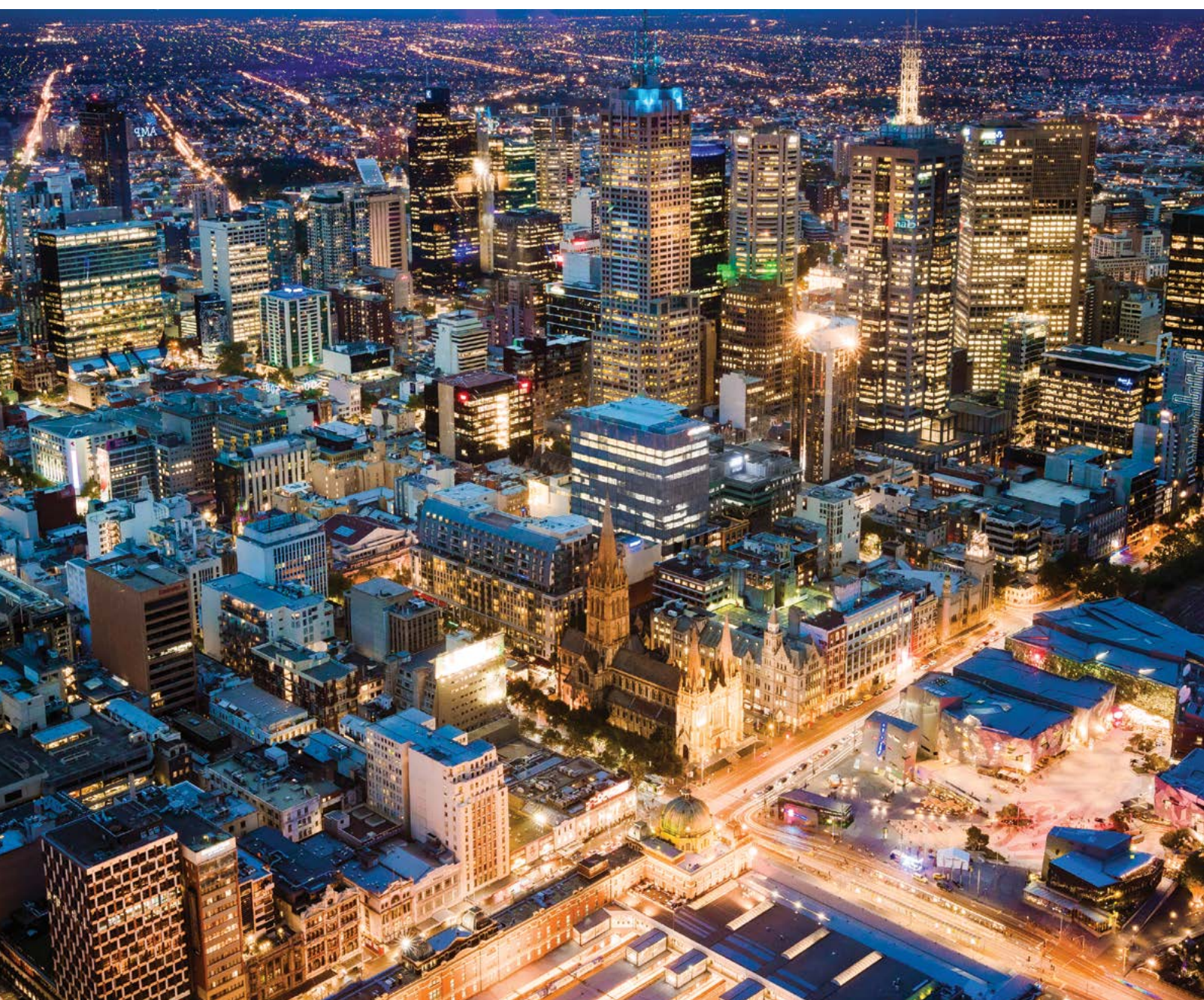




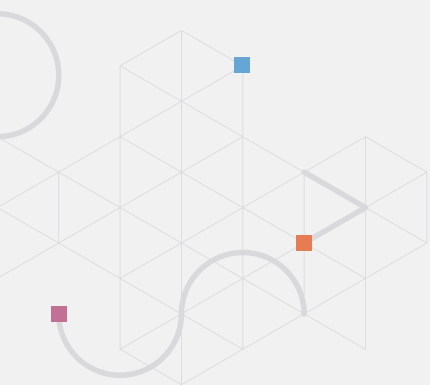
THE UNIVERSITY OF
MELBOURNE

Centre for
Market Design



SPECIALIST CERTIFICATE IN
ECONOMIC DESIGN



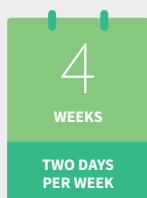


SPECIALIST CERTIFICATE IN

ECONOMIC
DESIGN

Program outline

You can undertake this program in



The Specialist Certificate in Economic Design consists of 2 subjects, each worth 12.5 credit points.

