National Audit Office

Future of infrastructure financing

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Public vs. private

- WGA: average cost of government borrowing is around 2.5%, compared with 7% to 8% for private finance projects
- Government can reduce investor cost of capital by sharing project risk
- NAO is neutral: Although private finance is more expensive, benefits (e.g. risk transfer; commercial disciplines; short-term cash flow) can outweigh the higher cost

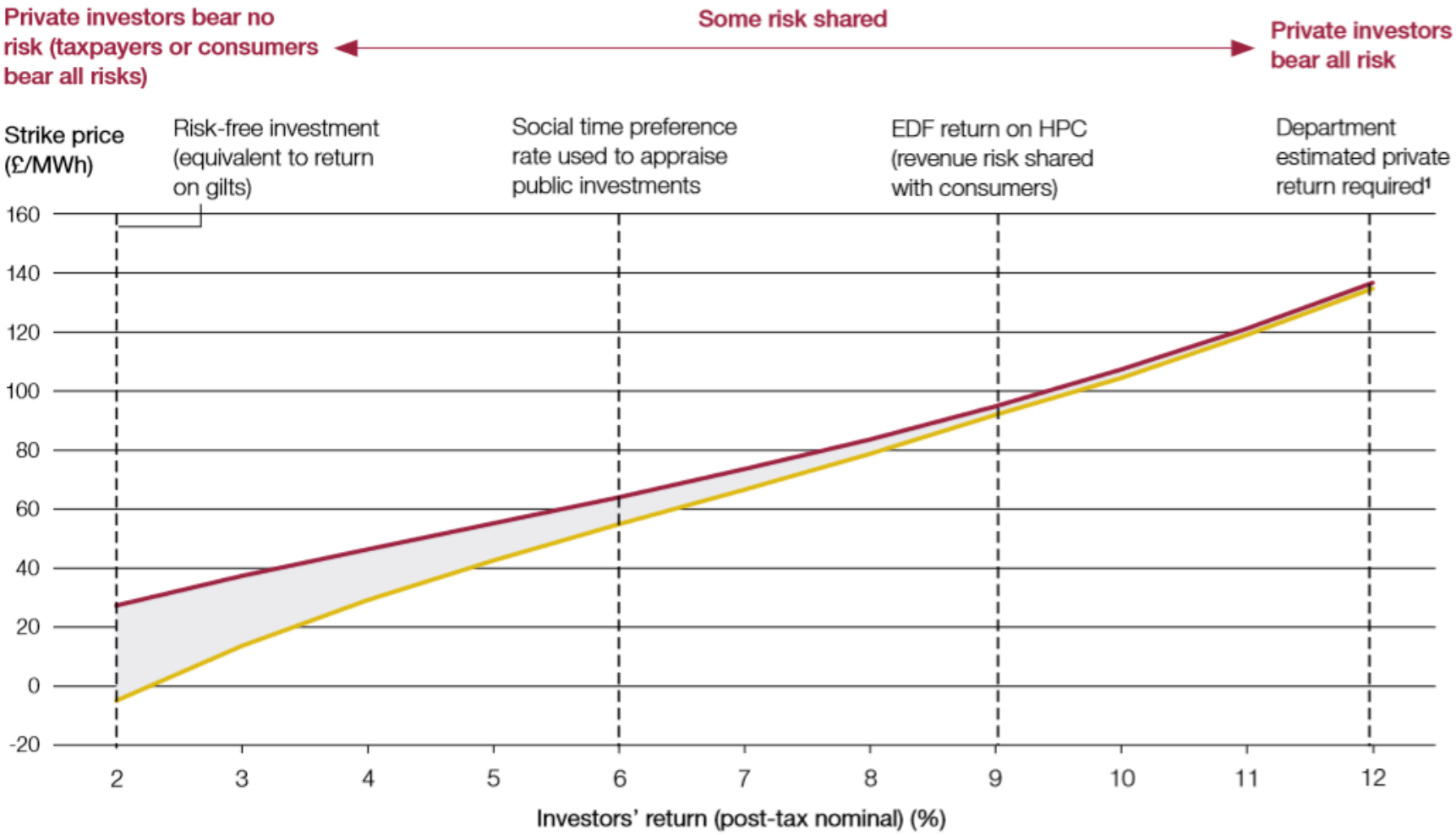
Hinkley Point C

- Our 2017 report found government had not considered alternative financing options
- We provided illustrative analysis of strike price impact of different financing models

