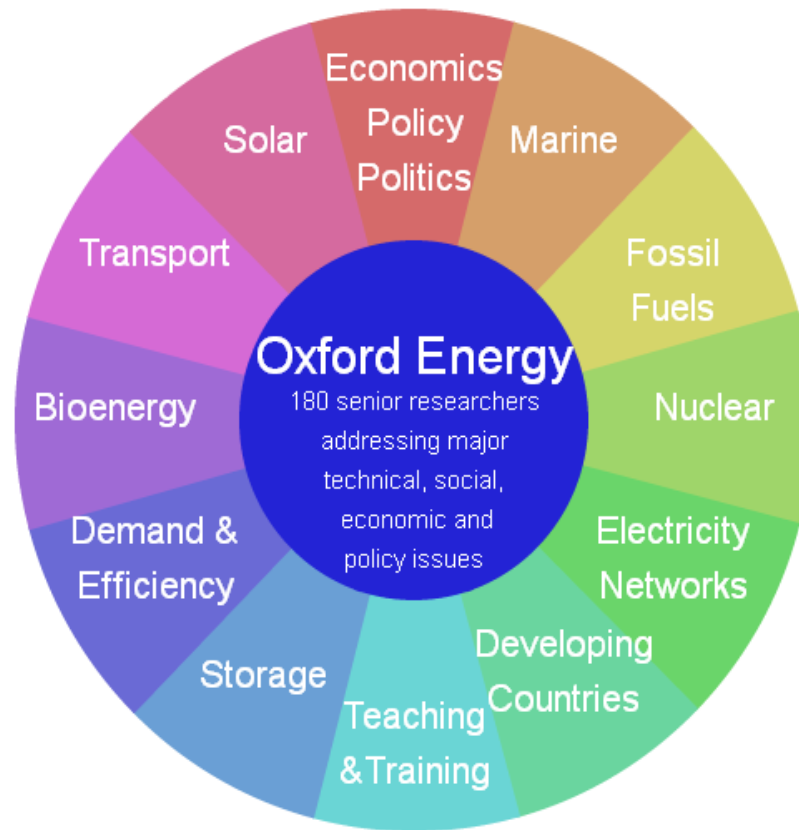


Who should decide the evolution of the energy mix in a central buyer model?



www.energy.ox.ac.uk

Who should decide the evolution of the energy mix in a central buyer model?

Oxford Energy

Cameron Hepburn

Professor of Environmental Economics
Smith School and INET at Martin School,
University of Oxford and New College

Professorial Research Fellow, LSE

Wednesday 4 June 2014



Agenda



1. State of play
2. How did we get here?
3. Possible future directions

This is a “challenging period” for the energy sector

Two key decisions:

