The Tax Treatment of Non-Renewable Resource Exploration Expenditures in Canada: A Historical Review and a Way Forward

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The Tax Treatment of Non-Renewable Resource Exploration Expenditures in Canada: A Historical Review and a Way Forward[1]

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Introduction

The Canadian Income Tax Act recognizes three main types of expenses incurred in Canada by firms principally engaged in mineral, metal, petroleum, and natural gas. These are Canadian Exploration Expenses (CEEs), Canadian Development Expenses (CDEs), and Canadian Oil and Gas Property Expenses (COPGE). The Income Tax Act permits these expenses to be deductible from income for tax purposes to varying degrees of generosity. CEEs are 100% deductible from income while CDEs and CPOGEs are generally deductible at a declining balance rate of 30% or 10% per year respectively.,[2]

Canada's new federal government has proposed to change the deductibility of CEEs, a change that potentially has wide-reaching implications for Canada's energy and resources sector. In particular, the government has committed to phasing out subsidies[3] for the fossil fuel industry, the first step of which is to only allow the use of the CEE deduction for unsuccessful exploration.[4] The Liberal proposal raises important considerations about the tax treatment of exploration expenses. First, what is the background of and justification for the current tax treatment of these expenses? Second, in what way could the CEE expense be considered a subsidy? Third, what are some of the real implications of the proposal?

To analyze this issue, I first lay out the history regarding the tax deductibility of resource expenses in Canada, detailing how the existing tax treatment can be considered preferential. The preferential tax treatment for exploration and development expenses then laid the ground work

[1] A shorter version of this paper, entitled How Should Governments Treat Tax Preferences of Resource Exploration Expenditures?, is to be published by the C.D. Howe in early 2017.
[2] Corporations in the oil and gas sector with less than $15 million in taxable capital invested in Canada can reclassify up to $1 million of CDE as CEE, making them 100% deductible.
[3] This question relates to the Liberal proposal which calls the CEE deduction a subsidy. This paper details how it could be considered a tax subsidy based on the historical tax treatment of CEEs and not whether the subsidy is a fossil fuel subsidy. Whether or not the CEE deduction could be considered a fossil fuel subsidy is beyond that scope of this paper. Readers interested in this debate should consult Kenneth J. McKenzie and Jack M Mintz (2011), The tricky art of measuring fossil fuel subsidies: A critique of existing studies, *SPP Research Papers*, 4(14), 1-26. http://www.policyschool.ucalgary.ca/?q=content/myths-and-facts-fossil-fuel-subsidies-critique-existing-studies-0
[4] Liberal Party of Canada, 2015, A New Plan for a Strong Middle Class, https://www.liberal.ca/files/2015/10/New-plan-for-a-strong-middle-class.pdf, at 81.

for the flow-through share regime, which flows the deduction through to investor's in exchange for equity investment. The second section details the history of the flow-through share regime, showing how the FTS regime is not only based on a tax preference but also is itself preferential tax treatment. The third section lays out the justifications for the tax preferences for both exploration and development expenses and the FTS regime. The paper then addresses the evidence for the justifications for the preferential tax treatments. Finally, the paper considers the outstanding questions from the Liberal proposal as well as the implications the proposal has. Poignantly, the proposal as it stands will lead to the demise of the FTS regime and the implications of this will need to be addressed by the government if it proceeds with its proposal. The paper ends with some concluding remarks.

History of the Tax Deductibility of Non-renewable Resource Expenses in Canada

Pre-1940s

The deductibility of business in expenses in Canada is detailed by Edwin C. Harris.[5] Under section 3 of the *Income War Tax Act* (1971, 1927) tax was to be assessed on income, which was defined as "annual net profit or gain or gratuity." Section 6 of the *Income War Tax Act* (1971, 1927) stipulated that in the calculation of profits or gains the deduction of business expenses was permitted so long as the expenses were not related to personal expenses (section 6(a)) or capital outlays (section 6(b)).

As the *Income War Tax Act* (1917, 1927) made no specific reference to exploration and development expenses[6] it became a matter as to whether these expenses were considered business expenses and permitted to be deducted from income or capital outlays and not permitted to be deducted from income. The test for a capital outlay was detailed in *British Insulated and Helsby Cables v. Atherton*[7]

> But when an expenditure is made not only once and for all, but with a view to bringing it into existence an asset or an advantage for the enduring benefit of trade, I think that there is a very good reasons (in the absence of special circumstances leading to an opposite conclusion) for treating such an expenditure as properly attributable not to revenue but to capital.

The seminal case in Canada as to whether exploration and development expenses are on account of capital is *Siscoe Gold Mines Ltd. v. Minister of National Revenue.*[8] The court considered, among other things, the deductibility of exploration and drilling expenses. The court denied the deduction of these expenses stating

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[5] Edwin C. Harris, QC (1995). Deduction of Business Expenses. *Canadian Tax Journal* 43(5), 1190-1215.

[6] Canada. Flow Through Shares: An Evaluation Report, (Ottawa: Department of Finance, October 1994), page 231-232

[7] *British Insulated and Helsby Cables, Limited v. Atherton* (1926) A.C. 205, at 213.

[8] *Siscoe Gold Mines Ltd. v. MNR*, [1945] 2 DTC 749. The principles outlined in *Siscoe* have also been applied in other contexts and more recently in *Sunshine Explortion Ltd. et al. v. Dolly Varden Mines Ltd. (N.P.L)*, [1970] S.C.R. 2.

