



Estimating the retail margin

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Retail margin – definition

- Will report retail margin as EBIT:Sales
 - consistent with last review;
 - consistent with regulatory precedent.
- Will also examine other metrics, especially in relation to our benchmarking analysis:
 - EBITDA;
 - NPAT;
 - Gross profit;
 - Etc...

What risks are included in the retail margin?

- Risks can be incorporated in one of three places:
 - Energy purchase costs;
 - Form of regulation (e.g., a risk could be passed through or otherwise compensated for as part of the regulatory process); or
 - Retail margin.
- It is important that no risks are missed and that none are double-counted.
- Consistent with the standard regulatory framework, the retail margin provides compensation for *systematic* or market risk:
 - Systematic risk is that which is related to movements in asset prices generally or to states of the economy;
 - Diversifiable risks are those that are firm- or industry-specific and could be diversified away at the investor level.

Example of risk classification: Carbon price

- There is substantial uncertainty about the future price of carbon:
 - Will a scheme be implemented in Australia?
 - What will the scheme look like?
 - What will other countries do, and how will this affect the price of carbon in Australia?
 - How might the Australian government respond by way of regulation or concession for certain industries?
 - Might all of this change over time?
 - Is the price of carbon likely to be higher during economic expansions and lower during recessions?
- Only the last source of uncertainty is market-related and therefore systematic.
- The last source of uncertainty is tiny relative to the others.
- Consequently, we do not incorporate carbon price risk in the retail margin; that is accommodated in the energy purchase cost and/or the form of regulation.

Retail margin – three approaches

- Three approaches will be used to estimate the retail margin for the standard retailer:
 - **bottom-up approach** – build retail margin from its individual components;
 - **benchmarking approach** – against retail margins in other regulatory decisions, and margins from retail businesses in other industries, and the retail segments of listed energy utilities;
 - **expected returns approach** – estimate retail margin that provides appropriate cash flows to electricity retailers.
- Recommended retail margin will consider results from each of these three approaches.
- The three approaches are designed to corroborate one another and to triangulate around the best estimate.

Bottom-up approach

- Bottom-up approach is based on the regulatory standard for electricity distribution and transmission.
- Approach is to:
 - Estimate value of business:
 - DORC value for distribution and transmission;
 - Multiple of customers or MWh for retailers due to value in intangibles rather than identifiable fixed assets that can have replacement cost valued by engineers;
 - Multiply by estimate of weighted-average cost of capital (WACC) to obtain estimate of fair return on capital;
 - Add operating costs, depreciation, tax etc. to obtain estimate of required revenue;
 - Retail margin is ratio of EBIT to required revenue.
- Approach must be consistent with energy costs and retail costs, so that there is no double-counting and that no costs are missed.

Benchmarking – Regulatory determinations

- Retail margin informed by benchmarking against other regulatory decisions.
- Benchmarking against other regulatory decisions must consider:
 - Risks to which regulated retailers are exposed – in particular, the extent to which retailers are exposed to energy purchase risk, carbon price risk, etc.
 - Historical context – extent to which risks might have changed.
- Greater weight given to regulatory decisions dealing with retailers that are most comparable to the standard retailer.

Benchmarking – retail businesses

- Retail margin informed by benchmarking against other retail businesses.
- Trade-off between relevance of sample and statistical reliability (size of sample).
- Propose to examine three samples:
 - Australian energy retailers (listed and unlisted);
 - Retail segments of Australian, US, UK listed energy utilities;
 - Australian, US, UK listed retailers – including non-energy firms.

Expected returns approach – overview

- Bottom-up approach assumes that the value of the firm can be estimated without knowing the retail margin.
- But a change in retail margin affects the value of the firm.
- Consequently, we seek to estimate both values simultaneously with the expected returns approach – this produces *internal* consistency.
- We then benchmark a range of outputs against comparable firms and commercial common sense (via the other two approaches) – this produces *external* consistency.
- We compare outputs from all three methods for corroboration and to triangulate around the best estimate.

Expected returns approach – overview

- The approach is as follows:
 - For an assumed retail margin, retail costs, energy acquisition costs and hedging strategy, we can estimate future cash flows to the standard retailer;
 - We can discount this using an estimate of the required return (WACC) to provide an estimate of firm value;
 - We can perform this valuation in different scenarios:
 - An “up” market in which there is economic growth and volumes are higher; and
 - A “down” market where volumes are lower.
 - This implies a certain level of systematic risk or “beta.”
 - *Internal* consistency demands that this implied beta is consistent with that used when setting the WACC.
 - An iterative process can be used until this internal consistency is achieved.

Expected returns approach – overview

- We can also test *external* consistency by comparing a number of metrics against external benchmarks:
 - The estimated market value can be benchmarked against comparable entities in terms of multiples of enterprise value per customer or MWh, enterprise value to earnings, earnings per customer, etc – compiled as part of the bottom-up approach;
 - The estimated margins can be compared against those compiled from the benchmarking approach.
- This provides a set of estimates that are both internally and externally consistent.
- This result is then compared with retail margin estimates from the other two approaches.

Estimating cash flows and risk

- Corporate finance and regulatory practice is that returns (retail margin) are required to compensate systematic (or market-related) risk.
- Net Cash Flows are determined by:
 - The state of the economy
 - Energy costs (which depend on the economy)
 - Retail costs (which are largely fixed)
 - Retail margin (which is fixed)
 - Volume (which depends on the economy)
 - Other costs (which may depend on the economy)
- There is a link between net cash flows and the state of the economy and this is the systematic risk that is compensated via the retail margin.
- The expected returns approach is designed to ensure that this is done with a model that is internally consistent and which matches a range of external benchmarks.

Expected returns approach – overview

