Industry Structure – Before & After

History

- Victoria, Australia - the recognition by Government that the Government owned electrical industries were poor performers.
  - Over supply of generation due to conservative planning
  - Low generator availability due to poor processes and systems
  - Gold-plating of transmission and distribution systems
  - High level of industrial disputes and low productivity
  - Significant cross-subsidies and high costs in some areas.

History

- It was also recognised that Government mechanisms would not be able to inject significant change in the short term...
  - Significant risk of industrial disputes
  - Formidable Labour Union strength
  - Entrenched processes and practices
- The decision to privatise was as much based on the cash injection as placing the burden of improvement outside of the government sphere.

History

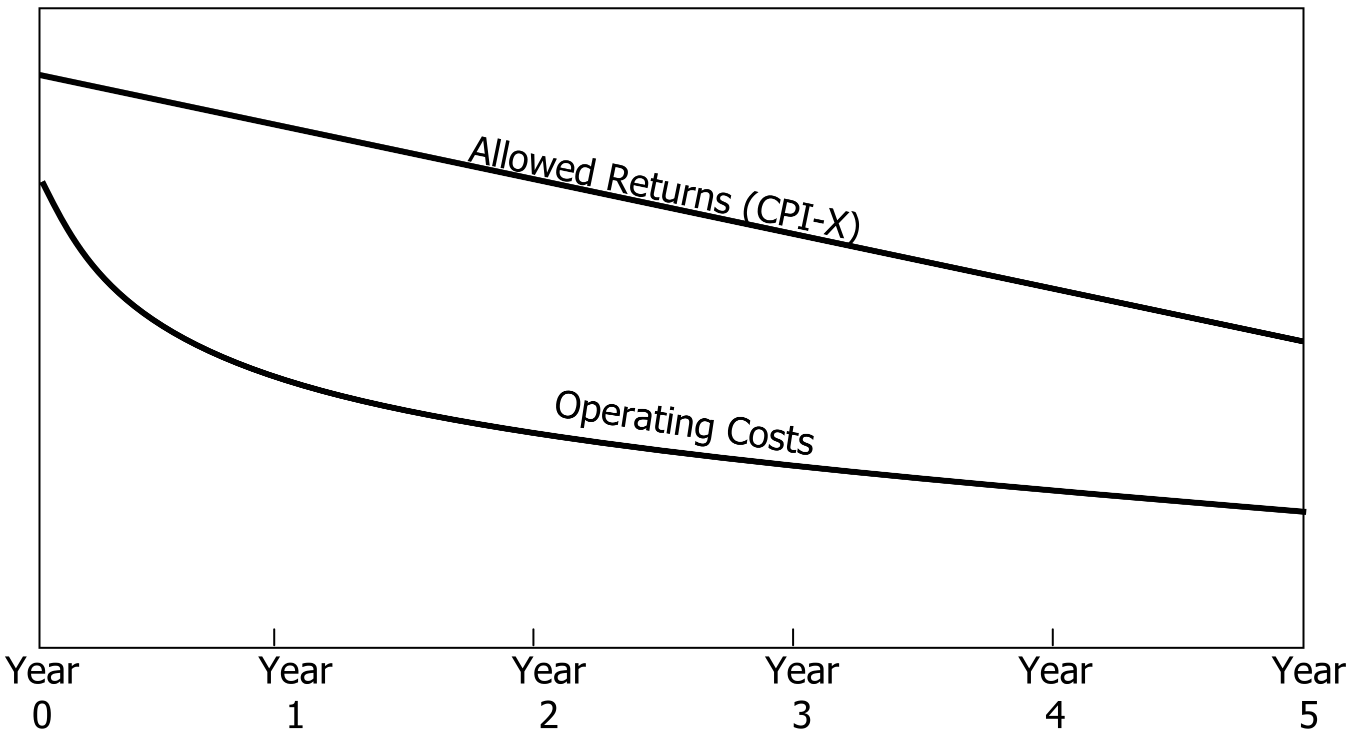
- Union entrenchment and public perceptions were also key factors in the govt decisions
  - SECV Management reports 1991/92-
    - % employees above estimated requirements – 101%
    - Wage increases above national average – 13%
    - Overtime as a % of ordinary hours – 8.3%
    - Production lost due to disputes - $11,230,000

