



COS
Country and Operations Services

**Learning and Knowledge
Sharing Series**

every 3rd Thursday of the month

Economic Analysis: A Project Design and Decision Support Tool

Thursday, 20 August 2020

Economic Analysis: A Project Design and Decision Support Tool



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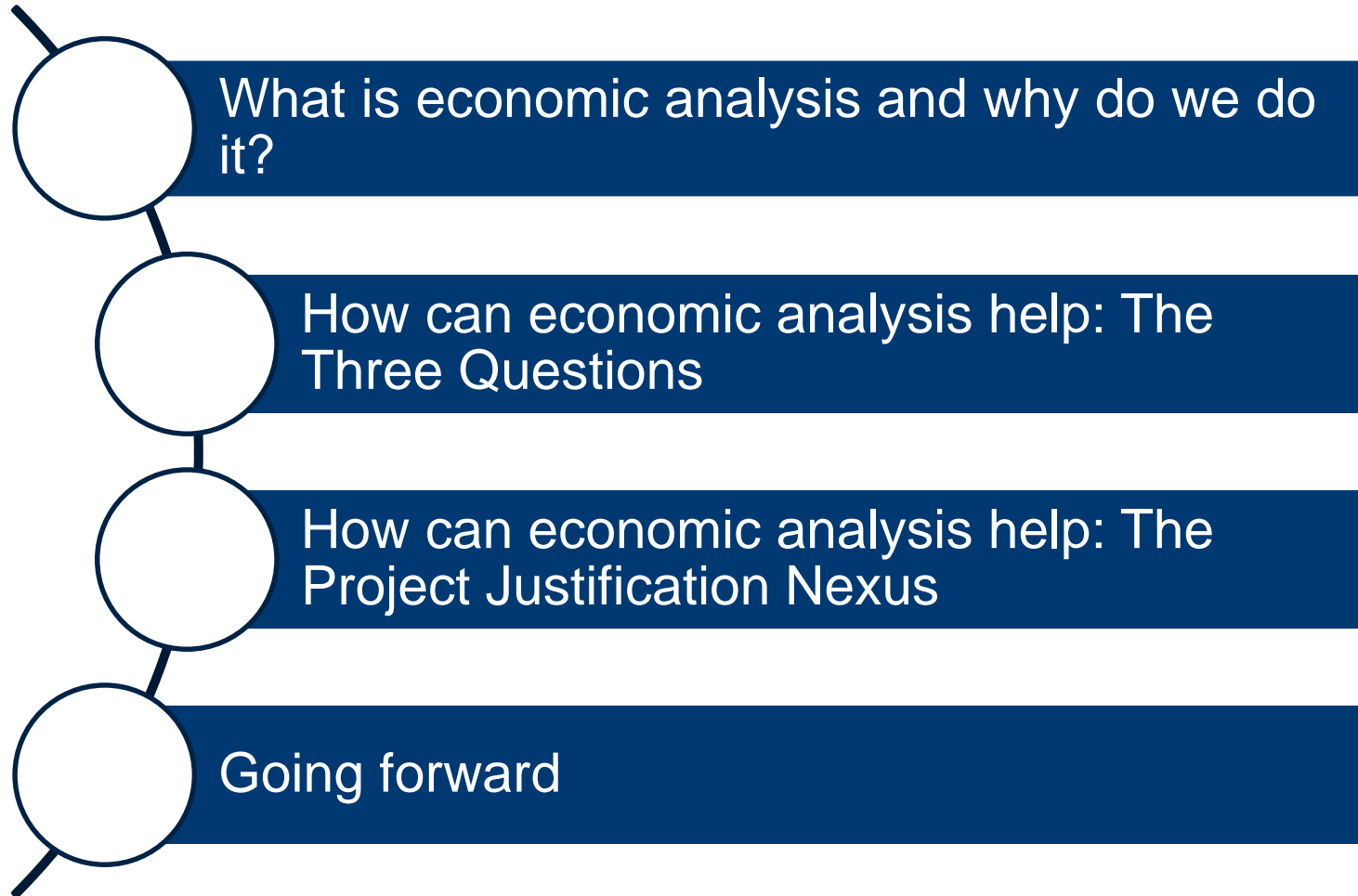
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Session objectives – questions we're aiming to answer

1. Why is economic analysis important to us as the COS community?
2. How can economic analysis help inform project design and decision-making?
3. How can the COS community support task teams in their economic analysis?



