

Cambridge Judge Business School

Business Briefing Series

Energy Prices: Is a Price Freeze a Sensible Way to Restore Trust in the Market?

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BNY MELLON

Outline of talk

- My interest: Policy Exchange Event at Labour Party fringe in 2014
- With special thanks to David Reiner, Joel Faulkner Rogers at YouGov, Karim Anaya and colleagues in Belgium, France, Spain and Italy.
- Labour's announcement
- Background to proposal
- Theory of a Price Freeze
- Trust in Energy Companies
- What do other countries do about prices?
- Analysis of impact

THE POLICY ANNOUNCEMENT

Labour's announcement

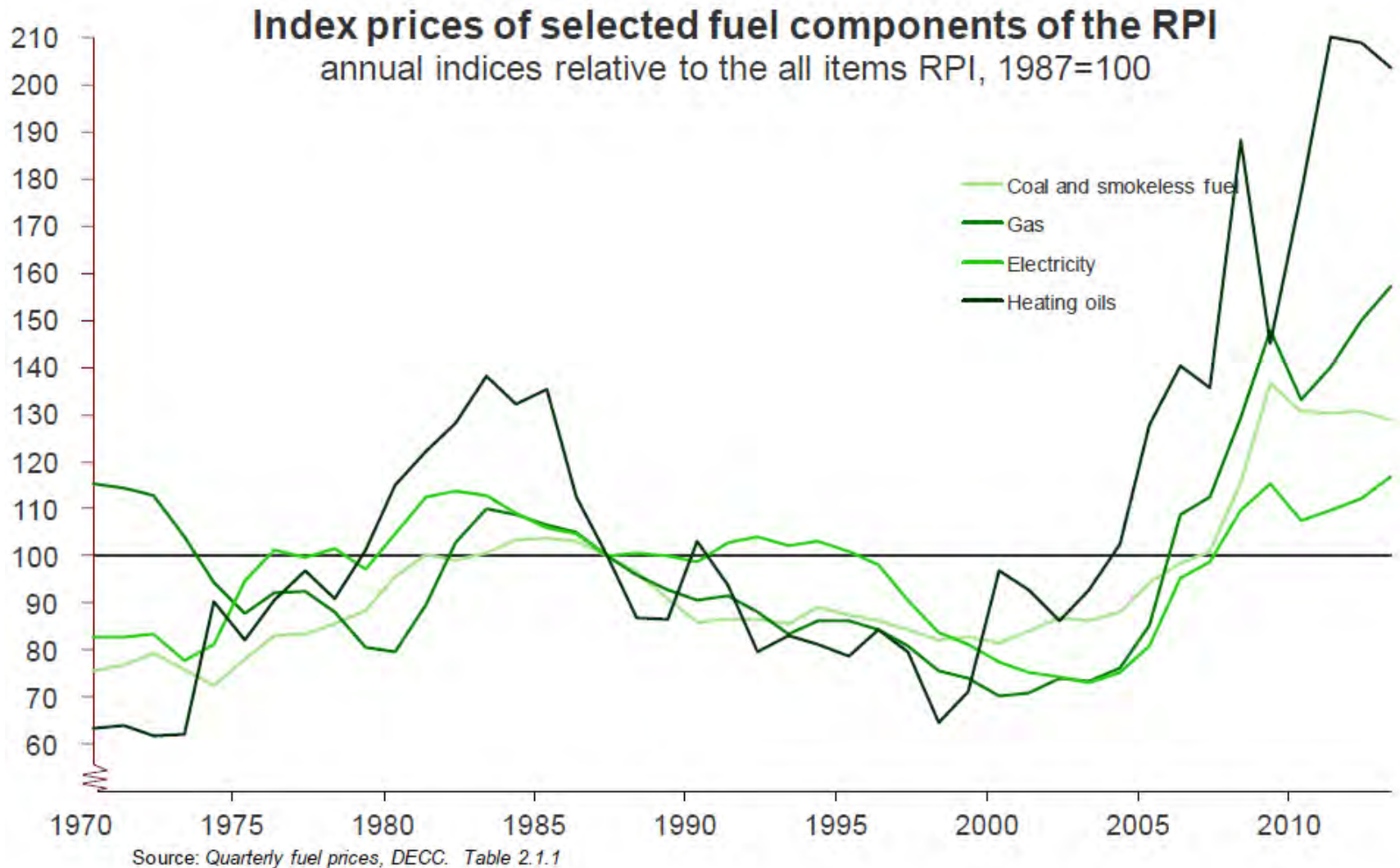
- <http://action.labour.org.uk/page/s/energy-calculator>
- Saves households £120 p.a. and businesses £1800 p.a. (cost to companies of £4.5bn p.a.) at announcement.
- Announced by Ed Milliband on 24 September 2013 at Labour Party Conference.
- Proposal to freeze electricity and gas prices for 20 months from the date of the election.
- This appears to be a commitment to a binding price freeze residential and non-residential bills for at least all non-half hourly metered customers.

Labour's paper: *Powering Britain: One Nation Labour's plans to reset the energy market (29 November 2013, p.28)*

- **'We will, therefore, introduce emergency legislation upon entering office to freeze prices through to January 2017.'**
- **'The emergency legislation will enable the Secretary of State to modify supplier licensing conditions to implement the freeze.'**
- **'Require energy companies to freeze unit rates and annual standard charges on the tariffs and payment plan their customers were on at a specified date'**
- **'Stop prices rising but enable prices to fall and consumers to switch; and It will specify that the freeze is temporary, when it will come into force, and when it will cease (i.e. 20 months after the commencement date).'**
- **'Based on House of Common Library modelling, we estimate that the freeze will save a typical household £120, a small business user over £5,500 and medium sized business over £34,500.'**

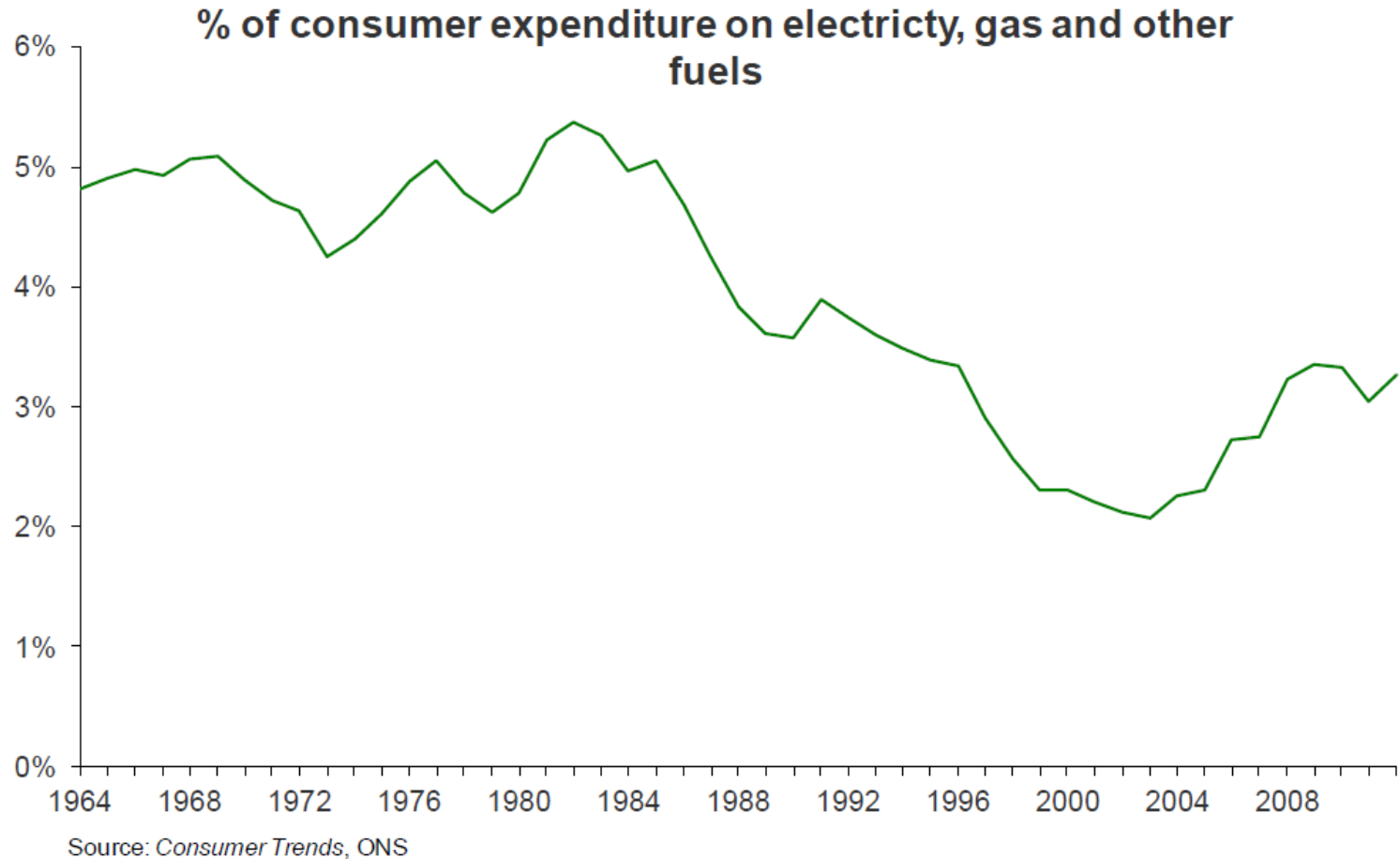
BACKGROUND TO POLICY

Is the recent price rise historically unprecedented?