> The expenditures made were not laid out or expended in the process of earning an income…and were certainly not directly related to the production of the appellant's income from its gold mining businesses…Moreover, I think it is quite clear that an expenditure incurred for the purpose of enabling a taxpayer to decide whether a capital asset should be acquired is an outlay or payment on account of capital and, as such is excluded as a deduction by Section 6(b).[9]

The implication of defining resource and development expenses as capital expenditures incurred to acquire non-depreciable property[10] (otherwise known as a non-wasting asset) means that they are, in general and without any specific recognition in the *Income Tax Act*, not recognized until the non-depreciable asset is sold. In this case the costs are accounted for when computing the capital gain from the sale by adding these costs to the cost of the property. That is, the costs are capitalized. If the capital expenses do not create a capital asset that can be depreciated or sold, the costs are not recognized for tax purposes. In essence, resource exploration and development expenses were intended to be only recognized for tax purposes in cases where the expenses incurred lead to the discovery and extraction of a resource: they are made on account of capital. This meant that exploration and development associated with unsuccessful exploration were not recognized for tax purposes. And changing this tax treatment would require specific recognition in tax legislation.

World-War II

The tax treatment of resource exploration and development expenses, however, began to change when Canada entered the Second World War. In 1943, the Government of Canada temporarily allowed eligible exploration expenses related to base metals and strategic mineral and exploration and drilling expenses related to oil incurred commencing January 1, 1943 to be deductible from business income at a rate of 40%.[11] The change essentially allowed for an accelerated recognition of eligible expenses related to successful exploration and development and it allowed unsuccessful exploration and development expenses to be recognized for tax purposes. Eligible resources expenditures were broadly defined, covering expenditures for: exploring for minerals, oil, and natural gas; drilling for oil and natural gas; and dry well and unproductive deep well tests.[12]

Post-War Period

In 1947, the preferential tax treatment of deeming the expenses associated with oil, base metal, and strategic mineral exploration to be on account of income as opposed to capital was made a

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[9] *Siscoe Gold Mines Ltd. v. MNR*, [1945] 2 DTC 749, para. 13.
[10] In the case of a capital expenditure that is made to acquire depreciable property that provides a stream of income, the cost of the acquisition is deductible according to the rules set out in the capital cost allowance system.
[11] As announced in the Budget Speech, and included in the measures to amend the Income War Tax Act. Canada. Parliament. House of Commons. Debates, 19th Parliament, 4th Session, 1942-1943, pp. 840-65, March 2, 1943. Ottawa: Canadian Government Publishing, 1943, p. 859 and 869. The deduction was limited to 40% of the expenditures incurred by companies principally engaged in resource exploration and development. These provisions were initially intended to sunset on March 31, 1945, but were eventually extended into 1946. Canada. Flow Through Shares: An Evaluation Report, (Ottawa: Department of Finance, October 1994), page 232-235.
[12] Canada. Flow Through Shares: An Evaluation Report, (Ottawa: Department of Finance, October 1994), at 235

permanent feature of the tax system. Under these permanent provisions the deduction was increased from 40% to 100%.[13]

The definition of qualifying expenditures was tightened in 1949, particularly to expressly limit the deduction to those expenses incurred in Canada, but otherwise retained the same general structure.[14] It was not until 1954 that development expenses where expressly mentioned as qualifying expenses, with eligible expenses named Canadian exploration and development expenses (CEDE).[15] In 1974 Canadian exploration and development expenses (CEDE) were split into the two distinct categories noted in the introduction, Canadian Exploration Expenses (CEEs) and Canadian Development Expenses (CDE), and given different tax deductibility treatments, intended to represent the inherent risk with the underlying activities.[16] In 1979 Canadian Oil and Gas Property Expenses (COGPEs) were split from CDEs .[17]

CEEs, which are associated with the more risky activity of looking for and evaluating the quality of a resource, remained fully deductible from income. Generally, CEEs included "expenses incurred for the purpose of determining the existence, location, extent or quality of a mineral resource or an accumulation of petroleum or natural gas in Canada"[18] and include costs associated with environment and community consultations incurred in this phase. For petroleum companies, this included finding costs, exploratory drilling, and some drilling, conditional on very specific criteria.[19] For mining companies, CEEs included what are referred to as grass-roots mining expenses, including prospecting, finding costs, drilling, trenching, testing, and sampling.

CDEs, on the other hand, are associated with the less risky activity of bringing a mine or oil well into production and are only deducible at a rate of 30% on a declining basis.[20] Generally, CDEs pertain to costs incurred related to drilling, converting, and completing an oil well, and pre- and post-production development costs associated with a mine. CDEs also include the cost of acquiring mining property, but not oil and gas property. Instead, the costs associated with the acquisition of an oil and gas property is included in COPGEs and are only deductible at a rate of 10% on a declining basis. The rate for these expenses was set at 10% "…to reduce upward pressure on prices of oil and gas properties, and help smaller independent companies, many of which did not have taxable income against which to apply the fast write-off." [21]

Current treatment of resource expenses

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[13] Canada. Flow Through Shares: An Evaluation Report, (Ottawa: Department of Finance, October 1994), at 26.
[14] All provisions related to dry wells, however, were eliminated. Department of Finance 1994 at 236.
[15] Canada. Flow Through Shares: An Evaluation Report, (Ottawa: Department of Finance, October 1994), page 230.
[16] Canada. Flow Through Shares: An Evaluation Report, (Ottawa: Department of Finance, October 1994), page 242.
[17] Canada. Flow Through Shares: An Evaluation Report, (Ottawa: Department of Finance, October 1994), page 244.
[18] http://www.fin.gc.ca/n15/data/15-021_2-eng.asp
[19] http://www.kpmg.com/Ca/en/IssuesAndInsights/ArticlesPublications/Documents/A-Guide-to-Oil-and-Gas-Taxation-in-Canada-web.pdf
[20] In the November 1974 Budget Speech the Minister rationalized the lower deductibility rate for development expenses compared to exploration expenses as the former were "more similar to capital expenditures incurred by other industries" (Department of Finance Canada (1974). *Budget Speech*, November 18. Available at http://www.budget.gc.ca/pdfarch/1974-NO-sd-eng.pdf, p. 15) which are generally not deductible from income as discussed previously.
[21] Canada. Flow Through Shares: An Evaluation Report, (Ottawa: Department of Finance, October 1994), p. 245.

