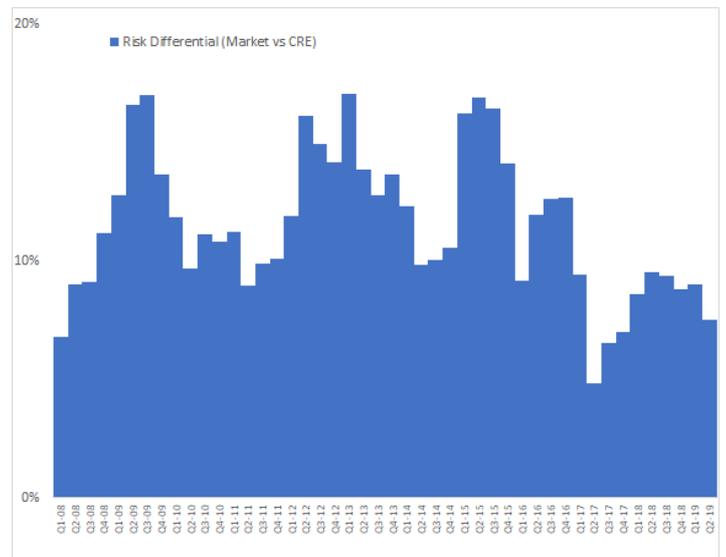
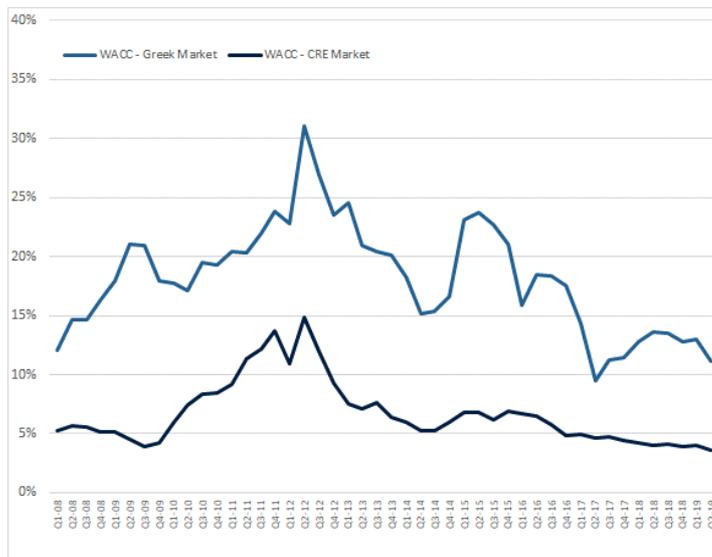


# Inventio Market Indexes – Q2 2019

## Overview

Inventio computes and assesses the Weighted Average Cost of Capital in Greece both in terms of the broader Market as well as for Collateralized Real Estate. In addition, Inventio computes an **Economic Expectations Index** and a **Real Estate Value Index** for a closer monitoring of changes in economic sentiment and expectations and the corresponding changes in the value of assets.

