Robbing Peter to pay Paul? The Case of Ontario's Privatization of Hydro One

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Since the late 1970s, there's been a notable increase in the private sector's management and financing of enterprises previously owned and operated by the state (Kikeri & Nellis, 2004). This trend is motivated, in part, by the desire to monetize valuable pubic assets as an alternative to raising public debt. The Government of Ontario (the Province) has a legitimate incentive to privatize public assets. The Province requires funds to invest in infrastructure projects, and divesting in existing assets could be an effective method to achieve these means. In November of this year, the Province sold 15% of Hydro One, the publicly-owned electricity distribution and transmission utility in order to generate funds for infrastructure projects in Ontario. In 2014, Hydro One had assets of approximately $23 billion (all $ figures in Canadian dollars) and an annual revenue exceeding $6 billion.

The Premier's Advisory Council on Government Assets led by Ed Clark (the Council), prepared a report proposing a model for the sale of Hydro One, which the Province has decided to adopt (Clark, Denison, Ecker, Jacob, & Lankin, 2015). The proposed model consisted of an initial IPO of a 15% equity stake in Hydro One, followed by 10% tranches up to a total of 60% of the company's equity. The remaining 40% of Hydro One's ownership will reside with the Province. Based on this model, private ownership of Hydro One will be limited to 10% per party, and the Province of Ontario will maintain veto rights on the Board of Directors. The projected amount of the sale is expected to raise $9 billion, of which $4 billion will be allocated to transit infrastructure projects and $5 billion to service the utility's debt (representing approximately 60% of the long term debt).

The issue that immediately comes to mind is whether the valuation of Hydro One put forth by the Province and used in the partial sale of the utility provides a net benefit to the people of Ontario or whether there was a better way for the Province to acquire funds to use for infrastructure projects. The Province's plan to privatize Hydro hasn't been without its critics. Stephen LeClair, Ontario's Financial Accountability Officer, has publicly claimed that the Province could have raised funds at a lower cost through issuing additional debt (FAO, 2015). In this article, a financial valuation is carried out using both the income approach and the market approach, each weighted in providing support for the final valuation. The valuations rely on secondary data obtained from stock exchanges, financial statements and electricity market data. The impact of the privatization on service quality, pricing for customers and management and operational implications of privatization is a discussion for another day.

Income Approach

Ontario's electricity demand was used as a proxy for projecting revenue growth as part of the income approach to valuation. Figure 1 shows Ontario's annual electricity demand from 1994 to 2014. Figure 1 shows steady growth in demand until a peak in 2005, at which time the trend begins to decrease. The loss of manufacturing and the impact of the recession of 2008 have contributed to the decreasing trend from 2005 to 2014. Based on these trends, three growth scenarios were determined representing worst-case (-1% negative growth), mid-case (0.1% growth) and best-case (1% growth) scenarios. These three scenarios were incorporated into an income valuation model that uses the company's future cash flows discounted (discount factor of 6.8% based on an estimation of Hydro One's weighted average cost of capital) to the present (DCF) under specific operating or market conditions.

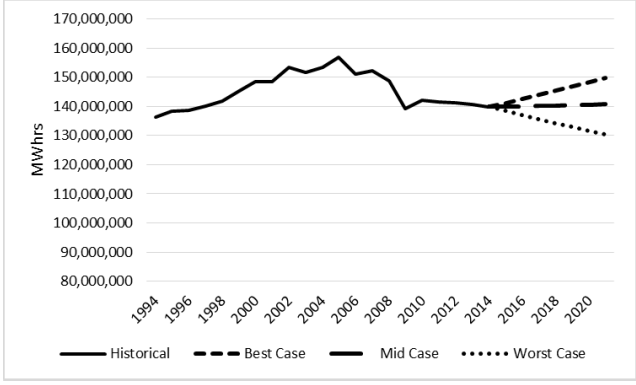

Figure 1. Ontario's annual electricity demand (1994-2014) and forecast scenarios.

In this case, operating cash flow for 20 years starting in 2015 was forecast using Hydro One's 2014 financial data representing the base year of the analysis and a terminal value (using a nominal growth rate of 4%) was added to provide a net present value for Hydro One. The results are presented in Table 1.

Scenario	DCF	Terminal Value	Valuation: 100% equity	Valuation: 60% equity
Worst-Case	$13 billion	$2 billion	$15 billion	$9 billion
Mid-Case	$21 billion	$18 billion	$39 billion	$23 billion
Best-Case	$28 billion	$37 billion	$65 billion	$39 billion

Table 1. Results from income valuation method using three growth rate scenarios ($CDN). Figures rounded.

Utility Name	Revenues ($US)	Sales (TWh)	Customers
Pacific Gas & Electric Co	$12.3 billion	76.4	5.4 million
DTE Electric Co	$5.0 billion	42.3	2.1 million
Consolidated Edison Co-NY	$4.8 billion	20.1	2.5 million
Wisconsin Electric Power Co	$2.9 billion	24.1	1.1 million
Hawaiian Electric Co	$2.1 billion	6.9	0.3 million
Hydro One ($CDN)	$6.6 billion	140.7	1.4 million

Table 2. Revenue, sales and number of customers for selected U.S. utilities and a comparison to Hydro One. 2013 data; figures rounded
Source: EIA (2015) and Hydro One

Utility Name	Symbol	Price ($US)	Number of shares (MM)	EPS ($US)	P/E
Pacific Gas & Electric Co	PCG	$51.12	480.0	2.62	19.5
DTE Electric Co	DTE	$77.51	177.0	4.8	16.2
Consolidated Edison Co-NY	ED	$60.81	292.9	3.74	16.3
Wisconsin Electric Power Co	WEC	$47.26	315.7	2.54	18.6
Hawaiian Electric Co	HE	3$0.45	107.4	1.5	20.3
Average					18.2
Hydro One Peer Evaluation Price	H	$17.09	595.0	0.94	

Table 3. Data for selected U.S. utilities (as at July 10th, 2015) and a comparable evaluation for Hydro One. Figures rounded.
Source: NASDAQ and TSX

Utility Name	EV ($US)	EBITDA ($US)	EV/ EBITDA
Pacific Gas & Electric Co	$39.8 billion	$4.9 billion	8.2
DTE Electric Company	$21.5 billion	$3.1 billion	7.0
Consolidated Edison Co-NY	$18.3 billion	$4.9 billion	3.7
Wisconsin Electric Power Co	$20.3 billion	$1.6 billion	12.5
Hawaiian Electric Co Inc	$5.0 billion	$0.3 billion	18.2
Average			9.9
Hydro One Peer Evaluation Price	$14.4 billion	$1.5 billion	

Table 4. A summary of EV and EBITDA for selected US utilities (fiscal 2014 results) and a comparable evaluation for Hydro One. Figures rounded.
Source: 2014 annual reports.

Market Approach

A market approach involves using market data of comparative utilities (peer companies) in terms of size of assets and revenues. Hydro One is one of North America's largest electrical utilities so the choice of peer companies was limited to certain larger U.S. electrical generation, transmission and distribution companies (Table 2). Two particular valuation methods using the market approach employ the use of market multiples such as Price to Earnings (P/E) and Enterprise Value (EV) to Earnings before Interest Income and Depreciation Allowance (EBITDA). Using the exchange data for Hydro One's peer companies presented in Table 3, P/E ratios for each peer company were determined by dividing price per share by earnings per share (EPS).

Hydro One's peer evaluation was determined by multiplying its EPS of $US 0.94 USD/share ($CDN:$US exchange = 0.75) by the average peer P/E ratio of 18.2. By multiplying this product by the common shares issued by Hydro One and converting the currency to $CDN, Hydro One's valuation was determined to be approximately $CDN 13.6 billion or $CDN 22.79 per sha re.

The EV values for each peer company were determined using data provided by their respective 2014 annual reports. EV/EBITDA ratios for each peer company were determined and are presented in Table 4. The average peer EV/EBITDA ratio of 9.9 when multiplied by Hydro One's 2014 EBITDA of $US 1.5 billion, results in a valuation for Hydro One's EV of $US 14.4 billion or $CDN 19.2 billion after currency conversion.

Weighting Factors

Weighting factors were incorporated into the Hydro One valuation based on the nature of Hydro One's peer group, the industry and the methodology itself. Equity value multiples such as P/E are subject to accounting distortions and differences in capital structures of companies (Macabus, 2015). For example, earnings can be influenced by one-time expenses such as restructuring, which are not expected to be ongoing but reduce earnings nonetheless. Additionally, companies that are highly-levered will incur higher P/E multiples since the expected returns in the market are generally higher.

Enterprise value multiples including EV/EBITDA operate independently of capital structure and are suitable for capital-intensive industries, and reduce otherwise artificially high EV/EBIT ratios that are more appropriately used for non-capital intensive industries such as consulting firms. However, variability in sales based in the year selected for the valuation of both Hydro One and peer companies can impact the final valuation. Additionally, U.S. utilities that made up the peer group were combined generators, distributors and transmitters, therefore introducing discrepancies in regards to capital expenditure requirements and business models. Despite the inherent sensitivity to input variables, the income approach is widely considered the most objective valuation methodology and can provide the

most intrinsic asset-based valuation. The market approaches offer higher degrees of variability as they are subject to external market perceptions. With all of this in mind Table 5 provides a summary of the weighted evaluation of Hydro One with the related weighting factors.

Conclusions

The privatization of any public utility asset should maximize the financial benefit for its owner and customers while ensuring the corporation operates in the best interest of the public. While the purpose of this article is not to explore the merits of privatization over crown-ownership models, an attempt has been made to objectively focus on the financial merits of the proposed transaction involving Hydro One as set forth by the Province. The privatization model was based on recommendations from the Premier's Advisory Council on Government Assets led by Ed Clark (the Council). The Council has admitted that: "the issue of lost income to the Province hasn't changed from our Initial Report – there will indeed be some lost income" (Clark et al., 2015, p.2).

In evaluating this model it is clear that the value of the interest being privatized (60%) would appear to be significantly greater than the expected value being put forth by the Province ($CDN 18 billion vs. $9 CDN billion). The political intent was to raise money in order to support infrastructure development in Ontario. However, it would seem reasonable to suggest that a more appropriate action would be for the Province to take on $CDN 4 billion in additional debt at an effective interest rate equal to their current borrowing rate of 4.29% (Ontario Ministry of Finance, 2015b) to build public assets, than to sell a public asset that has a positive NPV, discounted at 6.67%, that exceeds its book value by more than $CDN 4 billion. A view, as indicated earlier, shared by Ontario's Financial Accountability Officer. It leaves one wondering if, indeed, we are robbing Peter to pay Paul.

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