

Finance, Mining and Sustainability: Exploring Sound Investment Decision Processes



Governmental Views on Achieving Sustainability

by
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The World Bank Group
The Mining, Minerals, and Sustainable Development Project

Paris, France
January 14-15, 2002



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Governmental Views on Achieving Sustainability



Current Global Environment



Needs of Private Sector Investors



Government Measures for Economic Sustainability



Government Measures for Environmental Sustainability



Government Measures for Social Sustainability



Framework for SD - Theory and Practice



Conclusions



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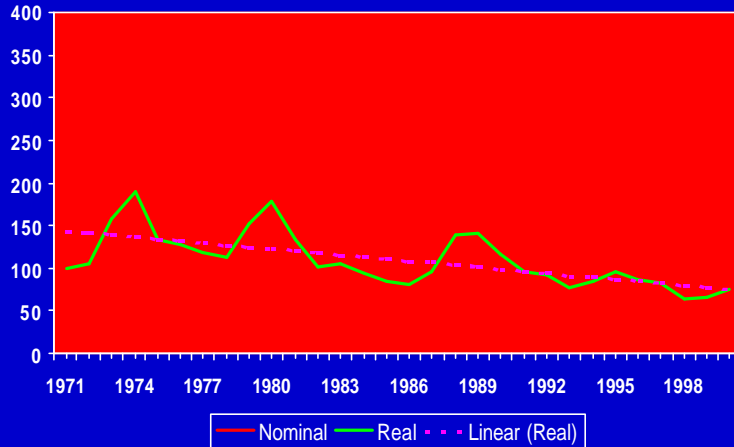
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Metal Prices 1971-2000



Indexes: 1971 = 100



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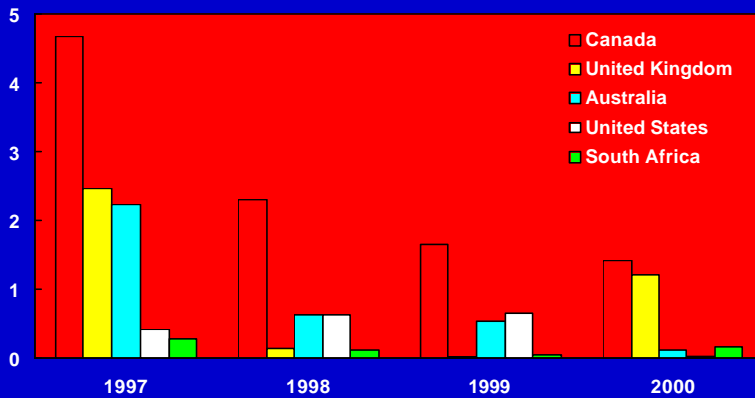
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Sources of Equity Financing for Mineral Exploration and Development, 1997-2000



Billions of Canadian dollars



Sources: Toronto Stock Exchange, Natural Resources Canada, Securities Data Co., FP Data Group, Gamah.



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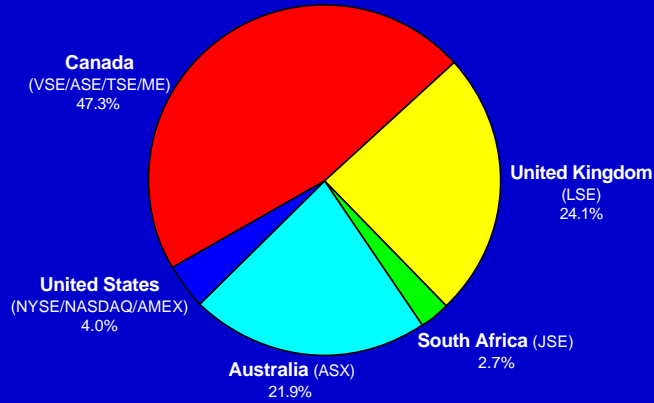
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Sources of Equity Financing for Global Mineral Exploration and Development



1997
C\$10.0 Billion



Sources: Toronto Stock Exchange; Natural Resources Canada.



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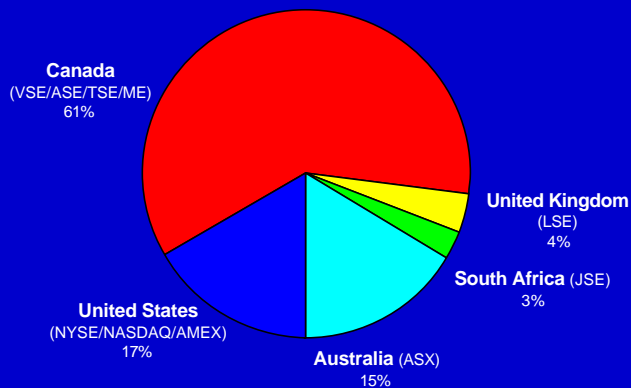
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Sources of Equity Financing for Global Mineral Exploration and Development



1998
C\$3.8 Billion



Sources: Toronto Stock Exchange; Natural Resources Canada.