## WACC - Greek Market & Collateralized Real Estate (CRE)



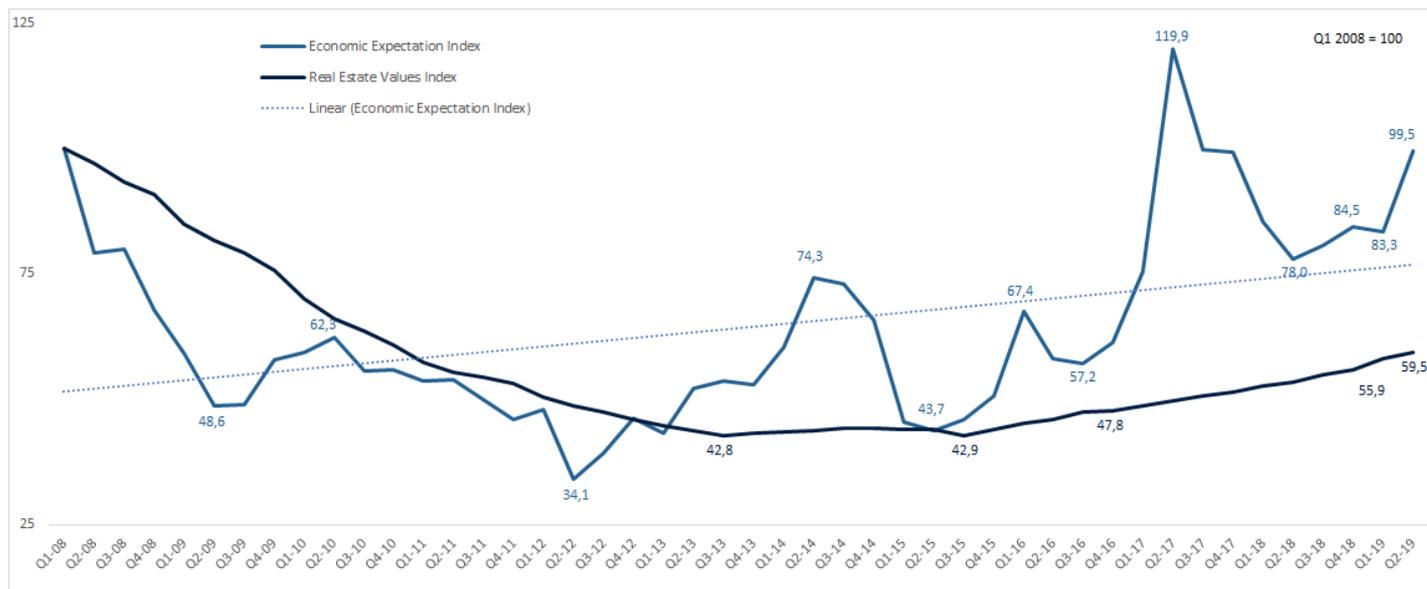
**WACC - Greek Market:** The Market WACC remained stable during Q1 2019. The long pre-election period and the slow implementation of the agreed economic reforms decelerated the prospects of the Greek Economy.

In Q2 2019, the Market WACC was positively influenced from the European Elections and the announcement of National Elections on July (instead of October 2019). As we have previously referred to, Market WACC is particularly sensitive to Election Announcements. **This has again been confirmed.** This time around the reaction was more intense, bringing the Market WACC around to its pre-crisis levels.

As of the date of this report New Democracy (conservative party which won the July's national election (39,85%)) has formed the new Greek Government (having 158 out of 300 Parliament's seats). The new Government's first actions are crucial for the progress of the Greek economy and the further loosening of Market WACC.

**WACC – CRE Market:** The downward trend of CRE WACC continued in the first semester of 2019, mainly influenced by the increasing demand in international markets for yielding investments. The transaction activity improved, the rental rates increased, and the real estate values gained back some of their past losses. Even though, Greek real estate market still offers opportunities that yield above average returns compared to other European countries. Real estate values are still far below their pre-crisis level.

## Economic Expectation Index & Real Estate Values Index

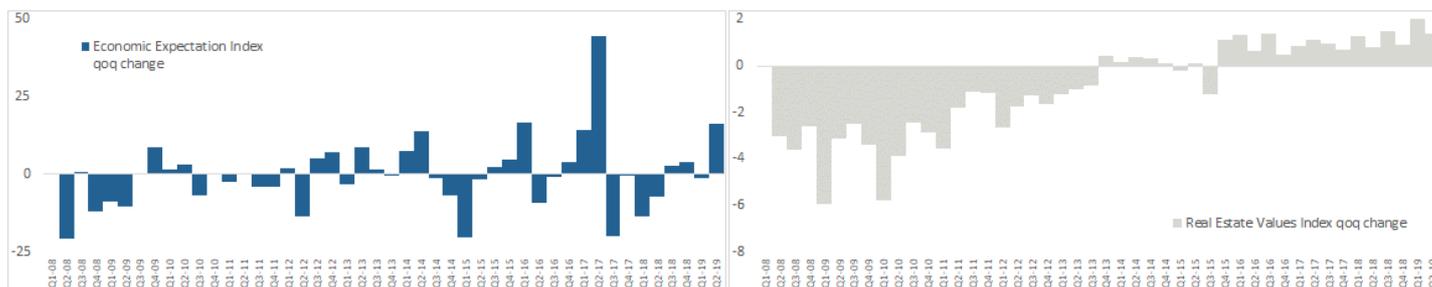


### Economic Expectations Index- EEI: According to our analysis:

1. Expectations stalled during Q1 2019, influenced by the uncertainty of economic prospects (long pre-election period, slow implementation of reforms, weak economic growth and investment activity). The Economy was on a 'wait and see' mode, lacking the spark to put the index to an upward trend.
2. The positive momentum in the international markets combined with the loosening of the 10-year Greek Bond Yield, the upward trend in the Athens stock exchange and the positive developments within the country (outcome of European Election and announcement of National Elections) boosted the Index close to its pre-crisis level.

