Taxation Issues for the Mining Industry

2010 Update

A Report by the Intergovernmental Working Group on the Mineral Industry

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Introduction

This report has been prepared by the Economic and Financial (formerly the Taxation) Sub-Committee (the sub-committee) of the Intergovernmental Working Group on the Mineral Industry (IGWG). It fulfills a mandate given by IGWG to further examine taxation issues outstanding from the sub-committee’s 2009 report, and highlights analysis of new issues relating to Canada’s mineral taxation regime that were identified by industry and government in light of recent developments.

The report represents the views of a majority of participants. It is divided into three main sections: Context, Considerations, and Recommendations.
THE ECONOMY

*Improved, but still uneasy financial markets*

Policy intervention on an unprecedented scale helped improve financial conditions and economic activity. Money markets have stabilized, equity markets have rebounded, and the credit cycle may be turning up. In advanced economies, the tightening of bank lending standards is ending and credit restrictions appear to be improving. Nevertheless, financial conditions remain more difficult than before the crisis. In a few advanced economies, rising public deficits and debt have contributed to a sharp increase in sovereign risk premiums, creating spillovers into other economies and markets. In general, sectors that have more limited access to capital markets—small- and medium-sized enterprises, and mineral exploration and other venture capital sectors—are likely to continue to face tight limits on their borrowing. So far, public lending programs and financing assistance and guarantees have been important in channeling credit to these sectors.

The outlook for economic activity remains uncertain. Although a variety of risks have receded, the downside risks related to the growth of public debt in advanced economies have become sharply more evident. The main concern is that room for monetary and fiscal policy intervention in many advanced economies has either been largely exhausted or has become much more limited, leaving a fragile economic recovery exposed to new shocks. Nevertheless, a reduction in the uncertainty may continue to foster a stronger-than-expected improvement in financial market sentiment and prompt a larger-than-expected rebound in capital flows, trade, and private demand. In addition, the systemic risks originating in the financial sector may fall further if the recovery becomes more robust.

Base-metal prices rose strongly in the fourth quarter of 2009 and, although volatile, generally moved higher in the first quarter of 2010. Strong Chinese buying, coupled with only a gradual return to production by some metal producers, underpinned the increase in prices. Governments’ stimulus packages in the OECD will feed through to physical demand, but a significant part of the consumption will be restocking after stocks were allowed to fall to negligible levels last year. Notwithstanding this, according to the Conference Board of Canada, China will likely remain the dominant driver of consumption, and Chinese demand growth is expected to ease in the second half of the year as the result of a tighter monetary policy and other internal factors. With most base-metal consumption heavily reliant on growth in the construction and automotive industries, this suggests that much of the good news has already been factored into commodity prices and their earlier gains this year may not be maintained.

EXPLORATION

*On the path to recovery*

Based on the federal-provincial-territorial Survey of Mineral Exploration, Deposit Appraisal and Mine Complex Development Expenditures,¹ exploration and deposit appraisal activity expenditures dropped to $1.7 billion in 2009 from a plateau of $3.3 billion recorded in 2008.

¹The numbers for 2008 are final and those for 2009 are preliminary estimates.
Although this represents a sharp reaction to the downturn in world economies that occurred throughout the entire year, the $1.7 billion total remains a respectable amount when compared to expenditure levels recorded in the late 1990s and early 2000s. As the world’s major economies start to recover from last year’s market crash and collapse of commodity prices, total company spending intentions for 2010 were at $2.2 billion, which indicates that the level of expenditures has bottomed out and is poised to rebound.

NONFERROUS BASE-METAL RESERVES

Low levels remain a policy concern

The worldwide recession, and associated reduction in exploration levels, has exacerbated Canada’s long-standing decline in nonferrous base-metal reserves, which is a policy concern that was identified in the sub-committee’s 2009 report. Despite the recent recovery of metal prices, base-metal reserves remain at levels that will not sustain current levels of mineral production in the future and that may hamper the viability of the Canadian base-metal processing industry. The resulting competitive pressures on industry could have a negative long-term impact on jobs in resource-dependent communities.

