



The dynamics of improving access to research papers

Mark Ware

CEPA / Mark Ware Consulting

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Scenarios...

GREEN

GOLD

DELAYED

LICENSING

TRANSACTIONAL

Analysis...

Changes in costs

- Publication/ Distribution
- Access Provision
- Transitional Costs

Access

Analysis of change in access

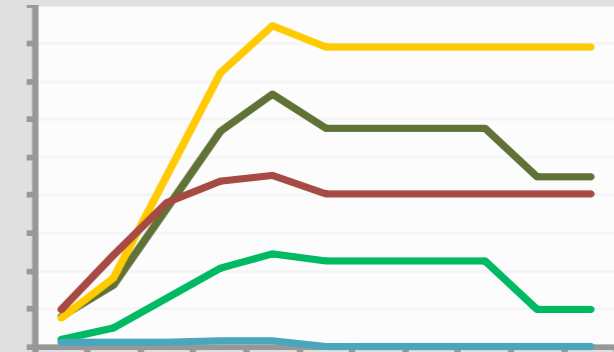
Economic Modelling
Benefits

Drivers

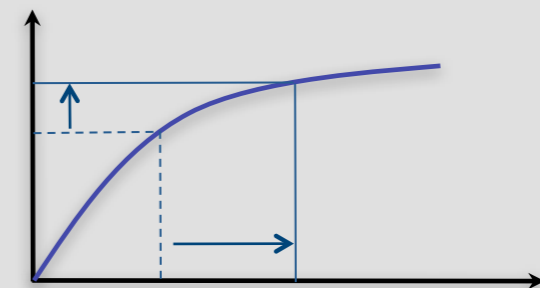
- Discussion of drivers
- Steps to be taken by whom to achieve – e.g. creation/ enforcement of mandates (Green)

