CONSTELLATION SOFTWARE INC.

MANAGEMENT'S DISCUSSION AND ANALYSIS ("MD&A")

The following discussion and analysis should be read in conjunction with the Unaudited Condensed Consolidated Interim Financial Statements for the three and six month periods ended June 30, 2020, which we prepared in accordance with International Financial Reporting Standards ("IFRS"). Certain information included herein is forward-looking and based upon assumptions and anticipated results that are subject to uncertainties. Should one or more of these uncertainties materialize or should the underlying assumptions prove incorrect, actual results may vary significantly from those expected. See "Forward-Looking Statements" and "Risks and Uncertainties".

Unless otherwise indicated, all dollar amounts are expressed in U.S. dollars. All references to "$" are to U.S. dollars and all references to "C$" are to Canadian dollars. Due to rounding, certain totals and subtotals may not foot and certain percentages may not reconcile.

Additional information about Constellation Software Inc. (the "Company" or "Constellation"), including our most recently filed Annual Information Form ("AIF"), is available on SEDAR at www.sedar.com.

Forward Looking Statements

Certain statements in this report may contain "forward looking" statements that involve risks, uncertainties and other factors that may cause the actual results, performance or achievements of the Company or industry to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Words such as "may", "will", "expect", "believe", "plan", "intend", "should", "anticipate" and other similar terminology are intended to identify forward looking statements. These statements reflect current assumptions and expectations regarding future events and operating performance as of the date of this MD&A, August 6, 2020. Forward looking statements involve significant risks and uncertainties, should not be read as guarantees of future performance or results, and will not necessarily be accurate indications of whether or not such results will be achieved. A number of factors could cause actual results to vary significantly from the results discussed in the forward looking statements, including, but not limited to, the factors discussed under "Risks and Uncertainties". Although the forward looking statements contained in this MD&A are based upon what management of the Company believes are reasonable assumptions, the Company cannot assure investors that actual results will be consistent with these forward looking statements. These forward looking statements are made as of the date of this MD&A and the Company assumes no obligation, except as required by law, to update any forward looking statements to reflect new events or circumstances. This report should be viewed in conjunction with the Company's other publicly available filings, copies of which can be obtained electronically on SEDAR at www.sedar.com.

Non-IFRS Measures

This MD&A includes certain measures which have not been prepared in accordance with IFRS such as Free cash flow available to shareholders.

Free cash flow available to shareholders ''FCFA2S'' refers to net cash flows from operating activities less interest paid on lease obligations, interest paid on other facilities, credit facility transaction costs, repayments of lease obligations, the TSS membership liability revaluation charge, and property and equipment purchased, and includes interest and dividends received. We believe that FCFA2S is useful supplemental information as it provides an indication of the uncommitted cash flow that is available to shareholders if we do not make any acquisitions, or investments, and do not repay any debts. While we could use the FCFA2S to pay dividends or repurchase shares, our objective is to invest all of our FCFA2S in acquisitions which meet our hurdle rate.

FCFA2S is not a recognized measure under IFRS and, accordingly, readers are cautioned that FCFA2S should not be construed as an alternative to net cash flows from operating activities. See ‘‘Results of Operations —Free cash flow available to shareholders” for a reconciliation of FCFA2S to net cash flows from operating activities.

Overview

We acquire, manage and build vertical market software (“VMS”) businesses. Generally, these businesses provide mission critical software solutions that address the specific needs of our customers in particular markets. Our focus on acquiring businesses with growth potential, managing them well and then building them, has allowed us to generate significant cash flows and revenue growth during the past several years.

Our revenue consists primarily of software license fees, maintenance and other recurring fees, professional service fees and hardware sales. Software license revenue is comprised of license fees charged for the use of our software products generally licensed under multiple-year or perpetual arrangements. Maintenance and other recurring revenue primarily consists of fees charged for customer support on our software products post-delivery and also includes, to a lesser extent, recurring fees derived from software as a service, subscriptions, combined software/support contracts, transaction-related revenues, and hosted products. Maintenance and other recurring fee arrangements generally include ongoing customer support and rights to certain product updates “when and if available” and products sold on a subscription basis. Professional service revenue consists of fees charged for implementation and integration services, customized programming, product training and consulting. Hardware sales include the resale of third party hardware that forms part of our customer solutions, as well as sales of customized hardware assembled internally. Our customers typically purchase a combination of software, maintenance, professional services and hardware, although the type, mix and quantity of each vary by customer and by product.

Expenses consist primarily of staff costs, the cost of hardware, third party licenses, maintenance and professional services to fulfill our customer arrangements, travel and occupancy costs and other general operating expenses.

Results of Operations
(In millions of dollars, except percentages and per share amounts)
Unaudited