Presentation structure



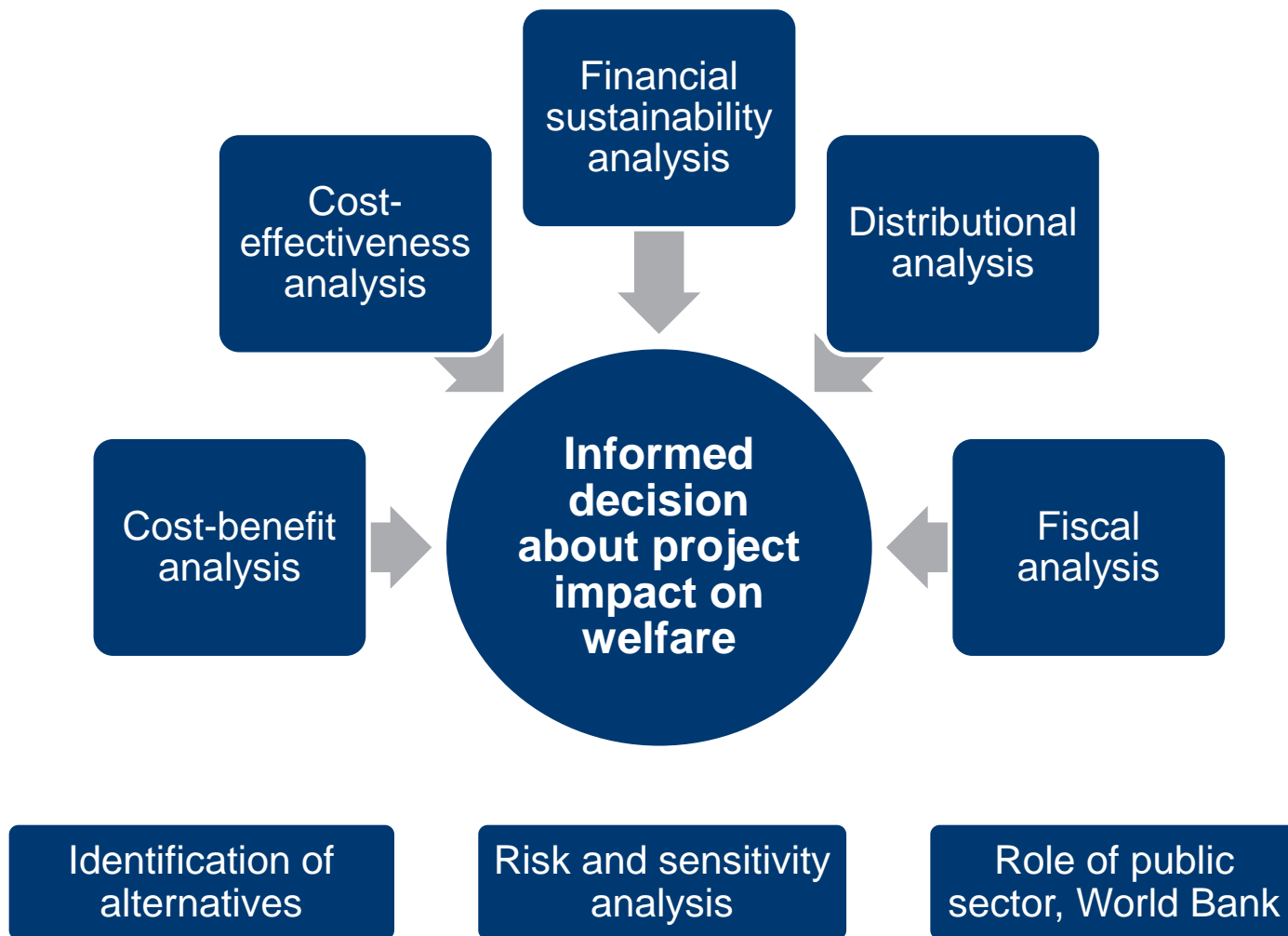
What is project economic analysis?

A **calculation** of the expected stream of benefits and costs and the net impact generated by an investment

A **decision-making tool** that informs investment decisions:
What would happen without the project or program?
Is the proposed approach the best option?

