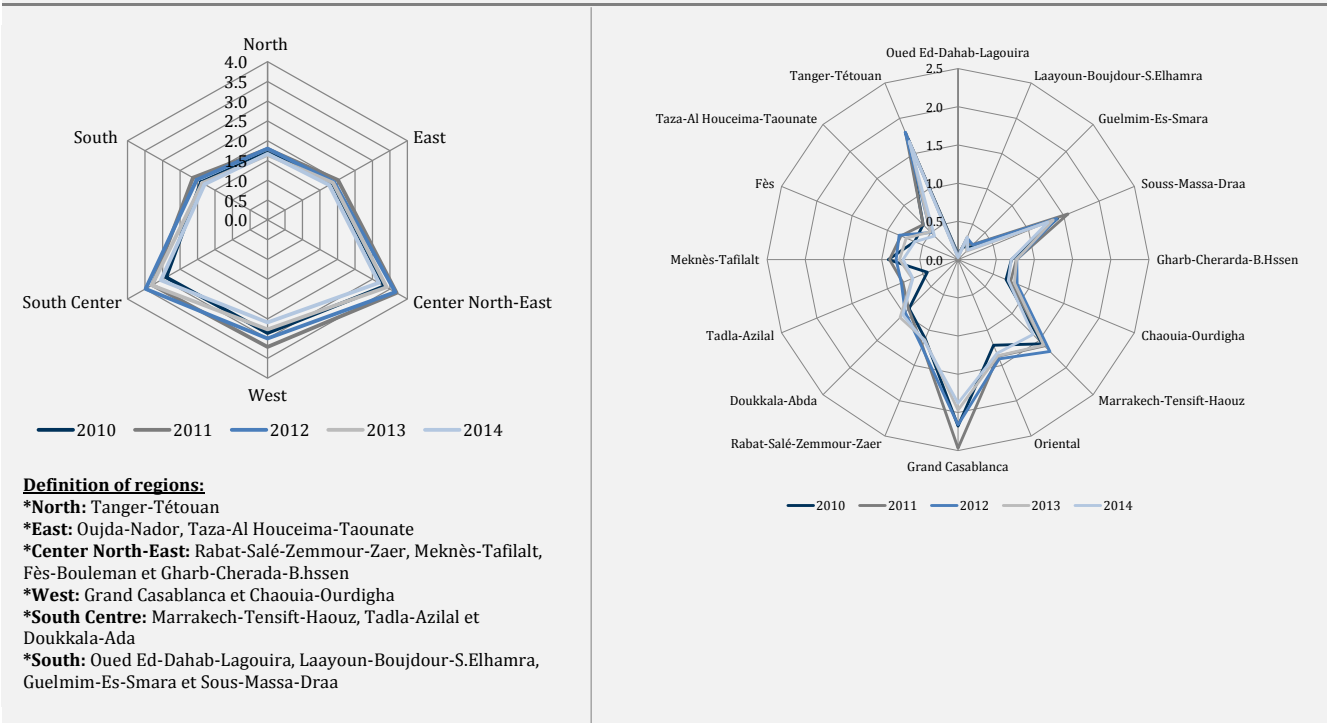
Figure 17- Cement consumption evolution in the period 2000-2014



Source: Ministry of Housing, Town Planning and Urban Policy, Moroccan Cement Professionals Association, CFG Research

The observation of cement consumption is also interesting as it suggests the regional evolution of the production of housing. Developers are re-focusing on the region where households who can afford social housing are plentiful, the Casablanca-Rabat axis.

Figure 18- Cement consumption per region in the period 2010-2014 (Millions of tons)



Source: Moroccan Cement Professionals Association, CFG Research

Estimating Demand for Social Housing

Getting the picture of the demand for a “fixed commodity”

We start this part of the report by highlighting the fact that housing units are “fixed commodities” since they cannot be shipped nor moved. This point is cardinal to the analyses that will follow: Indeed, and in order to be able to get an accurate grasp of the demand at any point in time, it is essential to break it down by geographical regions. In the pre-euphoria era, the housing deficit was so deep that real estate developers could afford to build projects anywhere in the nation without the fear that they will be left with unsold units. In the post-euphoria era, only well-thought projects built where demand is located will succeed. Forecasting housing demand encompasses on one hand having knowledge of an existing housing deficit and on the other hand estimating the incremental demand in the future. Forecasting housing demand is a multi-dimensional problem with a geographical (space) component that we will tackle later, and a time component which takes into account present (static) and future (dynamic) flows of demand.

Note on demand for housing vs. need for housing

We define the need for housing at the time t as the number of units that need to be built or rehabilitated at the time t .

In other terms, if we can determine the number of urban households in need of a housing unit at the time t and add the new urban households at the time $t+1$, then we will be able to derive the need for housing units at the time $t+1$. While drawing the forecasts of urban households that will emerge as a result of demographic growth, it is important to adjust for the cohabitation factor in contrast with other societies where nuclear households prevail.

The notion of need translates into the concept of demand when there is a financial overlay on top of the need for housing as defined above i.e. when there is a decent match between the supply of housing units and the purchasing power of households in need for housing. In this case, we can formulate demand for a type of housing supplied as the number of households in need for housing and who can afford to acquire the underlying type of housing. Another financial consideration that can hinder the transformation of need into demand is the nature of income of households. Households who can afford social housing but who have relatively volatile incomes are very likely to shift to land plots and build them progressively. This situation actually happened in the city of Fès where many people work as craftsmen. This is not an issue per se, since developers adapted to this kind of demand and started to offer land plots as part of their product mix.

It is worth noting that for need to be transformed into demand; there must be a match between the socio-cultural background of the households in need for housing and the supplied housing units. This becomes truer when the supply of housing increases and the households in need for housing have the luxury to shop around. As an example, the same social housing units which had a tremendous success in the city of Casablanca did not fit households in need for housing in the city of Oujda where the structure of the unit was not appealing at all.

Finally, for households in need for housing to move to new housing units and leave their barracks, their unsafe housing units or stop to cohabitate with other households, it is more than critical for real estate developers to supply housing in a location where access to public transportation is relatively easy.

To summarize our note on need for housing vs. demand for housing, for need to be transformed into demand, households in need for housing need to have a stable income and the ability to afford the supplied unit. Moreover, the housing unit needs to match the basic socio-cultural background of the population, and needs to offer an easy access to public transportation and key facilities.

What our definition of demand implies is that for need to become demand, and excluding macroeconomic considerations, depends solely on the ability of real estate developers to adapt to the potential acquirers of housing. This is particularly true in the post-euphoria era where we can argue that the demand for housing is “educated”. **This is an extremely important note since we can infer that as long as developers can adapt to their developers, business can be sustained** especially in a context where social housing remains affordable as we will explain later in this report.

This preliminary simple definition is important as we understand that while the need for housing can be estimated in the scope of a society, demand for housing is on the other hand observed in relation to a pre-defined type of housing.

NeedForHousing_{t+1} = Inventory urban households in need of housing_t + Δ_tnew urban households(adjusted for cohabitation factor)

*DemandForHousing_{t+1}
= Inventory urban households in need of housing with access to funding *_t
+ Δ_tnew urban households with access to funding*

*Provided the underlying housing units supplied will match the sociocultural definition of housing of the acquirers. While we might argue that when there is a real need for housing, this consideration seems far above in Maslow’s pyramid, examples such as in the city of Oujda show that a mismatch can actually hinder the transformation of need into demand.

Definition of the parameters of the housing need equation

Inventory urban households in need of housing_t

The inventory of urban households in need of housing *at the time t* i.e. the “static” housing deficit is broken down as follows:

Figure 19- Origins of the housing deficit in Morocco

Type of housing	Nature of the problem	Solution to the problem
Informal Housing	Households living in homes in violation of the town planning code	Relocation
Informal Housing	Households living in barracks and slums (<i>shantytowns</i>)	Relocation
Formal Housing	Households living in homes in danger of collapsing (<i>old medinas</i>)	Rehabilitation
Formal Housing	Households living in insalubrious conditions (<i>downtown of Casablanca</i>)	Rehabilitation
Formal Housing	Overcrowded homes (<i>cohabitation of households</i>)	Relocation

Source: CFG research

At any time *t*, looking for the housing deficit is equivalent to the tally of the households who are in the situations described in the table at the left.

In 2012, the minister of housing and urbanism announced that the housing deficit in Morocco in 2012 stood at 746,000 units. 110,000 units out of this deficit corresponded to households living in homes in violation of the town planning code and 23,000 units corresponded to households living in shantytowns. Then, this deficit also comprised a number of units (no number disclosed) emerging as a result of the nuclearization of households in contrast with the phenomenon of the cohabitation of households. But, the bulk of the housing deficit was comprised of housing units that needed rehabilitation in contrast with households in need of housing and who need relocation to a newly produced housing unit.

It is important to take note of the structure of this deficit. Indeed, from 2012 to 2014, the housing deficit decreased from 746,000 units to 580,000 units, but this decrease was mainly achieved through rehabilitations while the inventory of households in need of housing barely changed and hovered around 200,000 households at the end of 2014. (Vs. 229,000 in 2013 and 200,000 in 2011)

Figure 20- Breakdown of the static housing deficit in 2012

Component of housing deficit	Official figures in 2012
Total housing deficit	746,000
Households living in homes in violation of the town planning code	110,000
Households living in barracks and slums	23,000
Overcrowded homes (<i>cohabitation of households</i>)	Not available

Source: CFG research

Figure 21- Homes collapsing in the Medina of Casablanca and Shantytowns in the city of Kénitra



Source: menara.ma

Scope of the study:

The scope of our study is to tally the demand for social housing in Morocco. In this context, it is important to dismiss from the housing deficit numbers given by the Ministry of Housing and Urbanism, all the units that need rehabilitation and refurbishment. We will be solely focusing on households in need of housing and who need to relocate to new units. This population includes households living in informal housing units as well as households who cohabit with other households and awaiting the supply of affordable housing.

It is worth noting that there is an additional population of households who are in need of housing although not being tallied by the Ministry of Housing and Urbanism. There are many households who pay a relatively expensive rent for a room in a low-end residential area who need to move to a decent flat to raise their families. These households will definitely shift to social housing units should the monthly mortgage installment hover around what they pay to rent their rooms and should they find a way to pay the down payment.

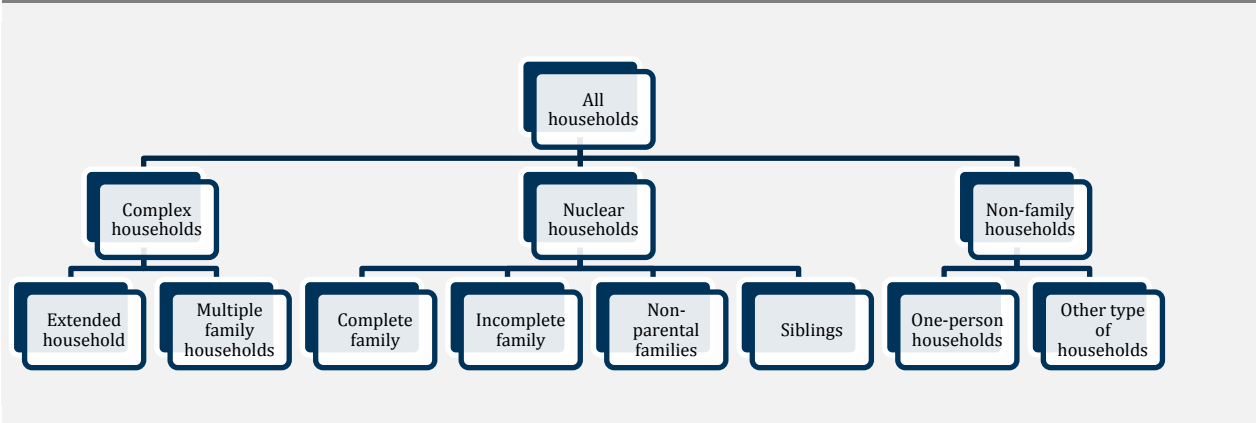
Δ_nnew urban households(adjusted for the cohabitation factor)

The “dynamic” portion of the need for housing equation comprises the new households that will emerge as a result of the combined effect of demographic growth, urbanization and the nuclearization of households.

Since the projections of the number of urban households in Morocco are provided, we do not need to take into account the following considerations:

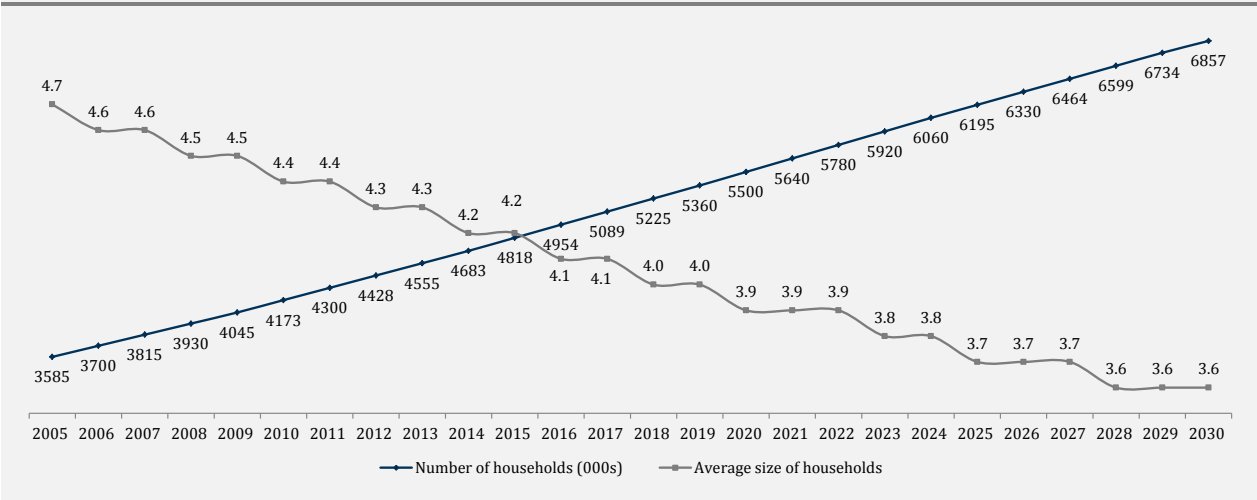
- The inflow of new households from rural to urban areas as a result of the urban flight
- The Inflow of the new generations’ households and outflow of the old generations’ households which would be dependent on a myriad of demographic factors such as: the variation in the age at which households get constituted, the average age of a household etc.
- HCP also provides forecasts for the average size of urban households which takes into account the change in household structure in Morocco from “extended family” households to “nuclear family” households

Figure 22- Types of households in Morocco



Source: Morocco Higher Planning Commission

Figure 23- Evolution of the number of urban households and the average size of households for the period 2014-2030^E



Source: Morocco Higher Planning Commission

Figure 24- Projections of the number of urban households over the period 2014-2020^E

Year	2014	2015	2016	2017	2018	2019	2020
Urban Households (000s)	4,683	4,818	4,954	5,089	5,225	5,360	5,500
% Chg		2.88%	2.82%	2.73%	2.67%	2.58%	2.61%

Source: Morocco Higher Planning Commission

The incremental number of urban households between 2014 and 2020^E is 817,000 households.

Forecasting the demand for social housing in the period 2014-2020^E

KEY FINDINGS:

- 1/ At any point in time, 60% of households can afford social housing without taking into account households who can afford a product more expensive than a MAD 250k housing units;
- 2/ Since we retained 60% as the percentage of the target population for the calculation of demand, under the base assumption, we estimate demand for social housing at 610,200 units for the period i.e. 101,700 units per annum;
- 3/ Since we retained 60% as the percentage of the target population for the calculation of demand, under the conservative assumption, we estimate demand for social housing at 490,200 units for the period i.e. 81,700 units per annum;
- 4/ At the exclusion of the bear case, which is discarded from the results, and under the base assumption, it seems that the social housing industry cannot be oversupplied in the period 2014-2020^E. We do insist however on the fact that there are regional discrepancies and that developers will need to go look for this demand at its actual location;
- 5/ At the exclusion of the bear case and the 5th case which also corresponds to a higher Gini index than actually observed in Morocco, and under the conservative assumption, it seems that the social housing industry cannot be oversupplied in the period 2014-2020^E. We do insist however on the fact that there are regional discrepancies and that developers will need to go look for this demand at its actual location.

Preliminary notes: Although we derive in this part estimates for the demand of social housing at the national level and show that social housing is indeed undersupplied, we do insist on the fact that there are regional discrepancies and that developers will need to go look for this demand at its actual location. **(Please refer to the section titled “The Casablanca-Rabat axis : The mecca of social housing”)**. Also, beyond the quantitative dimension of demand, there can be socio cultural preferences that differ from a region to another one and that developers will need to recognize. Furthermore, although threats of substitutes remain low for the social housing product **(Please refer to Figure 48- Porter’s Five Forces Model of Competition)**, demand has become more educated and households can shop around and compare developers before making a decision which should push developers to seek product differentiation.

We assume that household and units of housing can add up for the purpose of this study.

Need for Housing is mathematically a set in which is necessarily included Demand for Housing.

Ideally, and this is where public policy intervenes, demand would grow to the size of need. Theoretically, demand and need should become closer as we climb higher the social ladder excepted for high-end housing where the concept of need tends to fade.

1/Forecasting the need for social housing in the period 2014-2020^E

First, there is the need for housing in Morocco from 2014 to 2020^E. The need for housing is calculated as the inventory of households (also equivalent to the housing deficit at the end of 2014 excluding all the households who have a housing unit that needs rehabilitation) who need a housing unit at the end of 2014 plus all the new urban households from 2014 to 2020^E who will need a housing unit.

$$NeedForHousing_{2014-2020} = CurrentNeed(Static) + IncrementalDemographicNeed(Dynamic)$$

Then, there is the need for social housing in the same period which is calculated using the same data but excludes all the households that can acquire a housing property higher in value than a MAD 250k social housing unit.

$$\begin{aligned} NeedForSocialHousing_{2014-2020} \\ = [Inventory\ urban\ households\ without\ housing_{2014} \\ + \Delta_{2014-2020} new\ urban\ households\ In\ Need] \end{aligned}$$

Note: It is quite ironical to exclude 20% of the households in the housing deficit, but we do assume for the theoretical purpose of this exercise and in order to retain a floor figure derived from overly conservative assumptions, that the static portion of the need equation does have the same structure as the entire Moroccan population.

*Inventory urban households without housing*₂₀₁₄ = 200,000 units **(Please refer to Figure 19- Origins of the housing deficit in Morocco)**

$\Delta_{2014-2020}$ *urban households In Need* = 817,000 units **(Please refer to Figure 24- Projections of the number of urban households over the period 2014-2020E)**

2/Forecasting the demand for social housing in the period 2014-2020^E

$$\begin{aligned} DemandForSocialHousing_{2020} \\ = Inventory\ urban\ households\ without\ housing\ with\ access\ to\ funding_{2014} \\ + \Delta_{2014-2020} New\ Urban\ households\ In\ Need\ with\ access\ to\ funding \end{aligned}$$

*Inventory urban households without housing with access to funding*_{t0} represents a proportion of the inventory of households who need housing can afford to acquire social housing but no real estate product more expensive than social housing.

It is often argued that the static portion of the demand equation is null since a massive production of social housing the past years should have absorbed all the viable demand. The most conservative assumption for the estimation of demand is to assume indeed that the static portion of the equation is null.

We explore both scenarios i.e. a scenario where the static portion of the demand equation is null as well as a second scenario where it is equal to 80%*200,000 as shown above.

urban households with access to funding Correspond to the portion of households who are bankable i.e. with 40% or less of their income equal to the minimum monthly payment for a social housing mortgage in addition to the population who can get a mortgage under a Fogarim guarantee. We obviously exclude the urban households able to acquire assets more expensive than social

housing. We define a couple of scenarios regarding the portion of households who can afford social housing:

1/ Bear case: Corresponding to a very high Gini index where 40% of the households belong to the upper-mid class and the upper class, 40% of the households cannot acquire social housing and 20% of the households falling in the bankable and Fogarim bankable categories. Not only does this case not fit the data provided by the higher planning commission regarding the current income distribution structure in Morocco but it also does not fit the ministry of housing projections for the weight of social classes by 2020^E. This case represents a floor estimate of the demand for social housing. **Percentage of households who fall in the social housing target with access to funds: 20%;**

2/Base case: Corresponding to a situation mirroring the income distribution presented in (Figure 39-Expense deciles for urban households and eligibility for mortgages) and matching as well the projections of the ministry of housing regarding the evolution of the weight of social classes in Morocco. The ministry's projections are presented in Figure 94 and Figure 95. 50% of the households are bankable, 20% of the household are Fogarim bankable, 15% of the households can afford housing more expensive than social housing and 15% of households cannot afford social housing. **Percentage of households who fall in the social housing target with access to funds: 70%;**

3/Base case with less households having access to the Fogarim guarantee. 50% of the households are bankable, 10% of the household are Fogarim bankable, 20% of the households can afford housing more expensive than social housing and 20% of households cannot afford social housing. **Percentage of households who fall in the social housing target with access to funds: 60%;**

4/ Base case with more people in upper mid-class and upper class. 40% of the households are bankable, 20% of the household are Fogarim bankable, 30% of the households can afford housing more expensive than social housing and 10% of households cannot afford social housing. **Percentage of households who fall in the social housing target with access to funds: 60%;**

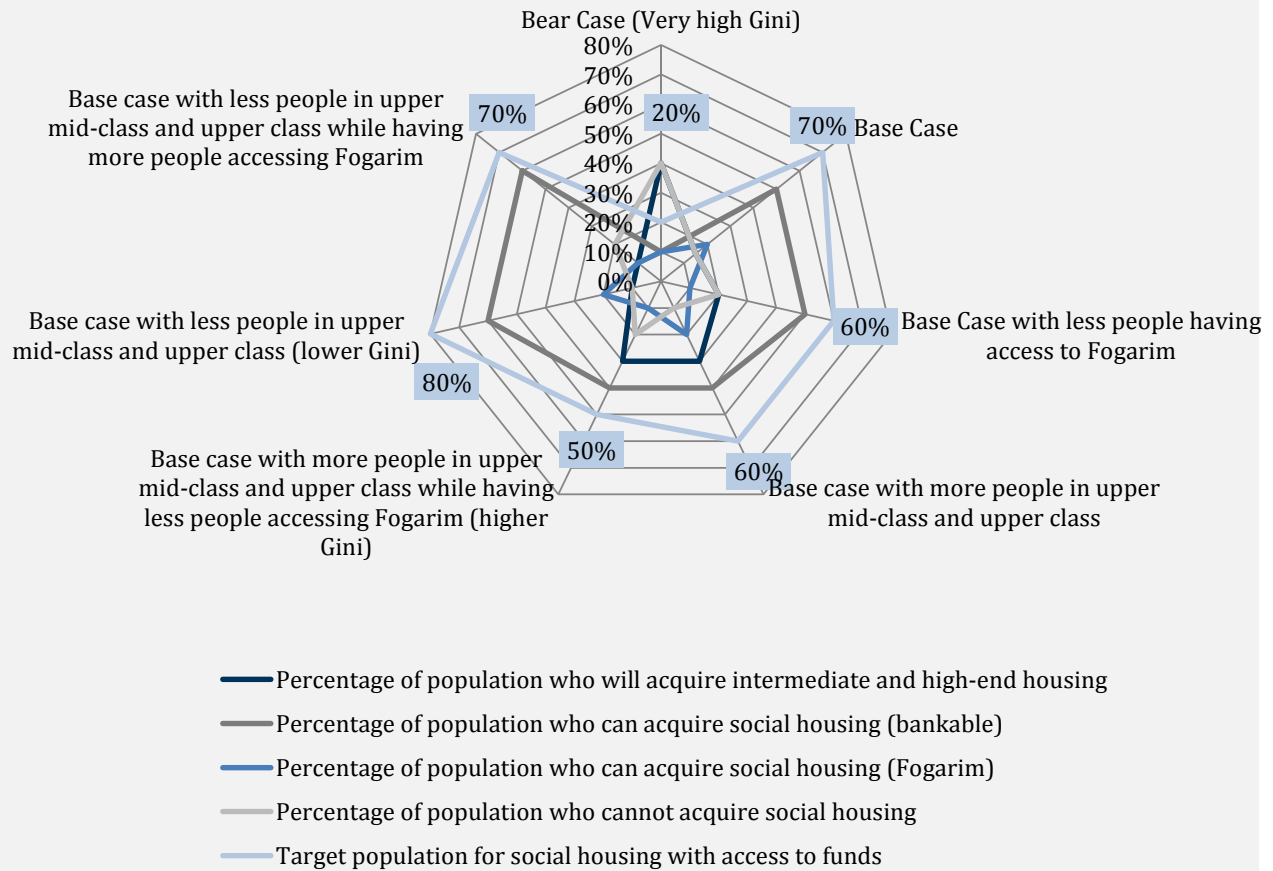
5/Base case with more people in upper mid-class and upper class while having less people accessing Fogarim (higher Gini). 40% of the households are bankable, 10% of the household are Fogarim bankable, 40% of the households can afford housing more expensive than social housing and 10% of households cannot afford social housing. **Percentage of households who fall in the social housing target with access to funds: 50%;**

6/Bull case : Base case with less people in upper mid-class and upper class (lower Gini). 60% of the households are bankable, 20% of the household are Fogarim bankable, 10% of the households can afford housing more expensive than social housing and 10% of households cannot afford social housing. **Percentage of households who fall in the social housing target with access to funds: 80%;**

7/Base case with less people in upper mid-class and upper class while having more people accessing Fogarim. 60% of the households are bankable, 10% of the household are Fogarim bankable, 10% of the households can afford housing more expensive than social housing and 20% of households cannot afford social housing. **Percentage of households who fall in the social housing target with access to funds: 70%;**

Figure 25- Target population for social housing with access to funds under different scenarios

The percentage of the population which corresponds to households able to acquire social housing but not able to acquire a more expensive type of housing is computed as the sum of the percentage of households who are bankable plus the percentage of households who are bankable under a Fogarim guarantee.



Source: CFG research

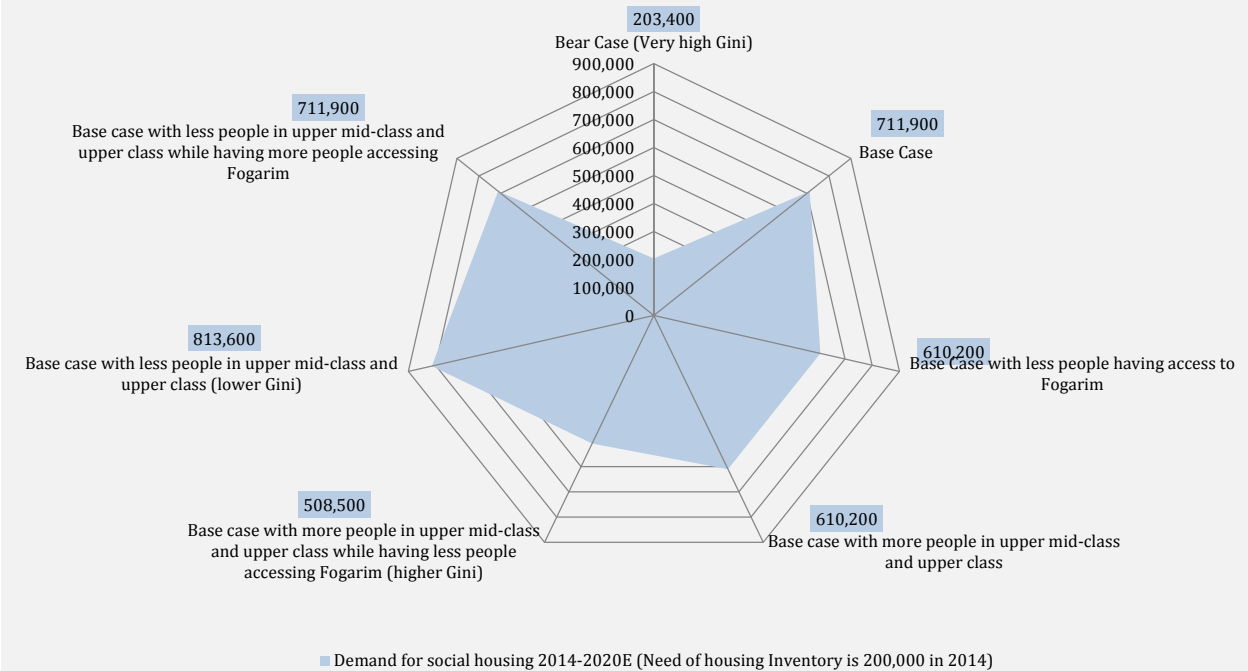
Excluding the bear case which is only explored for information purposes and the bull case which is not very realistic either, all the other cases deliver a percentage target population for social housing lying in the interval [50%-70%]. In our section titled “Microeconomics”, we find that the actual percentage is a minimum of 60%.