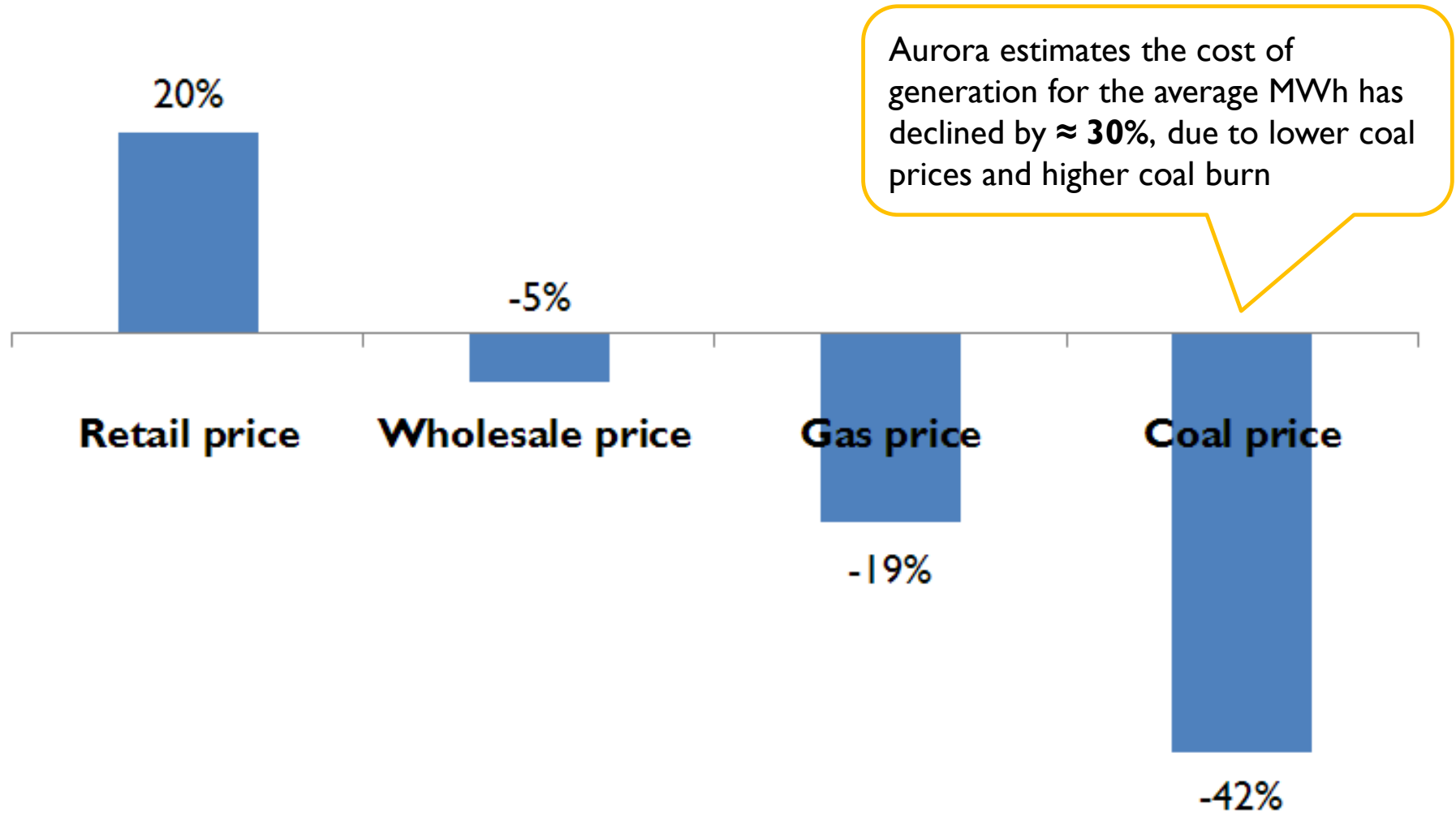
1. What to dispatch (in the short run)?
2. What to build (for the long run)?

The 3 key objectives of an energy system are under pressure:

