

*Resource Codification,  
Valuation Standards,  
and Sustainable Development*

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International Valuation Standards Committee

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UNECE's Ad Hoc Group of Experts  
on Harmonization of Reserves and Resources Terminology,  
Second session, Geneva, 9-11 November 2005

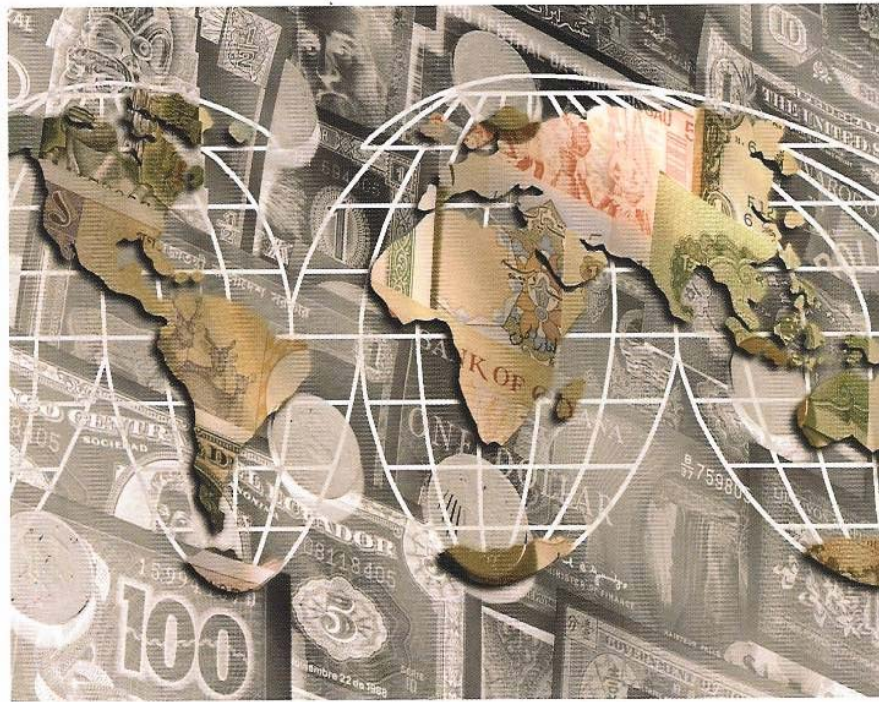


# International Valuation Standards Committee (IVSC)

- A UN NGO member
- The little sister of the International Accounting Standards Board (IASB)
- Publishes the International Valuation Standards (IVS) for global use
- The IVS is recognised as the valuation standards for reporting under the International Financial Reporting Standards (IFRSs)
- The IVS is translated into many languages and is adopted into the laws and regulations of many countries



# International Valuation Standards Seventh Edition 2005



International  
Valuation Standards  
Committee



# IVS 2005 Edition

- Contains Extractive Industries (minerals and petroleum) specific valuation standards for the first time
- 459 pages. USD50 (includes international delivery)
- Standards for all asset types
  - Particularly real property and business
  - Also other tangible and intangible assets
  - For all value types
    - Particularly market value and fair value
  - For all uses
    - Particularly financial reporting
      - Contains IFRS specific instructions



# Major Reserve-Resource Classification Systems

- SPE/WPC/AAPG for petroleum
- CRIRSCO-based for minerals
  - JORC, Australasia
  - CIM, Canada
  - SAMREC, South Africa
  - IMM *et al*, Europe
- Russian for petroleum
- Russian for minerals
- UNFC for petroleum and minerals



# Other Resource Classification Systems

- Between 100 and 200
- Near as many systems as there are countries



# Uniform Classification and Standards – Why Needed Globally

- Globalization has brought cross-border transactions, operations, reporting, and need for cross-border comparability
- Uniform Classification and Standards needed globally for:
  - International operations by companies
  - International investment
  - International securities selling and trading
  - International lending
  - International banking
  - International insurance
  - International aid programs
  - International consulting and worker mobility



# Who Wants Uniform Global Standards?

- Companies
- Investors
- Lenders
- Regulators
- National and International Planners





# Who Does Not Want Uniform Global Standards?

- Those scared of change
- Those who view the standards as being imposed without allowing them adequate input
- Those who benefit from the inefficiencies of artificial barriers



# Resource Classification – Goals in Financial Reporting

Distill for the reader the combined outcome of analysis of important factors about the company's deposits or fields:

- Geological knowledge and potential
- Economic – product market knowledge and potential
- Engineering limitations – extraction, processing, metallurgical
- Other restrictive factors – governmental, environmental, legal, and social



# UN Framework Classification

- Advantages

- Combines Petroleum with Minerals in one system
- Globally derived with input from many cultures
- Designed for multiple uses
  - Stock market reporting
  - Includes national planning level data
- Compatible with the other major systems
- 3 dimensions
  - Conveys more information than 2 dimensions
  - Numerical classification to alleviate language problems

- Disadvantages

- 3 dimensions
  - May seem more complicated than 2 dimensions
- Not designed specifically for stock market reporting
  - Not presently accepted by the major stock markets



# Reporting for Major Stock Markets

- Petroleum – USA
  - SEC Rule SX
  - Proved Reserves only
- Minerals
  - Canada, Australia, South Africa, England
    - Proved and Probable Reserves
    - Measured, Indicated, and Inferred Resources
  - USA
    - Industry Guide 7 – Proved and Probable Reserves only
- International Financial Reporting Standards
  - Not yet determined



# National Asset/Public Sector Accounts

UNFC versatile for monitoring resource assets for public entity and national planning purposes:

- Useful sustainable development planning tool
  - Monitor a complete range of classifications
  - Aids determining where to focus financial and human endeavours
    - Develop deposits where derive greatest economic and social benefit, while balancing efficient use, long-term resource allocation, and environmental factors



# Private Sector

- Financial markets allocate monetary funds to where economic efficiencies are greatest
- They direct funds to where social, environmental, and legal issues are minimal
  - Maximize the ratio of benefit to risk
- Through aiding this process, information conveyed by the UNFC will enhance sustainable development

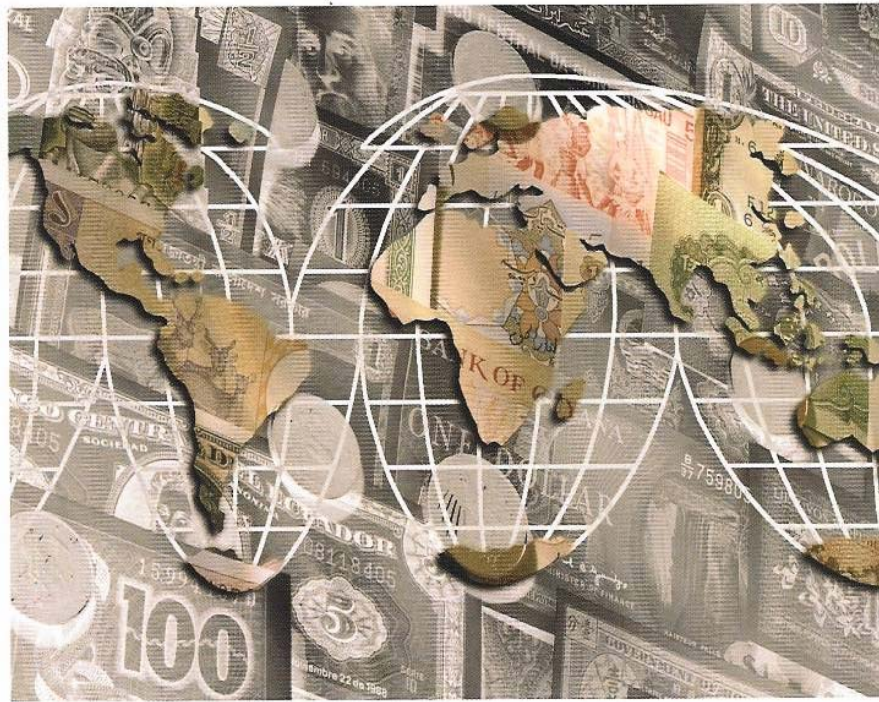


# Need for a Global Extractive Industries Valuation Standard

- Minerals and petroleum companies work internationally
- Minerals and petroleum valuers work internationally
- Companies report internationally to:
  - Securities markets
  - Investors
  - Lenders
- Investors and lenders compare projects internationally
- 190+ countries need standards
- Required to support current value accounting for the extractive industries in the IFRS



# International Valuation Standards Seventh Edition 2005



International  
Valuation Standards  
Committee





# International Valuation Standards

Extractive Industries (minerals and petroleum) valuation standards included in IVS 2005 edition:

- Abide by the Generally Accepted Valuation Principles
  - The standards draw upon the entire IVS
- Designed for valuation of reserves, resources, and exploration properties
- Designed for valuation of mineral and petroleum related real property, plant and equipment, financial and intangible assets



# International Valuation Standards

- Designed for a wide variety of uses of valuation reports
  - By owners, lenders, investors, regulators
  - Contains supplemental instructions for valuations used in financial reporting
- A Technical Paper of supplemental guidelines is being developed by the IVSC's Extractive Industries Task Force



# International Valuation Standards

- Mineral and petroleum valuations rely on reserve and resource estimates
- Classifications referenced by the IVS are:
  - SPE/WPC/AAPG, CRIRSCO, and UNFC
  - The IVS excludes UNFC G4 from its Mineral and Petroleum Resource definitions
- Market valuation reports have the most comprehensive valuation standards



# Sustainable Development

## – UNFC

- Selection of resources for exploration and development based on their economic efficiency
  - Should account for geological, engineering, environmental, legal, social, and governmental factors
  - The UNFC does this
- The UNFC aids governments and companies to select deposits/fields suitable for development on a uniform basis of measurement
  - Market forces are measured by economic factors



# Sustainable Development

## – IVS

- Provides uniform valuation principles for international use
- Determination of deposit value assists in the efficient allocation of money, labour, and energy
  - Development of deposits of greatest value first is generally the most efficient (least wasteful) use of money, labour, and energy.



# Sustainable Development – Financial Reporting to Stock Markets

- Efficient financial markets will allocate money for development to the most economically desirable projects
- Financial reporting based on the IVS with the UNFC will help this efficiency
- Companies sell or trade assets on which they don't have the ability to obtain an adequate return on asset value
  - The buyer aims for an adequate return



# Sustainable Development – Government or Public Accounts

- Similar principles should be applied
- Classification should be based on geological, engineering, economic, and other factors as specified in the UNFC
- Deposit values should be determined by market value or fair value standards
  - Can be used to efficiently allocate money, labour and energy
  - Maintaining asset accounts recording market or fair values will help avoid poor or corrupt sale, lease, or trade decisions



# Recommendation

- The IASB wants a classification system unifying minerals and petroleum
- It will choose either:
  - The UNFC
  - CRIRSCO + SPE/WPC/AAPG
  - US SEC's Industry Guide 7 + Rule SX
  - Develop its own
- Our industries ***must*** determine the outcome:  
UNFC + CRIRSCO + SPE/WPC/AAPG

