



Estimating the WACC for Italian electricity and gas networks

Summary of recommendations

Oxera/AEEGSI meeting

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Overview

- overview of our methodology
- cost of equity in 'normal' market conditions
- country risk premium in the cost of equity



Overview of our methodology

Cost of equity in 'normal' market conditions

CAPM-based return required from investing in equity of a regulated utility, before taking into account the impact the fiscal crisis might have had on required returns

Country risk premium in the cost of equity

Additional sector-specific premium that may be required by equity investors in the current macroeconomic environment in Italy

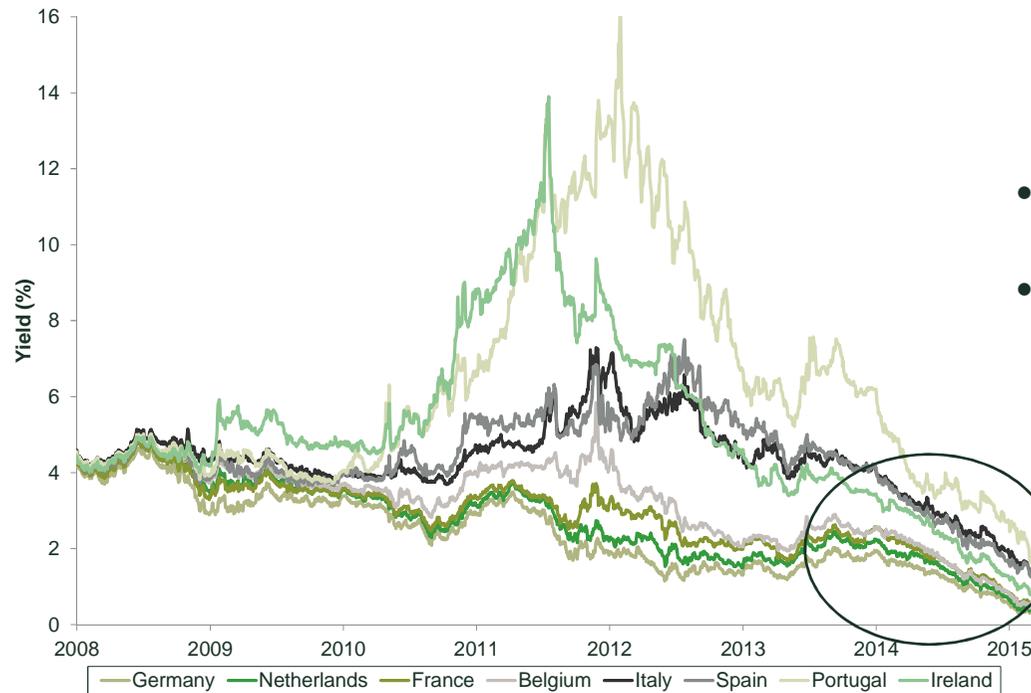
This report also discusses how an automatic review of the WACC could be triggered, and the WACC updated, mid-period

The report also provides some high-level considerations for estimating the sector-specific parameters

Cost of equity in 'normal' market conditions

Real risk-free rate

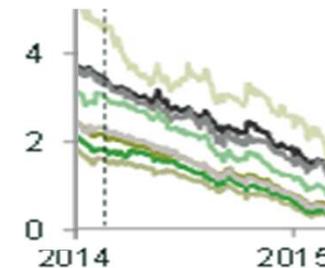
Nominal 10-year benchmark government bond yields



Note: to derive a real risk-free rate, it is necessary to subtract a measure of ten-year expected inflation. Currently this is around 1.7%.

Source: Oxera analysis, based on Datastream.

- closest proxy is the yield on government bonds rated at least 'AA' and considered to have minimal default risk—Germany, Netherlands, France, Belgium
- more stable over time and more consistent with theory
- regulators have typically given weight to recent and longer-term historical evidence
- **recommendation:** use a positive, but low, real risk-free rate



Cost of equity in 'normal' market conditions

Equity risk premium

- evidence on total market return (TMR) more stable over recent time than evidence on the risk-free rate and the equity risk premium individually
- there is greater consensus among regulators on the TMR, despite some variation in the exact decomposition into a risk-free rate and an equity risk premium
 - ERP can be calculated as the difference between the total market return and the risk-free rate
 - alternatively, the evidence on the equity risk premium can be considered directly, consistent with the AEEGSI's current methodology

Country risk premium in the cost of equity

Main approach

Use evidence from corporate debt markets

Compare the difference in yields on bonds issued by Italian utilities and comparable bonds issued by utilities operating in countries with higher credit ratings