The course covers 8 key topics:

- 01 Introduction
- 02 Strategic behaviour
- 03 Auctions
- 04 Two-sided markets
- 05 Matching markets
- 06 Organisation and incentives
- 07 Antitrust, collusion and regulation
- 08 Program evaluation

The Specialist Certificate in Economic Design is taught face to face at your workplace or at the University of Melbourne.

Accredited by the University of Melbourne, the 25 credit points earned from the Specialist Certificate in Economic Design can be used as a pathway into postgraduate programs offered by the Faculty of Business and Economics, including Master of Economics.

The Specialist Certificate in Economic Design provides relevant economic knowledge and frameworks that assist you in creating innovative solutions to market design challenges.

The course explores economic design principles and mechanisms, current microeconomic developments and methods for more efficient diagnosis and resolution of policy and resource allocation problems.

Who is it for?

The Specialist Certificate in Economic Design is tailored to people who use economics in their day to day roles; from business strategists, policymakers to regulators.

The course is highly interactive and taught by a team of microeconomics scholars.

Delivered in intensive mode for cohorts of up to 25 people and often onsite at your workplace, the course is ideal for working teams.

Assessments

Each topic of the course has participatory, experimental and written assessment components.

Entry Requirements

In order to be considered for entry applicants must meet prerequisites:

- » An undergraduate degree or equivalent qualification, plus at least 5 years documented, full time, relevant professional experience or;
- » 10 years relevant professional experience which demonstrates the capacity to successfully undertake the course.

The minimum English language requirements for this course are Band 6.5.

Meeting these requirements does not guarantee selection.

Application and fee information

For current information on how to apply, course dates, locations and fees please visit our website or contact us

T: +61 3 8344 8805

E: cmd-courses@unimelb.edu.au

For more information or to apply online visit fbe.unimelb.edu.au/cmd

“I draw upon my learnings from the Specialist Certificate in Economic Design often – the course provides a framework for analysis when governments buy, sell or interact with a market or service.

The sound theoretical basis and practical tips the course offers really helps to ensure the policy advice and analysis I provide to Government is accurate and high quality.”

Sharon Oxlade

Senior Economist
Department of
Treasury and Finance



“The Specialist Certificate has been a great refresher across a range of designed mechanisms. The condensed introduction to concepts has been really helpful for someone like me who doesn’t have the time to survey the literature in all the fields of economic design and program evaluation.”

Duy Nguyen

Senior Econometrician
Department of Treasury
and Finance



“In a compact format, the Specialist Certificate in Economic Design brings insights and methods from modern microeconomics to people who use economics in their day to day roles; from business strategists, policymakers to regulators.

The executives who undertake our course gain an in depth understanding on a diverse range of topics including randomized control trials, efficient pricing of scarce resources and revenue generation.”

Professor Simon Loertscher

Director
Centre for Market Design



“The CMD’s Specialist Certificate provides a framework grounded in state-of-the-art methods in economic theory and program evaluation that enable executives to predict and evaluate the impact of policies and technologies in markets.

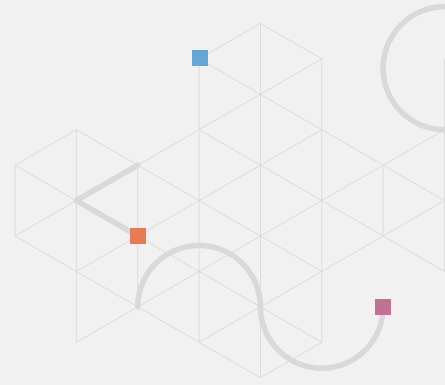
In the course, we use current market design challenges in energy, transport and childcare sectors to help participants create real, applicable solutions.