History

- Prospective purchasers saw high returns and paid top dollar for many of the assets
  - Aggressive "selling" of utilities by governments
  - Rates of return set above 10% (for first 5 years)
  - A bidding war developed in Victoria Australia
  - Foreign bidding teams under significant pressure to return with a "trophy"

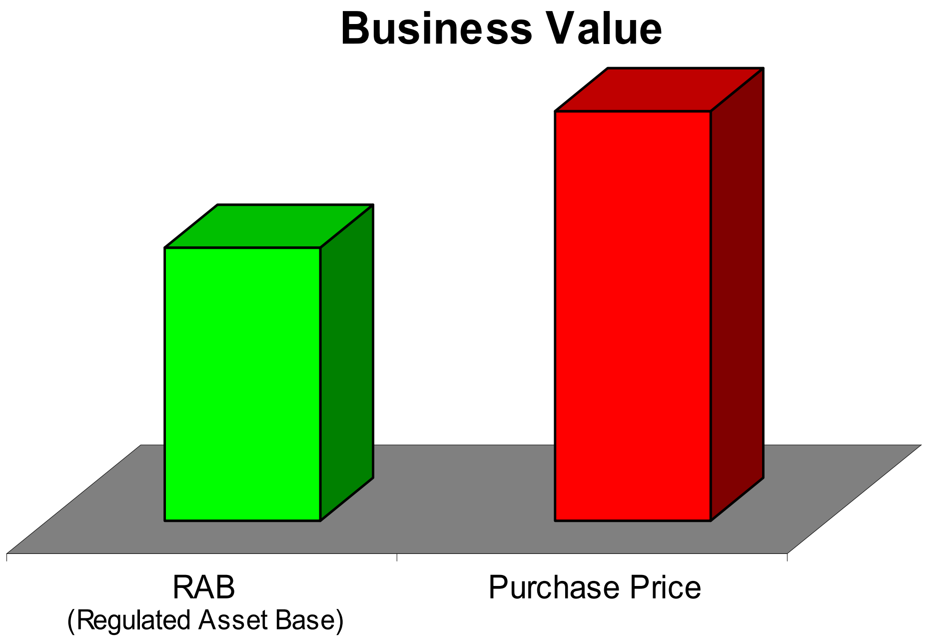
History

- Significant opportunities to push returns up to around 20% through hard-line process improvement and rationalisation.