Results

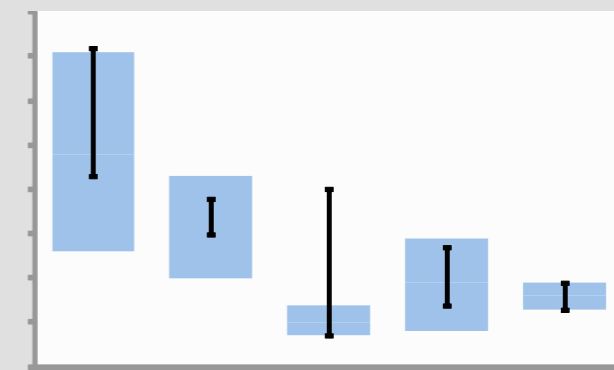
Costs



Access

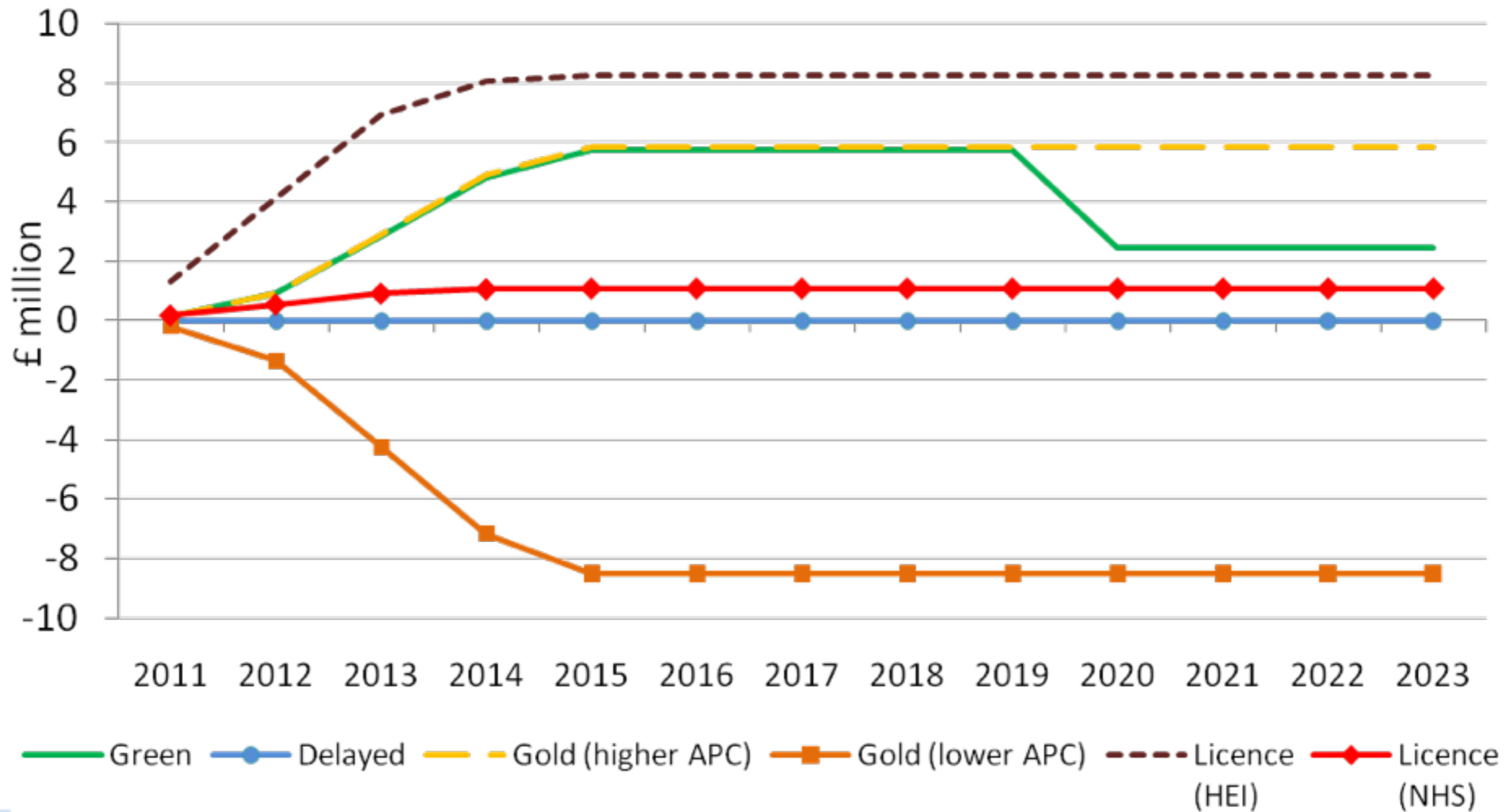


BCR

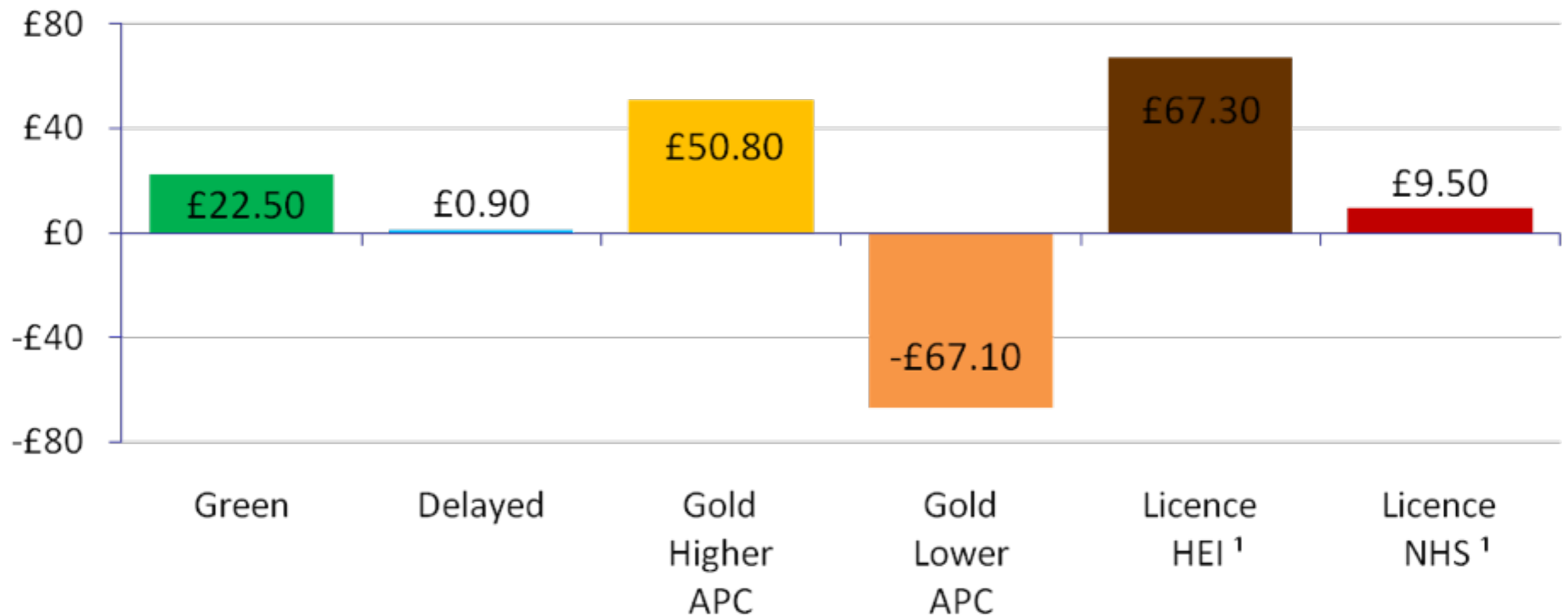


GREEN OA	<ul style="list-style-type: none"> • Funder mandates: 40–60% • Institutional mandates: 15–30% • Variants: “Green 2015” & “Green Zero”
DELAYED ACCESS	<ul style="list-style-type: none"> • Publisher response for demand for access • 25% articles available on publisher platform • Publisher-set embargoes: 12m – 36m
GOLD OA	<ul style="list-style-type: none"> • Funding coordination & more OA journals • 40% articles (biomed), 15% (S&T), 5% (AH) • Variants: higher/lower APC
LICENCE EXTENSION	<ul style="list-style-type: none"> • Publisher/govt desire to meet demand • 75% articles via HEI national licence • & 55% relevant articles via NHS licence
TRANSACTIONAL	<ul style="list-style-type: none"> • Publisher/third party response to demand • Aggregation site (“iPub”) – targeted marketing • PPV @ \$10 (& \$5 / \$1)