In summary, prior to 1943 exploration and development expenditures were generally considered to be on account of capital and not deductible in calculating taxable income. Between 1943 and 1946, temporary interventions permitted partial deductibility of these expenses from business income provided the necessary conditions were met. Starting in 1947, exploration and development expenses were made fully deductible from business income provided the necessary conditions were met. In 1974, deductibility was limited for development expenses and further limited for oil and gas property in 1979.

The categories and preferential tax treatment established in 1974 and 1979 continues to today. It is favourable, and considered a tax expenditure, because it purposefully modifies the tax treatment of exploration and development expenses as capital expenses and, instead, allows them to be fully or partially deducted from annual income. Doing so thereby reduces taxable income, and hence taxes owed, regardless of whether the exploration and development is successful.

What qualifies as a CEE and a CDE has, however, been modified over time, more recently with items moving from the favourable CEE treatment to the less favourable CDE treatment or excluded entirely from either treatment.[22] The changing treatment is typically driven to ensure similar treatment across the mining and petroleum sectors and the changing nature of risk underlying the expenses. In addition, the original restriction limiting the favourable tax treatment only to eligible expenses incurred by principal business corporations was lifted between the years 1974 and 1976.[23]

A History of flow-through Shares

Making Canadian exploration and development expenses deductible from income as opposed to capital accelerates the timing of the inclusion, but fails to address a problem that also existed under their treatment of capital expenses. Notably, that the expenses can only be recognized if there is an income benefit from which to deduct these expenses. That is, the exploration and development activities of the firm are successful. The problem with some of the corporations involved in exploration and development is that they do not earn any or enough income against which it can deduct these expenses. While the unused exploration and development expenses can be carried forward and back for tax purposes by the corporation for a specified period of time, there is no guarantee the corporation will ever earn the income necessary to benefit from the deduction. Further, many corporations prefer to reap the benefits from the deduction at the earliest possible known date as opposed to some unknown date in the future.

Expense-for-share arrangements

These factors, the preferential tax treatment given to exploration and development expenses which allows them to be deductible from income and the fact that the deduction is only of value if there is income against which to deduct these expenses, lead the industry to create expense-for-share (EFS) arrangements, the precursors to flow-through shares. The EFS arrangements were based on the inherent value of the deductions which could be used to facilitate the financing of risky exploration and development activities. EFS arrangements essentially transferred (or

[22] See for example, the modifications outlined in the federal budgets of 2011, 2013, and 2015.
[23] Canada. Flow Through Shares: An Evaluation Report, (Ottawa: Department of Finance, October 1994), page 230.

flowed-through) the deductibility of exploration and development expenses from a corporation without income to a corporation with income against which it could deduct these expenses. The exact origins of EFS arrangements are not clear, as they initially operated outside of the *Income Tax Act*, but they were codified into the Act staring in 1954 tax year and certain restrictions imposed to clarify eligibility.[24]

Between 1954 and 1986 the requirements related to EFS arrangements continued to evolve. Key changes[25] included the 1972 modification which allowed all investors (individuals and corporations not principally engaged in mining) to finance EFS arrangements, but the deduction to individuals was limited to 20% (versus 100% by PBC). When CEDE expenses were split into CEE and CDE in 1974, the deduction to individuals was increased to 30% for both categories. In 1976, the deduction related to CEE was increased to 100% for all investors and the shares were deemed to be acquired by the investor at a cost of nil.[26]

In 1985, a look-back rule was created which allowed investors to take the deduction before the expenses were incurred by the corporation.[27] Under the EFS regime the investor had to wait for the corporation to incur and renounce the expenses before taking the deduction. The look-back rule permitted investors to take the deduction in the year the EFS were purchased. The corporation then had until the end of the first 60 days of the following year to incur the eligible expenses. The short window ensured that the expenses were actually incurred before the investor claimed the deduction on their personal income taxes.

Flow-through shares

In 1986, the existing EFS regime was modified into the flow-through share (FTS) regime, which continues to exist today. The formalization of these arrangements into the FTS regime provided certainty to the sector regarding the expenses that could be flowed through and under what conditions. The FTS regime also removed the onus on investors under EFS arrangements to directly incur the exploration and development expenses. Instead, under FTS corporations are permitted to directly incur the exploration and development expenses and then renounce these expenses to equity investors. This means that expenses renounced by a corporation are treated as expenses incurred by the equity investor for tax purposes and deductible from the investor's taxable income.

While the FTS regime itself has remained in place since 1986, including the purpose being to assist companies in obtaining financing to fund incremental exploration and development, there have been ongoing changes to specific aspects of the regime. Two important changes were made in 1996. First, the look-back rule was modified to allow more time for the corporations to incur

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[24] Canada. Flow Through Shares: An Evaluation Report, (Ottawa: Department of Finance, October 1994), p. 237-238.
[25] Canada. Flow Through Shares: An Evaluation Report, (Ottawa: Department of Finance, October 1994), p. 230.
[26] Canada. Flow Through Shares: An Evaluation Report, (Ottawa: Department of Finance, October 1994), p. 243. The normal treatment is that shares are considered to be acquired the cost of the stock. The acquisition cost matters for calculating the capital gain or loss obtained from selling the shares. Using a cost base of nil means that the full value of the sale is subject to capital gain as opposed to the difference between the purchase price and the sale price.
[27] http://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/mineralsmetals/pdf/mms-smm/busi-indu/met-qfi/hist-hist/pdf/flow-eng.pdf

the expenses. Specifically, the corporation now had until the end of the following calendar year to incur the eligible expenses. In exchange, however, the corporation was required to pay a charge associated with the benefit along with penalties payable if the term was exceeded.[28] The rationale for this modification was that the 60 day window created an overheating of exploration and development activities. This is because most FTS shares were being purchased at the end of a calendar year, leading to a demand shock for exploration expertise and equipment in the early part of the year. This lead to rising costs which limited the amounted of exploration activities that could be supported by the underlying FTS investment. Second, COPGEs were no longer eligible for flow-through shares.