	Three months ended June 30,		Period-Over-Period Change		Six months ended June 30,		Period-Over-Period Change	
	2020	2019	$	%	2020	2019	$	%
Revenue	**922**	**846**	**76**	**9%**	**1,875**	**1,665**	**210**	**13%**
Expenses	656	638	18	3%	1,372	1,277	94	7%
Amortization of intangible assets	96	75	21	28%	190	151	40	26%
Foreign exchange (gain) loss	10	13	(4)	-27%	4	15	(11)	-75%
TSS membership liability revaluation charge	17	8	9	112%	35	18	17	96%
Finance and other income	(1)	(0)	(1)	196%	(2)	(3)	2	-49%
Bargain purchase gain	(0)	-	(0)	NM	(0)	(28)	28	-100%
Impairment of intangible and other non-financial assets	4	0	4	NM	8	0	8	NM
Finance costs	10	9	1	13%	22	18	4	19%
Income before income taxes	130	103	27	27%	246	218	28	13%
Income tax expense (recovery)								
Current income tax expense (recovery)	70	42	29	69%	115	78	37	47%
Deferred income tax expense (recovery)	(22)	(12)	(11)	89%	(34)	(20)	(14)	73%
Income tax expense (recovery)	48	30	18	61%	80	58	22	39%
Net income	**83**	**73**	**9**	**12%**	**166**	**160**	**6**	**4%**
Net cash flows from operating activities	**237**	**50**	**186**	**370%**	**597**	**334**	**263**	**79%**
Free cash flow available to shareholders	**190**	**12**	**178**	**NM**	**501**	**263**	**238**	**91%**
Weighted average number of shares outstanding								
Basic and diluted	21.2	21.2			21.2	21.2		
Net income per share								
Basic and diluted	$ 3.90	$ 3.45	$ 0.45	13%	$ 7.81	$ 7.54	$ 0.27	4%
Net cash flows from operating activities per share								
Basic and diluted	$ 11.17	$ 2.38	$ 8.79	370%	$ 28.18	$ 15.78	$ 12.40	79%
Free cash flow available to shareholders per share								
Basic and diluted	$ 8.99	$ 0.58	$ 8.40	NM	$ 23.65	$ 12.39	$ 11.25	91%
Cash dividends declared per share								
Basic and diluted	$ 1.00	$ 1.00	$ -	0%	$ 2.00	$ 22.00	$ (20.00)	-91%

NM - Not meaningful
Due to rounding, certain totals may not foot and certain percentages may not reconcile.

Comparison of the three and six month periods ended June 30, 2020 and 2019

Revenue:

Total revenue for the quarter ended June 30, 2020 was $922 million, an increase of 9%, or $76 million, compared to $846 million for the comparable period in 2019. For the first six months of 2020 total revenues were $1,875 million, an increase of 13%, or $210 million, compared to $1,665 million for the comparable period in 2019. The increase for both the three and six month periods compared to the same periods in the prior year is primarily attributable to growth from acquisitions as the Company experienced negative organic growth of 8% and 5% respectively, negative 7% and negative 4% respectively after adjusting for the impact of changes in the valuation of the US dollar against most major currencies in which the Company transacts business. For acquired companies, organic growth is calculated as the difference between actual revenues achieved by each company in the financial period following acquisition compared to the estimated revenues they achieved in the corresponding financial period preceding the date of acquisition by Constellation. The primary reason for the negative organic growth for the three and six months ended June 30, 2020 was the impact of COVID-19. Travel restrictions have negatively impacted the ability to implement software and many businesses have put buying decisions on hold. Certain verticals that we operate in, such as health clubs, hospitality, real estate brokers and agents, salons and spas, and tour operators, have been more negatively impacted than others.

The following table displays the breakdown of our revenue according to revenue type:

	Three months ended June 30,		Period-Over-Period Change		Q219 Proforma Adj. (Note 1)	Organic Growth	Six months ended June 30,		Period-Over-Period Change		Q219 Proforma Adj. (Note 2)	Organic Growth
	2020	2019	$	%	$	%	2020	2019	$	%	$	%
	($ in millions, except percentages)						($ in millions, except percentages)					
Licenses	51	61	(10)	-16%	12	-30%	108	113	(5)	-4%	22	-20%
Professional services	170	164	6	4%	41	-17%	347	322	25	8%	75	-12%
Hardware and other	35	41	(6)	-15%	4	-23%	77	77	0	0%	9	-11%
Maintenance and other recurring	666	581	86	15%	104	-3%	1,342	1,152	190	16%	208	-1%
	922	846	76	9%	161	-8%	1,875	1,665	210	13%	314	-5%

$M - Millions of dollars

Due to rounding, certain totals may not foot and certain percentages may not reconcile.

Note 1: Estimated pre-acquisition revenues for the three months ended June 30, 2019 from companies acquired after March 31, 2019. (Obtained from unaudited vendor financial information.)

Note 2: Estimated pre-acquisition revenues for the six months ended June 30, 2019 from companies acquired after December 31, 2018. (Obtained from unaudited vendor financial information.)

For comparative purposes the table below shows the quarterly organic growth as compared to the same period in the prior year by revenue type since Q2 2018.

	Quarter Ended								
	Jun. 30 2018	Sep. 30 2018	Dec. 31 2018	Mar. 31 2019	Jun. 30 2019	Sep. 30 2019	Dec. 31 2019	Mar. 31 2020	Jun. 30 2020
Licenses	-5%	-9%	-3%	-3%	5%	-14%	-10%	-8%	-30%
Professional services	3%	-5%	1%	-5%	-7%	-8%	-8%	-8%	-17%
Hardware and other	-11%	-20%	4%	-4%	-15%	-2%	-22%	3%	-23%
Maintenance and other recurring	6%	3%	2%	1%	2%	1%	2%	0%	-3%
Revenue	**4%**	**-1%**	**2%**	**-1%**	**-1%**	**-2%**	**-3%**	**-2%**	**-8%**

The following table shows the same information adjusting for the impact of foreign exchange movements.