A **method of assessing** the economic rationale for an investment and its contribution to a country's welfare

Economic analysis includes a range of possible approaches and tools



The importance of economic analysis is established in Bank policy

IPF Policy:

- Investment project financing may be extended...with due attention to considerations of economy and efficiency
- The Bank undertakes an economic analysis of the Project, assessing the economic rationale, appropriateness of public sector financing, and value added of Bank support

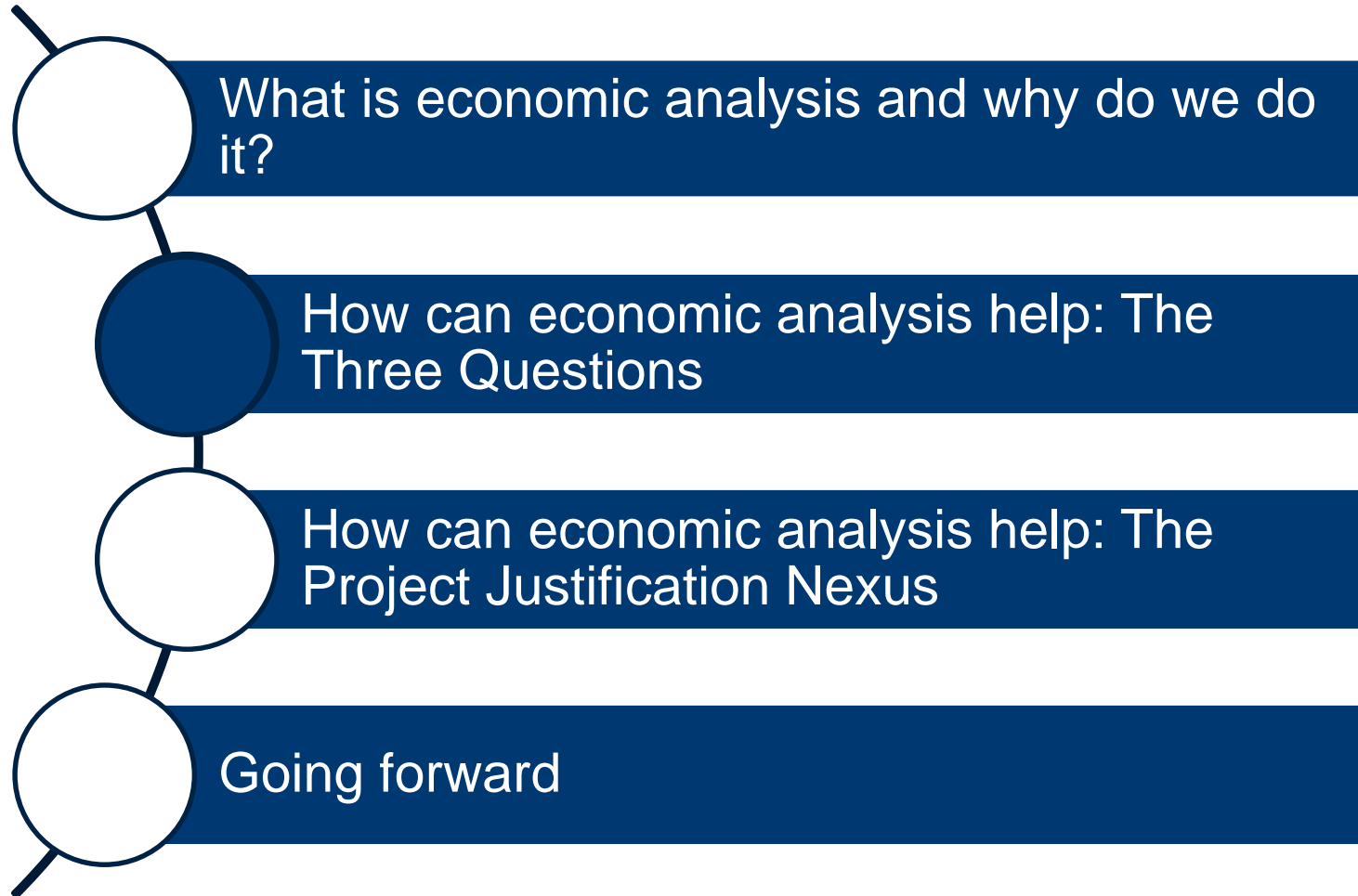
PforR Directive:

- The task team undertakes an economic evaluation providing the rationale for the public provision of the PforR Program...as well as its expected impact [and] the expected added value of Bank support

Ultimately: help inform decisions about project selection and design

1. Identify where scarce resources can have the most impact
 2. Ensure appropriate fiscal impact and financial viability
 3. Ensure benefits are accessible by the poor or other targeted beneficiaries
- ...and many other benefits

Presentation structure



How can economic analysis inform project design and decision-making?