Second, there has been the creation of additional tax credits by both the federal and provincial governments. In the 2000 Economic Statement and Budget Update, the Government of Canada announced the non-refundable Investment Tax Credit for Exploration (ITCE). It was intended to be temporary (expiring at the end of 2003) 15% investment tax credit for investors in flow-through shares of mineral exploration companies. The impetus for the tax credit was the low price of metals that occurred throughout the 1990s and which caused a significant contraction in mineral exploration. While metal prices rebounded to historical highs by the mid-2000s, the tax credit was renewed for additional one year periods. It was re-instated in 2006 as the Mineral Exploration Tax Credit (METC) which was set to expire March 31, 2009 but subsequent budgets have extended the credit for one year periods. Many provinces (i.e., British Columbia, Manitoba, Saskatchewan, Ontario, and Quebec) also have comparable programs. Because the federal and provincial tax credits are in effect a grant, the value of the credits is subject to income tax which reduces the value of these additional tax credits. The combination of the FTS regime in combination with these tax credits is often dubbed the super flow-through share (SFTS) regime.

Summary

In summary, following the ability for exploration and development expenses to be deductible from income, the industry devised the EFS arrangements. EFS arrangements facilitated the financing of exploration and development by transferring unused deductions to an investor. EFS arrangements were eventually codified into the tax regime and exist today as flow-through shares. FTS are nothing more than a common share that is sold with a consideration. That consideration is related to the flow-through of the deduction related to the exploration or development expense that the share is funding to the investor.

There are several things to note about FTS. First, flow-through shares cannot exist without the existing tax preference that treats exploration and development expenses to be on account of and deductible from income. Second, FTS are also, themselves, preferential tax treatment. Unused business deductions can normally be carried-back or forward for a prescribed period of time and used to reduce past or future year's taxable income. Allowing the transfer of unused deductions

[28]Department of Finance Canada, (1996). *The Budget Plan: Budget 1996*. Ottawa: Department of Finance, March 1996, p. 167-168 Available at http://fin.gc.ca/budget96/bp/bp96e.pdf. The charge applies to the portion of renounced expenses not yet incurred, calculated using the prescribed interest rate and on a monthly basis starting in February of the year in which the expenses must be incurred. The purpose of the charge is to offset the cost to the government of permitting the deduction in advance of the expenses being incurred. If the expenses are not incurred within the required time frame, the PBC will be assessed a 10% penalty on the unspent amounts. In addition, the investor will be reassessed to deny the deduction.

between arm's length taxpayers, let alone between corporate and individual tax payers, is not a standard feature in the tax system. The FTS system purposefully modifies the treatment of unused business deductions and permits deductions that might otherwise normally languish to be immediately realized. Additionally, because corporate tax rates are lower than those faced by individual tax payers that would be purchasing FTS, the tax expenditure is higher if the deduction is claimed by an individual investor than the corporation.

Justifications for the tax preferences

Exploration and development expenses

The rationale for the initial preferential tax treatment for exploration and development expenses in 1943 was the war. At that time, there was a need for resources (particularly oil, metals, and strategic minerals) for war purposes and the Government of Canada wanted to expand production and discoveries. As part of the 1943 budget speech the Minister of Finance stated

> Included in this income tax proposals are a number intended to encourage the search for new sources of oil in Canada during the next two years. The government recognizes the urgent necessity under present emergency conditions of expanding out oil production and, if possible, of discovering new oil-producing areas in various parts of Canada…In addition to oil, the government wishes to encourage the search for new base metal and strategic mineral deposits, which continue to be urgently required for war purposes.[29]

In addition, in the 1944 budget speech in referring to these tax changes the Minister said "with this measure of encouragement the oil and mineral industries have been able to make a very important contribution to the country's war effort."[30] While the war was over when the preferential tax treatment was made permanent, the search for sources of petroleum, metals, and strategic minerals was needed not only for strategic reasons, but also for post-war rebuilding efforts.

Currently, the arguments for preferential tax treatment of the expenses are more about economic reasons. While the strategic reasons original emphasized were more related to geo-political stability, supply chain disruptions, and critical commercial needs, exploration serves a strategic purpose in other ways. Exploration provides information to not only the incurring company but also as well as to competitors,[31] directing them away from further exploration in an unproductive area or encouraging additional exploration in a promising area. This knowledge spillover, or externality, can provide a justification for continued tax preference.[32]

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[29] Canada. Parliament. House of Commons. Debates, 19th Parliament, 4th Session, 1942-1943, pp. 859, March 2, 1943. Ottawa: Canadian Government Publishing, 1943.
[30] Canada. Parliament. House of Commons. Debates. 19th Parliament, 5th Session, 1944-1945, p. 4183.
[31] Boadway, Robin and Dachis, Benjamin (2015) Drilling down on royalties: how Canadian provinces can improve non-renewable resource taxes. C.D. Howe Institute, Commentary no. 435. Available https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/Commentary_435_0.pdf, at 435.
[32] Technical Committee on Business Taxation (1997). *Report of the Technical Committee on Business Taxation*. Ottawa: Department of Finance, p. 5.32. Available at https://www.fin.gc.ca/pub/pdfs/tsrep_e.pdf,