Cross-check

Use evidence from equity markets

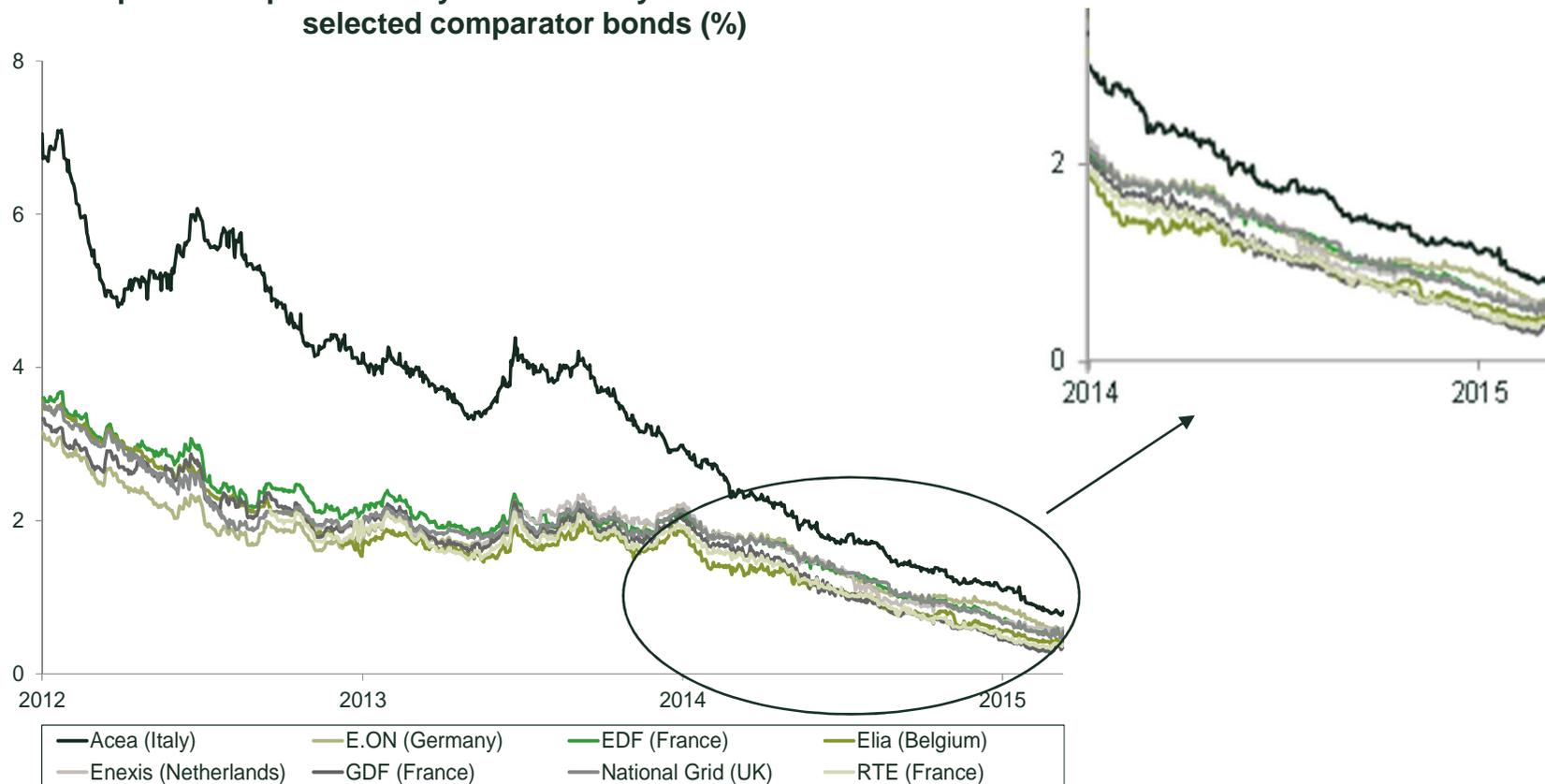
Compare the difference in expected returns on equities in Italy versus equities in countries with higher credit ratings using a range of market proxies for the expected cost of equity

Compare the results of the two methods to derive a range for the country risk premium

- **impact of country risk on costs of debt and equity linked to some degree:** they are attributable to the same sources of cash flow uncertainty
 - utility specific-evidence is relevant since it is possible for utilities to demand a lower risk premium than other sectors as well as government securities
 - evidence supports the inclusion of a country risk premium in the cost of equity
 - **recommendation:** add a country risk premium to the cost of equity (in the order of magnitude of 0.5–1% based on current evidence)

Italian utility bonds trade at a premium to comparable utility bonds operating in jurisdictions less affected by fiscal concerns