Ideally:

$$\text{EIRR}_{\text{Project1}} (18.4\%) > \text{EIRR}_{\text{Project2}} (15.2\%)$$

More practically: answer the three questions guiding economic analysis to present the economic rationale for a project

Question 1: What is the project development impact?

- Start with the with-project and without-project scenarios
- Identify benefits with the project
 - May be monetizable or not, consider externalities
- Identify project costs
 - Investment costs, recurrent costs, opportunity costs

Then apply specific economic analysis tools

Cost-benefit analysis:

- Monetizes the flow of project benefits and costs
- Summarizes project returns with a quantitative net present value (NPV) or internal rate of return (IRR)



Enables an informed decision about the overall returns of a proposed project, quantitative and comparable, based on transparent assumptions

Then apply specific economic analysis tools

Cost-effectiveness analysis:

- Compares different alternative approaches to achieve a given objective
- Appropriate when project benefits are not easily monetizable



Informs selection between different project design options to achieve a targeted development outcome

Then apply specific economic analysis tools

Financial analysis



Fiscal analysis



Distributional analysis



Question 2: Why public sector provision?

- Want to optimally use the scarce public sector resources
- When a project is presented, ask: is there a sustainable private sector solution?
- If not, explain the public rationale: market failures, externalities, addressing redistribution goals

THE MFD APPROACH

Helps ensure that Bank lending only supports appropriate public sector projects and does not crowd out private sector finance

Question 3: What is the World Bank's value added?

- The Bank has limited resources
- Other development partners may provide complementary (or duplicative) financing
- What comparative advantage do we bring?

Technical input based on international experience	Introducing innovative solutions
Support for implementation capacity development	Procurement, financial management, E&S risk management
Convening power	Oversight of quality of project design

Question 3: What is the World Bank's value added?

- The Bank has limited resources
- Other development partners may provide complementary (or duplicative) financing
- What comparative advantage do we bring?

Informs the decision about the appropriate scope of Bank financing of any given project

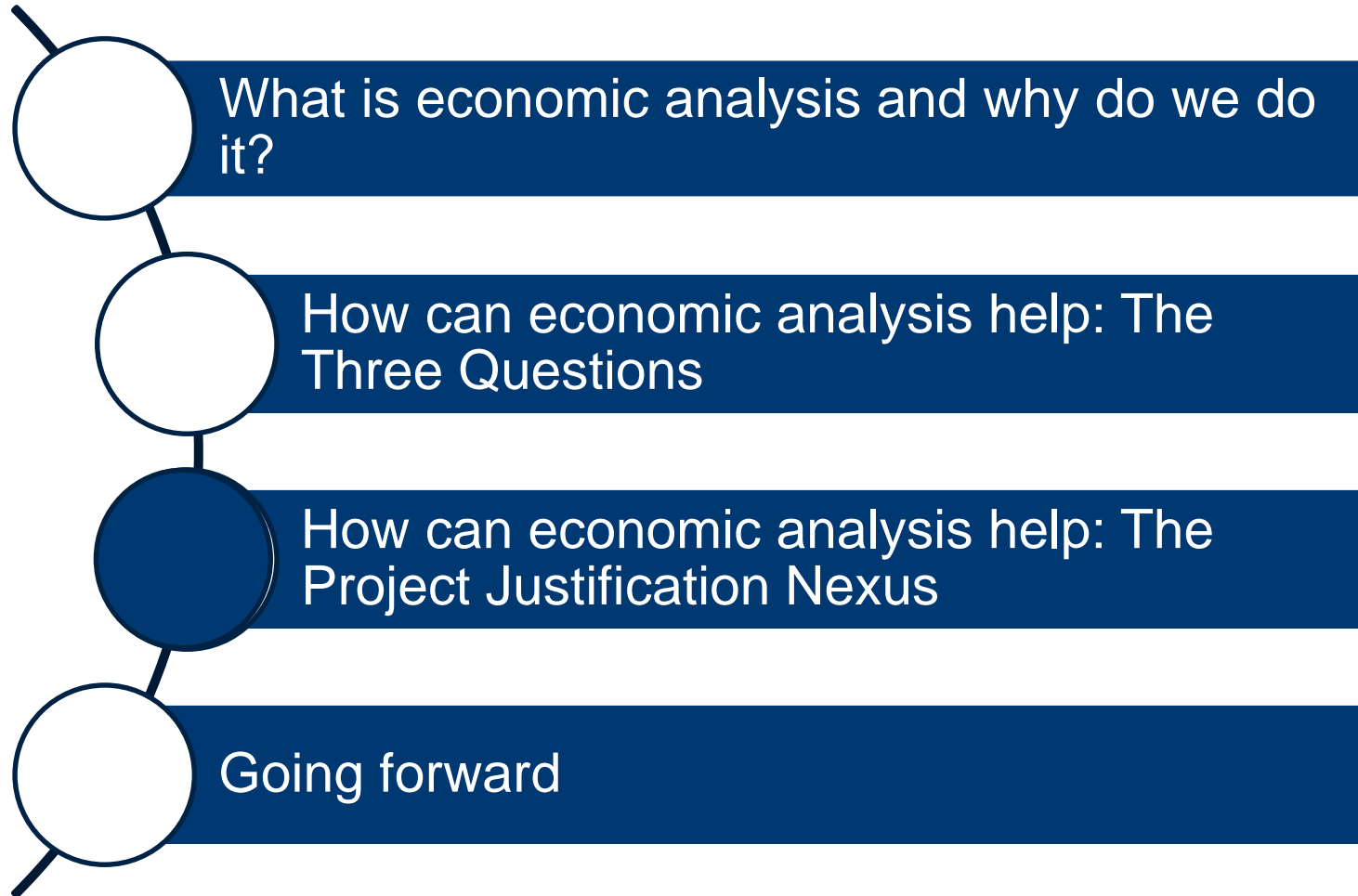
A stylized example: Rural highway construction project