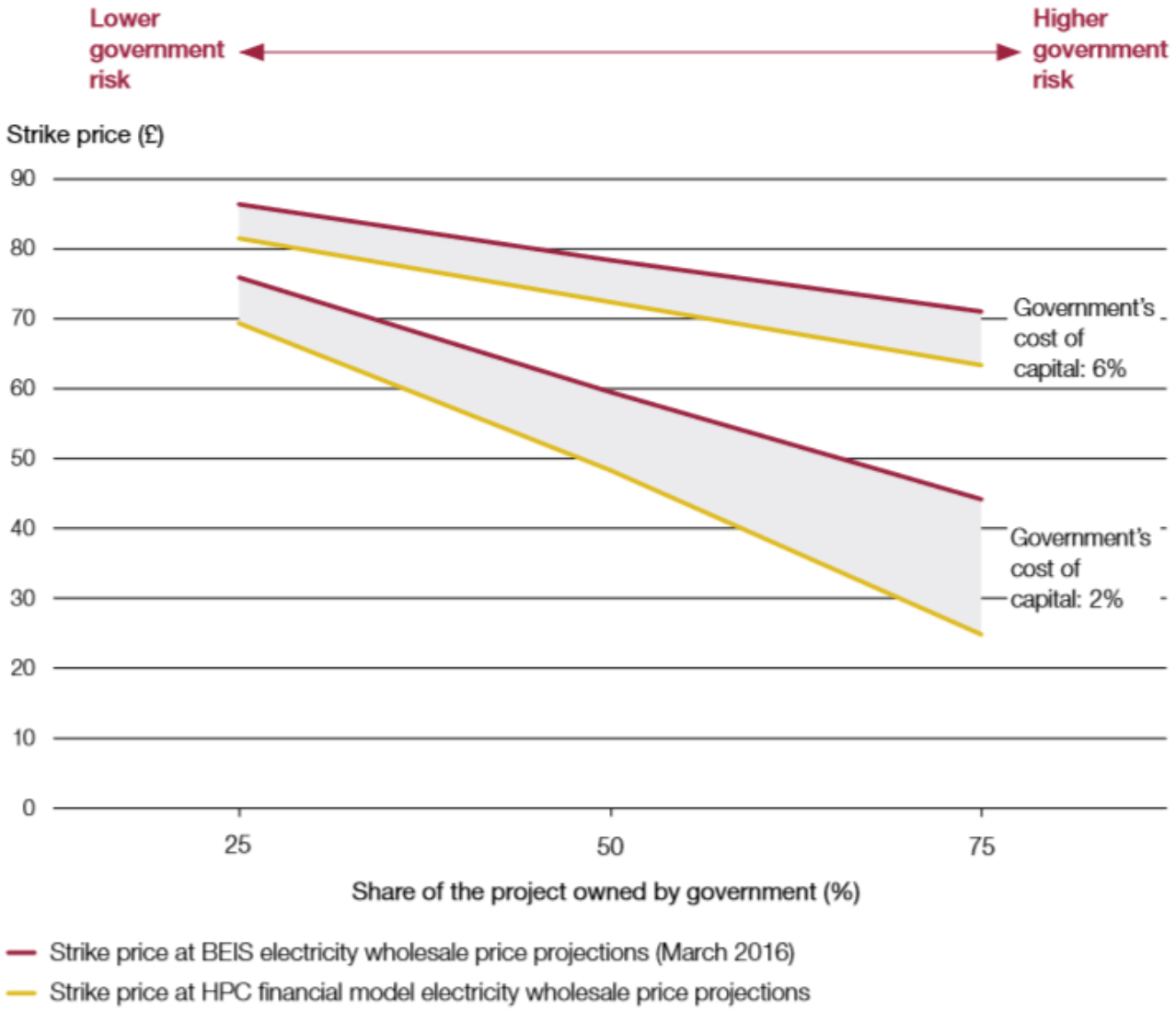
This is an illustrative analysis rather than feasibility assessment

- Not assessed feasibility of different models
- Not assessed whether they would comply with HM Treasury guidance or State Aid clearance
- Some models have not been used for nuclear
- All other variables kept constant (e.g. 35-year contract). In reality different financing options would result in wider changes to contractual arrangements.
- Choice of government discount rate matters (i.e. 2% vs. 6%) – we've used both in these scenarios