	Quarter Ended								
	Jun. 30 2018	Sep. 30 2018	Dec. 31 2018	Mar. 31 2019	Jun. 30 2019	Sep. 30 2019	Dec. 31 2019	Mar. 31 2020	Jun. 30 2020
Licenses	-7%	-7%	-1%	1%	8%	-12%	-9%	-7%	-29%
Professional services	0%	-4%	3%	-1%	-4%	-5%	-7%	-6%	-16%
Hardware and other	-13%	-19%	5%	-1%	-14%	0%	-21%	4%	-22%
Maintenance and other recurring	4%	4%	4%	5%	4%	3%	3%	2%	-1%
Revenue	**1%**	**0%**	**3%**	**3%**	**2%**	**0%**	**-2%**	**0%**	**-7%**

For fiscal 2019 and earlier periods, we aggregated our business into two distinct segments for financial reporting purposes: (i) the public sector reportable segment, which included business units focused primarily on government and government-related customers, and (ii) the private sector reportable segment, which included business units focused primarily on commercial customers. Following the guidance set out by IFRS 8, Operating Segments ("IFRS 8"), the public sector reportable segment was derived by combining our Volaris, Harris and TSS operating segments, and the private sector reportable segment was derived by combining our Vela, Jonas and Perseus operating segments. While the operating segments in the public sector were comprised of businesses that primarily serve government and government-related customers, they also included businesses that serve commercial customers, and similarly the operating groups in the private sector were comprised of businesses that primarily serve commercial customers but also included businesses that serve government and government-related customers. For the fiscal years ended December 31, 2019 and 2018 approximately 35% and 30% respectively of the revenue in the public sector reportable segment was generated from commercial customers, and 15% and 16% respectively of revenue in the private sector reportable segment was generated from government and government-related customers. Each of our operating segments operate essentially as mini Constellations, conglomerates of small vertical market software companies with similar economic characteristics. Each operating segment CEO is focused on investing capital that generates returns at or above the investment hurdle rates set by CSI's head office (primarily the President) and the Board of Directors, irrespective of whether the acquired business operates primarily in the public or private sector. Accordingly presenting information on a public and private sector basis is no longer meaningful. Accordingly, we now aggregate our six operating segments into one reportable segment, consistent with the objective and basic principles of IFRS 8.

Expenses:

The following table displays the breakdown of our expenses:

	Three months ended June 30,		Period-Over-Period Change		Six months ended June 30,		Period-Over-Period Change	
	2020	2019	$	%	2020	2019	$	%
	($ in millions, except percentages)				($ in millions, except percentages)			
Expenses								
Staff	480	437	42	10%	990	882	108	12%
Hardware	22	22	(0)	-2%	45	43	2	4%
Third party license, maintenance and professional services	77	73	3	4%	156	142	13	9%
Occupancy	8	9	(0)	-2%	17	17	0	1%
Travel, Telecommunications, Supplies & Software and equipment	31	49	(18)	-36%	82	93	(11)	-12%
Professional fees	13	11	2	17%	26	22	5	21%
Other, net	0	15	(15)	-99%	5	36	(30)	-85%
Depreciation	25	21	4	19%	51	42	9	21%
	656	638	18	3%	1,372	1,277	94	7%

Due to rounding, certain totals may not foot and certain percentages may not reconcile.

Overall expenses for the quarter ended June 30, 2020 increased 3%, or $18 million to $656 million, compared to $638 million during the same period in 2019. As a percentage of total revenue, expenses equalled 71% for the quarter ended June 30, 2020 and 75% for the same period in 2019. During the six months ended June 30, 2020, expenses increased 7%, or $94 million to $1,372 million, compared to $1,277 million during the same period in 2019. As a percentage of total revenue, expenses were 73% for the six months ended June 30, 2020 and 77% for the same period in 2019. For the three and six months ended June 30, 2019 the change in valuation of the US dollar against most major currencies in which the Company transacts business resulted in an approximate 2% decrease in expenses compared to the comparable periods of 2019.

Staff expense – Staff expenses increased 10% or $42 million for the quarter ended June 30, 2020 and 12% or $108 million for the six months ended June 30, 2020 over the same periods in 2019. The Company has taken appropriate measures to manage staff expense in conjunction with the negative organic growth resulting from COVID-19. Staff expense can be broken down into five key operating departments: Professional Services, Maintenance, Research and Development, Sales and Marketing, and General and Administrative. Included within staff expenses for each of the above five departments are personnel and related costs associated with providing the necessary services. The table below compares the period over period variances.

	Three months ended June 30,		Period-Over-Period Change		Six months ended June 30,		Period-Over-Period Change	
	2020	2019	$	%	2020	2019	$	%
	($ in millions, except percentages)				($ in millions, except percentages)			
Professional services	102	93	9	9%	212	189	23	12%
Maintenance	96	88	7	8%	197	177	20	11%
Research and development	140	120	19	16%	283	244	39	16%
Sales and marketing	66	62	4	6%	136	125	11	9%
General and administrative	77	74	3	4%	162	147	15	10%
	480	437	42	10%	990	882	108	12%

Due to rounding, certain totals may not foot and certain percentages may not reconcile.

The increase in staff expenses for the three and six months ended June 30, 2020 was primarily due to the growth in the number of employees compared to the same periods in 2019 primarily due to acquisitions.

Hardware expenses – Hardware expenses decreased 2% or $0.4 million for the quarter ended June 30, 2020 and increased 4% or $2 million for the six months ended June 30, 2020 over the same periods in 2019 as compared with the 15% decrease and 0% increase in hardware and other revenue for the three and six month periods ending June 30, 2020 respectively over the comparable periods in 2019. Hardware margins for the three and six months ended June 30, 2020 were 37% and 42% respectively as compared to 45% and 44% for the comparable periods in 2019.

Third party license, maintenance and professional services expenses – Third party license, maintenance and professional services expenses increased 4% or $3 million for the quarter ended June 30, 2020 and 9% or $13 million for the six months ended June 30, 2020 over the same periods in 2019. The increase is primarily due to third party license, maintenance and professional services expenses of acquired businesses.

Occupancy expenses – Occupancy expenses decreased 2% or $0.1 million for the quarter ended June 30, 2020 and increased 1% or $0.2 million for the six months ended June 30, 2020 over the same periods in 2019. The increase for the six month period is primarily due to the occupancy expenses of acquired businesses.