A stylized example: Rural highway construction project

Economic analysis	Project design implications
Cost-benefit analysis: positive return	Favorable project to support
Role of public sector: room for private sector provision	Work with Roads Authority to explore possible public-private partnership arrangement
Financial analysis: not profitable in early years	Not financially viable (for Roads Authority or private sector) in early years; initial public subsidies may be required

Presentation structure



Economic analysis can also integrate project design

- Teams should present an integrated project appraisal of economic rationale, objectives, risks – avoid fragmentation
- Economic analysis should be linked to (and can help improve) other aspects of design – the ‘project justification nexus’

Assessing the integration of project design helps indicate internal consistency, quality of design

Economic analysis ↔ Theory of change

Design element	Integration with economic analysis
Theory of change	Economic rationale, incremental project benefits relative to counterfactual should underpin the theory of change

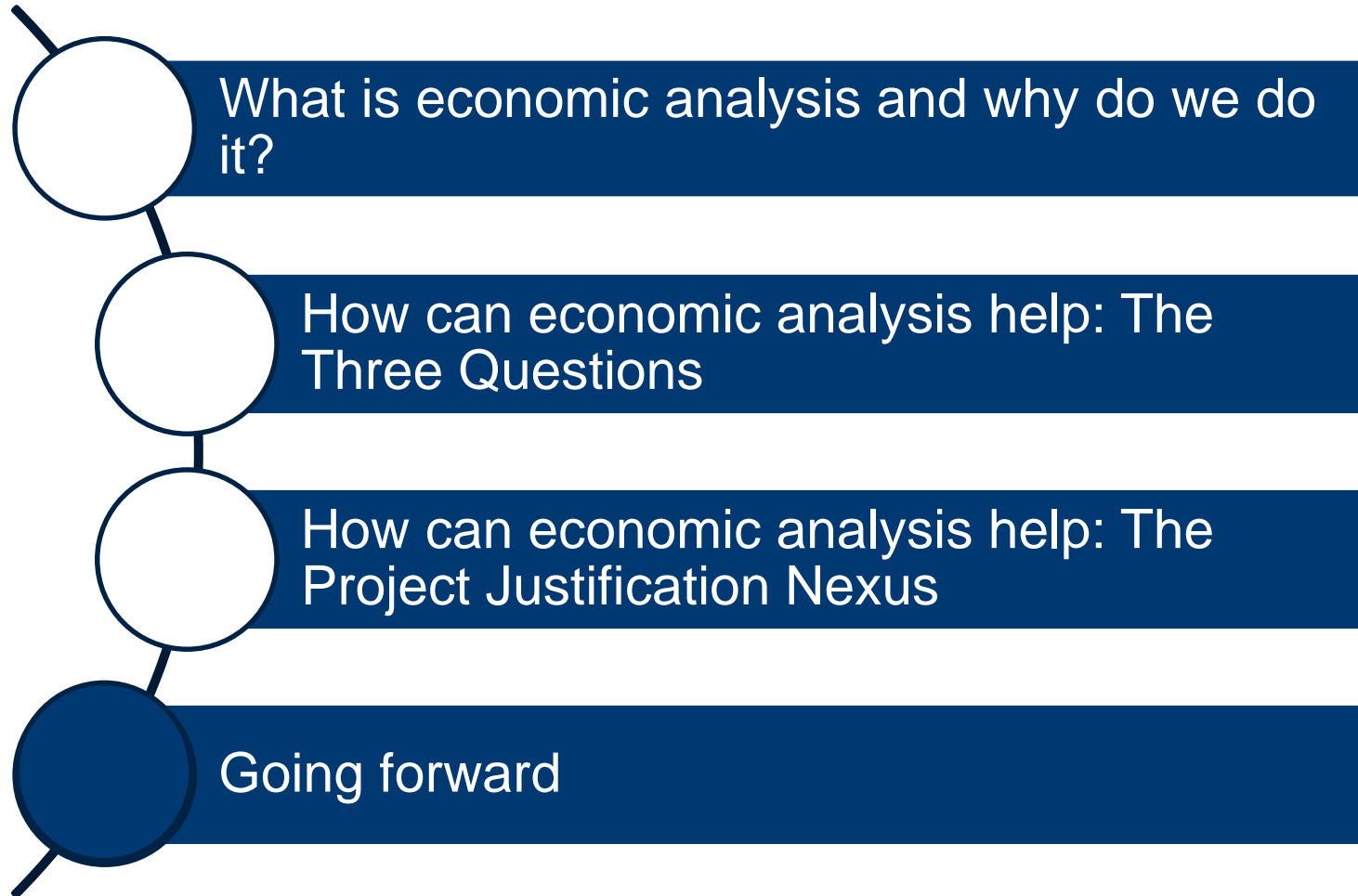
Economic analysis ↔ Results framework

Design element	Integration with economic analysis
Results framework	Outcomes and targets measured by results indicators should be the same or at least consistent with the benefits identified and quantified in the economic analysis