Paul Bolton, HOC Library 31 Jan 2014, p.5.

Is the energy bill rise historically unprecedented?



Paul Bolton, HOC Library 31 Jan 2014, p.8.

Retail market review - 2012

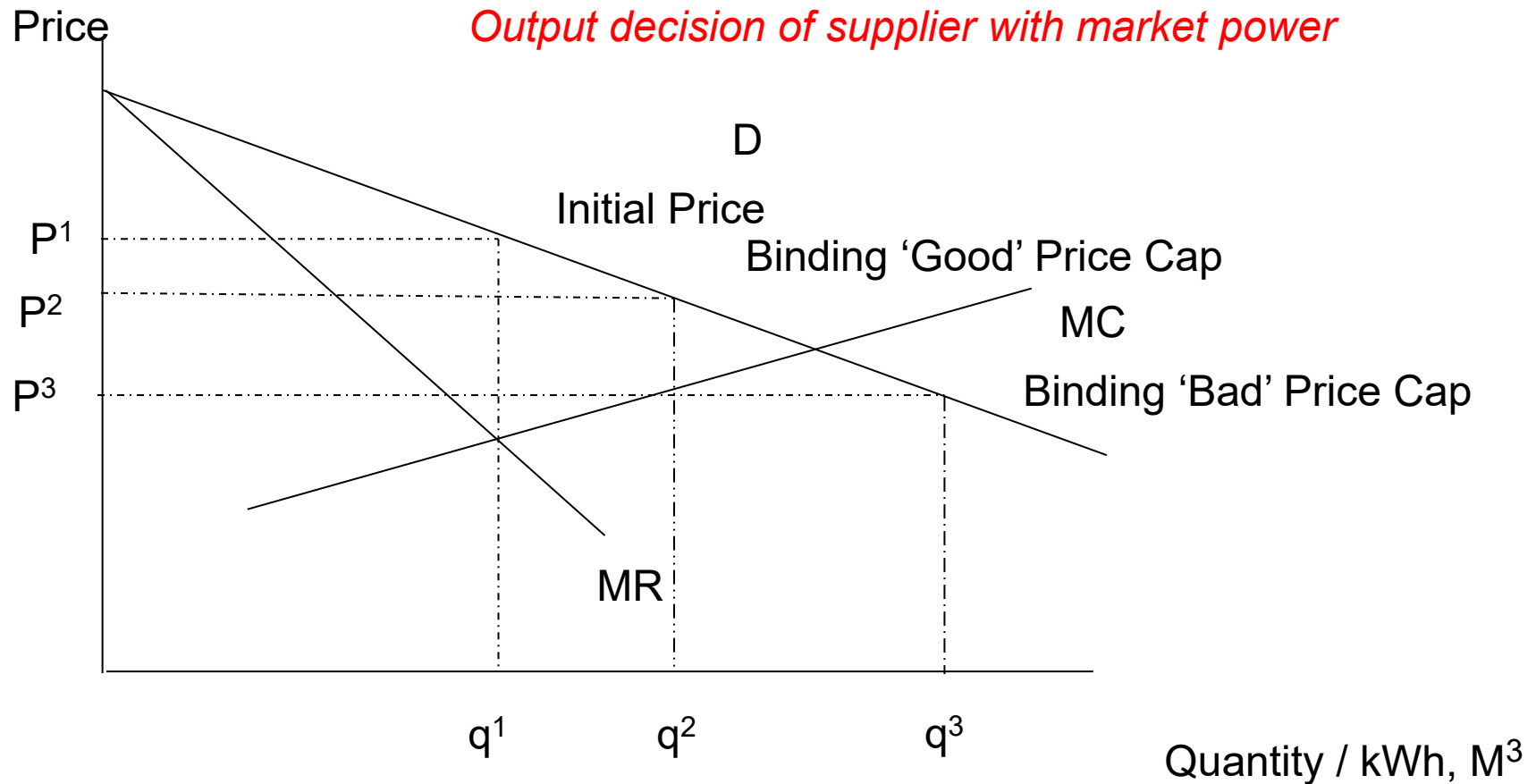
- 2012 domestic bill final proposals:
 - Limit of 4 tariffs per fuel, meter and payment type
 - End to multi-tier tariffs, all tariffs as standing charge and unit rate structure
 - Regular information about cheapest deal re: savings if customer switches to cheapest deal
 - Putting customers on the best tariff when contract ends
 - New metric, Tariff Comparison rate, to make comparison easier.

THEORY OF PRICE FREEZES

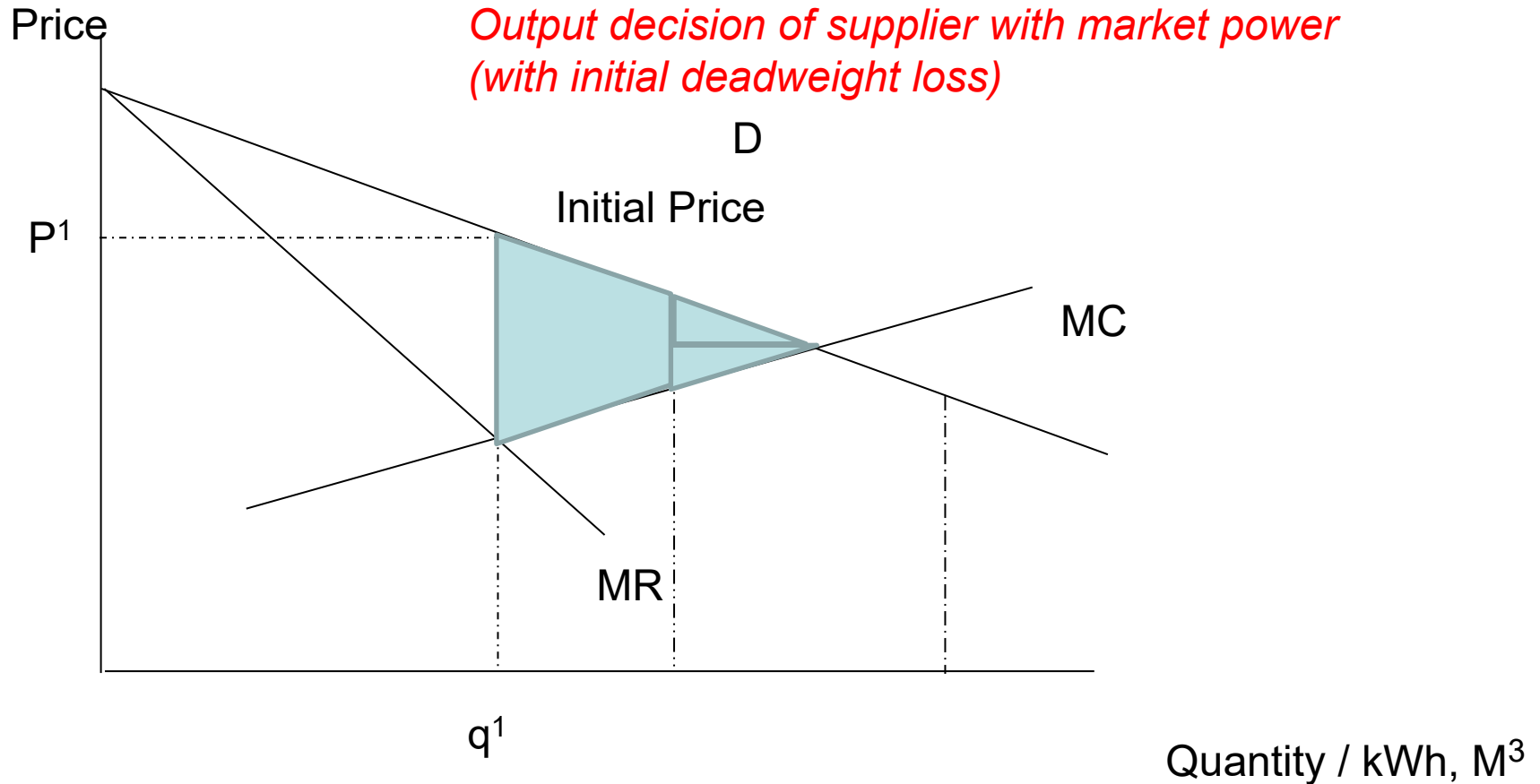
The price freeze

- Rationale seems to be that time is needed to reset the market and restore trust, and that prices need to be frozen given the uncertainty that this would create.
- Helm rather nicely summarises the price freeze as a ‘profits tax of unknown magnitude’. (Helm, 2013, Labour’s Energy Policies)