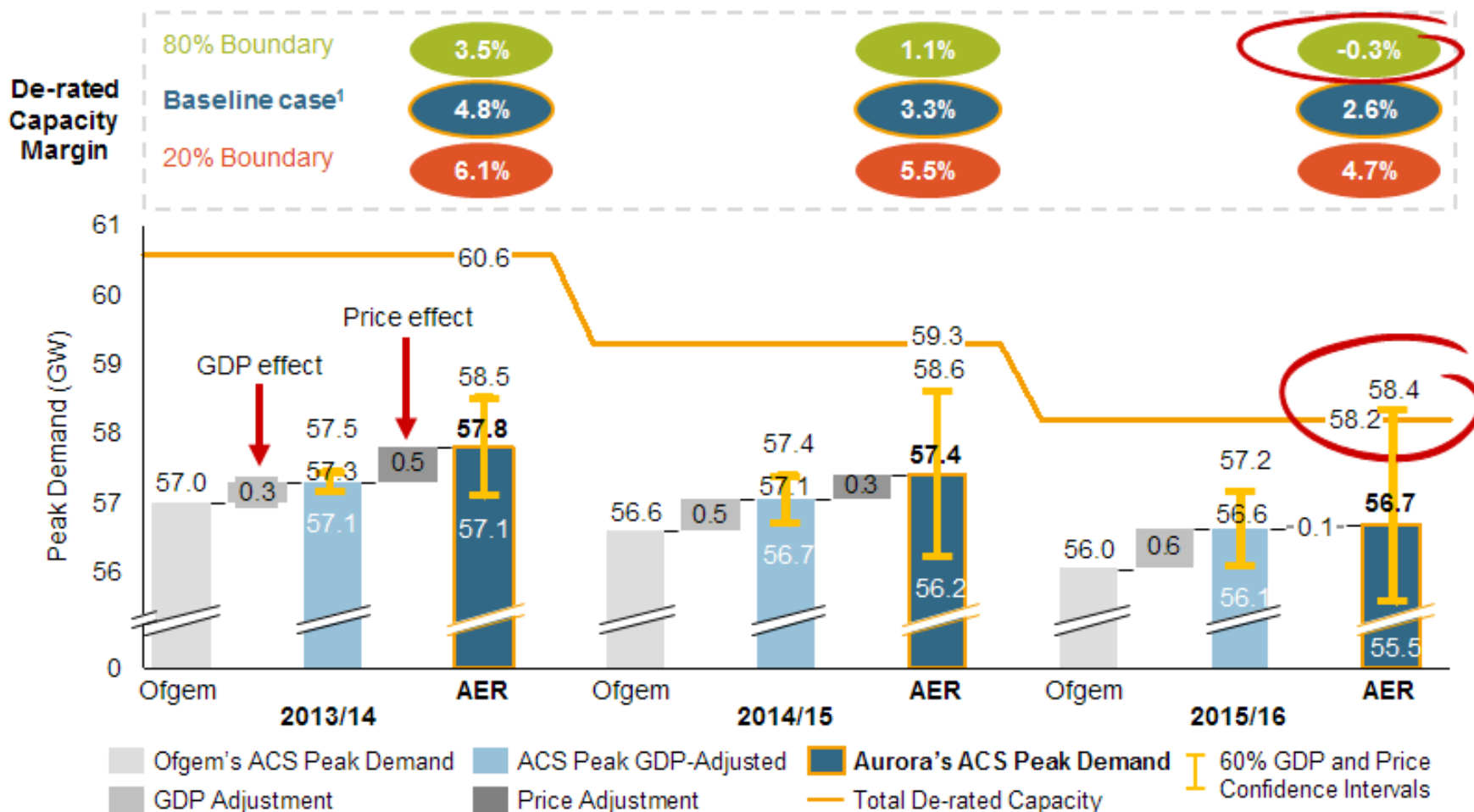
1. **Prices**
2. **Security** of supply
3. **Environmental** objectives met

Prices: retail prices have been rising, but wholesale prices have been falling as have fuel input costs

Percentage change 2011-2014



Security: Capacity margins are tight – 20% chance of negative margin in 2015/6, Grid taking measures

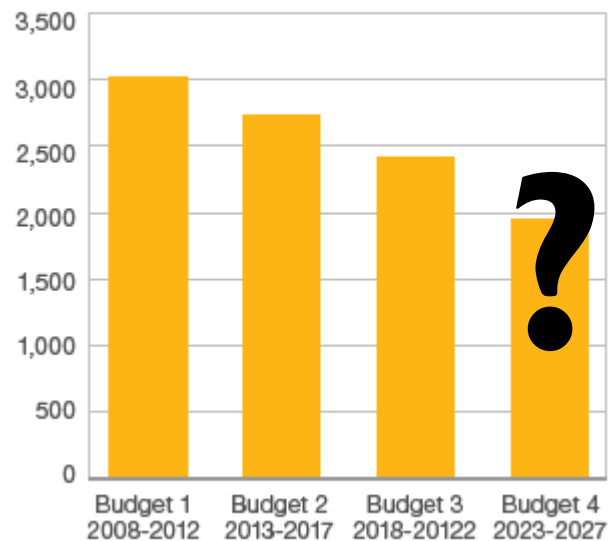


central case is constructed by using directly the BOE's median projection of the GDP growth and futures commodity prices. Due to the skewness, this value does not correspond to the median or the mean of the ACS Peak Demand distribution. The 60% GDP and Price Confidence Interval was derived by treating fuel commodity prices, carbon prices and the resulting electricity prices as independent of GDP level.

