Investors Perspectives on Real Estate Rehabilitation Investments Decision Model

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Summary:

The main propose of this thesis is to understand how Portuguese real estate rehabilitation investments in a buy-to-let perspective perform comparatively to the most common financial investments products in the Portuguese financial market; such as saving deposits, national bounds, investment funds and others in terms of rental rates and investment risk that are also being practiced.

1 Introduction

Nowadays real estate rehabilitation investments in Lisbon became an object of deep analysis and discussion for all parts of society. The main macro push factors were the growth of the leasing real estate market and the low prices of real estate since the financial crisis started in the USA in 2009 and subsequent Euro & Portuguese crises.

In Portugal, the leasing real estate market was not competitive since '50s because of political interventions that were created to control the soaring of the real estate leasing prices caused by the increasing population in Lisbon and Porto. This rising was not only induced by the rural exodus but also by the arrival of Portuguese people from the former colonies like Angola and Mozambique which caused an increment of a million people just in Lisbon. Percentage wise is highly significant, the population of Greater Lisbon is not greater than 3 million people.

At that time, the big coastal cities did not have the capacity to absorb all the new comers in terms of housing facilities. The government decided to set limits and control the real estate leasing prices by freezing the rents instead of creating a social house policy. This proved popular with the existing population.

In 25th April 1975, the national revolution occurred and a big part of the properties and companies were nationalized and the financial companies were one of the most affected groups by it. The entire sector was reduced to the national bank and a few foreign banks. Subsequently there was an increase of the purchasing power of the population and the governments implemented measures and incentives aimed at aiding the population to buy their own house/properties (Melo, 2009). With favorable policies towards property loans there is a recorded continuous decrease of the leasing real estate market until 2011, Figure 1, the moment when the Troika came to negotiate the memorandum and imposed many conditions. One of them was the limitation of the families' credit and the other was the relaunch of the real estate leasing market through liberation of the market free of cost control measures.

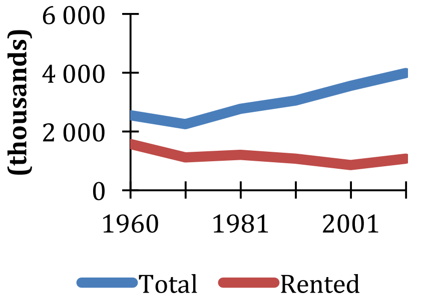

Figure 1 - Total houses Vs. Rented houses, (PORDATA, 2015) (INE, 2015)

The limitation of the families' credit and the limited liquidity of the Portuguese bank system turns the leasing market, witch was an uncompetitive market, in a more active market.

As the macro conditions changed the conditions became favorable for investments in real estate rehabilitation to let. Furthermore, many other investment products started to underperform as they were linked to the Euribor, the European savers deposit (Figure 2), which has fallen sharply since the 1990's as been in record lows along with the base interest rate.

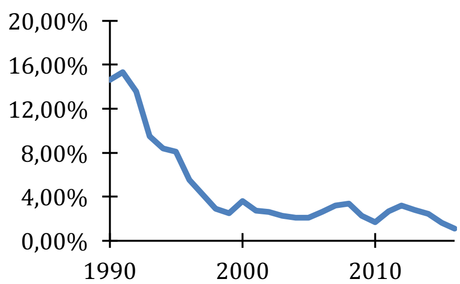

Figure 2 - Profitability of deposit terms, (Banco de Portugal, 2015)

But the million-dollar question that still has no answer is id this is this the right moment to invest in real estate, in a perspective of buy-to-let investment, and if is it a profitable investment compared to the most popular financial investments in Portugal?

2 Theoretical contents

2.1 Investments and risks

In a generalist way, an investment can be defined as a determined quantity of resources allocation in a determined product, not unique, present in the market that are sacrificed to use in the present to get a future potential benefit (Holanda, 1975).

For Dixit & Pindyck (1994) and Brealey & Myers (2008), the investments have four main factors to consider in a complete and correct evaluation. If one of them was not considered, the analysis could be at risk. The four aspects are:

- Flexibility;
- Irreversibility;
- Unknown;
- Timing.