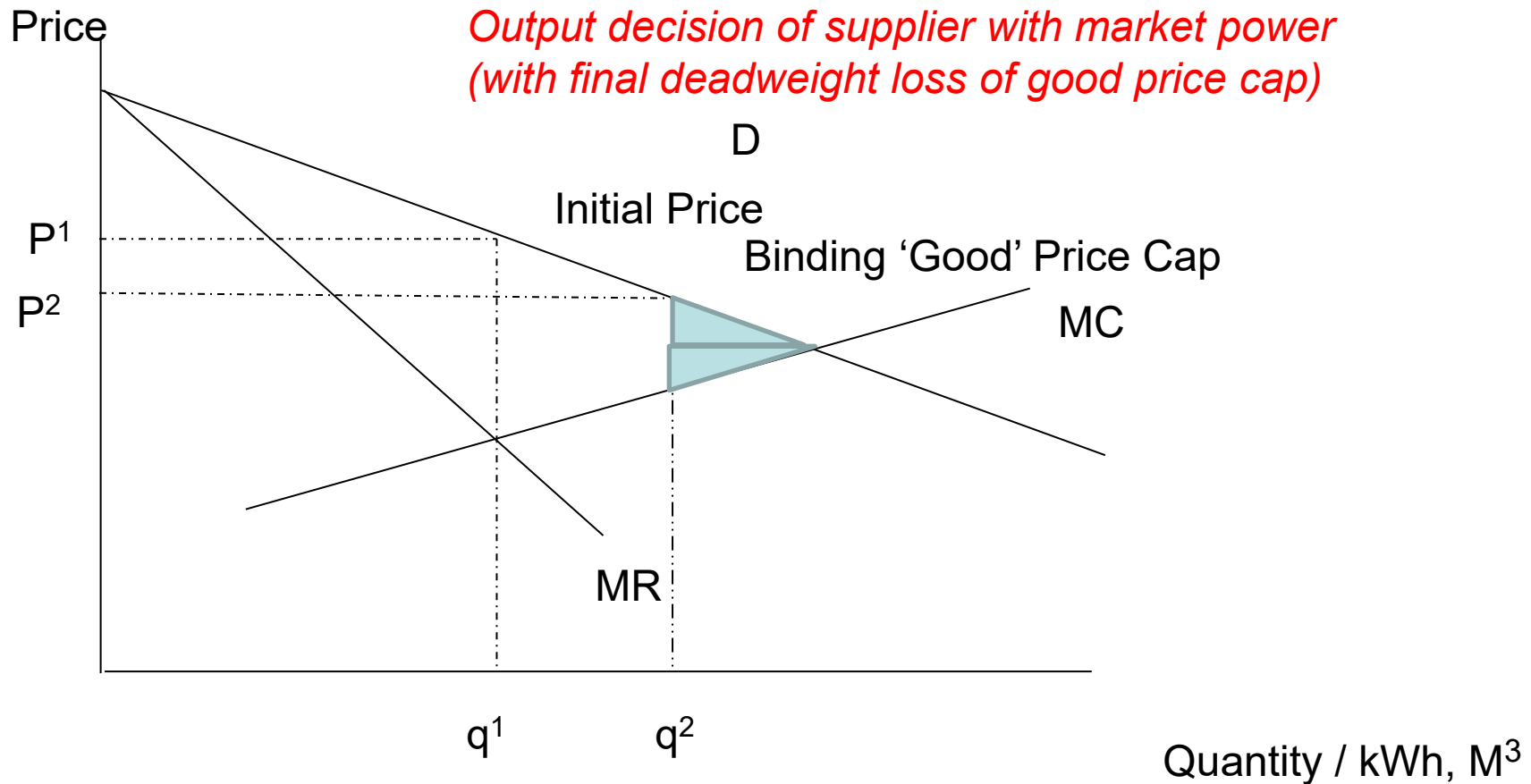
The theory of a price cap for a supplier with market power in a submarket (i.e. its former incumbent area)



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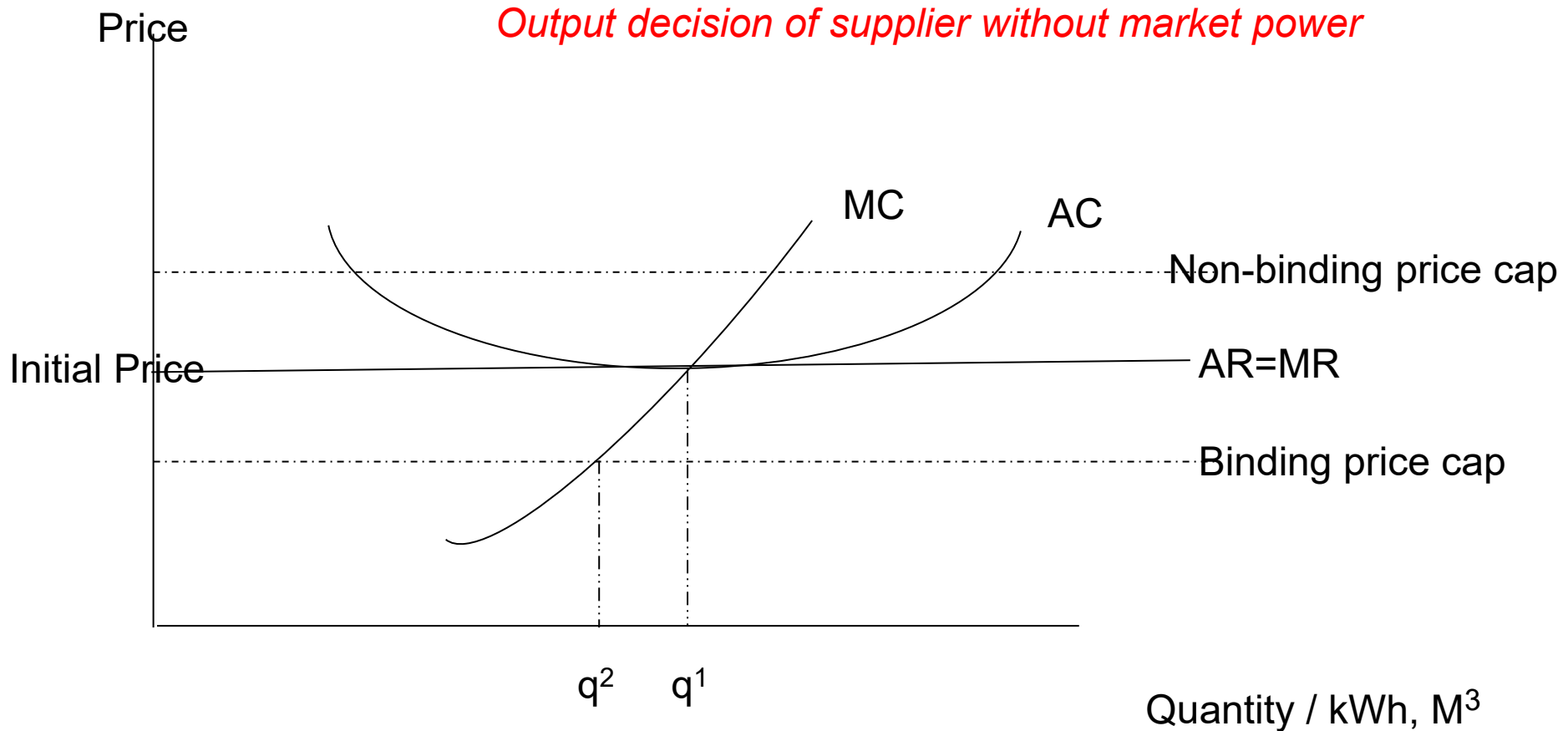


The theory of a price cap for a supplier with market power in a submarket (i.e. its former incumbent area)



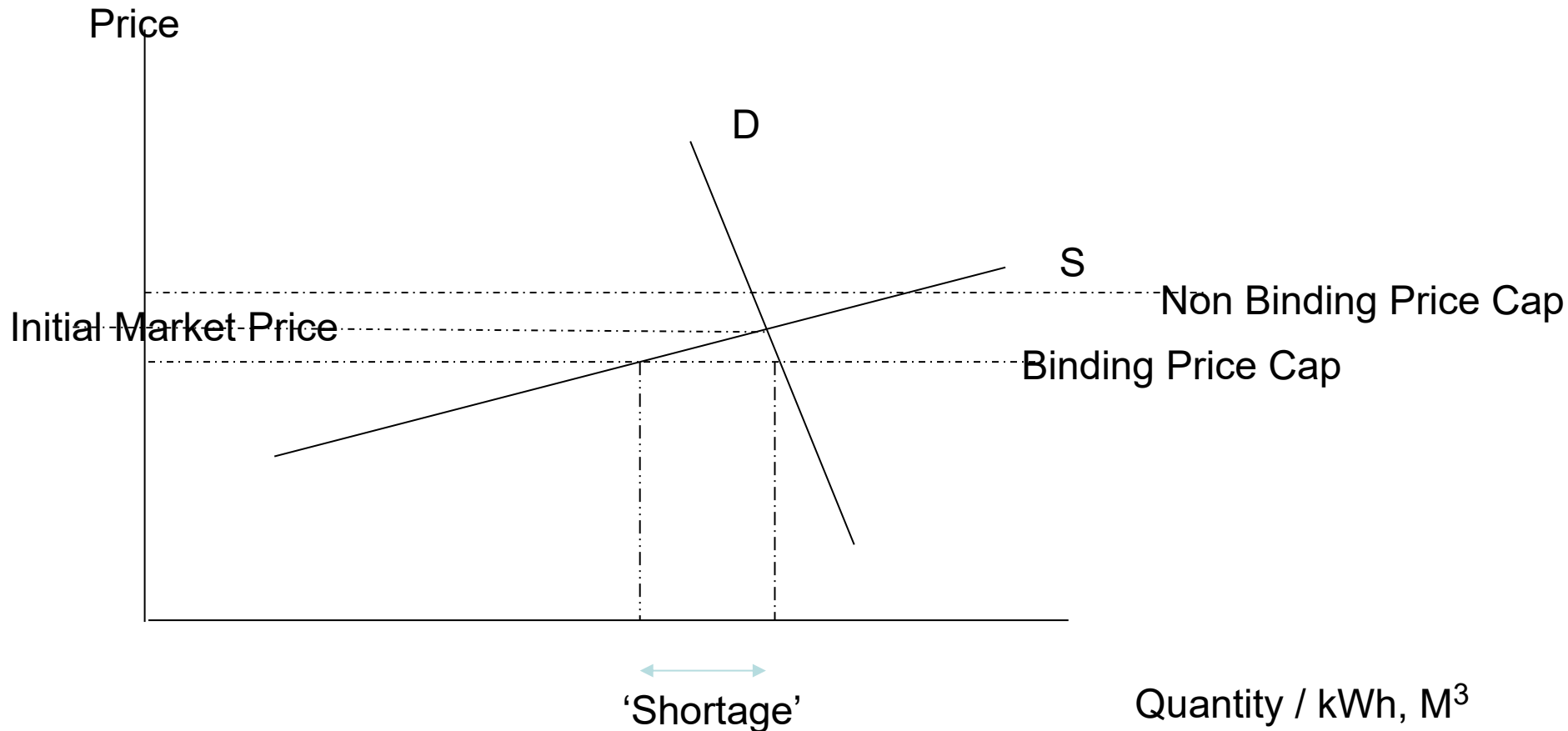
Result: Binding price cap could be good for society.