Second, exploration and development activities involve substantial risk, where large expenditures are incurred in the face of volatile commodity prices and very uncertain success. As a result, exploration expenses are often difficult to directly link to the creation or acquisition of a capital asset. If such a tenuous link exists, one could consider exploration expenses as part of a company's ordinary business activities and, therefore, support the preferential treatment of these expenses as being on account of income, particularly for unsuccessful activities. The argument, however, weakens the case for the preferential treatment of CDEs. This is because CDEs are only incurred once the firm has committed to proceed with the creation or acquisition of a capital asset, thereby creating the tight link between the expenses and the asset. That said, CDEs are only partially deductible because they are more similar to capital expenditures.

Two additional arguments are: the asymmetric treatment of profits and losses (where one is taxed and the other not effectively deducted) leads to inefficient behaviour; and interactions of the provincial tax and royalty regimes with the federal tax system represent undue burden when compared to the benefits received.[33]

Flow-through shares

There does not appear to be an explicit statement regarding the policy rationale for the flow-through shares, but it is clear they are linked to: encouraging risky resource exploration and development in Canada; boosting equity investment in Canadian resource companies; and assisting junior exploration companies.[34] It is easily appreciated that exploration is a very risky endeavour, and it can be difficult to attract investors because of this high risk.

The FTS regime can be seen as a distinctive response to the access-to-capital challenge. One of its benefits is that it reduces pressure upon governments to provide the sector with direct funding. Instead, by sharing the investment risk, the government incentivizes investors to provide funding for risky exploration and development activities through the equity market.

Does the Current Tax Preferences of Resource Exploration Expenditures Achieve their Objectives?

The motivation for preferential tax treatment of exploration expenses

As was outlined above, exploration and development expenses have been granted preferential tax treatment under the ITA since the Second World War. The preferential tax treatment arises by treating these capital expenses as income expenses. The original rationale for this preferential treatment was to encourage the search for sources of petroleum, metals, and strategic minerals initially required for war purposes or strategic reasons. That is, the resources served a greater purpose than purely economic. War purposes are fortunately well behind us, and whether

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[33] Detailed in the Technical Committee on Business Taxation (1997). *Report of the Technical Committee on Business Taxation*. Ottawa: Department of Finance, p. 5.23-5.29. Available at https://www.fin.gc.ca/pub/pdfs/tsrep_e.pdf

[34] Canada, Flow Through Shares, p. cii-xiii, and Lenjoske, Gordon J. (1998) A Canadian tax incentives for equity investments in mining and energy companies, *New Directions for Evaluation* 79, 117-134, p. 119.

strategic reasons continue to exist regarding these resources depends on the definition of strategic.

Certainly, many metals and minerals produced in Canada are critical elements in many consumer products and arguments could be made to advance exploration in Canada for those critical metals and minerals where supply disruptions are possible. However, there are endless debates about what materials might be considered critical and by whom and for what purpose. In addition, the possibility of supply disruptions endlessly evolves as the geo-political landscape changes. As a result, defining those metals and minerals to target is challenging.

With respect to petroleum, the typical argument advanced for encouraging exploration is with respect to energy self-sufficiency. However, with current environmental concerns with respect to petroleum, increased interest has been in moving away from fossil fuel reliance and towards renewable energy sources. In addition, the current economic climate brought on by the dramatic collapse in oil, metal, and mineral prices indicates that an economy reliant on resource extraction produces volatile swings. These issues have caused many to question as to whether the time has come to end policies that favour resource exploration and development.

While the original arguments for the continued existence of the tax preference for exploration expenses no longer apply, arguments have been made that support the existing preferential of resources expenses, at least in part. And these were detailed in the justifications section previously. In addition, other similarly risky sectors, such as research and development, also benefit from favourable tax treatment and any changes to tax treatment should be considered in this complex environment.

However, it is important to note that the general tax code and tax rates have changed significantly since the preferential tax treatment for exploration and development expenses was codified in 1948. Notably, corporate income taxes have been substantially reduced, a myriad of other preferential tax treatments, inducements, and supporting programs (e.g. geoscience mapping) have been introduced targeted specifically to the resource industry. In fact, Canada's business tax environment has been referred to as favourable, especially to the non-renewable resource sector.[35] In addition, academic perspectives on corporate taxation generally and the taxation of natural resources specifically have advanced in recent years as has the ability of governments to implement these perspectives. Finally, there is a general consensus amongst economists that, in general, tax policy should be neutral, and not favour one sector over another on the basis that non-neutrality results in favouring economically inefficient activity and inhibiting diversification. As a consequence, the preferential tax treatment carved out for exploration and development expenses should also be reconsidered in light of these changes and perspectives.

[35] KPMG (2016. A Guide to Canadian Mining Taxation, p 3. Available at https://assets.kpmg.com/content/dam/kpmg/pdf/2016/04/KPMG-Mining-Taxation-Guide-2016.pdf. KPMG (2015) A Guide to Oil and Gas Taxation in Canada, p.6. Available at http://www.kpmg.com/Ca/en/IssuesAndInsights/ArticlesPublications/Documents/A-Guide-to-Oil-and-Gas-Taxation-in-Canada-web.pdf

It is clear that there are arguments that can be made both for and against the existing preferential tax treatment of exploration and development. Which ones should be given more weight at this time are very dependent on the objectives of the government.