At any point in time, 60% of households can afford social housing without taking into account households who can afford a product more expensive than a MAD 250k housing units.

Now, and although we retain the aforementioned percentage as our central scenario, we explore the calculation of demand for all the cases and under two assumptions regarding the housing deficit:

Figure 26- Demand for social housing in 2014-2020^E under different scenarios – Base assumption

Base assumption: We assume that the inventory of urban households in need of housing is 200,000. The breakdown of households into income classes mirrors the breakdown of the Moroccan urban population.

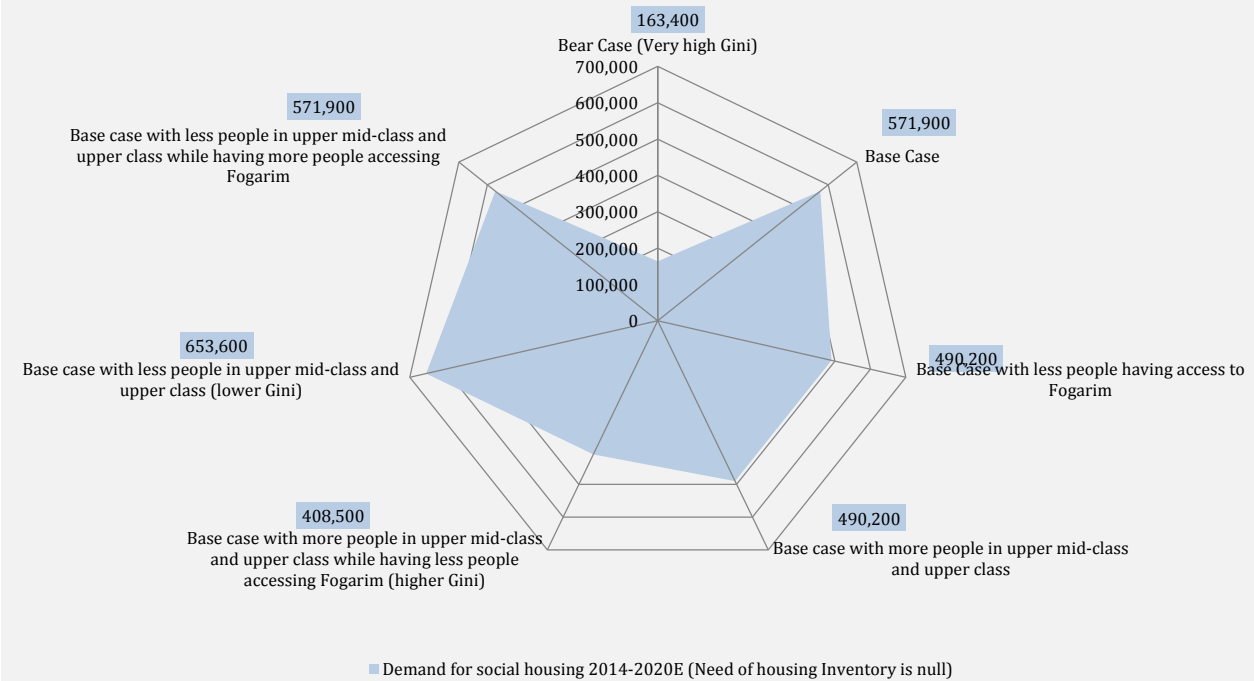


Source: CFG research

When we assume that the inventory of urban households in need for social housing is not null, demand for social housing in the period 2014-2020^E ranges from 203,400 units to 813,600 units. **Since we retained 60% as the percentage of the target population for the calculation of demand, under the base assumption, we estimate demand for social housing at 610,200 units for the period i.e. 101,700 units per annum.**

Figure 27- Demand for social housing in 2014-2020^E under different scenarios – Conservative assumption

Conservative assumption: We assume here that the inventory of urban households in need of housing is null.

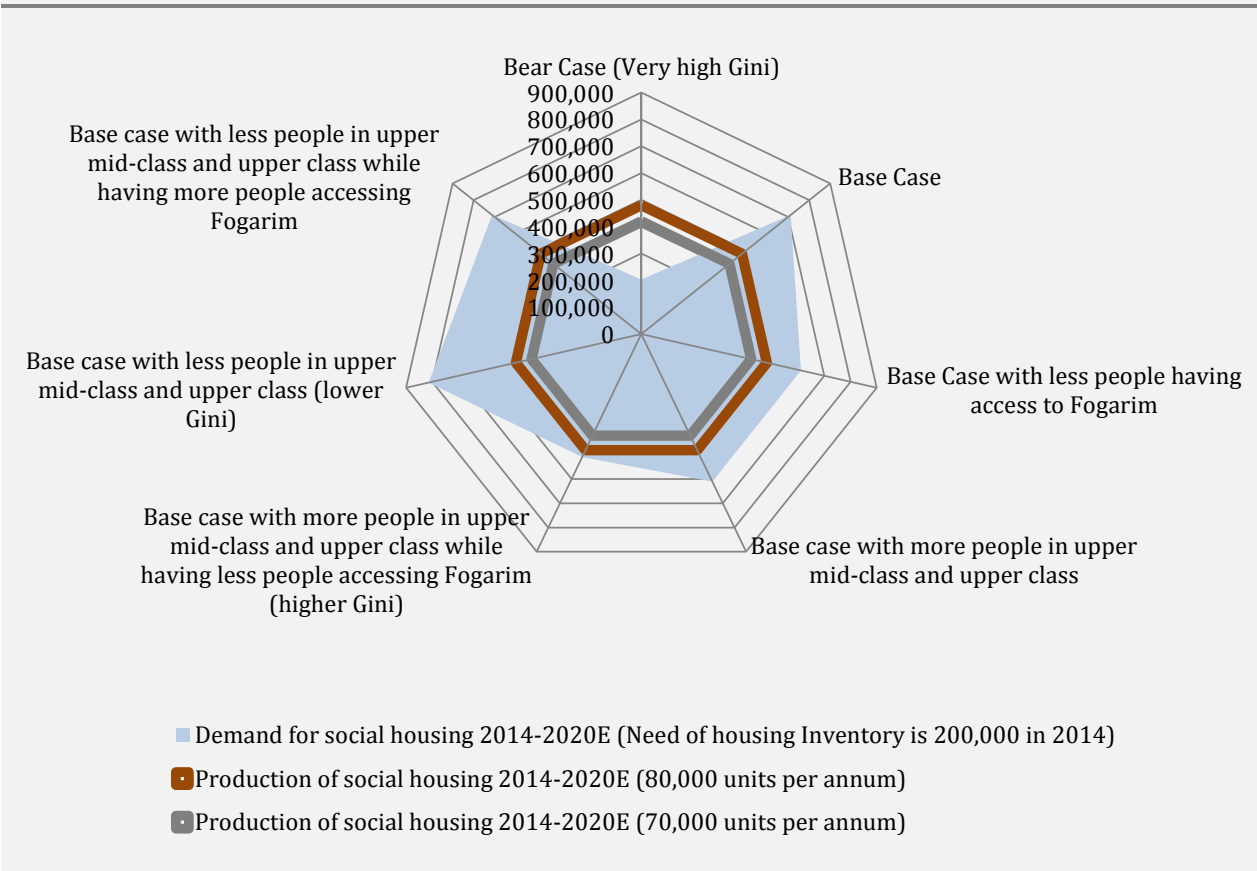


Source: CFG research

When we assume that the inventory of urban households in need for social housing is null, demand for social housing in the period 2014-2020^E ranges from 163,400 units to 653,600 units. **Since we retained 60% as the percentage of the target population for the calculation of demand, under the conservative assumption, we estimate demand for social housing at 490,200 units for the period i.e. 81,700 units per annum.**

We then compare our demand for social housing estimates to the expected production of social housing. Production of MAD 250k social housing stood at 66,766 units in 2014 up from 60,245 units in 2013. We build two conservative scenarios under which the social housing production stands at an average 70,000 units and 80,000 units per annum from 2014 to 2020^E.

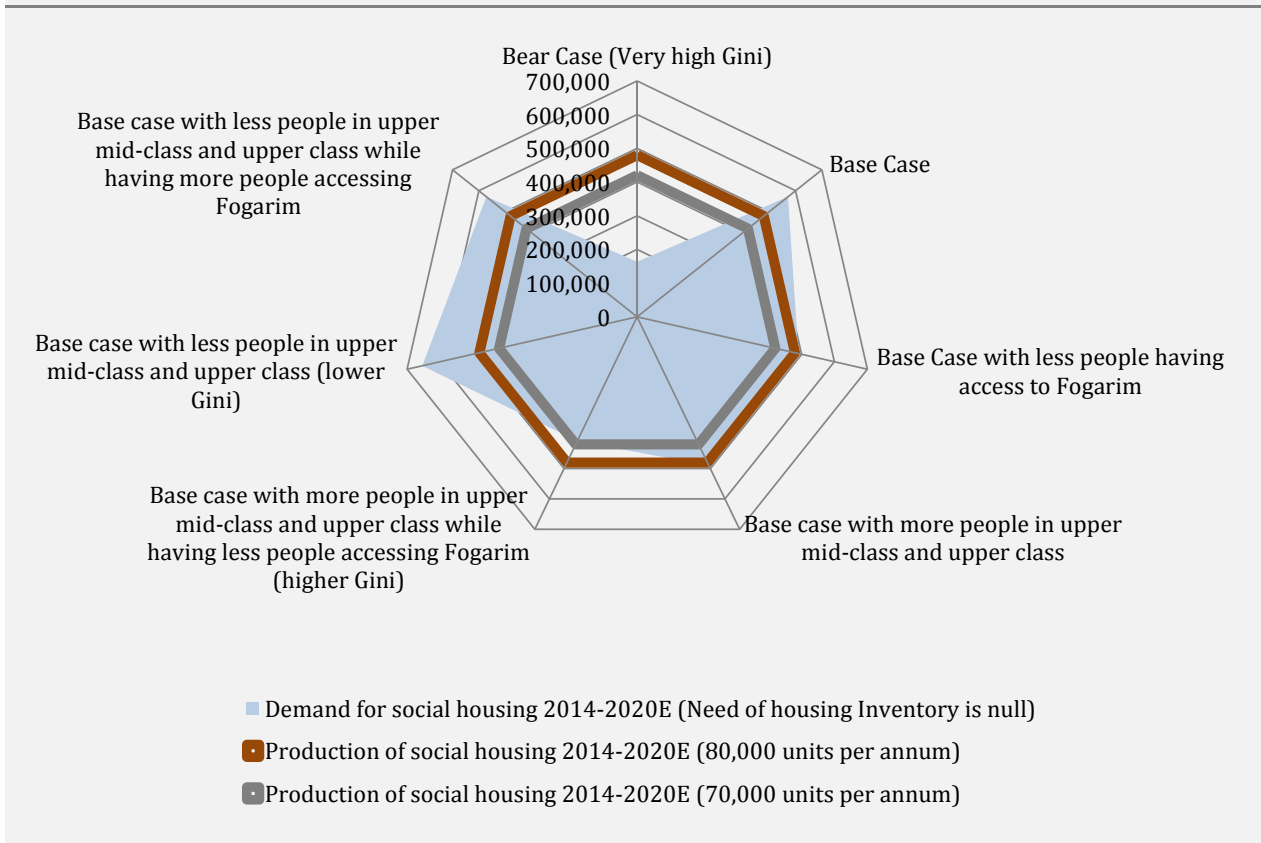
Figure 28- Demand for social housing vs. production in the period 2014-2020^E - Base assumption



Source: CFG research

At the exclusion of the bear case, which is discarded from the results, and under the base assumption, it seems that the social housing industry cannot be oversupplied in the period 2014-2020^E. We do insist however on the fact that there are regional discrepancies and that developers will need to go look for this demand at its actual location.

Figure 29- Demand for social housing vs. production in the period 2014-2020^E - Conservative assumption



Source: CFG research

At the exclusion of the bear case and the 5th case which also corresponds to a higher Gini index than actually observed in Morocco, and under the conservative assumption, it seems that the social housing industry cannot be oversupplied in the period 2014-2020^E. We do insist however on the fact that there are regional discrepancies and that developers will need to go look for this demand at its actual location.

Microeconomics

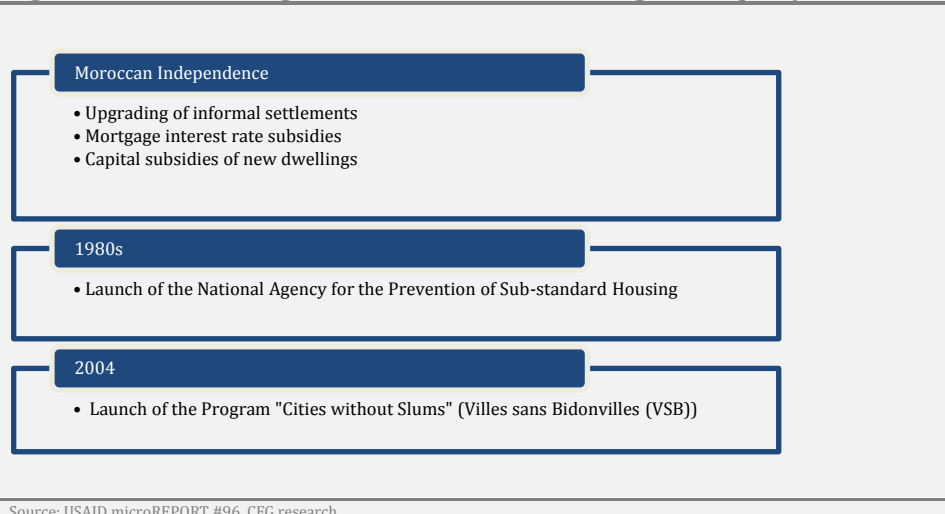
As Michael Porter would argue, “innovation is the central issue in economic prosperity”. The Moroccan government successfully addressed the issue of affordability of housing as well as the issue of access to funds for lower income populations by implementing an innovative fiscal framework and by putting in place innovative housing finance mechanisms. **Our investment thesis regarding the real estate developers that we are covering relies heavily on the belief that these companies will always adapt to the demand. This adaptability is even more important when we deal with a market where an innovative government is able to *effectively* influence housing finance.**

“The impetus provided by the program Cities without Slums has stimulated creative thinking regarding housing finance”

The United States agency for international development (USAID) considers Morocco as one of “the more progressive countries in its management of urban development, and in particular its search for housing solutions that are suitable for the poor”.

A myriad of housing policies have been implemented since the Moroccan independence to upgrade informal settlements and address sub-standard housing issues. “In particular, the impetus provided by its program **Cities without Slums** has stimulated creative thinking regarding housing finance”⁴.

Figure 30- Understanding the roots of the current housing finance policy in Morocco

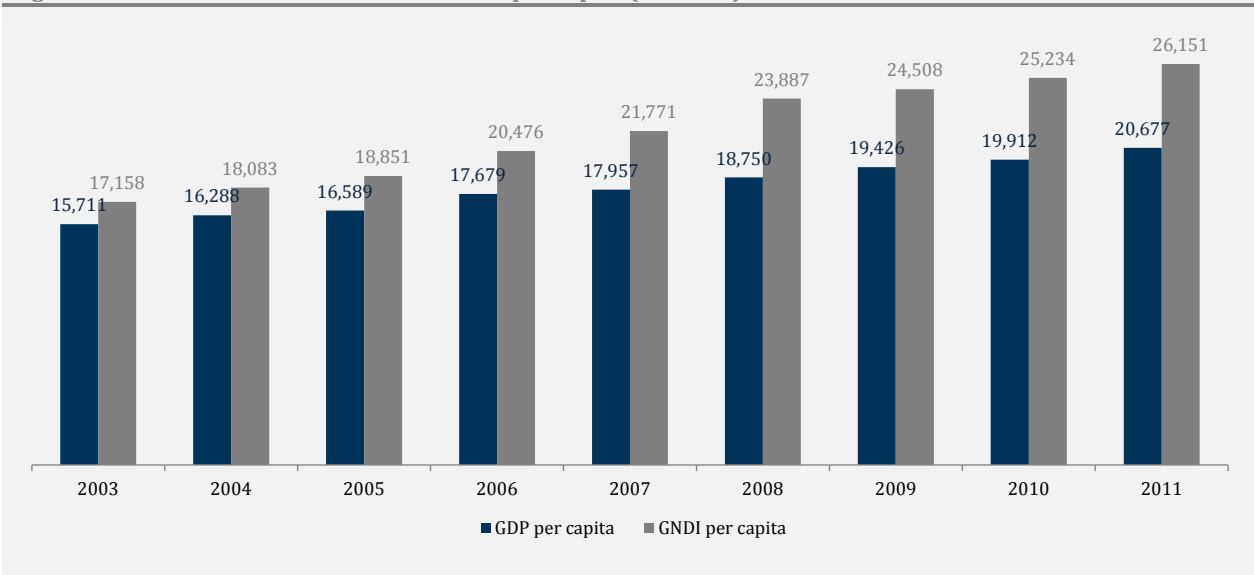


Source: USAID microREPORT #96, CFG research

The Moroccan government has multiplied efforts to provide the urban poor with affordable housing. In 2004, was launched the program “Villes sans Bidonvilles” or Cities without slums. This endeavor was supported by plural institutions including the U.S. Agency for International Development (USAID), the World Bank, the European Union, and the Agence Française de Développement (AFD). The program aimed for the elimination of all slums by 2010 and targeted the eradication of slums for 10-15 towns every year. The theoretical physical solutions suggested initially by the program were deemed unaffordable to a sizable portion of the population targeted.

“17% percent of the households living in slums cannot afford a mortgage payment”

⁴ USAID microREPORT #96

Figure 31- Evolution of the GNDI and the GDP per capita (in kMAD)


Source: Ministry of Economy and Finance

A study by the higher planning commission in 2000 shows that 17% percent of the households living in slums cannot afford a mortgage payment:

Figure 32- Household income of slum residents

Household Income (MAD/month)	<1416	<2008	<2816	<4352	>4352
% of households	16.8%	22.5%	23.0%	26.8%	11.3%
Affordable mortgage payment (MAD/month)	0	504	704	1000	>1000

Note: Data cited from USAID microREPORT #96 published in 2006. Data published in USD. Exchange rate at the time of this publication was around MAD 8/USD

Source: Enquête Nationale sur la Consommation et des dépenses des Ménages 2000-2001 cited from USAID microREPORT #96

A further survey by USAID in 2006 in a sample slum (Nakhil in Nouaceur) reveals that 20% of head of households earn less than MAD 496 per month:

Figure 33- Income for heads of households at the Nakhil slum in Nouaceur

Income for heads of HH (MAD/month)	None	1-496	504-1000	1008-2008	2016-3000	>3000
% of households	14%	6%	19%	49%	10%	2%

Note: Data cited from USAID microREPORT #96 published in 2006. Data published in USD. Exchange rate at the time of this publication was around MAD 8/USD

Source: Résultats de l'enquête Ménage du Bisonville Nakhil cited from USAID microREPORT #96

Then, the government acknowledged that “innovation is the central issue in economic prosperity” to use Michael Porter’s words. Creative ways to provide slums inhabitants with funds to acquire housing were engineered such as **granting guarantees to banks to spur lending to the lower income population.**

Figure 34- Bridging the affordability gap in housing finance for the urban poor

Government	Donors	Banks	Developers	Microfinance Institutions (MFIs)
<ul style="list-style-type: none"> The ministry of housing and urban planning (MHU) manages a subsidy fund (FSH) Establishment of a central guarantee FOGARIM 	<ul style="list-style-type: none"> USD 90 million from the European Investment Bank for off-side infrastructure and VSB operations USD 65 million from the AFD to government's parastatal developer Holding Al Omrane USD 117 million from the EU for social infrastructure 	<ul style="list-style-type: none"> Increasing role of commercial banks in lending to lower income populations as a result of the FOGARIM guarantee 	<ul style="list-style-type: none"> The private sector is encouraged to participate in the social housing market as a result of tax incentives and serviced land by government The parastatal, Holding Al Omrane acts as the developer for many slum upgrading programs 	<ul style="list-style-type: none"> Government allowed MFIs to lend for housing

Source: USAID microREPORT #96, CFG research

At the end of 2003, was introduced a government guarantee, FOGARIM in order to encourage banks to lend to lower income populations. The FOGARIM “is used to guarantee 70 percent of each bank mortgage loan to low-income individuals with irregular incomes who would normally not be eligible for these loans”⁵. FOGARIM was primarily designed for households with irregular / informal sources of income.

“Clearly, with the design of an affordable housing product along with the existence of mechanisms that encourage financial institutions to lend to people with low and/or irregular income, the Moroccan government has brightly addressed two key issues that countries usually face in housing finance.”

In order to purchase a MAD 250,000 social housing unit, acquirers borrow the 15-20% down payment i.e. MAD 37,500-MAD 50,000 from an MFI⁶ and reimburse the MFI as soon as the bank approves the loan under the FOGARIM guarantee. It is interesting to observe in the table below that only 36% of the lowest income quartile of the population borrowed money for housing from banks while 41% of this population borrowed money from MFIs.

Figure 35- Source of loans by income quartile

Source of loan	Q1	Q2	Q3	Q4
Banks	36%	48%	40%	42%
MFIs	41%	28%	28%	28%
Consumer credit companies	19%	20%	26%	24%
NGOs	4%	4%	5%	6%

Source: Practical Guide for Housing Microfinance in Morocco, CHF International prepared for RTI International, June 2005 / cited from USAID microREPORT #96

Clearly, with the design of an affordable housing product along with the existence of mechanisms that encourage financial institutions to lend to people with low and/or irregular income, government has brightly addressed two key issues that countries usually face in housing finance.

⁵ USAID microREPORT #96

⁶ The microfinance industry is led by four institutions Al Amana, Zakoura, FBP and Fonddep. They have a loan book of about USD 500 million.

Focus on the FOGARIM guarantee

Purpose: Created to provide banks with a protection in order to lend to households with low and/or informal and/or irregular income. This program pushed banks to lend to a population that they would have never considered at a relatively low interest rate.

How it works? The government guarantees 70 percent of the principal with funds managed by a public agency, the Caisse Centrale de Garantie (CCG).

As a result of a lower risk, banks provide loans at a rate between 5 and 9 percent for a maximum term of 25 years. The maximum loan amount is MAD 250,000.

Who is eligible? The maximum monthly household income for loan eligibility is MAD 3,000.

How does the risk assessment of the borrower work? Banks usually engage MFIs to act as their credit screener since their credit officers specialize in serving the poor. Indicators usually used include the word of neighbors, an appraisal of the person's assets and business as well the appearance of their home. The MFI's credit screening includes the character of the borrower, an assessment of his income level as well as of his residency. Once the bank receives the dossier from the MFI, they need to make the final decision. If the bank approves the MAD 250,000 loan, the MFI advances a loan for the down payment (MAD 37,500 at 19 percent interest per annum for up to 3years). The cost of the down payment loan is extremely high regarding the fact that the bank will not transfer the funds to the borrower until the housing unit is produced. Once the borrower receives the funds from the bank, the MFI down payment loan is repaid. It is worth noting that this option to pay the down payment remains the last resort for the acquirers of social housing, they tend to finance the down payment by relying on their own savings or by borrowing from relatives.

Default rate: As of September 2007, and out of 24,503 loans guaranteed, only 25 debtors have defaulted which is not a bad ratio for loan duration of 20-25 years.

Some argue that because the banks reduce their risks substantially, they become less diligent in the credit screening process. A more "market-oriented" guarantee at 50 percent instead of 70 percent has been suggested by USAID to the commercial bank BMCE but has not been utilized.

More information:

95% of the FOGARIM guaranteed loans are for house purchase, the remaining loans are for house construction and the purchase of a plot.

It is important to mention that the last monthly payment for a FOGARIM guaranteed loan should happen before the 60th birthday of the borrower. It implies shorter repayment periods and henceforth higher monthly payments for some head of households which can be restraining in some cases.

Figure 36- FOGARIM Guaranteed loans attributes June 2009-June 2014

	June 2009	December 2009	June 2010	December 2011	June 2012	December 2012	December 2013	June 2014	June 2015
Cumulative Number of beneficiaries	50,453	54,102	58,909	74,109	81,226	86,549	99,927	108,811	123,559
Proportion of loans for construction in June 2015	13.0%	9.0%	18.0%	3.0%	3.0%	2.0%	0.5%	0.2%	0.3%
Proportion of loans for acquisition in June 2015	87.0%	91.0%	82.0%	97.0%	97.0%	98.0%	99.5%	99.8%	99.7%
Cumulative amount of loans (MMAD)	7,328	7,875	8,577	10,869	12,000	12,863	15,113	16,548	18,972
Average cost of housing (MAD)	170,550	181,815	169,997	219,169	213,788	220,288	237,977	228,068	232,733
Average amount borrowed (MAD)	145,706	150,006	137,895	158,817	158,780	162,561	167,102	160,245	160,942
Average monthly payment (MAD)	1,032	1,113	998	1,164	1,170	1,204	1,227	1,201	1,200
Average loan-to-value	85.0%	82.5%	81.5%	73.1%	74.8%	74.5%	71.0%	71.0%	70.0%
Average interest rate	5.2%	6.1%	5.8%	6.1%	6.2%	6.3%	6.2%	6.2%	6.2%
Average loan repayment period in years	20	21	20	21	21	21	21	20	21

Note: December 2010, June 2011, June 2013 and December 2014 data is not available.

Source: Ministry of Economy and Finance

It is important to note from the table hereabove that the number of Fogarim beneficiaries keep increasing amid a reluctance of banks to participate in this market as a result of the low profitability of Fogarim guaranteed loans. Fogarim loans are mainly directed to acquisition rather than construction. According to the CCG, the risks related to construction are 2.4 times more important than risk related to acquisition. The average loan-to-value ratio does not exceed 85%. According to the CCG, a personal contribution of 5% of the

value of the real estate good being acquired reduces the default risk by 30%, while a contribution of 10% reduces the default risk by 65%.

Focus on the financing of a social housing apartment

Interest rates usually hover between 5 and 9 percent which translate into MAD 1,168 and MAD 1,680 monthly payments assuming a repayment period of 25 years (or between MAD 1,320 and MAD 1,800 monthly payments assuming a repayment period of 20 years)

Figure 37- Monthly payments in MAD by repayment period and by interest rate

Repayment period	Interest rate		
	5%	7%	9%
10	2,652	2,903	3,167
15	1,977	2,247	2,536
20	1,650	1,938	2,250
25	1,461	1,767	2,098

Note: Typical repayment period is either 20 or 25 years

Source: CFG Research

Excluding the portion of the population eligible for Fogarim (The maximum monthly household income for loan eligibility is MAD 3,000), a simple rule of thumb at the commercial banks consists of lending money up to **40% of the household income**. When this rule is applied to this table, we derive the following data regarding the minimum income per household.

Figure 38- Minimum income per household in MAD for different repayment periods and interest rates

Repayment period	Interest rate		
	5%	7%	9%
10	6,630	7,258	7,918
15	4,943	5,618	6,340
20	4,125	4,845	5,625
25	3,653	4,418	5,245

Source: CFG Research

We have sourced the categorization of households by decile of household expense from the last study published by the Higher Planning Commission in 2007.

Figure 39- Expense deciles for urban households and eligibility for mortgages

Average annual expense per person Deciles	Decile Value (In 2007 MAD)	Average annual expense per person (In 2007 MAD)	Average monthly expense per person (In 2007 MAD)	Average household size (# of people)	Average monthly expense per household (In 2007 MAD)	Eligibility for a regular mortgage	Eligibility for Fogarim
1	4829	3795	316	6.1	1929	No	Yes
2	6092	5456	455	5.8	2637	No	Yes
3	7176	6634	553	5.6	3096	No	Yes
4	8401	7795	650	5.5	3573	Yes	No
5	9760	9057	755	5.2	3925	Yes	No
6	11368	10492	874	5	4372	Yes	No
7	13940	12524	1044	4.6	4801	Yes	No
8	17531	12545	1045	4.2	4391	Yes	No
9	25531	20903	1742	3.9	6793	Yes	No
10	-	46695	3891	3.5	13619	Yes	No

Source: Enquête Nationale sur les revenus et les niveaux de vie des ménages 2006/2007, CFG Research

This table should be read in conjunction with the previous one. We know that the minimum income per household to afford a mortgage is MAD 3,653 should they get access to the lowest interest rate and the longest maturity. The first two deciles of households are thus completely discarded from the pool of households who can acquire social housing. Then, the third decile households have an average monthly expense around MAD 3,096. These households are more eligible for Fogarim than for a mortgage loan in our view but are nonetheless households who can acquire social housing. All the other deciles can afford the mortgage repayments but will need to get a repayment period above 20 years (which is a common practice) and hopefully an interest rate as low as possible.