The theory of a price cap for a competitive supplier



Result: If cap binds exit from market in long run

The theory of a price cap in competitive submarkets or what they don't teach you at Oxford or the LSE!



Result: If cap binds end of competition in competitive sub-markets in long run.

A fixed nominal cap = freeze

- This is an extreme form of a potentially respectable price cap.
- Price caps can easily adjust for efficiency, pass-through costs and inflation.
- Most current price caps in regulated industries simultaneously do all three.
- Price freezes do not make these adjustments.

Theoretical perspectives

- 1. What is the optimal theoretical response to the announcement of a future price freeze?
- 2. What is the optimal behaviour of firms under a price freeze?
- 3. What is the optimal behaviour once the price freeze is removed?

Announcement effects

- If announcement is credible then:
- ‘Make hay while sun shines’ (following Szymanski, 1996). If market is expected to be fully competitive once freeze is imposed then best to exploit current customer base, as the incumbent benefits of customer loyalty have been reduced and ability to mitigate intervention by lowering prices have been eliminated.
- New entrants and small suppliers will grow market share (inefficiently) due to switching to them which will accelerate.
- Share prices of incumbents fall and cost of capital goes up.

Price Freeze direct effects

- As imposition becomes more likely all firms should attempt to coordinate on higher/locked in prices for duration of price freeze, by signing price freeze term contracts.
- Low cost, smaller unhedged competitors will compete vigorously until imposition of price freeze, at which they should drop out of the market.
- During period of price freeze prices unlikely to come down even if costs do due to facilitated coordination.
- Should underlying costs rise, scarcity effects will become manifest.
- Tax revenue (at 20%) from energy companies falls...

After the price freeze ends...

- Smaller, new suppliers will probably have lost market share relative to where they would have been, due to freezing of competition.
- Prices may well be stickier then before due to government induced coordination.
- If prices do rise, then likelihood of further intervention by government increased.
- If prices fall government and companies look bad for keeping prices up.
- So both government and companies would rather see smaller price movements than might be optimal.

TRUST, ENERGY POLICY AND ENERGY COMPANIES

Research on Trust and Energy

- Surprisingly little on this, given the salience of the issue.
- 2000-02-04 Eurobarometer had question '*Would you say that the price you pay for electricity is fair?*' (excessive, unfair, fair)
- Analysed by Fiorio and Florio (2011) for 15 EU countries.
- Higher public ownership, More liberalisation and lower prices positively correlated with FAIR.

Energy as issue through time

- YouGov polling:
- *'In which of these areas are you aware of major challenges facing Britain and British Government?':*
- 2008: 72% (3rd, after Economy and Pensions)
- 2009: 59% (5th)
- 2010: 41% (7th)
- June 2011: 50% (6th)
- June 2012: 46% (5th)

Source: YouGov

Nature of the energy issue

- YouGov 20-21 October 2011
- *‘Thinking about the prices charged for energy, which of the following best reflects your view?’:*
- **88%** support for ‘Energy companies are charging more than they should for electricity and gas, and are taking advantage of the public’.
- ‘From what you know, how easy or difficult do you think it is for people to change their energy supplier?’ Total Easy **58%** Total Difficult: **35%**
- ‘And from what you know, how easy or difficult do you think it is for people to compare the prices charged by different energy suppliers?’ Total Easy **38%** Total Difficult **56%**.

Trust in energy companies

- YouGov 26-27 September 2013
- *'How much do you trust each of the following to treat their customers fairly?'* Total Trust-Total Do Not Trust
- Major banks: 27-68
- Major energy companies: 12-84
- Major supermarkets: 48-48
- Bus and railway companies: 29-64
- Corner shops' and other small independent retail: 71-23
- Major retailers: 44-50
- Freezing the prices that energy companies are allowed to charge for twenty months: Total Support-Total Oppose: 63-26

Power to control prices

- YouGov 27-28 October 2013
- *‘Do you think government should have the power to control prices of the following things, or should prices be left to those selling the goods and service to decide?’ (1-2)*
- Gas and Electricity: **74-18**
- Public Transport fares: 72-19
- Private sector rents: 45-43
- Food and groceries: 35-55

Global Trust in Energy Companies

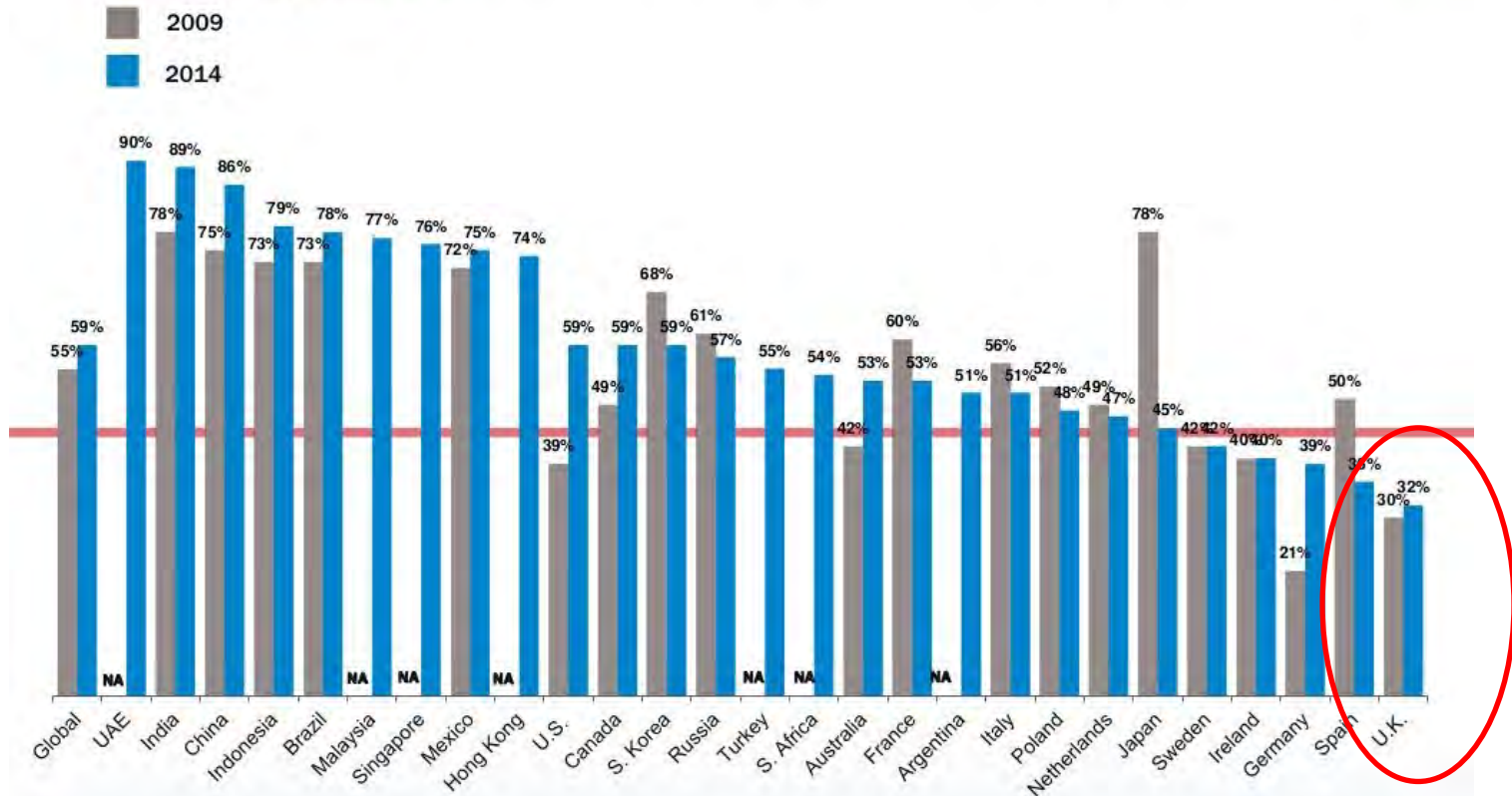
- Edelman Global Survey
- Informed public survey: 500+ in US and China, 200+ in other countries
- General public survey: 1000+ each country
- Details: Source: Slide 2,
<http://www.slideshare.net/fullscreen/EdelmanInsights/2014-edelman-trust-barometer-global-energy-findings/1>

Energy companies in UK bottom of table...