The causes of the decline are multiple and complex. With respect to taxation, the mining industry has indicated that current tax incentives are focused in a way that provides more encouragement to exploration in greenfields areas, whereas new nonferrous base-metal reserves are more likely to be developed in and around existing mine sites.

REFORM OF MINING ROYALTY REGIMES

Moving towards profit bases?

In recent years, as metal prices reached near-record levels, several mineral-producing countries have initiated, or are initiating, major reviews of their mining royalty regimes in reaction to a public perception that, as the owners of the resource, they are not getting their fair share of mining profits. Some of these reviews will lead to major structural changes that will make levies more responsive to profits and may entail significant royalty increases. For example, Australia has proposed that its iron ore and coal mines be subject to a revised profits-based Minerals Resource Rent Tax (MRRT) at a rate of 30%. China is considering a switch to taxing producers based on prices from a current system of levies based on volumes. The plan will start from the northwestern region of Xinjiang on a trial basis. After increasing its royalty rate on iron ore a year ago, India is seeking to levy a windfall tax on “super profits” made by all mineral exporters. Brazil, the second-largest iron ore exporter, may tax shipments of the commodity or raise royalties.

At the same time, some major mineral-based economies are looking at some sort of innovative tax solutions as a way to deal with deficit build-ups. Chile, the largest copper exporter, is proposing a temporary rise in mining taxes in addition to the implemented temporary increase in the corporate income tax rate to help pay for earthquake reconstruction.

Finally, there were major recent changes to mining taxation regimes in Canada as a result of the federal corporate income tax changes and changes to various provincial royalty regimes. However, in contrast to the movement observed in foreign jurisdictions, most of the tax changes

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2 Areas with no mining activities and no infrastructure.
in Canada resulted in a net reduction of the tax burden imposed on mining. The only exception is Quebec, which, in its 2010 budget, announced a gradual increase in its mining duties from 12% to 16% by 2012 using a “mine-by-mine” approach, and the replacement and adjustment of some of the allowances and tax incentive provisions. In Quebec’s Mineral Strategy, released in June 2009, the government had undertaken to reassess the mining duties regime to ensure that businesses maintain their competitiveness, that spinoffs for the Province are maximized, and that Quebec residents receive a fair share of the profits from the development of resources they own. Quebec taxes on mining were considered to be among the lowest in the world.

These reforms brought about, or are expected to bring about, significant changes in the global tax competitiveness of the major mineral-producing countries.
Considerations

SHORT-TERM ISSUES

Mineral Exploration Tax Credit Extension

As shown in Table 1, exploration expenditures in Canada in 2009 decreased sharply to $1.7 billion from a record high of $3.3 billion in 2008. Funds raised from flow-through shares (FTS), however, only decreased slightly from $625 million to $571 million, resulting in an increasing reliance on FTS as a source of financing for exploration in Canada. In particular, nearly half of the exploration funds raised by junior companies in 2009 were from FTS, while the equivalent proportion was only 24% in 2008. Senior companies also increased slightly the usage of FTS from 10% to 12%. Overall, FTS usage as a financing source for exploration has increased from 19% of total exploration expenditures in 2008 to 33% in 2009. In the first five months of 2010, FTS financing reached $137 million, 46% higher than for the same period in 2009 (but 43% lower than for 2008).

Table 1 – Exploration Expenditures Financed by Flow-Through Shares

<table>
<thead>
<tr>
<th></th>
<th>Exploration Expenditures</th>
<th>FTS</th>
<th>FTS % of Exploration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008 ($M)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior</td>
<td>2 118</td>
<td>514</td>
<td>24%</td>
</tr>
<tr>
<td>Senior</td>
<td>1 162</td>
<td>111</td>
<td>10%</td>
</tr>
<tr>
<td>Total</td>
<td>3 280</td>
<td>625</td>
<td>19%</td>
</tr>
<tr>
<td>2009 ($M)*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior</td>
<td>977</td>
<td>482</td>
<td>49%</td>
</tr>
<tr>
<td>Senior</td>
<td>770</td>
<td>90</td>
<td>12%</td>
</tr>
<tr>
<td>Total</td>
<td>1 747</td>
<td>571</td>
<td>33%</td>
</tr>
<tr>
<td>2010 Jan.-May ($M)*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior</td>
<td>38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>137</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: Gamah International and Natural Resources Canada.

a The numbers for 2009 are preliminary estimates.
b Exploration expenditure estimates for 2010 are spending intentions as of February 2010.