“The first two deciles of households are thus completely discarded from the pool of households who can acquire social housing

The third decile households are eligible for Fogarim

All the other deciles can afford the mortgage repayments”

A couple of important notes:

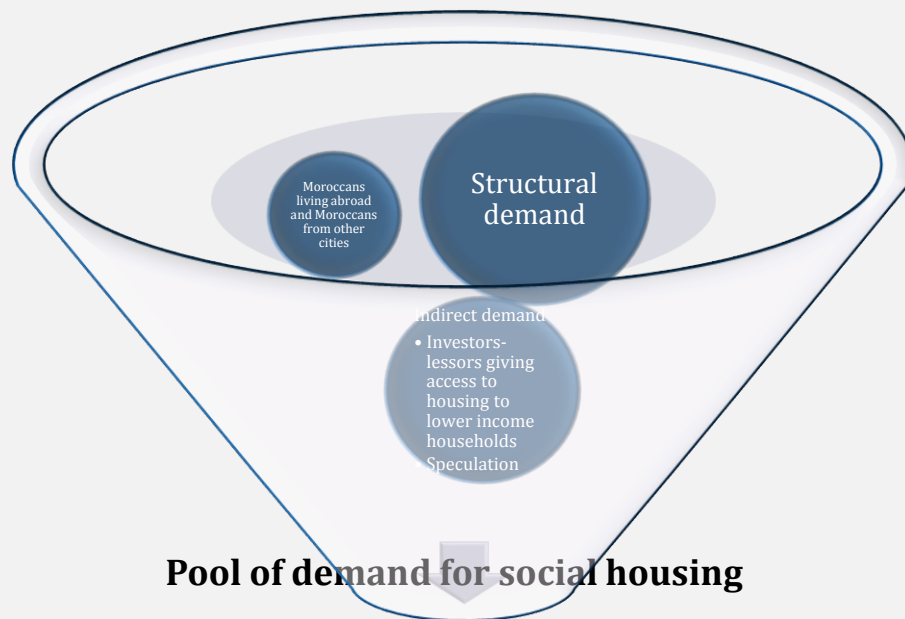
1/ It is worth noting that the decile values (expense per household per month) are used as proxies for revenues. However, if we were to account for the national savings rate that hover in average around 30%, we would possibly be able to include more households among the category of households who can afford the monthly loan repayments. The caveat nonetheless is that more people would also be able to have access to housing of a higher standing than social housing. We conservatively take household expense as a proxy for household revenue in the scope of this study;

2/ We use 2007 MAD data without adjusting it for inflation between 2007 and 2014 which is extremely conservative. Indeed, in 2007, social housing used to cost MAD 200k;

This exercise serves the main purpose of measuring the percentage of the population able to acquire social housing. Not only do we use 2007 MAD data, but do we also assume no savings rate while taking expenses as a proxy for income; but we also discard additional sources of demand such as Moroccans living abroad who can acquire this type of housing either as the primary residence in Morocco or as investors-lessors, and the demand that can arise from Moroccans who would like to acquire a house in another city.

More importantly, there is the demand from investors-lessors; this demand should not be added to the demand for social housing since it is serving households in need for housing who will live in these units. However, households belonging to the lowest income deciles could potentially rent these units (inability to afford the down payment and/or to get access to a loan), which creates an additional overlay of demand.

Then, there is also another mechanism by which the lowest decile households can acquire social housing: Speculation. Speculators pay the down-payment for a social housing unit and then sell an option to a potential acquirer to have this acquisition transferred under their name at the time of the delivery. Speculation happens in the Casablanca-Rabat axis where many households would buy this option in order to be delivered today rather than tomorrow. It is worth noting though that there can be some penalties from developers when a contract is transferred. Finally, social housing can be acquired for investment purposes especially in the Casablanca-Rabat axis where there could be demand in the secondary market as already observed in some projects with the restriction that the owner lives in their residence for at least 4 years.



Henceforth, if we were able to conservatively show that 2 bottom deciles of households cannot afford social housing, and if we take into account the fact that the top two deciles are not a target population for this product, then, we are left with 60% of the population that can afford social housing. It is important to highlight that it is actually a floor number since additional overlays of demand complement this structural pool of demand. This is only true if the overlays are mutually exclusive with the 60% calculated. We do think that it is the case because Moroccans living abroad are excluded from the local population. Also, the demand from investor-lessors, who belong to top deciles households, is transferred to households who can belong to any of the bottom 3 deciles which can in fact add incremental demand to the 60% figure calculated.

Finally, for the portion of the population who cannot afford social housing, there are two other options under slum upgrading program: Subsidized apartments and serviced plots. According to a study conducted by USAID in 2006, half of slum dwellers may afford them.

Figure 40- Monthly payments for social housing purchase and slum upgrading program options

Type of Housing Option	Cost to beneficiary (MAD)	Monthly payment for varying interest rates (20 years loan)	
		5%	9%
Social housing (acquisition)	250,000	1,650	2,250
Subsidized apartment units (resettlement)	50,000	330	450
Serviced plot	60,000	396	540

Source: CFG Research

The Casablanca-Rabat axis : The mecca of social housing

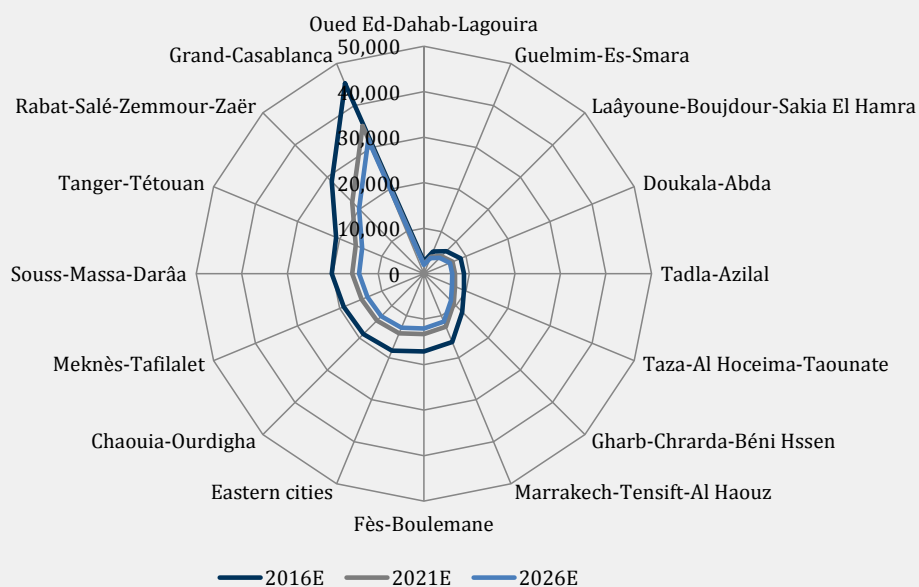
In a report published in 2013 by the ministry of housing and summarizing the 2011 activity of the sector, were announced numbers for the housing deficit by 2016^E, 2021^E and 2026^E. In absence of income data, we cannot derive from the numbers announced the actual deficit of social housing units. However, it is interesting to observe the regional breakdown of these deficit figures to understand that the Casablanca-Rabat axis is the court where the big game is played.

Figure 41- Housing deficit per annum per region by 2016^E, 2021^E and 2026^E

Region	2016 ^E	2021 ^E	2026 ^E
Oued Ed-Dahab-Lagouira	2,689	2,089	1,892
Guelmim-Es-Smara	5,247	4,078	3,693
Laâyoune-Boujdour-Sakia El Hamra	7,009	5,446	4,933
Doukala-Abda	8,772	6,816	6,174
Tadla-Azilal	8,836	6,867	6,219
Taza-Al Hoceima-Taounate	9,513	7,393	6,696
Gharb-Chrarda-Béni Hssen	11,936	9,275	8,401
Marrakech-Tensift-Al Haouz	16,242	12,622	11,431
Fès-Boulemane	17,109	13,295	12,042
Eastern cities	18,308	14,227	12,886
Chaouia-Ourdigha	18,776	14,591	13,215
Meknès-Tafilalet	19,064	14,815	13,418
Souss-Massa-Darâa	20,232	15,722	14,239
Tanger-Tétouan	20,827	16,184	14,658
Rabat-Salé-Zemmour-Zaër	28,602	22,226	20,130
% Rabat region	11.1%	11.1%	11.1%
Grand-Casablanca	45,238	35,154	31,839
% Casablanca	17.51%	17.51%	17.51%
Total	258,400	200,800	181,866

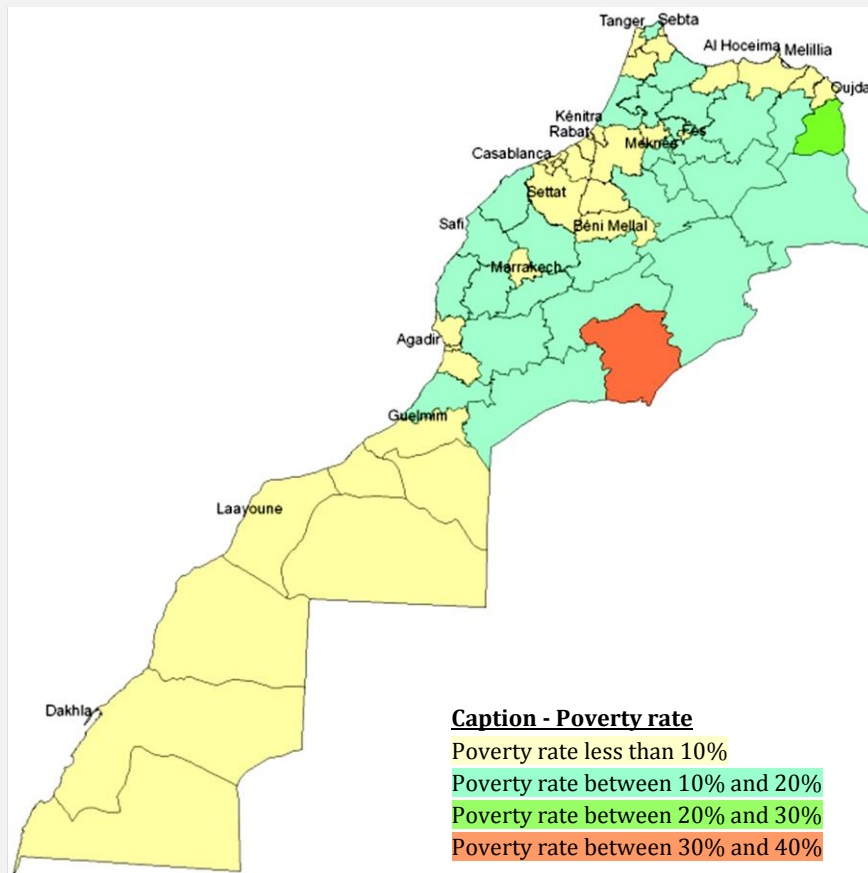
The table shows that in order to eliminate the housing deficit by 2016^E, the average production per annum should stand at 258,400 units.

Similarly, in order to eliminate this deficit by 2021^E or 2026^E, production should stand at an average 200,800 and 181,866 units per annum respectively.



Source: Ministry of Housing, CFG Research

Figure 42- 2007 Poverty Map of Morocco

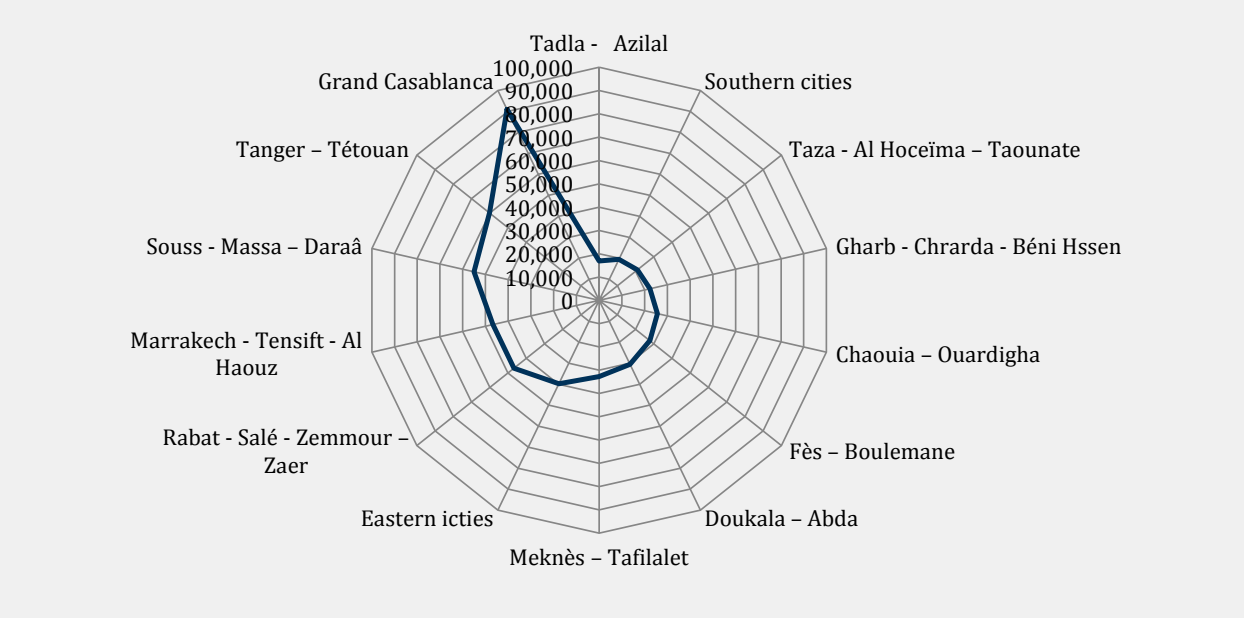


The Casablanca-Rabat axis is from a Microeconomic perspective healthier than other regions as shown by the poverty map.

It is important to note that the region has the highest number of households who have regular incomes which facilitates the access to mortgages (in the formal and the informal sectors).

Source: Cited from Higher Planning Commission's Poverty Mapping study published in 2007

Figure 43- Expenses of households in 2013 per region (in MMAD)



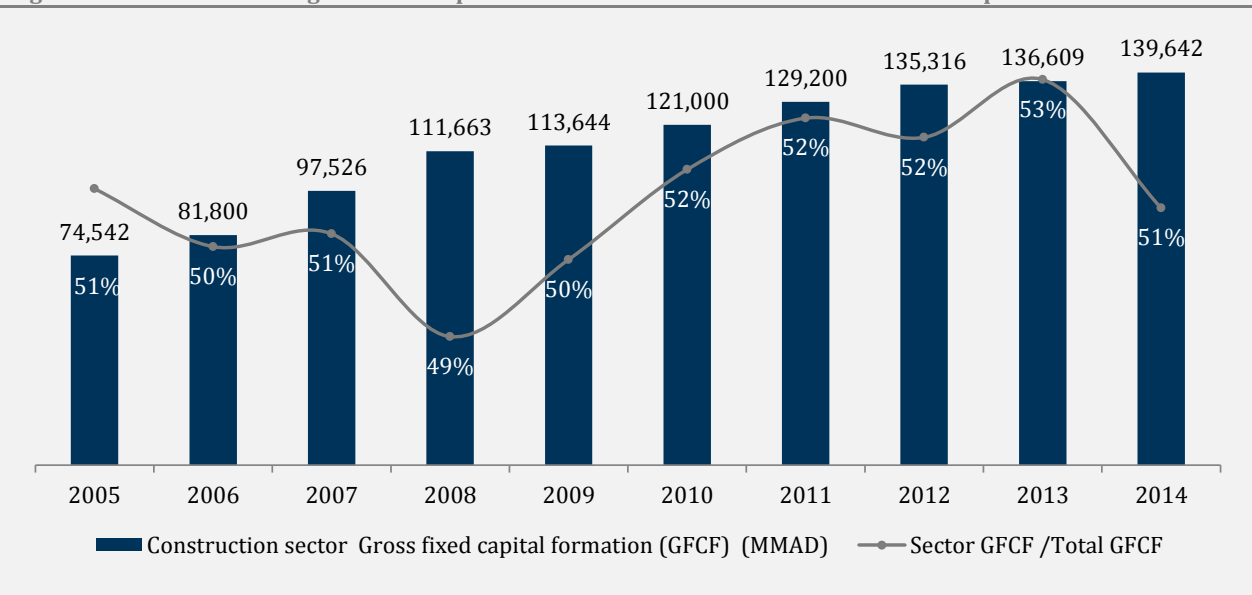
Source: Higher planning commission, CFG Research

Importance of the sector

We believe that in the very long run, government will sustain a fiscal and regulatory framework favorable to the private sector. In 2011, the private sector accounted for 78.1% of the production of social housing followed by the parastatal company Groupe Al Omrane who accounted for 19.5% of the social housing production. The remaining portion was produced by other state-owned organizations. Indeed, the housing and real estate sector has an important role in the Moroccan economy as shown by its sizable contribution to the GDP, to the creation of employment and investments as well as to the economic and social development of the country. Indeed, according to the cement professional association, the housing sector accounts for about 80% of the cement consumption in Morocco.

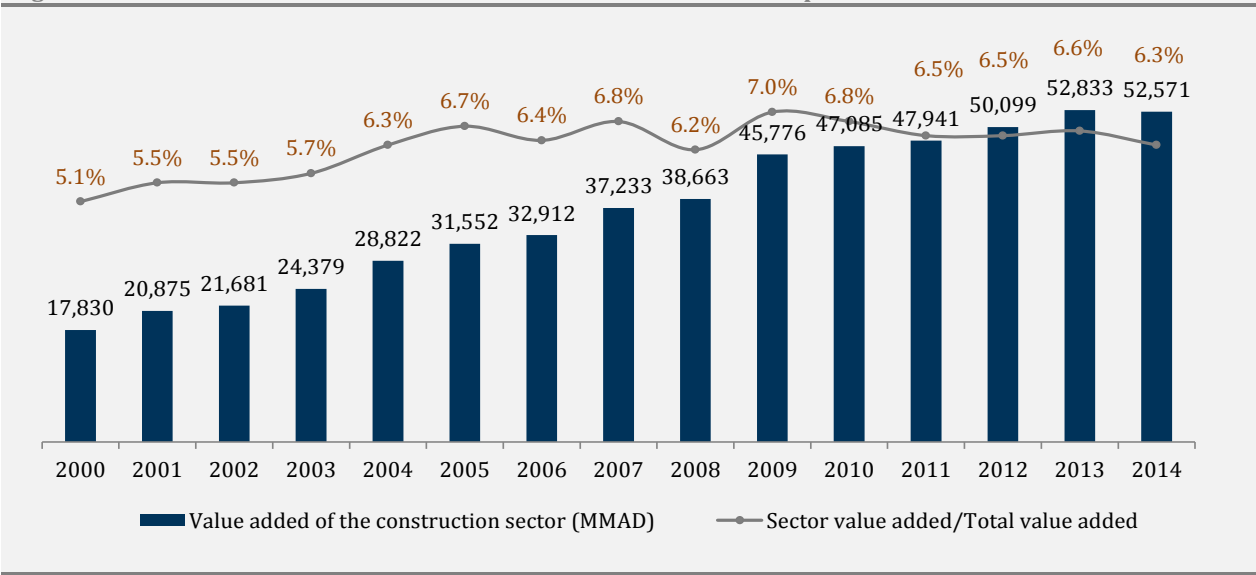
Moreover, the sector's gross fixed capital formation (GFCF) to the national gross fixed capital formation ratio stood at 51% in 2014. The average contribution of the sectors' GFCF to the national GFCF for the past 10 years hovers around 51%. The sector's GFCF grew from 2005 to 2014 at a CAGR of 7.22%.

Figure 44- Evolution of the gross fixed capital formation of the construction sector in the period 2005-2014



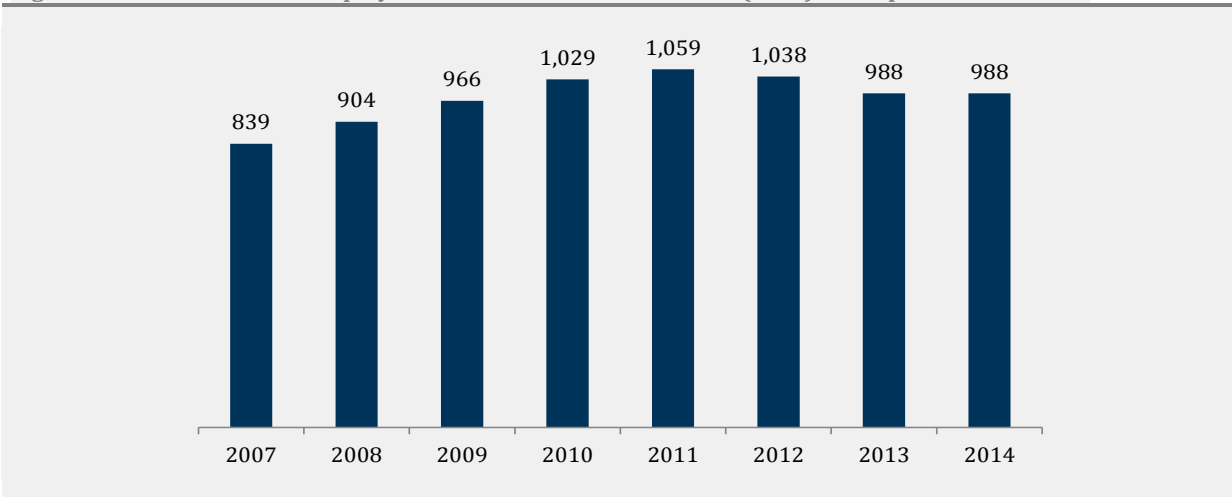
Source: Ministry of housing

Furthermore, the value added of the construction sector grew at a CAGR₂₀₀₀₋₂₀₁₄ of 16.7% and contributed to the total value by 6.3% in 2014.

Figure 45- Evolution of the value added of the construction sector in the period 2005-2014


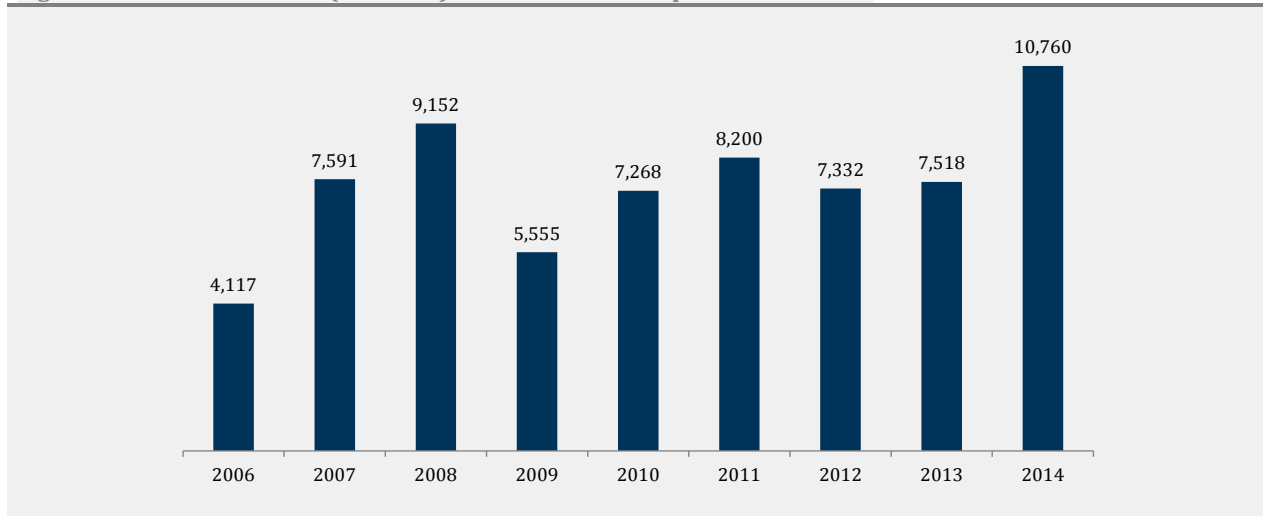
Source: Ministry of housing

The sector also attracts a sizable portion of foreign investments in Morocco. In the period 2005-2014, FDIs in the real estate sector grew at a CAGR of 12.76% and stood at MAD 10,760m.

Figure 46- Evolution of the employment in the construction sector (000s) in the period 2007-2014


Source: Ministry of Transport and Public Works

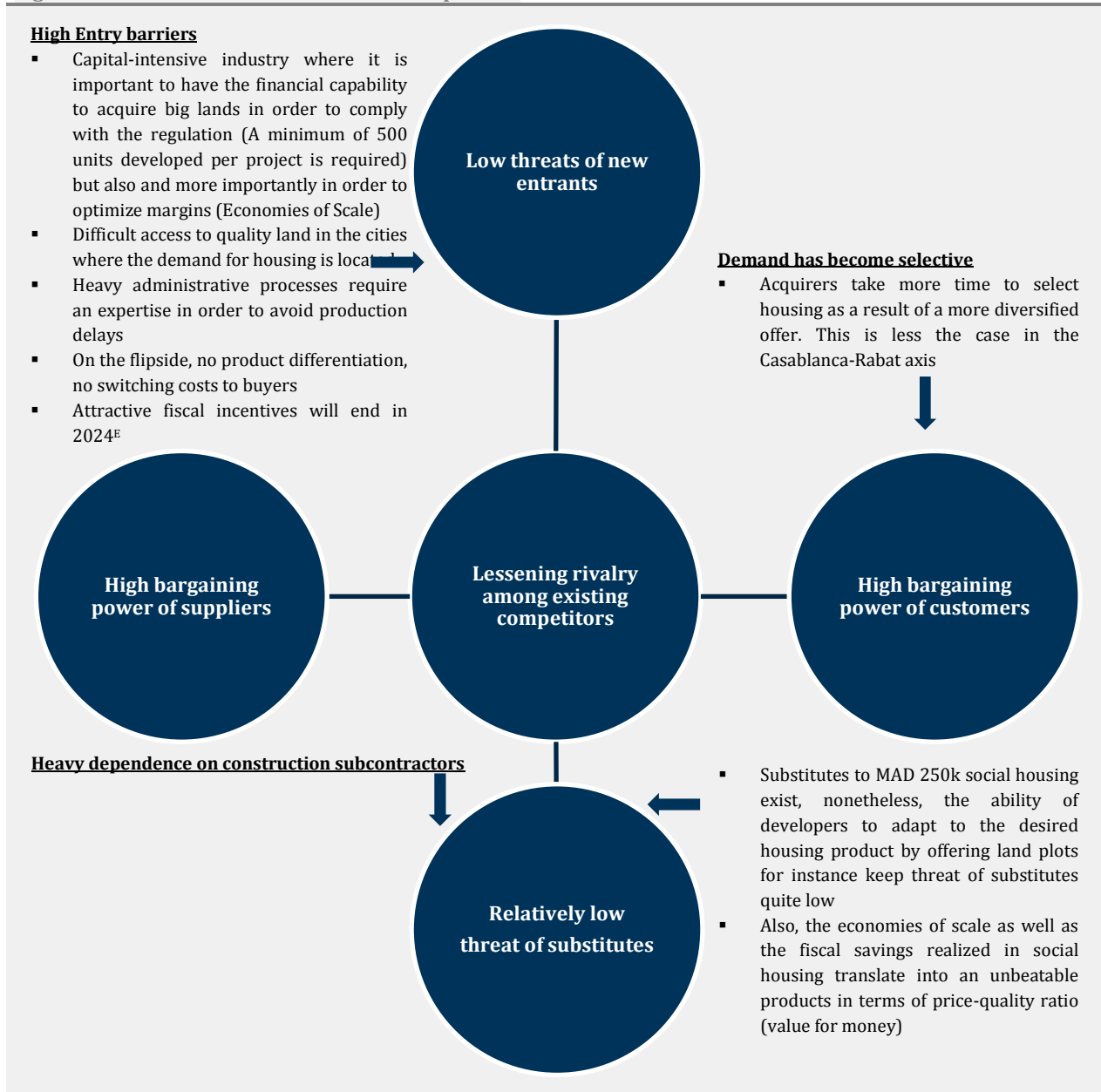
Figure 47- Evolution of FDIs (In MMAD) in real estate in the period 2005-2014



Source: Ministry of housing

Last but not least, the construction sector employs around 100,000 people. Beyond the number of jobs created, this sector can create employment even for the non-educated portion of the population. This is particularly relevant in Morocco.

Figure 48- Porter's Five Forces Model of Competition



Source: CFG Research

In our opinion, the assessment of the competitive landscape reveals the existence of an opportunity to invest in developers of social housing. Indeed, the combination of low rivalry among existing competitors along with high entry barriers should keep production of social housing away from an oversupply scenario.

Part II: Stocks in the CSE

A backward Glance At Real Estate Stocks

When we speak about real estate stocks in the Casablanca stock exchange, we refer to the four following stocks: ADH, ADI, CGI and RDS. RDS had their IPO on December 2014, and CGI delisting was announced on October 2014.