ENERGY OVER 5 YEARS: GLOBALLY ON THE RIGHT TRACK; SIGNIFICANT CHANGE FOR THE WORSE IN JAPAN, FOR THE BETTER IN GERMANY, U.S.

TRUST IN ENERGY, 2009 VS. 2014



20

Q43-60. [TRACKING] Please indicate how much you trust businesses in each of the following industries to do what is right. Again, please use the same 9-point scale where one means that you "do not trust them at all" and nine means that you "trust them a great deal". (Top 4 Box, Trust) Informed Publics. 20-country global total.



Source: Slide 20, <http://www.slideshare.net/fullscreen/EdelmanInsights/2014-edelman-trust-barometer-global-energy-findings/1>

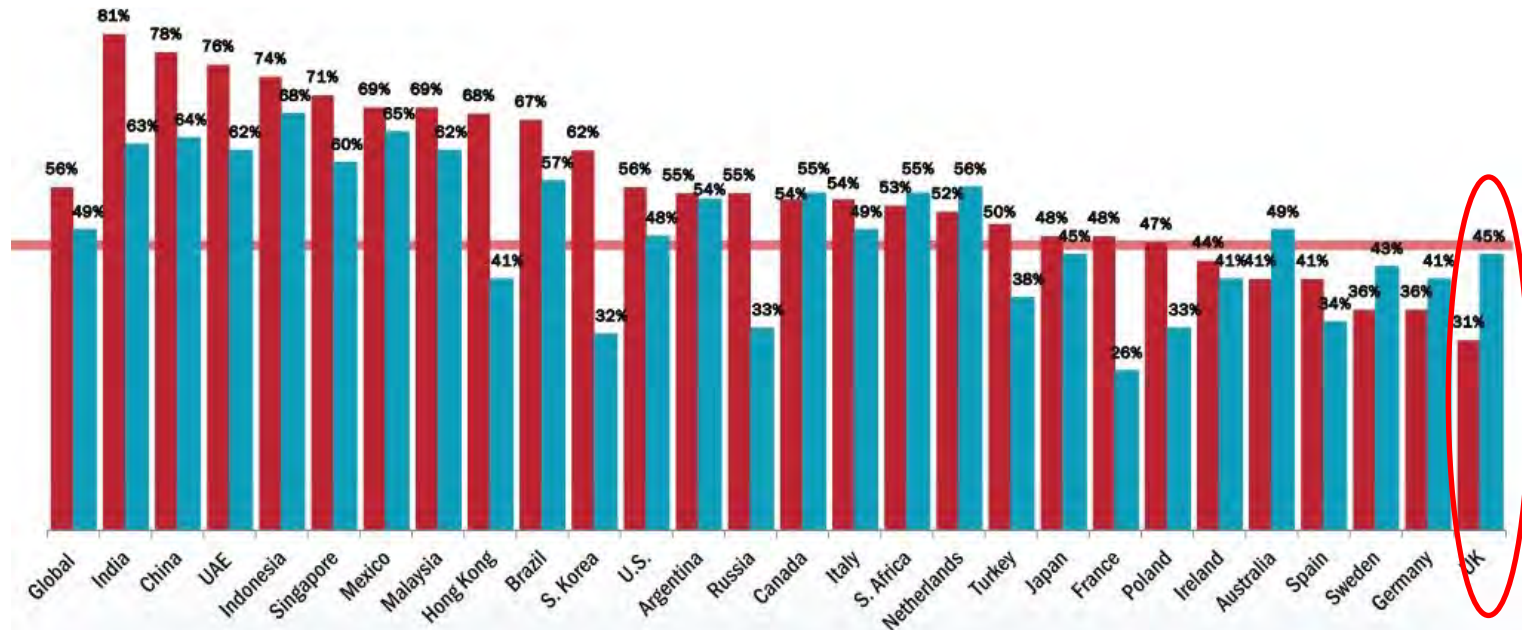
UK has one of biggest trust gaps...



IN 20 OF 27 MARKETS, ENERGY MORE TRUSTED THAN BUSINESS IN GENERAL

2014 TRUST IN ENERGY INDUSTRY VS. BUSINESS IN GENERAL – 27 MARKET OVERVIEW

Energy Industry Business



Q11-14. [TRACKING] Below is a list of institutions. For each one, please indicate how much you trust that institution to do what is right using a 9-point scale where one means that you "do not trust them at all" and nine means that you "trust them a great deal". Q43-60. [TRACKING] Please indicate how much you trust businesses in each of the following industries to do what is right. Again, please use the same 9-point scale where one means that you "do not trust them at all" and nine means that you "trust them a great deal". (Top 4 Box, Trust) General population global total across 27 countries



Source: Slide 21, <http://www.slideshare.net/fullscreen/EdelmanInsights/2014-edelman-trust-barometer-global-energy-findings/1>

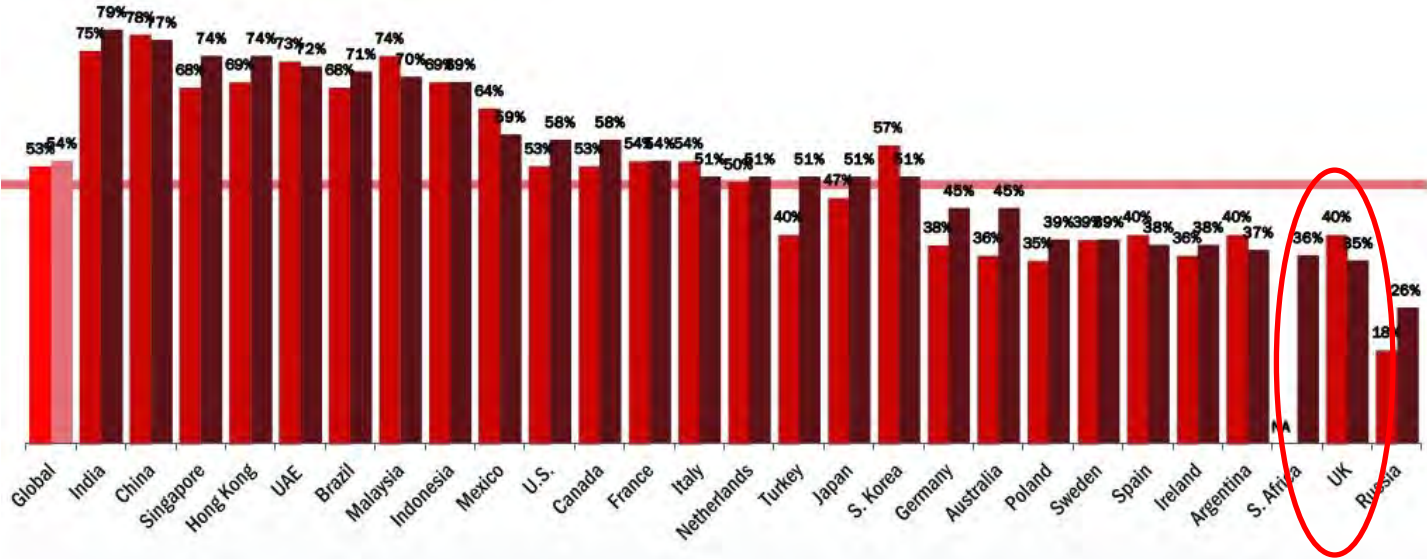
Low and worsening in UK for energy utilities...

TRUST IN UTILITIES ABOVE 50 PERCENT IN 17 OF 27 MARKETS;
CRITICAL LOW POINTS IN SOME



TRUST IN ENERGY SECTORS - UTILITIES

2013
2014



26 Q61C-64C. [SPLIT SAMPLE] Now thinking about specific sectors within the UTILITIES industry, please indicate how much you trust businesses in each of the following sectors to do what is right. Again, please use the same 9-point scale where one means that you "do not trust them at all" and nine means that you "trust them a great deal". General Population, global total across 25 countries.



