

Business Models, Nature-Based Solutions and the 'Financialisation of Infrastructure'

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Aims and objectives

- To contextualise the drive for nature-based solutions in cities with a consideration of recent work on the **'financialisation of infrastructure'**
- This will enable an analysis and assessment of distinct kinds of **business model**
- Particular attention paid to the **role of the state** in helping deliver nature based solutions

“Financialisation”

- In broad terms financialisation is the **growing power of finance across economy and society**
- FESSUD project: ‘Financialisation, Economy, Society and Sustainable Development’ (PI Malcolm Sawyer)
- **£10M EU (FP7) project**, finished Dec 2016
- Work in FESSUD **explored financialisation in great detail at all levels – local, national, international**
 - www.fessud.eu
- **Found that financialisation can tend to stifle sustainable development, threatening crises, if in variegated ways and to an uneven extent**

Financialisation of infrastructure

Infrastructure now an asset class, trying to attract private finance

- **A driver of international development policy**
- **A driver of nation state policies**
 - Both ‘hard’ (water, energy) and ‘soft’ (housing, health) infrastructure policy
- **And a driver of Cities and regions**
 - Power of finance in emerging local governance delivering local infrastructure

Relevant research projects

- Several projects since FESSUD have cumulatively developed a method, theory and analysis of various aspects of the financialisation of infrastructure, e.g.
- EPSRC-ESRC ‘iBUILD’ 2013-2018 project [**Infrastructure BUsiness models, valuation and Innovation for Local Delivery**]: <https://research.ncl.ac.uk/ibuild/>)
- NERC-ESRC ‘CVORR’ 2014-2019 [**‘Complex value optimisation for resource recovery’**]: <https://cvorr.leeds.ac.uk/>
- Current project: NERC-iCASP ‘**Green and Blue Infrastructure Business cases**’ <https://icasp.org.uk/projects/gbi-business-cases/>
- What findings, then, regarding Nature Based Solutions?

The need for alternative value theory

- **Mainstream economic theory ill-suited to theorise infrastructure business models**
 - Value creation and capture (business models) alien to orthodox economics
- **Mainstream economic theory ill-suited to infrastructure valuation**
 - e.g. Growth effects ('non-marginal' effects) not easily captured by orthodox (marginalist) cost-benefit analysis
- **See HM Treasury's 2015 *Valuing Infrastructure Spend* supplementary guidance to the Green Book**