In the 2009 sub-committee report to IGWG, an analysis of historical data indicated that, during economic downturns, FTS financing helped junior mining companies raise funds for preliminary exploration. In recent years, FTS-financed exploration also directly or indirectly contributed to some successful mineral discoveries. This includes the yet-to-be-developed “Ring of Fire” mining camp located in the muskeg swamps of the James Bay lowlands, 500 km northeast of Thunder Bay, Ontario, which has the potential of being one of the most significant mineral discoveries in Canada. As shown in Table 2, since 2002, companies (including Freewest Resources, KWG

3 Mineral exploration companies with no production revenues.
Resources, Noront Resources, and Spider Resources) raised $88 million via FTS financing for their exploration projects in the “Ring of Fire” area and made nine promising discoveries.

Although it is difficult to assess what proportion of the increased FTS usage in 2009 is attributable to the 15% Mineral Exploration Tax Credit (METC) per se, as opposed to the usual transferability of tax deductions related to exploration expenses, or how much new mine development will result from METC-related exploration, it is believed that the tax credit contributed to maintaining investors’ interest in exploration, particularly in recent troubled times.

Table 2 – Flow-Through-Share Financing and “Ring of Fire” Discoveries

<table>
<thead>
<tr>
<th>FTS Financing 2002-2009 ($M)</th>
<th>Discovery</th>
<th>Commodity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freewest Resources (Cliffs)</td>
<td>18.8</td>
<td>Black Thor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Black Label</td>
</tr>
<tr>
<td>Noront Resources</td>
<td>51.1</td>
<td>Eagle’s Nest</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eagle Two</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blackbird One</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blackbird Two</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thunderbird</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Triple J Gold</td>
</tr>
<tr>
<td>Spider Resources (Cliffs)</td>
<td>8.1</td>
<td>Big Daddy</td>
</tr>
<tr>
<td>KWG Resources (Cliffs)</td>
<td>9.6</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>87.7</td>
<td></td>
</tr>
</tbody>
</table>

The temporary 15% METC is due to expire on March 31, 2011. The Government of Canada will need to assess whether a further extension is warranted.

It is recommended that the sub-committee continue its analysis of the use and impact of flow-through-share and Mineral Exploration Tax Credit incentives for exploration.

Canadian Exploration Expenses (CEE) – Overhead Costs

To reduce the impact of the tight financial conditions on the mineral exploration sector in Canada, the Prospectors and Developers Association of Canada (PDAC) reiterated, at Mining Day on the Hill 2009 and at the PDAC 2010 International Convention, Trade Show and Investor Exchange, its 2009 proposal to allow financing and legal costs related to the structuring of FTS arrangements to qualify as CEE for renunciation under such arrangements.
For the mineral industry, expenses that qualify as CEE only include expenses incurred for the purpose of determining the existence, location, extent, and quality of a mineral resource in Canada or incurred for the purpose of bringing a new mine in a mineral resource in Canada into production in reasonable commercial quantities and incurred before the new mine comes into production in such quantities. Although some overhead costs (such as administration, management and financing costs) may meet the purpose test, they cannot be transferred to FTS investors and they are not eligible for the METC. The same result generally applies to all mineral, oil and gas, and renewable energy and conservation projects for which CEE are incurred.

Overhead costs that do not meet the purpose test for CEE and that are incurred by mining or exploration companies are typically deductible by the exploration company as operating expenses. However, as is the case for overhead costs that meet the purpose test, they are not eligible for the METC and cannot be transferred to FTS investors.