Moreover, all the investments have an associated risk and the profit of each investment product has a direct relationship with its risk. On other hand, knowledge, has the power of reducing the risk, (Antunes, 2015). In conclusion, if the investors have more information, they will take on a lower risk for the same profit.

To have more information the normal investors use methods based in cash flows, which allows the best investments evaluation, to help them in the decision process (Barros, 1994). The most used indicators of the traditional analysis are:

- Net Present Value;
- Internal Rate of Return;
- Profitability Index;
- Payback Period.

Every time that the cash flows has a high variability it is normal to use additional techniques like de the SWOT analyzes that identifies the risks associated to the investment and make a weighting distribution between the price and the risk (Neves, *et al.*, 2010). There is an infinite number of possible risks, and for each investment there are groups of risk that are more relevant. In real estate investment, the most of the risk arises from:

- Business risk;
- Financial risk;
- Liquidity risk;
- Inflation risk;
- Management risk;
- Taxes risk;
- Legal risk;
- Environmental risk;
- Risk of Country.

2.2 Real estate cycle

The real estate market has a cyclical nature, Figure 3, which was already discussed and was very similar to the economic and financial cycles. This market is deeply related to:

- Economic growth;
- Supply and demand;
- Renting market;
- Interest rates.

However, the main problem is to understand if the dynamics of real estate is the cause or the consequence of the economic growth, because it depends on the moment of the cycle. In the first moment of the cycle the economy causes the growth of real estate market and in the second moment it is the real estate that promotes the economic growth, (Amaral, 2011).

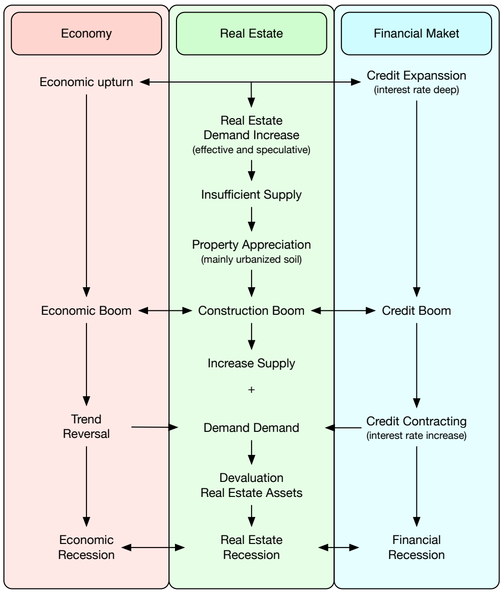

Figure 3 - Real estate cycle, (Amaral, 2011).

3 Financial market

The financial market is an integrant part of a major system, the financial system described in the Figure 4, which includes a set of financial institutions that work as intermediates between the economical agents (State, enterprises, families and extern entities), and financial market.

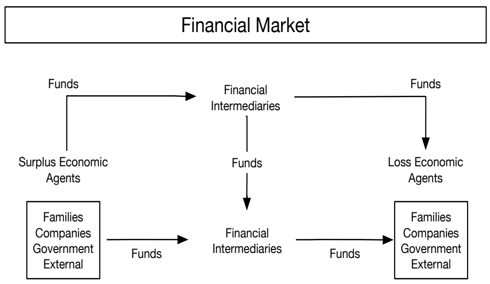

Figure 4 - Diagram of the financial market, (APB, 2015)

3.1 Financial investments

To understand the potential of the investment of real estate for renting it is fundamental to have a comparative term.

The financial investments products are the most usual investments consumed in Portugal. For that reason, we considered seven different investments with different levels of complexity.

- Debts;
- Capitalized insurance;
- Saving certificates;
- Treasury certificates;
- Stock exchange;
- Investment funds.

For all of them it was calculated the return in the last few years and searched the prospects for this year. The goal is to create a comparison between the profits of financial investments and the main investment of this work the real estate renting.

But it is not enough to compare the rental rates. The comparison between the risks of all kinds of investments is really important for the study.

3.2 Financial investments risks

The perception of risk is not static. For example, Geltner, *et al.* (2006), before the subprime crisis in the United States of America, considered that the real estate investment is a moderate to low risk (Table 1) and nowadays this type of investment is considered a high risk.