YTD, real estate securities have been underperforming the CFG 25 index and have started to trigger now bullish signals for investors looking to buy the dips; or for “vulture” investors interested in a stock like ADI which is going through debt restructuring. This underperformance has been driven by a series of bad news hitting the sector such as the CGI case or the ongoing financial distress at Alliances.

Not only have investors shied away from stock selection by sending all four real estate stocks in an oversold territory, but they also have concluded that the bad news were a consequence of a turmoil on the fundamental scene. Indeed, negative headlines amid the “post-euphoria period” were considered a consequence of a plummeting demand for housing, oversupply issues and so on and so forth. We have shown in Part I that the sector was actually mutating and that the companies’ issues were tied to former strategic decisions in a sector still on a “very steep” learning curve. For instance, Addoha have re-engineered their corporate strategy in order to generate cash as a result of the accumulation of unsold units. Units were not sold because a couple of projects were not properly designed rather than the demand for housing losing steam.

What we are emphasizing in this part is that there is a significant behavioral component that has engendered bearish pressures on all stocks of the sector regardless of how drivers and news flows impact the “present value of future cash flows” equation. In other terms, no matter what results are indicated by fundamental research (top-down and bottom-up), investors have to be aware of this behavioral overlay and of a general climate of psychosis surrounding the sector. In a nutshell, investors have to be aware of the fact that the sector momentum is unfavorable from a stock market standpoint.

This situation is making investors to put an emphasis on attributes such as the quality of management, the transparency of financial communication and risk management practices in the companies that they are considering.

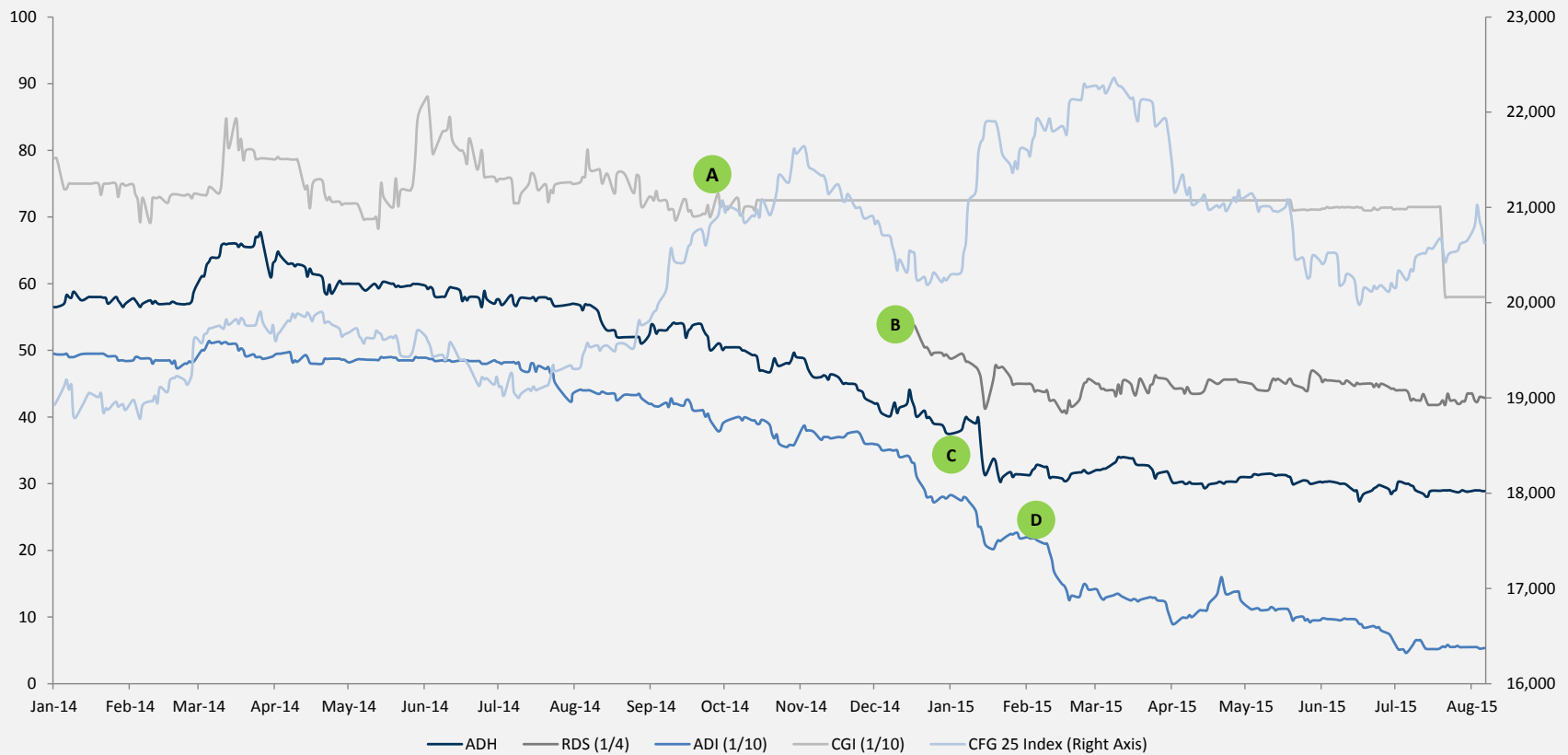
More importantly, we cannot assert enough that for any real estate developer to win in the long run, it is critical to have the ability to adapt to a demand in a continuous transformation.

The ability to adapt to the demand is the transcendental attribute *imperative* for developers to sustain themselves.

“Companies’ issues were tied to former strategic decisions in a sector still on a very steep learning curve.”

“Investors have to be aware of the fact that the sector’s momentum is very unfavorable.”

“The ability to adapt to the demand is the transcendental attribute *imperative* for developers to sustain themselves.”

Figure 49- Real Estate stocks performance since January 2014

News flags

A: Announcement of CGI delisting decided by Ministry of Economy and Finance

B: Résidences Dar Saada completed initial public offering (IPO)

C: Addoha released a new corporate strategy baptized “cash generation plan” (CGP) for 2015^E-2017^E and aiming at the reduction of the inventory of finished products. The inventory number was also disclosed

D: Alliances issued profit warning with significant decrease of their earnings as well as a restructuring plan to mitigate the financial difficulties that the company is facing

Notes:

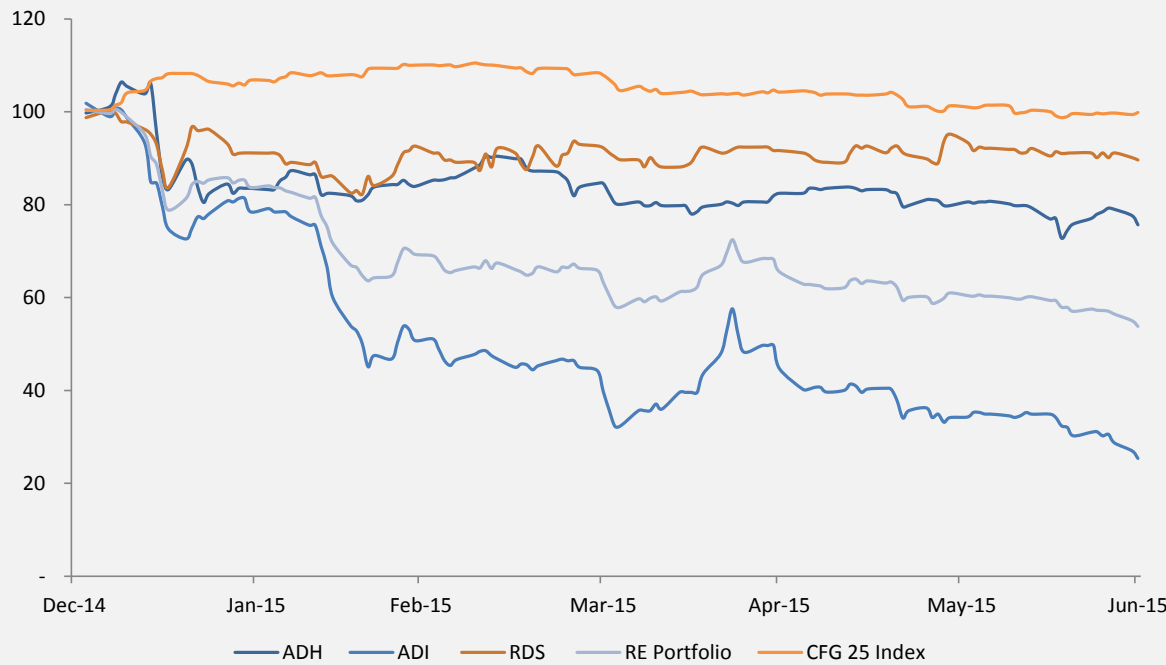
Stock prices are adjusted for splits and dividends

The CFG 25 Index is linked to the right axis of the graph

RDS, ADI and GCI prices are scaled to fit ADH prices: RDS prices are divided by 4, ADI and CGI prices are divided by 10

Source: CFG Research

Figure 50- H1-15 Returns on MAD 100 invested in real estate stocks, an equally-weighted real estate portfolio and the CFG 25 index



We construct a simple equally-weighted portfolio which includes ADH, ADI and RDS. We do not include CGI since the delisting of this security has been announced on October 2014. The final value of the portfolio stands at MAD 53.79 vs. MAD 100 initially invested, while an investment in ADH would have generated MAD 75.66, an investment in ADI would have generated MAD 25.37 and an investment in RDS would have generated MAD 89.62.

While this plain vanilla diversified portfolio would have hedged an investor against a 75% erosion of their money had they invested in ADI, it did perform very poorly highlighting the importance of stock selection. Indeed, the YTD correlation matrix of simple returns shows that stocks were positively correlated and that RDS which outperformed ADH and ADI did however trade in sympathy with ADI who published a significant decrease of their earnings.

YTD correlation matrix of ADH, ADI and RDS simple returns

	ADH	RDS	ADI
ADH	1		
RDS	0.36	1	
ADI	0.20	0.08	1

Source: CFG Research

Notes:

Return is a simple return (not a total return); capital gains are never reinvested
 RE portfolio refers to an equally-weighted portfolio of ADH, ADI and RDS; the portfolio is never rebalanced
 Funds are invested on Dec 31st 2014 and withdrawn on June 30th 2015

Source: CFG Research

CFG Coverage Universe

Our coverage universe includes Addoha (CS: ADH) and Résidences Dar Saada (CS: RDS). CGI has been delisted and henceforth does not belong to our coverage universe. Alliances (CS: ADI) is currently in debt restructuring and on that account has been taken out from our coverage universe.

Before talking about each stock alone, it is important to emphasize that the two developers are now facing an unprecedented opportunity to serve a healthy demand undersupplied as a result of high entry barriers to an industry where value creation cannot materialize unless the developer possesses multiple know-hows. It is also important to highlight the fact that there is an experience curve that the two developers are leveraging and which explains the convergence of many of their visions today. Some of the previous competitors of the two companies are distressed which translate into wonderful land acquisition opportunities. Healthy balance sheets are at the center of Management preoccupations, and top-notch risk management processes are being implemented to ensure business perpetuation. Amid an unbeatable regulatory and fiscal framework, and a favorable macroeconomic context, value creation cannot happen unless the developer's corporate strategy is appropriate and we show in the following pages that this concern is to be discarded.

Addoha: Strategy Re-engineered to Sustain Cash Generation

Addoha is the largest real estate developer in Morocco. The social and intermediate housing segment accounts for more than 60% of their revenue and the remaining of their sales are generated from their high-end segment. Consolidated revenue decreased from MAD 9.3b in 2012 to MAD 7.0b in 2014 as a result of lower units delivered in both segments where the developer is operating. **It is amid a declining top-line that the developer launched their 2015^E-2017^E cash generation plan (CGP).**

The CGP reengineered many facets of the real estate giant's strategy and focuses on the following pillars: 1/ Generating cash from the company's current assets by selling the stocks of unsold finished products and by reducing clients receivable; 2/ Reducing both of production and investments in land acquisition over the coming years; 3/ Launching the marketing of tranches only if previous tranches have been entirely commercialized; 4/ Launching the production of tranches only if the pre-sale ratio is above 70%.

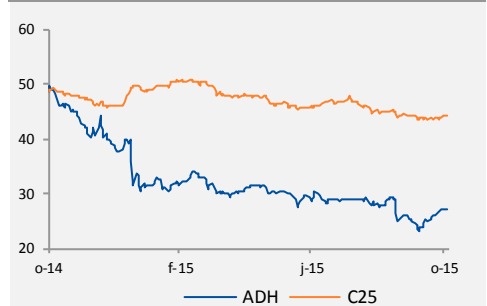
The ambition of the CGP is for the company to enter a cycle of strong operating cash flow generation (a total of MAD 8b targeted for the 2015^E-2017^E period), in order to reduce the indebtedness (targeted gearing of 33% at the end of the period vs. 80% as of 2014), as well as in order to significantly increase the amount of dividends distributed to their shareholders.

At the occasion of the CGP, Addoha have committed to publish more indicators in order to assess the advancement of the implementation of this new strategic plan. Indeed, Addoha now publish quarterly updates to their cash generation plan in addition to the regular half-year publication.

Market Data

Share price (MAD)	27
Target Price (MAD)	46.1
Market Cap. (MADm)	8,709
VWAP - 1year (MAD)	36
Highest - 1 year (MAD)	50
Lowest - 1 year (MAD)	23
Daily average volume - 1 year (MADm)	11.0

Share price evolution



Share performance

	3m	6m	12m
Absolute performance	-6.9%	-12.9%	-43.8%
Relative to CFG25	0.4%	-5.6%	-37.9%

Why a new strategic plan and what are its main objectives?

In order to have a clear understanding of the genesis of Addoha's new strategic plan, it's important in a first time to understand 3 fundamental points that have led to this strategy re-engineering, and which are related to the past strategy of the company and to the major evolutions of the sector. In fact:

1/ Since 2011 and until 2013, the company used to have at the end of each year an inventory of unsold finished products equivalent to almost 6,000 units. These unsold finished products were mainly corresponding to the most difficult units to sell in the company's projects (notably ground and last floors apartments). All these unsold units recorded in the group's inventories of finished products at the end of each year, were generally sold in the following year;

2/ Starting from 2013 and more particularly over 2014, the share of unsold products in each project almost doubled from the 20% it used to represent over the 2011-2013 period, mainly due to a more challenging competitive environment with the emergence of an alternative offer to Addoha's projects, leading potential buyers to adopt a more selective approach in their social housing acquisition processes;

3/ In order to achieve its guidance of at least 25,000 units delivered in 2014, and given the decrease of its projects' rates of commercialization, the company started accelerating the development of new projects and of new tranches in some existing projects, even when only 40% to 50% of previous tranches was sold in some cases. This intensive development policy led the company to experience a strong rise of its inventories of finished products to 20,395 units at the end of 2014.

Thus and given these inventories and the risk of a deterioration of the company's financial structure and cash flow generation profile, Addoha's management has decided, after a strategic diagnosis started on August 2014, to adopt some major strategic reorientations through its new 2015^E -2017^E strategy baptized "Cash Generation Plan". The main goals of this new strategy are:

- 1/ CFFO should stand at MAD 3.2b in 2017^E and the cumulative CFFO should stand at MAD 8b for the 2015^E-2017^E period;**
- 2/Gearing (Net debt/Total Equity) should hover around 33% in 2017^E;**
- 3 WCR should decrease by MAD 4.5b in 2017^E vs.2014;**
- 4/Dividends will increase starting from 2015^E;**
- 5/Receivables days should stand at 4 months of sales at the end of the period;**
- 6/Net receivables should decrease by MAD 6.5b between 2013 and 2017^E;**
- 7/Production to decrease almost two-fold from 25,000 units in 2014 to 14,000 units in 2017^E;**
- 8/Inventory of unsold finished products to decrease from 20,395 units in 2014 to 8,400 units in 2017^E;**

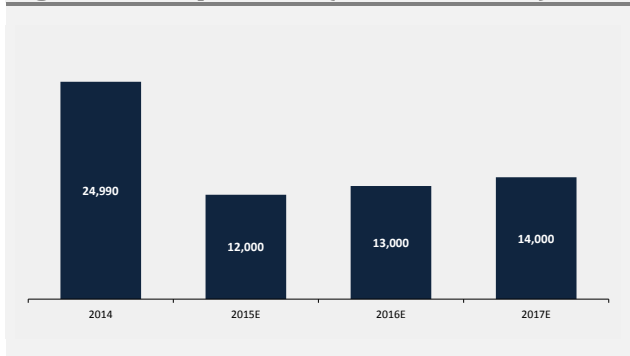
The strategic plan in details

The plan aims to:

1/ Focus in the 3 coming years on selling the unsold units accumulated in the company's inventories over 2014 (almost 20,395 units at the end of 2014). The objective is to sell 80% of these units by 2017^E by eventually revising their pricing depending on the projects and geographical areas where they are located, further motivating the sales force to market these units, and concentrating communication efforts on these products. Consequently and over the 2015^E -2017^E period, revenues generated from the inventory of finished products should represent almost half of total revenues;

2/ Strongly limit launching the commercialization of new tranches in projects where unsold units are located. The commercialization of new tranches will be launched only if previous tranches are almost totally sold.

Figure 51- Total production (in number of units)



Source: Addoha

3/ Avoid in the future a new accumulation of unsold units in the group's inventories. Consequently, the group will limit launching the development of new projects, to only those which reach a **commercialization rate threshold of 70%**. This will lead to a postponement of the production of the projects that don't meet these criteria. This will also result in a strong decline in the company's production over the 3 coming years vs. 25,000 units in 2014.

4/ Strongly reduce investments in land acquisition. These investments were already deflated from MAD 2,100m in 2012 to MAD 700m in 2013 and 2014, and the objective is to further reduce them to a maximum of MAD 300m per year in the future.

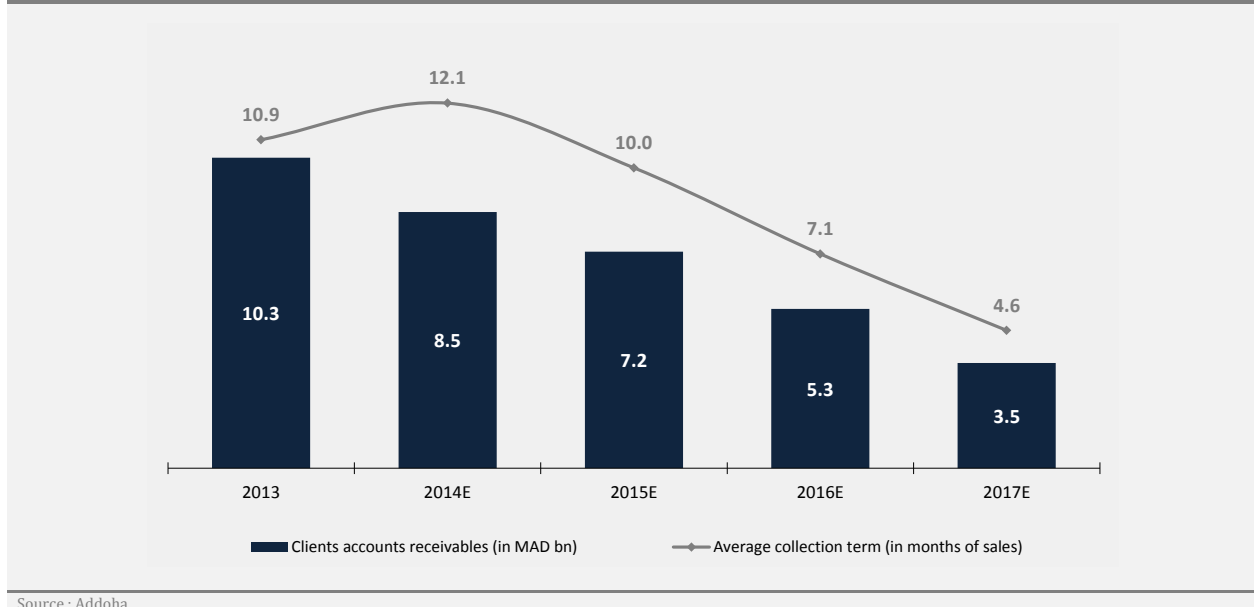
5/ To decrease its clients' accounts receivable from 10 months of sales by the end of June to 4 months of sales by the end of 2017^E. According to the management of the company, this favorable evolution will be mainly enabled by:

i/ More linear deliveries throughout coming years enabling the group to reduce the recorded amount of accounts receivable at the end of the year. In the past, most deliveries were concentrated on the second half and more particularly on the last months of the year, thus mechanically resulting in an amplification of clients' accounts receivable at the end of the year;

ii/ The increasing share of revenues generated by the stock of unsold units. When sold, the cash collection related to these products requires in general less time than for new finished units, as a significant part of the necessary administrative processes is already performed;

iii/ A general acceleration of the administrative processes between the moment when the unit is delivered to the client and the moment when the company collect the cash, thanks to a decline in the volume of the files that will be submitted by Addoha's customers to public authorities. In fact, Addoha's social and intermediary housing deliveries should be significantly reduced from an average 24,615 units per year between 2011 and 2013 to an average 17,000 units per year over the 2015^E-2017^E period.

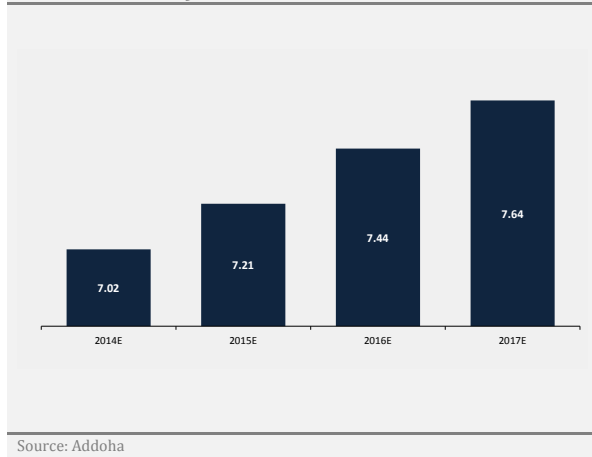
Figure 52- Targeted evolution of clients' accounts receivable (in MAD b) and of their average term of collection (in months of sales)



Source: Addoha

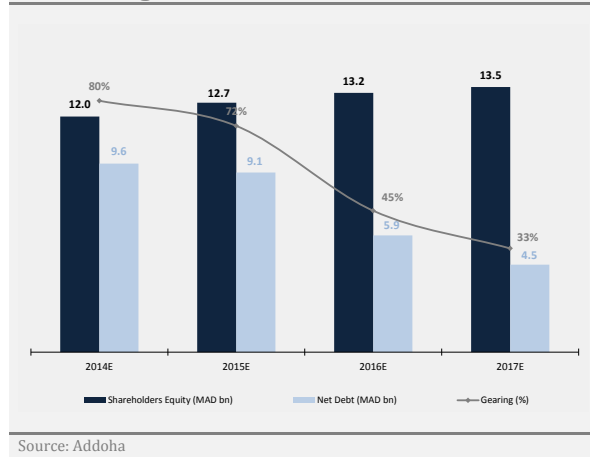
If the company manages to achieve all its objectives, it should be able to generate a huge level of cash flows from operations estimated by the management at MAD 1.8 b in 2015^E, MAD 3.0 b in 2016^E and MAD 3.2 b in 2017^E. This would enable it to significantly decrease its gearing from 80% in 2014 to 33% in 2017^E, as well as, to strongly increase the dividends distributed to shareholders. In this regard, Addoha has communicated the following KPIs and has committed to achieve them within the framework of this new strategic plan. The quarterly publications of Addoha in 2015 have shown that they have the potential to generate more CFFO than the MAD 1.8b expected by Management in 2015^E.

Figure 53- Targeted consolidated revenues (in billions of MAD)



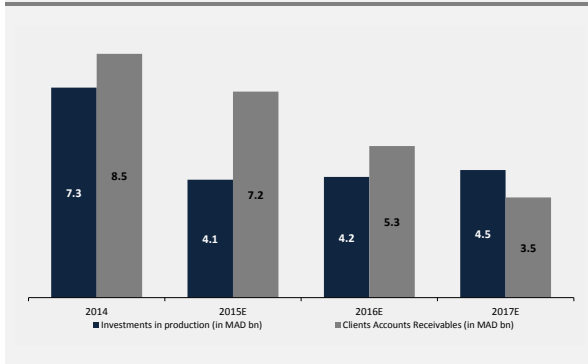
Source: Addoha

Figure 54- Targeted Shareholders' Equity, Net Debt and Gearing evolution



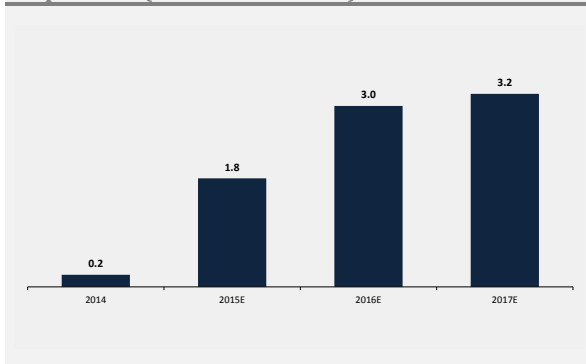
Source: Addoha

Figure 55- Targeted Investments in production & Clients' accounts receivables



Source: Addoha

Figure 56- Targeted CFO after investments in land acquisition (in billions of MAD)



Source: Addoha

Finally and in order to ensure the success of its new strategic plan and restore the financial market confidence in the stock, the management has decided to take some measures aimed at further improving the governance of the company as well as its financial communication:

- 1/ Implementation of a monitoring committee. This committee will be constituted in the coming months and will be in charge of following the achievements of this new strategic plan and approving all the decisions related to future land acquisitions;
- 2/ Nomination of more independent directors in the board of administrators ;
- 3/ Upgrading the financial communication of the company through publishing the group's results on a quarterly basis (vs. half-year basis previously). The management has also committed to release in the future detailed information and KPIs to enable investors to follow-up closely the advancement of its new strategic plan;
- 4/ Implementation of a group's grading system after the completion of this new strategic plan.

Most of these new strategic plan objectives should be achieved. Margins should however witness a contraction. We also adopted a more conservative assumption than the management in terms of clients' accounts receivable reduction.

The announcement of this new strategic plan came as surprise given the extent and the significant increase over 2014 of the proportion of unsold finished products in the company's inventories. As long as this stock was contained to 6,000 units, we believed that the company could have continued increasing moderately its sales and deliveries year after year, while entering into a strong cash flow generation cycle.

But given the new configuration of these stocks in 2014, we have the conviction that the management's reaction through this new strategic plan is completely relevant and appropriate. In fact, if Addoha continued in its past strategy focused on delivering each year 25,000 units, this would have led to a dangerous increase in finished products inventories. In the current market context, the company would have needed to constantly increase its production to reach the same level of sales. Such an evolution would have conducted the company to enter into a cycle of strong cash flows destruction with a significant rise of its net debt. Thus, we fully approve the group's decision to sharply reduce its future production, although this would result in an important decline in Addoha's deliveries, revenues and profits over the coming years.

Concerning the financial objectives settled within the framework of this new strategy, we believe that:

1/ Addoha should be able to reach its goals in terms of sales related to the products currently included in its finished products. In the past years, and even in 2014 when the demand's configuration deteriorated, the company managed to sell 6,000 units per year from its finished products inventories. Most of these 6,000 units correspond to the units that are usually the less attractive and hardest ones to sell in the group's projects.

2/ The group's capacity to market these units combined with a sharp reduction of its production from 25,000 units in 2014, to 12,000 units, 13,000 units and 14,000 units in 2015^E, 2016^E and 2017^E respectively, should enable it to reduce its stock of unsold finished products from around 17,000 units by the end of 2014 to 8,400 units by 2017^E. The decline in the group's future production is justified by 2 major decisions of the new strategic plan:

i/ In projects where the currently unsold units are located, the company will sharply limit the launching of new tranches commercialization. New tranches will be launched only if previous tranches are almost totally sold;

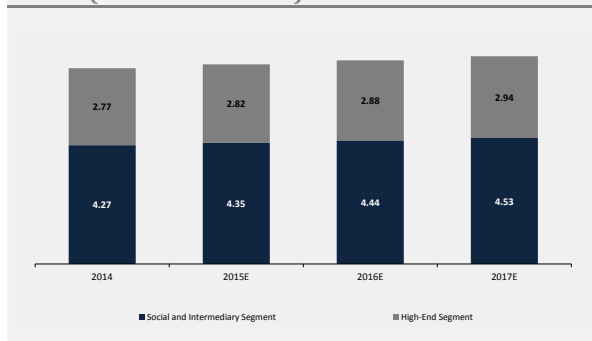
ii/ The construction of a new project or a new tranche will be started only if 70% of its units are pre-sold.