Associate Professor David Byrne

Director of Capability Building
Centre for Market Design

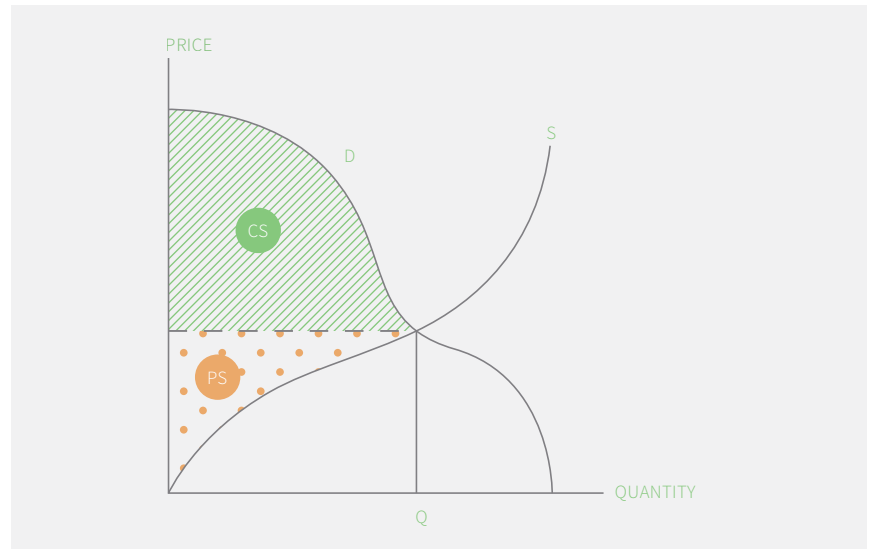


TOPIC OVERVIEW



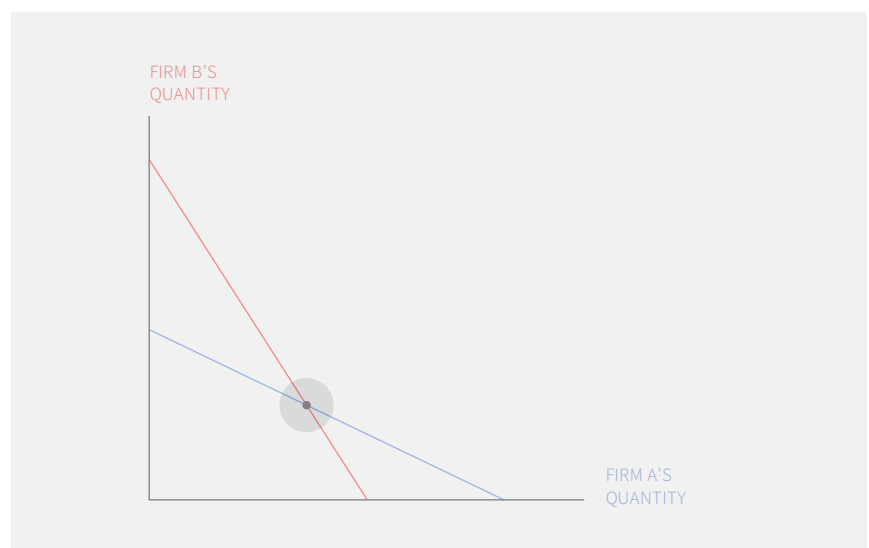
01 ▶ Introduction

- » The economic design process and its relevance to policy development
- » Policy complexities and their implications for efficient policy design
- » How to relay key framework concepts to a non-technical audience
- » How to use economic design principles when assessing proposed policy interventions
- » Property rights; Coase Theorem and sources of transaction costs.



02 ▶ Strategic behaviour

- » A framework for understanding and describing incentives of different agents in a system and how they interact or transact
- » Basic concepts from game theory and analysis of strategic behaviour
- » Ways in which problems can be framed including:
 - Nash equilibrium
 - Dominant strategies
 - Subgame perfection
 - Imperfect information.