Travel, Telecommunications, Supplies & Software and equipment expenses – Travel, Telecommunications, Supplies & Software and equipment expenses decreased 36% or $18 million for the quarter ended June 30, 2020 and 12% or $11 million for the six months ended June 30, 2020 over the same periods in 2019. The decrease in these expenses is primarily due to travel restrictions related to COVID-19.

Professional fees – Professional fees increased 17% or $2 million for the quarter ended June 30, 2020 and 21% or $5 million for the six months ended June 30, 2020 over the same periods in 2019. There are no individually material reasons contributing to this variance.

Other, net – Other expenses decreased 99% or $15 million for the quarter ended June 30, 2020 and decreased 85% or $30 million for the six months ended June 30, 2020 over the same periods in 2019. The following table provides a further breakdown of expenses within this category.

	Three months ended June 30,		Period-Over-Period Change		Six months ended June 30,		Period-Over-Period Change	
	2020	2019	$	%	2020	2019	$	%
	($ in millions, except percentages)				($ in millions, except percentages)			
Advertising and promotion	8	12	(4)	-36%	20	23	(3)	-13%
Recruitment and training	2	5	(3)	-54%	6	8	(2)	-27%
Bad debt expense	2	1	0	20%	5	3	2	99%
R&D tax credits	(6)	(5)	(1)	20%	(11)	(9)	(2)	18%
Contingent consideration	8	0	8	NM	(4)	6	(10)	NM
Government assistance	(17)	-	(17)	NM	(18)	-	(18)	NM
Other expense, net	4	1	3	216%	7	5	2	40%
	0	15	(15)	-99%	5	36	(30)	-85%

NM - Not meaningful

Due to rounding, certain totals may not foot and certain percentages may not reconcile.

The governments of various jurisdictions in which we have operations have approved legislation and taken administrative actions intended to aid businesses that have been adversely impacted by COVID-19, including making grants or credits available to eligible entities to subsidize or offset qualifying expenses, including employee wages, or to lower payroll taxes or required social insurance programs (in certain countries), in each case subject to limits and other specified criteria. During the six months ended June 30, 2020, we determined that we qualify for an estimated aggregate amount of $18 million of grants from various government authorities, including the Canadian Emergency Wage Subsidy (CEWS) announced by the Government of Canada in April 2020, and recognized such amounts as a reduction in expenses during Q1 and Q2 2020. We have either submitted, or expect to submit, claims for such grants. As at June 30, 2020, the amount of grants receivable totaled $4 million. We will continue to evaluate all applicable government relief programs and intend to apply for subsequent application periods, if we meet the qualification criteria. There can be no assurance that COVID-19-related governmental assistance to offset our costs will be available in Q3 2020 (or thereafter), and if so, whether we will qualify for or receive any such assistance.

The contingent consideration expense amount recorded for the three months ended June 30, 2020 relates to an increase in anticipated acquisition earnout payment accruals primarily as a result of increases to revenue forecasts for the associated acquisitions. In Q1 2020 a reversal of $13 million dollars was recorded as revenue forecasts were decreased as a result of the COVID-19 pandemic. Revenue forecasts are updated on a quarterly basis and the related anticipated acquisition earnout payment accruals are updated accordingly. There are no individually material reasons contributing to the remaining variances.

Depreciation – Depreciation of property and equipment increased 19% or $4 million for the quarter ended June 30, 2020 and 21% or $9 million for the six months ended June 30, 2020 over the same periods in 2019. The increases are primarily due to the depreciation expense associated with acquired businesses.

Other Income and Expenses:

The following table displays the breakdown of our other income and expenses:

	Three months ended June 30, 2020	Three months ended June 30, 2019	Period-Over-Period Change $	Period-Over-Period Change %	Six months ended June 30, 2020	Six months ended June 30, 2019	Period-Over-Period Change $	Period-Over-Period Change %
	($ in millions, except percentages)				($ in millions, except percentages)			
Amortization of intangible assets	96	75	21	28%	190	151	40	26%
Foreign exchange (gain) loss	10	13	(4)	-27%	4	15	(11)	-75%
TSS membership liability revaluation charge	17	8	9	112%	35	18	17	96%
Finance and other expense (income)	(1)	(0)	(1)	196%	(2)	(3)	2	-49%
Bargain purchase gain	(0)	-	(0)	NM	(0)	(28)	28	-100%
Impairment of intangible and other non-financial assets	4	0	4	NM	8	0	8	NM
Finance costs	10	9	1	13%	22	18	4	19%
Income tax expense (recovery)	48	30	18	61%	80	58	22	39%
	183	135	48	36%	338	228	110	48%

NM - Not meaningful

Due to rounding, certain totals may not foot and certain percentages may not reconcile.

Amortization of intangible assets – Amortization of intangible assets increased 28% or $21 million for the quarter ended June 30, 2020 and 26% or $40 million for the six months ended June 30, 2020 over the same periods in 2019. The increase in amortization expense for the three and six months ended June 30, 2020 is primarily attributable to an increase in the carrying amount of our intangible asset balance over the twelve-month period ended June 30, 2020 as a result of acquisitions completed during this twelve-month period.

Foreign exchange – Most of our businesses are organized geographically so many of our expenses are incurred in the same currency as our revenues, which mitigates some of our exposure to currency fluctuations. For the three and six months ended June 30, 2020, we realized foreign exchange losses of $10 million and $4 million respectively compared to losses of $13 million and $15 million for the same periods in 2019. The following table provides a breakdown of these amounts.