In its 2009 report to IGWG, the sub-committee concluded that there is no strong rationale for allowing overhead expenses to qualify for METC and to be transferable to FTS investors only for mineral exploration financed by FTS. Any such extension would likely have to be accorded to all industries and agents carrying out qualifying activities, and the tax revenue loss to government could be significant. In its 2010 submission, the PDAC did not bring about any new facts that would have caused the sub-committee to modify its opinion. A general, albeit limited, improvement in financial market conditions makes this proposal less relevant than last year.

**It is recommended that the sub-committee not proceed with any further analysis of the proposed tax incentives for overhead costs incurred at the exploration stage.**

**Canadian Exploration Expenses – Clarification of Eligibility Rules**

In September 2007, the Government of Canada clarified the circumstances under which costs associated with community consultation and environmental studies were eligible for CEE under the *Income Tax Act*. This clarification came in the form of a guide that was released by the Canada Revenue Agency (CRA) and announced in a letter to the PDAC. The PDAC posted a table clarifying these expenses on its web site. These guidelines proved to be helpful to industry and investors by increasing the level of certainty concerning the tax treatment of the most common types of expenses related to exploration.

However, two issues have recently been raised by industry. First, the PDAC has expressed concerns that some of its members have seen their tax filing (as CEE) of environmental expenses contested by CRA auditors despite the fact that, in the view of the taxpayers, these expenses met the eligibility criteria set out in the published guidelines. Upon verification with the CRA, it appears that in some of the filings, all types of environmental expenses were filed into one general category so that auditors lacked the specific details required to validate the classification of expenses for tax purposes. It is the opinion of the sub-committee that industry would benefit from further clarification on how to file environmental expenses for tax purposes, particularly in respect of the amount of details required to meet CRA requirements. Such information could be communicated to industry through awareness sessions held at regular intervals in Toronto and Vancouver.
Second, it appears that baseline environmental studies may not be allowed as CEE in certain circumstances.

Baseline environmental studies are carried out to determine the environmental conditions that prevail before any environmental disturbance occurs. They are employed to address different environmental assessment needs at the exploration stage and at further stages of development. Such needs often include assessments of lease blocks during ownership transfer and environmental impact assessment or periodic environmental monitoring of discharge zones, stripping areas, tailings, and associated infrastructure. Such studies that are in respect of exploring or bringing a new mine into production would generally be allowed as CEE. However, the cost of environmental studies that is incurred by management to determine whether or not to proceed with the development of a mine is generally not allowed as CEE.

It is argued that exploration companies would normally carry out baseline environmental studies at the earliest stages of exploration, before any environmental disturbance occurs, to ensure they are in a position to precisely evaluate the environmental impact of exploration and any subsequent activities. When such studies are carried out at the exploration stage, a decision to proceed with the development of a mine is not taken. As a result, environmental baseline studies that are not in respect of exploration may not be allowed as CEE if their purpose could be to determine in the future whether or not to proceed with the development of a mine.

Even though the cost of non-exploratory baseline environmental studies is not very high, their potential exclusion from CEE prevents them from being financed by flow-through shares, which industry argues may make them more difficult and costly for exploration companies to finance. Industry contends that since undertaking such studies at an early stage is part of the industry best practices that governments want to encourage, they should be included in CEE.

It is recommended that the sub-committee be tasked to consult with stakeholders to help determine the types of environmental assessment currently not allowed as Canadian Exploration Expenses (CEE), but which industry contends correspond to current best practice.

**LONG-TERM ISSUES**

**Declining Nonferrous Base-Metal Reserves**

As noted in the sub-committee’s 2008 and 2009 reports to IGWG, there has been a significant decline in Canadian mineral reserves over the past 25 years for all major nonferrous base metals. Additions from new and existing mines have been insufficient to offset ore depletion. This decline was exacerbated by the fall in base-metal prices and the mine closures that accompanied the 2008-09 worldwide recession. A reduced supply of domestic ore will force Canadian smelters
to rely on global markets for a larger share of their concentrate requirements, and this will put
them at a disadvantage relative to competitors due to longer haulage distances.

