

Total Factor Productivity Review Framework and Issues Paper

Assessment Framework and Issues

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STRUCTURE

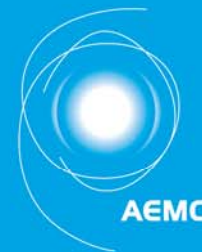
- Assessment Framework
- Design of TFP methodology
- Analysis of costs and benefits
- Necessary conditions
- Applications of TFP to national energy markets

FRAMEWORK

- National Objectives having regard to revenue and pricing principles
 - opportunity to recover efficient costs
 - incentives to promote efficiency in investment, the provision of services and the use of the infrastructure
 - have regard to the regulatory asset base
 - allow for a return commensurate with the regulatory and commercial risks
 - have regard to the over or under investment or under or over utilisation of the pipeline or network
- against counterfactuals of current arrangements

CRITERIA

- strength of incentives for cost efficiencies and the extent that they are shared with users
- promotion of efficient investment for long term benefits
- clarity, certainty and transparency of the regulatory framework and processes
- minimisation of the costs and risks of regulation
- appropriate resolution of transition and implementation issues and cost



ISSUES FOR CONSIDERATION

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ISSUES

- **How** to implement a TFP methodology – many variations possible!
- **Should** a TFP methodology be applied – can it promote the national objectives?
- What are necessary pre-conditions and **can** a TFP methodology be applied today