	Three months ended June 30, 2020	Three months ended June 30, 2019	Period-Over-Period Change $	Period-Over-Period Change %	Six months ended June 30, 2020	Six months ended June 30, 2019	Period-Over-Period Change $	Period-Over-Period Change %
	($ in millions, except percentages)				($ in millions, except percentages)			
Unrealized foreign exchange (gain) loss related to:								
- revaluation of intercompany loans between entities with differing functional currencies [(1)]	(1)	3	(4)	NM	15	1	14	NM
- revaulation of the Company's unsecured subordinated floating rate debentures as a result of the appreciation (depreciation) of the Canadian dollar against the US dollar.	8	4	4	83%	(10)	9	(19)	NM
Remaining foreign exchange (gain) loss	3	6	(3)	-49%	(1)	5	(6)	NM
	10	13	(4)	-28%	4	15	(11)	-75%

NM - Not meaningful

Due to rounding, certain totals may not foot and certain percentages may not reconcile.

(1) Offsetting amounts recorded in other comprehensive income. Net impact to Total comprehensive income for each period is nil.

The remaining foreign exchange gains and losses per the table above are primarily related to the unrealized foreign exchange translation gains and losses of certain non-US dollar denominated working capital balances to US dollars as a result of the depreciation or appreciation of the US dollar.

TSS membership liability revaluation charge – The valuation of the TSS membership liability that was put in place in Q4 2014 increased by approximately 7% or $17 million from Q1 2020, and approximately 16% or $35 million from Q4 2019. The increases are primarily the result of the growth in TSS' reported trailing twelve month maintenance revenue (primarily due to acquisitions). Maintenance revenue and net tangible assets are the two main drivers in the calculation of the liability. The liability recorded on the balance sheet increased by 16% or $36 million over the six month period ended June 30, 2020 from $221 million to $257 million as a result of the revaluation charge of $36 million offset by a $0.3 million foreign exchange expense that was recorded through other comprehensive income. The TSS membership liability is denominated in Euros and the Euro appreciated versus the US dollar during the first six months of 2020.

Finance and other expense (income) – Finance and other income for the three and six months ended June 30, 2020 was $1 million and $2 million respectively, compared to $0.5 million and $3 million respectively for the same periods in 2019. Interest earned on cash balances for the three and six months ended June 30, 2020 was $0.2 million and $0.3 million respectively, compared to $0.2 million and $2.7 million respectively for the same periods in 2019.

Bargain purchase gain – A bargain purchase gain adjustment totalling $28 million was recorded in the six month period ended June 30, 2019 relating to two of the acquisitions made during 2018 and 2019. No similar gain was recognized for the same period in 2020. In Q4 2018 the Company acquired a business that was undergoing an extensive restructuring. The seller of that business capitalized the balance sheet on closing with cash in the amount of €47 million ($53 million) that was to be utilized to fund expected losses generated by the business, contributing to a bargain purchase gain of $63 million being recorded in Q4 2018. Revisions to the restructuring cost expectations resulted in a further bargain purchase gain of $4 million being recorded in Q1 2019. The business recorded an EBITA loss of $13 million in Q1 2019. There was no current income tax recovery recorded in Q1 2019 associated with these losses. The remaining $24 million bargain purchase gain related to an acquisition where the seller continues as a minority partner in the acquired business. The seller contributed $17 million into the partnership.

Impairment of intangible and other non-financial assets – Impairment expenses of $4 million and $8 million were recorded in the three and six month periods ended June 30, 2020 respectively, relating to nine businesses primarily acquired during 2018 and 2019. Primarily due to the near-term impact, as well as the yet uncertain but probable longer-term impact of the COVID-19 pandemic, the forecasted cash flows for these businesses have declined significantly from the forecasted cash flows at the time of acquisition. See "Risks and Uncertainties". There was no similar expense recorded for the same period in 2019.

Finance costs – Finance costs for the quarter ended June 30, 2020 increased $1 million to $10 million, compared to $9 million for the same period in 2019. During the six months ended June 30, 2020, finance costs increased $4 million to $22 million, from $18 million for the same period in 2019. The increases are primarily a result of an increase in the average debt outstanding in 2020 as compared to 2019.

Income taxes – We operate globally and we calculate our tax provision in each of the jurisdictions in which we conduct business. Our effective tax rate on a consolidated basis is, therefore, affected by the realization and anticipated relative profitability of our operations in those various jurisdictions, as well as different tax rates that apply and our ability to utilize tax losses and other credits. For the quarter ended June 30, 2020, income tax expense increased $18 million to $48 million compared to $30 million for the same period in 2019. During the six months ended June 30, 2020, income tax expense increased $22 million to $80 million compared to $58 million for the same period in 2019. Current tax expense has historically approximated our cash tax rate however the quarterly expense can sometimes fall outside of the annual range due to out of period adjustments. Current tax expense reflects gross taxes before the application of R&D tax credits which are classified as part of "other, net" expenses in the statement of income.

Constellation is subject to tax audits in the countries in which the Company carries on business globally. These tax audits could result in additional tax expense in future periods relating to historical filings. Reviews by tax authorities generally focus on, but are not limited to, the validity of the Company's inter-company transactions, including financing and transfer pricing policies which generally involve subjective areas of taxation and a significant degree of judgment. If any of these tax authorities are successful with their challenges, the Company's income tax expense may be adversely affected and Constellation could also be subject to interest and penalty charges.

Net Income and Earnings per Share:

Net income for the quarter ended June 30, 2020 was $83 million compared to net income of $73 million for the same period in 2019. On a per share basis, this translated into a net income per diluted share of $3.90 in the quarter ended June 30, 2020 compared to net income per diluted share of $3.45 for the same period in 2019. For the six months ended June 30, 2020, net income was $166 million or $7.81 per diluted share compared to $160 million or $7.54 per diluted share for the same period in 2019. There was no change in the number of shares outstanding.

Net cash flows from operating activities ("CFO"):

For the quarter ended June 30, 2020, CFO increased $186 million to $237 million compared to $50 million for the same period in 2019 representing an increase of 370%. For the six months ended June 30, 2020, CFO increased $263 million to $597 million compared to $334 million for the same period in 2019 representing an increase of 79%.