Environment: Climate targets are under review this year – the carbon price floor has been frozen

The UK's falling carbon budget, 2008-2027

Millions of tonnes of carbon dioxide equivalent



Source: CCC calculations



These problems are deep and structural, and not specific to the UK

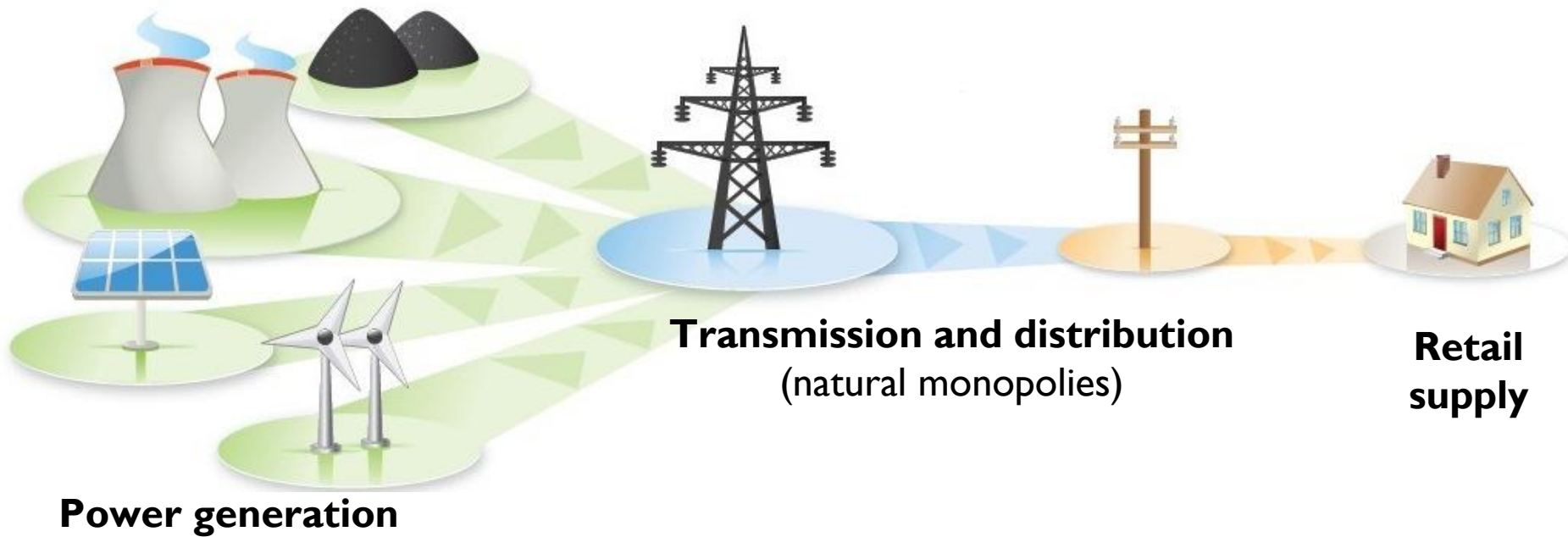
1. Wholesale power markets across EU are doing a reasonable job at dispatching the lowest short-run cost plant, but:
 - But very old plant can receive excess profits (above IRRs);
 - Markets by themselves are not stimulating “new build”
2. So governments are coming to the rescue with more interventions
 - Hard to find an EU government without a capacity market under consideration