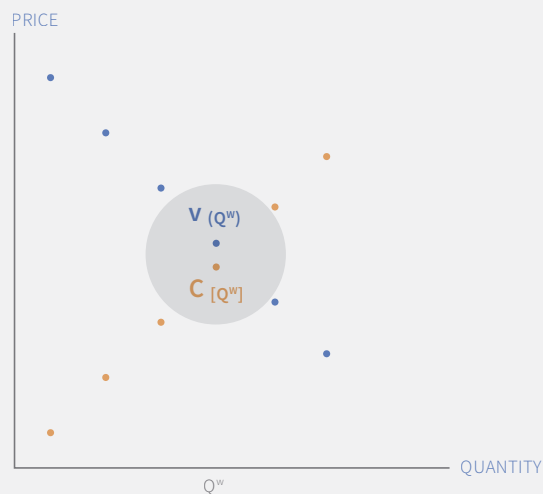
03 > Auctions

- » Why auctions are important
- » Key available auction formats:
 - Their major markets
 - Their characteristics and properties
 - How they compare and why one would be chosen over another
- » Potential issues in practice; collusion and winner's curse.

$$b(v) = \frac{\int_v^v x dF_{(1:N-1)}(x)}{F_{(1:N-1)}(v)}$$

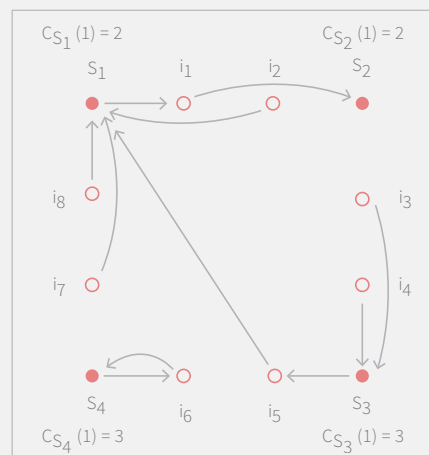
04 > Two-sided markets

- » Secondary markets – where two parties are making a transaction.
- » Key differences between primary and secondary markets
- » Information, strategic behaviour
- » Impossibility of efficiency without incurring a deficit
- » Market thinness as an impediment to efficiency
- » Case studies.



05 > Matching markets

- » Benefits of centralised matching over other forms of allocation
- » Different types of matching mechanisms: random priority, immediate acceptance, deferred acceptance, top trading cycle mechanisms
- » Desirable properties of mechanisms: stability/fairness, efficiency, transparency
- » Dynamic matching problems and the allocation of public housing
- » Applications of matching markets in Australia.



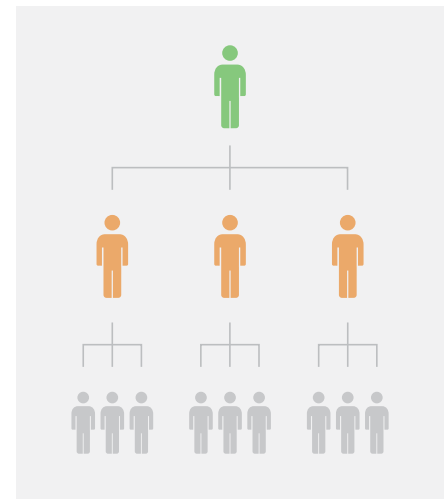
06 ▶ Organisations and incentives

Contracts theory

- » Economic theory behind contracts through the principal-agent framework
- » Strategies for addressing asymmetric information between contracting parties
- » Alternative approaches to regulation, incorporating features of contract design
- » Practical applications – e.g. analysing incentives in biosecurity inspections.

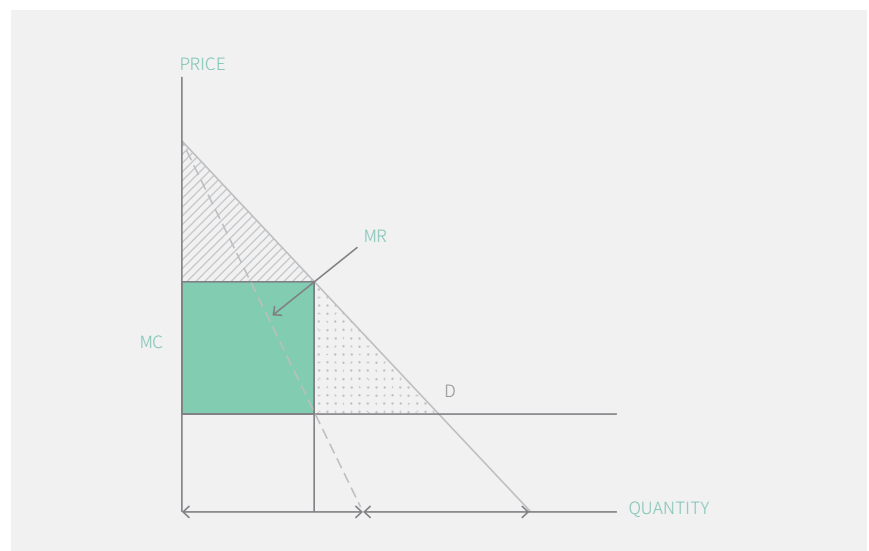
Economics of organisations

- » Deciding who should own an asset: specificity and the holdup problem, adaptation, transaction costs
- » Agency theory revisited: formal and real authority, hierarchies and incentives, career concerns, incentives in teams.