Evaluations of the FTS regime

With respect to the FTS regime itself, their primary role is clearly that of a financing mechanism the intent of which is to encourage additional exploration and development in Canada. The objective of FTS is to assist PBCs whose access to traditional sources of finance may be limited. As a result, the main target of FTSs are non-taxpaying junior exploration companies without access to alternative sources of financing.[36] It is easily appreciated that exploration is a very risky endeavor and it can be difficult to attract investors because of this high risk.

That said, both of these features (risk and access to capital) are in no way unique to the resource sector. In fact, government intervention to help businesses in risky sectors overcome challenges related to accessing capital and capital markets is fairly widespread and it is not clear why these existing interventions, especially those related to venture capital, are not sufficient to address the short comings in the resource market. The converse is also problematic. The flow-through shares regime as a response to the access to capital challenge in a risky sector is a novel approach. The novelty lies not in using the tax system to incentivize investors to invest in specific types of securities,[37] but rather in explicitly permitting corporations to sell their tax deductions to investors through a share agreement. The ability of the investor to deduct the cost of their investment from their income is argued as a way to entice investors who would otherwise not invest, yet the model is not extended outside of a narrowly defined resource sector. In addition, it is often touted that the key advantage of FTS is that it avoids governments providing direct funding to the sector. Instead, by the government sharing the investment risk, it incentivizes investors to provide funding for risky exploration and development activities through the equity market. If it is such a successful mode, why is it so narrowly focused, especially given the concerns previously raised with respect to neutrality? The answer to that question may lie in considering whether the FTS regime actually achieves its objectives in an efficient manner. In order to make this evaluation, there are three perspectives to consider: the PBCs, the investors, and governments (or more correctly, taxpayers).

From the perspective of PBCs, exploration and development activities can generally be funded through three alternatives: retained earnings, common shares, or flow-through shares. The question therefore is which instrument is the best way to fund its activities and each issuing company must determine which instrument, or combination thereof, is the best way to fund its activities. Various economists[38] have compared the efficiency and effectiveness of these three

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[36] Department of Finance Canada (1994). *Flow-through shares: An evaluation report*. Ottawa: Department of Finance, October 1994, at xi-xii

[37] A similar incentive structures was used in relation to Labour Sponsored Venture Capital Corporations which was created around the same time as the FTS regime.

[38] Jenkins, Glenn P. (1987) Cose-Effectiveness of after-tax financing: flow-through shares in Canada. Discussion paper no. 327, Economic Council of Canada. Available http://www.queensjdiexec.org/publications/qed_dp_70.pdf Jenkins, Glenn P. (1990) Tax shelter finance: how efficient is it? Canadian Tax Journal 38(2), 270-285. McKenzie, Kenneth J. (1994) Refundability and the Incentive Effects of Flow-through Shares. *Canadian Tax Journal* 42(4),

alternatives and find flow-through shares are cost-effective for some, but not all, firms. In particular, FTS are only cost-effective for firms in a non-taxable position (for whom the deduction is of no immediate value), whereas retained earnings are more cost-effective for taxpaying firms. Not only is the use of retained earnings in taxable companies more cost-effective than FTS, firms in a taxable position that elect to flow-through their tax deduction to investors are then left with a higher amount of taxable income than they would otherwise, which could reduce share value and dividends paid to existing shareholders.

As a result, the use of FTS financing by PBCs with positive taxable income is clearly questionable. This long standing finding suggests that that the targeted firms of the FTS policy are appropriate, but the fact that this is not a requirement for FTS issuers is problematic. According to the Department of Finance, only about half of the value of FTS are issued by companies trading on the TSX-V versus the TSX.[39] It is expected that firms trading on the TSX-V are likely in a non-taxable position, but the same cannot be implied about the firms trading on the TSX, raising questions about cost-effectiveness. A simple solution to ensure the cost-effectiveness of FTS to issuers and to ensure that only those firms intended to be targeted by the FTS policy is to limit FTS to only those PBCs that are in a non-taxable position.

However, the FTS regime is still a poor substitute for direct corporate refundability of exploration and development that would occur through a rent-based cash-flow tax. FTS, of course, are, simply a substitute regime for making exploration and development expenses refundable in the hands of the corporation. However, Jenkins has shown that because the premiums charged for FTS are below the theoretical maximum, meaning that issuers are not receiving the full value of the tax benefits, FTS are actually an inefficient refundability mechanism and hence a poor substitute for direct refundability.[40] Because of this inefficiency, McKenzie notes that FTS offer a much lower incentive to take on additional exploration and development.[41] As a result, from the issuer perspective, refundability of expenses is more efficient than the FTS regime. While allowing refundability of expenses for firms in a non-tax owing position would be costly to administer, it would likely be less costly than the administration of the complicated FTS regime.[42] In addition, direct refundability allows firms more flexibility related to the timing and types of exploration and development expenses incurred.

From the perspective of investors, the FTS regime can only be used by issuers to raise equity financing through capital markets. This means that investor risk is partially reduced because of securities regulations and oversight that comes with this type of investment. While this oversight

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1100-1114. Jog, Vijay M., Lenjosek, Gordon J., and McKenzie, Kenneth J. (1996) Flowthrough shares: premium-sharing and cost-effectiveness. *Canadian Tax Journal* 44(4), 1016-1051.

[39] Department of Finance (2014), Tax Expenditures and Evaluations, p. 37. Available at http://www.fin.gc.ca/taxexp-depfisc/2013/taxexp-depfisc13-eng.pdf

[40] Jenkins, Glenn P. (1987) Cose-Effectiveness of after-tax financing: flow-through shares in Canada. Discussion paper no. 327, Economic Council of Canada. Available http://www.queensjdiexec.org/publications/qed_dp_70.pdf Jenkins, Glenn P. (1990) Tax shelter finance: how efficient is it? Canadian Tax Journal 38(2), 270-285.

