

- Built on what foundations?

## Remarks by Michael Grubb

KAS / Climate Strategies Roundtable On Green Growth, 28 Oct 14

“The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed, the world is ruled by little else.

.. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually slaves of some defunct economist.”



# To many economists, Green Growth ...

- Defies the basic logic of their discipline
- Seen as suggesting that a constraint on human activities is needed for societies to take economically beneficial actions
- ... [eg.]
- Concerns about fossil fuel dependence do not entirely remove this dilemma

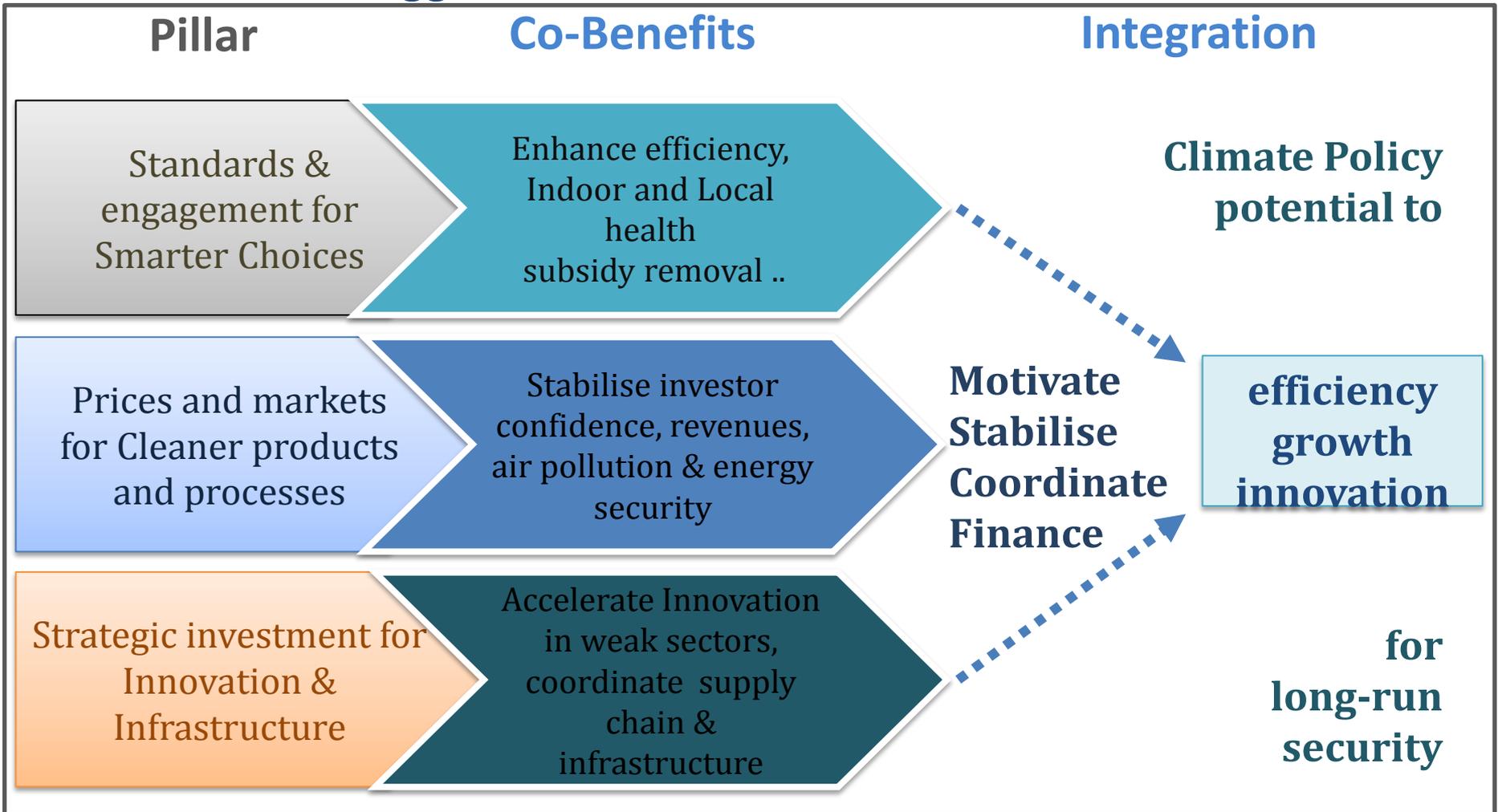
# Three Domains of decision-making involve different processes with different theoretical foundations which operate at different scales