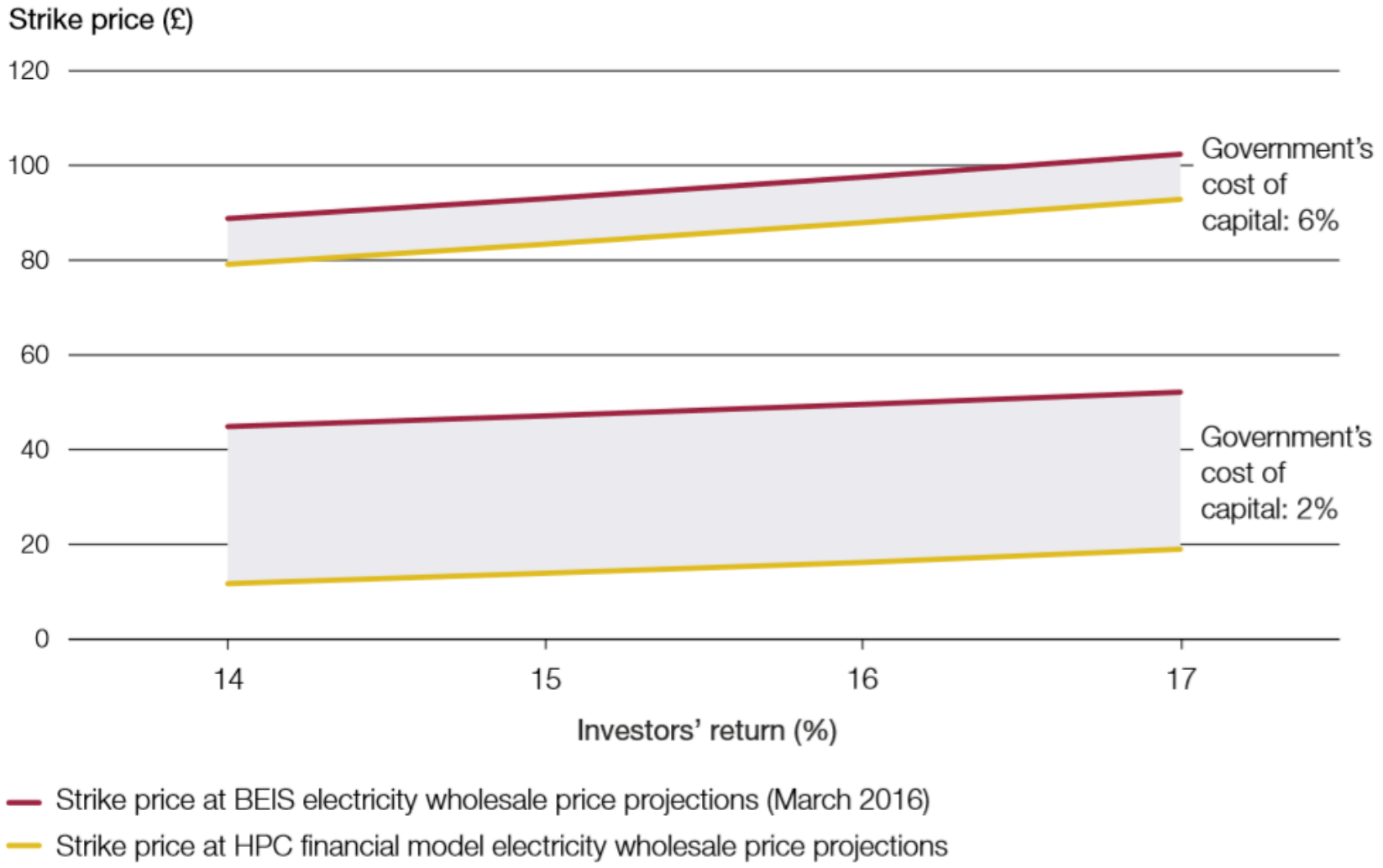
HPC-style deal (CfD)