Free cash flow available to shareholders ("FCFA2S"):

For the quarter ended June 30, 2020, FCFA2S increased $178 million to $190 million compared to $12 million for the same period in 2019. For the six months ended June 30, 2020, FCFA2S increased $238 million to $501 million compared to $263 million for the same period in 2019 representing an increase of 91%.

CFO and FCFA2S for the three and six months ended June 30, 2020 were positively impacted by the deferral of approximately $29 million of tax instalment payments to the second half of 2020 in conjunction with certain government's COVID-19 relief programs. In addition, cash generated from working capital improvements was approximately $107 million more in the six months ended June 30, 2020 compared to the six months ended June 30, 2019. Material improvements in working capital were experienced in the Company's public transit vertical as well as the two companies associated with the bargain purchase gain described above.

The following table reconciles FCFA2S to net cash flows from operating activities:

	Three months ended June 30,		Six months ended June 30,	
	2020	2019	2020	2019
	($ in millions, except percentages)		($ in millions, except percentages)	
Net cash flows from operating activities	237	50	597	334
Adjusted for:				
Interest paid on lease obligations	(2)	(2)	(4)	(4)
Interest paid on other facilities	(5)	(7)	(14)	(15)
Credit facility transaction costs	(0)	-	(0)	-
Payments of lease obligations	(16)	(13)	(30)	(23)
TSS membership liability revaluation charge	(17)	(8)	(35)	(18)
Property and equipment purchased	(6)	(8)	(13)	(15)
Interest and dividends received	0	0	0	3
Free cash flow available to shareholders	190	12	501	263

Due to rounding, certain totals may not foot.

Quarterly Results

	Quarter Ended								
	Jun. 30 2018	Sep. 30 2018	Dec. 31 2018	Mar. 31 2019	Jun. 30 2019	Sep. 30 2019	Dec. 31 2019	Mar. 31 2020	Jun. 30 2020
Revenue	752	759	831	819	846	870	956	953	922
Net income	52	66	179	87	73	82	92	83	83
CFO	53	143	208	284	50	177	255	361	237
FCFA2S	27	112	178	250	12	134	193	311	190
Net income per share									
Basic & diluted	2.45	3.10	8.46	4.09	3.45	3.85	4.34	3.91	3.90
CFO per share									
Basic & diluted	2.50	6.75	9.84	13.40	2.36	8.37	12.02	17.01	11.17
FCFA2S per share									
Basic & diluted	1.27	5.29	8.39	11.81	0.58	6.35	9.12	14.66	8.99

We experience seasonality in our operating results in that CFO and FCFA2S in the first quarter of every year is typically the highest and CFO and FCFA2S in the second quarter of every year is the lowest. The key driver impacting this seasonality is the timing of annual maintenance contract renewals. Our quarterly results may also fluctuate as a result of the various acquisitions which may be completed by the Company in any given quarter. We may experience variations in our net income on a quarterly basis depending upon the timing of certain expenses or gains, which may include changes in provisions, acquired contract liabilities, foreign exchange gains and losses, bargain purchase gains, and gains or losses on the sale of financial and other assets.

Liquidity

Our net cash position (cash less bank indebtedness excluding capitalized transaction costs) increased by $283 million to $319 million in the six months ended June 30, 2020 resulting from cash flows from operations exceeding the net capital deployed on acquisitions plus dividends. Cash increased by $269 million to $585 million at June 30, 2020 compared to $316 million at December 31, 2019 and bank indebtedness decreased by $14 million to $266 million at June 30, 2020 compared to $280 million at December 31, 2019.

Total assets increased $279 million, from $3,488 million at December 31, 2019 to $3,767 million at June 30, 2020. The increase is primarily due to the $269 million increase in cash noted above. At June 30, 2020 five subsidiaries holding cash totalling $93 million maintained debt facilities, which facilities are without recourse to Constellation. As explained in the "Capital Resources and Commitments" section below, there are limitations on the ability of these subsidiaries to distribute funds to Constellation.

Current liabilities increased $147 million, from $1,732 million at December 31, 2019 to $1,879 million at June 30, 2020. The increase is primarily due to an increase in deferred revenue of $150 million mainly due to acquisitions made since December 31, 2019 and the timing of maintenance and other billings versus performance and delivery under those customer arrangements, and an increase in taxes payable of $60 million, offset by a decrease in bank indebtedness of $19 million and a decrease in accounts payable and accrued liabilities of $50 million.

Net Changes in Cash Flows
(in $M's)

	Six months ended June 30, 2020	Six months ended June 30, 2019
Net cash provided by operating activities	597	334
Net cash from (used in) financing activities	(100)	(560)
Cash used in the acquisition of businesses	(230)	(167)
Cash obtained with acquired businesses	24	35
Net cash from (used in) other investing activities	(14)	(18)
Net cash from (used in) investing activities	(220)	(149)
Effect of foreign currency	(9)	0
Net increase (decrease) in cash and cash equivalents	**269**	**(375)**

The net cash flows from operating activities were $597 million for the six months ended June 30, 2020. The $597 million provided by operating activities resulted from $166 million in net income plus $388 million of non-cash adjustments to net income and $100 million of cash from non-cash operating working capital, offset by $57 million in taxes paid.

The net cash flows used in financing activities for the six months ended June 30, 2020 were $100 million, which is mainly a result of dividends paid of $42 million, a net decrease in bank indebtedness of $9 million, lease obligation payments of $30 million, and interest paid on bank indebtedness and the Company's unsecured subordinated floating rate debentures in the period of $14 million.

The net cash flows used in investing activities in the six months ended June 30, 2020 were $220 million. The cash used in investing activities was primarily due to acquisitions for an aggregate of $230 million (including payments for holdbacks relating to prior acquisitions) offset by $24 million of acquired cash.

