

Main Thesis of the Input Paper

Trading on Scarcity: Ecological Progress and Financial Market Innovations

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“Capitalising³ on Natural Resources: New Dynamics in Financial Markets”, 10 / 11 September 2008, Rüschlikon, SwissRe Centre



Overview of main thesis of input paper

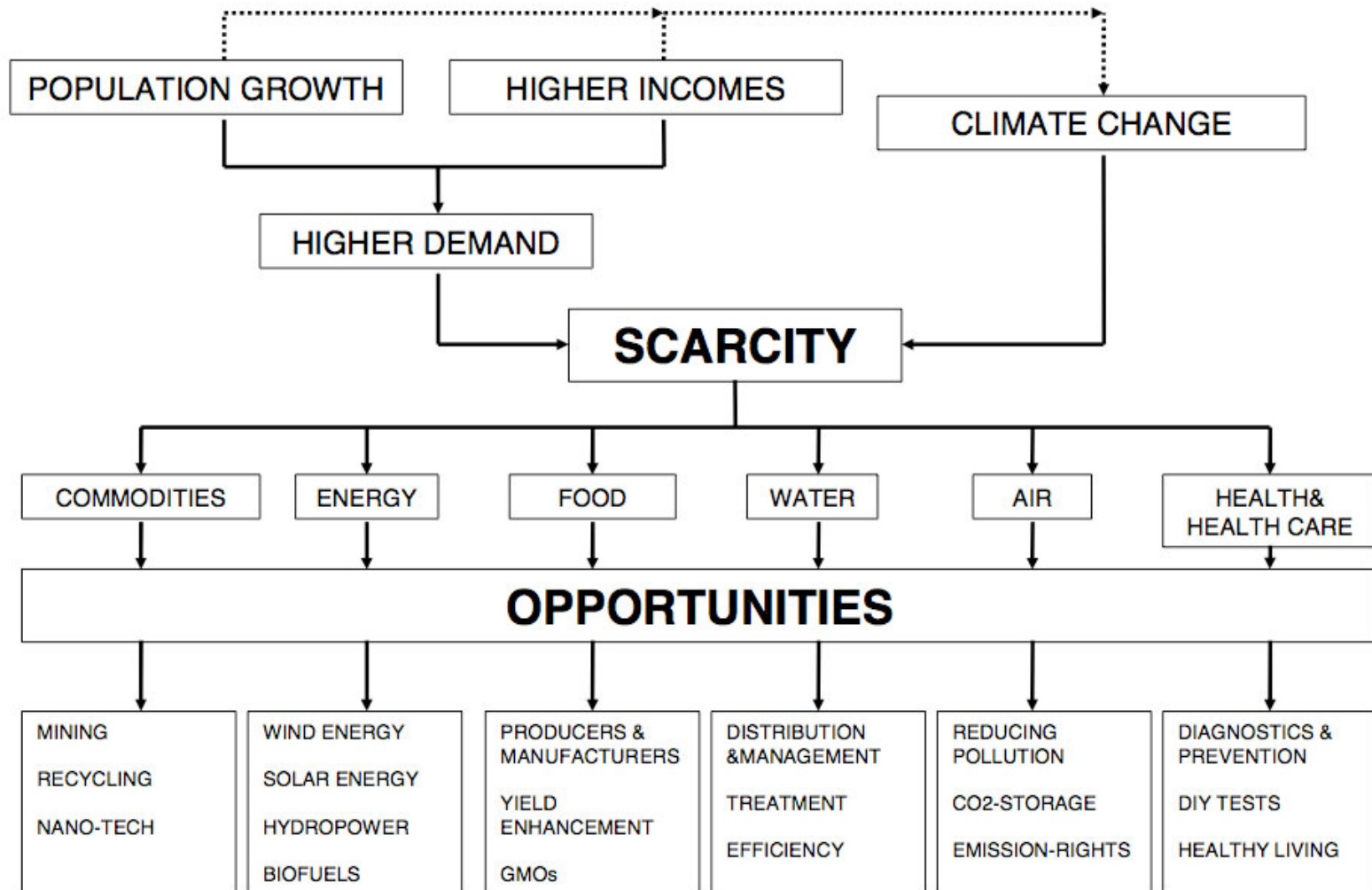
Thomas Koellner, ETH Zurich

- **Thesis 1:** Population growth, higher incomes and climate change will lead to **increased scarcities**. Natural resource management requires **understanding of feedback loops** between financial markets and the scarcities of global commodities.
- **Thesis 2: Financial markets** are in a position to provide **sophisticated and innovative products**, which can help to mitigate scarcities of commodities. **Creating new markets** can spill over from carbon to water & biodiversity.
- **Thesis 3:** Financial market players will shift **from an opportunistic to a socially and environmentally responsible strategy** of the management of the global commodities.
- **Thesis 4: Drivers of Sustainable Development in Financial Markets are ...**
 - The significance of global environmental and socio-economic issues;
 - The emergence of environmental and social norms;
 - The expected financial and non-financial returns;
 - The relative power of market players, legislators and other stakeholders

Thesis 1 about Scarcities of Commodities and Financial Markets

- Population growth, higher incomes and climate change will lead to **increased scarcities** of hard, soft and environmental commodities.
- What natural resource management urgently requires is a better **understanding of the positive and negative feedback loops** between financial markets and the scarcities of the global commodities.