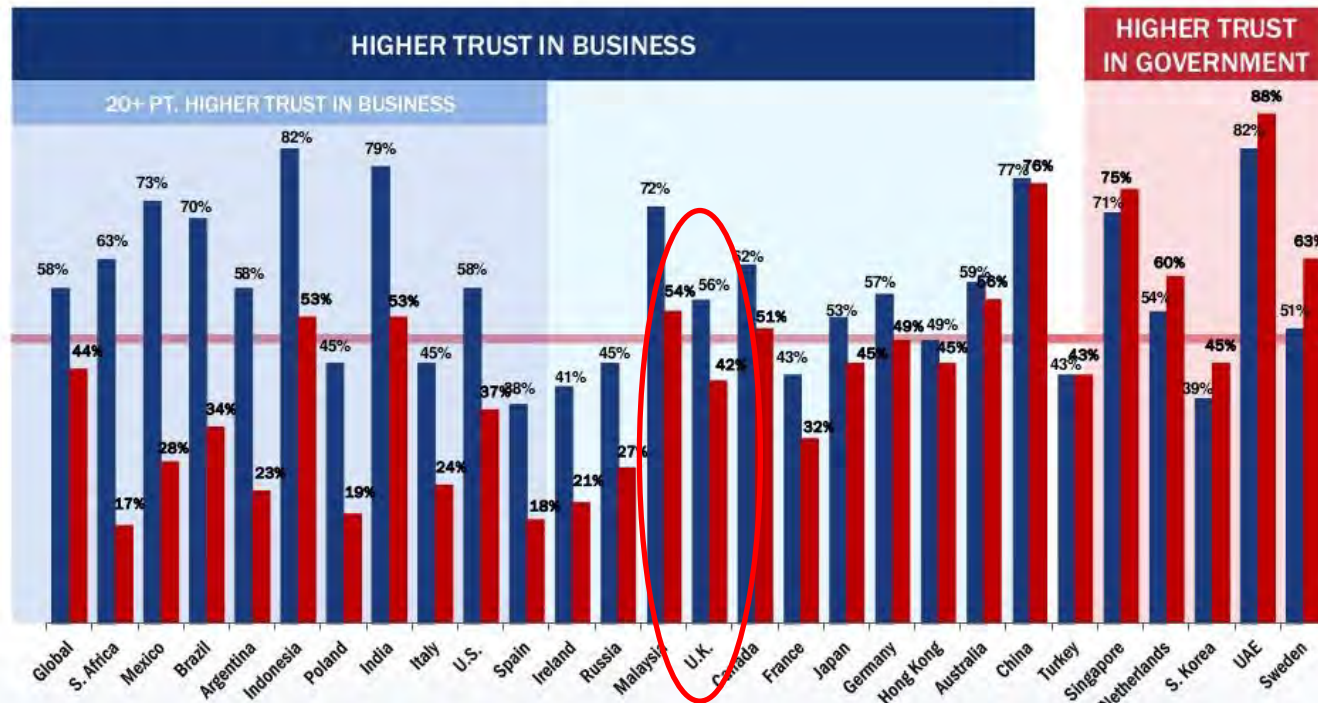
Source: Slide 26, <http://www.slideshare.net/fullscreen/EdelmanInsights/2014-edelman-trust-barometer-global-energy-findings/1>

Trust in government bad in many countries with high trust in business...

AT 44%, GLOBAL TRUST IN GOVERNMENT IS CRITICALLY LOW AS COMPARED TO BUSINESS

TRUST IN BUSINESS VS. GOVERNMENT

Business Government



Q11-14. (BUSINESS IN GENERAL & GOVERNMENT IN GENERAL) Below is a list of institutions. For each one, please indicate how much you trust that institution to do what is right using a 9-point scale where one means that you 'do not trust them at all' and nine means that you 'trust them a great deal'. (Top 4 Box, Trust) Informed Publics, 20-country global total.

30



Source: Slide 30, <http://www.slideshare.net/fullscreen/EdelmanInsights/2014-edelman-trust-barometer-global-energy-findings/1>

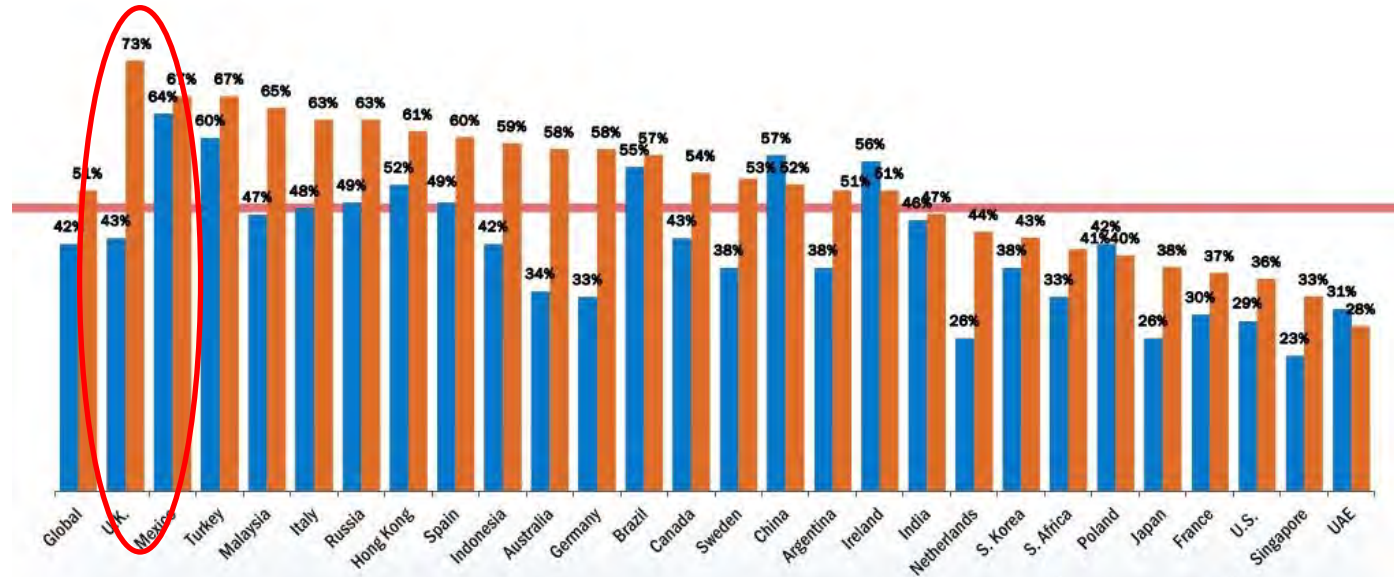
Support for energy regulation very high in UK relative to business regulation in general...

EVEN MORE THAN BUSINESS, MOST FEEL THERE IS NOT ENOUGH REGULATION OF THE ENERGY INDUSTRY



2014 REGULATION

- Not enough regulation of business
- Not enough regulation of energy



32 Q148. [TRACKING] When it comes to government regulation of business, do you think that your government regulates business too much, not enough or the right amount? (Not Enough, Too much) Informed Publics, 27-country global total. Q263. When it comes to government regulation of the energy industry, do you think that your government regulates it too much, not enough or the right amount? (Not Enough, Too much) Informed Publics, 27-country global total.



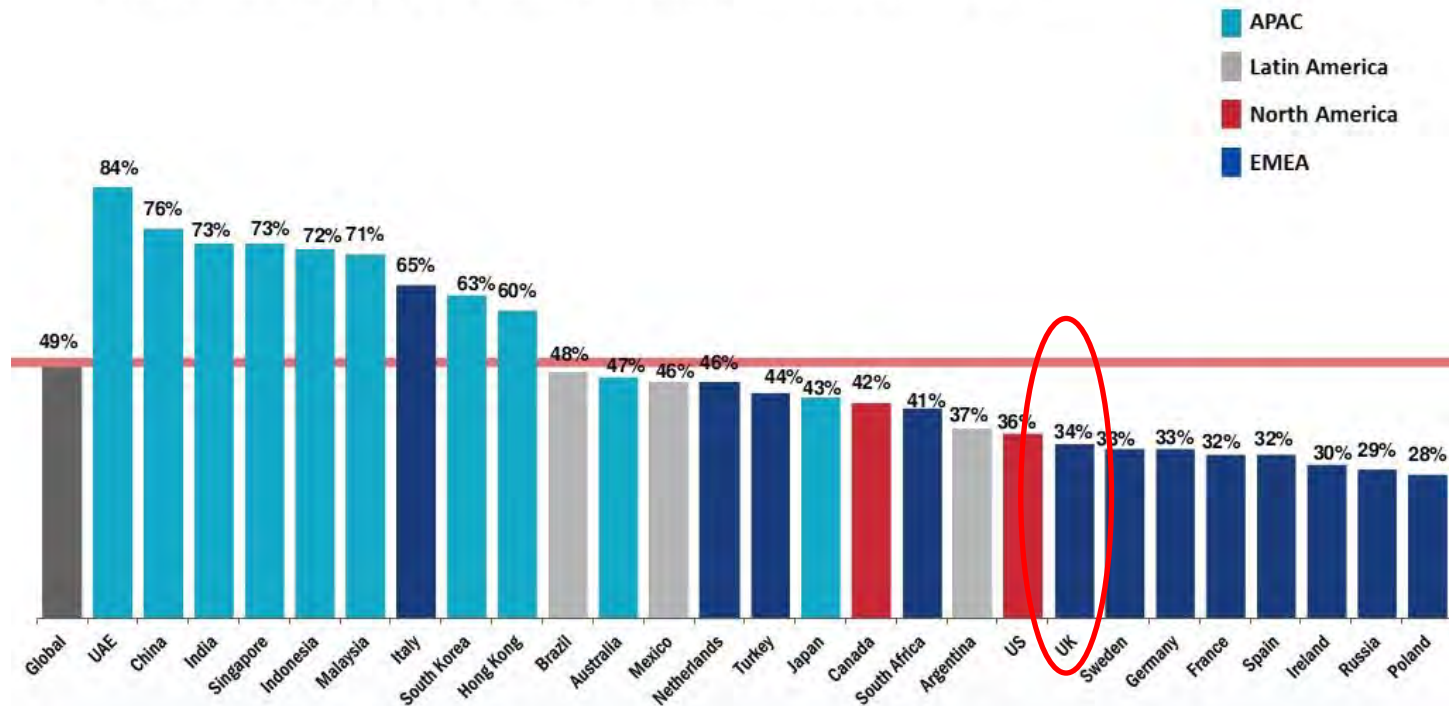
Source: Slide 32, <http://www.slideshare.net/fullscreen/EdelmanInsights/2014-edelman-trust-barometer-global-energy-findings/1>

However UK government not trusted to regulate energy properly...

