

Discussion: Papers on Valuation of Natural Resources

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Overview

- Brief review of *SNA 2008* guidance
- Problems addressed by these papers
 - Scope of coverage
 - Economic ownership
 - Leases and licenses; permits
 - Valuation
 - Analysis of estimates

Natural resources in *SNA 2008*

- Types
 - Land
 - Mineral and energy resources
 - Non-cultivated biological resources, water resources, and other natural resources
- Non-produced, but within asset boundary
 - Some activities (mineral exploration, extraction) within production boundary
 - No "consumption of natural resources" charge
 - Balance sheet, other changes in volume of assets
- Leases often used for extraction

Scope

- Papers focus on various natural resources:
 - Canada on mineral and energy and timber resources
 - China on land, timber, and water resources
 - Netherlands on oil and gas
- UN SEEA classification for mineral and energy reserves
 - Classes A (economically viable), B (expected to become viable), and C (non-commercial)
 - Should this classification be used in SNA?

Economic ownership

- Arrangements differ across countries, but in many countries the government is the legal owner of mineral and energy resources, but economic risks and rewards are shared with lessee.
- *SNA 2008* doesn't accept financial lease treatment for natural resource leases
- Canada effectively splits ownership between corporations and government with an intangible asset; tangible asset not allocated to either sector
- Innovative, but is it consistent with SNA?

Leases and licenses

- *SNA* (17.314-315) describes three cases – if lessee can use resource to extinction with little intervention from owner, recorded as sale; otherwise as lease with rent.
- Sharp boundary between effects of sale and lease/license can cause problems
 - Resource owner's balance sheet
 - Net lending
- Installment sale?

Valuation

- *SNA* principle of market valuation must be approximated using net present value
- Canadian paper provides a detailed example of how it can be estimated in practice
- Netherlands paper describes changes moving closer to market valuation
- Market prices may be volatile

Analysis of results

- In Canada, assets in corporation sector account more closely reflects equity valuations
- In Netherlands, interesting analysis of extraction limits for Groningen accumulation
- In China, pilot compilation is designed to meet policy needs
- Bottom line – natural resource statistics help SNA in providing accurate, comprehensive picture of nation's economy.