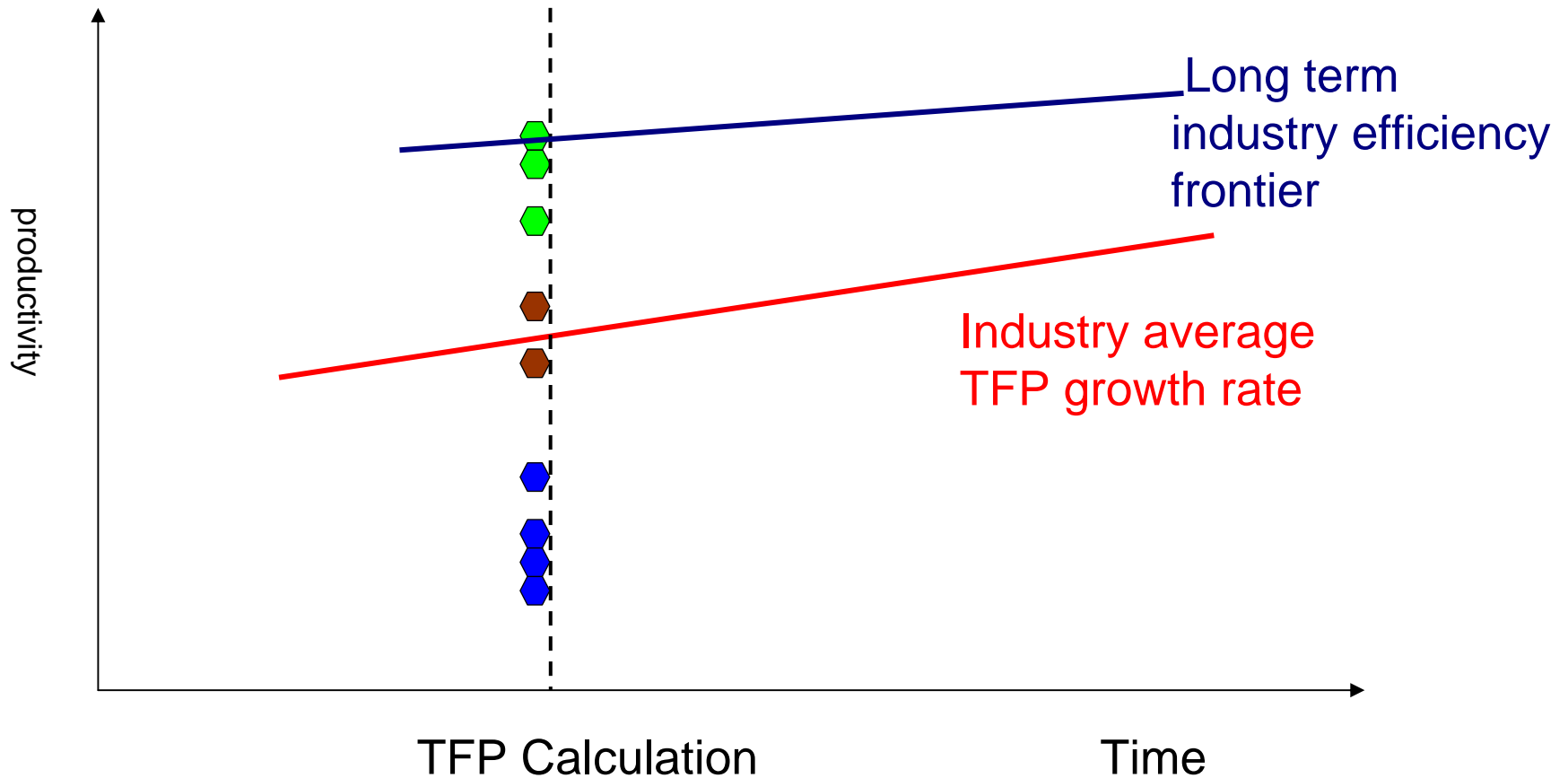
DESIGN OF A TFP METHODOLOGY

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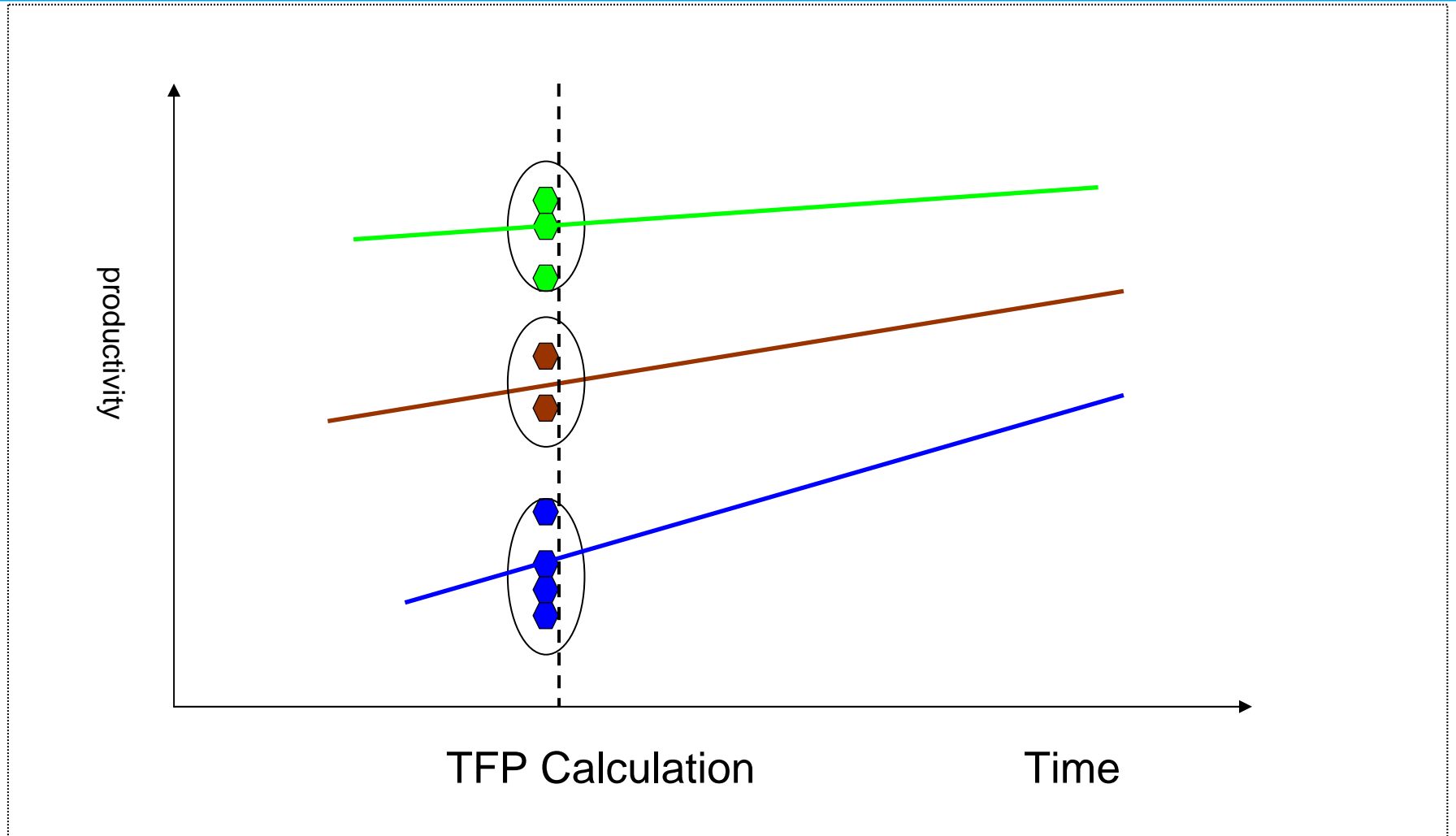
DESIGN OF A TFP METHODOLOGY

- Level of prescription in the Rules
 - Trade off between certainty and flexibility
 - Overseas experience
- Process for opting into a TFP methodology
 - Business consent required
 - Suitability threshold test
- How to define the “industry”
 - Narrow definition or permit data normalisation
 - Use of overseas data
- Process for reverting back to building blocks

DEFINING THE CORRECT “INDUSTRY”



SUB-GROUPING OF BUSINESSES SOLUTION



DEFINING THE CORRECT “INDUSTRY”

Possible reasons for differences in rate of productivity?