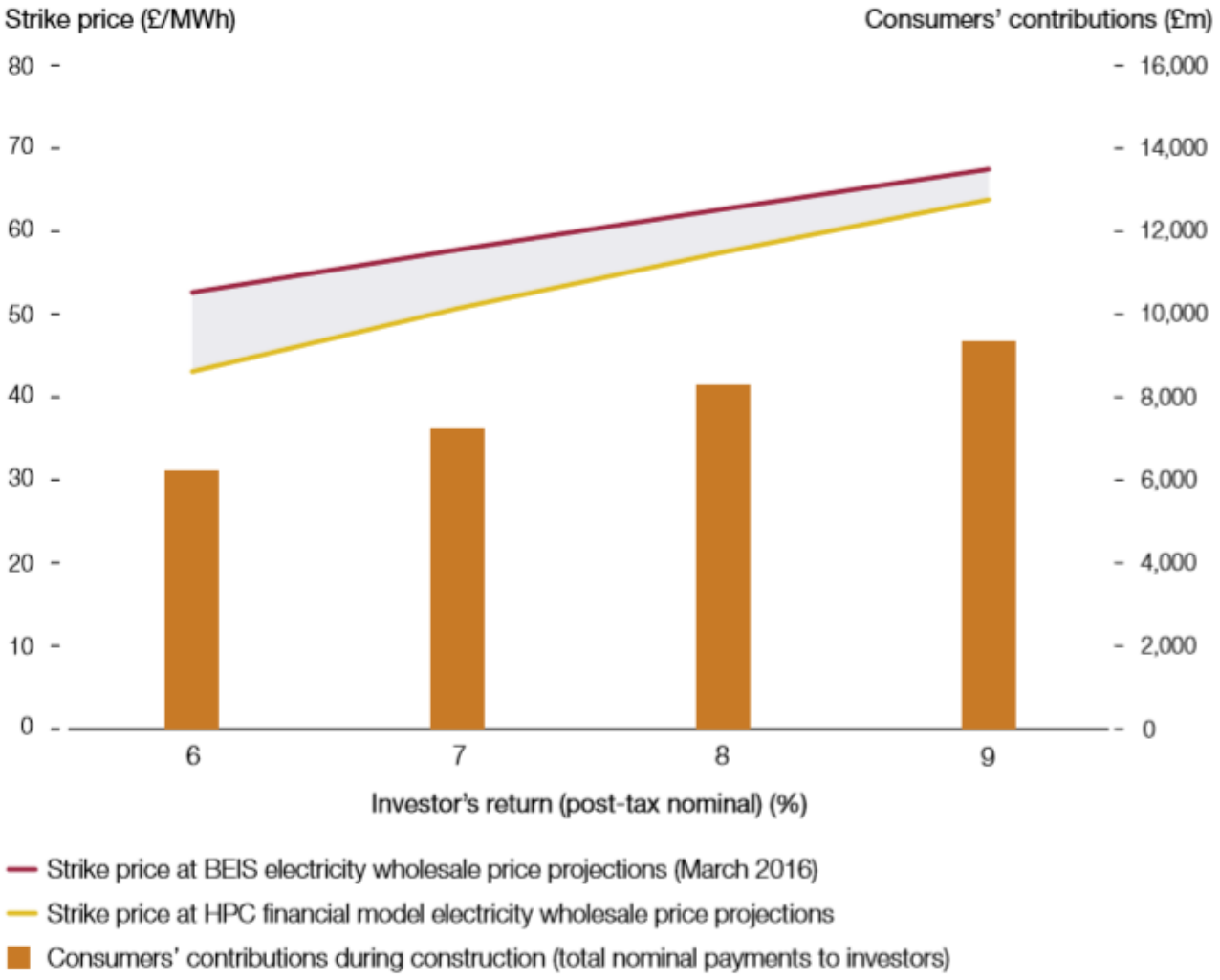
Public-private partnership



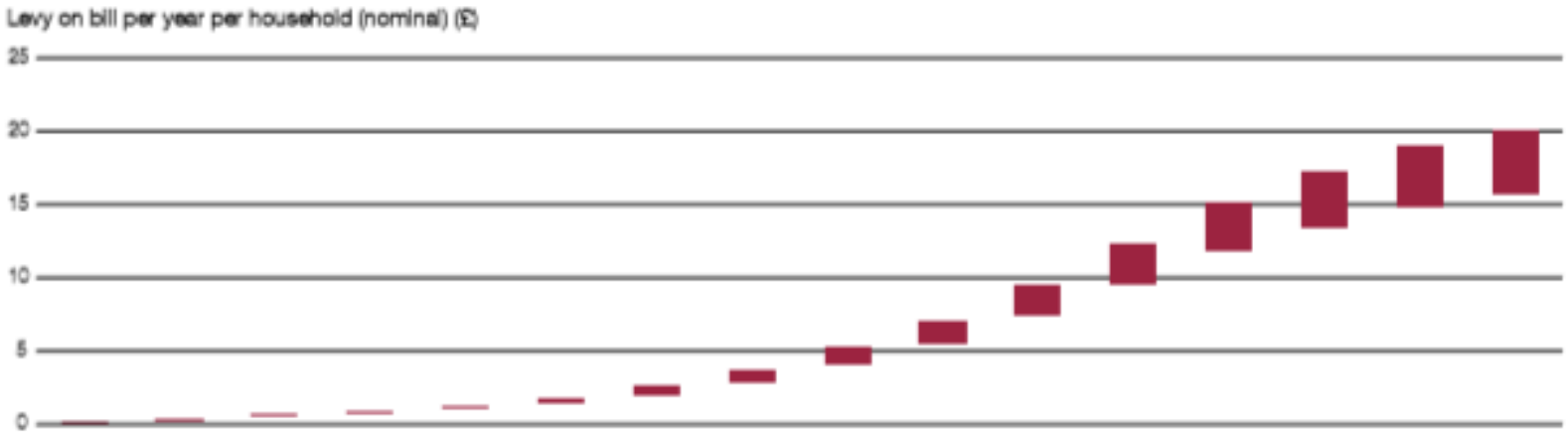
Engineer, procure and construct (Turnkey)



Regulated asset base

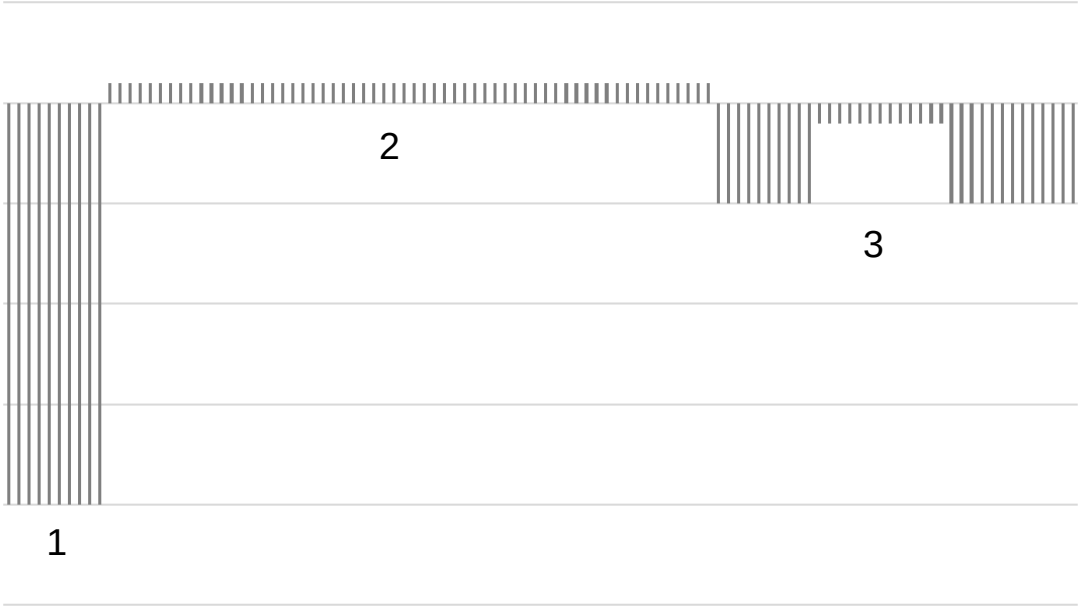


Regulated asset base – impact on bills



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Investor return 7%	£0.13	£0.23	£0.48	£0.76	£1.00	£1.38	£2.00	£2.90	£4.08	£5.52	£7.35	£9.54	£11.83	£13.47	£14.82	£15.61
Investor return 9%	£0.16	£0.30	£0.62	£0.98	£1.28	£1.78	£2.57	£3.73	£5.25	£7.10	£9.46	£12.27	£15.21	£17.31	£19.06	£20.07