History

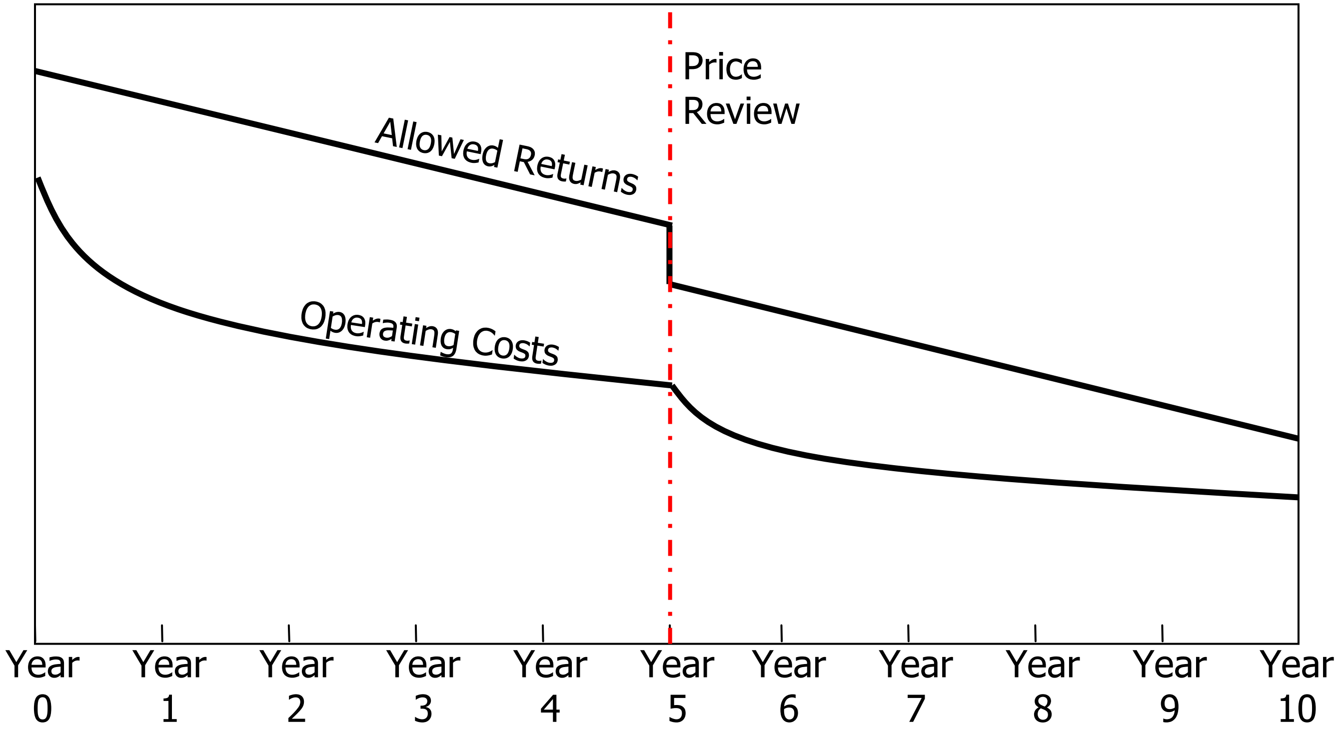
- High returns meant that the business value was greater than simply the sum of the asset values…



- What happens to the Business Value when returns are brought back to WACC?