THAT SAID, WITH THE EXCEPTION OF APAC COUNTRIES, POLICYMAKERS ARE NOT TRUSTED TO APPROPRIATELY REGULATE THE ENERGY INDUSTRY

PERCENTAGE AGREEING WITH EACH STATEMENT

I trust policymakers to develop and implement appropriate regulations on the energy industry



33 Q265-270. Please indicate how much you agree or disagree with the following statements? Informed Publics, 27-country global total.



Source: Slide 33, <http://www.slideshare.net/fullscreen/EdelmanInsights/2014-edelman-trust-barometer-global-energy-findings/1>

WHAT DO OTHER COUNTRIES DO ABOUT ENERGY PRICES?

End user energy price regulation in the EU

- Final prices are meant to be competitive!
- This is true across the EU under the third energy package
- However in 2012, 16 countries did have some form of end user price regulation for electricity and 16 for gas in the EU. These did NOT include Germany, Netherlands, Sweden, Finland.
- I decided to look at whether the countries that do have end user price regulation (i.e. some form of capped final prices) actually have a price freeze.

...Italy and Belgium...

- In Italy there is a standard offer tariff. This is NOT a price freeze. It is a regulated mark up on the hedged purchases of the single buyer. It is reset every quarter in line with price in the wholesale markets.
- In Belgium all changes to retail tariffs for *variable* energy prices (those which are subject to change during the contract period) need to be checked according to a mark up formula of wholesale prices + network charges + allowed margin.

Belgium and Denmark....

- Belgium did have a price freeze in 2012 for 9 months while the retail market was reset, referred to by Labour. This froze all *variable* tariffs from the point of implementation (i.e. did not force a price reduction for any consumer).
- Denmark also have mark up regulation of a default tariff for residential customers, where the mark up is now the result of a competitive auction for default customers in each locality. Most residential customers still on this tariff.

Closer to home...

- In the Republic of Ireland regulation of electricity prices ended in 2010, but regulation of the gas prices of the former incumbent Bord Gais continues. This takes the form of a tariff formula which marks up wholesale prices and network charges. Supply margin is 2%...
- In Northern Ireland both former incumbents (but not other firms) - Power NI and SSE Airtricity (Gas) - are subject to regulation of their supply margins. Currently these are 2.2% and 1.5%.

Is this a South American energy policy?

- That would be unfair (mostly)...
- In Argentina there is (supposedly) regulation of marked up wholesale prices, which are adjusted every three months.
- In Chile there is a regulation of marked up wholesale prices, which are adjusted every three months, with monthly indexation of regulated distribution tariffs.
- In Peru the wholesale price element of regulated tariffs are adjusted annually.

...Is this the policy of Venezuela?...

- Only in Venezuela do they have frozen end user prices (since 2002).
- So in Latin America they have mostly a regulated residential price which is wholesale price (regularly adjusted) + inflation indexed network charges).
- So this proposal would be the energy policy of Venezuela (in form)!

ANALYSIS OF IMPACT SO FAR

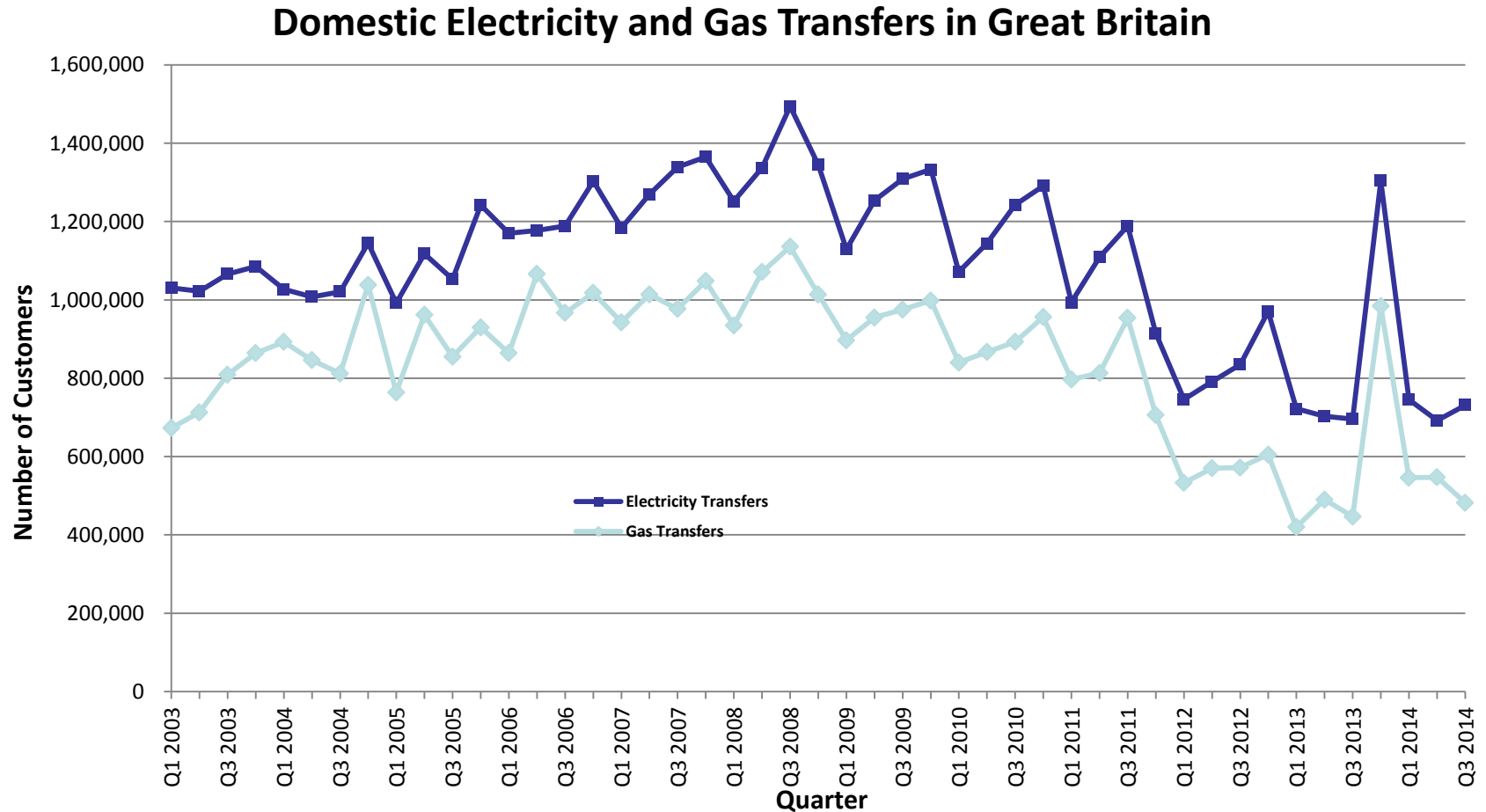
What has happened since the announcement?

- Prices have not changed much for Big 6, in spite of big falls in wholesale gas and electricity prices.
- Supply margins have risen sharply.
- SSE have announced strategy to fix standard energy prices to Jan 2016.
- RWE strategy to sell supply to residential customers through third parties, sold 770k customers to Utility Warehouse on 19/11/13...

