



Biodiversity/ecosystem issues in finance:

- The need to address these
- The financial sector response

**Anders Nordheim
CBD Business & Biodiversity 2015**



Inquiry: Design of a Sustainable Financial System



The Financial System We Need

Aligning the financial system with sustainable development

A SYSTEMIC CHALLENGE

TOO MUCH OF THIS



NOT ENOUGH OF THIS



CRITICAL CHALLENGES

US\$16
trillion

Annual global investment
All needs to be green and resilient

US\$ 5-7
trillion

Annual investment needed for sustainable development goals e.g. in infrastructure, energy, agriculture

US \$ 7
trillion

Annual environmental externalities –need to be costed into decision making

US\$ 6
trillion

Reduction in fossil fuel and power investment need (2015-2030)

CHINA: Greening the financial system



Green credit criteria taking shape

Updated: 2012-05-16 17:00

By Zheng Yanpeng (chinadaily.com.cn)

CHINADAILY.com.cn

Green investment needs: US\$400bn p.a to finance green investment; only 15% from public sources.

Green financial system: The People's Bank of China co-authored a set of proposals with the Inquiry on closing the gap: green bonds, green ratings, lender liability, environmental insurance, stock market disclosure

International cooperation: Exploring areas of cooperation in green finance ahead of G20 in 2016, with Bank of England and Inquiry

“Greening a country’s financial system is not an “additional” performance requirement but concerns the efficiency and effectiveness of the whole system”

Development Research Council of the State Council, China

UK: Prudence, stability and green finance



theguardian

'Carbon bubble' poses serious threat to UK economy, MPs warn

Fiduciary Duty: Law Commission review clarified that material sustainability factors part of prudent investing.

Prudential Regulation: The PRA has examined the impact of climate on safety and soundness of insurance companies: physical, transition and litigation risks.

Green Finance: The Green Investment Bank instrumental in creating a new class of 'renewable investment trusts'

“The central bank time horizon is relatively short. But the real challenges to prosperity and economic resilience from climate change will manifest well beyond this. We face a 'tragedy of horizons'.” **Mark Carney, Governor, Bank of England**

FRAMEWORK FOR ACTION: *Tools, policies and governance*

Tools



Enhancing market practice: Disclosure, responsibilities, product criteria



Harnessing public balance sheet: Fiscal incentives, public institutions & central banks



Directing finance through policy: Priority sectors, regulatory calibration, liability frameworks



Transforming culture
Capacity building, financial behaviour, market structure

Policy packages



Banking: Extend risk based governance, improve access, enhance culture



Bonds: scale up green bonds, extend credit analysis



Equities: market disclosure, sell-side research



Investment: Pensions governance, transparency and incentives



Insurance: Access, prudential governance & investment role

Governance



Principles for a sustainable financial system



Compacts and pathways



Policy and legal frameworks



Regulatory mandates



Performance measurement

INQUIRY: *conclusions*



A systemic approach: Financing for sustainable development can be delivered through measures focused on the financial system, as well as the real economy.



A quiet revolution: A growing number of policy innovations have been introduced by both developing and developed countries, demonstrating how the financial system can be better aligned with sustainable development.



A moment of opportunity: Systematic national action can now be taken to shape a sustainable financial system, informed by current trends and complemented by international cooperation.

Integrating Water Scarcity Risk in Corporate Bond Valuation



Bundesministerium für
wirtschaftliche Zusammenarbeit
und Entwicklung



Natural
Capital
Declaration
Financial sector leadership
on natural capital

Secretariat:



giz

EMERGING
MARKETS
DIALOGUE



VWU

Project Partners

Project Partners



Expert Council (Examples)