3/ The objectives in terms of revenues over the 2015^E -2017^E period are achievable. Also and according to our estimates, the forecasted revenues over the 2015^E -2017^E could be generated through the following achievements in terms of revenues and deliveries by segment:

i/ Social and intermediary deliveries over the 2015^E -2017^E period should range between 16,853 and 17,534 units. Revenues from this business activity should range between MAD 4.35b and MAD 4.53b, thus representing 61% of total revenues (vs. 68% on average between 2011 and 2013) ;

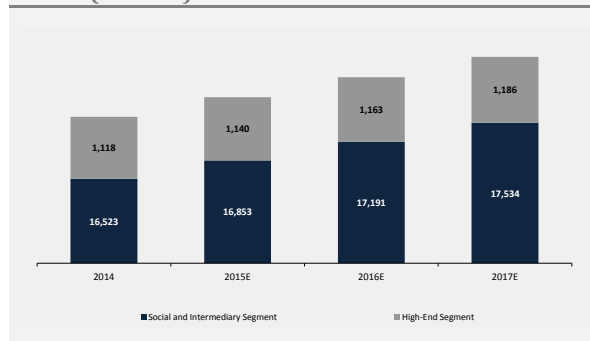
ii/ High-end deliveries over the 2015^E -2017^E period should range between 1,140 and 1,186 units. Revenues from this business activity should range between MAD 2.82b and MAD 2.94b, thus representing the remaining 39% of total revenues (vs. 32% on average between 2011 and 2013) ;

Figure 57- Revenues by segment from 2014 to 2017^E (in billions of MAD)



Source: Addoha, CFG Research

Figure 58- Deliveries by segment from 2014 to 2017^E (in units)

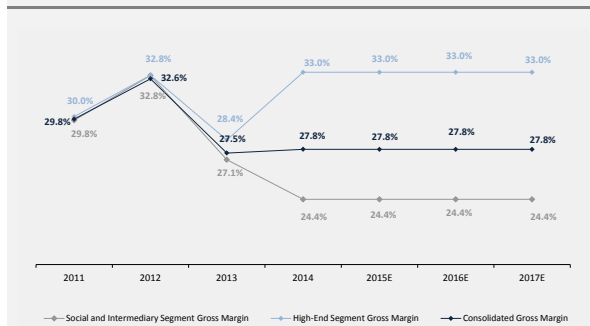


Source: Addoha, CFG Research

4/ The gross margin of the social and intermediary housing segment should witness a contraction due to 2 reasons: i/ The higher proportion of less profitable units in the group's future deliveries as Addoha will focus in the coming years on selling the unsold units accumulated in its 2014 finished products inventories. We expect this proportion to increase from an average 25% over the past years to almost 1/3 over the 3 coming

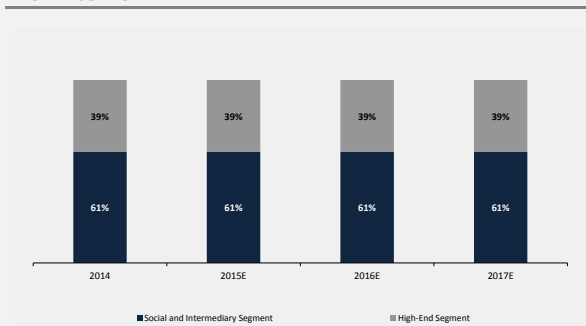
years; ii/ The group will likely need to revise down the prices of some of these products to ensure their commercial success. The consolidated gross margin contraction should however be limited by the rising contribution of the high-end segment to total revenues. In fact, the high-segment gross margin should stand at 33% over the coming years vs. a S&I housing segment gross margin ranging between at 27.8% from 2015^E to 2017^E.

Figure 59- Gross margin from 2011 to 2017^E



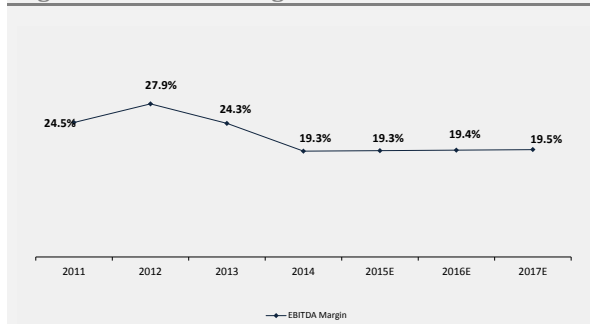
Source: Addoha, CFG Research

Figure 60- Revenues breakdown by segment from 2014 to 2017^E



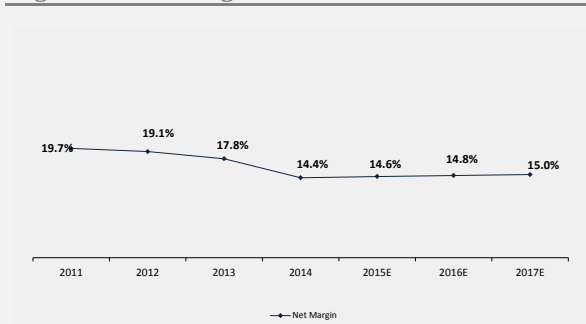
Source: Addoha, CFG Research

Figure 61- EBITDA margin from 2011 to 2017^E



Source: Addoha, CFG Research Estimates

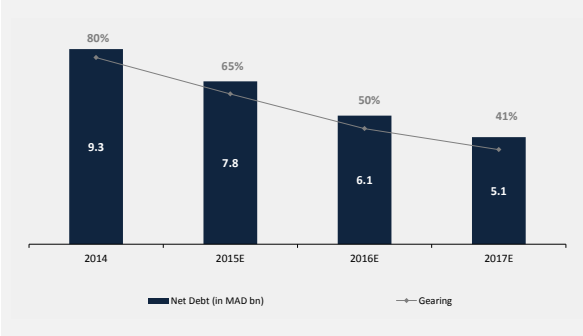
Figure 62- Net margin from 2011 to 2017^E



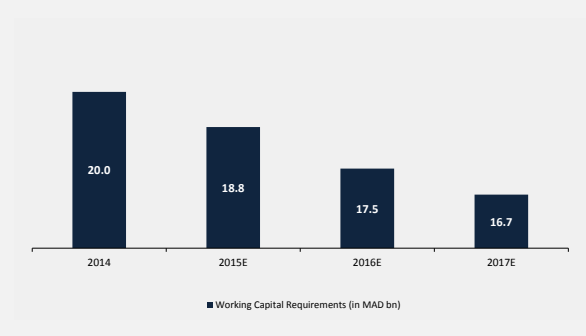
Source: Addoha, CFG Research Estimates

5/ The group's net debt should be reduced by almost MAD 4.2b from 2014 to 2017^E according to our estimates, thus reaching a gearing of 41% vs. 33% targeted by the company. This favorable debt evolution should be mainly driven by a MAD 3.3b reduction of working capital requirements (vs. MAD 4.5b targeted by the company).

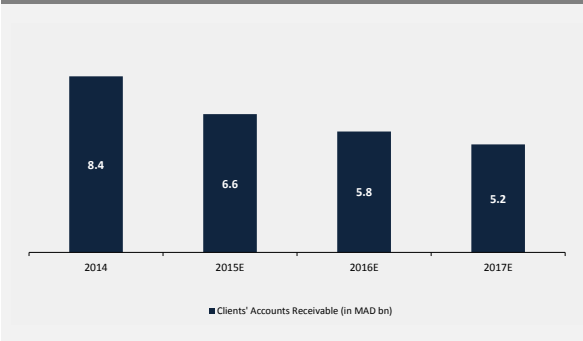
Regarding clients' accounts receivable, it's also important to notice that we adopted a much more conservative approach that the management as we expect clients' accounts receivable to represent 7.0 months of sales in 2017^E vs. 4 months of sales targeted by the company. We have also taken into account the decrease in the amount of debt to suppliers (negative impact on WCR) in order to take into consideration the reduction of the group's production.

Figure 63- Net Debt and Gearing from 2014 to 2017^E


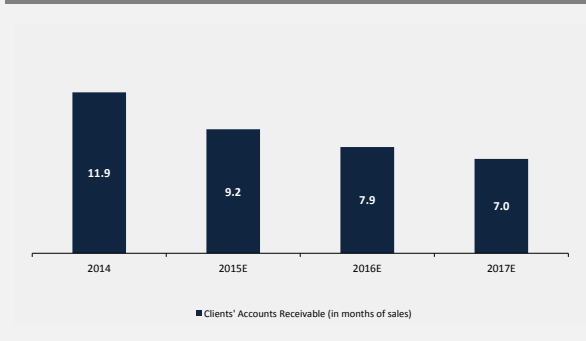
Source: Addoha, CFG Research

Figure 64- Working capital requirements from 2014 to 2017^E (in MAD m)


Source: Addoha, CFG Research

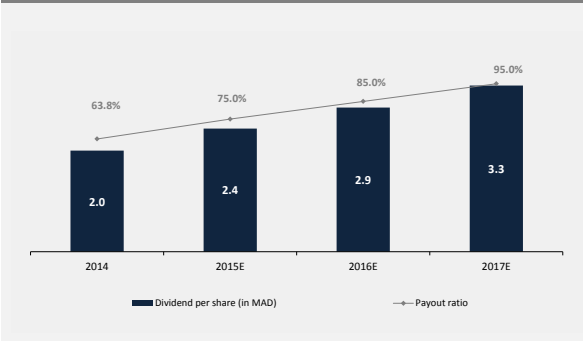
Clients' accounts receivable from 2014 to 2017^E (in MMAD)


Source: Addoha, CFG Research

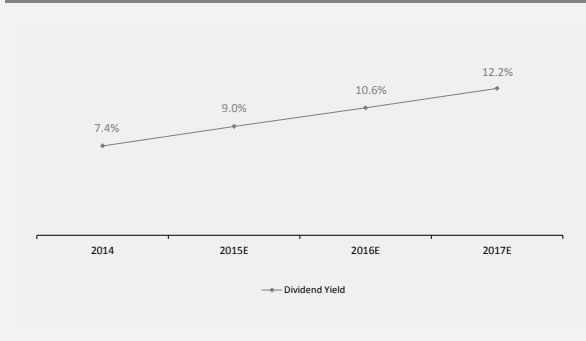
Clients' accounts receivable from 2014 to 2017^E (in months)


Source: Addoha, CFG Research

6/ Dividends should increase starting 2014. In fact, thanks to the strong cash flow generation forecasted over the 2015^E-2017^E period, Addoha should be able to reduce its net debt, as well as to rise significantly its dividends. We thus expect the company to raise its DPS to MAD 2.4 in 2015^E, to MAD 2.9 in 2016^E and MAD 3.3 in 2017^E.

DPS (in MAD)


Source: Addoha, CFG Research

Dividend Yield (on the basis of current share price)


Source: Addoha, CFG Research

Valuation & Opinion

We value Addoha using an equally weighted average of a DCF-derived intrinsic value and a DDM-derived fair value. We believe that this valuation method is appropriate regarding the low growth, high yield profile of the stock.

Using a WACC at 8.0%, we obtain an intrinsic value at MAD 46.1 per share for the stock. With this target price, the stock offers an upside potential of 70.7% versus the close on 11/04/15).

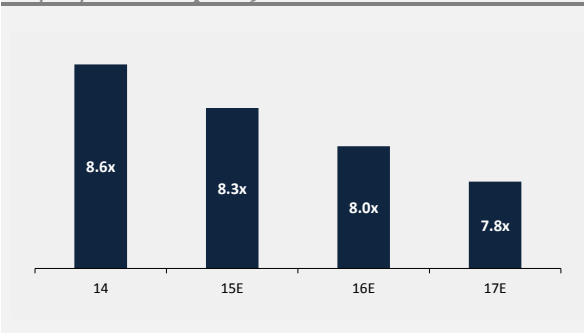
Henceforth, we recommend buying ADH. We believe that this stock is appealing for income investors especially amid the current corporate strategy which is intending to increase dividends.

We are also comforted in our conviction about the share price potential recovery by:

- The company's current low valuation multiples with a 2015^E P/B of 0.7x and a 2015^E P/E of 8.3x;
- The high levels of DY implied by the current share price. This high yield profile is all the more interesting given the strong local investors' appetite for high dividend yield stocks since the beginning of this year;

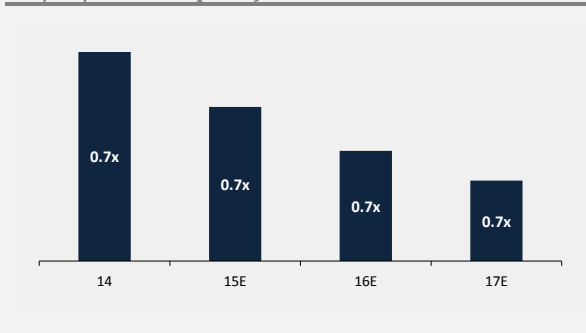
The management's objective to further improve the group's governance and financial communication through quarterly publications related to its financial results, and to the detailed achievements of its new strategic plan. Over the coming quarters, this could play a major role in restoring investors' confidence in the stock.

Figure 65- 2014-2017^E P/E (on the basis of 11/04/15 share price)



Source: Addoha, CFG Research

Figure 66- 2014-2017^E P/B (on the basis of 11/04/15 share price)



Source: Addoha, CFG Research

We obtain a **DCF-derived fair value at MAD 49.5 per share.**

Figure 67- Discounted Cash Flow Model of Addoha

All values in kMAD excepted per share data

n (Fiscal year ends in December)	0	0.17	1.17	2.17	3.17	4.17	5.17	5.17
	2014	2015 ^E	2016 ^E	2017 ^E	2018 ^E	2019 ^E	2020 ^E	Terminal Value
Discounted FCFF		2,633,438	2,585,976	1,946,837	1,004,502	988,607	936,742	16,183,981
Enterprise Value	26,280,083							
-Net Debt (end year 2014)	9,316,216							
-Estimated Value of Minority interests	498,354							
-Dividends Paid Out in 2015	645,114							
+Non-operating assets (book value)	133,305							
= Equity Value	15,953,703							
Shares Outstanding	322,557,118							
Fair value (MAD per share)	49.5							

Source: CFG Research

Assuming that the dividend payment month will remain September, and using our projections of the dividends paid out from 2016^E to 2020^E, we obtain a **DDM-derived intrinsic value at MAD 42.7 per share.**

Figure 68- Dividend Discounted Model of Addoha

n (payment month is September)	0	0.83	1.83	2.83	3.83	4.83	4.83
	2015	2016 ^E	2017 ^E	2018 ^E	2019 ^E	2020 ^E	Terminal Value
Discounted dividends (kMAD)	645,114	726,641	773,770	811,392	823,707	768,033	9,885,099
Sum of discounted dividends (kMAD)	13,788,643						
Shares Outstanding	322,557,118						
Fair value (MAD per share)	42.7						

Source: CFG Research

Risks

Please refer to **(Figure 48- Porter's Five Forces Model of Competition)** for an analysis of the industry's risks.

Summary financials

P&L - In MADm	2014	2015^E	2016^E	2017^E
Total revenues	7,036.3	7,177.0	7,320.5	7,467.0
Change in %	-25.5%	2.0%	2.0%	2.0%
EBITDA	1,354.7	1,388.0	1,423.1	1,459.0
Change in %	-41.0%	2.5%	2.5%	2.5%
<i>EBITDA margin</i>	<i>19.3%</i>	<i>19.3%</i>	<i>19.4%</i>	<i>19.5%</i>
EBIT	1,332.2	1,365.0	1,399.6	1,435.0
Change in %	-40.5%	2.5%	2.5%	2.5%
<i>EBIT margin</i>	<i>18.9%</i>	<i>19.0%</i>	<i>19.1%</i>	<i>19.2%</i>
Financial result	-58.5	-47.8	-39.0	-31.5
Consolidated Net Income	1,073.9	1,112.8	1,149.4	1,185.4
Change in %	-37.0%	3.6%	3.3%	3.1%
<i>Net margin</i>	<i>15.3%</i>	<i>15.5%</i>	<i>15.7%</i>	<i>15.9%</i>
Of which Group Share	1,011.7	1,048.3	1,082.8	1,116.7
Of which Minority Interests	62.2	64.5	66.6	68.7
Simplified BS - In MADm	2014	2015^E	2016^E	2017^E
Fixed assets	1,281	1,281	1,281	1,281
Working Capital	19,953	18,839	17,520	16,697
Economic Asset	21,234	20,120	18,800	17,978
Shareholders Equity	11,616	12,044	12,359	12,568
Other Liabilities	301	301	301	301
Net debt	9,316	7,774	6,140	5,109
Capital Employed	21,234	20,120	18,800	17,978
Financial ratios	2014	2015^E	2016^E	2017^E
ROCE	6.3%	6.8%	7.4%	8.0%
ROE	8.7%	8.7%	8.8%	8.9%
Gearing	80%	65%	50%	41%
EPS	3.1	3.3	3.4	3.5
DPS	2.0	2.4	2.9	3.3
Valuation multiples	2014	2015^E	2016^E	2017^E
EV/Sales (x)	x2.6	x2.5	x2.5	x2.4
EV/EBITDA (x)	x13.3	x13.0	x12.7	x12.4
EV/EBIT (x)	x13.5	x13.2	x12.9	x12.6
P/E (x)	x8.6	x8.3	x8.0	x7.8
P/B (x)	x0.7	x0.7	x0.7	x0.7
DY	7.4%	9.0%	10.6%	12.2%

Notes:

Data is calculated using the last close price (November 4th, 2015).

Source: CFG Research Estimates

Résidences Dar Saada: A Beautiful House in A Bad Neighborhood

This title summarizes our opinion that Résidences Dar Saada is a great stock from a fundamental perspective. Unfortunately, their performance in the stock market was hindered since their IPO in December 2014 as a result of an adverse sector momentum. The metaphor is in our view quite accurate and reflects a situation where the stock is mispriced as would be an architectural gem suddenly devalued because of a not-so-nice neighborhood.

What we like about the stock:

Growth story amid favorable market conditions: While there is a clear demand for the housing supplied by Résidences Dar Saada, the supply of housing remains limited as a result of many developers shying away from this business. This context is also favorable for land acquisition in a market where the offer is plentiful and where developers with cash in hand have become very scarce.

Strong guidance beat surprise: Actual earnings came above Management guidance four times in a row (since the 2012 bond issue).

Sound Risk Management practices: Résidences Dar Saada finance their projects using project finance debt instead which ensures proper risk management of the underlying project. It is worth noting that the company has pioneered this practice in the sector. According to Management, debt raised in capital markets is also allocated to specific projects to avoid managing debt at the balance sheet level. Unlike other companies in the sector, indebtedness is a no-subject for RDS.

Important visibility thanks to a high number of pre-sales. Indeed, RDS pre-sold more than 14,500 units securing around MAD 4.3b (2.4 times 2014 revenue)

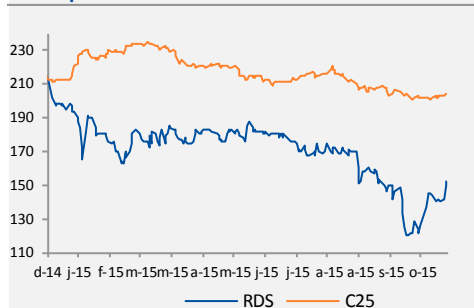
Heavy concentration of the projects in the Casablanca-Rabat axis: There is a clear experience curve in this market, and RDS are clearly leveraging it. Their projects are carefully selected in the region where the employment landscape creates a sizable pool of demand. Also, access to land in this region can become a gargantuan task for developers. The company has a competitive advantage thanks to an expertise in land acquisition.

Differentiation through quality: This has become important in a context where demand has become more selective than a few years ago. The product design of Residences Dar Saada is also very appealing to the populations targeted. Projects are built like small cities favoring life in community. Indeed, these populations display very high “collectivism” attributes as Hofstede would argue.

Market Data

Share price (MAD)	152
Target Price (MAD)	261
Market Cap. (MADm)	3,989
VWAP - 1year (MAD)	181
Highest - 1 year (MAD)	215
Lowest - 1 year (MAD)	120
Daily average volume - 1 year (MADm)	2.5

Share price evolution



Share performance

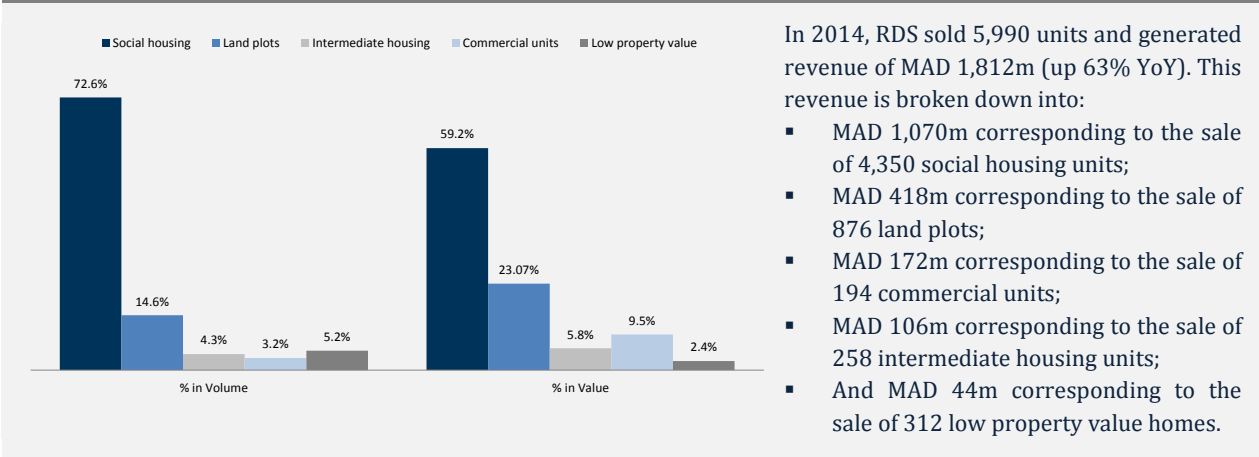
	3m	6m	12m
Absolute performance	-9.9%	-15.4%	-29.2%
Relative to CFG25	-2.9%	-8.3%	-21.7%

The firm’s mission statement is to produce housing that is adapted to the demanders of housing. In other terms, the evolution of the product mix of RDS is likely to mirror the evolution of the demand for housing in the Moroccan real estate market. **We believe that the willingness of management to tailor their strategic decisions to fit the attributes of the acquirers of housing can help sustain this business.** RDS have the ambition to grow -prudently- as highlighted by the forecasts drawn in their pre-IPO prospectus. Management expected that the top-line would grow at a 2014-2017^E CAGR of 12.2%.

Decrypting 2014 results

In 2014, Résidences Dar Saada clearly remained “a social housing story”.

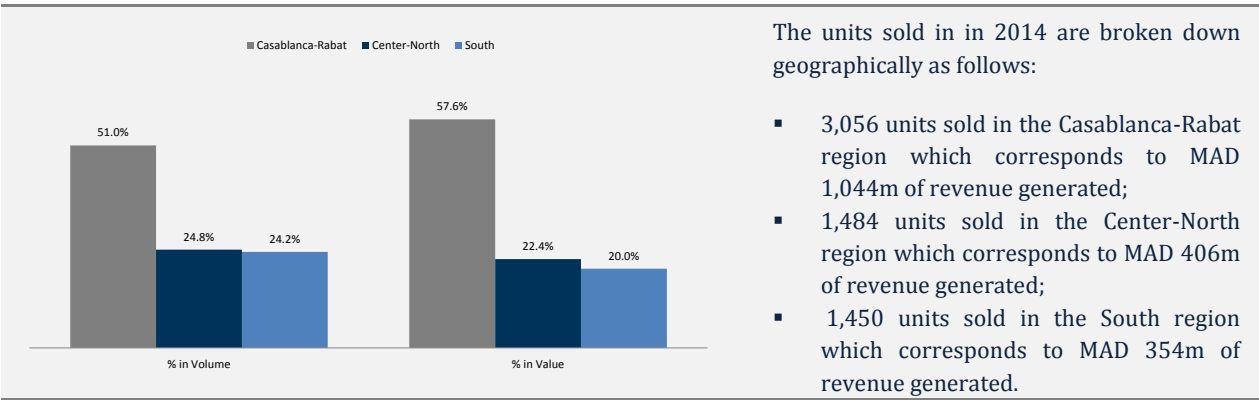
Figure 69- Sources of RDS revenue in 2014



Source: Résidences Dar Saada, CFG research

A large portion of the business generated was located in the Casablanca-Rabat axis where many households can afford to acquire a social housing unit.

Figure 70- Geographical Breakdown of RDS revenue in 2014



Source: Résidences Dar Saada, CFG research

Figure 71-Breakdown of the units sold

Projects	Units sold
Casablanca-Rabat	3,056
<u>Casablanca</u>	3,056
Jnane Nouaceur	189
Fadaat Rahma	549
Oulad Azzouz	1,654
Fadaat Elyassamine	664
Center-North	1,484
Tanger	750
Jardins de l'Atlantique (Ilot 19)	103
Dyar El Boughaz (Ilot 14)	647
Fès	734
Bouhayrat Saiss	734
South	1,450
Marrakech	282
Saada III (Tamensourt)	162
Dyar Marrakech	120
Agadir	1,137
Adrar Ilot 5	386
Adrar Ilot 9	149
Adrar Anza	275
Nzaha	327
Total	5,990

*The orange color refers to projects fully completed
The blue color refers to projects under construction

Source: Résidences Dar Saada, CFG research

Figure 72-Average price per unit (APPU) by project

Projects	Units sold	Revenue MMAD	APPU MAD
Projects fully completed	2,260	687	303,982
Casablanca	738	222	300,813
Jnane Nouaceur	189	67	354,497
Fadaat Rahma	549	155	282,332
Marrakech	282	71	251,773
Saada III (Tamensourt)	162	41	253,086
Dyar Marrakech	120	30	250,000
Agadir	1,137	361	317,502
Adrar Ilot 5	386	97	251,295
Adrar Ilot 9	149	30	201,342
Adrar Anza	275	156	567,273
Nzaha	327	78	238,532
Tanger	103	33	320,388
Jardins de l'Atlantique	103	33	320,388
Projects in construction	3,699	1,098	296,837
Casablanca	2,318	733	316,221
Oulad Azzouz	1,654	568	343,410
Fadaat Elyassamine	664	165	248,494
Fès	734	208	283,379
Bouhayrat Saiss	734	208	283,379
Tanger	647	157	242,658
Dyar El Boughaz	647	157	242,658

Source: Résidences Dar Saada, CFG research

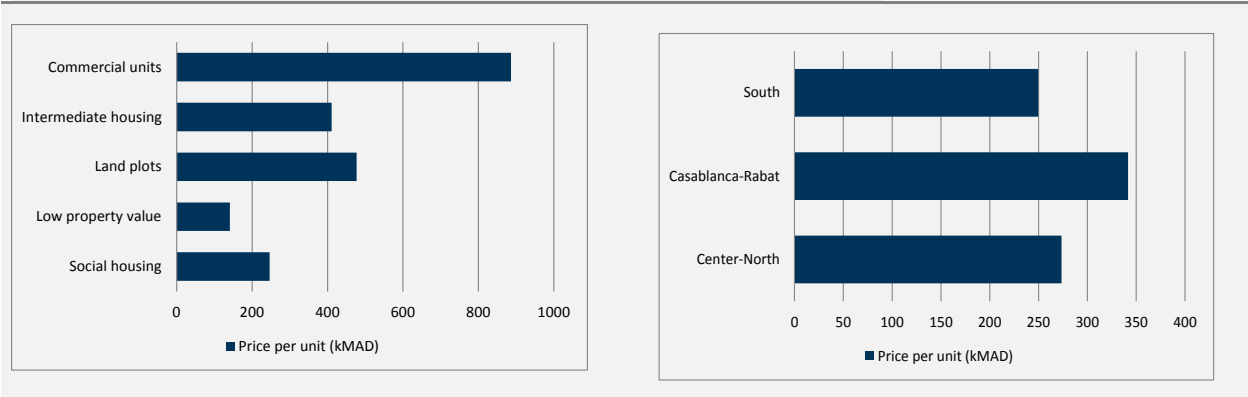
Figure 73-Résidences Dar Saada projects (updated at the end of 2014)

Projects	Surface (hectars)	Number of units	Delivered in 2014	To be delivered	Inventory of pre-sold units	% units realized	% pre-sold	Units produced in 2014	Deliveries in 2014	Deliveries in MMAD	APPU in MAD
Finished projects	112.4	19161	16062	3072	17397	100	91%	388	2,260	687	
<i>Casablanca</i>	43.8	5572	5011	551	5259	100	94%	388	738	222	
Médiouna	11	394	393	1	394	100	100%				
Jnane Nouaceur	18.9	3265	3143	113	3217	100	99%		189	67	354497
Fadaat Rahma	13.9	1913	1475	437	1648	100	86%	388	549	155	282332
<i>Marrakech</i>	45.1	8363	8043	312	8174	100	98%		282	71	
Saada I	23.5	3647	3632	11	3634	100	100%				
Saada II	2.6	794	787	5	789	100	99%				
Saada III (Tamensourt)	17.9	3269	3020	248	3107	100	95%		162	41	253086
Dyar Marrakech	1.1	653	604	48	644	100	99%		120	30	250000
<i>Agadir</i>	14.6	3339	2258	1072	2597	100	78%		1,137	361	
Adrar Ilot 5	2.1	403	386	15	399	100	99%		386	97	251295
Adrar Ilot 8	1.1	724	714	8	715	100	99%				
Adrar Ilot 9	2.7	513	247	265	400	100	78%		149	30	201342
Adrar Anza	1	400	275	125	356	100	89%		275	156	567273
Nzaha	7.7	1299	636	659	727	100	56%		327	78	238532
<i>Tanger</i>	8.9	1887	750	1137	1367	100	72%		103	33	
Jardins de l'Atlantique (Ilot 19)	5.1	1063	103	960	645	100	61%		103	33	320388
Dyar El Boughaz (Ilot 20)	3.8	824	647	177	722	100	88%				
Projects in construction	369.8	29636	3747	25778	14351		64%	6,562	3,699	1,098	
<i>Casablanca</i>	171.2	14728	2318	12338	10463		80%	3,858	2,318	733	
Oulad Azzouz	68.3	7923	1654	6231	7563	40%	97%	3,199	1,654	568	343410
Fadaat Elyassamine	3.7	799	664	133	704	82%	88%	659	664	165	248494
Jnane El Menzeh	56.5	958	0	950	203		51%				
Manazil Mediouna	5.4	1230	0	1228	387		31%				
Dyar Al Ghofrane	37.3	3818	0	3796	1606		55%				
<i>Fès</i>	124.3	7412	1322	6073	1756		39%	2,074	734	208	
Bouhayrat Saiss	124.3	7412	1322	6073	1756	46%	39%	2,074	734	208	283379
<i>Marrakech</i>	33.5	2199	107	2085	935		72%				
Targa Garden	21	313	107	203	195	35%	62%				
Targa Resort	12.5	1886	0	1882	740		75%				
<i>Skhirat</i>	10	2232	0	2222	478		60%				
Jawharat Skhirat	10	2232	0	2222	478		60%				
<i>Tanger</i>	3.9	1349	0	1346	606		45%	630	647	157	
Dyar El Boughaz (Ilot 14)	3.9	1349	0	1346	606		45%	630	647	157	242658
<i>Oujda</i>	26.9	1716	0	1714	113		9%				
Projet Oujda	26.9	1716	0	1714	113		9%				
Projects in development	230.7	19784	0	21259	2168		38%				
<i>Casablanca</i>	201.7	14882	0	16361	673		17%				
Panorama	28	3344	0	3372	613		34%				
Sama	21.6	2251	0	2245	60		3%				
Arraha	16.3	2402	0	2393							
Laassilate	115.6	5830	0	5830							
Tamaris	21	1055	0	2521							
<i>Agadir</i>	2.5	307	0	306							
Adrar Ilot 8 extension	2.5	307	0	306							
<i>Marrakech</i>	15.9	2205	0	2202							
Azzouzia	15.9	2205	0	2202							
<i>Martil</i>	10.6	2390	0	2390	1495		93%				
Projet Martil	10.6	2390	0	2390	1495		93%				
Total	712.9	68581	19809	50109	33916		72%	6,950	5,990	1,785	

Source: Résidences Dar Saada , CFG research

The average sale price stood at MAD 303k across all regions and segments.