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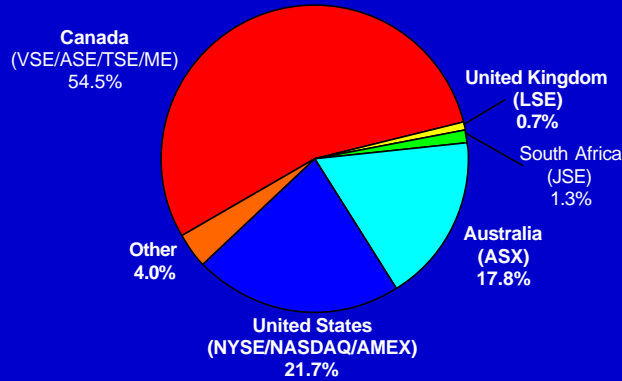
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Sources of Equity Financing for Global Mineral Exploration and Development



1999
C\$3.0 Billion



Sources: Toronto Stock Exchange, NRCan, Securities Data Co., FP Data Co., Gamah International.



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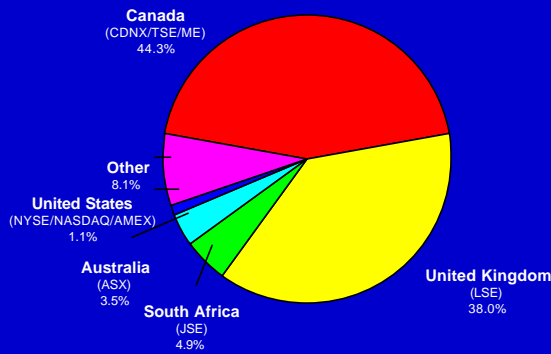
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Sources of Equity Financing for Global Mineral Exploration and Development



2000
C\$3.2 Billion



Sources: Toronto Stock Exchange, NRCan, Securities Data Co., FP Data Co., Gamah International.



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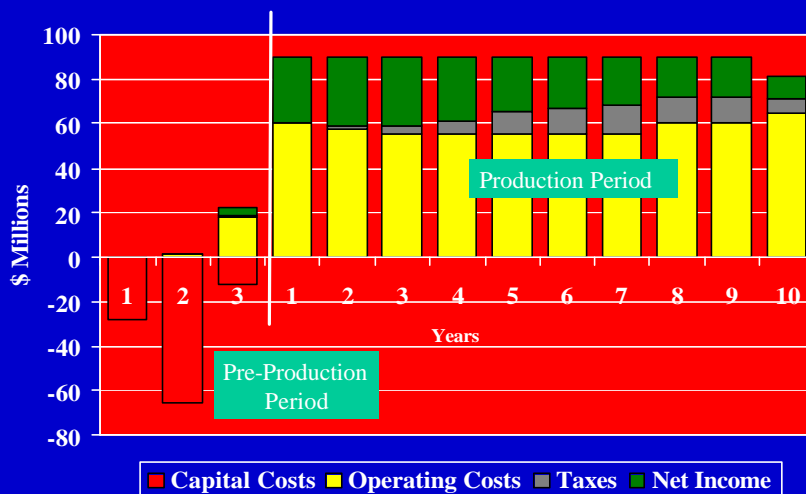
- ❖ Current Global Environment
- ➔ **Needs of Private Sector Investors**
- ❖ Government Measures for Economic Sustainability
- ❖ Government Measures for Environmental Sustainability
- ❖ Government Measures for Social Sustainability
- ❖ Framework for SD - Theory and Practice
- ❖ Conclusions



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Needs of Private Sector Investors



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Needs of Private Sector Investment



- **Private Sector Determines the Pace of Mineral Development**
- **Government Plays a Complementary Role**
- **Rules and Regulations Are Known in Advance**
- **Range of Stakeholders are Consulted on Proposed Modifications**



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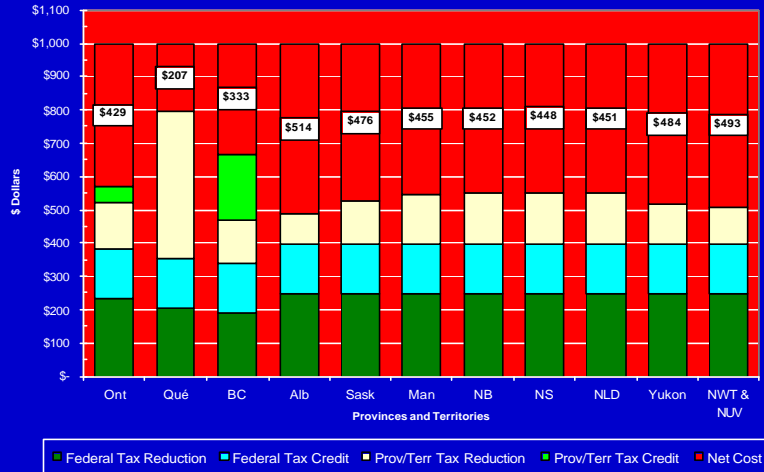
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New Investment Tax Credit for Exploration Ranges of Tax Treatment by Province/Territory