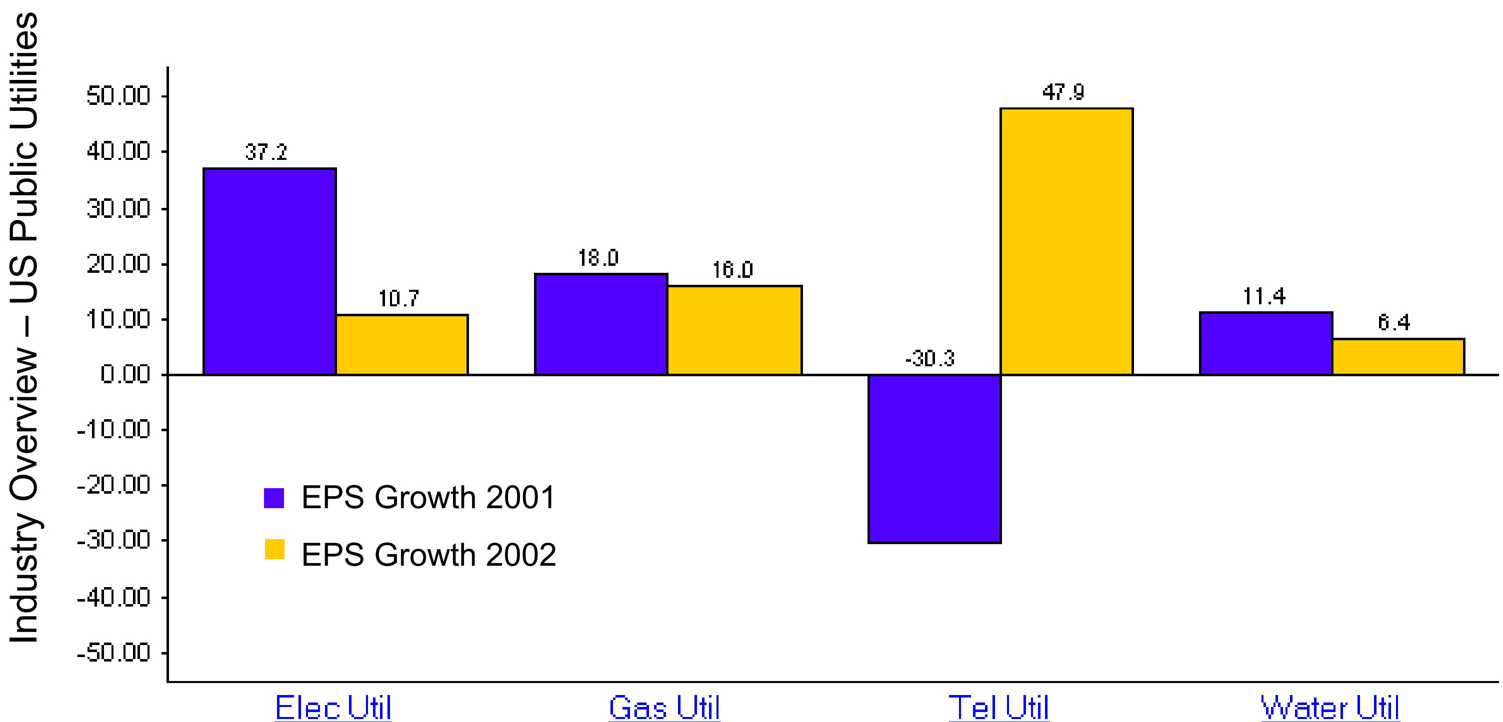
History

- Short-term high-returns were realised in both the UK and Australia, although the regulators are quickly clawing these back.



History

- The US companies have been through a similar cycle.
- Utility stocks have gone from being bond stocks (pension funds) to equity stocks (growth) during the deregulation process.
- Projections signal a return to bond stocks.