### Real Estate Values Index- REVI: the index reflects Real Estate Values (base of 100- Q1 2018)

1. RE asset de-risking is not yet reflected to values.
2. The growing demand for yielding investments, drove upwards Real Estate Values.
3. By Mid-2019, the Real Estate Value Index has gained c.40% from its bottom, but it is still 40% lower from its 2008 peak value.
4. The upward trend of the Index is forecasted to continue in the short term mainly due to the high returns that the market is offering compared to other European countries.



<b>Calendar</b>									
<b>Period</b>	<b>Macro Events</b>	<b>Economy WACC</b>		<b>E EI</b>		<b>RE WACC</b>		<b>REVI</b>	
2008 Q3 2009	Financing Issues – Beginning of the crisis	↑	Initial flight to quality	↓	Uncertainty pick up	↔	Stable	↘	Downward trend
Q4 2009 Q2 2010	Elections	↘	Slight Correction	↗	dead cat bounce	↔	Stable	↘	Downward trend acceleration
Q3 2010 Q1 2012	First Program	↗	Stoppage of investments	↘	Negative expectations persist	↗	Risk Increase	↘	Downward trend
Q2 2012	Failed Election	↑	Historical Top- Default status	↓	Negativity bottoms out	↑	Historical Top	↘	Downward trend decelerates
Q3 2012 Q3 2014	Elections – Signing of new agreement	↓	Economic climate improvement	↗	Expectations improve with ups and downs	↘	Slight derisking	↘	Historical Low (Q3 '13)
Q4 2014 Q2 2015	Elections – near GREXIT	↑	A new reversal to security	↓	Reemergence of uncertainty	↗	Trends reversal	↔	Stable
Q3 2015 Q2 2017	Elections – Signing of new agreement	↘	A new derisking cycle	↗	Positive expectations build up	↘	Long Term derisking	↗	A slight upward momentum
Q3 2017 Q2 2018	Moderate growth – Investors hesitancy	↗	Uncertainty looms	↘	Realization time- adjustment of Expectations	↘	derisking continues	↗	Slight Increase
Q3 2018 Q1 2019	End of memorandums – Long pre-election period	↔	Stable/Slight decrease	↗	Wait and see attitude	↘	derisking continues	↗	Slight Increase
Q2 2019	EU Elections – Announcement for National Elections in July	↓	Economic climate improvement	↑	Positive International and domestic expectations	↘	De-risking continues	↗	Slight Increase

## Methodology

### 1. Calculation of WACC

The general formula for WACC:  $WACC = (E/V) * \text{Cost of Equity} + (D/V) * \text{Cost of Debt}$ , whereas

E = Market Value of the firm's equity

D = Market value of the firm's debt

$V = E + D$

$E/V = 40\%$ ,  $D/V = 60\%$

Cost of Equity = Risk Free Rate of Return + Beta \* Market rate of return

Risk Free Rate of Return = 10-year Greek Bond Yield

Beta = Europe Beta Market according to Damodaran/ Europe Real Estate Beta Market according to Damodaran

Market Rate of Return = 12m volatility of Athens Stock Exchange /Average Real Estate Values volatility

Cost of Debt = Interest Rate \* (1 – Tax rate)

Interest Rate = Non-Financial Corporation Loans over an amount of €1m, non collateralized/ for RE with collateral and/or guarantees

Tax Rate = Effective Corporate Tax Rate at the time

### 2. Economic Expectation Index

Considering the 10-year Greek bond yield, the Greek Corporate tax rate, Loan Interest rates and volatility of Athens Stock Exchange, Inventio creates an index which measures the expectations that prevail for the course of the Economy. Q1 2008 = 100

### 3. Real Estate Values Index:

Analysis of the historical real estate yields and rents in the main real estate markets (retail, industrial and office) for calculating the weighted average value of an indicative asset. Q1 2008 = 100

Sources: Elstat, Eurostat, Bank of Greece, Athens Exchange Group (Hexel), Damodaran Online

#### Disclaimer:

This documentation is issued for information purposes only. Information contained herein has been obtained from sources believed to be reliable but have not been independently verified. There is no guarantee, representation or warranty provided and no responsibility or liability accepted as to the accuracy of the information or its completeness. Expressions of opinion herein are subject to change without notice. The contents of this presentation relate to potential investment considerations that may involve substantial risks, such as the risk to lose part of or all the investment, the absence of a regular market and illiquidity. This document is not and should not be construed as an offer to sell or solicitation of an offer to purchase or subscribe to any investment or service. The prior written consent of Inventio Consulting is required before this report can be reproduced/ distributed or otherwise referred to in whole or in part.

Inventio Consulting, All Rights Reserved.