[41] McKenzie, Kenneth J. (1994) Refundability and the Incentive Effects of Flow-through Shares. *Canadian Tax Journal* 42(4), 1100-1114*, at 1111.*

[42] Jog, Vijay M., Lenjosek, Gordon J., and McKenzie, Kenneth J. (1996) Flowthrough shares: premium-sharing and cost-effectiveness. *Canadian Tax Journal* 44(4), 1016-1051, at 1037.

protects investors from such things as fraud, it does not insulate them from poor returns. Overall, it has been regularly found that FTS as an investment perform poorly. The Department of Finance calculates the pre-tax benefit returns of FTS were around -30% and the post-tax benefits were around -12%.[43] More recent work calculates that for smaller companies, the intended target of the FTS regime, the annualized absolute returns were nearly -100% and -14% for larger firms.[44] When compared to the benchmark indices, FTS performed substantially worse even when comparing post-tax FTS returns.[45] In fact, returns from FTS have declined over the lifetime and the evidence shows that only those investing in the earlier years of the regime and who had access to the lifetime capital gains exemption incurred attractive returns potentially suggesting that the regime be reconsidered with this new evidence in hand.

From the government or taxpayer perspective, the interest is in recouping the tax expenditure. One way for taxpayers to recoup the tax expenditure is through the capital gains tax upon the sale of the FTS by the investor. However, because the investor returns on these equity investments are very poor it makes it an unlikely source of taxpayer benefit. Alternatively, the taxpayers could benefit if the FTS regime results in additional economic activity that would not have occurred otherwise. However, these is no clear evidence of this. The Department of Finance concluded that "incremental exploration activity generated by flow-through shares was not particularly high."[46] Jenjosek noted that even during the peak popularity period of FTS (1987-1991) at most 50% of all exploration expenditures could be considered incremental.[47] The Department of Finance notes that there was "little evidence that the incremental exploration spending and drilling activities resulted in incremental discoveries attributable to this financing mechanism."[48] Jog notes that spending is a poor indicator of activity as the required spending horizons under the FTS have been shown to drive up the costs associated with exploration activities.[49]

In addition, these statistics raise a number of additional concerns with the FTS regime that impede its ability to achieve the policy objectives of a financing mechanism. First, equity financing and access to capital as changed a lot since the FTS regime was proposed. Given that the sector is able to raise $19 billion in equity financing via common shares, but only $1.4 billion in equity financing via FTS it is timely to question to the true need for this financing mechanism and for whom. Second, PBCs that issue FTS are not required to exhaust other sources of financing before relying on FTS. Notably, PBCs that issue FTS can, and often do, issue ordinary common shares.[50] Given the preferential tax treatment of FTS over common shares, FTS may simply crowd out traditional share purchases in the sector. In addition, issuers that raise financing through traditional means can simply redirect the money to fund activities outside of

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[43] (1994, 2013)
[44] Jog, Vijay (2016) Rates of Return on Flow-through Shares: Investors and Governments Beware. SPP Research Papers 9(5), The University of Calgary School of Public Policy.
[45] (Department of Finance (1994, 2013; Jog, Lenjosek, and McKenzie 1996; Jog 2016)
[46] (1994, p. ix)
[47] (1998, p. 129)
[48] (1994, p. ix)
[49] Jog, Vijay (2016) Rates of Return on Flow-through Shares: Investors and Governments Beware. SPP Research Papers 9(5), The University of Calgary School of Public Policy.
[50] Jog, Vijay (2016) Rates of Return on Flow-through Shares: Investors and Governments Beware. SPP Research Papers 9(5), The University of Calgary School of Public Policy. p 14.

Canada, meaning while total exploration and development activities may be larger, the net amount of exploration and development activities in Canada may be unchanged by FTS.

There are two additional concerns with the FTS regime. First, the regime is complex, with a significant reporting and compliance burden on firms and substantial resources dedicated to overseeing, monitoring, and auditing the regime at the Canada Revenue Agency (CRA). These costs must be considered as part of the overall cost-effectiveness of the regime, yet none of the existing evaluations of the regime make note of these costs. Second, based on the information provided in evaluations of the regime, there are significant concerns that there are opportunity costs associated with FTS; costs which, again, have not been seriously considered. For example, the tax treatment of FTS may distort investment decisions away from similarly risky investments such as in the technology, biotechnology, pharmaceuticals, and similar sectors that could contribute to economic activity, including jobs and tax revenues. Ignoring these costs has resulted in the cost-effectiveness of the FTS regime being overstated.

Despite the clear negative academic evaluations of the FTS regime, there have been no direct efforts by the government to eliminate the tax expenditure. That said, recent actions to move expenditures from being classified as CEE to CDE could be considered indirect efforts to curtail the program.

Questions and Implications from Liberal government's proposal

As outlined in the introduction, Canada's new federal government has proposed changes to the tax treatment of CEEs. Specifically, in its election platform the Liberal's pledged that, if they formed the new federal government, they would only allow the use of the CEE deduction for unsuccessful exploration (Liberal Party of Canada 2015, p. 81). This is intended to be the first step towards phasing out subsidies for the fossil fuel industry. The commitment was reconfirmed in the Minister of Finance's mandate letter which directed the minister to "develop proposals to allow a Canadian Exploration tax deduction only in cases of unsuccessful exploration" (Trudeau n.d., para. 13). This current Liberal government seems to be favouring the environmental arguments which favour removing the preferential tax treatment, at least in part.

The Liberal proposal leaves several issues unresolved.