Economics of nuclear projects

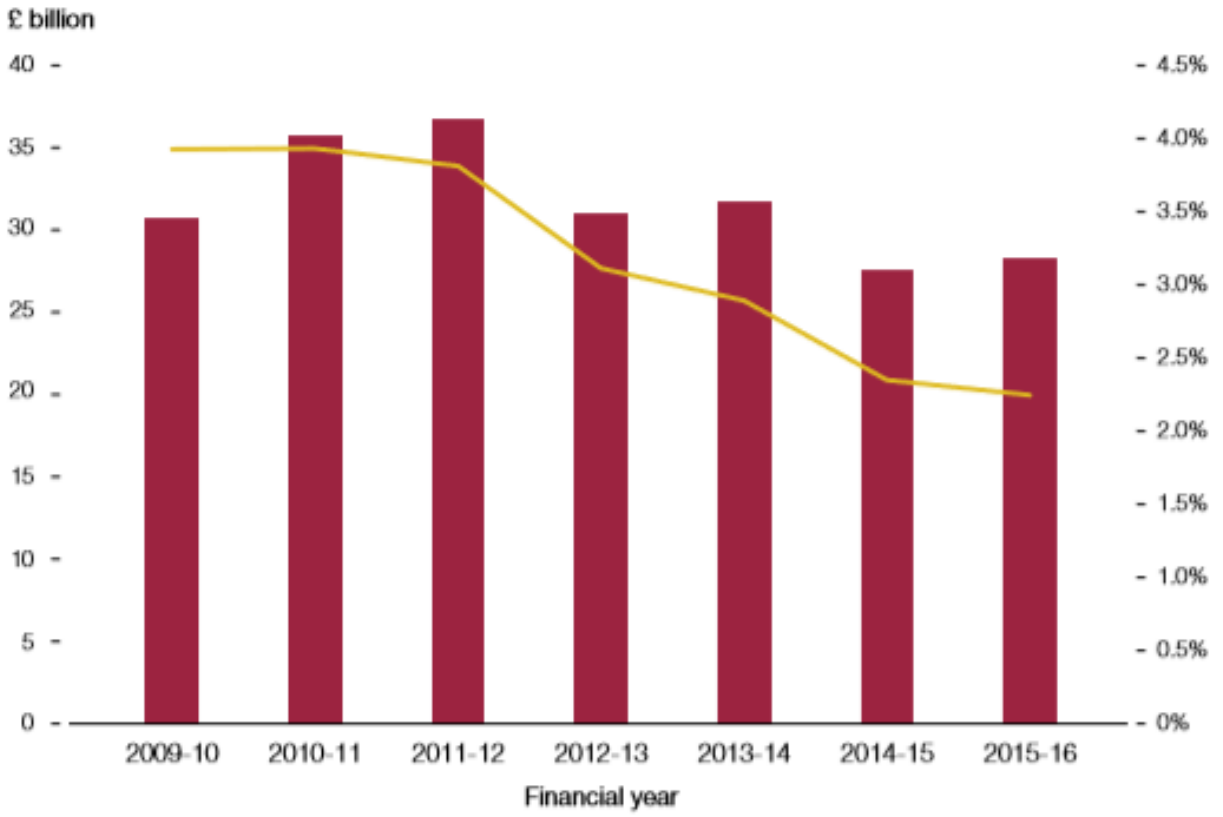


1. High upfront outlays;
2. Long time until revenues are generated;
3. Unique requirements for funding decommissioning

For EPR projects there is additional technology risk

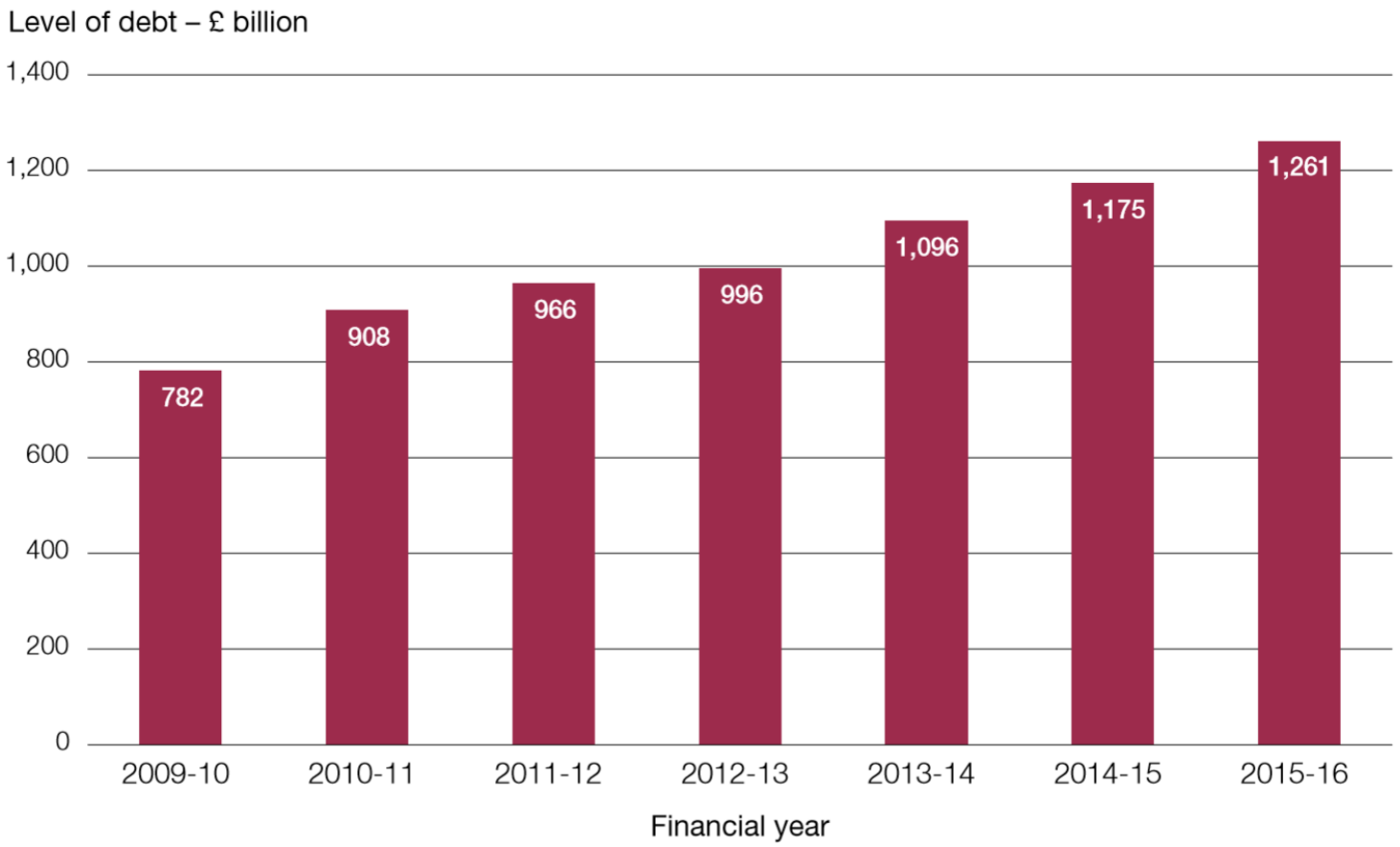
→ Project financing is more expensive

Government borrowing costs are low…



	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Interest costs in respect of government borrowing and financing	31	36	37	31	32	28	28
Implied interest rate	3.9%	3.9%	3.8%	3.1%	2.9%	2.3%	2.2%

…But overall debt levels are high



- 61% increase in debt since 2009-10
- Debt worth 72% of government's total assets in March 2016

Thames Tideway Tunnel is an example of a project using the RAB model

- Thames Water consumers are already contributing to the cost – investor required return is lower (2.497%)
- There is also a wider Government Support Package:
  - Equity if costs overrun more than 30% (or closure/compensation)
  - Government lending if capital markets disrupted
  - Indemnity for uninsurable risks (e.g. damage to property)
  - Compensation for discontinuation
  - Offer to purchase construction company if it falls into administration

It's not just about investor returns during construction.

Comparing TTT to new nuclear

- Difference in technology risk
- Who regulates a new nuclear RAB? How do they decide which costs are allowable?

Previous government projects show risk transferred to private sector often comes back…

Concluding thoughts

- Cost of capital makes a big difference to the cost of projects – particularly nuclear
- But it's not all about the cost
  - Risk transfer
  - Commercial disciplines
  - Cash flow/budgetary considerations
- We've said the government should do more to consider the alternative options than it did for Hinkley Point