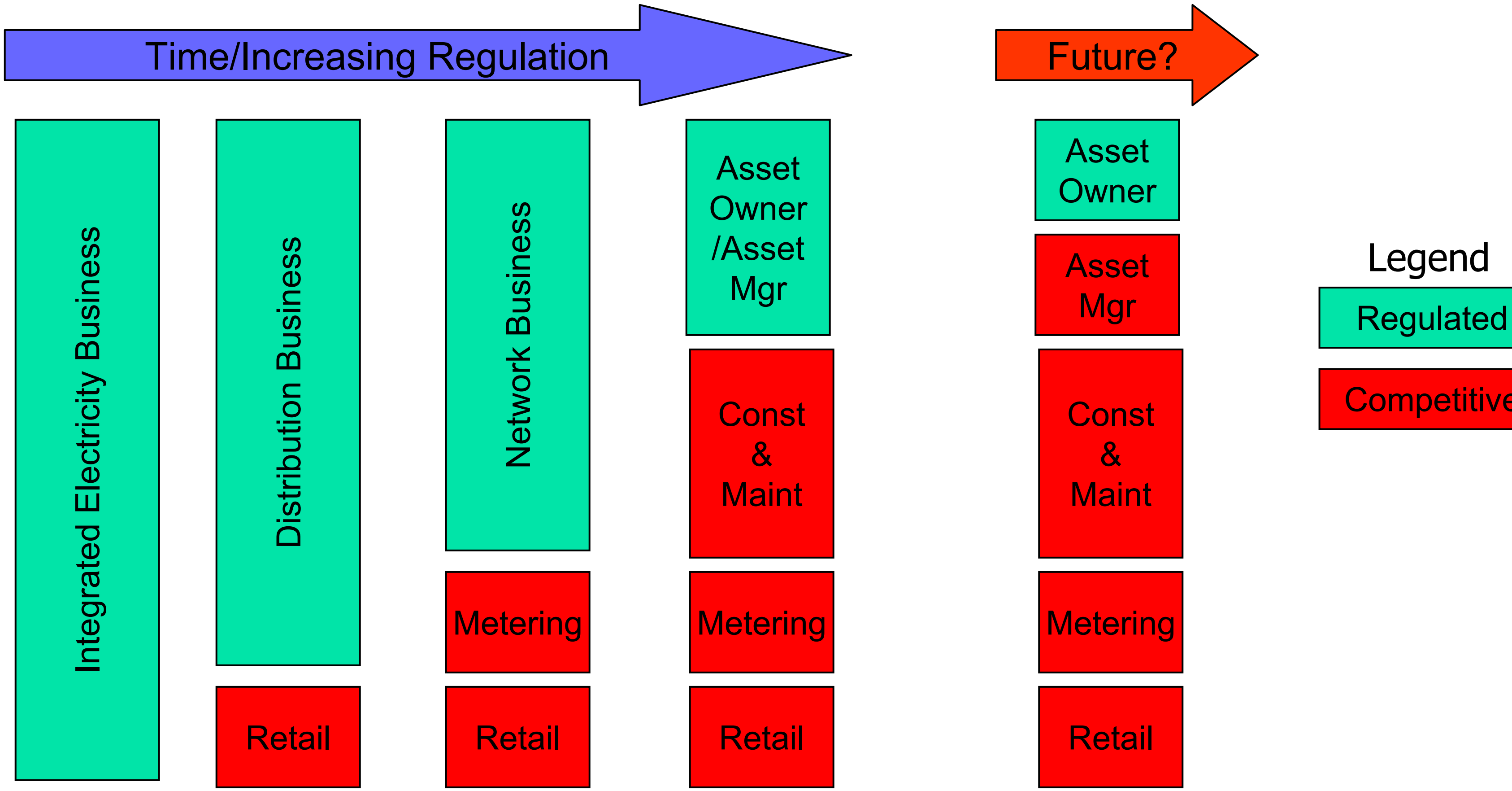


NASDAQ

19/4/01

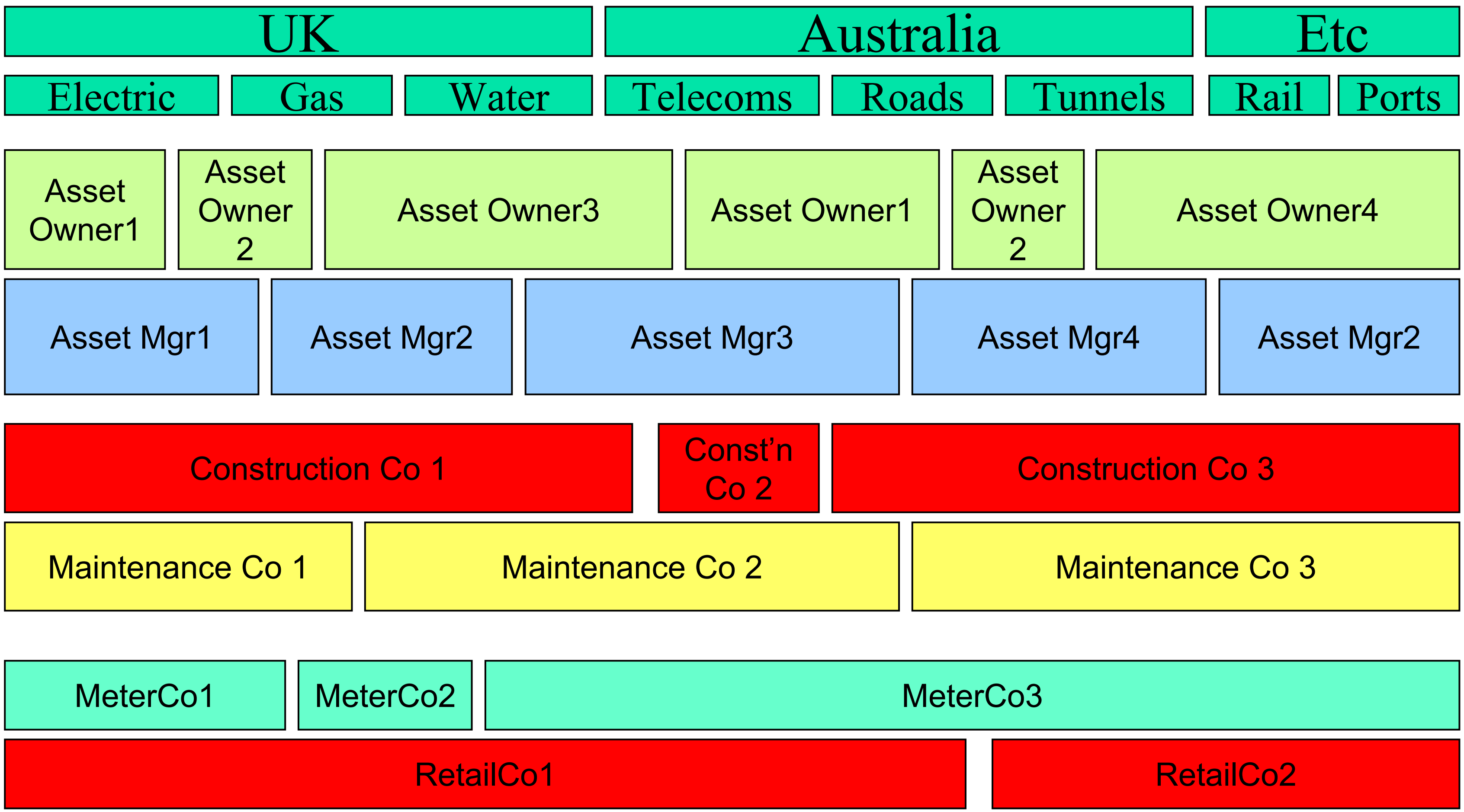
Structure

- Vertical separation of businesses into Asset Owners, Asset