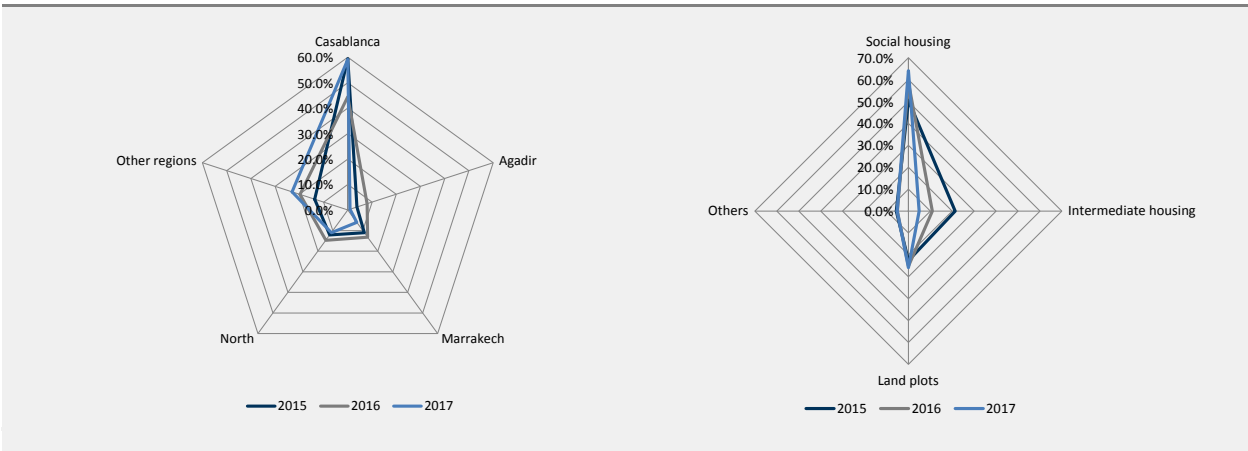
Figure 74- Average sale price per unit per property type and per region in 2014



Source: Résidences Dar Saada, CFG research

The evolution of the average sale price per unit depends on the evolution of the product mix. According to the pre-IPO prospectus, this latter should evolve according to the following radar chart:

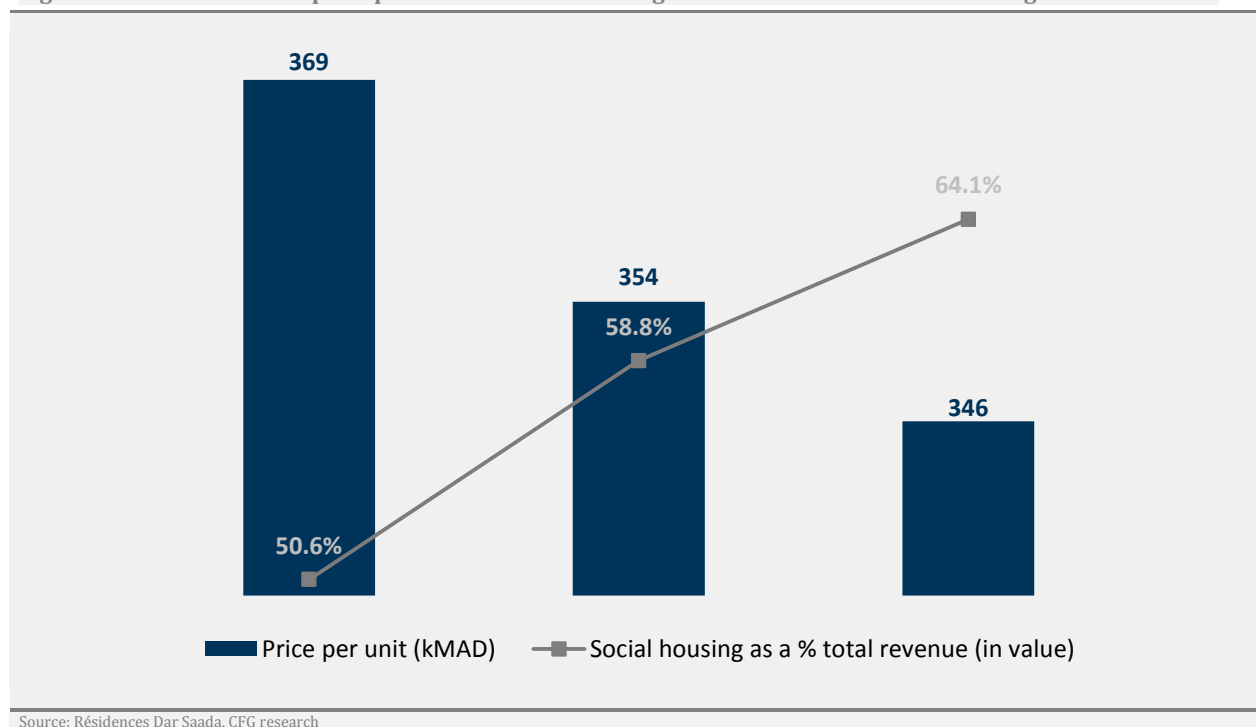
Figure 75-Evolution of the product mix as presented in the IPO prospectus



Source: Résidences Dar Saada, CFG research

We are comforted with the idea that the expansion of the business by 2017^E will be realized with the focus on social housing in the Casablanca region.

Figure 76-Evolution of the price per unit as a result of a higher contribution of social housing to total revenue



Commenting H1-2015 results

Results in line with the guidance – Outstanding earnings surprise record

Revenue stood at MAD 679m down 13% YoY as a result of the expected seasonality in deliveries in 2015. Indeed, as a result of the evolution of projects being currently produced, higher deliveries are expected in H2-15 than in H1-15. Deliveries in H2-15 will include both the units pre-commercialized and produced in H1-15 in addition to units pre-commercialized and produced in H2-15.

As a reminder, the production process implies higher deliveries in H2 as a result of the initiation of projects almost always happening at the beginning of the year along with the fact that production usually lasts 18 months.

The H1-15 guided Net Income was expected at MAD 115m. RDS beat their guidance this semester with a Net Income delivered at MAD 155m.

The bottom-line performance indicates Management ability to properly manage their projects and time their deliveries. Since the first guidance issued at the 2012 bond issues, RDS have delivered 4 earnings beats in a row with the largest beat by far being the last one.

It is worth noting that the FY-15 guidance is reiterated with a Net Income expected between MAD 450m and MAD 460m vs. 2014 Net Income at MAD 406m.

Management guided H1-15 Net Income to account for 25% of the FY-15 Net Income vs. an actual contribution at more than 30% should the FY guidance materializes as a result of YoY seasonality shifts. Also, net margin stood at 23% higher than the industry average.

Balance sheet in a healthy territory amid a market where operators are overindebted

Aside from a low gearing, we are particularly comforted with the level of receivables in conjunction with the evolution of sales. Indeed, while the top-line is expanding, receivables are not soaring indicating that cash generation is properly materializing. Receivables stood at 3.5 months of sales, much lower than competitors. Furthermore, the inventory of finished products is quite “young” discarding issues about un-sellable units

being carried in the balance sheet. Also, along with expected deliveries, this inventory will contribute to the targeted results for FY-15 and beyond.

Pre-sales discard worries about a plummeting demand for the housing supplied by RDS

Pre-sales stood at 2,596 units up 7% YoY triggering a positive sentiment regarding the sustainability of demand for social housing primarily. The total units pre-sold stand at 14,533 units i.e. estimated revenue of MAD 4.3b which will along with the expected planning of production put future earnings in a very healthy territory. Indeed, the production indicators are also very satisfactory with the units produced up 15% YoY IN H1-15.

It is worth noting that Résidences Dar Saada published an update to their operational indicators on August, 10th. This additional publication reveals management keenness to build trust and proximity with shareholders through an increased frequency of publications. Indeed, the stock has been trading in sympathy with other names in the sector oversold as a result of a lack of trust in the market.

Land bank and ongoing land acquisitions

Figure 77-Land Bank Acquisition History

Year of acquisition	City	Surface (hectars)	Surface allocated to projects (hectars)	Surface available (hectars)
1980-1990	Marrakech	25	25	0
2005	Marrakech	44	41	3
2006	Marrakech	220	12	208
2007	Agadir	8	8	0
2007	Casablanca	19	19	0
2007	Marrakech	7	7	0
2007	Tanger	13	13	0
2008	Agadir	8	8	0
2008	Casablanca	33	33	0
2008	Fès	124	124	0
2008	Marrakech	2	0	2
2009	Marrakech	11	9	2
2011	Casablanca	249	249	0
2012	Casablanca	56	56	0
2013	Casablanca	75	37	38
2013	Oujda	27	27	0
2013	Skhirat	10	10	0
2014	Casablanca	23	21	2
2014	Martil	11	11	0
2015	Casablanca	4.1	0	4.1
Total	Maroc	969.1	710	259.1

Source: Résidences Dar Saada, CFG research

Figure 78- Geographical breakdown of the land bank

City	Surface (hectars)	Surface allocated to projects (hectars)	Surface available (hectars)	# of projects	# of units
Agadir	16	16	0	6	3,645
Casablanca	459.1	415	44.1	13	36,666
Fès	124	124	0	1	7,428
Marrakech	309	94	215	7	12,764
Martil	11	11	0	1	2,525
Oujda	27	27	0	1	1,721
Skhirat	10	10	0	1	2,226
Tanger	13	13	0	3	3,236
Total	969.1	710	259.1	33	70,211

Region	Surface (hectars)	Surface allocated to projects (hectars)	Surface available (hectars)
Casablanca-Rabat: Casablanca+Skhirat	469.1	425	44.1
North: Fès+Martil+Oujda+Tanger	175	175	0
South: Agadir+Marrakech	325	110	215
Total	969.1	710	259.1

Source: Résidences Dar Saada, CFG research

Total surface allocated to projects in years of social housing production is 7 years (12% of 710ha is constructed ground and using Management projections in terms of deliveries)

Management disclosed the acquisition of a 4.1 hectares land in Casablanca in the downtown area in 2015. This land will be developed to produce intermediate housing units and shops. The project will count about 1,000 units and should generate around MAD 1.2b according to the release.

The land acquisition costs hovers around MAD 200m

This project will be located in the Roches Noires area. According to the ministry of Finance benchmark of real estate prices, the price per square meter for a new apartment in the Roches Noires area hovers between MAD 10,000 and MAD 12,000 per square meter and could even reach MAD 15,000 per square meter in some streets. It is thus foreseeable to generate more than MAD 1b in turnover for this project.

More than ever, it is critical for real estate developers to build projects where the demand is located. Today, the bulk of the demand for social and intermediate housing demand is located in the Casablanca-Rabat area.

Résidences Dar Saada Valuation rationale

Given the current market context, we adopt a more conservative approach to the valuation of the stock:

We build our model using the same valuation horizon as the one used in the valuation of the stock pre-IPO. Beyond 2017^E, we use a normalized cash flow which is computed as the terminal value in the DCF valuation.

1/ Adjustments to the Income Statement:

For the three coming years, we use the guided deliveries and henceforth the top-line guided in the pre-IPO prospectus:

Figure 79- Consolidated revenue in 2015^E, 2016^E and 2017^E

All values in million of MAD	2015 ^E	2016 ^E	2017 ^E
Consolidated Revenue	2,081	2,264	2,594
<i>chg%</i>	14.8%	8.8%	14.6%

Source: CFG Research

In the construction of our Income Statement, the first main input is the gross margin. In 2014, gross margin stood at 34.9%. Regarding the current product mix, we expect gross margin to decrease by 50bps to 34.4% in the next three years.

The charges below the gross margin as % sales should remain close to their 2014 level. The inflation rate assumed for the forecast of salaries stand at 3%.

Then, we estimate the financial result which corresponds to the non-capitalized portion of financial expenses. (Please refer to the section titled **Impact of capitalized interests on the calculation of the (FCFF)** where we explain the necessary adjustments when calculating the FCFF to take into account the impact of financial expenses capitalized in inventories.

The cost of debt used in the calculation here above is higher than the actual cost of borrowing money. However, it does incorporate the cost of not optimizing the use of cash.

Another key adjustment to the income statement is the suppression of the social solidarity tax in conformity with the 2016^E fiscal laws. The corporate tax applied to land plots and intermediate housing is 15.5% as a result of the IPO.

Net Income Estimated vs. Net Income Guided

All values in million of MAD	2015 ^E	2016 ^E	2017 ^E
Consolidated Net Income CFG	457	520	613
Consolidated Net Income Guided	459	520	664
CFG vs. Guidance	99.5%	99.9%	92.4%

Source: CFG Research

2/ Balance sheet assumptions summary:

Figure 80- Assumptions used in the forecast of the balance sheet in the 2015^E-2017^E period

	Assumption 2015 ^E -2017 ^E
Days Sales Outstanding (Accounts Receivable)	90 DAYS
Other receivable as a % of sales	47.5%
Days Payable Outstanding (Accounts Payable)	180 DAYS
Customer prepayments as a % of sales	46.0%
Other current liabilities as a % of sales	10.0%

Source: CFG Research

3/ Normalized Free Cash Flow For the Firm Modeling

- a/ Given the trends suggested by the current operational indicators, we believe that the company will be able to sustain a level of 8500 deliveries per annum beyond 2017^E;
- b/ We also assume a product mix mirroring the structure in 2017^E which translates into an average selling price that hovers around MAD 305k per unit;
- c/ We assume that gross margin will stand at 33% (150Bps lower than the margin forecasted in the 2015^E-2017^E period). Operating expenses as a % of sales should stand at 9%;
- d/ We also adjust the corporate tax rate on taxable products to 31% from 15.5% (IPO incentive). Corporate tax will increase by 100bps in Morocco in 2016^E;
- e/ We maintain CAPEX and depreciation at their 2017^E levels;
- f/ We assume that WCR as a % of sales will hover around 212%;
- g/ We finally estimate normalized financial capitalized expenses at MAD 104m.

Figure 81-Assumptions to calculate the normalized FCFF

Deliveries	8500
Average selling price (kMAD per unit)	305
Gross Margin as a % of sales	33%
Operating expenses as a % of sales	9%
Corporate Tax	31%
WCR as a % of sales	212%
Payout Ratio	85%

Source: CFG Research

Figure 82- Normalized FCFF used for the computation of the terminal value

All values in million of MAD	Normative FCFF
Gross Margin	857
-Other operating expenses	234
-Depreciation	17
+Capitalized financial expenses	104
=EBIT adjusted from capitalized financial expenses	710
- Corporate Tax on EBIT	79
=NOPAT	631
+Depreciation	17
-Capex	17
-Change in WCR (Including Land acquisition investments)	110
FCFF	521

Source: CFG Research

Valuation & Opinion

We value Résidences Dar Saada using the Discounted Cash Flow Methodology. Unlike ADH which has become an income stock, RDS is a growth stock, so we dismiss the DDM valuation.

Using a WACC at 8.0%, we obtain an intrinsic value at MAD 261 per share for the stock. With this target price, the stock offers an upside potential of 71.5% versus the close price on the 11/04/15.

Henceforth, we recommend buying RDS.

Figure 83- Discounted Cash Flow Model of Résidences Dar Saada

<i>All values in million of MAD excepted per share data</i>					
n (Fiscal year ends in December)	0	0.17	1.17	2.17	2.17
	2014	2015^E	2016^E	2017^E	Normalized FCFF
FCFF	-112	522	331	715	521
SUM Discounted FCFF (2015^E-2017^E)	1,423				
Discounted Terminal Value	7,322				
Entreprise Value	8,745				
-Net Debt (end year 2014)	1,745				
-Estimated Value of Minority interests	0				
-Dividends Paid Out in 2015	168				
+Non-operating assets (book value)	1				
= Equity Value	6,833				
Shares Outstanding	26,208,850				
Fair value (MAD per share)	261				

Source: CFG Research

Main risks

Risks to the upside are related to the ability of Résidences Dar Saada to grow above the 8,500 deliveries per annum level that we think the company will sustain beyond 2017^E; as well as the eventuality that the product mix evolves in such a way that the average selling price per unit increases above our estimates. The realization of a higher gross margin as well as lower WCR could lift the intrinsic value substantially above the fair value derived here above.

Risks to the downside are mirroring the aforementioned developments and are led by the inability of the company to sell their production. In the context of our macroeconomic study and taking into the account the fact that Management has focused their efforts in areas where the demand is concentrated, we remain confident that this risk is to discard in the short-term. The last pre-sales data indicate that the market remains in a healthy territory. Beyond the ability to sell, and the risk that the demand for the products offered can lessen, there are the risks related to the production of housing. Deliveries depend on the ability of the firm to produce their units in time and henceforth on the quality of their contractors and the general health of the construction sector in Morocco. Our recommendation to buy the stock of Résidences Dar Saada is comforted with our confidence that Management is equipped with the right project management tools to keep this risk prostrate. A worse than expected cash flow conversion cycle can have a sizable adverse impact on the valuation of RDS.

Please refer to **(Figure 48- Porter's Five Forces Model of Competition)** for an analysis of the industry's risks.

Figure 84- Summary financials Résidences Dar Saada

P&L - In MADm	2014	2015^E	2016^E	2017^E
Sales	1,812	2,081	2,264	2,594
<i>Change in %</i>	62.4%	14.8%	8.8%	14.6%
EBITDA	501	542	592	685
<i>Change in %</i>	32.8%	8.1%	9.3%	15.6%
<i>EBITDA margin</i>	27.7%	26.0%	26.2%	26.4%
EBIT	490	525	575	668
<i>Change in %</i>	32.1%	7.1%	9.6%	16.0%
<i>EBIT margin</i>	27.0%	25.2%	25.4%	25.7%
Financial result	-26.9	-21.3	-20.3	-18.2
Net Income	406	457	520	613
<i>Change in %</i>	33.0%	12.4%	13.8%	18.0%
<i>Net margin</i>	22.4%	21.9%	23.0%	23.6%
Simplified BS - In MADm	2014	2015^E	2016^E	2017^E
Fixed assets	180	176	170	162
Working Capital	5,034	5,133	5,472	5,508
Capital Employed	5,215	5,310	5,643	5,670
Shareholders Equity	3,470	3,759	4,090	4,488
Net debt	1,744.8	1,550.5	1,552.7	1,181.5
Invested Capital	5,214	5,309	5,642	5,670
Financial ratios	2014	2015^E	2016^E	2017^E
ROCE	8.5%	9.2%	9.8%	11.1%
ROE	14.7%	12.6%	13.2%	14.3%
Gearing	50%	41%	38%	26%
EPS	15.5	17.4	19.8	23.4
DPS	6.4	7.2	8.2	9.7
Valuation multiples	2014	2015^E	2016^E	2017^E
EV/Sales (x)	3.2x	2.8x	2.5x	2.2x
EV/EBITDA (x)	11.4x	10.6x	9.7x	8.4x
EV/EBIT (x)	11.7x	10.9x	10.0x	12.9x
PE (x)	9.8x	8.7x	7.7x	6.5x
P/B (x)	1.1x	1.1x	1.0x	0.9x
DY	4.2%	4.7%	5.4%	6.4%

Notes:

1/Our business plan does not take into account the value created as a result of the funds raised at the time of the IPO (December 18th, 2014). Indeed, this value should not be created before 3 or 4 year. This explains the decline in the ROE from 2014 to 2015;^E
2/Data is calculated using the last close price (November 4th, 2015).

Source: CFG Research Estimates

Part III: Elements of value creation and valuation in the industry

Detailed analysis of the internal rate of return of a social housing project

In this part, we walk you through the computation of a social housing project IRR. We analyze the impact of various factors on the IRR to unveil the key drivers of profitability as well as the business challenges that can adversely alter value creation.

Base scenario

Figure 85- Social Housing Project Assumptions

Production Assumptions	
Land	
Land developed surface (in m ²)	30,000
Land cost (in MAD/m ²)	1,000
Cost (in kMAD)	30,000
Strategic reserve land surface (in m ²)	0
Land cost in (MAD/m ²)	1,000
Cost (in kMAD)	0
Number of units developed	
Number of units developed per hectare	200
Total number of units developed	600
Construction and development costs	
Construction cost per unit (in kMAD)	115
Construction cost per unit (in kMAD including land cost)	165
Gross Margin	31%
% construction costs paid in advance	10%
Operating costs as a % of revenue	8%
Marketing Assumptions	
Average sale price per unit (in kMAD)	240
% units pre-sold	50%
Average downpayment	20%
% units sold before the end of construction works	40%
% units sold after the end of construction works	7%
% units unsold	3%
Production and Marketing Schedule Assumptions	
Number of months to obtain an autorisation to build	6
Number of months to reach pre-commercialization threshold	6
Number of months to finish construction works	18
Number of months to collect the cash	9
Number of months to sell units not sold before end of construction works	12
Corporate tax	0%

- The developer does not have a strategic reserve (land acquired for a future development);
- 3 hectares of land (acquired at MAD 1,000/m²) are developed to produce 600 units;
- Gross margin per unit is 31%;
- Operating costs as a % of revenue is 8% (difference between EBITDA margin and gross margin);
- The average sale price per unit is MAD 240k;
- 6 months are required to get the authorization to build;
- An additional 6 months are needed to pre-commercialize 50% of the units. The average down payment is 20% of the sale price;
- Construction works take 18 months to be completed;
- 10% construction costs are paid in advance;
- 9 months are needed to collect the cash after the units are produced for all the units pre-sold as well as the units sold before construction is over. 9 months are also needed to collect the cash for the units sold after the end of construction works;
- For all the units not sold before construction has ended, it takes about 12 months to sell them;
- 3% of the units developed are never sold;
- Corporate tax for social housing is 0%.

Source: CFG Research

The annualized project IRR using the aforementioned assumptions stands at 15.8%.

Then, we assume that the bank will finance 50% of the total development cost of the project minus the client advances. **The annualized equity IRR stands at 19.7%.**

Important notes

It is important to highlight that we take conservative assumptions for the financing of the project. Developers can refinance partially or totally the cost of the land by debt as soon as they receive the building permits. They also can privilege financing construction works by debt before starting to inject equity. In these cases, a higher Equity IRR can be yielded.

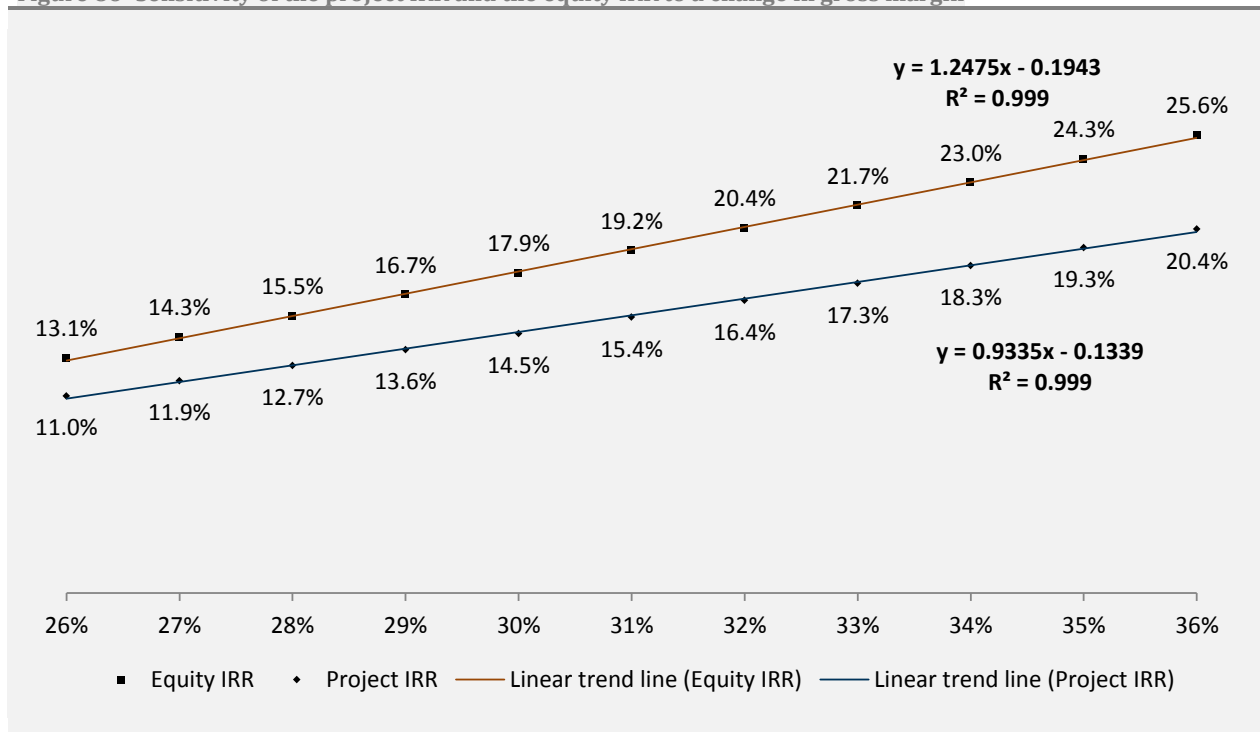
The comparison of the equity IRR calculated (19.7%) as well of the project IRR calculated (15.8%) to the cost of equity which hovers around 10% and a WACC around 8% for this industry in Morocco; **demonstrate that value can be significantly created in a social housing project in Morocco.**

Indeed, the chosen assumptions regarding costs (land cost and construction cost), the sale price, margins as well all of commercialization, construction and cash collection delays, correspond to the actual levels observed in the industry.