We believe we have sufficient cash and available credit capacity to continue to operate for the foreseeable future. Generally our VMS businesses operate with negative working capital as a result of the collection of maintenance payments and other revenues in advance of the performance of the related services. As such, management anticipates that it can continue to grow the business organically without any additional funding. If we continue to acquire VMS businesses we may need additional external funding depending upon the size and timing of the potential acquisitions.

Capital Resources and Commitments

CSI Facility

On December 13, 2019, Constellation completed an amendment and restatement of its revolving credit facility agreement (the "CSI Facility"), with a syndicate of Canadian chartered banks, U.S. banks, and a Japanese bank in the amount of $700 million, extending its maturity date to December 2024. The CSI Facility bears a variable interest rate with no fixed repayments required over the term to maturity. Interest rates are calculated at standard U.S. and Canadian reference rates plus interest rate spreads based on a leverage table. The CSI Facility is currently collateralized by the majority of the Company's assets including the assets of certain material subsidiaries. The CSI Facility contains standard events of default which if not remedied within a cure period would trigger the repayment of any outstanding balance. As at June 30, 2020, $100 million had been drawn from this credit facility, and letters of credit totaling $19 million were issued, which limits the borrowing capacity on a dollar-for-dollar basis.

Debt without recourse to CSI

Certain of CSI's subsidiaries have entered into term debt facilities and revolving credit facilities with various financial institutions. CSI does not guarantee the debt of its subsidiaries, nor are there any cross-guarantees between subsidiaries. The credit facilities are collateralized by substantially all of the assets of the borrowing entity and its subsidiaries. The credit facilities typically bear interest at a rate calculated using an interest rate index plus a margin. The financing arrangements for each subsidiary typically contain certain restrictive covenants, which may include limitations or prohibitions on additional indebtedness, payment of cash dividends, redemption of capital, capital spending, making of acquisitions and sales of assets. In addition, certain financial covenants must be met by those subsidiaries that have outstanding debt.

Debt without recourse to CSI comprises the following ($ in millions):

	Revolving Credit Facilities	**Term Debt Facilities**	**Total**
Principal outstanding at June 30, 2020 (and equal to fair value)	$ -	$ 166	$ 166
Deduct: Carrying value of transaction costs included in debt balance	-	(4)	(4)
Carrying value at June 30, 2020	-	162	162
Current portion	-	3	3
Non-current portion	-	159	159

Debentures

On October 1, 2014 and November 19, 2014, the Company issued unsecured subordinated debentures (the "Debentures") with a total principal value of C$96 million for total proceeds of C$91 million. The proceeds were used by the Company to pay down $81 million of outstanding bank indebtedness.

On September 30, 2015, the Company issued an additional tranche of Debentures with a total principal value of C$186 million for total proceeds of C$214 million. The proceeds were used by the Company to pay down $130 million of outstanding bank indebtedness. The September 30, 2015 issuance formed a single series with the outstanding C$96 million aggregate principal amount of Debentures, Series 1 of the Company. The Debentures have a maturity date of March 31, 2040.

TSS Membership Liability

On December 23, 2014, in accordance with the terms of the purchase and sale agreement for the TSS acquisition, and on the basis of the term sheets attached thereto, Constellation and the sellers of TSS along with members of TSS' executive management team (collectively, the "minority owners") entered into a Members Agreement pursuant to which the minority owners acquired 33.29% of the voting interests in Constellation Software Netherlands Holding Cooperatief U.A. ("CNH"), a subsidiary of Constellation and the indirect owner of 100% of TSS. Proceeds from this transaction in the amount of $49 million (€39 million) were utilized to repay, in part, outstanding bank indebtedness of Constellation. In accordance with IFRS, 100% of the financial results for TSS are included in the consolidated financial results of the Company.

Each of the minority owners may, at any time, exercise a put option to sell all or a portion of their interests in CNH back to Constellation for an amount calculated in accordance with a valuation methodology described within the Members Agreement. Accordingly, the Company classified the proceeds from the Members Agreement as a liability. The main valuation driver in such calculation is the maintenance and other recurring revenue of CNH. Upon the exercise of a put option, Constellation would be obligated to redeem up to 33.33% of the minority owners' interests put, no later than 30 business days from the date notice is received (classified as a current liability), and up to 33.33% on each of the first and second anniversary of the date the first redemption payment is made.

The seller of TSS also has an option available to it to sell approximately 68% of its interests in CNH, for an amount calculated in accordance with a valuation methodology described within the Members Agreement, in the event that Robin Van Poelje, TSS' CEO, is no longer employed by TSS. The approximately 32% remaining interest can be sold via the put option described above.

In the event of a change of control in Constellation, the minority owners would have the option to sell 100% of their interests in CNH for an amount calculated in accordance with a valuation methodology described within the Members Agreement. Constellation would be obligated to remit payment in respect thereof no later than 30 business days from the date notice is given by the minority owners.

Commencing at any time after December 31, 2023, Constellation may exercise a call option to purchase all of the minority owners' interests in CNH, for an amount calculated in accordance with a valuation methodology described within the Members Agreement. Upon exercise of the call option, the full purchase price will be paid within 30 business days of the notice date, following which the minority owners' membership in CNH will be terminated. There is a valuation premium if the call option is exercised versus the put option.

If any of TSS' executive management team that participate in the Members Agreement are terminated for urgent cause as defined in Section 7:678 of the Dutch Civil Code, Constellation shall have the right to purchase all of the interests beneficially owned by the terminated executive for an amount calculated in accordance with the valuation methodology described within the Members Agreement. The full purchase price will be paid within 30 business days from the date notice is given, following which the terminated executive's membership in CNH will be terminated. An option does exist for the terminated executive to elect to be paid in annual installments of 33.33%

of his interests in CNH over a 3 year period. The valuation of the interests being purchased will be calculated at each annual payment date.