Managers, Service Providers and retailers



Structure

- Horizontal integration of businesses (example)



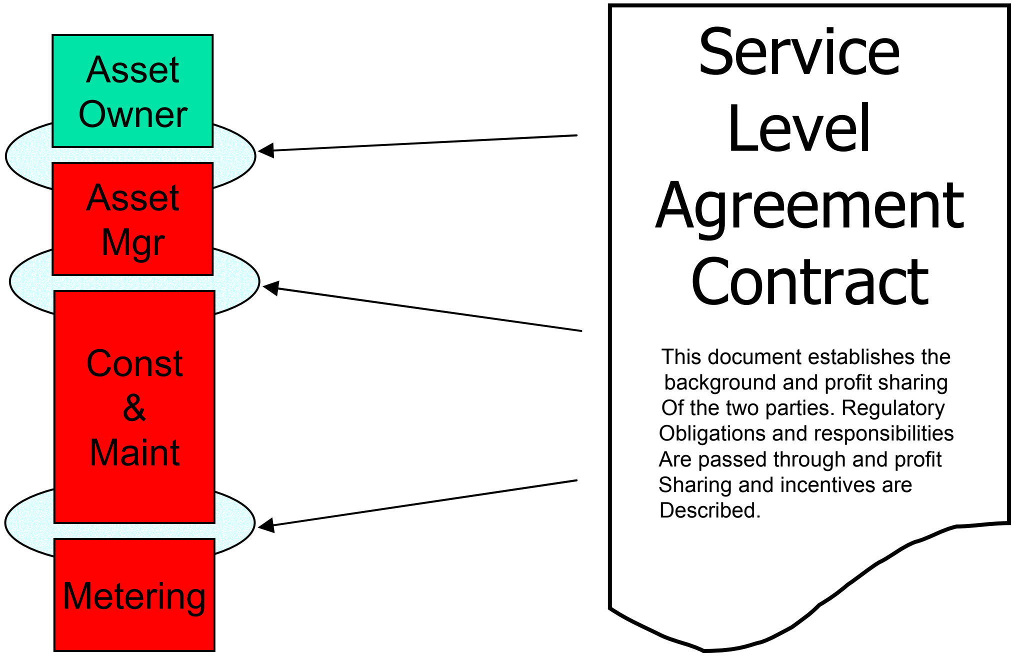
Structure

- Examples:

<table>
<tr><th></th><th>UK
London/ Eastern</th><th>Aust
Eastern Energy</th><th>Aust
United Energy</th><th>NZ
Christchurch & Hamilton</th></tr>
<tr><td>Asset Owner</td><td>EDF/TXU</td><td>Texas Utilities</td><td>AMP/ Utilicorp</td><td>City Council</td></tr>
<tr><td>Asset Mgr</td><td rowspan="3">24/7</td><td>TXUA</td><td rowspan="2">United Energy</td><td>Orion & WEL</td></tr>
<tr><td>Const & Maint</td><td rowspan="2">Enetech</td><td rowspan="2">Multiple Contracts</td></tr>
<tr><td>Metering</td><td></td></tr>
</table>

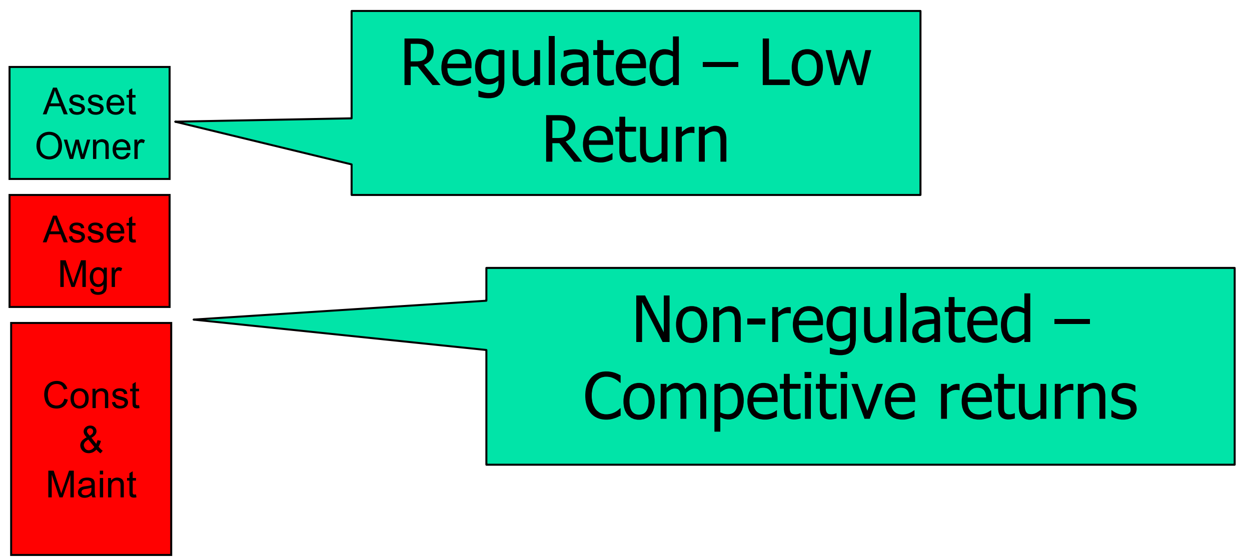
Structure

- Growth of service level agreements to flow obligations downwards and share returns.



What next?

- Question: What to do with a company where shareholders expect growth and regulators only allow bond-style Rates of Return?
- Answer: Split the business in line with risk/return ratios.



What next?

- Asset Owners…
  - Regulators WILL drive asset returns down to bond-stock levels (WACC)
  - Equity investors WILL NOT be interested in these levels of return
  - Fund investors (e.g. superannuation, mutual funds and investments houses) WILL find low risk/low return electrical assets a natural fit with their portfolios.
  - Fund investors WILL NOT want to manage these assets. (E.g. Building and hotel industry)

What next?

Asset Managers…

- Asset managers would operate in a regulated environment but not be regulated on their returns.
- Higher returns could be achieved through…
  - Building Scale:
    - Managing assets for multiple electric utilities
  - Building Scope:
    - Managing assets across industries (e.g. gas, water, telecom, roads)

What next?

- Service Provider returns to remain tight.
- Strategies for improving returns include;
  - Joint ventures and alliances with Asset Managers
  - Building scale across multiple electrical authorities
  - Building scope across multiple industries
  - Niche providers

About PB

- Founded in New York 1885
- Now with 9000 staff
- 200 project and corporate offices
- One of the world's biggest engineering consultants
- Core businesses - transportation, buildings, power
- Contract revenues over US$1,600 million
- Employee owned

About PB – Major Office Locations (non-US)