Approach

Combine Three Sources of Data

Global data on water stress

Data on water use by location of operations

Corporate credit information

WATER VALUE



Calculate shadow prices

COSTS FOR WATER



Combine company data with price at location

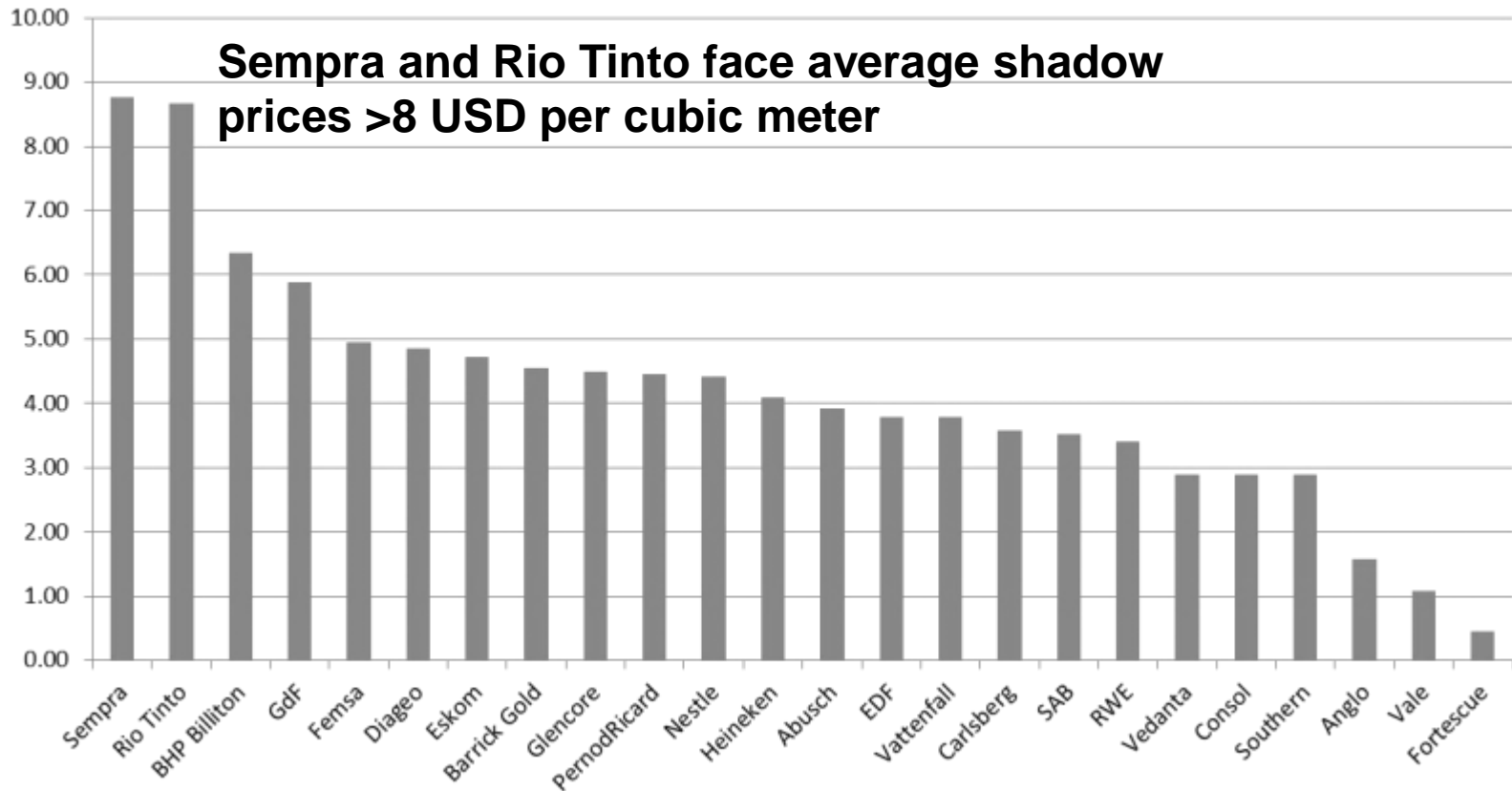


COMPANY FINANCIAL SPREADSHEET	
P&L, US \$ DOLLARS MILLION	2014
REVENUES	30,222
OPERATING COSTS	-27,474
ADDITIONAL WATER OPEX	-298
NON OPERATING SPECIAL ITEMS	-469
SHARE OF NET INCOME FROM ASSOCS AND JVs	168
OTHER SPECIAL ITEMS	4,514
EBIT UNDERLYING	6663