UK net annual costs 2011–2023

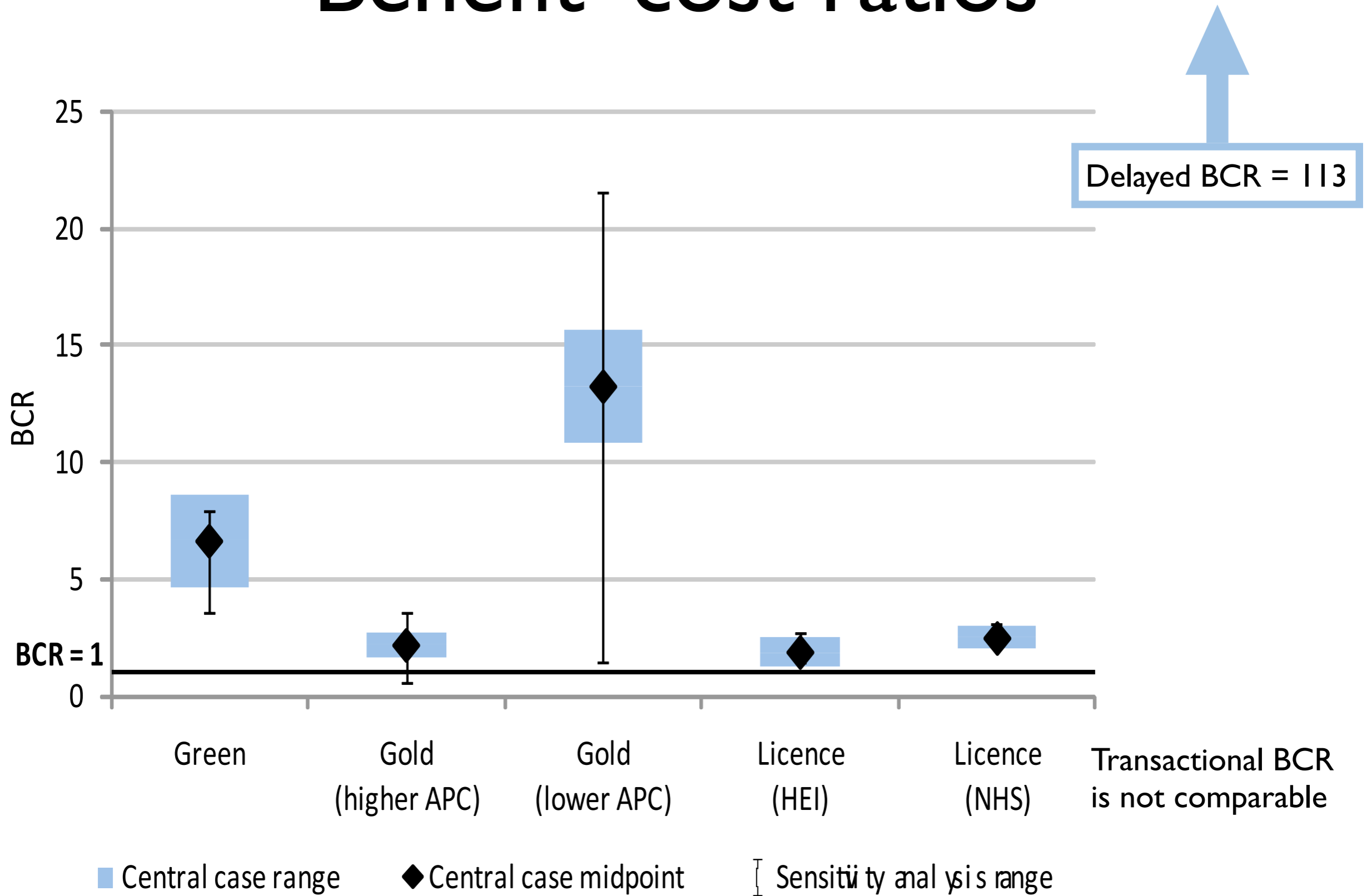


UK net cost per additional unit of “standardised access”

