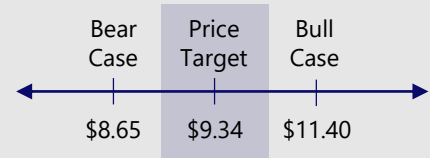


RESEARCH REPORT

October 15, 2018

Stock Rating **SELL**
Price Target **CAD 9.34**



Ticker	TSX: SUM
Market Cap. (MM)	\$585
EV / Revenue NTM	3.1x
EV / EBITDA NTM	20.2x

52 Week Performance



Tech., Media & Telecom

Adam Klingbaum
aklingbaum@quiconline.com

Liat Fainman-Adelman
lfainman@quiconline.com

Mircea Barcan
mbarcan@quiconline.com

Matthew Mastromacro
mmastromarco@quiconline.com

Nick Gakena
ngakena@quiconline.com

Tawfek Abdelwahed
tabdelwahed@quiconline.com

Solium Capital An Interesting "Option"

Solium is a niche provider of SaaS products that help companies streamline workflows associated with equity incentive plans. Since its founding, Solium has grown at a rapid pace. To determine whether this growth is sustainable and if it can ultimately prove to be profitable, TMT did a deep dive into Solium's business model and industry dynamics.

In analyzing Solium's business, the team was able to identify several attractive factors; namely, the recurring nature of its revenue and its White Label partnerships strategy. At the same time, the team identified a few weak points of its business; namely, the highly competitive market in which it operates and the correlation with equity market levels, especially considering the current stage of the market cycle.

Software businesses can be difficult to value, and Solium is no exception. Because Solium's business is undergoing rapid and unpredictable change driven by acquisitions, contract wins, and other highly uncertain industry-level forces, there is little reliable information on which to base a traditional valuation approach. To assess value, we built a three-stage model to solve for what the current market value implies for yearly net customer adds. This information was compared with market statistics and TAM calculations to determine how fair the current market value is. The team's findings indicate a level of yearly net client adds that appears highly optimistic. Given the level of optimism reflected in the share price and the highly uncertain nature of the business and the industry, the team does not see Solium to be a suitable investment at this time, but will add it to the Watch List for ongoing monitoring.

The information in this document is for EDUCATIONAL and NON-COMMERCIAL use only and is not intended to constitute specific legal, accounting, financial or tax advice for any individual. In no event will QUIC, its members or directors, or Queen's University be liable to you or anyone else for any loss or damages whatsoever (including direct, indirect, special, incidental, consequential, exemplary or punitive damages) resulting from the use of this document, or reliance on the information or content found within this document. The information may not be reproduced or republished in any part without the prior written consent of QUIC and Queen's University.

QUIC is not in the business of advising or holding themselves out as being in the business of advising. Many factors may affect the applicability of any statement or comment that appear in our documents to an individual's particular circumstances.

Table of Contents

Company Overview	3
Understanding the Product	5
Competitive Environment	6
Assessing the Business Model	7
Valuation	9
Conclusion and Investment Thesis	10
References	11

Company Overview

Solium Capital (TSX: SUM) roots trace back twenty years ago when the company was founded in 1999 by two Calgary-based financial advisors, John Kenny, and Mark Van Hees. In 2001, the company made its initial public offering (IPO) on the TSX Venture Exchange. Early clients included TransAlta and Shell Canada Ltd. In 2004, Solium Capital became profitable.

Today, Solium Capital has over 500 employees, 3000 clients in over 100 countries, and offices in the United States, Canada, Europe, Australia, and Hong Kong. Furthermore, the company currently has a market cap of \$575M USD with revenues of over \$86M USD and a 5 year CAGR of 11%.

Solium Capital provides a software-as-a-service (SaaS) for share plan administration and equity transactions. These services streamline a corporation's workflow relating to the issuance of equity incentives, the exercise of incentives, reporting of incentives and day-to-day maintenance of incentives database through a single, real-time cloud-enabled platform. The platform includes the following services: forms filing; plan admin; regulatory and tax; expense accounting; participant experience; scenarios; and cap table. The

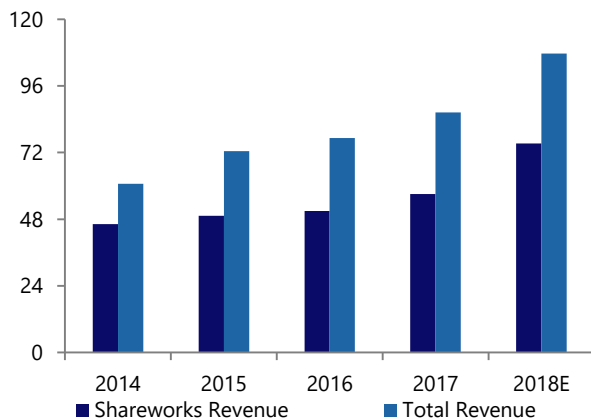
service provides constant online access to reports for securities regulators, management and financial disclosure purposes.

The recent acquisition of Capshare in 2017 allows the company to offer the software platform for pre-seed, seed, and series A companies. This acquisition will enable the firm to capture customers at the early stage of the business as well as diversify the customer base. Once companies move past Series B & beyond (Pre-IPO and Public) they move to the Shareworks platform.

The company's primary revenue source, Shareworks (66% of total revenue) is earned on a recurring basis through Solium's sales channels. Solium's sales channels include direct sales force, white label partners, and third-party partners. Clients for this service include corporate and white-label partners from companies across all sectors. Solium's second revenue source (30% of total revenue) is generated on a recurring basis from brokerage, transaction, fund movement fees, and foreign exchange spread. Other revenue sources (4% of total revenue) for the company include the implementation of plans for new clients onto the system, ad hoc customization and consulting.

Exhibit I

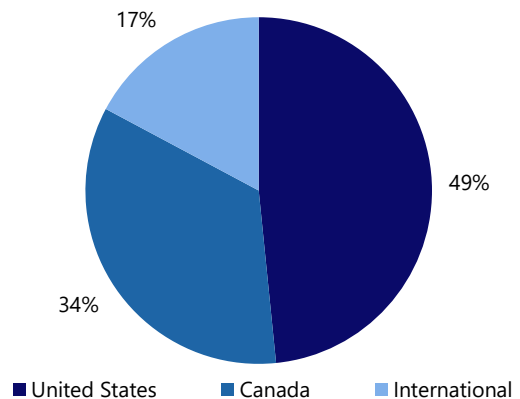
Revenue Distribution, in MM \$USD



Source(s): Company Reports, Capital IQ

Exhibit II

Geographic Distribution by Revenue (%)



Source(s): Company Report

Company Overview

To continue the strong growth that Solium Capital has generated, the company has created a three-step growth plan. First, Solium plans to generate growth organically through direct sales force, increase the share of wallet within the customer base, and continue developing a wide range of products to address multiple markets. Second, the company intends to grow through the acquisitions which will continue the lead of consolidation and leverage diminishing marginal cost model of the business. Third, Solium intends to expand geographically with investments in key global markets to build global scale – enabling access to larger global opportunities.

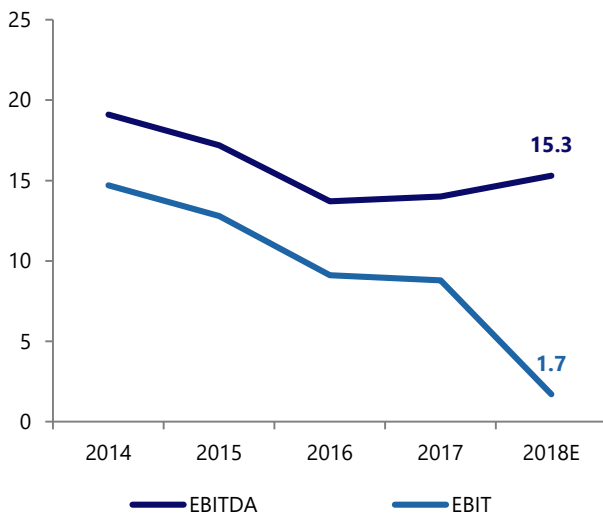
In 2016, Solium entered into a license agreement with Morgan Stanley, where corporate customers and their respective employee participants will transition to a Morgan Stanley branded version of Shareworks. Additionally, in 2017, the company entered into a license agreement with UBS Financial Services Inc. where UBS’s corporate customers will transition to a

UBS branded version of the plan administration modules of Shareworks. These agreements have resulted in over 400 Morgan Stanley and UBS corporate clients thus far.

Solium Capital continues to be in an investment phase and remains committed to investing for future revenue growth over the course of 2018, resulting in further pressure on profitability in the short-term (see Exhibit III). The company continues to invest in its capabilities and infrastructure – ensuring best-in-class technology and service – to drive long-term investor returns. Specifically, over the last fiscal year, the company has hired over 150 new full-time equivalent employees for product development and support for the Morgan Stanley and UBS white-label partnerships.

Exhibit III

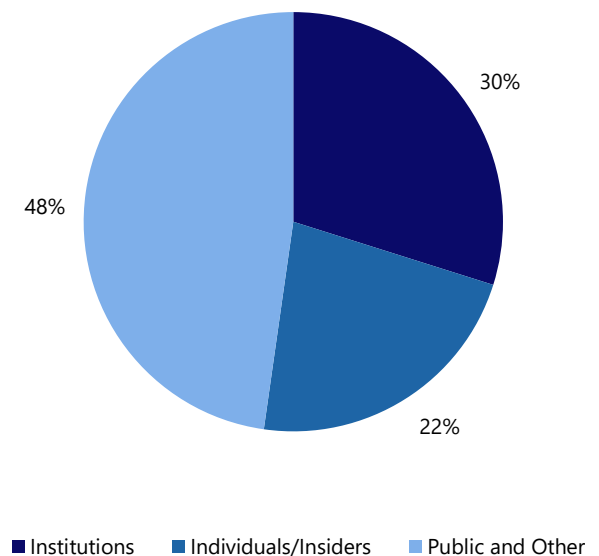
Adjusted EBITDA & EBIT Margins (%)



Source(s): Company Reports, Capital IQ

Exhibit IV

Ownership Summary (%)



Source(s): Company Reports, Capital IQ

Understanding the Product

Solium Capital's primary value proposition revolves around its end-to-end, cloud-based software platform, Shareworks. The platform seeks to alleviate the pain associated with equity compensation planning and management through seven of its primary tools and features: Plan Admin, Expense Accounting, Participant Experience, Global Compliance, Forms Filing, Cap Tables, and Scenarios. To better understand whether Solium has a sustainable competitive advantage, each segment is analyzed independently below:

- 1. Plan Admin:** this function integrates all of the customer's prior equity plan documentation and standardizes it in one, easily-accessible platform. The software enables scheduled reporting and customized distribution, and imports data in any file format to eliminate the need for manual entries. The software automatically factors in these geographical discrepancies and normalizes all equity reporting, making a clear use case for global companies.
- 2. Expense Accounting:** the expense accounting tool ensures increased accuracy when conducting financial reporting for equity compensation. It consolidates expense, corporate tax, and journal entry results in one single report, while including automated disclosure tables. Furthermore, its advanced analytical toolkit enables easy budgeting and forecasting, while the expense lock down option carries over data to the next quarter.
- 3. Participant Experience:** this feature is designed to encourage employee engagement. With Shareworks, employees are able to regularly check their changes in wealth, based on equity awards and savings, as well as retirement and benefit plans. They can also easily engage in transactions, such as trades, with other workers.
- 4. Global Compliance:** this segment provides insight into legal and tax regulations for over 170 countries. Regularly updated by top global law firms, this tool generates reminders and action items surrounding important dates, such as tax filings, based on their client's subscribed countries. Practical action-oriented reports are made to prioritize risk and allocate resources, thus simplifying regulatory compliancy.
- 5. Forms Filing:** this function centralizes all form filings in real time while simultaneously updating stakeholders. Every filing, whether current or historical, is easily accessible and backed-up via the cloud.
- 6. Cap Tables:** the Cap Tables feature provides management with a quick overview of how shareholder changes will alter ownership structure, as well as the payout structure. It includes a drag-and-drop reporting feature that offers intuitive insights into evaluating new funding rounds, management carve-outs, as well as exits. This is especially useful for early stage private companies.
- 7. Scenarios:** this tool focuses on modelling potential financial changes and exit events. It forecasts estimates on how shareholders will be impacted in different scenarios. As a result, management can easily revise deal terms to see the impact on exit payouts and ROI immediately.

Solium's key points of differentiation are twofold: (1) Shareworks' predictive capabilities and (2) the company's emphasis on customer service. As outlined above, the platform highlights its ability to produce detailed scenario analyses that afford management greater insight into their equity structures and the ways it can change under different circumstances. Despite its competitors offering similar tools, Solium's scenario feature appears to be far more advanced, detail-oriented, and user-friendly. The company also differs due to its customer support. Solium offers its clients a suite of additional complimentary services, such as onboarding, training, and certification. While Solium has a proven track record of product innovation, the team is uncertain as to the long-term defensibility of these factors.

Competitive Environment

Overview

The equity management software market's level of saturation differs significantly by geographic region. Given the large discrepancies in competition, the team evaluated the U.S. and Canadian spaces separately. For context, Solium realized approximately 50% of its 2017 revenues from the U.S., 35% from Canada, and 15% globally.

The United States

The U.S. market is extremely saturated. With approximately nine major firms competing to dominate the space, Solium is rivaled by both new startup entrants and legacy brokerage firms, such as J.P. Morgan and Merrill Lynch. In 2017, the U.S. was ranked as the world's leader in equity grant practices, followed by the U.K. and Canada. The company's dominant competitors – brokerage firms – use grant-based administration as a loss leader in order to win more appealing brokerage business. These companies are able to do this given they typically bundle their products with other wealth management services, which leads to price competition. Given this, Solium focuses on the U.S. private market and non-U.S. global firms, which typically derive greater benefits from Sharework's ability to perform complex global grant administration.

Some of Solium's major competitors include:

1. **E*Trade Financial Corporation:** the company's platform, E*Trade Equity Edge, competes directly with Shareworks, providing an end-to-end stock plan management platform. The platform has over 1.6M stock plan participants in over 140 countries and has been ranked first in loyalty and overall satisfaction by stock plan administrators for seven consecutive years.
2. **Carta (formerly eShares):** founded in 2012, the private company has almost \$70M in funding and enables companies ranging in size, from startup to publicly traded to manage their equity electronically. Carta has managed to capture over 7,000 customers since launching its platform.
3. **Certent:** Certent is a provider of software and services for equity compensation, financial disclosure, and reporting. Founded in 2002, the company has acquired over 2,400 corporate clients.

Canada

The Canadian market is much less competitive than its U.S. counterpart, with Solium capturing approximately 70% market share of the TSX 60 and 50% of the TSX 250 for grant-based equity administration. In the past decade, Solium has been able to grow organically at an average rate of 15%, as compared to 3% for its Canadian software rivals. Given this, the company has shifted its focus to cross-selling employee stock purchase plan solutions for its customers and targeting mid-sized firms.

Summary

The overall competitive landscape for equity management software is relatively unfavorable. Management has expressed concern surrounding resulting changes to its pricing model, given these conditions. In the 2017 Annual Report, management stated they may be required to offer deep discounts in an effort to recapture market share or to sell other products. Solium believes the future of the company's success is dependent on its ability to enhance current products and introduce new technological improvements, since current competitor offerings are undifferentiated. Furthermore, management has stated they have little assurance the company will be successful in outperforming on the basis of research and development, which is critical for the company's future success.

Assessing the Business Model

What's attractive about Solium's business?

First, the nature of Solium's subscription-based business model allows the company to generate revenues on a highly recurring basis. Further, changing equity compensation software providers involves a great deal of administrative work, creating switching barriers that allow Solium to focus on customer acquisition, rather than customer retention.

Second, as noted in Competitive Environment, Solium's management team has invested significantly in differentiating the company's product through functionality. While brokers and large financial institutions view equity compensation services as a cost centre, Solium has built a product that industry experts, customers, and research analysts agree is consistently best in class.

Third, Solium's White Label partnerships allow the company to win hundreds of corporate clients, each with hundreds of equity plan participants, without

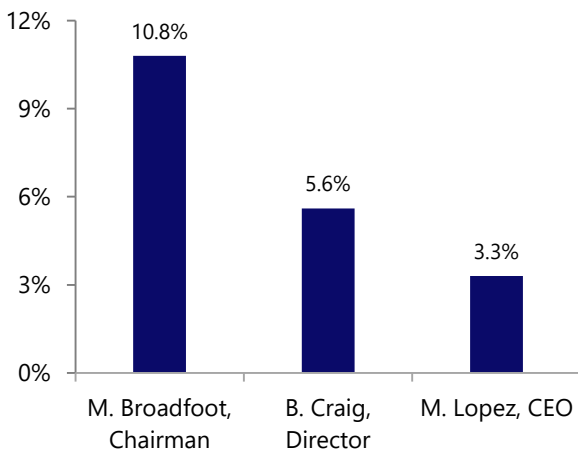
incurring the cost of sales normally associated with acquiring this many participants.

Rather than having to deploy a sales force and convince potential customers to switch providers, which as per industry norms, usually results in price cutting, Solium can allow incumbents to keep their customers and simply take over their equity plan administration from the incumbent. This is beneficial to both the incumbent and Solium, as it allows the generally larger incumbents with brand name recognition to focus on client acquisition, and Solium who specializes in R&D, to focus on improving functionality.

Additionally, Solium's Chairman, CEO, and top Director respectively hold 10.8%, 3.3%, and 5.6% of the company's outstanding common shares. With a combined market value of \$100 million dollars invested in Solium and no recent divestures, it is quite clear that Solium's management team is strongly aligned with the rest of shareholders.

EXHIBIT V

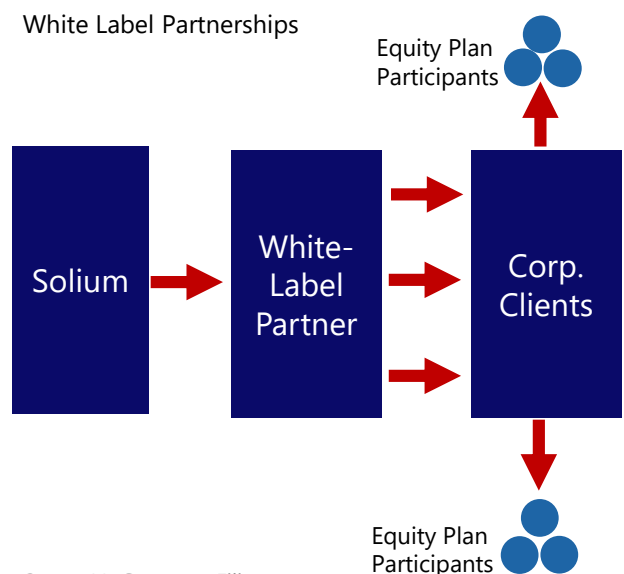
Insider Ownership



Source(s): Capital IQ

EXHIBIT VI

White Label Partnerships



Source(s): Company Filings

Assessing the Business Model

What are the weaknesses of its business?

First, while the switching costs associated with the equity compensation industry have allowed Solium to prevent high levels of churn, it also equally impairs their ability to win new customers. While this has been somewhat offset by the White Label partnership strategy Solium has taken, the incumbents to which Solium is offering these partnerships compete on price. As such, the team believes that Solium has relatively little pricing power in these contracts.

Second, it is extremely unfavorable to compete in an industry in which one's competitors are in a position where cross selling opportunities allow them to offer a competing product at cost or at a loss. Unless the functionality gains associated with Solium's premium product can provide more value to customers than the competing products sold by competitors at cost, there is in theory no economically rational reason for customers to pay for Solium's product. The TMT team

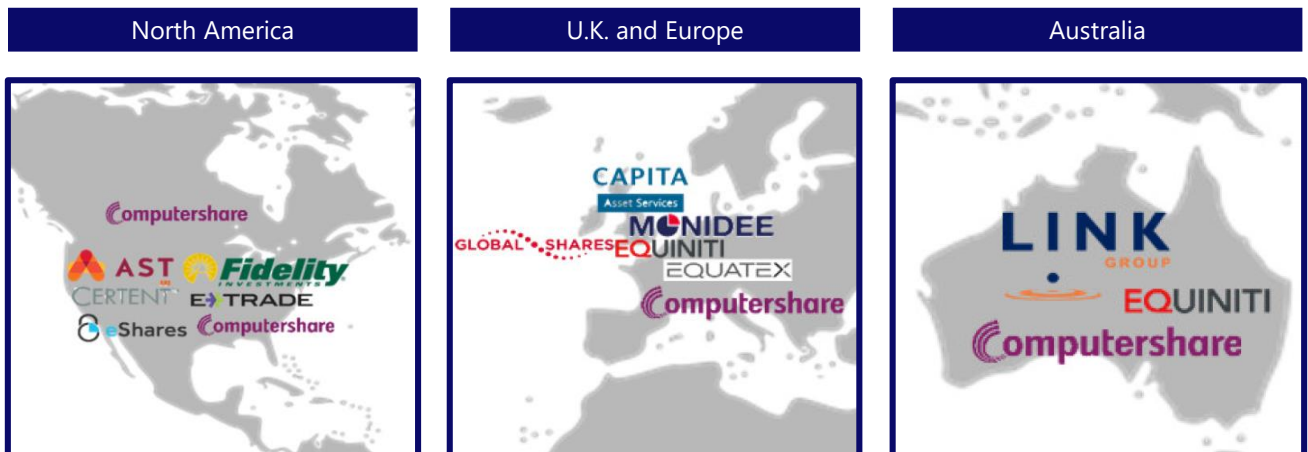
believes this competitive dynamic may be the reason why management has chosen to focus the businesses efforts on acquiring smaller customers, many of which do not have access to the complimentary services offered by large incumbents.

Additionally, Solium's business, particularly the portion comprised of transaction fees, has high correlation to capital markets performance, specifically the exercising of options. Intuitively, as market prices rise, option holders are more inclined to exercise their options; but, in the event that market prices compress, it may be a number of years until transaction volumes return to 2018 levels. It is worth noting, however, that transaction volume-based fees only comprise approximately 30% of Solium's revenue.

Last, it has been evident over the last ten years that Solium has relied in part on acquisitions to fuel its growth. This poses risks in the event they can no longer find attractive acquisition opportunities.

EXHIBIT VI

Main Competitors by Region



Source(s): National Bank

Valuation

The value of Solium depends almost entirely on what portion of its total addressable market ("TAM") it can capture by the time it reaches a mature, perpetual state. Given the amount of uncertainty around the competitive environment of the industry, it would be difficult to estimate a precise market share that Solium could capture between now and its perpetual state. As such, the team instead backed out an estimate of what today's market value implies for how many net customer adds Solium must achieve in the next 20 years, based on a set of operating assumptions about the business. With this figure, as well as an estimated number of equity plan participants per customer and a set of assumptions about the size of Solium's TAM, the team arrived at an implied market share for Solium in 2038. Based on the aforementioned assumptions, today's market value would imply that for the next 10 years, Solium would need to add ~820 customers per year. This would imply a 2038 market share of 25.3% at a midpoint assumption of 3,000 participants per customer, or 8.4% at a conservative assumption of 1,000 participants per customer.

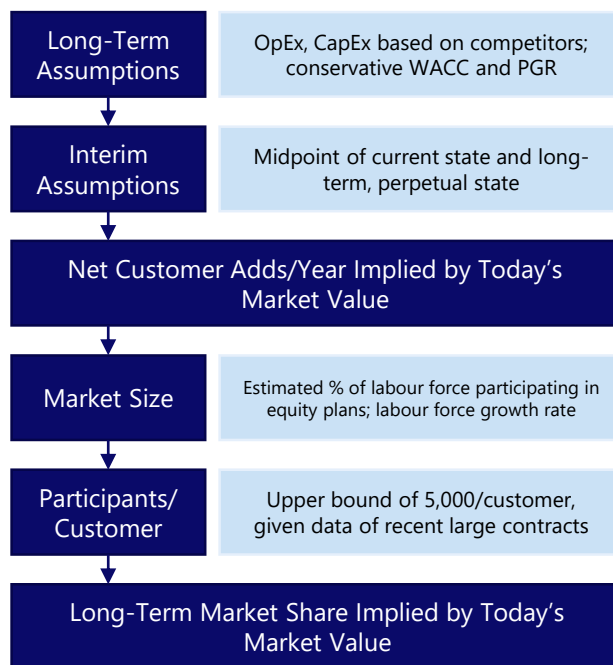


EXHIBIT VII

Assumptions and Outputs

2017 Revenue (US\$MM)	\$86.50
2017 Customer Count	3,000
Beginning ARPC (US\$MM)	\$0.03
Annual APRC Growth	3%
Tax rate	38%
D&A % Capex	162%
WACC	10%
Opex % Rev. (Current)	88%
Opex % Revenue (LT)	81%
Midpoint	85%
Capex % Rev. (Current)	4%
Capex Margin (LT)	2%
Midpoint	3%
Δ NWC % Revenue	2%
Valuation Implied Net Adds/Year 19-28	823

Valuation case implied by market value

Implied Return Given Net Customer Adds/Year and Terminal Growth Rate

	Net Customer Adds/Year	Terminal Growth Rate				
		2.00%	2.50%	3.00%	3.50%	4.00%
723		(12.8%)	(10.8%)	(8.4%)	(5.7%)	(2.5%)
773		(8.9%)	(6.7%)	(4.2%)	(1.3%)	2.0%
823		(4.9%)	(2.6%)	0.0%	3.0%	6.5%
873		(0.9%)	1.5%	4.2%	7.4%	11.0%
923		3.1%	5.6%	8.4%	11.7%	15.5%

Implied 2038 Market Share Given Net Customer Adds/Year and Participants Per Year

	Net Customer Adds/Year	Participants per Customer				
		1,000	2,000	3,000	4,000	5,000
723		7.6%	15.3%	22.9%	30.5%	38.1%
773		8.0%	16.0%	24.1%	32.1%	40.1%
823		8.4%	16.8%	25.3%	33.7%	42.1%
873		8.8%	17.6%	26.4%	35.3%	44.1%
923		9.2%	18.4%	27.6%	36.8%	46.0%
MM Participants (2038)		15	30	45	60	74

Source(s) Capital IQ, Company Filings

Conclusion and Investment Thesis

Under the assumption of a 3% pricing increase per year and conservative operating assumptions, the 14,600 customers required by 2038 to justify today's market value does not seem probable. Should the industry experience price compression, which is a highly likely scenario, the implied customers that Solium would need to add would imply they need to capture well in excess of 25% of the total addressable market. While the company has been able to accomplish this in Canada, the markets Solium is attempting to enter are far more competitive. The team believes that White Label partnerships might be a way to reach this level of penetration, but this

strategy relies heavily on the technological differentiation of their product, and incumbents' willingness to partner with a smaller, foreign competitor.

At today's price, the TMT team does not believe Solium is a suitable investment. Despite this, the team acknowledges there are nuances of the relationships between Solium and potential White Label partners that are not understood clearly, so over the coming weeks, will look to speak with industry analysts to better price the value and probability of existing and potential partnerships.

Investment Thesis: Solium's current market valuation implies the company will capture an amount of its total addressable market that seems unreasonable given the outlook for this competitive industry.

EXHIBIT VII

20-Year + Perpetuity Operating Model

Solium Capital	2019	...	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	Perpetuity
Customers:													
Beginning Customers	3,358		11,585	11,996	12,408	12,819	13,231	13,642	13,848	14,053	14,259	14,465	14,670
Net Customer Adds	823		411	411	411	411	411	206	206	206	206	206	206
Ending Customers	4,181		11,996	12,408	12,819	13,231	13,642	13,848	14,053	14,259	14,465	14,670	14,876
Average Customers	3,770		11,791	12,202	12,614	13,025	13,436	13,745	13,950	14,156	14,362	14,567	14,773
ARPC	\$0.03		\$0.04	\$0.04	\$0.04	\$0.04	\$0.04	\$0.04	\$0.05	\$0.05	\$0.05	\$0.05	\$0.05
ARPC Growth			1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Revenue	\$108.7		\$456.9	\$487.0	\$518.5	\$551.5	\$586.0	\$617.4	\$645.5	\$674.7	\$705.0	\$736.5	\$764.0
% Growth			9%	7%	6%	6%	6%	5%	5%	5%	4%	4%	4%
Operating Expenses	92.1		370.1	394.5	420.0	446.7	474.7	500.1	522.8	546.5	571.0	596.6	618.8
Operating income	\$16.6		\$86.8	\$92.5	\$98.5	\$104.8	\$111.3	\$117.3	\$122.6	\$128.2	\$133.9	\$139.9	\$145.2
After-Tax Income	\$10.4		\$54.1	\$57.6	\$61.3	\$65.2	\$69.3	\$73.0	\$76.4	\$79.8	\$83.4	\$87.1	\$90.4
Capital Expenditures	3.1		9.1	9.7	10.4	11.0	11.7	12.3	12.9	13.5	14.1	14.7	15.3
Δ NWC	2.17		9.14	9.74	10.37	11.03	11.72	12.35	12.91	13.49	14.10	14.73	15.28
D&A	5.0		14.8	15.8	16.8	17.9	19.0	20.0	20.9	21.8	22.8	23.9	24.7
FCF	\$10.1		\$50.6	\$53.9	\$57.4	\$61.0	\$64.9	\$68.3	\$71.4	\$74.7	\$78.0	\$81.5	\$84.6
Terminal Value													1,208.0
Total Value Realized	\$10.1		\$50.6	\$53.9	\$57.4	\$61.0	\$64.9	\$68.3	\$71.4	\$74.7	\$78.0	\$1,289.5	
Discount Periods	0.5		10.5	11.5	12.5	13.5	14.5	15.5	16.5	17.5	18.5	19.5	
Present Value	\$9.6		\$18.6	\$18.0	\$17.4	\$16.9	\$16.3	\$15.6	\$14.8	\$14.1	\$13.4	\$201.0	

Source(s): Company Filings

References

1. Bloomberg
2. Capital IQ
3. CIBC
4. Company Filings
5. GMP
6. National Bank
7. Statistics Canada