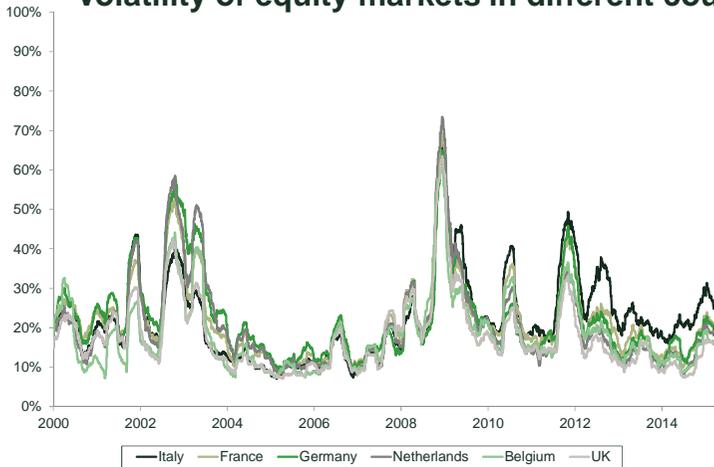
Example of comparator analysis: nominal yields on Acea's bond and selected comparator bonds (%)



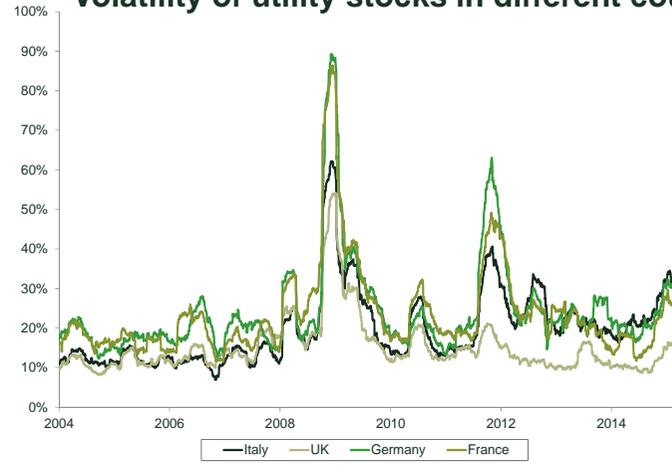
Source: Oxera analysis, based on Bloomberg and Datastream.

Share returns of Italian utilities have been slightly more volatile in recent years than share returns of utilities operating in jurisdictions less affected by fiscal concerns

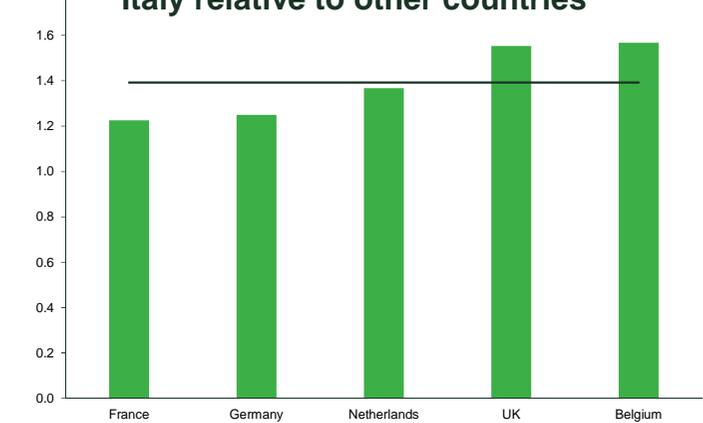
Volatility of equity markets in different countries



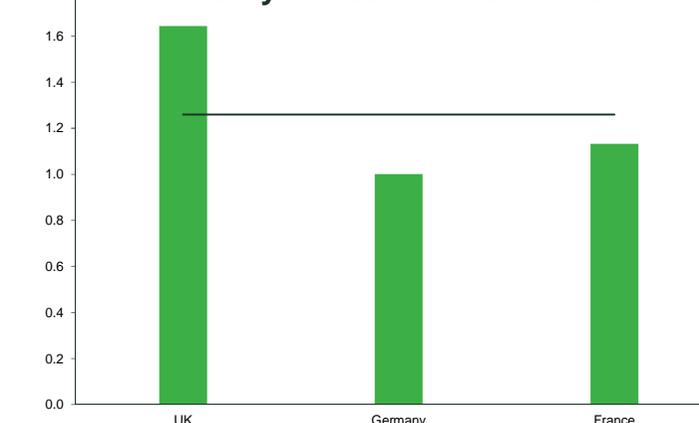
Volatility of utility stocks in different countries



Italy relative to other countries



Italy relative to other countries



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