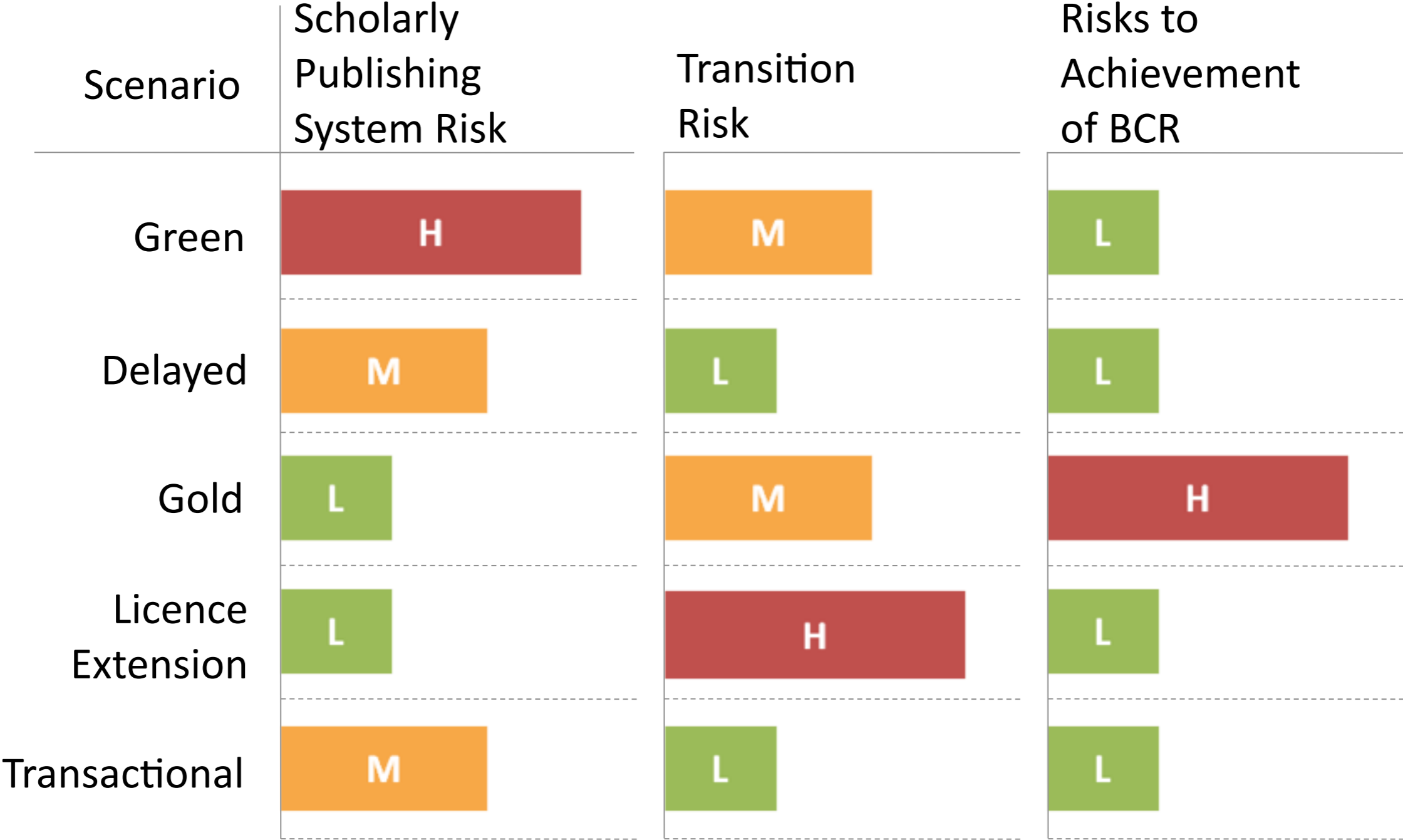


¹ Increase applicable to HEI/NHS users only

Benefit–cost ratios



Relative risks of the scenarios



Delayed access

- Closest scenario to a zero-cost option
- Low cost per additional access
- High BCR
- Lacks plausibility: insufficient motivation
- Few if any policy levers
- Unlikely to lead to major increase in access

Transactional

- Potentially useful to target access gaps
- Complementary to subscriptions/licences
 - provided cannibalisation avoided
- Unlikely to lead to substantial overall increase in access
- Few if any policy levers
- Open Access would reduce demand

Licence extension

- Cost-effectiveness depends on price ...
- ... but appears less cost-effective than others
- High transition risks:
 - Increased upfront and ongoing costs
 - Difficulty of allocation costs among HEIs
- Unattractive in current fiscal environment

Green Open Access

- Could substantially increase access
- Cost-effective since infrastructure already built
- Low transition/outcome risks
- Risks to system from potential subscription cancellations
- Not self-sustaining

Gold Open Access

- Sustainable business model
- Improved economic efficiency (transparency, lower barrier to entry)
- Potentially high BCR and lower net costs to UK academic institutions
 - provided average APCs are low enough
- Transition/outcome risks: funding “hump”, APC pricing, UK/Global take-up

Summary

- OA scenarios offer most scope for policy-makers to increase access cost-effectively
- Expand use of existing repositories (Green) but with caution re. risks to subscriptions
- Gold is preferable provided:
 - average APCs remain below ~£1995
 - UK uptake matches global rates
 - hybrid models do not increase costs

Credits/further information

- Project information & reports:
 - <http://www.rin.ac.uk>
- Authors
 - [CEPA](#)
 - Daniel Hulls
 - Joel Cook
 - David Jones
 - [Mark Ware Consulting](#)
 - Mark Ware
- Funders: [RIN](#), [JISC](#), [PRC](#), [RLUK](#), [Wellcome Trust](#)