- Corporate ownership
 - Jurisdiction requirements
 - Operating conditions
 - Customer characteristics
 - Classification of services
-
- Keen to get stakeholders views

DESIGN PARAMETERS

- Firm specific X factors
- Fixed or rolling X factors
- Determining the initial P_0
- Length of regulatory period
- Off-ramps/earnings based re-opener
- Cost pass through provisions
- Input price index



COSTS AND BENEFITS

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POTENTIAL BENEFITS

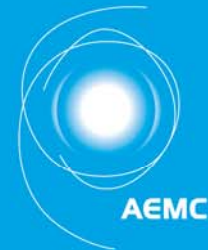
- lower regulatory costs
- less likelihood of disputes (provided there is a generally accepted TFP methodology) since the allowed price path would be based upon historical industry wide data
- overcome the information asymmetry problem
- overcomes the substitution problem between operating expenditure and capital expenditure

IMPACT ON INCENTIVES

- Impact on behaviour of business
 - Efficiency improvements
 - Distribution back to consumers
 - Investment (certainty of efficient cost recovery)
- If, and how, to incorporate existing incentive schemes
 - Efficiency benefit sharing schemes
 - Service standards
 - Demand management

OTHER ISSUES

- Issues with having two forms of control
 - risk of “forum shopping”
- Participation in a TFP based methodology



APPLYING TFP

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NECESSARY CONDITIONS

- Data Requirements
 - Breadth of data-set
 - Integrity of the data-set
 - Should the regulator be permitted to clean up the data?
- Industry Characteristics
 - Future investment profile
 - Maturity of the industry
- How to specify a suitability threshold test?

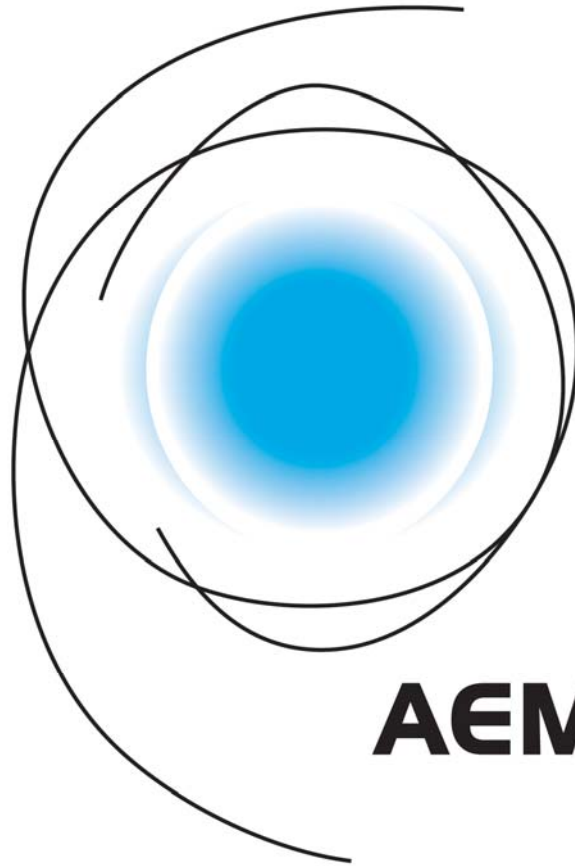
APPLICATIONS IN THE NATIONAL ENERGY MARKETS

| | |
|-----------------------------|---|
| Benchmarking | <p>Rules permit business and AER to use benchmarking techniques. TFP is only one method of many.</p> <p>Is greater prescription required?</p> |
| Transmission sectors | <p>Reasons why transmission sector may not be suitable (profile of investment, difficulty in classifying outputs).</p> <p>Should TFP be available to transmission sector?</p> |
| Distribution sectors | <p>In theory, characteristics are more suitable for TFP. Need to consider the profile of investment and whether distribution business are comparable.</p> |

CONSULTANCY PROJECTS

- Assessment of current data – *Economic Insights*
- Assessment of incentives under TFP – *The Brattle Group*

Both reports will be published as part of the Review



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