As predicted: *Margins have increased...*

- Pre-tax margin (13 month rolling average)
Dual Fuel bill (Ofgem SMI):
- 2009: £10 of £1312
- 2010: £41
- 2011: £32
- 2012: £56
- 2013 : £49
- 2014: £77
- 2015 (Jan): **£114 of £1305 (8.7%)**

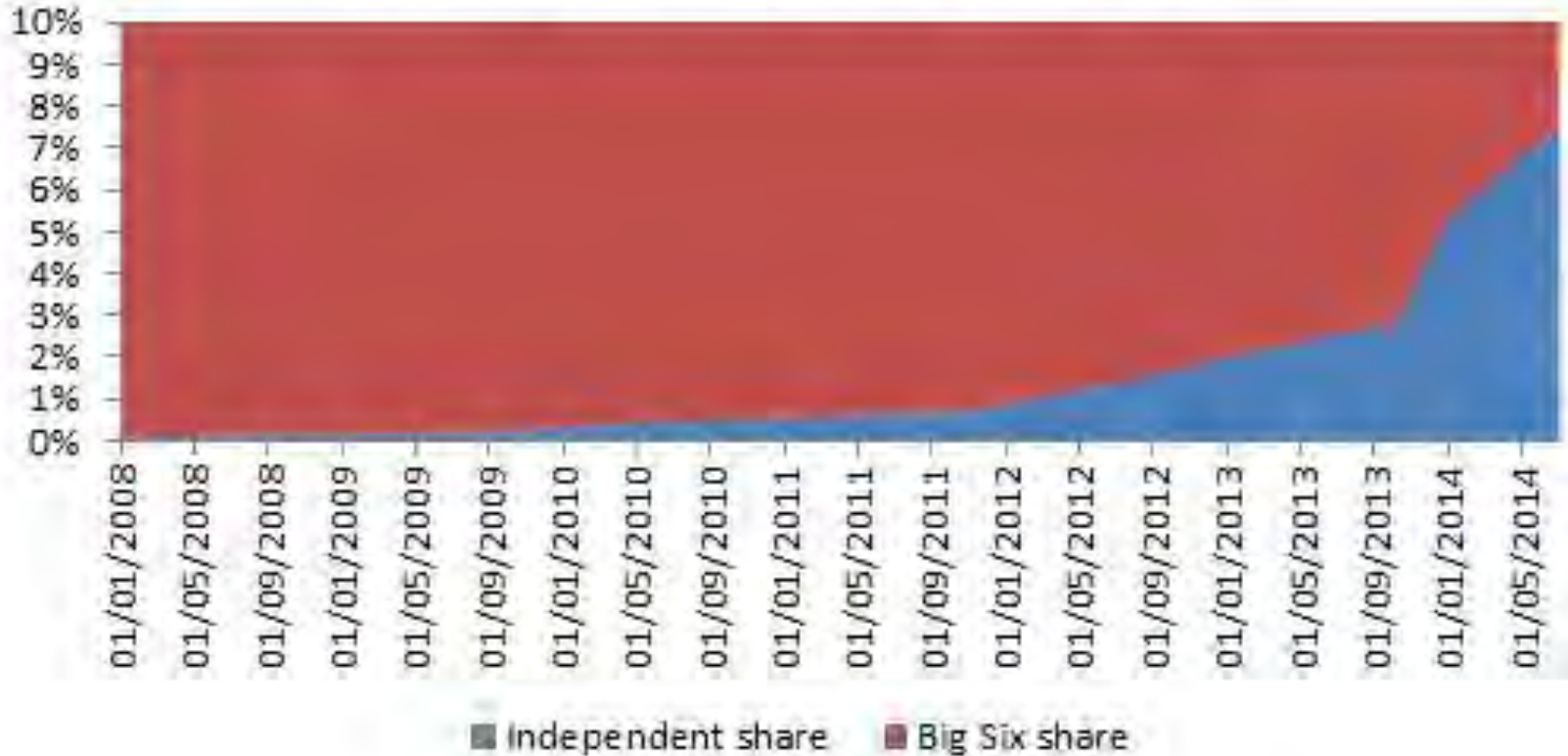
As predicted: *Switching has increased...*



Source: DECC QEP 2.7.1; 27.9m Electricity 21.2m Gas customers.

As predicted: *Share of small suppliers rises...*

Percentage of total domestic market share

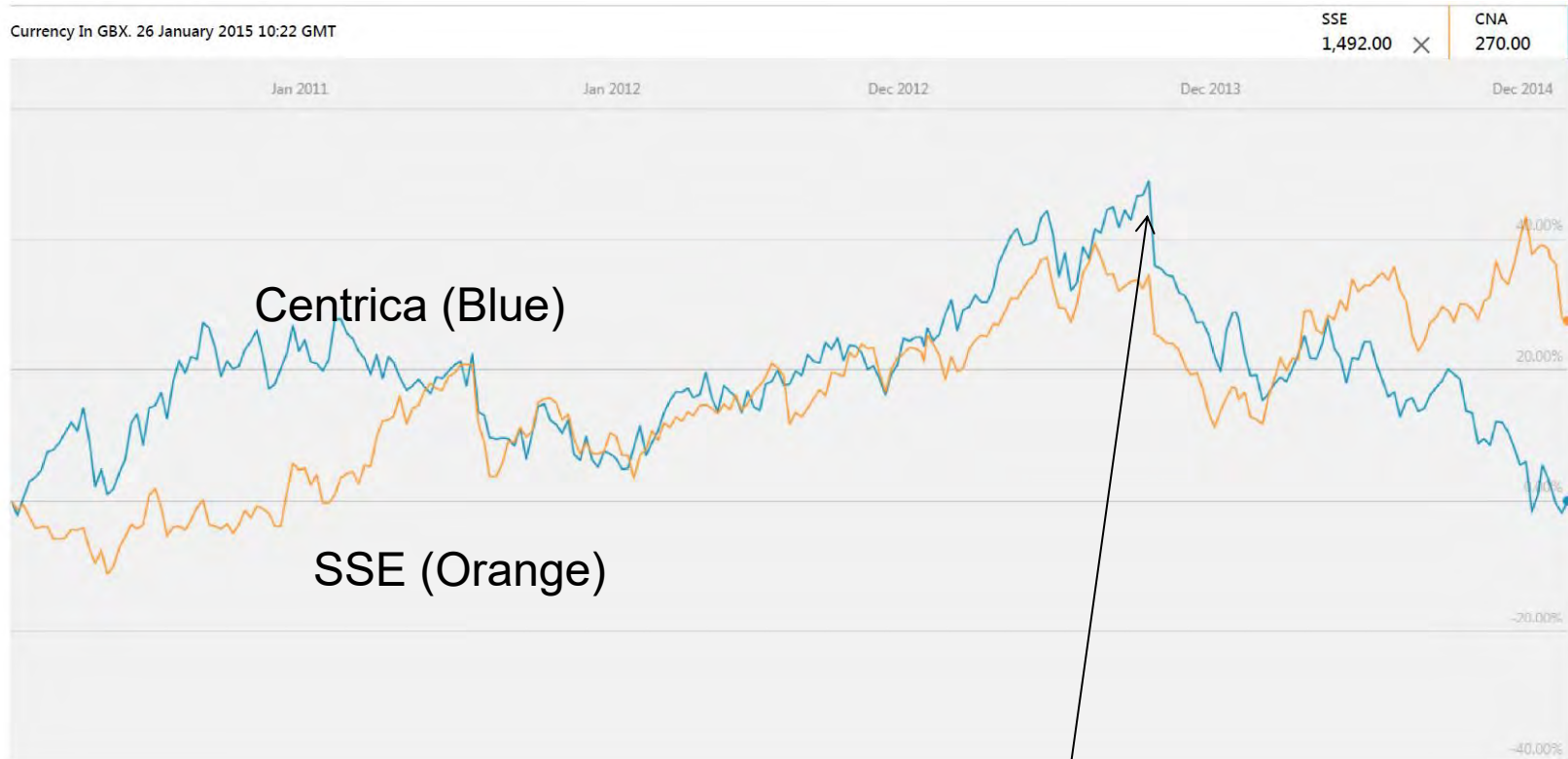


Source: Cornwall Energy

<http://www.cornwallenergy.com/News/Press-releases/Independent-suppliers-reach-record-7-5percent-share-of-domestic-market>

Now reportedly around 9%.

As predicted: *Share price impact...*



Source: *MSN Money*

20 September - 27 September 2013

Loss of value on announcement £2bn.

Liberium Capital estimate total cost to sector of £6.8bn.

CONCLUDING REMARKS

Conclusions

- Proposal exhibits poor economics, largely ignoring the theory and experience of end user price regulation.
- This is a policy proposal not worthy of a developing country (except Venezuela) not the country with one of the most sophisticated and experienced regulatory environments on the planet.
- Actually keeping prices down is a way to increase trust in energy companies, however this strategy is associated with governments who are not trusted.
- So this is a policy to increase trust in energy companies at the expense of undermining trust in our political system...



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References

- Commission for Energy Regulation (2013), *Gas Tariff Review 2013-14 Bord Gais Energy's Residential Customers*, CER.
<http://www.cer.ie/docs/000874/cer13204-bg-energy-retail-tariffs-decision-paper.pdf>
- Danish Energy Regulatory Authority (2014), *2014 National Report to the European Commission*.
http://www.ceer.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/NATIONAL_REPORTS/National%20Reporting%202014/NR_En/C14_NR_Denmark-EN.pdf
- Florio, C.V. and Florio, M. (2011), '<Would you say that the price you pay for electricity is fair?> Consumers' satisfaction and utility reforms in the EU15', *Energy Economics*, 33: 178-187.
- Szymanski, S. (1996), 'Making Hay While the Sun Shines', *Journal of Industrial Economics*, 44 (1): 1-16.
- Utility Regulator (2013), *The 2014 Power NI Supply Price Control Decision Paper 19 December 2013*, URNI.
http://www.uregni.gov.uk/uploads/publications/Power_NI_Price_Control_Decision_paper_v20.pdf
- Utility Regulator (2011), *Utility Regulator Determination on Phoenix Supply Price Control 2012-2016*, URNI.
http://www.uregni.gov.uk/uploads/publications/PSL_PC03_Determined_to_Position_Table_26_blanked_for_website2.pdf