Other commitments

Commitments include operating leases for office equipment and facilities, letters of credit and performance bonds issued on our behalf by financial institutions in connection with facility leases and contracts with public sector customers. Also, occasionally we structure some of our acquisitions with contingent consideration based on the future performance of the acquired business. The fair value of contingent consideration recorded in our statement of financial position was $53 million at June 30, 2020. Aside from the aforementioned, we do not have any other business arrangements, derivative financial instruments, or any equity interests in non-consolidated entities that would have a significant effect on our assets and liabilities as at June 30, 2020.

The TSS membership liability commitment assumes that the minority owners have exercised their put option to sell 100% of their interests back to Constellation. This option however has not been exercised as at August 6, 2020. See the "Critical Accounting Estimate" section of the Company's 2019 Annual Consolidated Financial Statements for a discussion on the valuation methodology utilized.

Foreign Currency Exposure

We operate internationally and have foreign currency risks related to our revenue, operating expenses, assets and liabilities denominated in currencies other than the U.S. dollar. Consequently, we believe movements in the foreign currencies in which we transact will impact future revenue and net income. The impact to organic revenue growth for both the three and six months ended June 30, 2020 was approximately negative 2%. We cannot predict the effect of foreign exchange gains or losses in the future; however, if significant foreign exchange losses are experienced, they could have a material adverse effect on our business, revenues, results of operations, and financial condition. The Company enters into forward foreign exchange contracts from time to time with the objective of mitigating volatility in profit or loss in respect of financial liabilities. In entering into these forward exchange contracts, the Company is exposed to the credit risk of the counterparties to such contracts and the possibility that the counterparties will default on their payment obligations under these contracts. However, given that the counterparties are Schedule 1 banks or affiliates thereof, the Company believes these risks are not material. During the six months ended June 30, 2020, the Company did not purchase any contracts of this nature.

The following table provides an approximate breakdown of our revenue and expenses by currency, expressed as a percentage of total revenue and expenses, as applicable, for the three and six months ended June 30, 2020:

	Three Months Ended June 30, 2020		Six Months Ended June 30, 2020	
Currencies	% of Revenue	% of Expenses	% of Revenue	% of Expenses
USD	52%	47%	52%	47%
CAD	7%	9%	7%	10%
GBP	7%	8%	8%	8%
EURO	21%	22%	21%	21%
CHF	1%	3%	1%	3%
Others	11%	11%	11%	11%
Total	100%	100%	100%	100%

Off-Balance Sheet Arrangements

As a general practice, we have not entered into off-balance sheet financing arrangements. Except for insignificant and short-term operating leases and letters of credit, all of our liabilities and commitments are reflected as part of our statement of financial position.

Proposed Transactions

We seek potential acquisition targets on an ongoing basis and may complete several acquisitions in any given fiscal year.

Share Capital

As at August 6, 2020, there were 21,191,530 common shares outstanding.

Risks and Uncertainties

The Company's business is subject to a number of risk factors which are described in our most recently filed AIF. Additional risks and uncertainties not presently known to us or that we currently consider immaterial also may impair our business and operations and cause the price of the common shares to decline. If any of the noted risks actually occur, our business may be harmed and the financial condition and results of operation may suffer significantly. In that event, the trading price of the common shares could decline, and shareholders may lose all or part of their investment.

The Company is closely monitoring the impact of COVID-19 on all aspects of its business. COVID-19 was declared a global pandemic by the World Health Organization on March 11, 2020. The COVID-19 pandemic has had disruptive effects in countries in which the Company operates and has adversely impacted many of its business units' operations to date, including through the cancellation by certain customers of their ongoing software maintenance contracts and the suspension or cancellation of new software purchases. The pandemic may also have an adverse impact on many of the Company's customers, including their ability to satisfy ongoing payment obligations to the Company, which could increase the Company's bad debt exposure. The future impacts of the pandemic and any resulting economic impact are largely unknown and rapidly evolving. It is possible that the COVID-19 pandemic, the measures taken by the governments of countries affected and the resulting economic impact may continue to adversely affect the Company's results of operations, cash flows and financial position as well as its customers in future periods, and this impact could be material.

Controls and Procedures

Evaluation of disclosure controls and procedures:

Management is responsible for establishing and maintaining disclosure controls and procedures as defined under National Instrument 52-109. At June 30, 2020, the President and Chief Financial Officer, based on the investigation and advice of those under their supervision, have concluded that the design and operation of these disclosure controls and procedures were effective and that material information relating to the Company, including its subsidiaries, was made known to them and was recorded, processed, summarized and reported within the time periods specified under applicable securities legislation.

Internal controls over financial reporting:

The President and Chief Financial Officer have designed or caused to be designed by those under their supervision, disclosure controls and procedures which provide reasonable assurance that material information regarding the Company is accumulated and communicated to the Company's management, including its President and Chief Financial Officer in a timely manner.

In addition, the President and Chief Financial Officer have designed or caused it to be designed by those under their supervision internal controls over financial reporting ("ICFR") to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements. The President and Chief Financial Officer have been advised that the control framework the President and the Chief Financial Officer used to design the Company's ICFR is recognized by the Committee of Sponsoring Organizations of the Treadway Commission.

The President and the Chief Financial Officer have evaluated, or caused to be evaluated by those under their supervision, whether or not there were changes to its ICFR during the period ended June 30, 2019 that have materially affected, or are reasonably likely to materially affect the Company's ICFR. No such changes were identified through their evaluation.

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. Accordingly, our disclosure controls and procedures and our internal controls over financial reporting are effective in providing reasonable, not absolute, assurance that the objectives of our control systems have been met.