The causes for the decline in nonferrous metal reserves are numerous and complex, and most of
them are not linked to the tax system. Notwithstanding this, industry has noted that tax incentives
are focused particularly on greenfields exploration, partly premised on the higher risk in such
areas. New base-metal discoveries are still being made in greenfields locations, but in an
increasingly remote and difficult environment that hampers mine development. In the short term,
new base-metal reserves are more likely to be developed at depth in the vicinity of existing or
former producing mine operations.

The current policy of providing more tax incentives for greenfields exploration activity has
resulted in a stronger junior mining sector, in the discovery of a number of new areas of interest,
and in the advancement of many projects, particularly for precious metals and diamonds. Industry
is fully supportive of the continuation of these measures.

In 2009, IGWG tasked the sub-committee to continue its detailed analysis of, and
interdepartmental consultations on, the industry proposals for CEE eligibility for high-risk
exploration carried out in the vicinity of operating or formerly operating mines. At the request of
industry, the sub-committee re-evaluated an industry proposal concerning the adoption of an
automatic rule to allow a new mine status for mines closed for five years or more. It also
continued to study a proposal concerning the introduction of new incentives for deep drilling near
operating mines.

**New Mine Status – 60-Month Rule**

To determine the income tax treatment of exploration, development, and capital costs incurred on
a property, the federal income tax law currently makes a fundamental distinction between a new
mine and a mine that has come into production. Expenses related to a new mine are treated more
favourably than similar expenses incurred in relation to a mine that has come into production. In
the case where expenses are related to a formerly producing mine, a new mine status must be
obtained by way of an administrative ruling for such expenses to qualify for the special tax
incentives.

The introduction of an automatic rule whereby mines closed for five years or more would gain a
new mine status was proposed in 2009 by industry as a way to incent exploration on the sites of
formerly producing mines. Industry proposed that the introduction of such a rule would provide
more certainty on the CEE eligibility of exploration carried out on such properties and would
reduce the administrative cost of ruling on a new mine status.

At issue is whether or not the application of a 60-month rule would result in decisions that
conform to policy principles, the wording of the *Income Tax Act*, and court decisions. More
specifically, is a mine closure of 60 months long enough to ensure that mine sites have lost the
characteristics of a mine and that all exploration and development expenses are incurred for the
purpose of discovering a new mineral resource or bringing a new mine into production?

To verify this hypothesis, Natural Resources Canada (NRCan) reviewed the technical opinions
that it had sent to the CRA during the 1999-2009 period in relation to all advance tax rulings that
dealt with the determination of a new mine status. There were 23 new mine status requests (or 2.3
requests per year) examined by NRCan during the period from 1999 to 2009. Nine requests were
related to projects in the vicinity of operating mines, ten were related to mines closed for five years or more, and four were related to mines closed for less than five years.

Based on NRCan analysis, the sub-committee came to the conclusion, as presented in its 2009 report to IGWG, that the proposed measure would not provide a reliable alternative to the existing determination process. Evidence also indicated that the current determination process involved a small number of cases and did not entail undue delays and administrative costs. As a result, the sub-committee did not recommend implementation of the proposal.

Industry reiterated its request in 2010. However, the sub-committee determined that the industry submission did not include any new evidence that would justify a change of opinion.

NRCan analysis also revealed that delays for rendering a decision could be made significantly shorter for requests requiring a fast response (such as those related to prospective flow-through-share issues) if requirements for the determination were made known to the relevant audience in advance of submissions.

It is recommended that the sub-committee not proceed with any further analysis of the 60-month-rule proposal and that the federal government hold awareness sessions in appropriate venues on the information required from industry for determining new mine status.

Incenting Deep Exploration Near Operating Mines

Exploration expenses related to an operating (or formerly operating) mine do not generally qualify for greenfields exploration tax incentives. Instead, such expenses are normally treated either as operating expenses, if they relate to drilling or overburden removal, or as Canadian Development Expenses (CDE), if they relate to shaft sinking or the development of underground galleries, especially when they are part of the normal mining sequence that progressively extends, and gives access to, the incremental ore reserves that are required for ongoing mining operations.