After-Tax Cost of a \$1,000 Investment in Flow-Through Shares
Top Marginal Tax Rates for 2001, as of January 2001



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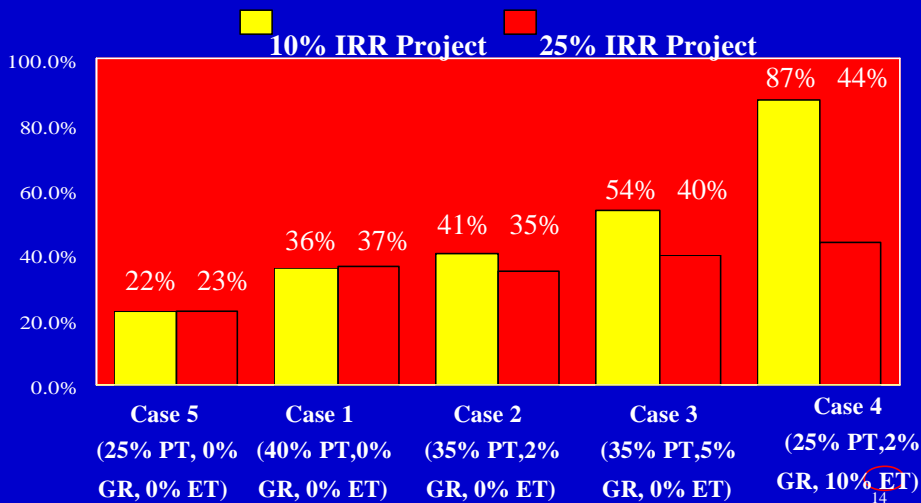
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Calculation of Average Tax Rates for Five Cases with Three Types of Tax



(PT - profit tax rate, GR - gross royalty rate, ET - export tax rate)



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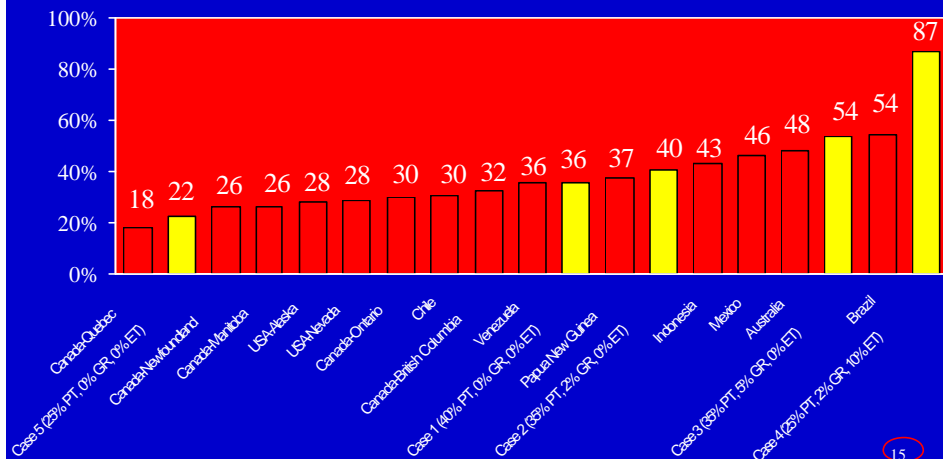
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Average Effective Tax Rates for Project with 10% IRR



(PT - profit tax rate, GR - gross royalty rate, ET - export tax rate)



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National Instrument 43-101: Standards of Disclosures for Mineral Projects



- Purpose of Rule is to Enhance Accuracy and Integrity of Disclosure in the Mining Sector.
- All scientific and technical disclosure to be based on information prepared by a “Qualified Person”.
- Developed by Canadian Securities Administrators; became law across Canada on February 1, 2001.



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What is the Qualified Person Concept?



- The Qualified Person concept is a regulatory concept, not a new title or license.
- Means that only suitably qualified, regulated, professionals are responsible for scientific and technical disclosure that is reported to the public market place.
- Brings the application of professional standards and responsibility into technical reports to the public.