It is important to note that albeit some attributes unique to this industry and that can hinder value creation such as cash collection delays that can be very lengthy, and even if the down payments as a percentage of the total price of housing can seem to be very low in comparison to the actual levels in other developing countries, **social housing developers in Morocco, who operate in an unbeatable fiscal framework, yield very interesting margins thanks to the optimization of construction and land costs (as a result of economies of scales), which translate into a considerable creation of value with or without the use of leverage.**

Sensitivity of the project IRR and the equity IRR to input variables

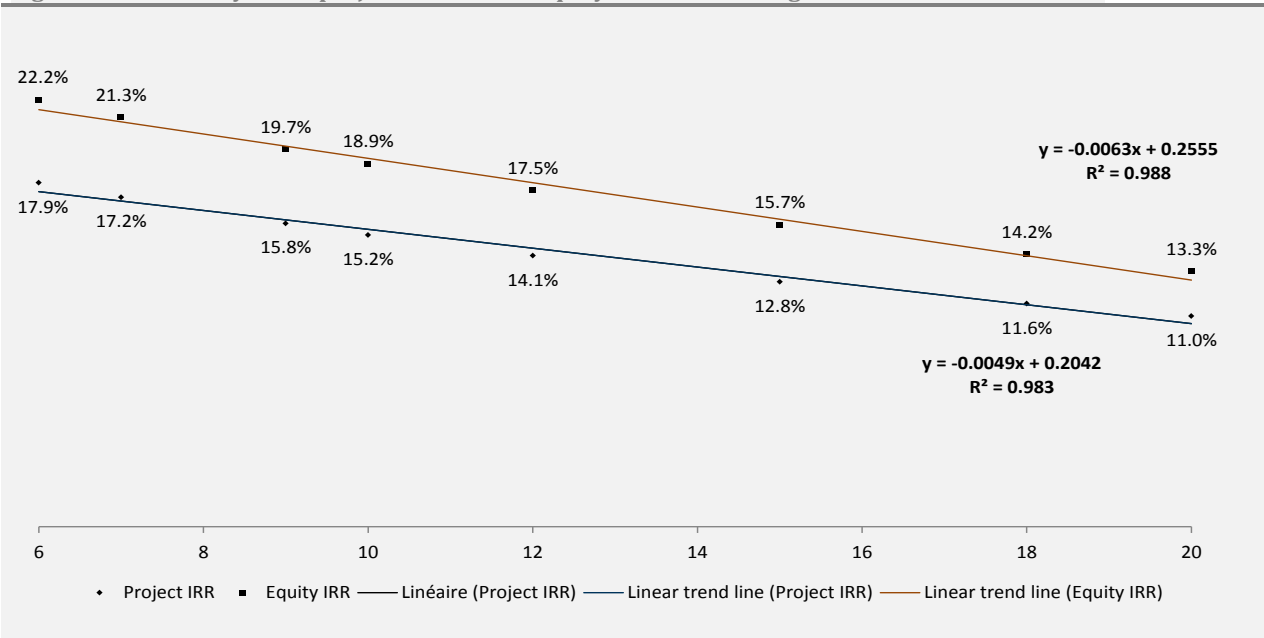
Figure 86- Sensitivity of the project IRR and the equity IRR to a change in gross margin



Source: CFG Research

As shown in the graph hereabove, both the project IRR and the equity IRR are linear increasing functions of gross margin. If gross margin increases 1%, the project IRR increases by 0.93% and the equity IRR increases by 1.25%.

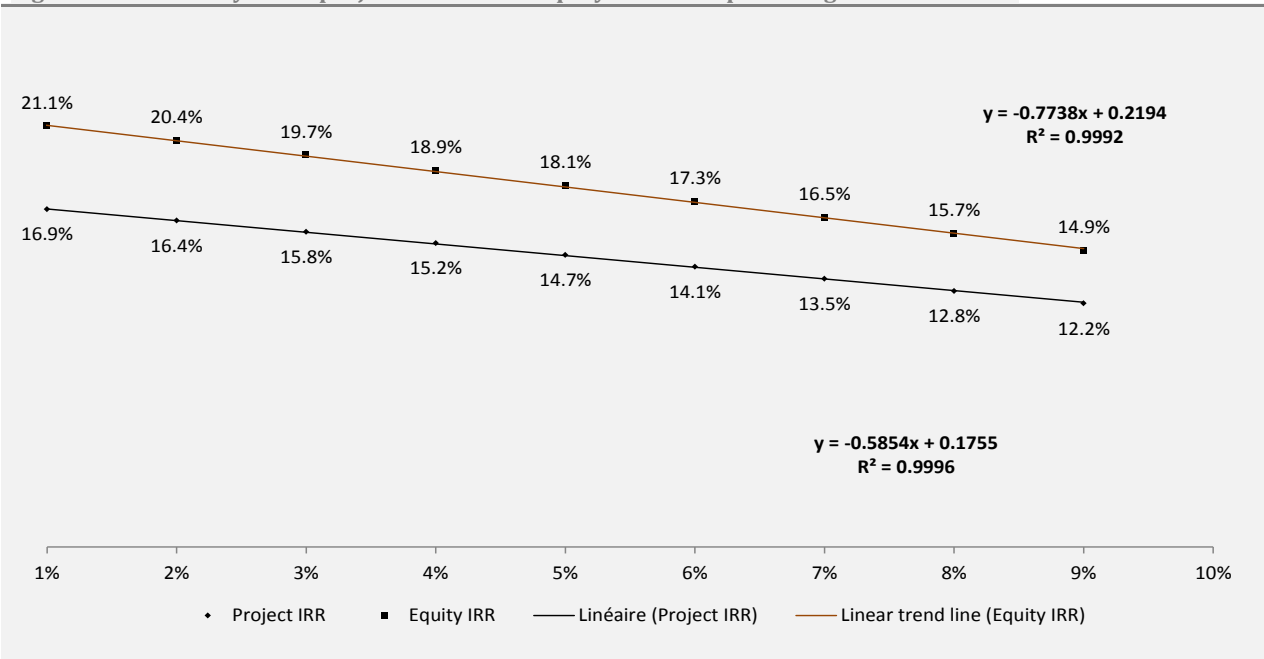
Figure 87- Sensitivity of the project IRR and the equity IRR to the average months to collect the cash



Source: CFG Research

As shown in the graph hereabove, both the project IRR and the equity IRR are linear decreasing functions of the average cash collection delay. If the average cash collection months increase by 1%, the project IRR decreases by 0.0049% and the equity IRR decreases by 0.0063%.

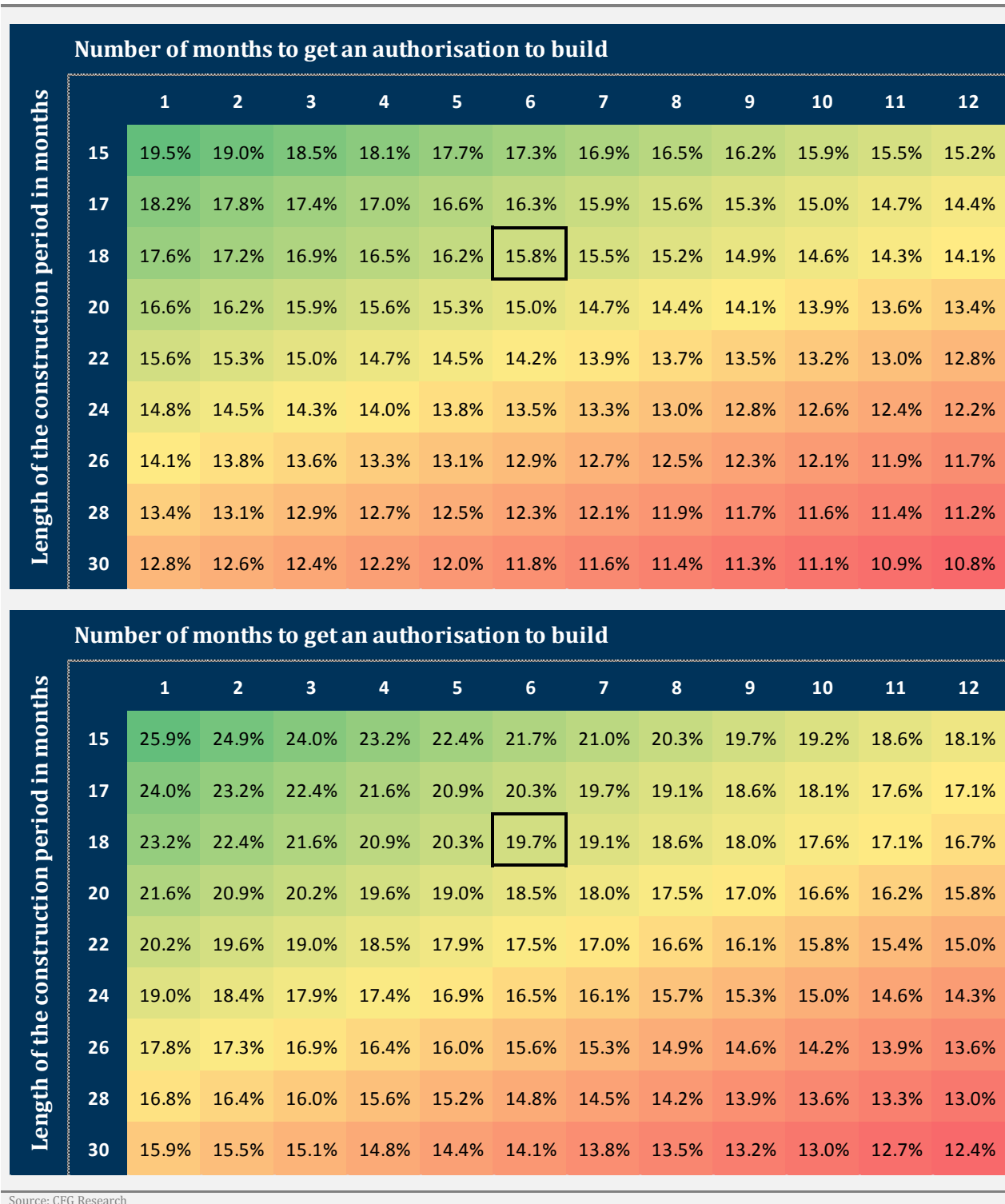
Figure 88- Sensitivity of the project IRR and the equity IRR to the percentage of unsold units



Source: CFG Research

As shown in the graph hereabove, both the project IRR and the equity IRR are linear decreasing functions of the percentage the units in the project that will never be sold. If the number of unsold units increases by 1%, the project IRR decreases by 0.58% and the equity IRR decreases by 0.77%.

Figure 89- Sensitivity of the project IRR(up) and the equity IRR (down)to the main speed parameters of a project



As shown in these matrices, in order to maximize the IRR, both the time to get a construction permit and the length of the construction period should be minimized

Figure 90- Sensitivity of the project IRR (left) and the equity IRR (right) to pre-commercialization variables

Percentage of pre-commercialized units										
Length of the pre-commercialization period	5%	10%	20%	25%	50%	60%	75%	85%	95%	100%
	1	-18.4%	-14.2%	-6.0%	-2.0%	17.2%	24.8%	36.0%	43.5%	51.1%
3	-18.0%	-13.8%	-5.8%	-2.0%	16.7%	23.9%	34.6%	41.7%	48.8%	52.4%
3	-18.0%	-13.8%	-5.8%	-2.0%	16.7%	23.9%	34.6%	41.7%	48.8%	52.4%
4	-17.8%	-13.7%	-5.8%	-1.9%	16.4%	23.4%	33.9%	40.8%	47.7%	51.1%
5	-17.6%	-13.5%	-5.7%	-1.9%	16.1%	23.0%	33.2%	39.9%	46.6%	50.0%
6	-17.4%	-13.4%	-5.6%	-1.9%	15.8%	22.6%	32.5%	39.1%	45.6%	48.8%
7	-17.2%	-13.2%	-5.5%	-1.9%	15.6%	22.2%	31.9%	38.3%	44.6%	47.8%
8	-17.0%	-13.1%	-5.5%	-1.8%	15.3%	21.8%	31.3%	37.5%	43.7%	46.7%
9	-16.8%	-12.9%	-5.4%	-1.8%	15.1%	21.4%	30.7%	36.8%	42.7%	45.7%
10	-16.7%	-12.8%	-5.3%	-1.8%	14.8%	21.1%	30.1%	36.0%	41.9%	44.7%
11	-16.5%	-12.6%	-5.3%	-1.8%	14.6%	20.7%	29.6%	35.3%	41.0%	43.8%
12	-16.3%	-12.5%	-5.2%	-1.7%	14.4%	20.4%	29.0%	34.7%	40.2%	42.9%

Percentage of pre-commercialized units										
Length of the pre-commercialization period	5%	10%	20%	25%	50%	60%	75%	85%	95%	100%
	1	-32.5%	-25.4%	-12.3%	-6.2%	22.4%	33.3%	49.5%	60.5%	71.7%
3	-31.6%	-24.6%	-11.9%	-5.9%	21.2%	31.4%	46.4%	56.3%	66.4%	71.4%
3	-31.6%	-24.6%	-11.9%	-5.9%	21.2%	31.4%	46.4%	56.3%	66.4%	71.4%
4	-31.2%	-24.3%	-11.7%	-5.8%	20.7%	30.5%	44.9%	54.4%	64.0%	68.8%
5	-30.7%	-23.9%	-11.5%	-5.7%	20.2%	29.7%	43.5%	52.7%	61.8%	66.4%
6	-30.4%	-23.6%	-11.3%	-5.6%	19.7%	28.9%	42.3%	51.0%	59.7%	64.1%
7	-30.0%	-23.2%	-11.1%	-5.5%	19.2%	28.1%	41.1%	49.4%	57.8%	61.9%
8	-29.6%	-22.9%	-10.9%	-5.4%	18.7%	27.4%	39.9%	48.0%	56.0%	59.9%
9	-29.2%	-22.6%	-10.7%	-5.3%	18.3%	26.8%	38.8%	46.6%	54.3%	58.1%
10	-28.9%	-22.3%	-10.5%	-5.2%	17.9%	26.1%	37.8%	45.3%	52.7%	56.3%
11	-28.6%	-22.0%	-10.4%	-5.1%	17.5%	25.5%	36.8%	44.1%	51.1%	54.6%
12	-28.2%	-21.7%	-10.2%	-5.0%	17.1%	24.9%	35.9%	42.9%	49.7%	53.1%

Source: CFG Research

As shown in these matrices, a positive IRR can only be achieved if 50% of the units are pre-commercialized regardless of the length of the pre-commercialization period. Currently, both ADH and RDS have a pre-commercialization threshold higher than 50%.

Figure 91- Sensitivity of the equity IRR to the percentage of total costs financed by debt and interest rates

		Percentage of project costs financed by debt								
		10%	20%	30%	40%	50%	60%	70%	80%	90%
Interest rates	3.0%	16.8%	17.9%	19.2%	20.7%	22.3%	24.3%	26.5%	29.1%	32.1%
	3.5%	16.6%	17.5%	18.5%	19.7%	21.0%	22.5%	24.3%	26.4%	28.9%
	4.0%	16.6%	17.4%	18.4%	19.5%	20.8%	22.2%	24.0%	26.0%	28.3%
	4.5%	16.5%	17.4%	18.3%	19.3%	20.6%	22.0%	23.6%	25.5%	27.8%
	5.0%	16.5%	17.3%	18.2%	19.2%	20.3%	21.7%	23.2%	25.1%	27.2%
	5.5%	16.5%	17.2%	18.1%	19.0%	20.1%	21.4%	22.9%	24.6%	26.7%
	6.0%	16.4%	17.1%	17.9%	18.8%	19.9%	21.1%	22.5%	24.2%	26.1%
	6.5%	16.4%	17.0%	17.7%	18.5%	19.4%	20.5%	21.8%	23.2%	25.0%
	7.0%	16.3%	16.9%	17.6%	18.3%	19.2%	20.2%	21.4%	22.8%	24.5%
	7.5%	16.3%	16.9%	17.5%	18.2%	19.0%	19.9%	21.0%	22.3%	23.9%
	8.0%	16.3%	16.8%	17.4%	18.0%	18.8%	19.6%	20.7%	21.9%	23.3%

Source: CFG Research

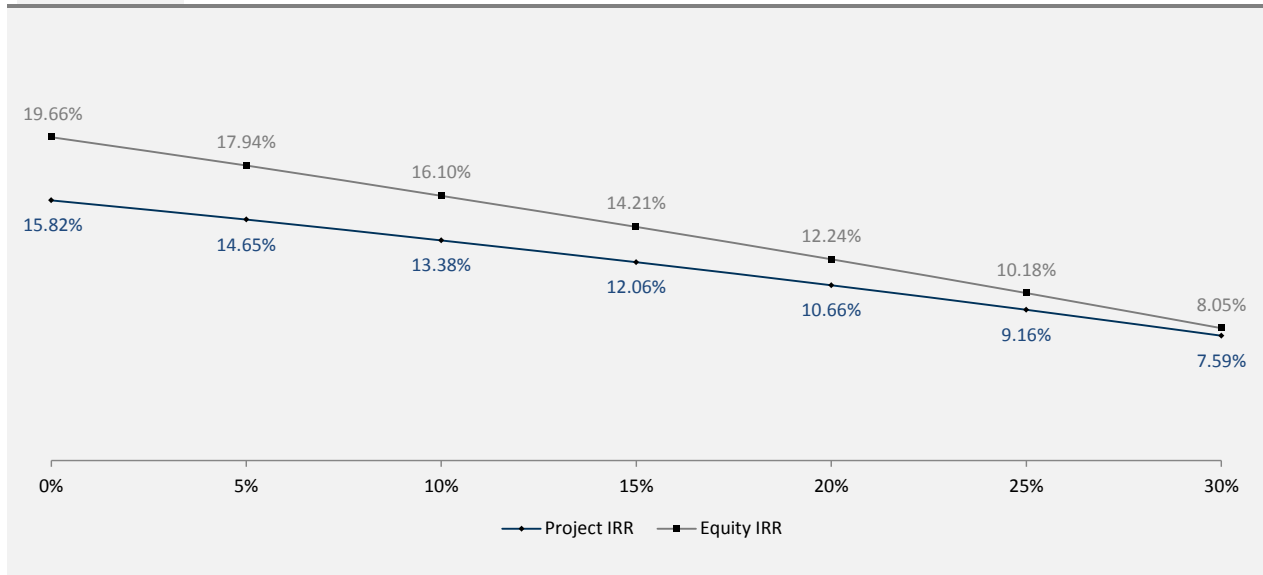
As shown in the matrix hereabove, leverage boosts significantly the equity IRR especially when combined with low interest rates. For the average market interest rate of 6.0%, if only 10% of the project is financed by debt, the IRR delivered is 3.3% lower than in our base case where the bank finances 50% of the total costs of the project (land costs and construction costs).

Note on the sensitivity analyses performed hereabove

If this study shows that value creation is based on the ability of the developer to 1/ manage their projects effectively via a tight control of the administrative, production and commercialization delays; and to 2/ identify and develop healthy projects that fit an existing demand, it reveals the existence of a myriad of entry barriers to this business.

Indeed, the sui generis know how that developers possess to navigate the stormy seas of Daedalean administrative processes as well as their ability to sustain a high margin creation as a result of economies of scale are paramount to value creation and perpetuate their activity.

Figure 92- Sensitivity of the project IRR and the equity IRR to the size of the strategic reserve land as a % of the total land bank



Source: CFG Research

We assume for the theoretical purpose of this exercise that the strategic reserve is acquired at the same price than the land developed to produce social housing. The excessive accumulation of land reserve acquired to be developed in the medium-term can destroy value in the short-term. **We emphasize that this adverse effect happens in the short-term.** Indeed, land acquired for the strategic reserve by big developers is usually bought at a low price which once developed help yield very high margins which can counterbalance at least partially the unfavorable impact of the cost of time on the IRR.

The erosion of value creation as a result of the accumulation of land reserve can explain (should we bypass the theoretical limits of our model) the differences between the IRRs that we compute and realized by ADH and RDS with the ROCE and ROE delivered by the developers. When compared to the cost of funds, ADH's ROCE and ROE seem correct regarding its current low growth high yield investment. These ratios are higher for RDS which is currently in a very high growth cycle.

Note on the relative valuation of Addoha and Résidences Dar Saada:

We voluntarily discard including international comparable peers of Addoha and Résidences Dar Saada in this report. Indeed, the social housing business is unique and is hardly comparable to other real estate businesses.

The sui generis nature of fiscal and regulatory frameworks ruling the social housing in Morocco, is per se annihilating the eventuality of comparing ADH and RDS to companies outside of their industry. One could attempt to compare ADH and RDS to UAE's Emaar but it would be akin to comparing LVMH to H&M. (For joke's sake)

Finally, it is currently vain to compare ADH and RDS to ADI which is not currently engaged in the real estate development business but rather in restructuring and turnaround management.

Should we perform a relative valuation of these two stocks albeit the aforementioned elements, it would be only very favorable since ADH and RDS trade at sunken valuation levels.

Impact of capitalized interests on the calculation of the (FCFF)

Definition of Free Cash Flow to the Firm (FCFF)

The FCFF is the net amount of cash generated for the firms before the payment to debt holders and shareholders. Henceforth, the FCFF should exclude any cash flow with creditors and shareholders.

Importance of an accurate calculation of the 'Free Cash Flow for the Firm

The FCFF is used to calculate the Enterprise Value from which is subtracted the Net Debt to derive the Equity Value. If in the calculation of the FCFF, interest payments are already subtracted, then, the calculation of the Equity Value would have not only deducted the net debt but also the present value of these interest expenses.

Relevance in the case of ADH and RDS

This remark is very relevant in the case of real estate developers since the operating result is already impacted by interest expenses and is henceforth not an actual EBIT. Indeed, we find three types of financial expenses in the Income Statements of these companies:

A/ Non-capitalized financial expenses shown in the P&L in Financial Result;

B/ Financial expenses capitalized in assets and more precisely in inventories. Since the financial expenses line in the income statement includes the total cost of debt, these expenses are cancelled out via an expenses transfer;

C/ Financial expenses capitalized during previous fiscal periods and then removed as a result of delivering the projects to which they are associated. These financial expenses directly impact the operational result.

Illustrative example

In a fiscal year n, the cost of financial debt is 150 broken down into 120 (A) capitalized (associated to projects to be delivered in future fiscal periods), and 30 (B) shown in the income statement. In this fiscal year n, the developer delivers a couple of projects and henceforth removes previously capitalized interest expenses for a total of 100 (C).

Figure 93- Impact of capitalized interests on the calculation of FCFF

Impact on the Income Statement		
Income statement item	Impact of interest expenses	Comment
Revenue	0	No impact
Operating result	-100	Removal of previously capitalized financial expenses
Financial expenses	-150	Financial expenses include the total cost of debt
Financial income	+120	Expense transfer to cancel the impact from capitalized financial expenses
Net income	-130	Sum of removed previously capitalized expenses and non-capitalized financial expenses
Impact on a FCFF calculated without adjustments		
FCFF	Impact of interest expenses	Comment
+Operating result	-100	Removal of previously capitalized financial expenses
-Effective corporate tax	0	We assume that corporate tax is null for a simplification purposes
+Depreciation & Amortization	0	No impact
-CAPEX	0	No impact
-Change in WCR	+100	Financial expenses previously capitalized in inventories are removed and henceforth reduce inventories
	-120	Financial expenses newly capitalized in inventories increase inventories
=FCFF	-120	When the FCFF is not adjusted, the total negative impact on the FCFF is -120

Source: CFG Research

Conclusions

1/ When the FCFF is not adjusted, it can be negatively impacted by the financial expenses newly capitalized in inventories;

2/ The FCFF should be adjusted by adding back the newly capitalized financial expenses in inventories and the effective corporate tax should be calculated using the adjusted operating result (increased by adding back previously capitalized financial expenses being removed from inventories).

Appendix 1 –Literature Review

This part is a literature review of studies that aimed at estimating the demand for housing for the poor in Morocco as well as evaluating the frameworks surrounding the supply and the demand of this type of housing. It is a compilation of key ideas of the studies that we use directly or indirectly in our paper.

Ministry's forecasts of demand by 2020^E |Ministry of Housing –2011

The study underlines the importance of having a good understanding of the evolution of households in terms of number, size, income, employment and mobility in order to determine the evolution of the demand for housing. The evolution of the aforementioned parameters, impacts the consumption of housing. Household's mobility is specifically a critical factor. **Housing should be supplied in the regions where households are foreseen to accumulate.**

As households become more mature, i.e. willing and able to acquire housing, supply of housing in the sale market should increase. Prior to that, households will be looking to the rental market, and a step ahead there will be strictly looking for subsidized housing. Real estate players should not only be aware of the number of households but also of where they stand in the “maturity” trajectory. Households should be able to navigate this path provided there is a favorable macroeconomic context.

The study uses the 2020^E projection of the number of urban households which should stand at 5,500,000 households with an average size of 3.9 people per household. They also use the results of the 2007 HCP study⁷ on the economic status of households. This study shows that 34% of the population belongs to the lower social class, 53% to the medium class and 13% to the upper social class.

The study explores two potential scenarios of the evolution of the social classes by 2020^E in Morocco.

1/A scenario where households' incomes increase modestly and where the weight of the middle class decreases;

2/A scenario where households' incomes increase substantially and where a rising middle class strengthens.

These two scenarios give the following floors and ceilings for the number of cumulated households in each social category by 2020^E.

Figure 94 -Cumulated new households in 2020^E (2009)

	Lower bound	Upper bound
Lower class	469,722	503,733
Middle class	751,655	812,717
Upper class	172,561	199,602

Source: Ministry of Housing, Urbanism and Policy of the City

Figure 95- Weights of the social classes for each scenario

	Scenario A	Weights A	Scenario B	Weights B
Lower class	469,722	32%	503,733	35%
Middle class	812,717	56%	751,655	52%
Upper class	172,561	12%	199,602	14%

Source: Ministry of Housing, Urbanism and Policy of the City

The number from this study would suggest that between 2009 and 2020, 1,455,000 urban households should be added. Between 2009 and 2014, 638,000 households have actually been added. Thus and in line with HCP projections, 817,000 urban households should be added between 2014 and 2020^E.

⁷ http://www.hcp.ma/downloads/Niveau-de-vie-et-pauvrete-Enquete-nationale-sur-les-niveaux-de-vie-des-menages_t13111.html

We take the average weights of the two scenarios. We assume that new households between 2014 and 2020^E will flow in the three social categories in the same fashion than between 2009 and 2020^E.

That is to say, 33% of the cumulated new households between 2014 and 2020^E (837,000 urban households) would be lower class households, 54% would be middle class households and 14% would belong to the upper class. **These weights translate in the following tally of households in the period 2014-2020^E: 279,995 new households belonging to the lower class, 449,960 households belonging to the middle class and 107,045 households belonging to the upper class.**

We can conservatively think about the middle class as a social class who can afford to acquire social housing. Since, in average, 54% of the households in the period 2014-2020^E belongs to this social class, we can conservatively apply this percentage to the equation:

$$\begin{aligned} \text{DemandForSocialHousing}_{2014-2020} &= 0.54 * \text{Inventory urban households without housing}_{2014} \\ &+ 0.54 * \Delta_{2014-2020} \text{urban households} \end{aligned}$$

Thanks to housing finance mechanisms that help supply housing to the poor, a portion of the lower class will also afford social housing and henceforth:

$$\begin{aligned} \text{MinimumDemandForSocialHousing}_{2014-2020} &= 0.54 * \text{Inventory urban households without housing}_{2014} \\ &+ 0.54 * \Delta_{2014-2020} \text{urban households} \end{aligned}$$

Note on the Middle Class:

In the absence of substantial supply of intermediate housing, middle class households will acquire social housing. The lowest sub-class of the middle class does represents a pool of households that will acquire social housing. In general terms, it is quite difficult to match social classes with categories of social housing. While it is hard to believe that middle class households could afford high-end housing, and that the lowest class could afford intermediate housing, nothing prevents demand from arising in the opposite direction which opens the discussion about acquisition of social housing for speculation purposes. **Speculation as well as other purposes not standing very low in Maslow's pyramid, add another overlay of demand for social housing.**

[Economic Evaluation of Housing Subsidy Systems: A Methodology with Application to Morocco| World Bank - February 2005](#)

Theoretical ideas

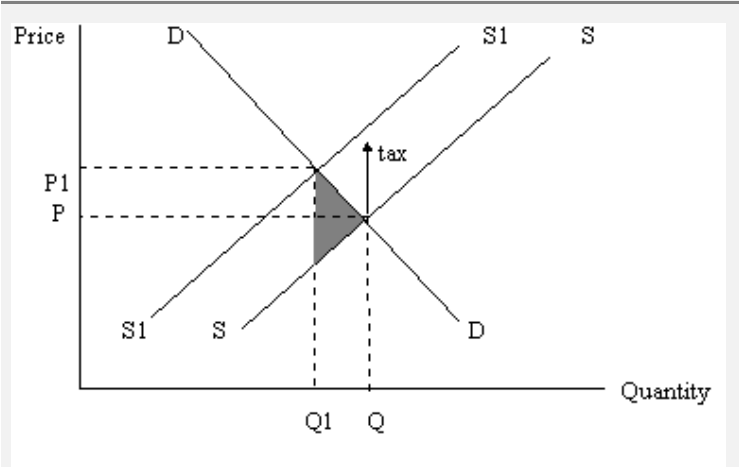
Note on Consumption versus saving: “By lowering the price of housing today, a housing subsidy may alter the arbitrage between present and future consumption. However, housing prices may also decrease in future”. This idea is central when thinking about the time dimension when we estimate demand for housing. Indeed, in the case of social housing, housing prices are perceived as low for acquirers who are not necessarily afraid that these prices can substantially decrease in the future. As a result, if acquisition is possible today, everything else held equal, it will happen today rather than tomorrow.

