Weighted Average Cost of Capital – a Game Changer (?)

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Introduction

Research results from RE Frame project

Conclusion
Methodology

**Existing data**
- Estimations of costs of capital of wind onshore-investments from DIA Core Project
- Comprehensive interview series with financial experts
- Evaluation of development of parameters

**Analysis**
- Comparison with interest rates for loans from other sectors in EURO zone
- Description of trends

**Results**
- Aggregation and visualization of meta data
- Presentation of results and feedback from national experts
- Preparation of deliverables: project presentation & database
Before we start: some caveats

• There are **several methods for wind project financing**: corporate financing or project financing

• Ongoing changing interest rates

• Constant changes of RES market conditions

• **Lack of current, significant projects in some EU markets**, made sometimes model estimations necessary

• Different level of transparency of market actors
WACC Development

Decrease in most MS, but still no converging WACC

Avg. WACC value 2016 (interview results)

- <5.0%
- 5.0 - <6.0%
- 6.0 - <7.0%
- 7.0 - <8.0%
- 8.0 - <9.0%
- 9.0 - <10.0%
- >10.0%
- no data gathered, yet

Evolution of avg. WACC value 2014 - 2016

less than 3% wind power increase 2014-2016
Cost of Debt Development

Plunging interest rates – but unclear consequences for market actors

Avg. Cost of Debt value 2016
(interview results)

- <3.0%
- 3.0 - <4.0%
- 4.0 - <5.0%
- 5.0 - <6.0%
- 6.0 - <7.0%
- >7.0%
- no data gathered, yet

Evolution of avg. CoD value
2014 - 2016

-1.0% +2.7%

less than 3% wind power increase 2014-2016
Trend indicates correlation between cost of debt & interest rates…
Comparison of Cost of Debt & interest rate development

…but the development at EU Member State level is extremely diverse

Source: eclareon, ECB
Comparison of Cost of Debt & interest rate development

Differences in comparison to absolute interest rates - and their potential

Interest Rate vs. Cost of Debt 2016

Source: eclareon, ECB
Cost of Equity Development

Decrease in almost all Member States – change of business models?

Avg. Cost of Equity value 2016 (interview results)
- <9.0%
- 9.0 - <10.0%
- 10.0 - <11.0%
- 11.0 - <13.0%
- 13.0 - <15.0%
- >15.0%
- no data gathered, yet

-1.0% +2.7%

less than 3% wind power increase 2014-2016
Evolution of avg. Debt/Equity ratio
2014 - 2016

Development of debt/equity ratio

Diverging ratios reflect opposing factors in MS

Avg. Debt/Equity ratio 2016
(interview results)

- 85/15
- 80/20
- 75/25
- 70/30
- 65/35
- 60/40
- 55/45
- no data gathered, yet

+5/-5
-5/+5

Evolution of avg. Debt/Equity ratio
2014 - 2016

- less than 3% wind power
increase 2014-2016

- Development of debt/equity ratio
- Diverging ratios reflect opposing factors in MS
- Avg. Debt/Equity ratio 2016
- (interview results)
- +5/-5
- -5/+5
- Evolution of avg. Debt/Equity ratio
- 2014 - 2016
- less than 3% wind power
increase 2014-2016
Conclusions

The Good:  
- Decreasing trend for WACC for wind onshore in Europe
  - Trend more positive than in other sectors

The Bad:  
- Still no converging markets
- Discrepancy in all WACC components
- No wind-onshore deployment in some markets despite decreased WACC
  - Increasing risks for at least some market actors

The Ugly:  
- Relationship between macroeconomic development, policies & WACC development still not entirely clear
  - Predictions of future developments are pretty limited

The Pretty:  
- Huge numbers of approaches to analyze and mitigate this challenge
  - The window of opportunity is open now.
Content

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