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Responsibility of a Qualified Person



- Adhere to professional and industry standards.
- Be involved in design and implementation of programs.
- Review news releases reporting their work to ensure accuracy.
- Undertake a site visit.
- Adhere to Exploration Best Practices.
- Data verification to be undertaken
- Sign and seal the document
- Provide a Certificate in accordance with NI 43-101
- Consent
 - To filing and use of technical report
 - No reason to believe misrepresentation in disclosure derived from technical report.



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When is a Technical Report Required?

	In-House QP	Independent QP
First Time Reporting Issuer in Canada		X
Reporting Issuer in a new Jurisdiction		X
New listing or a material change at an Exchange		X
Preliminary Prospectus		
Long Form		X
Short Form with new material information*	X	
Information or proxy circular on acquisition of material property for securities*	X	
Offering Memorandum containing mineral disclosure*	X	
Rights Offering Circular containing mineral disclosure*	X	
AIF or Annual Report*	X	
Valuation		X
Take-Over Bid Circular*	X	
Press Release	X	

*Independent report if first time disclosure of resources or reserves or preliminary assessment



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Environmental Regulations in Canada: Recent Developments



- Canada-Wide Accord on Environmental Harmonization
- Federal-Provincial Agreements to Cooperate on Environmental Assessments
- Federal Coordination Regulation and Guidelines for Panel Reviews



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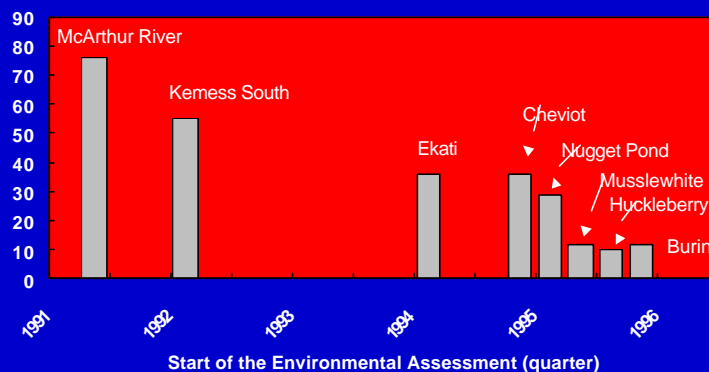
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Time to Complete the Environmental Assessments of Mining Projects in Canada



Time to Complete the Assessment (months)



Source: Natural Resources Canada.



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MINE RECLAMATION FUNDS



- Mechanism
- Tax Treatment



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The Canadian Mine Environment Neutral Drainage (MEND) Initiative



- Technologies to Reduce Effects of
Acid Drainage
- Government-Industry Consortium



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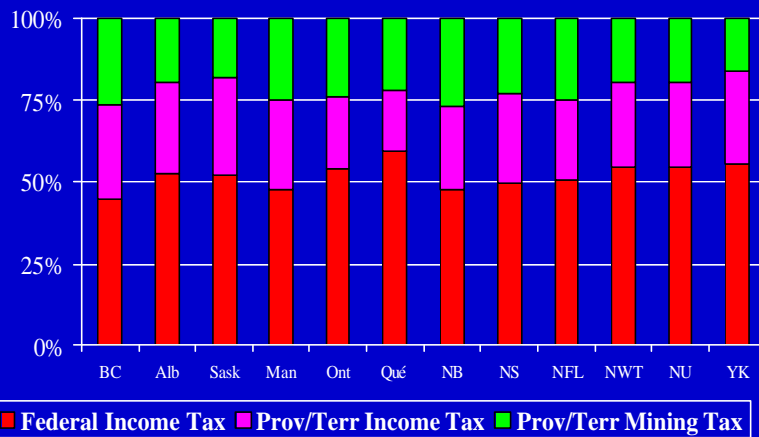
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Canadian Share of Tax on Mine Income



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Impact and Benefits Agreements



- An arrangement between company and local community
- Question as to whether payments to communities are tax deductible with the purposes of taxation.



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FRAMEWORK FOR SUSTAINABLE DEVELOPMENT



RESORTING TO THEORY

- Efficiency ?
- How Much Environmental Disruption?
- Compensation ?



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FRAMEWORK FOR SUSTAINABLE DEVELOPMENT



Resorting to Consultation and Negotiation

Who to Consult With and Why?

Who to Negotiate With?

A Lasting Solution?



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NEED FOR ENFORCEABLE PROPERTY RIGHTS



- Easier Said Than Done!
- Still a Problem in a Market Economy.
- More of a Problem in Other Social Structures.



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**NEED FOR A COLLECTIVE
APPROACH TO ACHIEVE GLOBAL
SUSTAINABILITY IN MINING**



- Institutions/Governments
- Discussions/Consultations
- Analytical and Informed Decision-Making
- Comprehensive Due Diligence



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END