The main advantage of CEE tax treatment is that, unlike operating expenses or CDE treatment, it provides access to either the 10% regular corporate exploration and development tax credit or, on a temporary basis, to the 15% Mineral Exploration Tax Credit associated with flow-through-share financing.

CEE tax treatment may be available if it can be demonstrated to tax authorities that the exploitation of ore reserves, found as a result of the exploration activity, would require a new mine and would not materially use existing mining infrastructure and workings. For this demonstration to be made, NRCan, on behalf of the CRA, must conduct a technical examination of all facts relative to the exploration project and possible future mining plans. It has been contended (but not clearly demonstrated) that the technical examination process is lengthy and that its results are unpredictable.

Ongoing exploration is generally considered low risk since it normally occurs at the periphery of already defined reserves for the purpose of following up their continuity and delimiting their
lateral or vertical extensions. However, not all exploration conducted in an operating mine is of an ongoing, low-risk nature. The exploration risk increases significantly when ore zones are discontinuous and where their distribution does not follow a known pattern. In this type of environment, the risk factor increases exponentially with depth as exploration targets become elusive and move significantly below known reserves and underground infrastructure. A decision to undertake underground exploration becomes more difficult when a high level of risk is combined with a large project cost. Such is the case when the purpose of the exploration is to find sufficient underground reserves to justify the sinking of a deep shaft and the construction of related underground workings.

The mining industry notes that targeted tax incentives for exploration are focused on greenfields exploration, although some projects in the vicinity of an existing mine exhibit comparable risks. It is argued that CEE and related tax incentives tend to provide more encouragement to the development of new greenfields mines than to deep extensions of existing mines. Industry has proposed that CEE be accorded to on-site exploration projects that meet certain objective criteria that would be tied to the level of risk.

In order to advance the analysis of this proposal, NRCan has conducted detailed technical discussions with several mine operators. There was a clear consensus to the effect that deep exploration and development were considerably more costly and risky than shallow exploration and development for a variety of technical factors. However, no consensus could be reached in respect of the depth at which such factors started to be significantly at play and the degree to which the development of different types of mineral deposits was affected by depth. Given the complexity and variability of deep exploration projects, the sub-committee was unable to find objective, reliable and measurable criteria that could be used in all circumstances to determine the eligibility of expenses as CEE. The sub-committee is of the opinion that the current eligibility determination process based on case-by-case evaluations remains the best option available at this time and that further analysis of this proposal is not warranted.

It is recommended that the sub-committee not proceed with any further analysis related to tax incentives proposed for deep on-site exploration given the available data at this time.

INTERNATIONAL TAX COMPETITIVENESS

Mining investment capital is highly mobile and there are many factors that influence companies' decisions to invest in different regions. While key factors are the geological potential of a site and access costs, they can be strongly offset by relative fiscal and socio-political considerations, with the former including the tax burden and the latter including the stability of the tax system. Internationally, quality mineral deposits have remained unexploited partly because of tax regimes that impose too high a cost or are unpredictable.

The ultimate goal of any government's mining tax system is to ensure the greatest possible benefit for the public while maintaining an attractive environment for investment. Achieving this requires realistic consideration and careful balancing of the objectives of the two key players: companies and governments (and the people they represent). Governments want steady and predictable
revenues over time to compensate for depletion and to finance public expenditures. For companies, the overall level of tax (including royalties) and the stability of the tax regime influence exploration and development decisions. Unstable tax regimes increase risk and are likely to hinder investment decisions and, in some cases, even hasten decisions to shut some mines down. The timing of tax levies also influences investment patterns. A high level of taxes in the early years of exploitation will increase government receipts in the short term, but may discourage exploration and development by impairing ability to adjust to commodity price fluctuations, extending the investment payback period and increasing the risk of default on debt repayment.