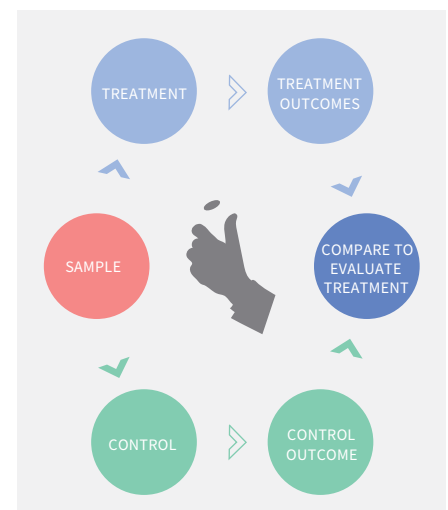
07 ▶ Industrial organisation

- » The functioning of a cartel and a ring (in the case of collusion), and situations in which they may arise
- » The Economics of Cartels; the effects of cartel and implementation of cartel agreements
- » How the antitrust department works and how to infer collusion from economic evidence
- » The economics of bidding rings in the case of collusion
- » The effect of auction or procurement design on the collusion structure, and the detection of collusion using economic evidence
- » Natural monopolies and price regulation; Ramsey pricing.



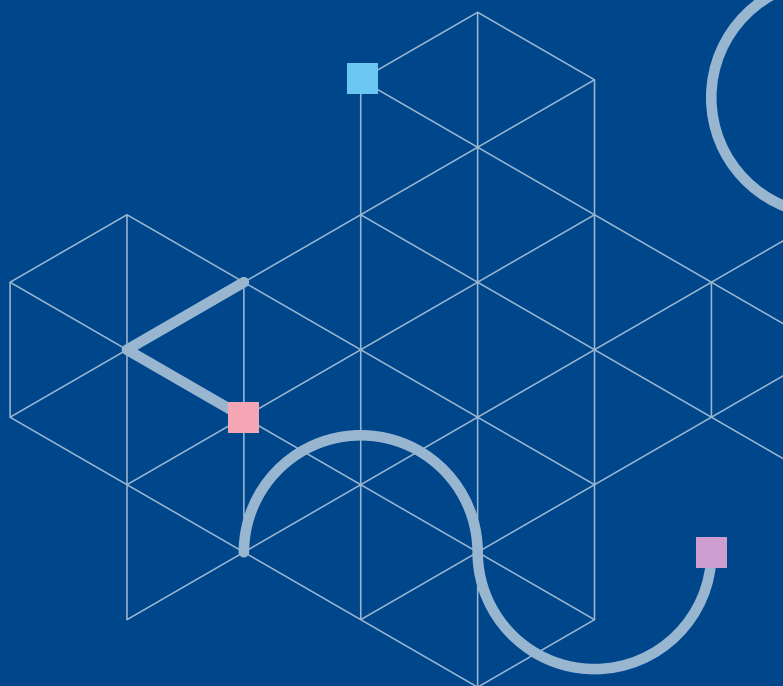
08 ▶ Program evaluation

- » Overview of the Rubin model for causal model for inference
- » The role of lab experiments for examining different design elements of prospective policy initiatives and evaluations of the importance of different design elements with programs
- » Design, implementation and evaluation of field experiments for program evaluation
- » “Natural experiments” with non-experimental data that can be exploited for program evaluation:
 - Event studies
 - Difference-in-difference
 - Regression discontinuity designs
- » Introduction to structural econometric modeling and the advantages it provides in quantifying the welfare effects of a program and predicting the effects of alternative program designs.



About the CMD

At the Centre for Market Design we create innovative and inspiring solutions to market design challenges. We are global leaders in economic research and collaborate with governments and industry. We are a University of Melbourne research centre in the Faculty of Business and Economics. Our core areas of expertise include auction design and matching markets, game theory, mechanism design, lab and field experiments and structural econometrics.



Contact us

Centre for Market Design
The University of Melbourne
Level 4, 111 Barry Street
Carlton Victoria 3010

E: cmd-courses@unimelb.edu.au

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