The IRIS Model of the New Scarcities



Thesis 2 about Financial Market Innovation

- Financial markets are in a position to provide **sophisticated and innovative products**, which can help to mitigate scarcities of environmental and other commodities.
- Based on that **creating new markets** for environmental commodities is possible and can soon spill over from the carbon markets to other markets in the area of water and biodiversity.

Thesis 3 about Innovations and Mass Markets

- Financial market players will shift from an opportunistic to a socially and environmentally responsible strategy for the management of the global commodities.
- This is also instrumental to maintaining businesses' freedom to operate in the long-term.

Thesis 4 about Drivers of Sustainable Development in Financial Markets, which are ...

1. The significance of global environmental and socio-economic issues
2. The emergence of environmental and social norms
3. The expected financial and non-financial returns
4. The relative power of market players, legislators and other stakeholders

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Additional slides

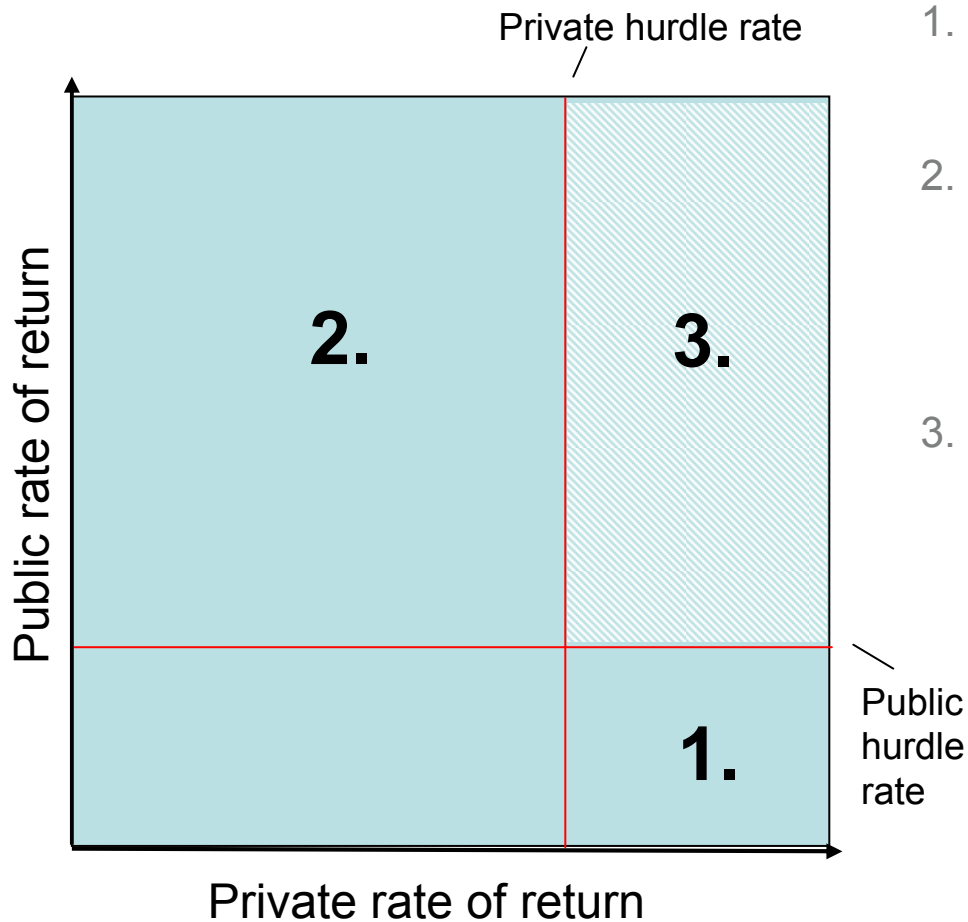


Coverage of natural resource themes by current financial markets

	Conventional Commodity Markets	Environmental Commodity Markets	Capital (Stocks& Bonds) Markets	Real Estate Markets	Insurance Markets
Hard commodities					
Metals and Minerals	✓		✓		
Energy	✓		✓		
Softcommodities					
Food and Fibres	✓		✓	✓	✓
Timber and Forestry	✓		✓	✓	✓
Fish and Fisheries	✓	✓	✓		
Environ. commodities					
Clean Air		✓	✓		
Clean Water		✓	✓		
Carbon/Climate		✓	✓		✓
Biodiversity		(✓)	✓		✓
Ecosystem Services		(✓)	✓		

✓ current activities, (✓) planned activities

Balancing financial and non-financial return



1. Opportunistic investor, seeking mainly private financial gain.
2. Social investor, pursuing social or public-interest concerns as poverty reduction, food security, and ecosystem protection.
3. Tripple bottom-line investor, combining private returns on investment with social or public-interest goals.

Based on: Kaul, I. (2005) Exploring the Policy Space between Markets and States. Global Public-Private Partnership. In Kaul (ed.) The New Public Finance.