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Israel Chemicals Ltd.

Submission to the Second
Sheshinski Committee on
Mining Royalty and Tax
Regime Issues

CRITICAL THINKING AT THE CRITICAL TIME™



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1. Introduction

- 1.1 This report has been prepared by Howard Rosen of FTI Consulting Canada ULC (“**FTI**”) at the request of Israel Chemicals Ltd. (“**ICL**”) to address certain economic and financial issues relating to the tax and royalty regime in the State of Israel as it applies to ICL in connection with the on-going review by the State of Israel, of its policy with respect to royalties and taxes levied on the extraction of natural resources within the State of Israel.
- 1.2 I understand that the State of Israel has assembled a committee, which is being headed by Professor Eytan Sheshinski (the “**second Sheshinski Committee**”) the mandate of which is to examine the current and future economic benefits accruing to the State of Israel from natural resources including mining activities within the State of Israel and to propose amendments to the State of Israel’s current royalty and tax policies with respect to natural resources including the mining sector.

Mandate

- 1.3 I have been retained to provide an analysis of the tax and royalty rates prevailing in various countries around the world that are involved in the mining of minerals that are competitive with ICL. As part of this retainer, I have been asked to prepare a comparative analysis of the total payments to the government (in whatever form they take), to calculate the “Government Take” (“**GT**”) for each country, as compared to the GT in the State of Israel. I have performed this comparative analysis based on the prevailing state of the GT in the State of Israel, adjusted on a pro-forma basis to reflect recent and expected future changes to the GT imposed on ICL.
- 1.4 As part of my mandate, I was also instructed to provide an analysis of the actual GT in relation to ICL’s activities in the Dead Sea, from the date of privatisation up until the end date of the concession awarded under the Dead Sea Concession Law of 1961, as amended (the “**Dead Sea Concession**”).



- 1.5 Additionally, I was also instructed to review quantitative and qualitative aspects of economic or other factors that I deem important to consider in the overall review of GT and its potential impact on ICL going forward. In that regard I have considered the relationship of GT and ‘country risk’.¹
- 1.6 Finally, I have also conducted an analysis of the historical rate of return of ICL since its privatization, both from the point of view of the Israeli natural resources business interests of ICL, and also from the point of view the ICL shareholders.

Qualifications

Howard N. Rosen

- 1.7 My name is Howard N. Rosen. I am a Senior Managing Director of FTI and have been involved exclusively in business valuations, financial litigation, and corporate finance-related matters since 1981. I have acted as an advisor to private and public companies, regulatory bodies, and governments on a wide variety of industries. I have also acted as an advisor to buying and selling parties in numerous transactions. My work experience covers assignments across Canada, the United States, Europe, the Middle East, Africa, and Asia. I have been qualified as an expert witness in over 200 damages quantification and valuation matters in courts in Canada and the United States and also in International Tribunal Hearings in Canada, Europe, the United States, the Middle East and Asia. I have acted as a court appointed administrator, monitor, inspector, and additionally as a member of an Arbitration Tribunal. My current role is the Practice Leader of FTI’s International Arbitration group.
- 1.8 I have extensive experience in the valuation and quantification of damages relating to mineral properties at all stages of development including mining projects located in South America, North America, Africa, Asia and Eastern Europe and mineralization including copper, silver, gold, cobalt, iron ore, zinc, lead, nickel, uranium, and dimension stone. I am currently a member of the International Valuations Standards Committee (“**IVSC**”) Working Group on the IVSC Extractive Industries Project which is involved with developing international valuation standards for mining and other extractive industries.

¹ “Country risk” generally refers to the increased risk pertaining to an equity investment in a certain country due to political, social, macroeconomic, infrastructure, or environmental factors relative to developed countries that are deemed relatively low risk for these factors (i.e. United Kingdom, United States, Canada, and Germany).



- 1.9 I am the co-author of two texts and one chapter in a book on the quantification of economic damages and business valuations and have lectured extensively to professional interest groups.
- 1.10 Prior to joining FTI, I practiced as a partner in specialty niche firms and also as the Canadian partner in charge of the business valuation and damages quantification practices for a large multi-national professional services firm.
- 1.11 My curriculum vita is attached hereto as **Appendix 1**.

Limitations to sources of information

- 1.12 This report contains information obtained or derived from a variety of sources. Except where indicated, FTI has not sought to establish the reliability of those sources or verified the information provided.
- 1.13 No representation or warranty of any kind (whether express or implied) is given by FTI to any person (except to ICL under the relevant terms of our engagement) as to the accuracy or completeness of this report.
- 1.14 This report is based on information available to FTI at the time of writing of the report and does not take into account any new information which becomes known to us after the date of the report. We accept no responsibility for updating the report or informing any recipient of the report of any such new information.

Restrictions

- 1.15 In preparing this report, I have been assisted by FTI staff working under my direction, supervision, and review. I have discussed issues relevant to the matters discussed herein with management of ICL as well as their legal counsel. However, the opinions expressed in this report are my own.
- 1.16 I understand this report will be presented to the second Sheshinski Committee for the purpose of assessing the current tax/royalty regime in the State of Israel. This report is not to be used by any other party for any other purpose or be reproduced or circulated, in whole or in part, by any party without the prior written consent of FTI.
- 1.17 I further understand that this report may be used in connection with any potential dispute between the State of Israel and ICL related to the issues addressed herein.



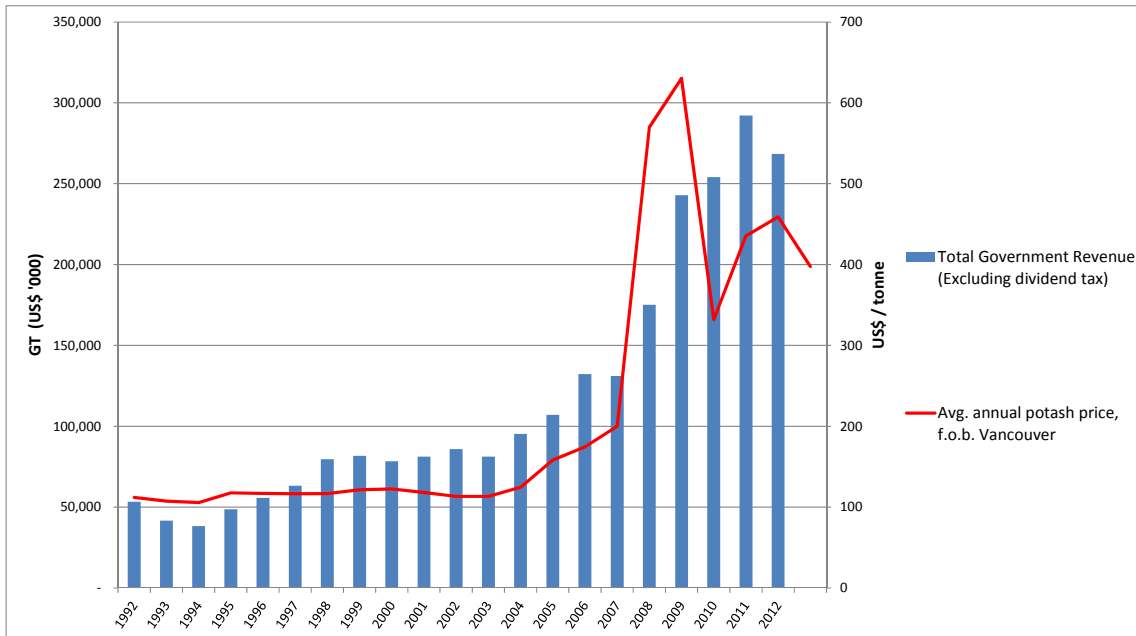
- 1.18 FTI accepts no liability or duty of care to any person other than ICL for the content of the report and disclaims all responsibility for the consequences of any person other than the Claimant acting or refraining to act in reliance on the report or for any decisions made or not made which are based upon the report.

2. Executive summary

Historic GT and rate of return

2.1 GT derived from ICL's Dead Sea operations has steadily increased since the date of privatisation in 1992, reaching a high in 2011, and has closely mirrored the significant recent increase in commodity prices. The majority of the GT that is derived from ICL's Dead Sea operations is attributable to ICL's Israel based potash business, Dead Sea Works ("DSW"). Accordingly, I have included annual average f.o.b. Vancouver potash spot prices in the figure below:

Figure 1 Dead Sea Concession GT in US\$'000, 1992 to 2012



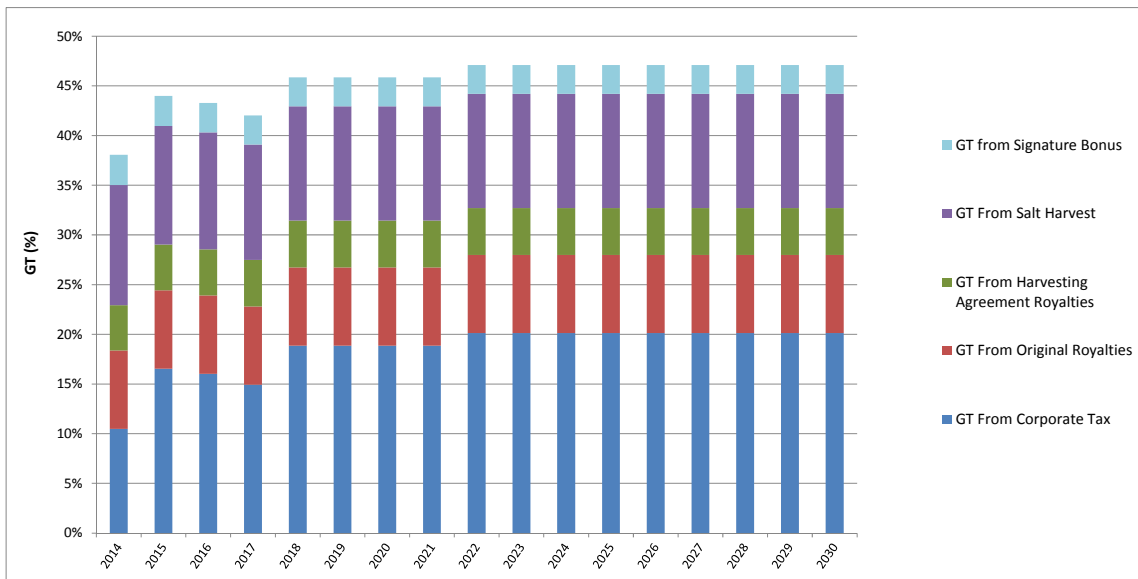
2.2 Historical GT includes corporation taxes, original royalties, additional royalties as a result of the salt harvesting agreement, and an allocation of the premium paid for the Dead Sea Concession.

2.3 In addition to analysing historical GT, I have quantified the historic rate of return achieved by DSW’s consolidated potash operations. The internal rate of return generated by DSW is 10% from the date of privatisation in 1992 through 2012. This calculation is discussed further in section 7.

Pro-forma GT

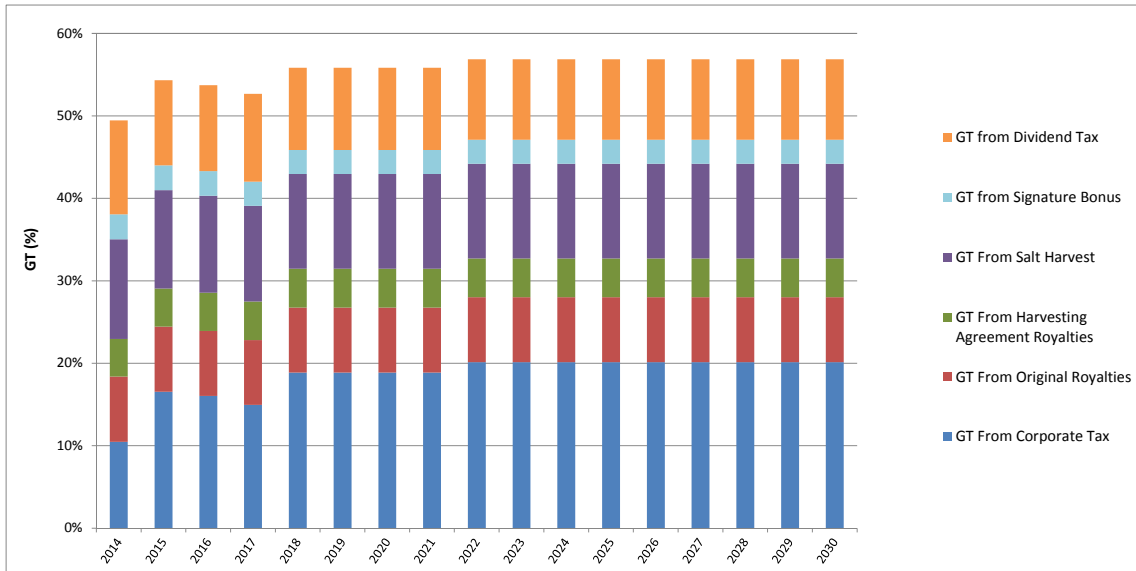
2.4 Based on all known factors impacting the GT paid today and in the future, with a current potash price realized by DSW of approximately US\$340/tonne including the cost of insurance and freight (“**CIF Price**”)², I have forecast that the GT from DSW will stabilise at approximately US\$ 270 million per year, or approximately US\$ 325 million per year with the inclusion of dividend tax. This equates to a GT% of over 45% annually, and over 55% with the inclusion of dividend tax (see the figure below).