|   | <b>DOMAIN</b>       | <b>Characteristics</b>  | <b>Theoretical foundations</b>                  |   |
|---|---------------------|---|---|---|
| <b>S<br/>O<br/>C<br/>I<br/>A<br/>L<br/><br/>S<br/>C<br/>A<br/>L<br/>E</b> | <b>Satisficing</b>  | Habits, myopia, inattention to incidental / intangible costs; endemic 'contractual failures', principal-agent failures, risk aversion to change or investment | <b>Behavioural and organisational economics</b> | <b>T<br/>I<br/>M<br/>E<br/><br/>H<br/>O<br/>R<br/>I<br/>Z<br/>O<br/>N</b> |
|   | <b>Optimising</b>   | Economic optimisation based on relative prices, 'representative agents' with 'rational expectations', stable preferences and tech trends                      | <b>Neoclassical economics</b>                   |   |
|   | <b>Transforming</b> | Structural, technological, institutional and behavioural change, typically from strategising, innovation, infrastructure investment                           | <b>Evolutionary and institutional economics</b> |   |

# The Three Domains at least offer a language and intellectual link to mainstream growth debates

- Neoclassical economic growth models have consistently found a ‘residual’ accounting for typically half of observed economic growth that cannot be explained by resource and capital accumulation (Ch.11 the “Dark Matter” of growth)
- Economic research points two broad explanatory areas:
  - Reducing suboptimal performance of many economic actors and structures
  - Education, infrastructure and innovation
- *ie.* First and Third domain processes are recognised as important for macroeconomic growth. Yet these remain
  - largely absent in global (or national) modelling
  - poorly charted in policy
- Energy is a particularly strong candidate because
  - Pervasive input to numerous production sectors
  - Fossil fuel markets are intrinsically unstable
  - Exceptionally low rates of innovation particularly electricity & construction

# The underpinning evidence and theory of Planetary Economics suggests several routes to 'co-benefits'



Grubb, Hourcade & Neuhoﬀ (2014): Planetary Economics, Figure 12-4: Potential joint benefits in energy and climate policy

... and identifying opportunities at an international level, an essential element of 'Clubs'

# Planetary Economics:

## Energy, Climate Change and the Three Domains of Sustainable Development

### 1. Introduction: Trapped?

### 2. The Three Domains

#### Pillar 1

- **Standards and engagement for smarter choice**
- 3: Energy and Emissions – Technologies and Systems
- 4: Why so wasteful?
- 5: Tried and Tested – Four Decades of Energy Efficiency Policy

#### Pillar II

- **Markets and pricing for cleaner products and processes**
- 6: Pricing Pollution – of Truth and Taxes
- 7: Cap-and-trade & offsets: from idea to practice
- 8: Who's hit? Handling the distributional impacts of carbon pricing

#### Pillar III

- **Investment and incentives for innovation and infrastructure**
- 9: Pushing further, pulling deeper
- 10: Transforming systems
- 11: The dark matter of economic growth

### 12. Conclusions: Changing Course

**Book lecture: London School of Economics, 6 November 2014, 6.00pm**

[www.climatestrategies.org/events/2014-events/book.html](http://www.climatestrategies.org/events/2014-events/book.html)

for information and register of related events.