Note on the Composition of the household's portfolio: “Tax treatment, government investment in housing or direct subsidies to homeownership may cause households to invest more in housing, relative to other types of investment, than would otherwise be the case”. This is also a cardinal idea to the estimation of demand for housing. Indeed, we believe that once a household can afford a mortgage payment, they will acquire housing no matter how much they used to spend for housing before. A household can restructure

their expenses should they see in a housing acquisition a significant opportunity to save money while becoming the owner of a home.

Impact of taxation on the loss of welfare for producers and consumers:.

Figure 96- Harberger's triangle - Deadweight loss of welfare for producers and consumers



Source: Economic Evaluation of Housing Subsidy Systems: A Methodology with Application to Morocco-| World Bank - February 2005

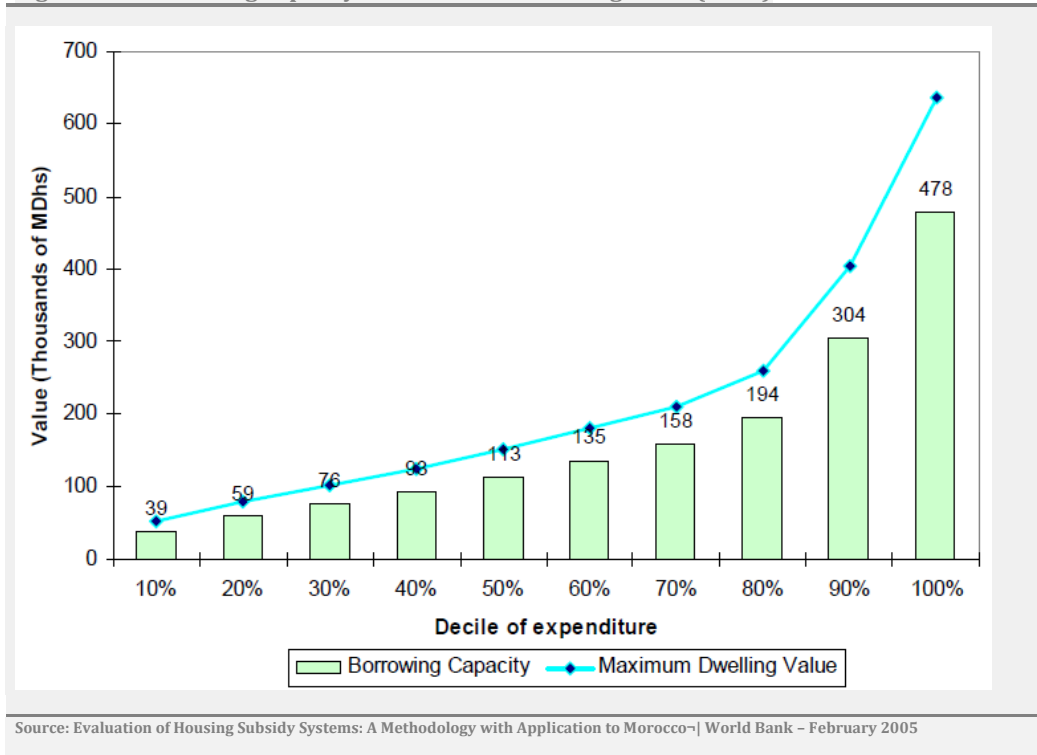
Harberger's triangle refers to the deadweight loss occurring in the trade of a good or service due to government intervention

“When taxes are low and only second-order changes can be considered, the loss of welfare grows as the square of the tax rate increases”.

Elements of information on housing in Morocco

Housing Supply & Demand: “Demand for new housing units is estimated at about 120,000 units per year and is expected to continue growing in future due to the demographic composition of the population, whereas annual supply of formal housing units is estimated around 90,000 units”. The housing stock was broken down into formal housing accounting for 80% of the total stock, and informal housing accounting for the rest of the stock. Informal housing is itself broken down into slums (5% of the total stock) and housing in violation of the town planning code (15% of the total stock).

Figure 97 - Borrowing Capacity and Maximum Dwelling Value (1995)



It is clear that new construction in urban centers was totally inaccessible to those within the lower half of the income distribution. As a result, more than 50 % of new construction was self-construction.

[Academic study of demand for housing by 2020^E|CIHEAM -2003](#)

The study estimates the production needed per annum to eliminate the housing deficit under three scenarios:

- 1/ A scenario where the housing deficit is eliminated by 2010;
- 2/ A scenario where the housing deficit is eliminated by 2015^E;
- 3/ A scenario where the housing deficit is eliminated by 2020^E.

We focus on the third scenario findings. Although the study assumes a particular rhythm of deficit reduction, we highlight the implied demand between 2014 and 2020^E and invite the reader to observe the structural undersupply in the market as well as to take note of the regional discrepancies, two phenomena that we emphasize in our own study.

Figure 98 - Production per annum needed to eliminate the housing deficit

Région	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Grand Casablanca	12474	14197	15921	19368	23678	27125	30572	34964	34964	34964
Rabat-Salé-Zemmour-Zaër	12378	14089	15799	19220	23497	26917	30338	34697	34697	34697
Souss-Massa-Darâa	10423	11863	13303	16184	19785	22665	25546	29216	29216	29216
Tanger-Tétouan	8674	9872	11071	13468	16465	18862	21259	24313	24313	24313
Marrakech-Tensift-Al Haouz	6885	7836	8788	10691	13069	14972	16875	19299	19299	19299
Fès-Boulemane	6875	7825	8775	10675	13050	14950	16850	19271	19271	19271
Meknès-Tafilalt	6167	7019	7872	9576	11707	13411	15116	17287	17287	17287
Région de l'Oriental	4874	5548	6221	7568	9252	10599	11946	13662	13662	13662
Gharb-Chrarda-Beni Hssen	4643	5285	5927	7210	8814	10097	11381	13016	13016	13016
Doukala-Abda	3916	4457	4999	6081	7434	8516	9598	10977	10977	10977
Chaouia-Ouardigha	2846	3239	3632	4419	5402	6188	6975	7977	7977	7977
Tadla-Azilal	2562	2916	3271	3979	4864	5572	6280	7182	7182	7182
Taza-Al Hoceima-Taounate	2200	2504	2808	3416	4177	4785	5393	6167	6167	6167
Guelmim-Essmara	1203	1369	1536	1868	2284	2616	2949	3373	3373	3373
Laayoune-Boujdour-Sakia Hamra	991	1128	1265	1538	1881	2154	2428	2777	2777	2777
Oued Eddahab-Laguira	188	214	240	292	357	409	460	527	527	527
Total	87 300	99 364	111 427	135 554	165 713	189 840	213 967	244 704	244 704	244 704

Région	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Grand Casablanca	34964	34964	34964	33158	31434	29710	24622	19203	17645	15147
Rabat-Salé-Zemmour-Zaër	34697	34697	34697	32904	31194	29483	24434	19056	17510	15031
Souss-Massa-Darâa	29216	29216	29216	27706	26266	24826	20574	16046	14744	12657
Tanger-Tétouan	24313	24313	24313	23057	21859	20660	17122	13353	12270	10533
Marrakech-Tensift-Al Haouz	19299	19299	19299	18302	17350	16399	13590	10599	9739	8361
Fès-Boulemane	19271	19271	19271	18276	17325	16375	13571	10584	9725	8349
Meknès-Tafilalt	17287	17287	17287	16394	15542	14689	12174	9494	8724	7489
l'Oriental	13662	13662	13662	12956	12283	11609	9621	7504	6895	5919
Gharb-Chrarda-Beni Hssen	13016	13016	13016	12343	11701	11060	9166	7148	6568	5639
Doukala-Abda	10977	10977	10977	10410	9869	9328	7730	6029	5540	4756
Chaouia-Ouardigha	7977	7977	7977	7565	7171	6778	5617	4381	4025	3456
Tadla-Azilal	7182	7182	7182	6811	6457	6103	5058	3945	3625	3112
Taza-Al Hoceima-Taounate	6167	6167	6167	5849	5545	5241	4343	3387	3112	2672
Guelmim-Essmara	3373	3373	3373	3198	3032	2866	2375	1852	1702	1461
Laayoune-Boujdour-Sakia Hamra	2777	2777	2777	2634	2497	2360	1956	1525	1401	1203
Oued Eddahab-Laguira	527	527	527	499	473	448	371	289	266	228
Total	244 704	244 704	244 704	232 063	219 999	207 935	172 323	134 397	123 491	106 010

Source: Academic study of demand for housing by 2020E|CIHEAM -2003

"Affordable Housing Finance in Morocco" presented in the 5th Global Housing Finance Conference |2002

Notes from the presentation:

Demand incentives:

- Tax incentives for main residence :
- Deduction of interest payments of mortgage loans
- VAT exemption on social houses for purchasers occupying the acquired home as their main residence for a period of at least four years;

Before 2005: demand subsidies essentially based on Interest buydown (IBD) system (interest subsidies):

- Main aim: to lessen the cost of financing;
- A system that showed its limits:
- Targeting : mainly medium income wage-earners benefits;
- Weak marginal impact
- Macroeconomic stability permits a large decline in interest rates

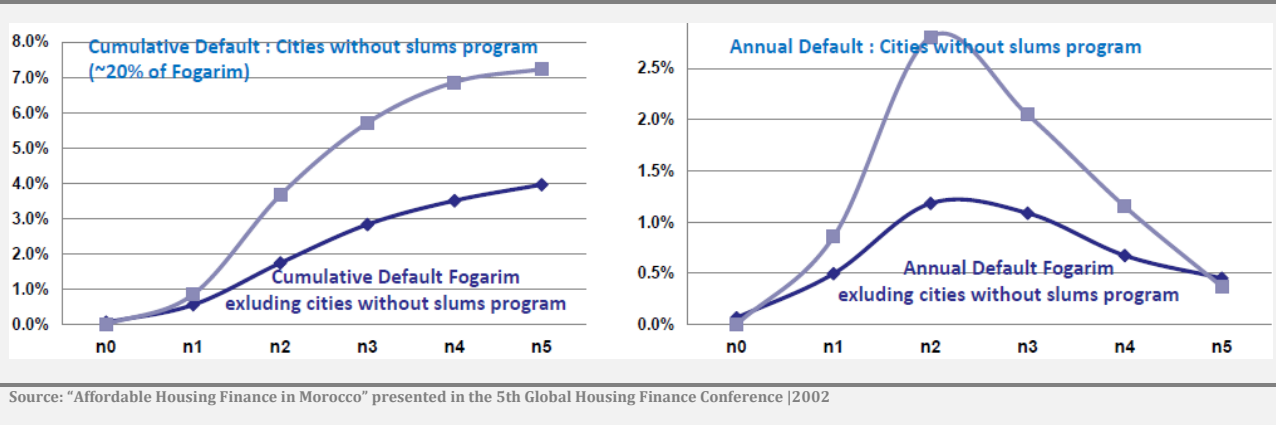
- Solution: move to more targeted system focusing on irregular and low-income households

In the end of 2004: Implementation of Fogarim a mortgage insurance fund targeting :

- Informal income: precondition not have formal revenues (wages);
- Low income: social houses and monthly payment less than 1500 DH ~\$176;
- Not a homeowner;
- Practice an activity that generates income

The presentation also tackled the issue of loan defaults for Fogarim guaranteed mortgages. When we exclude the population belonging to the cities without slums programs, the default rates seem correct.

Figure 99 - Fogarim Default (6'years generation of loans)



[Best practices in slum improvement - The case of Casablanca |Development Innovations Group - Undated](#)

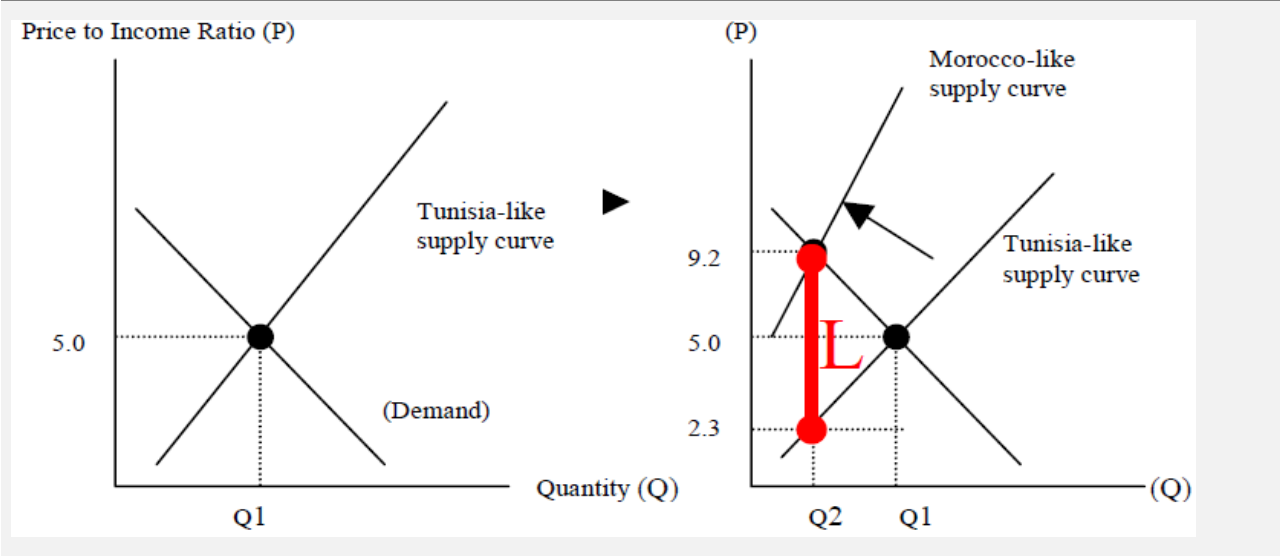
The report draws important conclusions in the "Summary of Potential Lessons Learned" section: Indeed, the report suggests that **"there is a market for the private sector at the bottom of the pyramid". Financial business models that are properly designed to meet a specific demand can be effective in mobilizing private sector involvement in slum upgrading at scale**". This idea is cardinal in our report although we do not particularly focus on the slum population. We highlight the following mechanisms reported in the paper:

- 1/ Retail Platforms or one-stop-shops located in slum neighborhoods;
- 2/ Public-private partnerships between parastatal housing societies and private developers;
- 3/ Partial credit guarantee programs are necessary;

"Not all slum dwellers have the employment/income stability necessary to become homeowners. Mechanisms such as savings-to-homeownership and a rejuvenation of the rental market are necessary to provide a transparent and fair basis equitable solutions tailored to the diverse means of slum households". The rejuvenation of the rental market happening in the social housing industry as a result of the 2012 amendment is very relevant.

[Morocco Housing Market| OPIC -2006](#)

"If Morocco follows the path to market liberalization, the long run housing stock should become more elastic allowing increased demand to be met by increased supply rather than exorbitant price increases". This concept also illustrated below suggests a theoretical antecedent to the undersupply in the Moroccan housing market. The price increase mentioned was indeed a mechanism by which the 2010 fiscal reform was forcing supply to meet an increased demand.

Figure 100 - The Supply side effect of Moroccan Government Housing Policies


Source: Morocco Housing Market| OPIC -2006

The following table shows that the problem of housing affordability in Morocco was very prevalent in comparison with other comparable countries.

Figure 101 - Housing Indicators Comparison, MENA and select countries

	Per Capita GDP	House price to income ratio	Floor Area per Person	Housing Credit Portfolio	Informal Housing (%)	Mortgage Loans to GDP (%)	Urban Pop. (%)	Population age 20-29 (%)
	[A]	[B]	[C]	[D]	[F]	[G]	[H]	[I]
Iran	6,128	9	21	-	25-30	2.8	65	19
Lebanon	4,391	9	10-12	9	20-25	4	90	23
Algeria	5,319	8.1	8.5	6.5	20	1.2	58	19
Egypt	3,750	4.9	12	7.4	30-60	3	43	18
Morocco	3,787	9.2	6	13	23	7	56	18
Jordan	4,080	6.5	10	19	10	11	79	21
Tunisia	6,769	5.2	6.5	10.44	Negligible	5.9	66	12
Yemen	812	10-17	4	-	35	-	25	56

Source: Morocco Housing Market| OPIC -2006

Appendix 2 – FAQs

SECTOR

Key elements of the fiscal framework

The Moroccan government has put in place numerous incentives in order to spur the production of social housing in Morocco. In 2010, the “Loi de Finances” provided a favorable fiscal environment for both the developers and the acquirers of social housing.

Today, a social housing unit has a variable price that cannot exceed MAD 250k for a total surface hovering between 50m² and 80m².

The government waves the VAT for the acquirer provided this latter does not own a house prior to this acquisition and commits to use the unit acquired as a primary residence for at least 4 years.

The government waives taxes for developers as well as many administrative costs provided they have an agreement with government to build at least 500 social housing units in a period less than 5 years.

The same fiscal framework is applicable to low real estate value housing. This type of housing can be sold at a price that does not exceed MAD 140k for a total surface hovering between 50m² and 60m².

The aforementioned benefits are applicable up until December 31st 2020 for developers who produce low value real estate housing and up until December 31st 2019 for developers who do not have this type of housing. This means that a social housing developer has the possibility to sign 5 years conventions until December 31st 2019, and that he can consequently potentially benefit from this favorable fiscal framework until the end of 2024.

More recently, in the 2015 budget bill, Government has proposed some new measures that could have a positive impact on the social housing segment:

- Enlarge the possibility to buy a social housing unit to foreign residents in Morocco (this population is estimated at more than 100.000 people) ;
- Boost the rental market in the social housing segment by allowing buyers of a minimum of 25 units to rent them as a principal residential use for a minimum of 8 years, and benefit from a corporate tax exemption over the same period, provided that the monthly rent do not exceed MAD 2,000 vs. MAD 1,200 previously.

How many social housing units were produced by the top developers (e.g. RDS, Addoha and Alliances) during 2012 and then 2014? By taking out these numbers from the total production of social housing units, can we make a reasonable estimate on the social housing production from opportunistic developers?

After the fiscal reform of 2010, which intended to boost the production of social housing and reduce the structural housing deficit, production of social housing started to soar and included one-time developers who saw into the reform an opportunity to yield interesting margins. This situation did not last for many reasons: First, it is a business with high entry barriers such as the administrative burdens inherent to social housing. Second, only projects launched in areas where demand is located can actually succeed, and only experienced developers could get access to land in strategic areas etc.

Addoha produced an average of 25,000 units per annum from 2012 to 2014.

RDS produced 6,750 units in 2012, 9,200 units in 2013 and 6,680 units in 2014.

Alliances produced an average of 12,500 units per annum from 2012 to 2014.

All of Addoha, RDS and Alliances have not decreased their production between 2012 and 2014 which would indeed show that the decrease in units produced is coming from the other developers:

The government real estate development arm “Al Omrane” did not decrease their production between 2012 and 2014 as well.

The remaining production is broken down between “mom and pop” investors, small developers, and relatively medium-sized developers such as Chaabi Lil Iskane, Dyar Al Mansour, Groupe Jamai, Groupe Chaimaa and Jet Sakane.

So, not only do we have mom and pop investors who shied away from the business but also smaller developers who had no choice but to reduce their production because they probably did not have neither the expertise nor the financial capabilities to acquire lands in the areas where the demand is located and henceforth sustain their business beyond the initial “euphoria” period that followed the 2010 fiscal law.

Can you run through the economics for a single low income housing unit – how much does the land cost, what is the building cost, what is the selling price, tax incentives etc.?

Please refer to Part III – Detailed analysis of a social housing project IRR

Can you give me more info on tax refund delays? What happened? How is this being resolved?

When an acquirer buys a social housing unit, they do not pay the VAT provided that the acquirer is a first time buyer and that he uses the social housing unit a principal residence for at least 4 years. Instead the VAT is paid by the Government to the notary, who then have the total amount (the amount excluding VAT paid by the buyer and the VAT subsidy paid the Government) to complete the transaction, thus enabling the developer to complete the physical delivery of the unit and collect the cash.

Amid a highly growing industry in 2011 to 2013, the delays were getting bigger due to a soaring number of cases requiring treatment by public authorities, and due probably also to the fact that the Government was trying to optimize the management of its cash positions in a context of deteriorating public finances.

According to management, these delays are now improving with the number of cases requiring treatment by public authorities diminishing and in a context of improved public finances.

Can you please explain the flow/accounting between pre-sales, receivables, inventory and then revenue for the business?

First, land is acquired and accounted for in Inventory in the Balance Sheet.

Then, pre-sales (20% of revenue) are accounted for in Client Advances in the Balance Sheet.

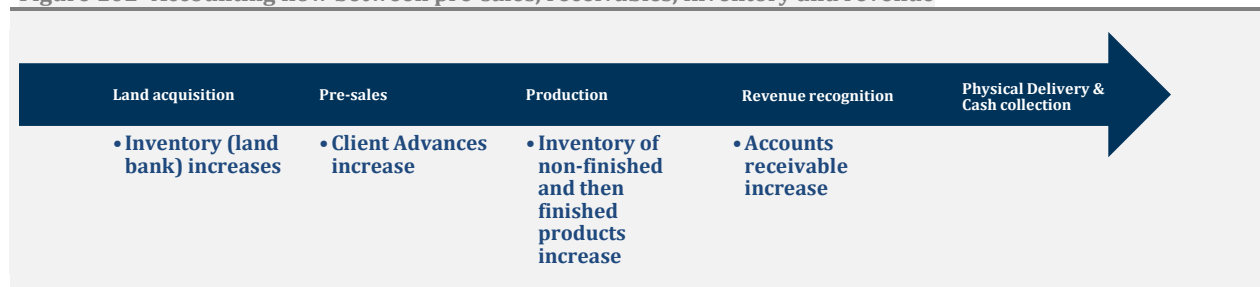
When the production starts, units in production are accounted for in Inventory of non-finished products in the Balance Sheet.

Finished products are accounted for in Inventory of finished products in the Balance Sheet.

When the revenue is recognized (when the company has the certainty that it will be able to complete the transaction after the completion of construction works and when the permit to inhabit is granted), the margin achieved by the developer (total revenue minus related development costs which are removed from the company’s inventory) increases its equity.

However, the remaining 80% to be collected by the developer remains in clients’ accounts receivables until the whole delivery process is completed.

Figure 102- Accounting flow between pre-sales, receivables, inventory and revenue



Source: CFG Research

What are the reasons behind the delays in cash collection at delivery?

- 1/ Complex and numerous administrative processes;
- 2/ Delays for banks to free up the funds;
- 3/ Delays related to the VAT refund received by the notary from the government.

Why is the effective corporate tax different from zero for Addoha and RDS?

Only social housing is corporate tax exempt.

Since the developers are also engaged in other types of housing products (intermediate housing and land plots for ADH and RDS + high-end housing for ADH), the portion of non-social housing projects that they develop are subject to the normal corporate tax rate which is currently at 30%. Furthermore, RDS benefits following its IPO in December 2014, from a 50% corporate tax reduction for a period of 3 years, i.e. from 2015 to 2017.

Are the land bank and others inventories shown on the financial statements revalued at their market prices ?

Land bank and others inventories aren't measured at their market prices but rather are at their cost, both under Moroccan GAAP and IFRS standards.

More exactly, IAS 2 states that inventories are measured at the lower of cost (using the weighted average method) and net realizable value.

Land bank is valued at acquisition cost including the purchase price of land, expenses incidental to this purchase, expenditures on studies as well as servicing construction works.

Inventory of under construction units is valued at the lower of weighted average cost and net realizable value.

Inventory of finished units is valued using total land and equipment costs as well as any remaining charges (accrued liabilities).

What is "Autres Produits de l'activité" under chiffre d'affaires in ADH or RDS income statement?

"Autres Produits de l'activité" mainly refers to the change in inventory. Please refer to the illustrative example below.

Explain the change in inventory in the Income Statement

Illustrative example:

- 1/ In this example, we produce two housing units in the fiscal year n. The production cost per unit is 100, i.e. a total production cost of 200 in the fiscal year n;
- 2/ In year n, one housing unit is sold and delivered. The revenue per unit is 120;
- 3/ In year n+1, the second housing unit is sold and delivered. The revenue per unit is also 120.

Figure 103- Illustrative example – Variation of inventory in the income statement

	n	n+1
Revenue	120	120
Variation of inventory	100	-100
Costs (of goods produced)	200	0
	20	20

Source: CFG Research

ADDOHA

What do fixed assets represent in the case of Addoha?

Fixed assets include mainly headquarters and show rooms.

What is the breakdown of Addoha's inventory?

As of December 31 2014, the value of Addoha's inventories stood at MAD 18,358,882k. This number is broken down as follows:

- Land bank: MAD 3,249,839k (*This includes only the land bank that Addoha hasn't started developing*)
- Consumable materials and supplies: MAD 1,219k
- Non-finished products: MAD 9,252,127k (*Including the land bank related to these products*)
- Finished products: MAD 5,855,697k (*Including the land bank related to these products*)

So, the inventory of finished products stood at MAD 6b in 2014.

Unsold finished products at the end of December 2014 stood at about 20,395 units.

This translates into a cost per unit of MAD 287k per unit which would make sense because this number includes social housing but also intermediate housing and high-end housing.

Also, MAD 5,855,697k divided by 2014 revenue i.e. 7,036m *365=303 DSI

How many units can Addoha produce given their current land bank? What is the cost of the land bank? If they did not buy any additional land, how many units could they produce?

The land bank is 5,000ha valued at MAD 10b.

About 50% of this total land bank is dedicated to high-end projects in which the Group intends to develop a total of approximately 30,000 units.

900ha is a strategic reserve.

We are left with about 1,600ha dedicated to social housing, intermediate housing and land plots.

Taking into account an average ratio of 170 units per hectare, we can conclude that the social housing land bank of Addoha is equivalent to 170,000 units i.e. at least 10 years of production based on an average annual production of 17,000 units.

It is very important to keep in mind that they have targeted in their new strategic plan to continue buying land but only in the Casablanca and Rabat region where the demand is very high and where they need to renew frequently their land bank.

RESIDENCES DAR SAADA

What is the geographical breakdown of their land bank?

Figure 104- Geographical breakdown of Résidences Dar Saada land bank

City	Surface (hectars)	Surface allocated to projects (hectars)	Surface available (hectars)	# of projects	# of units
<i>Agadir</i>	16	16	0	6	3,645
<i>Casablanca</i>	459.1	415	44.1	13	36,666
<i>Fès</i>	124	124	0	1	7,428
<i>Marrakech</i>	309	94	215	7	12,764
<i>Martil</i>	11	11	0	1	2,525
<i>Oujda</i>	27	27	0	1	1,721
<i>Skhirat</i>	10	10	0	1	2,226
<i>Tanger</i>	13	13	0	3	3,236
Total	969.1	710	259.1	33	70,211

Source: RDS

RDS Bonds and treasuries

RDS issued on June 2012 5-year bonds to raise MAD 750m. The characteristics of the bonds issued are as follows: 53% of the bonds issued have a yield at 5.47%.

47% of the bonds issued have a floating yield. The yield stood at 4.79% in June 2013 and at 5.48% in June 2014.

RDS had treasuries in their balance sheet up until September 2014.

Breakdown of RDS debt

Figure 105- Breakdown of RDS debt by type and maturity as of 12/31/2014

Type of debt	Maturity	Amount in MAD
Project Finance Debt	More than 1 year	1,193,009,558
Project Finance Debt	Less than 1 year	699,106,893
Total Project Finance Debt		1,892,116,451
Bonds	More than 1 year	749,995,875
Bonds	Less than 1 year	-
Total Bonds		749,995,875
Total Debt		2,642,112,326

Source: CFG Research

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