Agenda



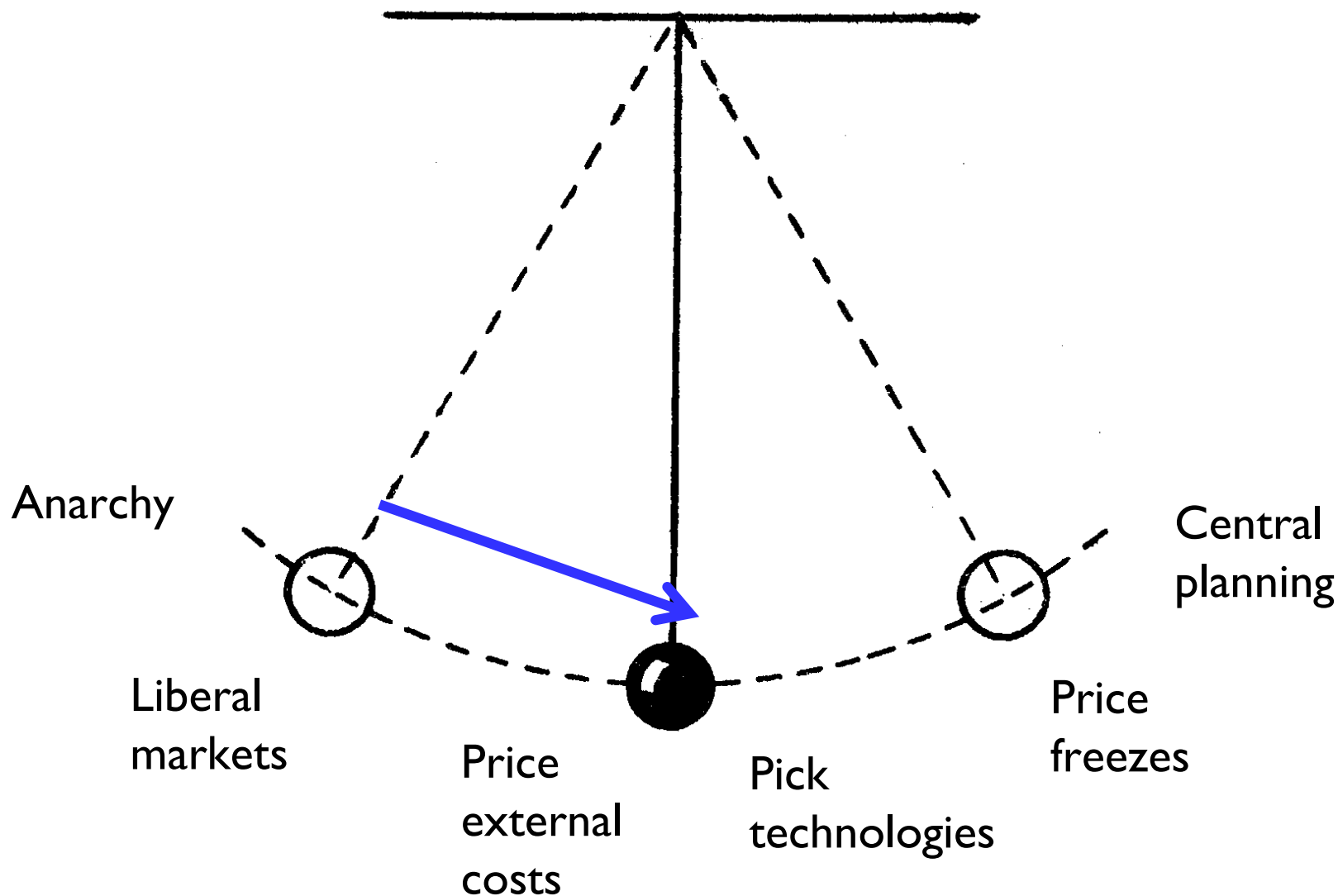
1. State of play
2. How did we get here?
3. Possible future directions

We have moved from the CEGB to competition in generation and supply (retail), with vertical integration



1. But well-managed competition will not naturally deliver on all two of three objectives – cost, security and environment – without intervention on the latter two objectives
2. “Good” competition can generate large inframarginal rents if the supply curve is as it is today

The pendulum is swinging back towards greater government intervention and a “single buyer”



Agenda



1. State of play
2. How did we get here?
3. Possible future directions

If 'the market' no longer answers 'who decides what to build and what to dispatch', then...

- 1. Who decides?**
- 2. How do they decide? Using what tools and instruments?**

Who decides and how? Some possibilities

Who decides?

How?

	Secretary of State	Patchwork quilt	Single independent agency
Central discretion			
Hybrid (e.g. conditional rules)			
Competitive structures			

Thank you

THIS MEETING IS HELD UNDER THE CHATHAM HOUSE RULE

"When a meeting, or part thereof, is held under the Chatham House rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed"