



PINETREE CAPITAL LTD.

MANAGEMENT'S DISCUSSION AND ANALYSIS

FOR THE PERIOD ENDED: JUNE 30, 2019

DATE OF REPORT: AUGUST 8, 2019

This management's discussion and analysis of the financial condition and results of operation ("MD&A") of Pinetree Capital Ltd. ("Pinetree" or the "Company") should be read in conjunction with Pinetree's consolidated interim financial statements and notes thereto as at and for the period ended June 30, 2019.

Except as otherwise indicated (see "Use of Non-GAAP Financial Measures" elsewhere in this MD&A), all financial data in this MD&A has been prepared, in accordance with International Financial Reporting Standards ("IFRS") issued by the International Accounting Standards Board ("IASB") and interpretations of the International Financial Reporting Interpretations Committee ("IFRIC").

All dollar amounts in this MD&A are reported in thousands of Canadian dollars except per share amounts.

Cautionary Note Regarding Forward-Looking Information:

This MD&A contains certain forward-looking information and forward-looking statements, as defined in applicable securities laws (collectively referred to herein as "forward-looking statements"). These statements relate to future events or courses of action or the Company's future performance. All statements other than statements of historical fact are forward-looking statements. Often, but not always, forward-looking statements can be identified by the use of words such as "anticipate", "plan", "estimate", "expect", "forecast", "may", "will", "project", "predict", "potential", "intend", "could", "might", "should", "believe" and other similar terminology (including negative variations) suggesting future outcomes or statements regarding an outlook.

By their nature, forward-looking statements are subject to known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those anticipated in such forward-looking statements. The assumptions that were made in support of the forward-looking statements in this MD&A, while considered reasonable by management at the time, are inherently subject to uncertainties and no assurance can be given that these assumptions will prove to be correct. Readers are cautioned not to place undue reliance on forward-looking statements contained in this MD&A.

Some of the risks, uncertainties and other factors which could cause results to differ materially from those expressed in the forward-looking statements contained in this MD&A include, but are not limited to: the nature of the Company's investments; the concentration of its investments in certain industries and sectors; the Company's dependence on its management team; risks affecting the Company's investments; Global, political and economic conditions; investments by the Company in private issuers which have illiquid securities; issuer-specific events that affect a company's market value; and other risks and factors discussed elsewhere in this MD&A under the heading "Risk Factors" and in the Company's current annual information form and other public disclosure documents filed with certain Canadian securities regulatory authorities and available under Pinetree's profile at www.sedar.com. These risk factors are unpredictable and outside the Company's control, and may affect the future value of the Company's investment portfolio as well as the prices at which investments may be disposed of. Adverse changes in these conditions would negatively impact the Company's ability to remain in compliance with its contractual obligations and generate working capital to fund its ongoing requirements.



The forward-looking statements contained in this MD&A are provided as of the date hereof and, except as may be required by law, the Company assumes no obligation to update or revise them to reflect new events or circumstances. All the forward-looking statements contained in this MD&A are expressly qualified by this cautionary statement.

1. About Pinetree

Pinetree was incorporated in 1962 under the laws of the Province of Ontario and its shares are publicly traded on the Toronto Stock Exchange (the "TSX") under the symbol "PNP". The Company is domiciled in the Province of Ontario, Canada and its registered office address is at Suite 200, 1965 Queen Street East, Toronto, ON, M4L 1H9.

Pinetree is a value-oriented investment and merchant banking company focused on the technology sector.

2. Overall Performance

During the period ended June 30, 2019, the Company continued to take a disciplined approach to capital management in order to fund ongoing operations of the Company.

The following is Pinetree's NAV per share and Operating Expenses per NAV for the eight most recently completed interim financial periods:

	Shares Outstanding	Net Asset Value (NAV) \$'000s	Operating Expenses ² (excluding F/X g(l)) (OpEx) \$'000s	NAV per share – basic ¹ \$	QuarterlyOpEx per NAV ¹ %
Jun-30-19	9,045,198	17,350	118	1.92	0.7
Mar-31-19	9,045,198	17,106	119	1.89	0.7
Dec-31-18	9,045,198	15,980	103	1.77	0.6
Sept-30-18	9,045,198	16,326	171	1.80	1.0
Jun-30-18	9,045,198	18,925	121	2.09	0.6
Mar-31-18	9,045,198	18,639	139	2.06	0.7
Dec-31-17	9,045,198	18,305	195	2.02	1.1
Sep-30-17	9,045,198	18,867	209	2.09	1.1

¹ Refer to "Use of Non-GAAP Financial Measures"

Shares Outstanding and Net Asset Value amounts are as at the Quarter End date

Operating Expenses amounts are for the Three months ending the Quarter End date

² Operating Expenses do not include Foreign Exchange gain (loss) on financial assets other than investments

Investments and Operating Results

As at June 30, 2019, the Company held investments at fair value totaling \$9,850 as compared to \$8,969 as at December 31, 2018, a 10% increase, attributable to additions in the investment portfolio and net investment gains during the six months ended June 30, 2019.

Basic earnings per share for the three months ended June 30, 2019 was \$0.03 as compared to \$0.03 for the three months ended June 30, 2018. Basic earnings per share for the six months ended June 30, 2019 was \$0.15 as compared to \$0.07 for the six months ended June 30, 2018.

As at June 30, 2019, net asset value per share ("NAV per share") was \$1.92 as compared to \$1.77 as at December 31, 2018. See "Use of Non-GAAP Financial Measures" elsewhere in this MD&A.

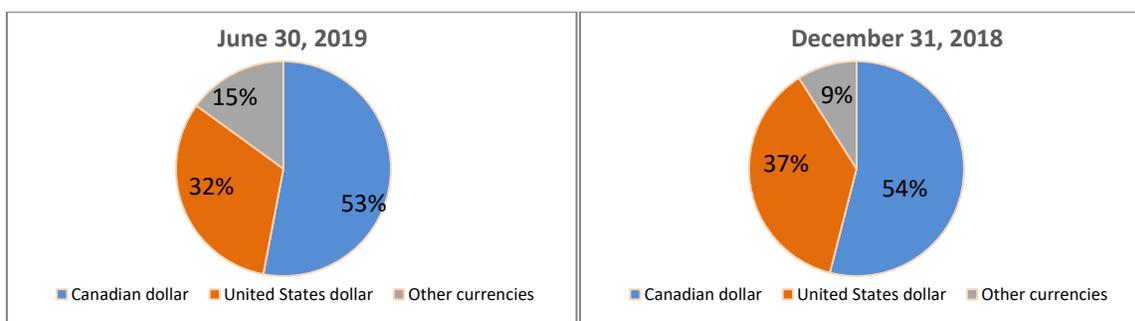
3. Summary of Investment Portfolio

Investments consist of the following as at June 30, 2019 and December 31, 2018:

Investments	June 30, 2019		December 31, 2018	
	Cost	Total fair value	Cost	Total fair value
Equities	\$ 29,795	\$ 7,145	45,387	\$ 6,402
Debentures	2,495	2,705	2,495	2,567
Total investments	\$ 32,290	\$ 9,850	\$ 47,882	\$ 8,969
Investments denominated in foreign currencies		\$ 4,637		\$ 4,139
% of investments denominated in foreign currencies		47%		46%

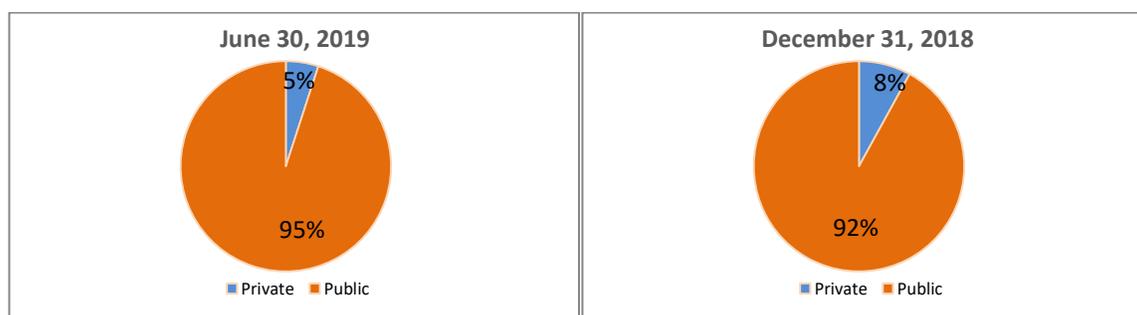
The following information regarding our portfolio is historical as at the dates indicated and may change due to the ongoing investment activities of the Company, in addition to fluctuations in the fair values of investments.

Currency Allocation*



*As a percentage of the aggregate fair value of our investment portfolio

Public/Private Company Allocation*



*As a percentage of the aggregate fair value of our investment portfolio

The fair value of Pinetree's publicly-traded investments is determined in accordance with the Company's accounting policy. The amounts at which the Company's publicly-traded investments could be disposed of currently may differ from their carrying values based on market quotes, as the value at which significant ownership positions are sold is often different than the quoted market price due to a variety of factors such as premiums paid for large blocks or discounts due to illiquidity. Additionally, current market prices may differ significantly from the historical prices used to calculate fair value for the purposes of the Company's consolidated financial statements.

On April 29, 2016, Pinetree underwent a complete management and board change. As at June 30, 2019, Pinetree held investments made by current management plus cash and equivalents with a combined fair value of \$16,823 (December 31, 2018 – fair value of \$15,128). These securities and cash represent 97% of the company's current Net Asset Value⁽ⁱ⁾ ("NAV") (95% as at December 31, 2018), as follows:

	June 30, 2019	December 31, 2018
Investments made after April 29, 2016	\$ 9,102	\$ 7,802
Cash and cash equivalents and due from brokers	7,721	7,326
	\$ 16,823	\$ 15,128
Percentage of NAV ⁽ⁱ⁾	97%	95%

⁽ⁱ⁾ See Use of Non-GAAP Financial Measures elsewhere in this MD&A

As at June 30, 2019, included in total investments were securities of private companies with a fair value totaling \$519 (cost of \$15,247) (December 31, 2018 – fair value of \$714 (cost of \$18,611)) measured in accordance with the Company's accounting policy for private company investments. The fair value was determined in accordance with the Company's accounting policy for private company investments. The amounts at which the Company's private company investments could be disposed of currently may differ from their carrying values since there is no active market to dispose of these investments.

Refer to note 3 of the Notes to the consolidated financial statements as at and for the three and six months ended June 30, 2019 for other details about the Company's investments.

4. Results of Operations

The Company's selected quarterly results for the eight most recently completed interim financial periods are as follows:

	Quarter ended (unaudited, \$ in thousands except per share amount)							
	Jun 30, 2019	Mar 31, 2019	Dec 31, 2018	Sept 30, 2018	June 30, 2018	Mar 31, 2018	Dec 31, 2017	Sept 30, 2017
Net investment gains (losses)	308	1,241	(330)	(2,503)	303	366	(392)	285
Net income (loss) for the period	244	1,126	(381)	(2,599)	286	334	(562)	28
Comprehensive income (loss)	244	1,126	(346)	(2,599)	286	334	(562)	28
Earnings (loss) per share basic and diluted	0.03	0.12	(0.04)	(0.29)	0.03	0.04	(0.06)	0.00

5. Three Months Ended June 30, 2019 and 2018

The net investment gains for the three months ended June 30, 2019 was \$308 (three months ended June 30, 2018 – net investment gains of \$303) as a result of a net change in unrealized gains and realized losses on investments as described below.

For the three months ended June 30, 2019, the Company has \$2,414 net realized losses on disposal of investments as compared to net realized losses of \$1,121 for the three months ended June 30, 2018. The realized losses were primarily from legacy investments with little or no value, partially offset by net realized gains from new investments.

For the three months ended June 30, 2019, the Company had a net change in unrealized gains on investments of \$2,722 as compared to \$1,424 for the three months ended June 30, 2018. The net change in unrealized gains were from the reversal of previously recognized net unrealized losses on the disposition of investments and the net write-up to market on the Company's investments.

For the three months ended June 30, 2019, other income totalled \$88 as compared to other income of \$69 for the three months ended June 30, 2018. Other income is comprised of interest and dividend income of \$63 and \$25, respectively (three months ended June 30, 2018 – interest income of \$69).

Operating, general and administrative expenses for the three months ended June 30, 2019 increased to \$152 from \$81 for the three months ended June 30, 2018. A breakdown of operating, general and administrative expenses for the indicated three month periods ended June 30, of 2019 and 2018 is set out below. Details of the changes between periods follow the table:

	2019	2018
Professional fees (a)	\$ 14	\$ 31
Office and general (b)	47	26
Transfer agent, filing fees and other info systems	39	31
Consulting and directors' fees (c)	14	33
Transaction costs	4	-
Foreign exchange loss (gain) (d)	34	(40)
	\$ 152	\$ 81

- (a) Professional fees decreased by \$17 as compared to the three months ended June 30, 2018 primarily due to a reduction in legal fees during the three months ended June 30, 2019.
- (b) Office and general expenses increased by \$21 as compared to the three months ended June 30, 2018 primarily due to an expense of unrecoverable input sales tax of \$12, an increase in computer system expenses, and an increase in director and officer's insurance expense for the three months ended June 30, 2019.
- (c) Consulting and directors' fees decreased by \$19 as compared to the three months ended June 30, 2018, due to decreased use of consultants for the three months ended June 30, 2019.
- (d) Foreign exchange loss increased by \$74 in the three months ended June 30, 2019 as compared to the three months ended June 30, 2018. The Company had a foreign exchange loss during the three months ended June 30, 2019 primarily due to the increase in the value of the Canadian dollar versus the U.S. dollar during the period, which decreased the Canadian dollar value of the Company's U.S. dollar denominated monetary assets. In the prior year period, the Company had foreign exchange gain.

6. Six Months Ended June 30, 2019 and 2018

The net investment gains for the six months ended June 30, 2019 was \$1,549 (six months ended June 30, 2018 – net investment gains of \$669) as a result of a net change in unrealized gains and realized losses on investments as described below.

For the six months ended June 30, 2019, the Company has \$14,924 net realized losses on disposal of investments as compared to net realized losses of \$4,816 for the six months ended June 30, 2018. The realized losses were primarily from legacy investments with little or no value, partially offset by net realized gains from new investments.

For the six months ended June 30, 2019, the Company had a net change in unrealized gains on investments of \$16,473 as compared to \$5,485 for the six months ended June 30, 2018. The net change in unrealized gains were from the reversal of previously recognized net unrealized losses on the disposition of investments and the net write-up to market on the Company's investments.

For the six months ended June 30, 2019, other income totalled \$120 as compared to other income of \$121 for the six months ended June 30, 2018. Other income is comprised of interest and dividend income of \$90 and \$30, respectively (six months ended June 30, 2018 – interest income of \$121).

Operating, general and administrative expenses for the six months ended June 30, 2019 increased to \$299 from \$161 for the six months ended June 30, 2018.

A breakdown of operating, general and administrative expenses for the indicated six month periods ended June 30, of 2019 and 2018 is set out below. Details of the changes between periods follow the table:

	2019	2018
Professional fees (a)	\$ 20	\$ 51
Office and general (b)	95	43
Transfer agent, filing fees and other info systems (c)	78	99
Consulting and directors' fees (d)	37	66
Transaction costs	7	-
Travel	-	2
Foreign exchange loss (gain) (e)	62	(100)
	\$ 299	\$ 161

- (a) Professional fees decreased by \$31 as compared to the six months ended June 30, 2018 primarily due to a reduction in legal fees for the six months ended June 30, 2019.
- (b) Office and general expenses increased by \$52 as compared to the six months ended June 30, 2018 primarily due to an expense of unrecoverable input sales tax of \$27 and an increase in computer system expenses for the six months ended June 30, 2019.
- (c) Transfer agent, filing fees and other info systems decreased by \$21 as compared to the six months ended June 30, 2018, due to a reduction in transfer agent usage during the six months ended June 30, 2019.
- (d) Consulting and directors' fees decreased by \$29 as compared to the six months ended June 30, 2018, due to decreased use of consultants during the six months ended June, 2019.
- (e) Foreign exchange loss increased by \$162 in the six months ended June 30, 2019 as compared to the six months ended June 30, 2018. The Company had a foreign exchange loss during the six months ended June 30, 2019 primarily due to the increase in the value of the Canadian dollar versus the U.S. dollar during the period, which decreased the Canadian dollar value of the Company's U.S. dollar denominated monetary assets. In the prior year period, the Company had foreign exchange gain.

7. Cash Flow

Net cash used in operating activities was \$562 during the six months ended June 30, 2019 as compared to \$821 during the six months ended June 30, 2018. During the six months ended June 30, 2019, the Company had proceeds from disposition of investments of \$2,536, a increase of \$1,118, when compared to \$1,418 during the six months ended June 30, 2018. During the six months ended June 30, 2019, the Company purchased \$1,868 of investments, a decrease of \$386 as compared to \$2,254 of investments purchased during the six months ended June 30, 2018.

For the six months ended June 30, 2019, the Company had a net decrease in cash and cash equivalents of \$562 as compared to \$821 for the six months ended June 30, 2018, leaving a cash and cash equivalents balance of \$6,688 as at June 30, 2019 as compared to \$6,689 as at June 30, 2018.

8. Liquidity and Capital Resources

Consolidated Statements of Financial Position Highlights	June 30, 2019	December 31, 2018
Cash and cash equivalents	\$ 6,688	\$ 7,250
Investments at fair value	9,850	8,969
Total assets	17,656	16,375
Total liabilities	306	395
Share capital, warrants, contributed surplus and foreign currency translation reserve	432,587	432,587
Deficit	(415,237)	(416,607)
NAV per share – Basic ⁽ⁱ⁾	\$ 1.92	\$ 1.77

⁽ⁱ⁾ See Use of Non-GAAP Financial Measures elsewhere in this MD&A

Pinetree relies upon various sources of funds for its ongoing operating and investing activities. These sources include proceeds from dispositions of investments, interest and dividend income from investments and capital raising activities such as equity financings.

In order for the Company to complete additional portfolio investments in the future, it may require additional equity and/or debt capital. Accordingly, the Company may complete one or more equity and/or debt financing transactions during the next 12 to 24 months. Such financing transactions, if consummated, are most likely be completed on a prospectus-exempt basis.

9. Liabilities

As at June 30, 2019, the carrying value of total liabilities was \$306 as compared to \$395 as at December 31, 2018, a decrease mainly attributable to the payment of accrued liabilities during the period ended June 30, 2019. The Company continues to have no long-term debt and its cash and investments as at June 30, 2019 would be sufficient to meet the Company's current liabilities.

As at June 30, 2019, accounts payable and accrued liabilities include Class C preferred share liabilities of \$212 (December 31, 2018 - \$213). The Class C preferred shares ("Class C Shares") which are part of the share capital of Pinetree Capital Investment Corp. ("PCIC"), one of the Company's subsidiaries, are non-voting, redeemable and retractable at any time, and entitle the holders thereof to receive cumulative dividends at a rate of 8% per annum, payable semi-annually.

The Class C Shares' redemption and retraction prices are linked to the market price of the Company's common shares subject to a minimum redemption price of \$10 per share. As at June 30, 2019, the redemption price was \$10 per share and the retraction price in effect was \$0.08 per share (December 31, 2018 - \$0.07 per share). During the six months ended June 30, 2019, 100 of the Class C shares were cancelled by PCIC following their retraction by the holder at approximately \$0.07 per share plus accrued and unpaid dividends. During the year ended December 31, 2018, none of the Class C shares were cancelled by PCIC. As at June 30, 2019, 21,200 Class C Shares (December 31, 2018 - 21,300 Class C Shares) were issued and outstanding.

10. Commitments

As at June 30, 2019, the Company had material commitments for cash resources of \$306 (December 31, 2018 - \$395), a decrease of \$89, which are detailed below. The Company's cash and cash equivalents balance is sufficient to pay these material commitments.

A breakdown of the Company's liabilities and obligations as at June 30, 2019 is as follows:

Liabilities and obligations	Payments due by period				
	Total	Less than 1 year	1 – 3 years	4 – 5 years	After 5 years
Accounts payable and accrued liabilities	\$ 306	\$ 306	\$ -	\$ -	\$ -

A breakdown of the Company's liabilities and obligations as at December 31, 2018 is as follows:

Liabilities and obligations	Payments due by period				
	Total	Less than 1 year	1 – 3 years	4 – 5 years	After 5 years
Accounts payable and accrued liabilities	\$ 395	\$ 395	\$ -	\$ -	\$ -

As at June 30, 2019, included in accounts payable and accrued liabilities are \$212 of Class C Shares (December 31, 2018 - \$213). The Class C Shares are redeemable and retractable at any time.

In addition, under the terms of commercial occupancy lease, the Company is committed to pay \$21 in 2019, which can be renewed annually.

11. Related Party Transactions

All transactions with related parties have occurred in the normal course of operations.

Related party transactions included in the statement of comprehensive loss were as follows during the three and six months ended June 30:

Type of expense	Nature of relationship	Three months ended June 30,		Nine months ended June 30,	
		2019	2018	2019	2018
Salaries, consulting fees and other benefits	Officers	\$ 4	\$ 24	\$ 8	\$ 48
Director fees (i)	Directors	8	9	17	17
		\$ 12	\$ 33	\$ 25	\$ 65

- (i) Non-management directors of the Company are entitled to remuneration for their services at rates approved by the board of directors. In addition, directors are reimbursed for reasonable travelling, hotel and other incidental expenses in respect of attending meetings of the directors.

12. Segmented information

The management of the Company is responsible for the Company's entire portfolio and considers the business to have a single operating segment. The management's investment decisions are based on a single, integrated investment strategy and the performance is evaluated on an overall basis.

The Company has a single reportable geographic segment, Canada, and all of the Company's equipment is located in Canada.

The internal reporting provided to management of the Company's assets, liabilities, and performance is prepared on a consistent basis with the measurement and recognition principles of IFRS. There were no changes in the reportable segments during the three months ended June 30, 2019.

13. Off-Balance Sheet Arrangements

As of the date of this MD&A, the Company does not have any off-balance sheet arrangements that have, or are reasonably likely to have, a current or future effect on the results of operations or financial condition of Pinetree.

14. Internal Controls over Financial Reporting

Disclosure Controls and Procedures

The Company is required to review and report on the effectiveness of its disclosure controls and procedures ("DC&P") in accordance with National Instrument 52-109, "Certification of Disclosure in Issuers' Annual and Interim Filings", ("NI 52-109") issued by the Canadian Securities Administrators. NI 52-109 requires a Chief Executive Officer ("CEO") and a Chief Financial Officer ("CFO") to certify that they are responsible for establishing and maintaining DC&P for the issuer, that DC&P have been designed and are effective in providing reasonable assurance that material information relating to the issuer is made known to them, that they have evaluated the effectiveness of the issuer's DC&P, and that their conclusions about the effectiveness of those DC&P at the end of the period covered by the relevant annual filings have been disclosed by the issuer.

The CEO and CFO have evaluated the design of the Company's DC&P as at June 30, 2019 and have concluded that the DC&P were effective in ensuring that information required to be disclosed by the Company in its corporate filings is recorded, processed, summarized and reported within the required time period for the year then ended.

A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that its objectives are met. Due to inherent limitations in all such systems, no evaluations of controls can provide absolute assurance that all control issues, if any, within a company have been detected. In addition, the design of any system of control is based upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all future events, no matter how remote, or that the degree of compliance with the policies or procedures may not deteriorate. Accordingly, the Company's DC&P are effective in providing reasonable, not absolute, assurance that the objectives of our disclosure control system have been met.

Internal Controls over Financial Reporting

NI 52-109 also requires CEOs and CFOs to certify that they are responsible for establishing and maintaining internal controls over financial reporting ("ICFR") for the issuer, that the ICFR have been designed and are effective in providing reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with IFRS, and that the issuer has disclosed any changes in its internal controls during its most recent interim period that has materially affected, or is reasonably likely to materially affect, its ICFR.

The design and operating effectiveness of the Company's ICFR were evaluated by the CEO and CFO in accordance with criteria established in the Internal Control Integrated Framework issued by the Committee of Sponsoring

Organizations of the Treadway Commission (COSO) and NI 52-109, as at June 30, 2019. The CEO and CFO have evaluated the ICFR as at December 31, 2018. The CEO and CFO have not identified in their review any weaknesses that have materially affected or are reasonably likely to materially affect Pinetree's ICFR. Based on this evaluation, the CEO and CFO have concluded that the Company's ICFR were effective in providing reasonable assurance that its financial reporting is reliable and its consolidated financial statements were prepared in accordance with IFRS.

There were no changes in the Company's ICFR that occurred during the three months ended June 30, 2019, that have materially affected, or are reasonably likely to materially affect the Company's ICFR.

15. Management of Capital

There were no changes in the Company's approach to capital management during the three months ended June 30, 2019. The Company's capital includes all components of equity which amounts to \$17,350 as at June 30, 2019 (December 31, 2018 - \$15,980). To date, the Company has not declared any cash dividends on its common shares to its shareholders as part of its capital management program. The Company's current capital resources are sufficient to discharge its outstanding liabilities as at June 30, 2019.

16. Risk Management

Financial Instrument Risks:

The Company's financial instruments primarily consist of investments, refer to the "Investments" section of this MD&A.

The investment operations of Pinetree's business involve the purchase and sale of securities and, accordingly, the majority of the Company's assets and liabilities currently comprised of financial instruments. The use of financial instruments can expose the Company to the following risks. A discussion of the Company's use of financial instruments and their associated risks is provided below.

(a) Liquidity risk:

Liquidity risk is the risk that the Company will not have sufficient cash resources to meet its financial obligations as they become due.

The Company's management is responsible for reviewing liquidity resources to ensure funds are readily available to meet financial obligations as they become due, as well as ensuring funds exist to support business strategies and operating growth.

The Company generates cash flow primarily from its financing activities and proceeds from the disposition of its investments in addition to interest and dividend income earned on its investments. Pinetree invests significantly in securities of "junior" issuers, which can at times be relatively illiquid, and if the Company decides to dispose of securities of a particular issuer it may not be able to do so at the time at favourable prices, or at all. In addition, the amounts at which the Company's private company investments could be disposed of currently may differ from their carrying values since there is no active market to dispose of these investments.

There were no changes to the way that the Company manages liquidity risk since December 31, 2018. The Company's liquidity risk is limited to exposure to accounts payable and accrued liabilities.

The following table shows the Company's contractual undiscounted cash flows which are payable under financial liabilities on the consolidated statement of financial position as at June 30, 2019:

Liabilities and obligations	Payments due by period				
	Total	Less than 1 year	1 – 3 years	4 – 5 years	After 5 years
Accounts payable and accrued liabilities	\$ 306	\$ 306	\$ -	\$ -	\$ -

The following table shows the Company's contractual undiscounted cash flows which are payable under financial liabilities on the consolidated statement of financial position as at December 31, 2018.

Liabilities and obligations	Payments due by period				
	Total	Less than 1 year	1 – 3 years	4 – 5 years	After 5 years
Accounts payable and accrued liabilities	\$ 395	\$ 395	\$ -	\$ -	\$ -

The following table shows the Company's source of liquidity by assets as at June 30, 2019:

Assets	Liquidity by period				
	Total	Less than 1 year	1 – 3 years	After 4 years	Non-liquid assets
Cash and cash equivalents	\$ 6,688	\$ 6,688	\$ -	\$ -	\$ -
Due from brokers	1,033	1,033	-	-	-
Investments, at fair value	9,850	9,331	519	-	-
Prepays and receivables	66	66	-	-	-
Income taxes receivable	19	19	-	-	-
	\$ 17,656	\$ 17,137	\$ 519	\$ -	\$ -

The following table shows the Company's source of liquidity by assets as at December 31, 2018:

Assets	Liquidity by period				
	Total	Less than 1 year	1 – 3 years	After 4 years	Non-liquid assets
Cash and cash equivalents	\$ 7,250	\$ 7,250	\$ -	\$ -	\$ -
Due from brokers	76	76	-	-	-
Investments, at fair value	8,969	8,255	714	-	-
Prepays and receivables	61	61	-	-	-
Income taxes receivable	19	19	-	-	-
	\$ 16,375	\$ 15,661	\$ 714	\$ -	\$ -

(b) Market risk:

Market risk is the risk that the fair value of, or future cash flows from, the Company's financial instruments will significantly fluctuate due to changes in market prices. The value of the financial instruments can be affected by changes in interest rates, foreign exchange rates, and equity and commodity prices. The Company is exposed to market risk in trading its investments and unfavourable market conditions could result in dispositions of investments at less than favourable prices. A +/-10% change in closing trade price of the Company's investments would impact net income by +/- \$809 based upon balances as at June 30, 2019.

(c) Interest rate risk:

Interest rate risk is the risk that the fair value of future cash flows from a financial instrument will fluctuate because of changes in market interest rate. The Company's exposure to interest rate risk relates to its ability to earn interest income on cash at variable rates. The fair value of the Company's cash and investments affected by changes in short term interest rates will be minimal. A 1% change in interest rates impacts net income by \$67 based upon balances at June 30, 2019. There were no changes to the way that the Company manages interest rate risk since December 31, 2018. Pinetree does not hedge against any interest rate risk.

(d) Currency risk:

Currency risk is the risk that the fair value or future cash flows of the Company's financial instruments will fluctuate because of changes in foreign exchange rates. The Company's operations are exposed to foreign exchange fluctuations, which could have a significant adverse effect on its consolidated results of operations from time to time.

The Company may have financial instruments denominated in foreign currencies such as U.S. dollars, Euros, Great British pounds, Swedish krona, and Australian dollars. A change in the foreign exchange rate of the Canadian dollar versus another currency may increase or decrease the Company's obligations due to brokers and increase or decrease the value of its financial instruments.

There were no changes to the way that the Company manages currency risk since December 31, 2018. The Company believes that it is exposed to foreign exchange risk (U.S. dollar) but does not actively hedge its foreign currency exposure although Pinetree's foreign exchange risk is, to a certain extent, mitigated by the Company's foreign exchange denominated investments. A 1% change in the US dollar exchange rate impacts net income by \$46 at June 30, 2019 (December 31, 2018 - \$46).

The following assets and liabilities were denominated in foreign currencies as at the following dates:

	June 30, 2019	December 31, 2018
Net assets denominated in U.S. dollars	\$ 4,591	\$ 4,594
Net assets denominated in Euros	777	-
Net assets denominated in GBP	635	529
Net assets denominated in Australian dollars	114	139
Net assets denominated in Swedish krona	35	204
	\$ 6,152	\$ 5,466

(e) Concentration risk in the Company's investment portfolio:

Concentration risk is the risk that any single investment or group of investments will have the potential to materially affect the operating results of the Company. As at June 30, 2019, the Company's top five investments had a fair value of \$6,406 in the technology and resources sectors, representing 65% and 3% of the fair value of the Company's total portfolio, of which all are public companies. As at December 31, 2018, the Company's top five investments had a fair value of \$6,191 in the technology and resources sectors, representing 69%, and 8% of the fair value of the Company's total portfolio, of which four were public companies and one was private company.

17. Risk Factors

The Company's investing activities are, by their nature, subject to a number of inherent risks, including liquidity, market, interest rate, currency and credit risks associated with financial instruments, and certain other risks that are described in our annual information form for our most recently completed financial year, all of which can have, and have had over recent reporting periods, a significant impact on the Company's financial condition and results of operations. Stock

market volatility has resulted in and may continue to result in increased market risk and losses within our investment portfolio.

Some risks are described below. Additional risks not currently known to the Company, or that the Company currently believe to be immaterial, may also affect and negatively impact the Company's business.

(a) Portfolio exposure:

Given the nature of the Company's activities, its results of operations and financial condition are dependent upon the market value of the securities that comprise the Company's portfolio. Market value can be reflective of the actual or anticipated operating results of our portfolio companies and/or the general market conditions that affect the sectors in which Pinetree invests. The Company's investment activities are currently concentrated primarily in the technology industry. There are various factors that could have a negative impact on Pinetree's portfolio companies and thereby have an adverse effect on our business. Additionally, a portion of Pinetree's investments are in small-cap businesses which the Company believes exhibit potential for growth and sustainable cash flows but which may not ever mature or generate the returns the Company expects or may require a number of years to do so. These companies may never achieve success. This may create an irregular pattern in the Company's revenues (if any). Macro factors such as global political, economic and market conditions could have an adverse effect on one or more sectors to which the Company is exposed, thereby negatively impacting one or more of the portfolio companies concurrently. Company-specific risks could have an adverse effect on one or more of the Company's portfolio companies at any point in time. Company-specific and industry-specific risks which materially adversely affect Pinetree's portfolio investments may have a materially adverse impact on our operating results.

(b) Cash Flows/Revenue:

Pinetree generates revenue and cash flows primarily from its proceeds from the disposition of its investments, in addition to interest and dividend income earned on the Company's investments and fees generated from securities lending and other activities. The availability of these sources of funds and the amount of funds generated from these sources are dependent upon various factors, most of which are outside of the Company's direct control.

(c) Private Issuers and Illiquid Securities:

Pinetree invests in securities of private issuers. Investments in private issuers cannot be resold without a prospectus, an available exemption or an appropriate ruling under relevant securities legislation and there may not be any market for such securities. These limitations may impair Pinetree's ability to react quickly to market conditions or negotiate the most favourable terms for exiting such investments. Investments in private issuers may offer relatively high potential returns, but will also be subject to a relatively high degree of risk. There can be no assurance that a public market will develop for any of Pinetree's private company investments or that the Company will otherwise be able to realize a return on such investments. Pinetree also invests in illiquid securities of public issuers. A considerable period of time may elapse between the time a decision is made to sell such securities and the time the Company is able to do so, and the value of such securities could decline during such period. Illiquid investments are subject to various risks, particularly the risk that the Company will be unable to realize the Company's investment objectives by sale or other disposition at attractive prices or otherwise be unable to complete any exit strategy. In some cases, the Company may be prohibited by contract or by law from selling such securities for a period of time or otherwise be restricted from disposing of such securities. Furthermore, the types of investments made may require a substantial length of time to liquidate.

(d) Share Prices of Investments:

Pinetree's investments in securities of public companies are subject to volatility in the share prices of the companies. There can be no assurance that an active trading market for any of the subject shares is sustainable. The trading prices of the subject securities could be subject to wide fluctuations in response to various factors beyond the control of Pinetree, including quarterly variations in the subject entities' results of operations, changes in earnings (if any), estimates by analysts, conditions in the industry of the subject companies and general market or economic conditions. In recent years equity markets have experienced extreme price and volume fluctuations. These fluctuations have had a substantial effect on market prices, often unrelated to the operating performance of the specific companies. Such market fluctuations could

adversely affect the market price of the Company's investments and significantly negatively impact upon the Company's operating results.

(e) Dependence on Management:

Pinetree is dependent upon the efforts, skill and business contacts of key members of management, for among other things, the information and deal flow they generate during the normal course of their activities and their various fields of expertise and knowledge. Accordingly, the Company's continued success will depend upon the continued service of these individuals, who are not obligated to remain employed with Pinetree. A loss of key personnel could have a material adverse effect on the revenues, net income and cash flows of the Company, and could harm its ability to maintain or grow its existing assets and raise additional funds in the future.

(f) Access to Capital/Liquidity:

Pinetree anticipates ongoing requirements for funds to support the Company's growth and may seek to obtain additional funds for these purposes through public or private equity shares financing. There are no assurances that additional funding will be available to the Company at all, on acceptable terms or at an acceptable level. Any additional equity financing may cause shareholders to experience dilution, and any additional debt financing may result in increased interest expense or restrictions on our operations or ability to incur additional debt. Any limitations on the Company's ability to access the capital markets for additional funds could have a material adverse effect on the Company's ability to grow its investment portfolio. The Company will need to finance our ongoing working capital requirements through portfolio dispositions and external sources of capital, both of which are dependent upon certain factors outside of our control. There can be no assurance that we will be able to generate sufficient cash to fund our operations and satisfy our commitments, and the failure to do so will have a material adverse effect on our operations.

(g) Non-controlling Interests:

Our investments include debt instruments and equity securities of companies that we do not control. These instruments and securities may be acquired by us in the secondary market or through purchases of securities from the issuer. Any such investment is subject to the risk that the company in which the investment is made may make business, financial or management decisions with which we do not agree or that the majority stakeholders or the management of the company may take risks or otherwise act in a manner that does not serve our interests. If any of the foregoing were to occur, the values of our investments could decrease and our financial condition, results of operations and cash flow could suffer as a result.

(h) Exchange Rate Fluctuations:

A portion of Pinetree's portfolio is invested in U.S. dollar denominated investments, as well as investments denominated in other foreign currencies. Changes in the value of the foreign currencies in which the Company investments are denominated could have a negative impact on the ultimate return on the Company's investments and overall financial performance.

(i) Tax Matters:

The Company's tax returns for the period 2013 to 2014 are currently being audited by the Canada Revenue Agency ("CRA"). Certain tax positions taken by the Company previously, if successfully challenged by the CRA, could result in a reduction in capital and non-capital losses available for carry forward or additional expenses. At this time, the amount of tax exposure cannot be determined with any level of assurance.

The Company believes that the tax positions taken in the past are in compliance with the applicable tax law and will vigorously contest any reassessment. As a result, the Company has not recorded an accrual for additional tax liabilities related to the CRA audit.

18. Outstanding Share Data

The Company is authorized to issue an unlimited number of common shares (no par value).

At the date of this MD&A, the number of common shares of the Company outstanding and the number of common shares issuable pursuant to other outstanding securities of Pinetree are as follows:

Common shares outstanding	9,045,198
Stock options outstanding to purchase common shares	107,350
Fully diluted common shares outstanding	9,152,548

Additional information about the Company's share capital can be found in note 6 of the Notes to the consolidated financial statements as at and for the three and six months ended June 30, 2019.

19. Critical Accounting Estimates

The preparation of the Company's consolidated financial statements in conformity with IFRS requires management to make estimates and assumptions about future events that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the end of the reporting period and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates and assumptions.

Critical accounting estimates used in the preparation of the Company's consolidated financial statements are the fair value of its investments in securities not quoted in an active market (its privately-held investments), the recognition of the Company's deferred tax assets ("DTA"), the Company's estimate of inputs for the calculation of the value of stock-based compensation expense, the valuation of unlisted warrants of public companies, and the fair value of the Company's own warrants and broker warrants.

Fair Value of Investment in Securities Not Quoted in an Active Market:

The valuation of privately-held investments ("private investments") requires management to assess the current financial status and prospects of private investments based upon potentially incomplete or unaudited financial information provided by the investee company, on management's general knowledge of the private investment's activities, and on any political, economic or other events that may impact upon the private investment specifically, and to attempt to quantify the impact of such events on the fair value of the investment. In addition to any events or circumstances that may affect the fair value of a particular private investment, management can consider trends in general market conditions and the share performance of comparable publicly-traded companies that may affect the fair value of either a particular private investment or a group, segment or complete portfolio of private investments.

Within Level 3 of the financial instruments hierarchy, the valuation of the Company's private company investments and other investment instruments such as loans to investees and convertible debentures, which are not quoted on an exchange, involve the key assumptions including the value at which a recent financing was done by the investee, company-specific information, trends in general market conditions, the share performance of comparable publicly-traded companies and strategic reviews of the investments in conjunction with the Company's investment strategy. Changes in the fair value of our private investments for company-specific reasons have tended to be infrequent. Changes as a result of trends in comparable publicly-traded companies and general market conditions may be more frequent from period to period during times of significant volatility; however, given the size of our private investment portfolio, such changes may have a significant impact on our financial condition or operating results.

The following table presents the fair value, categorized by key valuation techniques and the unobservable inputs used within Level 3:

Valuation technique	June 30, 2019		December 31, 2018	
	Fair Value	Unobservable inputs	Fair Value	Unobservable inputs
Trends in comparable publicly traded companies and general market conditions and strategic review		Adjustment range		Adjustment range
	\$ 519	(-80% to -12.5%)	\$ 714	(-80% to -12.5%)
	\$ 519		\$ 714	

For these Level 3 investments, the inputs used can be highly judgmental. A +/- 25% change on the fair value of these investments will result in a corresponding +/- \$130 (December 31, 2018: +/- \$178) change to the total fair value of the investments.

The sensitivity analysis is intended to reflect the uncertainty inherent in the valuation of these investments under current market conditions, and its results cannot be extrapolated due to non-linear effects that changes in valuation assumptions may have on the fair value of these investments. Furthermore, the analysis does not indicate a probability of such changes occurring and it does not necessarily represent the Company's view of expected future changes in the fair value of these investments. Any management actions that may be taken to mitigate the inherent risks are not reflected in this analysis.

Recognition of Deferred Tax Assets:

The Company follows the liability method of tax allocation in accounting for income taxes. Under this method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the consolidated financial statement carrying amounts of existing assets and liabilities and their respective tax bases. As at June 30, 2019, management determined, based upon the Company's historical level of profit and historical market trends of a comparable market index, it is not probable that the Company will generate sufficient profit to realize the tax benefits of these deductible differences during the next several years. As such, the Company has recorded deferred tax assets of \$nil as at June 30, 2019 (December 31, 2018 - \$nil).

Stock-based Compensation Expense and Warrants:

The Company uses the Black-Scholes option pricing model ("B-S") to calculate stock-based compensation expense and the value of warrants issued as part of the Company's private placements. The Black-Scholes requires six key inputs to determine a value for an option, warrant or broker warrant: risk free interest rate, exercise price, market price at date of issue, expected dividend yield, expected life and expected volatility. Certain of the inputs are estimates which involve considerable judgment and are, or could be, affected by significant factors that are out of the Company's control. For example, a longer expected life of the option or a higher volatility number used would result in an increase in stock-based compensation expense. The Company is also required to estimate the future forfeiture rate of options based on historical information in its calculation of stock-based compensation expense.

No stock options were granted during the period ended June 30, 2019 or year ended December 31, 2018.

The expected volatility is based on the historical volatility over the life of the option at Pinetree's share price. The Company has not paid any cash dividends historically and has no plans to pay cash dividends in the foreseeable future. The risk-free interest rate is based on the yield of Canadian Benchmark Bonds with equivalent terms. The expected option life in years represents the period of time that options granted are expected to be outstanding based on historical options granted.

Valuation of Unlisted Warrants of Public Companies:

For options and warrants which are not traded on a recognized securities exchange, no market data is readily available. When there are sufficient and reliable observable market inputs, an option pricing model is used; if no such market inputs are available, the warrants and options are valued using alternative methods representing fair value.

As at June 30, 2019, the Company has valued all non-tradable warrants using intrinsic value for a total fair value of \$nil (December 31, 2018 - \$nil), which is consistent with prior periods and with the Company's accounting policy for valuing non-tradable warrants.

20. Use of Non-GAAP Financial Measures

This MD&A contains references to "net asset value" ("NAV") and "net asset value per share" (basic and diluted), which is a non-GAAP financial measure. NAV is calculated as the value of total assets less the value of total liabilities. NAV is divided by the total number of common shares outstanding as at a specific date to give NAV per share (basic). NAV per share (diluted) is calculated as total assets less total liabilities divided by the total number of common shares of the Company outstanding as at a specific date, calculated based upon the assumption that all outstanding securities of the Company that are convertible into or exercisable for common shares have been converted or exercised. The term NAV does not have any standardized meaning according to GAAP and therefore may not be comparable to similar measures presented by other companies. There is no comparable GAAP financial measure presented in Pinetree's consolidated financial statements and thus no applicable quantitative reconciliation for such non-GAAP financial measure. The Company has calculated NAV consistently for many years and believes that the measure provides information useful to its shareholders in understanding our performance, and may assist in the evaluation of the Company's business relative to that of its peers.

Additional Information:

Additional information relating to Pinetree Capital Ltd., including its annual information form for the Company's most recently completed financial year, is available under the Company's profile on SEDAR at (www.sedar.com).