Economic analysis ↔ Risk analysis

Design element	Integration with economic analysis
Risk analysis	Risks to achieving development objectives identified in SORT should be reflected in economic analysis and considered in sensitivity analysis, and vice versa

Presentation structure



Critical role for GPs, technical staff, project economists in conducting economic analysis

- Quality economic analysis: a technical task requiring specialized skills!

$$y = 1 - \frac{f^n \left[\frac{s \cdot l}{f} + \left(\frac{20}{f} \right)^w \right]}{20^n}$$

- Critical to rely on qualified project economists, project finance specialists, GP technical specialists
- Example: recent PG efforts to develop templates, identify qualified economists, to improve quality of economic analysis

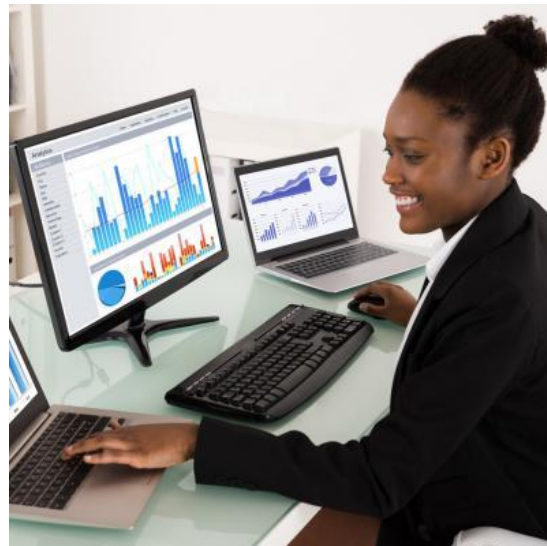
So, what role for COS to support?



- Give attention to economic analysis in reviews
- Are the analytical tools applied well?
- Are assumptions reasonable?
- Is the economic analysis integrated with the rest of project design?



So, what role for COS to support?



- Ensure adequate resources are available for economic analysis, during preparation as well as implementation
- A project economist/project finance specialist should be a core resource, not a luxury...

Thank you