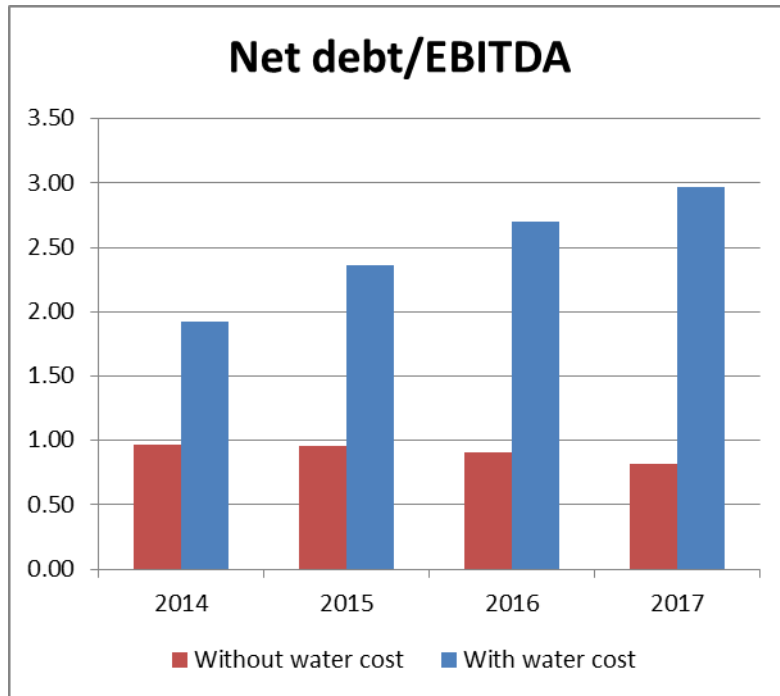
Assess financial impact

Blended Shadow Prices of Water

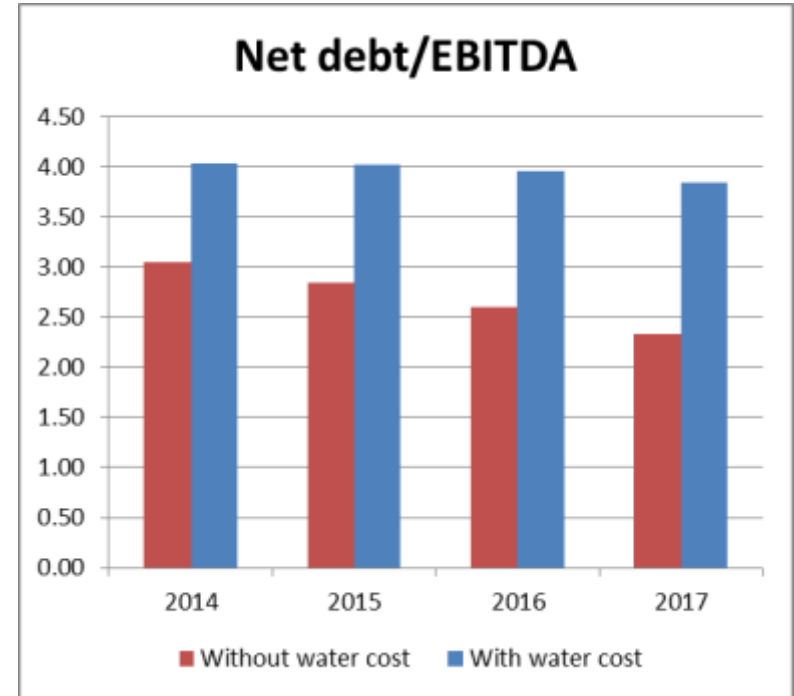
USD per cubic meter



Highlighted Results: Mining



Rio Tinto: ratio rises by 200% to 2.96x in 2017



Vedanta: ratio rises to 4x
→ non-investment grade?

Highlights

- Water stress in many regions is high and increasing
- Companies will face pressure to internalize costs
- Financial ratios of companies in certain sectors/regions may be negatively impacted
- Financial institutions face potential risks from financing companies with production in water stressed areas

Thank you!

Contact:

anders.nordheim@unep.org

www.naturalcapitaldeclaration.org

www.unepfi.org

www.unepinquiry.org