Table 1 - Risk class, (Geltner, *et al.* 2006)

Stock	High
Real Estate	Moderate to Low
Long Term Bonds	Moderate to Low
Cash T-Bills	Lowest

In Portugal the regulatory agency of market values is the CMVM. That agency defines the risk in 7 classes (Table 2) and obliges all players that negotiate investments in Portugal to classify their products.

Table 2 - Risk classes, (CMVM, 2015)

Risk classes	**Risk level**
1	Lowest
2	Low
3	Moderate low
4	Low
5	Moderate high
6	High
7	Highest

4 Real estate market in Portugal

The property market can be defined as the environment that brings together buyers and sellers to transact rights or obligations on real estate and in any form. The comparison of prices is possible every time that there is an elevated number of transactions in a short period of time, Briton, *et al.* (1989).

The investment in the property market, mainly in the centre of Lisbon and Porto, had a remarkable growth in the last years, in Pedro Lencastre opinion, general-director of the property advisor JLL. It is expected in 2015 the investment in this sector will be beaten. The record is nearly 1,4 thousand million euros in the year 2007. Taking into account that the total value invested in Portugal in the year of 2014 was of nearly 900 million euros and in 2013 it was less than half, the growth in this sector is perceptible. This market is growing again. After a troubled period of financial crisis, the investment in property became more appealing and profitable when the low price is aligning with the profits originating from the renting.

Another factor that drove this market was the excess of liquidity of the financial markets and the lack of attractiveness of the traditional investment products, giving rise to a migration of the investments towards property. Furthermore, something to take into account in the Portuguese retail market that has been significantly successful in attracting foreign investment is the Program of Authorization of Residence for Investment (Visas Gold/Golden Visa). It has successfully attracted investment from North American, Chinese, Russians, Angolans, Brazilians, French and English because of the benefits made available by the Portuguese Government (Golden Visas), made available to investors who acquire real estate for values superior to 500 thousand euros. Lisbon is a trendy city at the moment and it is mentioned all over the world in the foreign social communication. For example, the Financial Times writes that Lisbon is a city that is recovering from the crisis due to the foreign investment. As Trish Lorenz says "buy in the tail of a market that is in growth is the aspiration of any investor. While Portugal begins to go out from the financial crisis of the last seven years, some investors think that the real estate purchase in Lisbon is the form of carrying out this ambition". Anthony Lanier, founder of the enterprise of urban revitalization EastBanc, with thirst in the USA, affirms, "In Lisbon, the prices are still very favorable. It is possible to buy in locations 'prime', which does not happen in other European capitals", opinion shared by Luís Infante da Câmara, partner of Lucas Fox, an enterprise specialized in the Spanish properties: "they Manage to find real estate what it costs nearly 3.000 euros for m2 in locations 'prime', they have that it is of being rehabilitated. For 5.000 euros for m2 there is possible there finds real estate with much quality in these zones" The study published by Urban Land Institute and by PwC, Real Emerging Trends in Estate Europe publication of 2015, displays in the heading "European Cities will be Existing Property Investments" the rise of the city of Lisbon from the 26th position of the ranking of the European cities that register bigger interest for the investment to the 9th place, in only a year.

The traditional renting is not the only one form to rent a house. There are other options like:

- Tourist renting houses;
- Tourist renting rooms;
- Student renting houses;

- Student renting rooms;
- Hostels;
- Hotels.

In a time when Portugal was considered by many magazines all around the world to be one of the best countries to visit in Europe, the tourist market could be very interesting to study. Nowadays the traditional renting continues to be the biggest market of renting in Portugal and for that reason it was the central topic of this work.

The traditional renting has in general three types of costs:

- Buy cost;
- Rehabilitate costs;
- Government taxes.

The last one is the most complex cost, because of the Portugal's complex tax system. There are some taxes that need to be paid ones in the moment of the purchase, others are paid every year and the other are paid every time the investor creates profits with the property, has an income or sells the property.