Social provisioning and value

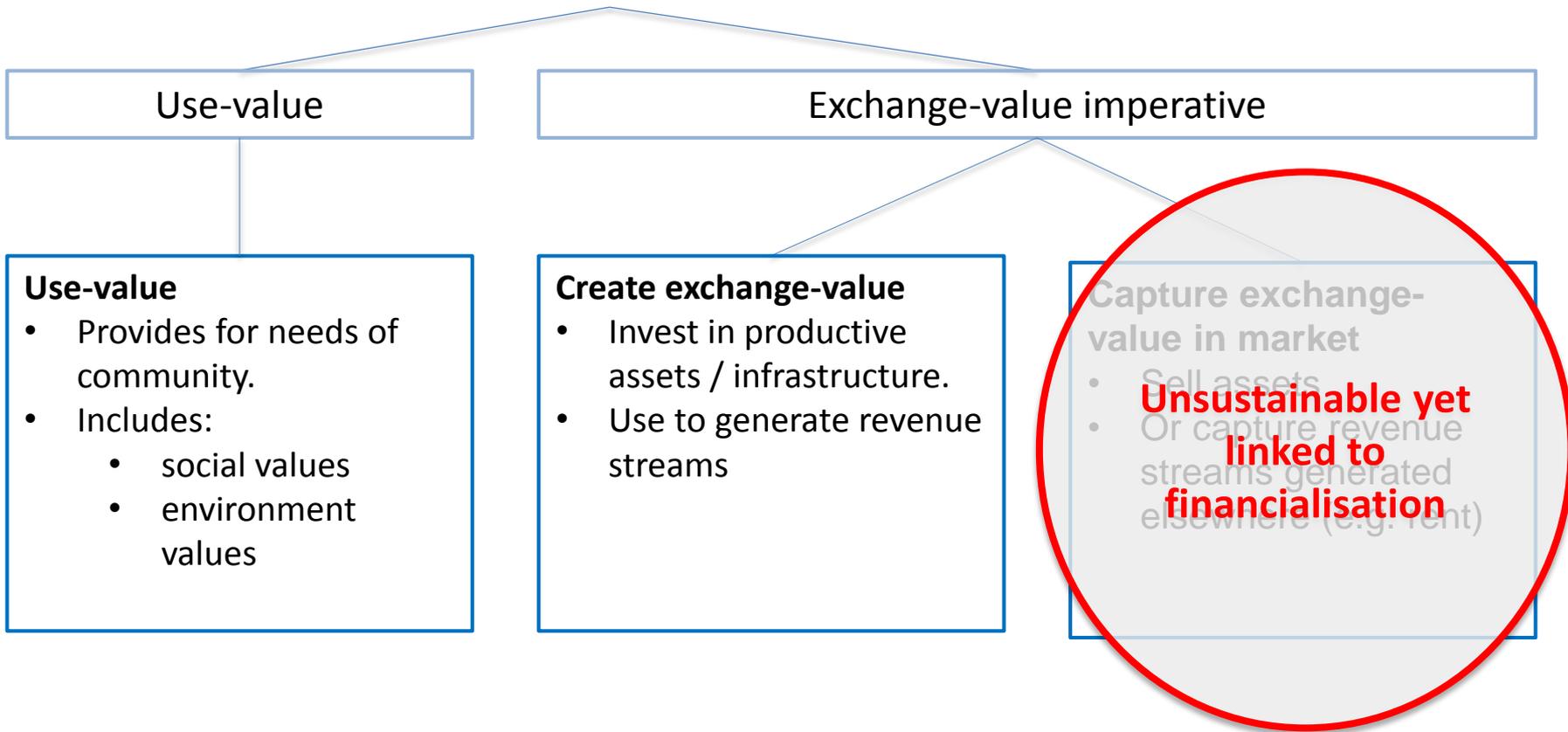
- **Non-mainstream economics (political economy)** rethinks value in a multidimensional and ‘whole system’ way
- Starting concept: ‘**social provisioning**’
- In **capitalistic system**, social provisioning occurs via **commodity production**
- Commodities have both ‘**use-value**’ and **monetary ‘exchange-value**’
- The driver of the system is the **imperative to continuously make monetary exchange-value**

Social provisioning and value

- This driver is felt through the **pressure of competition** on private business firms
- Given this value theoretic context, we can examine different kinds of **business models** through which firms try to make money
- And consider their **systemic implications** for the State

Business models

Social provisioning via commodity production



Business models

Imperative to Create and/or Capture Exchange-Value

Long-term

Exchange-value comes from investing and employing

- Additionality
- Consideration of social, environmental values

Long-term, locked-in, patient, partnerships

Short term

Capture exchange-value from elsewhere

- Displacement (Zero-sum game)
- Driven by market

Easy exits for capital (fee based finance, advisors etc)

**Unsustainable yet
linked to
financialisation**

Implications for nature based solutions

- The provision of natural based solutions that are genuinely sustainable and resilient requires business models that involve **long-term** exchange-value creation
 - Such business models must distinguish sharply between
 - short-term financial value capture as measured by immediate monetary revenue
- VS.
- long-term value creation, which can enable the multidimensional and interconnected benefits typical of nature based solutions
- Private finance cannot be assumed to always and everywhere foster such a long-term perspective
- There is a **key role for the public sector** to do so

Broader policy conclusions

- Nature based solutions have characteristics quite similar in crucial respects to infrastructure in general – they tend to be long-term and systemic in their character and benefits.
- Below I pick out the following broad policy principles which apply not only to nature based solutions but to infrastructure and its relation to the State in general

Broader policy conclusions

- **State can underpin provision for social need** (critical infrastructure, minimum welfare standards), not solely for private profit.
- **Only the State can underwrite long-term tie up of capital and fundamental uncertainty** involved in innovation that creates long-term sustainable and resilient infrastructure.

Broader policy conclusions

- **State is historically central to long-term investment in technology** (Mazzucato's concept of 'public value') – always involved in key new technology – **not State vs market**.
- Perspective of social need means that **State must balance support for infrastructure with support for other areas of need** such as welfare.
- This requires a **whole systems** approach recognising **multi-dimensional value**.
- **'Definancialisation'** should, in general, be pursued.