First, what is the rationale for maintaining the existing tax preference for CEE for unsuccessful exploration? As detailed previously, doing so could be rationalized along three lines: recognizing the risk; treating unsuccessful exploration as an ordinary businesss activity; and acknowledging that the expenses serve a strategic purpose in that it provides information to the incurring firm as well as to competitor firms and directs them away from further exploration in an unproductive area.[51]

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[51] Boadway, Robin and Dachis, Benjamin (2015) Drilling down on royalties: how Canadian provinces can improve non-renewable resource taxes. C.D. Howe Institute, Commentary no. 435. Available https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/Commentary_435_0.pdf, at 435.

Second, the proposal further differentiates the tax treatment of research and development expenses (R&D) from exploration and development expenses. Both R&D and exploration and development are risky activities yet R&D expenses are fully deductible from income regardless of their success. Further differentiating the tax treatment of expenses based on risk in the non-renewable resource sector raises concerns about tax neutrality. On what basis should success be treated differently for tax purposes across sectors with similar risk profiles?

Third, what would be the tax treatment of successful CEEs? The government's proposal provides no detail as to the how these expenses will be treated for tax purposes. Certainly treating successful and unsuccessful exploration expenses asymmetrically for tax purposes can be rationalized based on risk. Successful exploration is clearly less risky than unsuccessful exploration and aligning the tax treatment with that fact has some appeal. This, however, raises the problem though at what rate should successful CEEs be deductible from income? As detailed previously, the baseline tax treatment of exploration and development expenses is for the expenses not to be deductible at all from income. It is possible that the tax treatment for successful CEEs could revert back to this baseline treatment, but doing so raises symmetry concerns. Notably, CDEs, which are generally incurred on the basis of successful exploration, remain deductible at a rate of 30% in recognition of the underlying risk of the activity. If the risk associated with the activities that incur successful CEEs are at least as risky, if not more, as those associated with CDEs, then the tax treatment of CDEs suggests that successful CEEs should be treated at least on par with CDEs. Such treatment could be achieved by simply reclassifying successful CEEs as CDEs.

Finally, and more poignantly, what about firms that do not have income against which it can deduct their unsuccessful exploration expenses, which is what prompted the creation of the FTS? Regardless of the details, the Liberal government proposal to allow the CEE deduction only for unsuccessful exploration will create significant difficulties for the FTS regime as we know it. As a reminder, the FTS regime is based on the firm flowing through its deductible exploration expenses to investors. If only expenses associated with unsuccessful ventures are deductible by firms, then only CEE expenses associated with unsuccessful ventures can be flowed-through to investors. While the definition of 'unsuccessful' is not known at this time,[52] there is no way to legitimately proclaim expenses 'unsuccesful' *a priori* for a firm to be able to issue FTS to fund the expenses. And it is unlikely that the tax motivated investor would be interested in purchasing FTS if they had to wait to see if the venture was unsuccessful before knowing if they would be eligible for the tax deduction.

While the evidence presented above suggests that it is time to reconsider the FTS, FTS were attempting to address two real problem: that of so-called stranded expenses and the access to capital. These concerns remain if the Liberal proposal is enacted. What alternative policy proposals could address the tax policy principles that the current tax system seeks to address? The government should seek a tax policy that achieves the current objectives more efficiently and

[52] Though section 66.1 of the Income Tax Act can provide guidance here, as detailed in C. Anne Calverley and Brian R. Carr (2014) Introduction to Resource Taxation in Canada (Carswell), p. 2-33-2-35.

more equitably by permitting all companies – not just those in the resources sector – to take advantage.

While there is no clear answer to this problem, the simplest alternative is to allow for the refundability of losses or loss offsets. Under such a system, if the application of allowable deductions results in a negative income, the government refunds or offsets the amount. While the Canadian tax system already has a degree of loss offsetting due to the carry-forward and carry-back of losses provisions, these are only of value if a firm expects or has already derived income from future or previous activities. However, loss refundability raises a host of administrative and compliance problems that are very difficult to overcome.[53] In addition, refundability will either lead to a substantial erosion of tax revenues or would lead to higher tax rates to offset this erosion. These concerns, however, may be addressed through the experience, knowledge, and controls that already exist within the existing FTS regime. After all, the FTS regime is, in essence, a loss refundability scheme. The basic structure of the FTS, minus the investor side, could be employed to implement this alternative. Alternatively, one could look to Quebec that does have a refundable credit. While this alternative address the issues of standard expenses, it only partially addresses the access to capital issue and does not address concerns related to tax neutrality.

Conclusion

The Liberal proposal to change the tax treatment of CEE expenses is an interesting one. The proposal either eliminate or reduce the existing preferential tax treatment for successful exploration expenses while maintaining the preferential tax treatment for unsuccessful exploration expenses. While on the surface this differing treatment may appear unfair, that treatment can in fact be rationalized through existing views on tax policy and the objective of the government.

The complications, however, occur when the details of implementation are considered. There remain several unanswered questions in the Liberal proposal, including those related to the sectors targeted by the change, the tax treatment of CDEs, and overall tax fairness and neutrality. However, the most significant concerns relate to the implications for the FTS regime. The FTS regime is dependent on the existing preferential tax treatment and the proposed changes effectively render the current regime unworkable. While the evidence questions the efficacy of the FTS regime, the problems it was designed to address continue to exist. What alternatives to FTS might exist to address these longstanding problems? While no best solution has been identified, it may be possible to use the system and controls from the FTS regime to implement direct refundability for unsuccessful exploration expenses. This alternative certainly is not a pancea for either the government or the industry, but may be a reasonable second-best solution.

[53] as discussed in detail by the Technical Committee on Business Taxation (1997). *Report of the Technical Committee on Business Taxation*. Ottawa: Department of Finance, p. 4.14-4.18. Available at https://www.fin.gc.ca/pub/pdfs/tsrep_e.pdf