The National Laboratory of Civil Engineering, (LNEC, 2002), developed a method to estimate the cost with the rehabilitation that considered the cost proportionally to the cost of a new house and to the level of intervention. Another method was developed by Cardoso, et al., (2011) and considered a cost per square meter with three diferent levels of intervention. For this work Rebelo (2015) proposes a mix between the two methods presented in Table 3.

Table 3 - Method for rehabilitation costs

Level 1-small	$Average\left[\frac{3}{12} * cost; 56{,}88\, ^{€}/_{m^2} * Area\right]$
Level 2-medium	$Aberage\left[\frac{6}{12} * cost; 179{,}86\, ^{€}/_{m^2} * Area\right]$
Level 3-large	$Average\left[\frac{10}{12} * cost; 599{,}53\, ^{€}/_{m^2} * Area\right]$

The buying cost depends on the real estate market, and the characteristics of the house.

5 Model

The model developed in this work, allows to calculate all the costs and gains in a twenty years' analysis. That analysis is based on a Cash-Flow system and is fundamental to proceed to a calculation of several indicators like the NET, IRR and Payback Period.

To proceed to a correct way through the Cash-Flows system, it's vital consider a progress of the inflation rate and tax of updating. For the updating tax it was considered the historical variation of Gross National Product and the inflation rate was based on inflation rate of real estate.

6 Comparative analysis

To choose the best investment between real estate and financial investments that are available in the market at one exact moment, the investors can use this kind of instruments to help them to make a decision.

The first type of analysis is the SWOT analysis, that works in a qualitative way where the Strengths, the Weaknesses, Opportunities and Threats are indicated.

The second type of analysis consists in a quantitative analysis thought the risk category and the profitability of each investment.

7 Conclusions

This document allowed to reach some interesting ideas about the real estate market, mainly in the characterization of the real estate leasing investments in Lisbon and its position with regards to the financial investments products.

Analyzing the average rental rates checked in the last years, the rental taxes expected for 2016 and the risk associated to each investment, it's possible to understand that the real estate leasing investments (**RELI**) are the most profitable products compared to other product with similar risk classes (Table 4 and Figure 5).

Table 4 - Profitability and risk class of analyzed investments

	Return Rate	Risk
Debt (2016)	0,70%	1
RSP (2016)	2,10%	2
TB (2016)	0,21%	3 a 4
TC (2016)	1,58%	2
CI (2016)	4,06%	2
IF (2013)	4,20%	7
REIF (2013)	-6,00%	4 a 6
RELI (2016)	7,00%	4 a 6
PSI20 (2016)	-12,50%	5 a 7

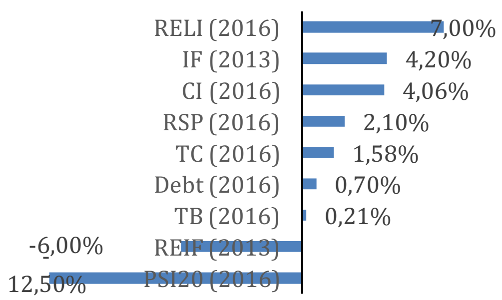

Figure 5 - Profitability of analyzed investments

But the profitability of real estate leasing investments is very complex and depends on the high variety of variables that can turn this kind of investments into a success or unsuccessful business. Some of those variables are:

- The properties existence in the sales market;
- The value of acquisition of the property;
- The rehabilitation price and time;
- The variation of the search with the time;
- The average occupation of the rehabilitated property;
- The value of the income;
- The residual value of the property in the end of the project analysis.

Besides all these variables, the high value of the public taxes and the instability of political demands and taxes codes have a big influence on this type of investments profitable. The taxes weight could be over 50% of total annual incomes. However, with the implementation of the alterations to the NRAU, in 2012, imposed by the Troika, the updating of the low incomes from contracts previous to 1990, which were frozen in from the Portuguese national revolution of 1974 for values nearer of his real market value cause an increase of rent market and take the urban rehabilitation to a new level, supported by the owners. The expected rental rate for the real estate investments studied round 5 to 7 percent, but the high variety of cases force an individual evaluation of each investment.

Those conditions could be the beginning of a turning point to a new paradigm: the real estate leasing instead of proper property, occurred since 1960, (Salgueiro, 1992).

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