Figure 2 DSW projected GT%, 2014 to 2030 (Excluding dividend taxes)



² CIF Price represents the FOB price plus the cost of freight and insurance

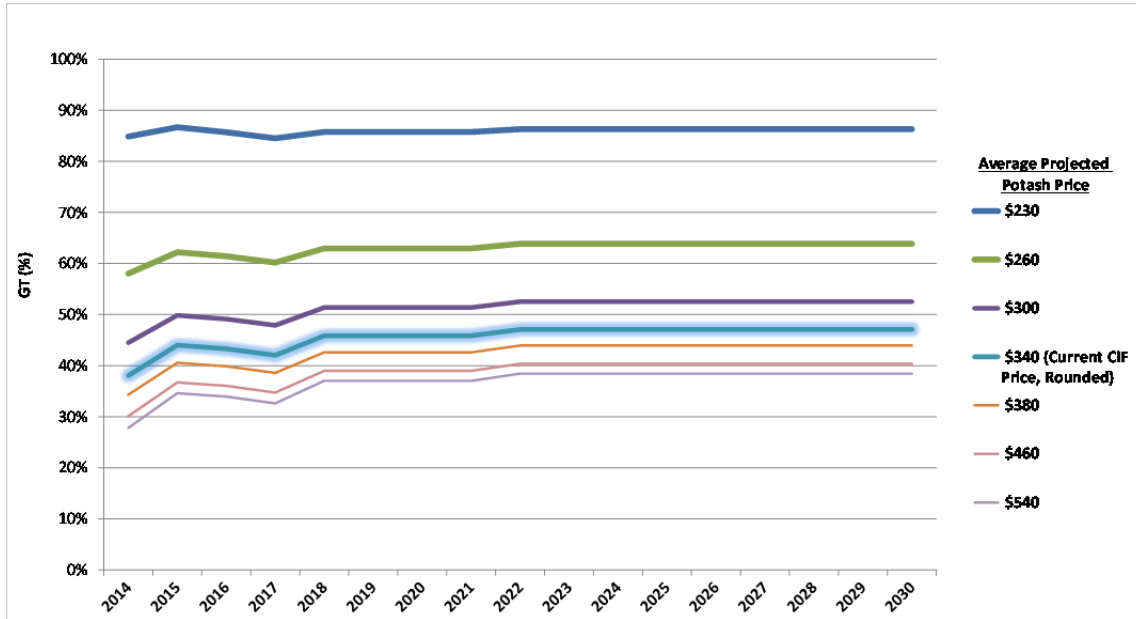
Figure 3 DSW projected GT%, 2014 to 2030 (Including dividend taxes)



2.5 Projected GT includes current corporate taxes, additional corporate tax due to amendments to the Encouragement of Capital Investments Law (“**Investment Encouragement Act**”), original royalties, additional royalties as a result of the salt harvesting agreement, an allocation of the premium paid for the Dead Sea Concession, and incremental costs incurred for the salt harvesting project. Additionally, projected GT is presented with and without the impact of dividend taxes, assuming a dividend pay-out ratio consistent with ICL’s corporate policy.

2.6 The figure below provides the GT% from DSW at different potash prices and demonstrates that as the price of potash declines the GT% applicable to DSW increases:

Figure 4 DSW GT% sensitivity to changing potash prices



- 2.7 This clearly demonstrates that while the GT% applicable to DSW is relatively less sensitive to potash prices increasing to levels over US\$ 340/tonne, it is very sensitive to prices decreasing below US\$ 300/tonne. I have performed this sensitivity analysis due to current pricing uncertainty in the global potash market, to demonstrate the potential impact of a variety of future potash prices.
- 2.8 Furthermore, there is currently uncertainty for ICL specifically due to a number of recent and expected future changes unique to the company, including the increase in its royalty rates on potash in 2012 (to 10% on volumes over 1.5 million tonnes), the costs of the salt harvesting project, the on-going arbitration relating to ICL's royalty payments and recent changes to the Investment Encouragement Act. Until these issues are resolved or there is greater clarity on their likely outcomes it is difficult to precisely determine the impact of any additional change to the GT regime in Israel on ICL and their future operations.

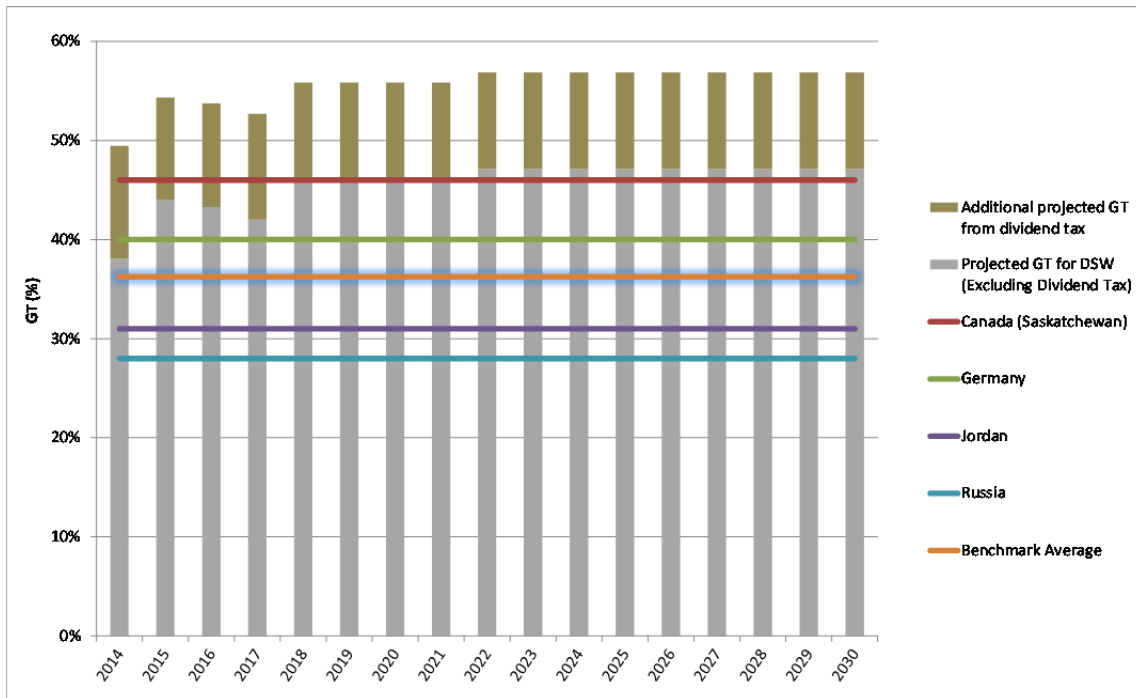


2.9 In addition, based on my comparative analysis of other global potash producing countries, I have concluded that the pro-forma GT applicable to DSW, as it currently stands incorporating all known events, is higher than the average 2012 GT of its competitors in Saskatchewan Canada, Jordan, Germany, and Russia through the end of the Dead Sea Concession³, as shown in the chart below. Although the UK and Spain are not included in this benchmarking analysis due to lack of publically available information, based on information received from ICL, actual GT in these countries will be lower when compared to DSW.⁴

³ Actual GT of competitors is based on actual 2012 financial data obtained from publicly available regulatory filings.

⁴ Source: Potash Cost Report, 2013 Edition.

Figure 5 Potash –GT% by competitor vs. projected GT for DSW assuming US\$ 340/tonne (CIF Price, Including dividend taxes)



2.10 Any additional increases in GT specific to ICL will further increase its GT relative to its competitors.

3. Framework for analysis

- 3.1 In the evaluation of the financial success or failure of an operating asset of a fixed life (such as the Dead Sea Concession), it is necessary to consider the complete life of the asset. It is only by virtue of a complete analysis of the investments required, and the cash flows realized, that any meaningful conclusions be drawn about the investor's financial returns.
- 3.2 This point of view is universally adopted by all investors, as they attempt to quantify expected risks, expected further investment, and financial returns over the life of an investment. This is also consistent with the type of analysis performed in the first Sheshinski Committee analysis of the oil and gas industry in the State of Israel, and the legislation that followed.
- 3.3 In the first Sheshinski Committee, the focus of the committee's work was reviewing the GT for a nascent gas industry that was on the brink of major discoveries and to update GT policies that had been implemented in the 1950s. The committee sought to develop economic protocols that would attract international oil companies ("IOCs"), and ensure that revenues to the State of Israel from this sector would be consistent with peer countries internationally.
- 3.4 A system was recommended and later adopted that introduced a "super profits" tax on new discoveries (with a transition period for the small existing commercial properties in production), that was calculated after all exploration costs, plus 50%, were recovered by the IOCs.
- 3.5 Without commenting on the merits of such a system (which is clearly outside of my mandate), the industry addressed by the first Sheshinski Committee is substantially different to that of the business of ICL. On the face of it, the oil and gas and mining industries may appear similar. They both have long-life investments and assets, both require high levels of investment, and both owe an economic rent to the host government for the right to extract the commodity. However, as discussed below, ICL is not a typical mining company as its extraction and processing methods are, for the most part, different from those of miners of the same commodity in other countries.

- 3.6 In the mining industry, substantial capital investments must be made early in the life of the mine and large sustaining capital expenditures must be made over the life of the asset to maintain their useful economic life, and returns are traditionally realized over a long period of time (the life of mine, or term of any concession).
- 3.7 In the first Sheshinski Committee, a forward looking view was the starting point for the oil and gas industry.
- 3.8 In the case of ICL, the company containing the Dead Sea Concession was first privatized in February 1992. Thus, in evaluating the financial performance of that asset to ICL, or the shareholders of ICL, I must consider the investments required and its performance from that starting point, in conjunction with its operating environment and economic backdrop.

Status of the company

- 3.9 Unlike the IOC's identified in the first Sheshinski Committee ICL is an Israeli company. Therefore, in addition to direct GT, consideration needs to be given to the domestic operations and domicile of this company, the existing regulatory environment in which it operates, and the wider domestic economic benefits it generates. ICL is not able to replicate the type of economic diversification that an IOC was assumed to achieve in the first Sheshinski Committee report.

Existing and new agreements

- 3.10 With respect to potash, ICL and the State of Israel have a specific agreement, the Concession Agreement, regarding the operations in the Dead Sea, as well as other phosphate agreements. These provided the framework and investment making decision criteria for the investors as long ago as 1992. This framework also guided the amount of premium paid for the rights associated with the Concession Agreement.
- 3.11 However in 2012, as part of its agreement with Israel regarding the salt harvest project, ICL agreed to an increase in potash royalties, and further to accept the majority of the responsibility for the multi-billion dollar financial burden with respect to the project itself. This was not something contemplated by the investors at the time of privatisation, and if it had been contemplated it would have impacted the financial projections of the project, the investors' investment making decision criteria, as well as the value of the premium paid. In fact it was contrary to their expectation because at that time I understand that Israel took US\$ 30 million as a special dividend which was intended to bear the financial consequences stemming from this issue (i.e. the increasing water levels in the pools).

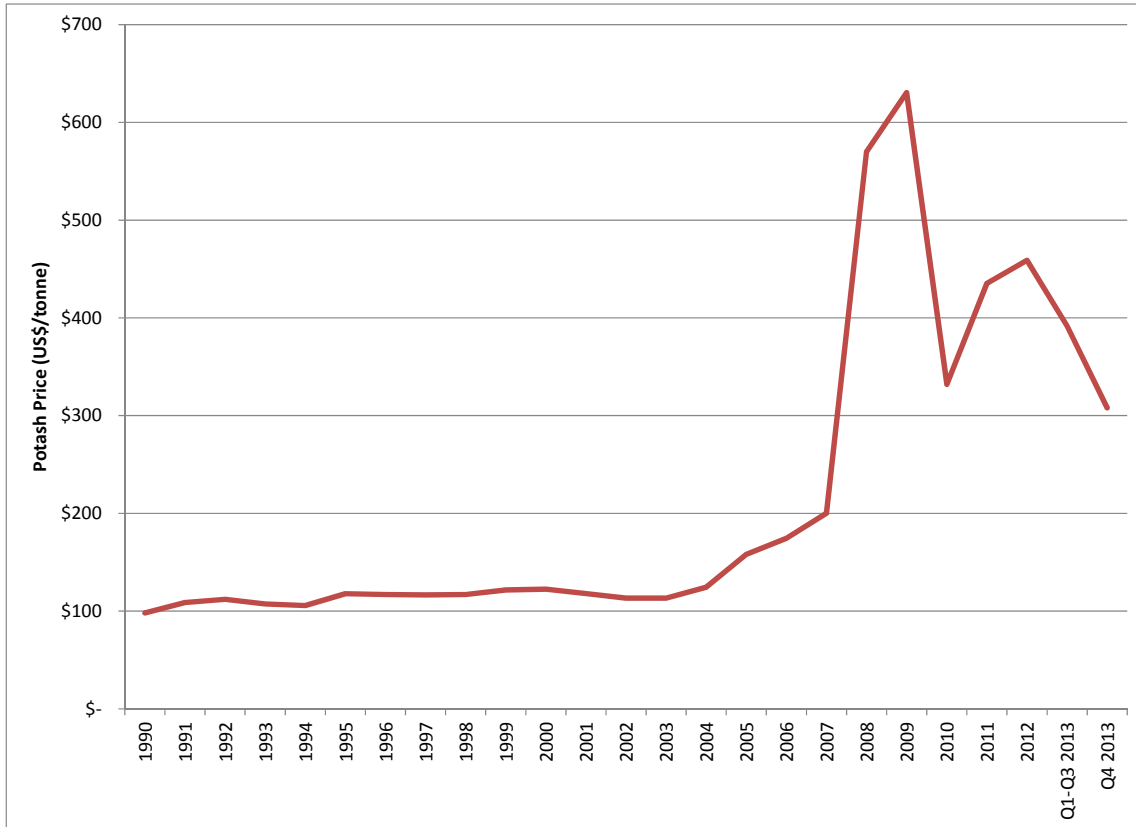


Exposure to global market fluctuations

- 3.12 The majority of ICL's production is sold on the international market. ICL is therefore a price taker in the international markets, and thus has no control over pricing strategies that might mitigate financial risk.
- 3.13 The products of ICL are competitive on international markets, and thus any economic analysis of this industry should be mindful of both the historic and prospective incentives and returns to the investors, and also the sensitivity to volatile market fluctuations that may occur in the future. As can be seen in Figure 6, after decades of flat potash prices, the last several years has witnessed a more volatile market where prices have changed by over 100% over short periods of time.

3.14 In the last decade the global mining and commodity markets generally experienced a ‘bull run’ in prices which, although affected by the global financial crisis which commenced in the fall of 2008, remained higher than historical prices. A summary of potash prices from 1990 to 2013 is provided in the chart below:⁵

Figure 6 Global potash prices US\$/tonne⁶, 1990 to 2013



⁵ Source: World Bank (1990 to Q3 2013). Source: ICL (Q4 2013).

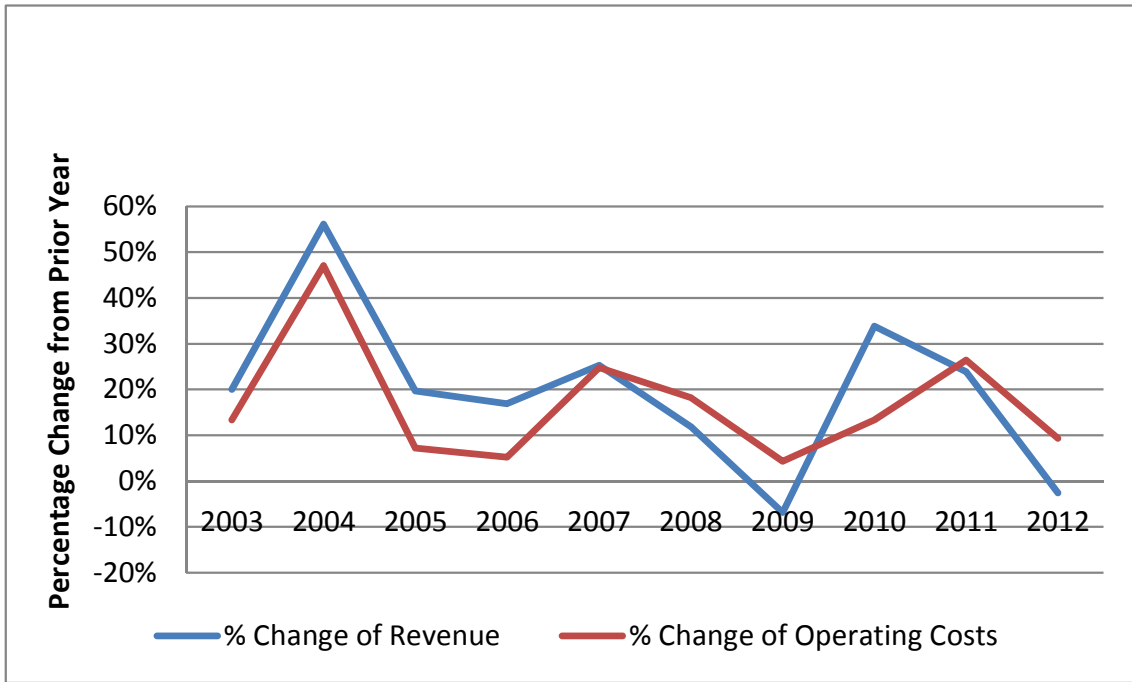
⁶ Annual prices sourced from the World Bank are quoted as nominal US\$/tonne, standard grade, spot price, f.o.b. Vancouver. Price provided by ICL is quoted as f.o.b. Ashdod.

- 3.15 Increases in potash prices started in 2004 with a sharp increase in 2007, peaking around late 2009. There was an abrupt drop in potash prices in 2010, with a moderate recovery in 2012 with prices remaining over four times higher than those prevailing from 1990 to 2004. The f.o.b. Vancouver potash price as of the date of this report has reduced from over US\$450/tonne in 2012 to approximately US\$ 389/tonne in September 2013.⁷
- 3.16 During the recent period of rising commodity prices many countries revisited their policies on mining, seeking a higher share of the economic benefit of these resources. However, while commodity prices were rising, the capital and operating costs required to extract and process these commodities were also rising. In the mining industry the rise in commodity prices led to a “rush” to explore and develop new resources. This substantial increase in demand for mining equipment and services led to a corresponding increase in the cost of these goods and services. As has been seen globally, even during this dramatic increase in commodity prices, many mining companies did not see a corresponding increase in profits. Thus, the effect of the increase in revenues was muted by the increase in costs.
- 3.17 According to an annual study conducted by PricewaterhouseCoopers (“**PwC**”), entitled “Review of Trends in the Global Mining Industry”, the revenues of the largest 40 public mining companies in the world had grown at a greater rate than their operating costs (resulting in higher profits) during the ‘boom’ years of the mining industry from 2003 to 2006.⁸ Operating costs increased at a rate equal to revenues in 2007 and increased at a greater rate than revenues in 2008 and 2009 resulting in lower profits (revenue growth actual turned negative in 2009 i.e. declined). In 2010, consistent with the industry wide recovery, revenue growth once again outpaced the growth in operating costs which served to improve profitability in the industry. In 2011 the increase in operating costs marginally outpaced the increase in revenues and in 2012 whereas revenues actually decreased again, operating expenses increased. This is illustrated in the following chart:

⁷ World Bank; quoted in nominal US\$/tonne, standard grade, spot price, f.o.b. Vancouver. In my calculations I have used a current CIF price of US\$ 340/tonne.

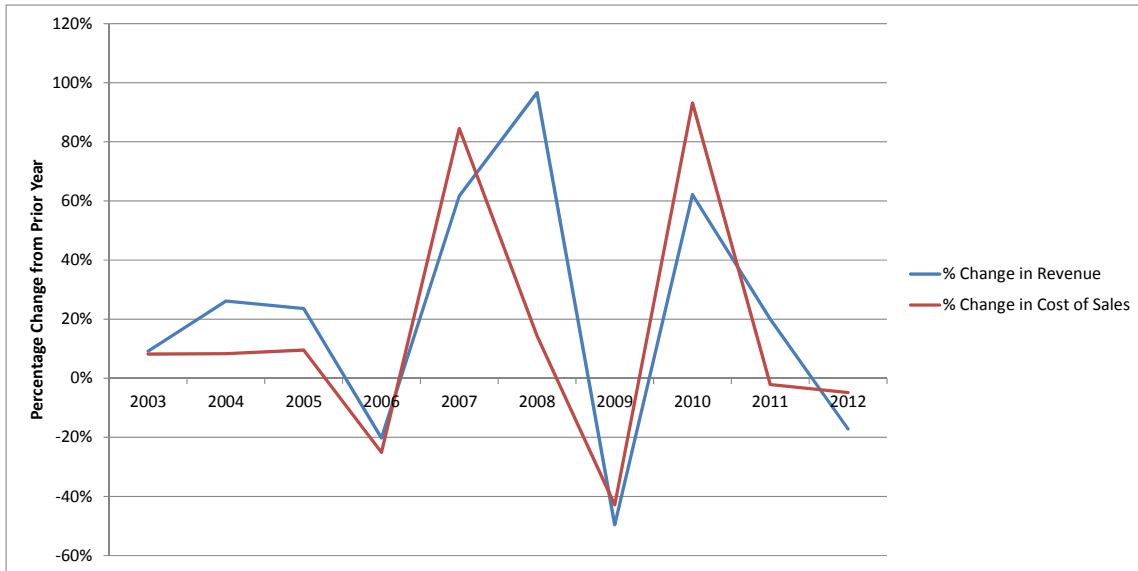
⁸ “The game has changed ...Review of global trends in the mining industry – 2011,” PwC, page 15.

Figure 7 Mining industry revenue and operating cost growth rates



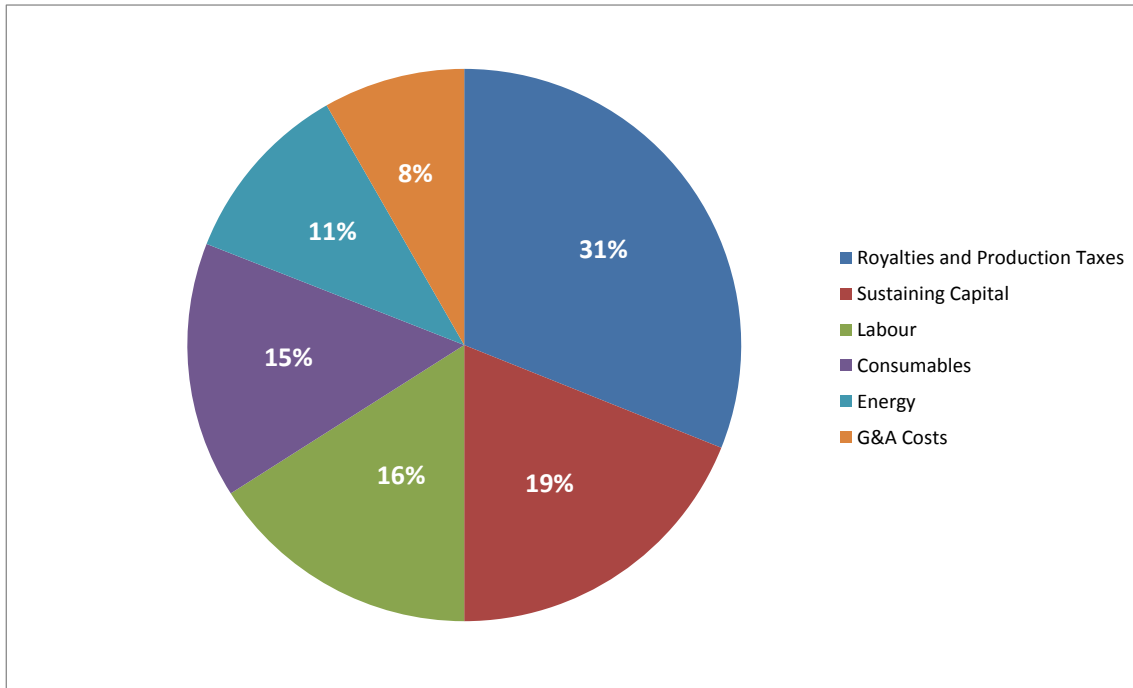
3.18 On the face of it, a surge in commodity prices seems to provide an opportunity for governments to review their fiscal policies and consider implementing changes to existing regimes to ensure they continue to realise their fair share of the economic benefits. However, as can be seen by the industry statistics above, this is frequently unwarranted. This is also the case for ICL as demonstrated in the chart below. The peaks and troughs for ICL mirror the changes in the potash price between 2003 and 2012, rather than general trends in other commodity prices.

Figure 8 DSW revenue and operating cost growth rates



3.19 When analysing DSW’s cost of converting raw materials into potassium chloride (potash), it is important use site cost per tonne of production as the basis for comparison. Site costs are composed of conversion costs and royalties. Conversion costs are further subdivided into cost of labour, energy, consumables, sustaining capital, and general & administrative. Consumables cost includes maintenance materials and process reagents, while sustaining capital includes all capital expenditure other than that associated with capacity expansion. As represented below, royalties and production taxes are the single largest site cost for DSW. The following figure is representative of DSW’s site cost per tonne for 2012.

Figure 9 DSW 2012 cost profile⁹



3.20 Site costs for DSW increased year over year from 2003 until 2008 and dropped off slightly in 2009. Due to a conversion to natural gas from heavy fuel oil in 2010, ICL's milling operations benefitted from substantial cost savings from 2009 to 2010. After 2010, however, DSW's site costs have increased from 2010 through 2012.¹⁰

3.21 For nascent projects, at the beginning of their life cycle, reviewing previously established fiscal regimes has some rationale in certain circumstances as investors have not yet made any decisions or committed capital based upon existing economic conditions. This was the view taken by the first Sheshinski Committee with respect primarily to prospective oil and gas concessions in the State of Israel. In the midst of long life legacy mining projects however, amending fiscal terms is generally not justified.

⁹ Potash Cost Report, 2013 Edition, Table A.9

¹⁰ Potash Cost Report, 2013 Edition, Table A.9

- 3.22 In the case of ICL, it was privatised in 1992 with a concession that now lasts until 2030. Whilst it is not possible to accurately forecast commodity prices and cost of inputs over decades, one of the constant factors in ICL's investment decision making process was the fiscal regime as established in the Concession Agreement. The question therefore arises, from an economic standpoint, as to whether or not, in light of the recent price fluctuations, the State of Israel continues to receive its fair share of the economic benefits from ICL's the Dead Sea operations, and whether ICL itself is being reasonably compensated for the risks contemplated or forecast at the time it made its investment decision. Due to increased volatility in commodity prices in the last decade, there will be short bursts of time when ICL will exceed its historic returns, and times when those returns are minimized. Witness the results from 2008 until 2010 when the price of potash changed significantly from approximately US\$ 570/tonne, to approximately US\$ 330/tonne,¹¹ and the resulting impact on ICL's financial performance.¹²
- 3.23 My analysis therefore encompasses the time period from the privatisation of ICL in 1992 until the date of this report, as well as until the end of the Dead Sea Concession in 2030, which allows consideration of all known and potential future events that impact the financial performance of ICL. In my opinion it is not appropriate to view the recent price fluctuations in isolation of all of the other economic and financial factors which impact ICL.
- 3.24 In order to perform this analysis, I have structured this report as follows:

Structure of this report

- 3.25 In **Section 4** I present the background and historical operating results for ICL's Dead Sea operations.
- 3.26 In **Section 5** I present a 2012 benchmarking analysis with respect to the direct GT of the State of Israel of ICL's Dead Sea operations relative to comparative mineral producing countries around the world;
- 3.27 In **Section 6** I present the State of Israel's projected GT until the end of the Dead Sea Concession, taking into consideration all known and anticipated, as well as cumulative results for the life of the Dead Sea Concession, as well as a potash price sensitivity analysis;

¹¹ World Bank; quoted in nominal US\$/tonne, standard grade, spot price, f.o.b. Vancouver.

¹² Annual operating margin calculated in US\$/tonne decreased by 45% over this period.



- 3.28 In **Section 7** I provide a summary of ICL's historical rate of return metrics;
- 3.29 In **Section 8** I discuss the country risk of the State of Israel relative to GT and that of other countries that produce potash and phosphate;
- 3.30 I **Section 9** I discuss the specific economic considerations with respect to the end of the Dead Sea Concession in 2030;
- 3.31 In **Section 10** I have provided additional conclusions based on the analyses contained in the preceding sections.



4. Overview of ICL

- 4.1 ICL is a global company that produces and markets fertilizers and specialty chemicals. Its operations in the State of Israel are based primarily on the extraction of natural resources for which it has concessions and licenses from the State of Israel. ICL extracts potash, bromine, magnesium and sodium chloride from the Dead Sea and mines phosphate rock from the Negev Desert.
- 4.2 ICL also has extensive operations outside of the State of Israel including concessions for the mining of potash and salt in England and Spain. As my analysis relates to ICL's mining operations in the Dead Sea in the State of Israel, the subsidiaries and business units of ICL that are involved in mining activities and which are thus relevant to my analysis are as follows:
- i) DSW;
 - ii) Dead Sea Bromine Company Ltd. (“DSB”); and
 - iii) Dead Sea Magnesium Ltd. (“DSM”).

Dead Sea Works

- 4.3 DSW and its subsidiaries operate primarily in two business segments being the manufacture and marketing of potash and industrial chemicals.
- 4.4 The potash production process within the State of Israel is based on the extraction of carnallite from the Dead Sea, which precipitates in large solar evaporation ponds containing brines drawn from the Dead Sea. The carnallite is transferred to DSW's plants where it is broken down into potash using both “hot” and “cold” crystallization processes.¹³
- 4.5 The potash is then sold to third parties as final product for direct application as fertilizer, as raw material to produce compound fertilizers or is used within the ICL group of companies to manufacture fertilizer products.

¹³ ICL 2012 Annual Report, page 41-42.

- 4.6 Pursuant to the Dead Sea Concession Law dated May 30, 1961, as amended in 1986, DSW was granted a concession to utilize the resources of the Dead Sea and to lease the land required for its plants for a period ending March 31, 2030.¹⁴ In consideration for the concession, DSW pays royalties on revenues earned from the sales of products that are produced from the natural resources within the Dead Sea Concession area. DSW pays royalties on the production of potash and other materials.
- 4.7 The royalty payable on potash is calculated as DSW's potash revenues less certain expenses (packaging, freight, commissions). The result is reduced by 10% and multiplied by the applicable royalty rate. Until the end of 2009 the potash royalty rate was 5%.
- 4.8 On July 8, 2012 DSW and the State of Israel signed an agreement (the "**July 2012 Agreement**") whereby the parties agreed to undertake a project to harvest salt from evaporation pond no. 5 so that from 2017 and onwards the water in pond no. 5 will not rise above a height of "+15.1 in the Dead Sea Works network" (the "**Salt Harvesting Project**").¹⁵ Under this agreement, the total nominal value of the project cost is estimated at NIS 6.92 billion. Israel is to contribute 20% of the capital and operating costs up to NIS 1.38 billion and DSW is to bear all remaining amounts.¹⁶ I understand that a special dividend paid by ICL to the State of Israel in 1992 was meant to fund the entire Salt Harvesting Project, but will be used to cover part of the State of Israel's portion of the costs, and the State of Israel will contribute additional amounts which will account in total for 20% of the project value in 2012 terms. Accordingly ICL will be responsible for all remaining capital and operating costs of the Salt Harvesting Project through to the end of the Dead Sea Concession. By ICL being responsible for any cost overruns, or budget excess from scope change, ICL has taken on all of the project risk, shielding the government of Israel from any adverse economic consequences. This increase in risk profile has contributed to investors' perceptions of increased risk in the company.

¹⁴ DSW consolidated financial statements for the year ended December 31, 2012.

¹⁵ Translation of Agreement between DSW and the State of Israel dated July 8, 2012, section 3.

¹⁶ Under this agreement, the estimated net present value of the total project cost (at a discount rate of 7%) is NIS 3.8 billion. DSW is to bear 80% of these costs (NIS 3.04 billion) and the State of Israel is to bear 20% (NIS 0.76 billion) I note that future expenses should be discounted at a risk-free rate and so the estimated net present value will be different. I have performed my analyses on the basis of undiscounted amounts.

- 4.9 DSW and the State of Israel further agreed under the July 2012 Agreement that the royalty payable by DSW would be increased to 10% on the value of potash sold by DSW in excess of an agreed upon threshold in each year. The increased 10% royalty is applicable on sales in excess of 3 million tonnes from January 1, 2010 and on 1.5 million tonnes from January 1, 2012.¹⁷ This agreement has changed the risk profile of ICL by exposing it to more fixed payments to the State of Israel, regardless of profitability. Again, this has undoubtedly led to investor views for a higher return from assets to compensate for the increase in risk.
- 4.10 In addition to the royalties, upon privatisation the investors paid a premium over the book value of the assets. This premium is referred to as goodwill, and is an intangible asset. The intangible asset here is inferred via the Dead Sea Concession Agreement for the exclusive right to exploit the Dead Sea (the “**Signature Bonus**”). Typically the value of such Signature Bonus is a subset or derivative of the value of the primary assets i.e. the minerals in the Dead Sea. My understanding is that the Signature Bonus results in incremental benefit to the purchaser and enhances the value of the other assets with which it is associated. I have amortized the Signature Bonus, estimated at US\$ 490 million,¹⁸ using the straight line method, over the life of the Dead Sea Concession. This equates to US\$ 12.6 million per year (in 1992 dollars). I have restated the amortized Signature Bonus into the nominal dollars of each year from 1993 to 2013 based on the annual change in the Israeli Consumer’s Price Index over this period. I then allocated the resulting figures in US dollars between DSW and DSB based upon their pro-rata share of cumulative 1992 to 2012 revenues. DSM is excluded from the allocation because it was established in 1997, subsequent to the privatisation.
- 4.11 I note that the first Sheshinski Committee discussed the issue of a signature bonus. In the first Sheshinski Committee, this bonus was dismissed as being immaterial, since it would pale in comparison to the payments to be made over the life of the gas investments. In the case of ICL, as a substantial investment was made by public shareholders significantly in excess of the book value of the assets purchased, this concept is relevant and quantifiable, and therefore should be examined as part of the GT.

¹⁷ Translation of Agreement between DSW and the State of Israel dated July 8, 2012, section 7.

¹⁸ Being the difference between the market valuation and book value of DSW in 1992. Information provided by ICL

4.12 DSW has a number of subsidiaries that conduct mining and production operations outside of Israel, including the UK and Spain. Since I am concerned exclusively with ICL's activities as they relate to the natural resources from the Dead Sea I have focussed on DSW's Israeli activities only. As such I requested and have been provided with unaudited financial information from DSW on a "solo" basis which includes only Israeli based operations.

Figure 10 DSW GT US\$'000, 1992 to 2012

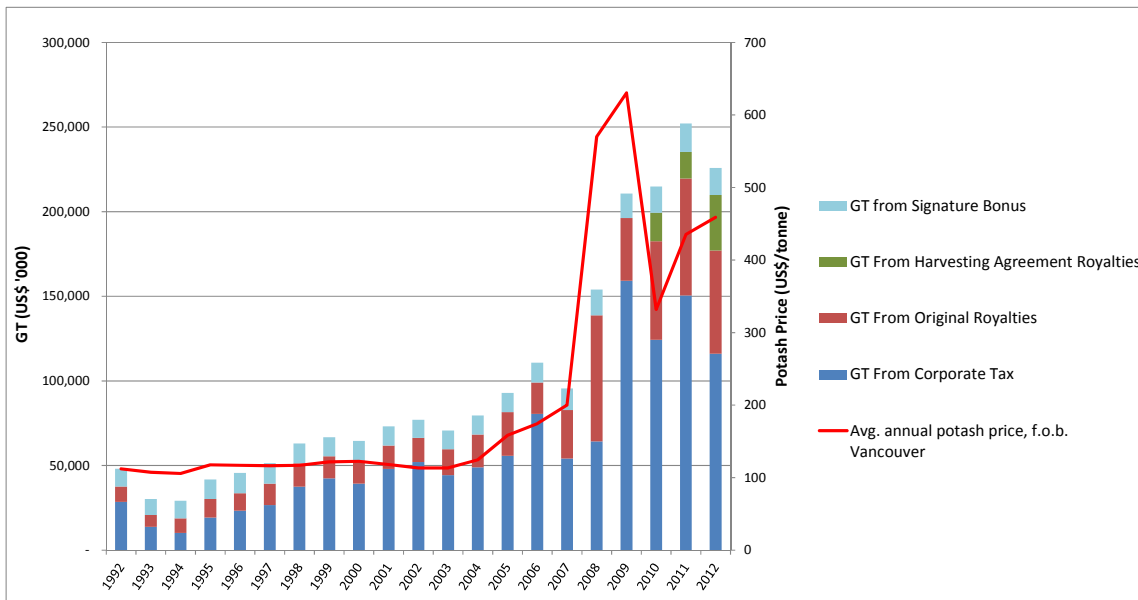


Figure 1 illustrates that DSW's profits move closely in step with changes in potash prices. Figure 10 illustrates that GT from DSW (in absolute dollars) also responds to changes in potash prices.

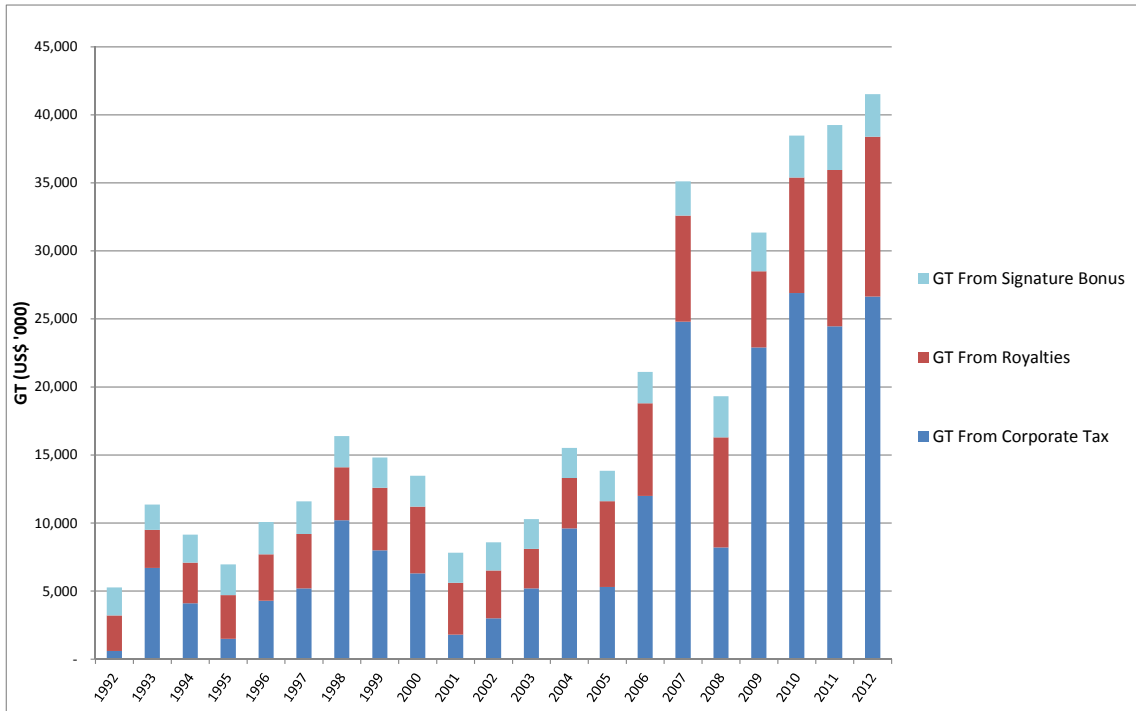
Dead Sea Bromine Company Ltd.

- 4.13 DSB and its subsidiaries are engaged in the manufacture and marketing of bromine, bromine compounds, baked magnesia products, special magnesia products, and other chemical products.¹⁹ Bromine is an element from the halogen family that is used in the production of a variety of chemical compounds that have a variety of industrial uses (i.e. as flame retardants). It is found naturally in sea water, in some underground brine deposits, and in the Dead Sea. The Dead Sea is one of the world's largest sources of bromine as the concentration of bromine in the Dead Sea is considerably higher than in regular sea water.
- 4.14 DSB holds a sub-concession that expires March 31, 2030 which was granted to it by DSW, pursuant to the Dead Sea Concession, to produce bromine and bromine salt from the Dead Sea.²⁰
- 4.15 DSB pays royalties of 5% of its sales revenues from the production of bromine at the factory gate, less certain expenses (i.e. transport, commissions, etc.).

¹⁹ Consolidated financial statements of DSB for the year ended December 31, 2012, page 10.

²⁰ Ibid.

Figure 11 DSB GT US\$'000, 1992 to 2012



4.16 As indicated in the figure above, the State of Israel's GT from DSB largely changed along with changes in the commodity price, reaching a high of over US\$ 40 million in 2012.

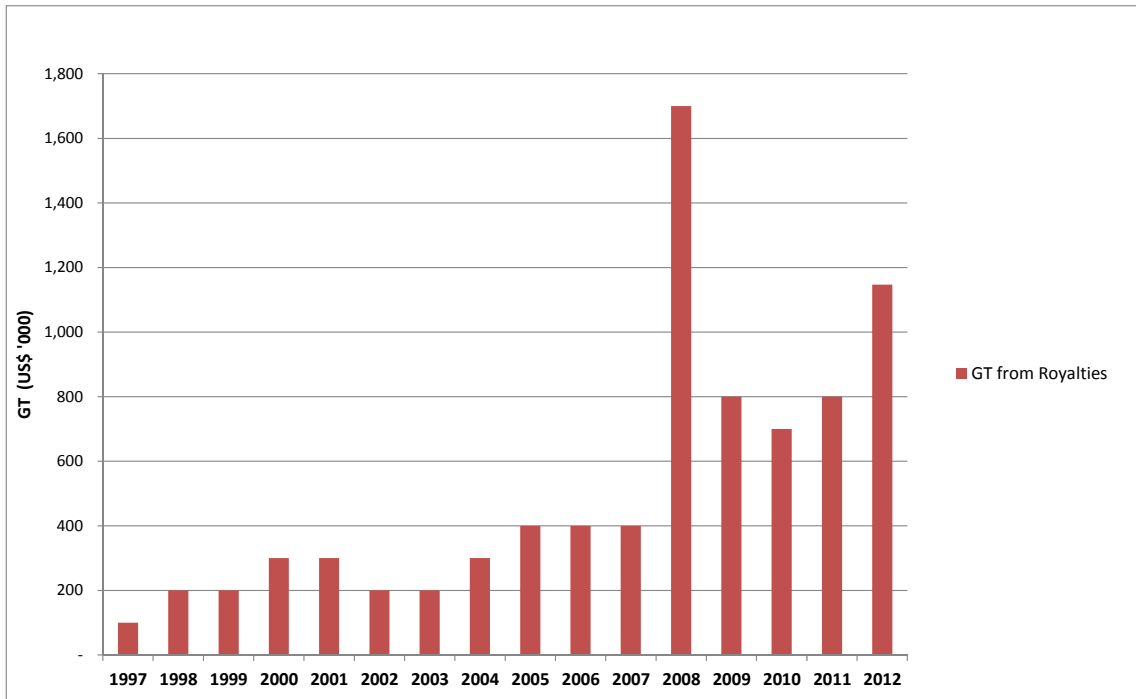
Dead Sea Magnesium Ltd.

4.17 DSM takes a portion of the carnallite extracted from the Dead Sea by DSW in order to produce magnesium. As part of this process, chlorine and sylvanite are produced as incidental products.

4.18 DSM pays a royalty to the State of Israel of 5% based on the value of the carnallite used to produce the magnesium. A value per tonne of carnallite is derived based on the international potash prices (subject to a minimum of US\$ 64.50/tonne of potash) and amount of carnallite required to produce a tonne of potash. The value per tonne of carnallite is then applied to the number of tonnes of carnallite used in each year to produce the magnesium by DSM. The result is reduced by 10% and the remainder is multiplied by 5% to determine the royalty payable to the State of Israel.

4.19 I have reviewed financial statements from DSM. A summary of the revenues and profits earned, and GT paid to the State of Israel by DSM from 1996 to 2012 is provided in the figures below, along with each year’s achieved price per tonne:²¹

Figure 12 DSM GT US\$'000, 1992 to 2012



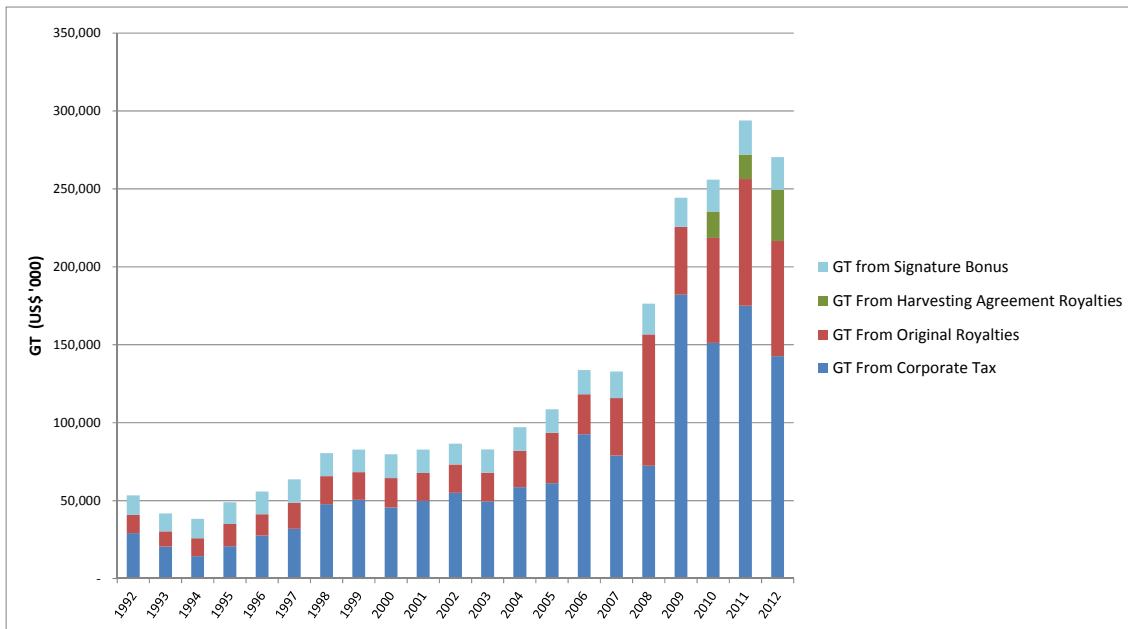
4.20 Despite incurring operating losses in each year from 1996 to 2008, DSM generated over US\$ 4 million in GT from royalty payments during this timeframe. From 2008 through 2012, DSM paid over US\$ 3 million in royalties to the State of Israel.

²¹ Information provided by ICL.

Dead Sea Concession Businesses

4.21 I have consolidated all of the financial results for the three subsidiaries and business units that relate exclusively to ICL’s operations under the Dead Sea Concession, DSW, DSB, and DSM (the “**Dead Sea Concession Businesses**”) in order to determine the GT paid to the State of Israel from these operations. The results of my analysis are provided below:

Figure 13 Dead Sea Concession Businesses GT US\$’000, 1992 to 2012



4.22 As indicated in Figure 13 above, the GT derived from the Dead Sea Concession businesses increased dramatically in 2008 and 2009 over prior years with corporate taxes and royalty payments making up most of the increase. The significant increase in GT paid by ICL’s Dead Sea Concession businesses also coincides with the period in which potash prices had increased dramatically. Even with the recent reduction in prices in 2012, the total GT remained over US\$ 250 million in the year.



5. Comparative Analyses of GT

- 5.1 I have performed an analysis to calculate the rates of direct GT among the major potash and bromine producing countries for the year 2012.²² I have not included an analysis of magnesium due to the lack of comparable countries and available data. This is a factual analysis based on a comparison of various royalty and tax regimes specific to potash and bromine producing countries. The purpose of this analysis is to allow the GT in the State of Israel to be objectively compared with the GT of countries from around the world.
- 5.2 I have based my calculation of GT for ICL on the same formula as that provided in Appendix C from the first Sheshinski Committee report.²³ GT percentage is calculated as follows:
- $$\text{GT} = (\text{Total Government Revenue}) / (\text{Gross Company Revenue less Total Company Costs}).$$

²² Major producing countries were selected with an emphasis on current production. Countries with high potash reserves but no production will likely not have implemented a royalty regime, and any results would not be representative and comparable to ICL. I have not included an analysis for magnesium as no comparative regimes could be sourced.

²³ Source: Israel Hydrocarbon Fiscal Analysis and Commentary by Daniel Johnston dated November 15, 2010, page 9.

- Total Government Revenue is equivalent to all direct and indirect amounts received by the government as a result of the purchase and operation of the Dead Sea Concession. This includes revenue from royalties, corporate income taxes, dividend taxes, the Signature Bonus, and incremental operating and capital expenses related to the Salt Harvesting Project (over the alternative of raising the dikes).²⁴ I have provided calculations both including and excluding dividend taxes.
- Gross Company Revenue is equivalent to all revenue from the sale of minerals.
- Total Company Costs are equivalent to all capital costs and operating costs before government royalties, taxes, the Signature Bonus, and amortization of incremental Salt Harvesting Project expenses.

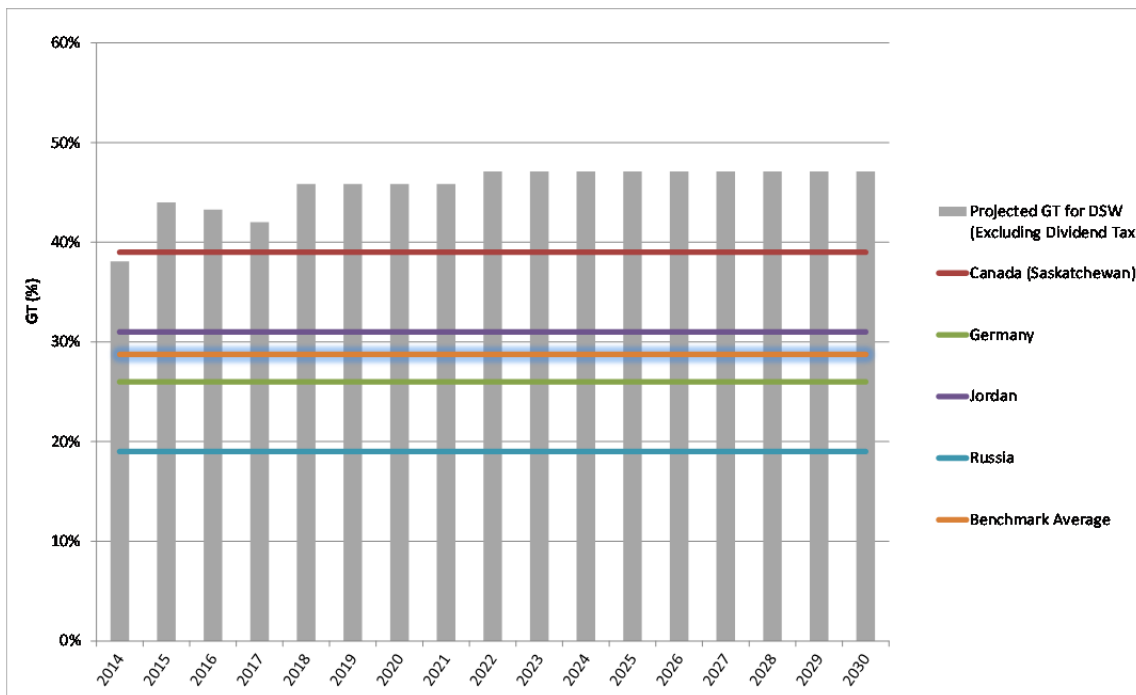
Benchmarking analysis - actual

- 5.3 I have analysed the actual 2012 GT for potash mining companies that operate within the selected benchmark countries, and which have geographically concentrated operations. Since these companies primarily mine potash within domestic borders, actual GT results are a proxy for country specific GT. Additionally, GT can be calculated for these companies with acceptable accuracy based on publically available information. When necessary, segment information was used to isolate potash financial results.
- 5.4 I have identified four potash companies for the purposes of my benchmark comparison: Arab Potash Company PLC (“**APC**”), Potash Corporation of Saskatchewan Inc. (“**PCS**”), Uralkali Group of Russia (“**Uralkali**”), and K+S Group of Germany (“**K+S**”). These companies are representative of potash mining operations in Jordan, Canada, Russia, and Germany respectively. Due to a lack of publically available information and geographic dispersion of operations, country specific GT calculations cannot be performed for other comparable countries that were identified.

²⁴ In my calculations I have amortized the Signature Bonus over the life of the concession and have similarly amortized the entire incremental cost for the Salt Harvesting Project over the period 2014 to 2030.

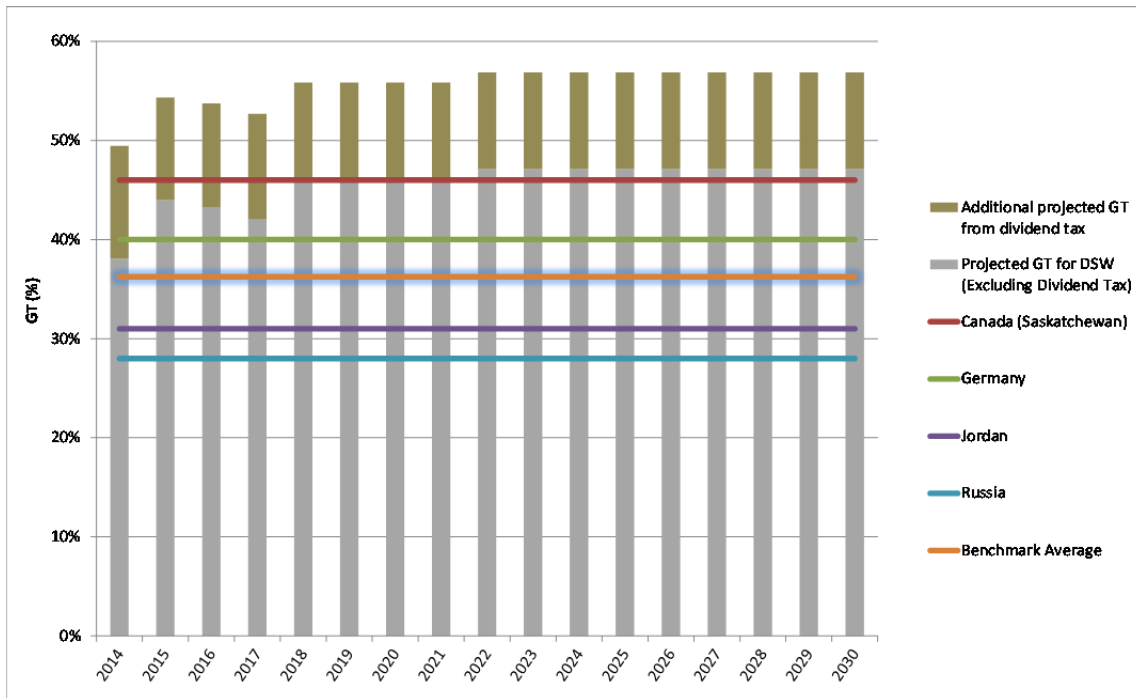
5.5 I have used forward looking GT projections assuming a constant potash price of US\$340/tonne (CIF price) to compare DSW against royalty regimes in other potash producing countries.²⁵ My yearly undiscounted GT projections for DSW extend from 2014 through 2030 and include the effect of income taxes, royalties, the Signature Bonus and Salt Harvesting Project expenditures. For comparison, I have included actual GT paid in 2012 by the aforementioned potash companies in Jordan, Canada, Russia, and Germany. I have presented the results of my analysis below:

Figure 14 Potash –GT% by competitor vs. projected GT for DSW assuming US\$ 340/tonne (Excluding dividend taxes)



²⁵ Provided by ICL management.

Figure 15 Potash –GT% by competitor vs. projected GT for DSW assuming US\$ 340/tonne (CIF Price, Including dividend taxes)



5.6 As the charts above demonstrate, the average 2012 GT for potash producing countries is approximately 29%. This is below that of DSW pro-forma projections in every year from 2014 to 2030 when excluding dividend taxes. When the effect of dividend taxes is included, DSW's pro-forma GT also remains above that of the identified potash producing countries noted above.

Benchmarking Analysis - Conclusions

As shown in Figure 14 and Figure 15 above, the GT% from DSW on a pro-forma basis from 2014 to 2030 is higher than all of its main competitors in each of the years. Given recent and expected changes to ICL's cost structure and future tax liability, ICL's estimated actual GT% going forward increases significantly as discussed in **Section 6**, and will therefore exceed the average 2012 GT calculated from comparative companies identified until 2030.

6. Projected GT until end of concessions

6.1 The GT analysis based on 2012 data in **Section 5** above provides a clear indication of where the State of Israel's fiscal regime with respect to the Dead Sea Concession Businesses lies within the global landscape. However this is a static measure i.e. at one point in time, and therefore does not provide an accurate indication of the GT applicable to ICL until the end of the concessions as a number of recent events will affect ICL's future cost structure, some of which are still in flux. I discuss each of these below.

Salt Harvesting Project

6.2 Based on information provided by ICL, the expected undiscounted capital costs of this project are NIS 2.22 billion and the annual undiscounted operating costs which involve moving approximately 20 million tonnes of salt are estimated at are estimated to be approximately NIS 170 million per year for the years 2015 to 2018 and NIS 333 million per year (undiscounted) from 2019 to 2030.²⁶ Additionally, I have been informed that DSW is required to pay 39.5% of costs related to an interim solution for rising water in the Dead Sea evaporation ponds. This cost is estimated to be NIS 400 million.²⁷

6.3 I further understand that another option was for ICL to continue to raise the dikes around the pools and that the undiscounted capital costs of this would be NIS 826million.²⁸

6.4 For the purposes of my analysis I have assumed that the difference between the Salt Harvesting option selected and the option of raising the dike walls is a form of GT. Accordingly, I have included the incremental cost of the Salt Harvesting (over raising the dike walls) in my calculations of GT.

6.5 As the Salt Harvesting Project relates to all of the Dead Sea resources, I have allocated the GT from the estimated additional costs to each of DSW, DSB and DSM on a pro-rata basis based on their revenues.

²⁶ Summary information provided by ICL management.

²⁷ Ibid.

²⁸ Ibid.

Changes to Encouragement of Capital Investment Law

- 6.6 In 2010 the State of Israel amended its Encouragement of Capital Investments law effective January 1, 2011. The effect of the amendment was that certain tax benefits that had previously applied to ICL were abolished. For example, DSW potash production operations had qualified for a special corporate income tax rate under the law as the Israel operations of DSW are deemed a “Benefitted Enterprise”.²⁹ To qualify as a benefitted enterprise, strict criteria related to capital investment in productive assets must be met. The income tax rate for a benefitted enterprise is 11.5% (0% in Development Area A),³⁰ which can be utilized for a benefit period of 10 years (6 years)³¹ Although ICL is still studying the potential impacts of the amendments, I have discussed the likely impacts as it relates to the corporate tax rates applicable to ICL’s subsidiaries and have reflected the estimated changes to the tax rates in future in my calculations.

Pro-forma analysis

- 6.7 I have performed a pro-forma analysis to demonstrate the future GT applicable to ICL over the remainder of the concessions which includes the known and estimated impact of the above issues. I note that the increased royalty as a result of the Salt Harvesting Project was effective in 2012 thus I included the impact thereof in my benchmarking analysis.

Pro-forma methodology - profit and loss projections

- 6.8 I have projected the financial operating results and Government Revenues for the Dead Sea Concession Businesses using forecasts provided by management and a number of assumptions as described below.

²⁹ The State of Israel Ministry of Finance, Encouragement of Capital Investments Law 5719-1959, Section 51.

³⁰ The State of Israel Ministry of Finance, Encouragement of Capital Investments Law 5719-1959, Section 51A.

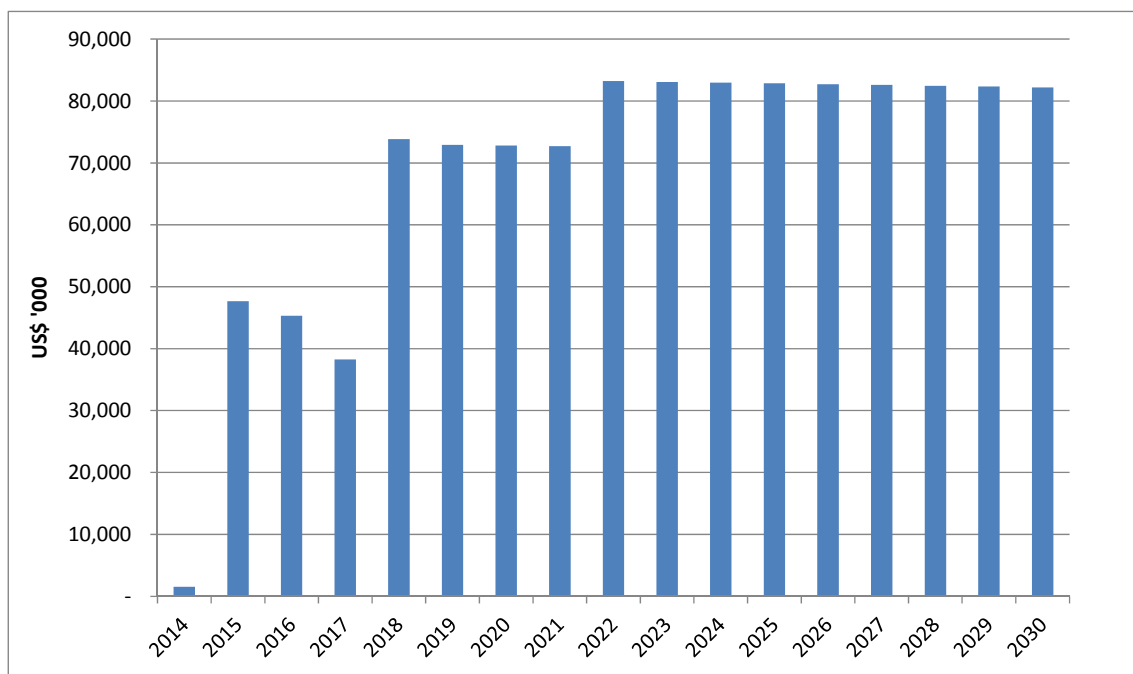
³¹ The State of Israel Ministry of Finance, Encouragement of Capital Investments Law 5719-1959, Section 51C.



- 6.9 Revenues of DSW are projected based on a current day price of US\$ 340/tonne CIF Price for potash which is carried through until the end of the Dead Sea Concession period.³² Total dollar revenues are calculated as quantity sold multiplied by price per unit. For DSB and DSM, I have relied upon financial projections provided by ICL.
- 6.10 The cost structure for each business is projected until the end of the concession period using 2012 actual operating results. As such, an average of the cost per unit sold is used to project variable costs for DSW, while operating costs are held constant at 2012 levels until the end of the Dead Sea Concession period. For DSB and DSM, I have relied upon financial projections provided by ICL. I have included the incremental Salt Harvesting Project as the total operating and capital expenses for the project allocated on a straight line basis over the period from 2014 to 2030.
- 6.11 Corporate income taxes are projected until the end of the concession period using effective tax rate projections provided by ICL management. These projections include benefits received from the Encouragement of Capital Investments Law, when applicable. In the absence of any known tax benefits, I have assumed a tax rate of 26.5%, the top corporate income tax rate for mining operations. On a pro-forma basis, I have presented the additional taxes payable due to changes in the Encouragement of Capital Investments Law in the following chart:

³² I have modeled different potash price assumptions in my sensitivity analysis at the end of this section.

Figure 16 Projected additional corporate taxes payable due to changes in the Encouragement of Capital Investments Law (Assuming current CIF Price of US\$ 340/tonne)



6.12 Government royalties are projected using current agreed upon royalty rates i.e. post Salt Harvesting Project agreement, and the existing method for calculation.

Pro-forma methodology - GT calculation

6.13 My calculation of GT% is consistent with my prior calculations i.e. Total Government Revenues divided by the result of (Gross Company Revenues less Total Company Costs).

6.14 The Total Government Revenues include corporate income taxes (as adjusted for declining benefits from Benefitted Enterprise status), royalties, the amortized Signature Bonus in real 2013 dollars, and incremental Salt Harvesting Project operating and capital costs.



- 6.15 To calculate Total Company Costs I have excluded the incremental Salt Harvesting Project costs. I have also excluded the amortized Signature Bonus in annual Total Cost projections, as this cost was incurred upfront in a onetime payment. The implied Signature Bonus is amortized using the straight line method, over the life of the Dead Sea Concession and is allocated between DSW and DSB based upon their pro-rata share of cumulative 1992 to 2012 revenues. For each year from 1992 through 2013, the annual amortized Signature Bonus is adjusted for inflation (“**Adjusted Signature Bonus**”) to reflect the amount paid in the nominal dollars of each year over this period of time.³³ From 2014 until 2030, the Adjusted Signature Bonus is measured in real 2013 dollars or US\$ 19 million per annum.
- 6.16 Estimated incremental Salt Harvesting Project costs are included in the pro-forma GT analysis. Government Revenue derived from the Salt Harvesting Project is equal to the incremental cost of the Salt Harvesting Project over raising pre-existing dikes; an alternative solution (the “**Incremental Cost**”).

Total Dead Sea Concession Businesses results

- 6.17 GT applicable to the Dead Sea Concession Businesses is expected to change significantly in the future. As indicated in the following chart, pro-forma GT for consolidated businesses operating on the Dead Sea Concession holds steady at approximately 45% without consideration of dividend taxes. With the inclusion of dividend taxes, using a 70% dividend pay-out ratio, GT is consistently higher than 50% throughout the concession period.

³³ Annual inflation is measured using annual average Israel CPI as reported by The State of Israel Central Bureau of Statistics.

Figure 17 Dead Sea Businesses projected GT% (2014-2030)

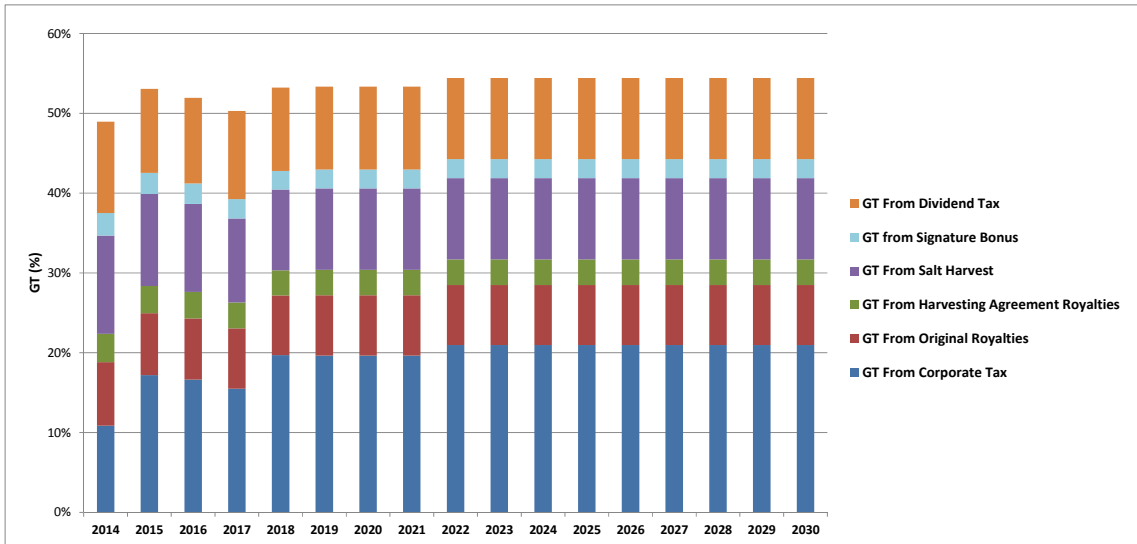
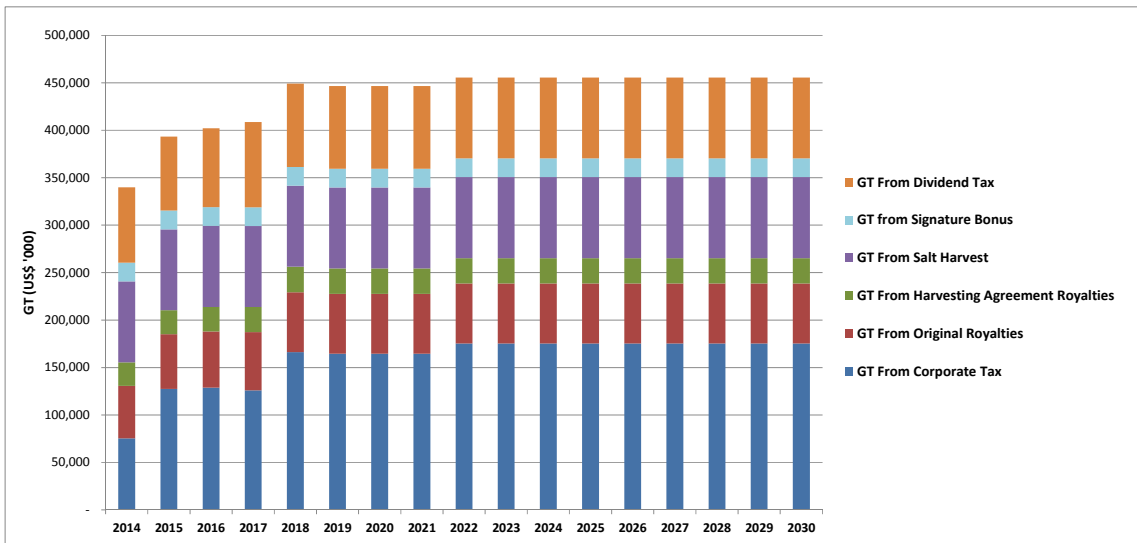


Figure 18 Dead Sea Businesses projected GT US\$'000 (2014-2030)

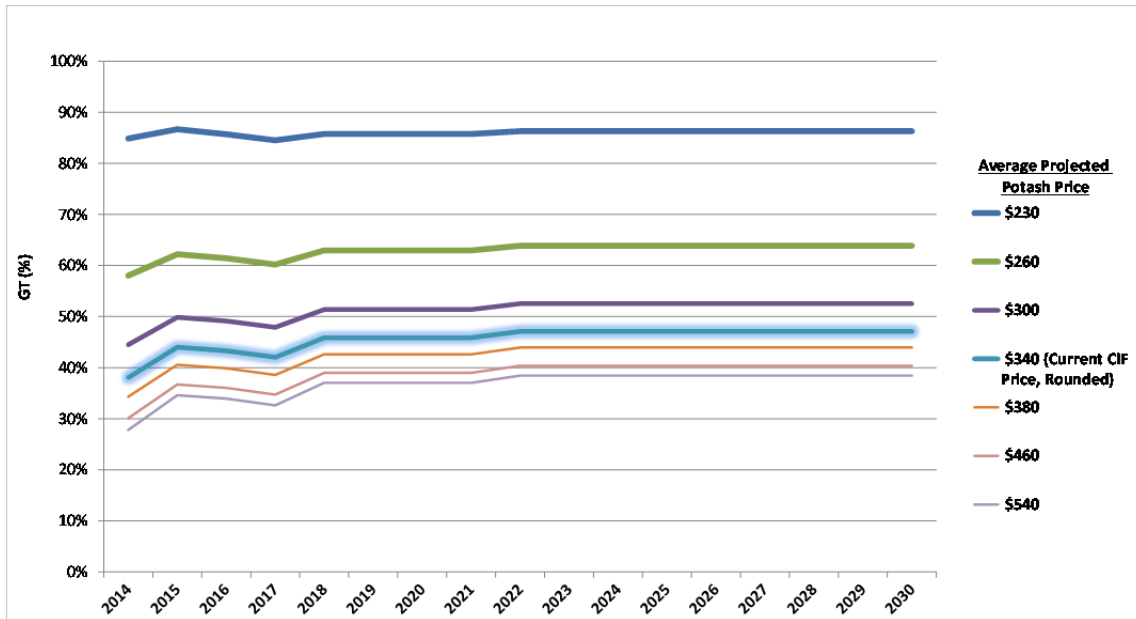


Sensitivity of GT% and ICL Net Income under Various Royalty and Tax Regimes

- 6.18 The above pro-forma GT analysis has been performed on one set of pricing assumptions under the current royalty and tax regime in the State of Israel. Royalty calculation for DSW is based on the Ex Works Price of potash³⁴, and as a result, Government Revenue will fluctuate with world commodity prices. Since a portion of DSW's operating costs are fixed, an increase (decrease) in the world price of potash will generally result in a decrease (increase) in the effective GT% in a given year.
- 6.19 Thus, a further consideration for the second Sheshinski Committee is the potential impact of a change in commodity prices on the GT% in future since the future commodity prices of potash, bromine, phosphate and magnesium are uncertain.
- 6.20 I have conducted a sensitivity analysis to illustrate the effect of changing potash prices on GT for DSW on a pro-forma basis. For the purposes of my analysis I have employed identical assumptions and conditions as under my analyses in **Section 4**, but I have utilized CIF potash prices ranging from US\$ 260/tonne to US\$ 540/tonne, in US\$ 40/tonne increments. Additionally, I have utilized a CIF potash price of US\$ 230/tonne.
- 6.21 I have provided the results of my analyses of GT% and changes to future world potash prices below:

³⁴ The Ex Works price is defined as the price paid by the buyer excluding cost of delivery, insurance, and all other logistics costs.

Figure 19 DSW GT% sensitivity to changing potash prices



6.22 The results of this analysis indicate that GT% increases at a faster rate as prices decline, with the most significant decline occurring after prices drop below US\$ 300/tonne (the current price level). This is a result of a royalty scheme which uses revenue as a tax base. The GT% paid is much more sensitive to declining prices than it is to increasing prices.

7. ICL cost of capital and rate of return metrics

7.1 In my view a complete assessment of GT should consider the rate of return on ICL's investment in its business interests related to natural resources in the State of Israel. Further, it is necessary to measure the historical rate of return or profitability metric achieved from the inception of the investment.

7.2 In this section I have provided a discussion with respect to some of the key concepts and definitions that should be considered along with my calculations of the historical rates of return of ICL's shareholder's in general and ICL's mineral business interests in particular.

Rate of return metrics

7.3 There are a number of ways to measure the financial returns generated by an asset or investment. Three relevant metrics include: internal rate of return ("IRR"), cost of equity ("COE"), and weighted average cost of capital ("WACC"). I have provided a brief description of each below:

- i) **Internal Rate of Return:** The IRR of a given investment is the discount rate that must be applied to a series of cash outflows and inflows over the life of the investment that will yield a net present value of nil. IRR is often used as a tool to assess the relative attractiveness of an array of different investments relative to a firm's required rate of return on capital. All else being equal, an investor will proceed with the investment(s) that exceeds their required rate of return by the largest margin;³⁵
- ii) **Cost of Equity:** A company's cost of equity is the rate of return the company must pay to its equity investors to compensate them for the risk of investing their capital in the business;
- iii) **Weighted Average Cost of Capital:** Companies can finance their operations through the use of equity capital or debt. A company's WACC represents the weighted average of the cost of equity and the cost of debt financing (on an after-tax basis).

³⁵ Cost of Capital – Applications and Examples Fourth Edition, Shannon P. Pratt, 2010.

Internal Rate of Return

- 7.4 Given fluctuations in commodity prices and conversion costs and the fact that the term of the Dead Sea Concession and the phosphate concessions are finite, the appropriate period over which to measure the returns to ICL and its shareholders is the entire term of the investment.
- 7.5 When ICL was privatized in February of 1992, special non-transferrable “State Shares” were issued for US\$ 1 per share with an assessed total market capitalization of US\$ 1.2 billion.³⁶ This was the first public listing of shares for ICL, and 20% of its outstanding shares were offered at this time. Given the NIS/USD exchange rate in February of 1992, the total market capitalization of equity is estimated to be NIS 2.88 billion at the date of privatization.³⁷
- 7.6 From February 1992 until October 2013, NIS 25.4 billion in dividends were paid to common shareholders and the market capitalization of ICL appreciated to NIS 39.02 billion.³⁸ Based on the timing of dividend payments and assuming that a single shareholder owned all shares from the date of privatization until October 2013, a nominal IRR of 18% was generated for shareholders of ICL over the period from February 1992 to October 2013. After adjusting for the State of Israel inflation from 1992 until 2013, the ‘real’ IRR for this investment is 13%.³⁹
- 7.7 The IRR on the shares of ICL have obviously been affected by investments made outside of Israel as well, however; for demonstrative purposes, I have reviewed the IRR based on the companies dividends paid, and increase in value.

³⁶ According to information received from ICL, the company’s valuation for the 1992 offer for sale was US\$ 1.2 billion. The price per share was NIS 2.4, and the NIS/USD exchange rate was 2.4.

³⁷ Market Capitalization is defined as the price per share * total shares outstanding. This calculation is NIS 2.4 per USD * 1.2 billion shares outstanding = NIS 2.88 billion.

³⁸ Beginning of day share price was obtained from Google Finance

³⁹ Ibid.

- 7.8 For comparative purposes, I have calculated the IRR for ICL's Canadian competitor, PCS. Similar to ICL, although different in extraction methodologies, PCS is engaged in the potash and phosphate mining businesses, in addition to the manufacture of fertilizers and other downstream industrial products. Shareholders of PCS received an IRR of 19.2% in nominal terms. Thus, the returns to ICL's shareholders over this period do not appear to be excessive relative to other industry participants.
- 7.9 I have also calculated the rates of return on ICL's consolidated operations and ICL's consolidated potash extraction business based on information provided by ICL management. Using free cash flow generated by ICL from 1992 through 2012 I have calculated an IRR for ICL of 7%, assuming an initial capital investment of US\$ 1.2 billion related to the privatisation transaction discussed above. Taking account of the initial acquisition of the productive assets allocated for DSW⁴⁰, I have determined that DSW generated an IRR of 10% from 1992 through 2012.

Cost of Equity

- 7.10 In its 2013 Potash Cost Report, mining industry consulting firm CRU estimated the long-term cost of equity of mining firms in the US to be 11.6% in nominal terms but indicate that additional risk premium would be applied for other countries to reflect economic and political risk in excess of that applicable to the US. Using the Capital Asset Pricing Model methodology, Deutsche Bank calculates the cost of equity to be 10.3% for ICL consolidated as of May 2013.⁴¹
- 7.11 As set out in detail below measures of country risk premium for the State of Israel in 2012 range from 1.3% to 5.2%. Adding this range of Israeli country risk to the US based cost of equity of 11.6% yields a range of cost of equity of from 12.5% to 16.8% for ICL (in nominal terms). However, ICL's activities within the State of Israel may not be exposed to the full country risk as they sell 95%⁴² of their production on world markets.

⁴⁰ I have been informed by ICL management that the fair market value of DSW was US\$ 935 million at the date of privatization.

⁴¹ Deutsche Bank Markets Research, The weakening pricing environment continues, May 2013. This calculation assumes a Beta of 1, ERP of 4.8% and a risk free rate of 5.5%.

⁴² For the year ended December 31, 2012, ICL had US\$ 6.7 billion in sales, of which 7% were sold to end users in the State of Israel; the same geographical mix persists in the second quarter of 2013. (Director's Report on the State of the Company's Affairs for the period ended June 30, 2013, Page 8)

- 7.12 Further, on a pro-forma basis I would expect ICL's cost of equity to increase somewhat to reflect the additional risk of adding fixed costs for the Salt Harvesting Project, the doubling of the royalty rate on potash on production over 1.5 million tonnes per year, the loss of beneficial tax treatment (under the amended Encouragement of Capital Investments law) and the uncertainty surrounding the on-going arbitration relating to royalty payments.

WACC

- 7.13 Investment banks currently measure the WACC of ICL in a range of 9-10%.⁴³ Although this is a static measure of ICL's cost of capital today, it gives a sense of the financing costs and investor risk assigned to ICL. This WACC is applicable to ICL's entire business which includes operations in many countries and the 'downstream' manufacturing and processing businesses as well as the resource extraction businesses. The WACC applicable to the resource based businesses only would likely be higher than ICL's overall WACC as it is not as diversified and is more exposed to Israeli country risk factors.
- 7.14 According to a prominent industry consulting firm, CRU, the estimated long term WACC for the mining sector in the USA is 9.6% "with most countries attracting a premium to reflect their economic and political risk".⁴⁴ For example, CRU estimated the long-term WACC of Russia to be 12.1%, Argentina at 14.1% and the DRC to be 16.1%.⁴⁵ I discuss the country risk premium for the State of Israel in **Section 8** below.

Conclusions – Rates of Return

- 7.15 The rates of return on ICL shares and on ICL's operating cash flows over the 20 year period from 1992 to 2012 are similar to (but slightly lower than) ICL's largest public competitor (PCS). Thus, it does not appear that ICL's shareholders, the company itself, or DSW, realized "super" profits or excess returns over this period.

⁴³ Credit Suisse Securities Research and Analytics currently estimates ICL's WACC to be 9.7% as of July 31, 2013. Deutsche Bank Market Research estimates ICL's WACC to be 9.6% as of May 13, 2013.

⁴⁴ CRU "Potash Cost Report 2013 Edition", chapter 4-64.

⁴⁵ Ibid.



- 7.16 According to market based cost of equity information, this indicates a potential range of from 13% to 17% for a mining firm in Israel. Company specific factors for ICL's future expected cost of equity would also have to include uncertainty surrounding the future potash price, the additional fixed costs ICL's extractive businesses will incur (i.e. due to the increased royalties, Salt Harvesting, and Investment Encouragement Act) which would all tend to increase ICL's required future rate of return over these rates.
- 7.17 Thus, in the event the second Sheshinski Committee considers recommending a "super" profit tax on ICL, the above noted factors should be considered in determining the threshold over which investment returns are consider to be excessive.
- 7.18 Further, an accurate assessment of whether "super" profits have been earned by ICL or its shareholders can only be made at the end of the Dead Sea Concession due to the late stage of the Dead Sea Concession, as opposed to the oil and gas industry reviewed in the first Sheshinski Committee, as only then can the actual return that was earned over the entire life of the investment be properly and completely assessed.

8. Country risk comparison

Overview

- 8.1 The concept of ‘country risk’ refers to the incremental risk of investing in a country that lacks one or more of the sophisticated financial, infrastructure, socio-economic, legal and constitutional systems evident in lower risk countries such as the US or western Europe. The components of country risks are numerous but include political risk, sovereign risk, exchange rate risk, the possibility of natural disasters or the burdens of failing infrastructure or poor education, etc. In principle, therefore, country risk encompasses all risks associated with investing in a particular geographical territory that falls outside the ranks of a few, selected countries (e.g. the US, Germany, the UK) which are generally considered to offer minimum levels of risk.⁴⁶
- 8.2 I note that the first Sheshinski Committee relied on Prof. Robert Pindyck, its financing expert, who demonstrated that the minimum return currently required to compensate for risk in the oil and gas sector was 9.17% in nominal terms. I understand that he derived this rate of return from performance of S&P 500 shares and from sector-specific risk for the oil sector. Furthermore, he claimed that there was no risk specific to the State of Israel and that the global risk diversification trend allows the State of Israel to obtain financing at market terms. As discussed in **Section 3**, ICL is not a diversified IOC and therefore cannot diversify away this risk.
- 8.3 In addition, government policy can have a significant impact on an investor’s assessment of country risk. Accordingly, it is important to consider not only the GT of the State of Israel relative to other nations that have significant mining industries but also the investor perceived country risk and the impact of public policy thereon.

⁴⁶ Misleadingly, the bonds of these governments are often referred to as “risk-free”. It is more accurate to say that the risk of default is sufficiently small that most investors ignore it.

Methodology

- 8.4 There are a number of different objective measures that can be used to estimate the country risk associated with an investment in a particular country including spreads on sovereign bonds, credit default swaps, emerging bond yield indices, and proprietary models such as the Morningstar Ibbotson country rating model.
- 8.5 The Morningstar model uses historical rates of return on equities from emerging markets and their relationship with each country’s credit rating to statistically infer expected returns on equity in those countries.⁴⁷ The country risk is thus inferred as the difference between total expected returns of the developing country and that of the developed country, such as the United States.
- 8.6 Another method of measuring country risk utilizes country ratings assigned by Moody’s rating service, as compiled by Professor Damodaran of New York Stern School of Business. Professor Damodaran uses the spread in the country ratings between a target and the United States. The rating spread is then multiplied by an assumed global relationship of volatilities of stock and bond prices to convert a risk rating on a debt instrument to that of equity.

State of Israel’s historic country risk premium: 2008-2012

- 8.7 The results from the Morningstar logarithmic country risk rating model, Morningstar linear country risk model, and Professor Damodaran’s estimates are as follows:

Figure 20 Historic Country Risk Premium for the State of Israel

Historic Country Risk Premium for Israel					
	2008	2009	2010	2011	2012
Morningstar (Log Model)	4.9%	4.8%	4.3%	4.1%	3.7%
Morningstar (Linear Model)	6.9%	6.5%	5.9%	5.8%	5.2%
Professor Damodaran	2.1%	1.4%	1.3%	1.3%	1.3%

⁴⁷ Morningstar’s Country Risk Rating approach to estimating country risk uses two statistical models to arrive at its regression estimate of the expected return for any country: linear and logarithmic. The linear model assumes that risk increases in a linear fashion with the risk rating. The logarithmic model focuses on the percentage movement in the risk rating as being a more relevant measure than the absolute movement in the risk rating.

8.8 Based on the Morningstar logarithmic country risk rating model, the State of Israel's country risk was estimated at 4.9% and declined each subsequent year. This trend is consistent under the Morningstar linear country risk model although with higher magnitudes of risk premiums between 2008 and 2012. Based on Professor Damodaran's estimates, the State of Israel's country risk premium was lower compared to the Morningstar data.

Ranking among potash producers

8.9 The data depicting country risk premiums for the nine potash producer countries is presented in the figure below:

Figure 21 2012 Country risk premium for potash producing countries

Potash: 2012 Country Risk Premium for Major Potash Producing Countries					
Morningstar (Log Model)		Morningstar (Linear Model)		Professor Damodaran	
Canada	-0.7%	Canada	-1.1%	Canada	0.0%
Germany	-0.1%	Germany	-0.1%	Germany	0.0%
United Kingdom	0.7%	United Kingdom	1.1%	United Kingdom	0.0%
China	2.0%	China	2.9%	China	1.1%
Israel	3.7%	Israel	5.2%	Israel	1.3%
Russia	4.9%	Russia	6.6%	Russia	2.3%
Spain	5.5%	Spain	7.3%	Spain	3.0%
Jordan	11.2%	Jordan	12.8%	Jordan	4.1%
Belarus	22.3%	Belarus	19.3%	Belarus	9.0%

8.10 The list of potash producers includes developed countries with marginal country risk such as Germany, Canada, the United Kingdom, and China. On the other hand, Jordan and Belarus were the countries with the highest country risk in all years; albeit Belarus' country risk premium was almost double that of Jordan in all years.

8.11 Based on the Morningstar logarithmic and linear models, the State of Israel's country risk was ranked seventh overall in 2008, and dropped further to sixth overall between 2009 and 2011 out of the nine potash producing countries. Most recently in 2012, the State of Israel's country risk rating of 5.2% based on linear and 3.7% based on logarithmic model placed it fifth among the nine potash-producing countries.

8.12 Based on Professor Damodaran's data, the State of Israel ranked between sixth and fifth highest, out of nine countries, in each of the years from 2008 to 2012. Belarus had the highest country risk premium among potash producers between 2008 and 2012.

Conclusion – country risk

- 8.13 Israel ranks seventh out of nine potash producers in 2008 based on Morningstar country risk models due to a number of developed potash-producing economies included in the data. In the years from 2009 to 2011, Israel's country risk premium ranked sixth highest, behind Belarus, Jordan, and Russia. In 2012, the State of Israel's country risk premium declined further, ranking it fifth among the nine potash producing countries. Professor Damodaran's data indicates that the State of Israel alternated between fifth and sixth out of nine countries during the period from 2008 to 2012.
- 8.14 Given the relationship between GT% and country risk, to the extent that GT in the State of Israel increases, the rate of return required by investors will also tend to increase. This important factor must also be considered by the second Sheshinski Committee in their deliberations relating to the rate of return threshold that would be appropriate for a "super" profit mechanism, and in fact, in relation to any change to the current regime which could result in an increase in GT.

9. Considerations for 2030, the End of Concession Date

- 9.1 The preceding discussions in this report highlight the fact that recent changes to the royalty regime applicable to the Dead Sea Concession Businesses, the Salt Harvesting Project financial obligations, and the future financial impact of the changing tax legislation and the pending arbitration all contribute toward decreasing the value of the Dead Sea Concession and phosphate concessions.
- 9.2 At the end of the current Concession Agreement in 2030, on the assumption that there have not been any further revisions to the Concession Agreement, I understand that the Dead Sea Concession will be “sold” again for another period of time. In addition, the State of Israel must acquire the fixed tangible assets belonging to the Dead Sea Concession holder (the “FTA”) at their depreciated replacement value. This leads to a number of possible scenarios.
- 9.3 Firstly, the State of Israel will acquire the FTA which will presumably then be on-sold to the next operator of the Dead Sea Concession. Any future operator of the Dead Sea Concession (be it ICL or another party) will view the acquisition cost of the FTA in reference to the value it ascribes to the Dead Sea Concession as at 2030. That is, the price they would be prepared to pay to acquire the FTA would be at least equal to the returns (net of GT) they will expect to earn from the Dead Sea Concession in the future.
- 9.4 Secondly, any further increase from the current fiscal regime for GT through increases in royalty, tax, or any other levy will serve to further diminish the value of the Dead Sea Concession in 2030, and depending on commodity prices at that time, the decrease in value will likely be material. This may result in the inability to locate a party, ICL or otherwise, willing to bid for the Dead Sea Concession at all.
- 9.5 The value of the Dead Sea Concession is intrinsically linked to the issue of GT. Any additional GT imposed by Israel will be factored into the valuation of the Dead Sea Concession, and will have a multiplier effect i.e. for every US\$ of additional GT, the value of the Dead Sea Concession will reduce by several US\$ given the long-life nature of a concession.



- 9.6 If the expected returns (net of GT) from the Dead Sea Concession post 2030 are not sufficient from an ICL investment perspective, ICL will have the option of receiving payment for the FTA and ending its operations in the Dead Sea. This will leave the State of Israel with having to find another operator willing to purchase the FTA from them and being able and willing to operate the Dead Sea Concession under the prevailing fiscal regime. If the expected returns are sufficient to allow ICL to maintain a sufficient level of profitability, then ICL will have the option of effectively retaining the FTA and continuing to operate the Dead Sea Concession. This investment decision is predominantly dependent upon the GT regime in place at 2030.

10. Additional conclusions

Increase in GT tantamount to a partial (or full) “taking”

- 10.1 ICL was privatized fully through a series of three transactions with the public markets. The first of these occurred in February of 1992, in which the State of Israel sold approximately 20% of ICL based on a valuation of approximately US\$ 1.2 billion.
- 10.2 Fundamental to the price obtained in the open market for the shares of ICL were the investors’ legitimate expectations regarding future cash flows and risk. Value is derived from the combination of these expectations into a present value. As such, all elements of cash flow and risk must be properly understood by commercial actors in the market place.
- 10.3 In presenting its expectations regarding future cash flows, the State of Israel presented assumptions regarding cash flow from operations, capital expenditures, royalties, and taxes (amongst other things). These assumptions are set out in the Prospectus dated February 19, 1992, and confirm that the State of Israel expected that the Concession Agreement governing the operation of the royalties applicable to the Dead Sea minerals would continue up until at least 2030. These cash flow assumptions and the terms of the Concession Agreement form the basis for the investors’ legitimate expectations.
- 10.4 As the value of the enterprise is derived from its cash flows, and royalties form part of those cash flows, there is a direct interrelationship between the amount of royalties the State of Israel takes from ICL’s operations, and the value investors ascribed to the shares of ICL. In other words, the higher the royalties, the lower the value, and vice-versa. The State of Israel was effectively paid a multiple of the remaining cash flow (all else being equal) after the deduction of future royalties.
- 10.5 The government had the choice of receiving payment or value for the business it was privatizing in different ways. As regards to the royalty, it could have taken none which would have resulted in a higher price for the shares of ICL upon privatisation; or it could have taken a larger royalty, which would have had the effect of decreasing the price it would have received for the privatized shares. In either case, the State of Israel had the choice to take it’s payments up front (i.e. the discounted value of the incremental royalty), or received the money over time as the royalty would have been earned (and any combination in between).

- 10.6 Ultimately, the State of Israel in fact chose to levy a 5% royalty on the value of production (for production in excess of 1,000,000 tonnes, the royalty was to be 10%) from the Dead Sea, as memorialized in the Concession Agreement. This subsequently impacted the valuation upon privatisation.
- 10.7 The Concession Agreement was amended from time to time by agreement of the Parties regarding the time period of the Dead Sea Concession, as well as the thresholds that would trigger higher royalty rates, and other performance requirements of the Parties. As the date of writing this report, the current threshold for the higher royalty rate has been agreed to by the Parties as 1,500,000 tonnes.
- 10.8 It would not make economic sense nor would it be justified on an economic basis, without the agreement of the current shareholders of ICL to change the level of GT through an increase in the royalties that were agreed to upon privatisation, and reaffirmed in the Salt Harvesting Project agreement in 2012. This would in effect be tantamount to a partial (or full) “taking” by the government of an asset sold by it to public investors, and deny the investors a portion of their legitimate expectation of future profits. It would manifest immediately in a reduction in the publically traded share price of ICL, resulting in a quantifiable loss to local and foreign investors and in the very least an increase to the company’s cost of capital. This is already evidenced in analysts’ reports on ICL upon announcement of the second Sheshinski Committee.

Indirect benefits

- 10.9 All of the above analyses deal with direct impacts and direct GT for the State of Israel. In addition there are indirect impacts as well, such as activity attributable to contractors or other companies providing inputs to the ICL, as well as induced impacts such as spending on goods and services as a result of payroll spending (i.e. spending by employees in the economy).
- 10.10 There are thousands of jobs related to ICL in Israel. In addition to the payroll taxes collected, the remaining income is for the most part consumed in Israel. The value added taxes, the consumption of goods and services, which in turn supports many other businesses creates a multiplier effect for every NIS earned and paid by ICL to its workers. Further, the substantial dividends paid by ICL also attract a dividend tax, which represents another form of GT to the State of Israel.



- 10.11 In addition to the above traditional indirect and induced impacts which have not be considered or measure in my analyses of GT in this report, consideration needs to be given to the unique economic benefits reaped by the State of Israel from the Dead Sea tourism industry, directly attributable to the location and maintenance of the evaporation ponds by ICL.

A handwritten signature in blue ink, consisting of several overlapping loops and lines, positioned below the text of paragraph 10.11.

Howard N. Rosen CPA, CA, CBV

Senior Managing Director and Global Practice Leader - International Arbitration,

FTI Consulting Canada ULC



Appendix 1 – Curriculum Vitae of Howard N. Rosen

Howard Rosen is a senior managing director at FTI Consulting and has been involved exclusively in business valuations, damages quantification, and corporate finance related matters since 1981. He has acted as an advisor to private and public companies, regulatory bodies, and all levels of government on a wide variety of industries. His work experience covers assignments across North and South America, Europe, the Middle East, Africa, and Asia. Howard has provided expert witness testimony in over 200 damages quantification and valuation matters in courts in Canada and the United States and also in International Arbitration hearings in North and South America, Asia, Africa, Europe and the Middle East.

Howard has acted as court appointed administrator, monitor and inspector and sat as a member of an Arbitral Tribunal and sole Arbitrator. He is the co-author of two texts on the quantification of economic damages and has lectured extensively to professional interest groups. Howard has acted as instructor at the NITA and FIAA Expert Witness Trial Practice Programs, the MIDS Program in Geneva, and as an MBA instructor at the Schulich School of Business in Toronto. Howard has been listed as one of the top valuation and damages experts in Canada by Lexpert, and Internationally by Who's Who Legal as one of the top experts in International Commercial Arbitration.

Howard has also acted as advisor on transactions in a wide variety of businesses, for both public and private equity investors, conducting strategic due diligence, valuations and deal structuring for both buyers and sellers. Howard has advised independent committees of boards of directors on non-arm's length transactions, and has also acted as the chair of independent committees of boards of directors for non-arm's length transactions.

Howard's corporate finance experience extends to private equity investments, and managing investments through liquidity transactions, including sale to strategic buyers and IPO.

Howard is also currently a member of the International Valuation Standards Council (IVSC) Working Group for the IVSC Extractive Industries Project which is concerned with the development of international standards for the mining and other extractive industries.

Howard currently sits on the board of directors and audit committee of one public company (Agriculture), and on the advisory committee of an institutional investor. Howard's past board positions have included a Junior resource company (Gas and Mining), as well as a specialty manufacturer.

Howard leads the global international arbitration practice for FTI Consulting.

International Mining Cases Worked on by Howard Rosen

Howard has extensive experience in providing damages analysis and valuation in the mining industry.



Below is a summary of recent and on-going cases personally worked on by Howard Rosen:

- International Chamber of Commerce (ICC) dispute related to off take agreement for an iron ore mine. Canada (2012). Expert reports on valuation and damage issues were prepared. Appeared as expert at ICC hearing.
- International Centre for Settlement of Investment Disputes (ICSID) case related to the alleged expropriation of a gold and copper mine. South America (2009). Expert report on valuation and damages issues was prepared.
- ICSID case regarding the alleged Nationalization of operating gold mine in South America (2011). Valuation report prepared.
- ICSID case regarding the alleged Nationalization of exploration gold property. South America (2011). Valuation report prepared.
- ICSID case related to the alleged expropriation of a gold mine. South America (2010). Prepared an expert report on valuation and damages issues.
- US and Canadian litigation related to allegations of market manipulation of gold prices by a gold producer (2008). Prepared an expert report on the assessment of damages to a seller of gold bars.
- ICSID case related to the alleged expropriation of a gold mine. Eastern Europe (2009). Prepared an expert report on valuation and damages issues.
- Commercial arbitration dispute between two investors with respect to a large copper and gold mining project in Asia (2011). Prepared an expert report on damages, and appeared as an expert at the hearing.
- ICC case related to a dispute between an African multinational mining company and an agency of the government over an iron ore deposit mine. Prepared an expert report on valuation and damages, and reply reports. Africa (2009). Appeared as an expert at ICC hearing.
- ICSID case related to a dispute related to the alleged expropriation of a nickel mine. Africa (2010). Expert and reply, valuation and damages reports prepared.
- ICSID case related to a change in South African Government policy and the alleged effect on the value of a dimension stone mining operation. Africa (2008). Prepared an expert report on valuation and damages.
- UNCITRAL case related to the alleged expropriation of a copper mine. South America (2012). Initial valuation and damages report prepared.
- ICC and ICSID cases related to alleged illegal acts by an African government and their



agencies related to the operation of copper and cobalt mine. Africa (2011). Expert and reply report prepared.

- ICC case related to a dispute between a mine owner and a contract miner. Expert reports prepared. South America (2012). Arbitration hearing conducted in Denver in December 2012. Provided expert damages and reply reports, and appeared as expert witness at the hearing.
- ICSID case related to the alleged expropriation of a Uranium mine. Asia (2011). Damages and valuation report prepared.
- ICSID case regarding the alleged expropriation of Uranium mine. Eastern Europe (2011). Valuation report prepared.
- ICSID case related to the alleged expropriation of mineral exploration properties. South America (2012). Initial valuation report prepared.
- ICSID case related to the alleged expropriation of mineral exploration properties. Central America (2012). Valuation report prepared.
- ICSID case related to the alleged expropriation of mining property, smelter, exploration properties, and tailings pile in South America (2012). Valuation report prepared.
- Performed an independent valuation of Zinc Ferrite Residue that was generated in the zinc concentrate roasting step at the client's existing smelting facility in Peru. The valuation was for internal management advisory purposes. Performed an independent valuation of various early stage mineral exploration properties in Peru.

EDUCATION

Certified Fraud Examiner, 1992
Accredited Senior Appraiser, 1988
Chartered Business Valuator, 1984
Chartered Accountant, 1981
Bachelor of Business Administration, 1979

OTHER POSITIONS HELD

LECG, Managing Director, 2004 - 2009
Low Rosen Taylor Soriano, Principal, 1998-2004
Arthur Andersen & Company, Partner, 1992-1998
Berenblut & Rosen, Partner, 1982-1992
Coopers & Lybrand 1979-1981

PROFESSIONAL AFFILIATIONS

Swiss Arbitration Association
Arbitrators Institute of Canada
Canadian Institute of Chartered Accountants



Canadian Institute of Chartered Business Valuators
Institute of Chartered Accountants of Ontario
National Association of Certified Fraud Examiners
London Court of International Arbitration