Tax structures also influence investment behaviour and government administration. For instance, taxes based on units of production irrespective of profitability provide stable revenues to governments, but may create economic inefficiencies by discouraging the exploitation of lower-grade ore and shortening the life span of some mines. Because they are insensitive to price fluctuations, they are inherently unstable, needing frequent rate adjustments to remain fair to all stakeholders. Conversely, taxes on corporate profits provide more variable revenues, but they are more efficient and recognize the inherent risks in mining operations, particularly wide fluctuations in international mineral prices and the difficulties of anticipating all geological, technical, financial, and political factors over a mine’s lifetime. Furthermore, profit-based taxes tend to distribute these risks more evenly between companies and governments. However, the challenge with profit-based regimes is their greater complexity, which may be a genuine constraint in developing countries with limited administrative capacity.

Designing and maintaining an efficient taxation system is a complex and continuous task that cannot be done in isolation. Governments need to understand the effects of changes in their respective tax systems and in that of others on investment and respond accordingly. This is why Canadian jurisdictions are continually seeking to evaluate their tax regimes in light of changing objectives and world developments.

The series of major tax reforms that has been taking place since 2003 in various mineral-producing countries, including Canada, has prompted NRCan to update a comprehensive international tax comparison that it carried out in 1993. IGWG sub-committee members helped validate the revised tax calculations.

The purpose of the update is threefold:

- Provide information on the tax competitiveness of Canada’s mining jurisdictions among themselves and relative to the main mineral-producing countries, with an emphasis on base metals;
- Identify major tax policy trends and note where Canada differs from the international norm; and
- Identify structural differences and how these differ relative to different policy objectives.

The approach taken is to apply the tax system of various mineral-producing jurisdictions to the financial results generated by a generic mine model. The revenue/cost assumptions of the mine model are changed to simulate the cash flow profile of mines yielding different rates of return on investment.

The mine model was developed in consultation with several members of The Mining Association of Canada. It is based on the cost conditions of an open-pit copper mine that is converted to an underground mine after exhaustion of the open-pit reserves. Under the base-case scenario, the
model assumes stable commodity prices and the project is assumed to be developed on a stand-alone basis (i.e., not developed by a large company with income from sources other than the project), but the effects of releasing this assumption could be investigated.

The study also uses computerized models of the mineral tax legislation of nine\(^4\) Canadian jurisdictions and eleven\(^5\) major foreign mineral-producing jurisdictions. The analysis focuses on the structural differences between taxation regimes and also calculates the effective tax rates for the various simulations. Finally, tests are conducted to measure the sensitivity of after-tax results to changes in selected tax features.

So far, all computerized tax models have been largely completed. Preliminary results for all Canadian provinces and territories have been communicated to IGWG sub-committee representatives for review. Analysis and results integration will be carried out over the course of the coming months.

\textit{It is recommended that the results obtained from the NRCan international tax study be tabled at the 2011 Energy and Mines Ministers' Conference.}

\(^4\) Includes British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, the Northwest Territories, Nunavut, Ontario, Quebec, and the Yukon.

\(^5\) Includes Alaska, Chile, Indonesia, Mexico, Mongolia, Nevada, Peru, the Republic of South Africa, South Australia, Tanzania, and Western Australia.
Recommendations

It is recommended that:

- the sub-committee continue its analysis of the use and impact of flow-through-share and Mineral Exploration Tax Credit incentives for exploration;

- the sub-committee not proceed with any further analysis of the proposed tax incentives for overhead costs incurred at the exploration stage;

- the federal government hold awareness sessions in appropriate venues on how to file environmental expenses for income tax purposes;

- the sub-committee be tasked to consult with stakeholders to help determine the types of environmental assessment currently not allowed as Canadian Exploration Expenses (CEE), but which industry contends correspond to current best practice;

- the sub-committee not proceed with any further analysis of the 60-month-rule proposal and that the federal government hold awareness sessions in appropriate venues on the information required from industry for determining new mine status;

- the sub-committee not proceed with any further analysis related to tax incentives proposed for deep on-site exploration given the available data at this time; and

- the results obtained from the NRCan international tax study be tabled at the 2011 Energy and Mines Ministers’ Conference.