Constellation Software Inc.
TO OUR SHAREHOLDERS

I used to write quarterly letters to shareholders. After a few, I switched to annual letters. There is an archive of them on our website. It contains most of what I can tell you about investing in Constellation. In the future I will only write to shareholders when I think I have something new and important to communicate. We will still provide you with the non-IFRS and IFRS tables that we produce on an annual basis, likely as part of our Q4 MD&A.

For competitive reasons we are limiting the information that we disclose about our acquisition activity. We believe that sharing our tactics and best practices with a host of Constellation emulators is not in our best interest. We have discussed the matter with many of the large Constellation shareholders, all of whom (despite grumbling) eventually agreed.

Since this is the last annual President's letter I thought I would include a grab bag of items that I think long-term shareholders should consider. Some of these opinions may be controversial, so let me stress that they are mine, and are not necessarily shared by others at Constellation.

One of the analysts who covers Constellation recently changed his perennial "sell" recommendation to a "buy". We lost one of our few critics. Analysts who worry about the quality of earnings and reversion to the mean and the impossibility of trees growing to the sky are valuable.

The reversion to the mean argument still has merit. You can see it at work in Constellation's 2017 results: Our Adjusted Net Income (“ANI”) increased only 17% last year (Table 1), far below our ten-year average ANI compound annual growth rate of 30%. Our Cash Flow from Operating Activities per share ("CFO/Share") increased only 8% (Table 2), versus our ten-year CFO/Share compound annual growth rate of 31%.

Table 1

	Adjusted Net Income (a)	Average Invested Capital	ROIC	Organic Net Revenue Growth (YoY)	ROIC + Organic Net Revenue Growth
2008	54	195	28%	5%	33%
2009	62	256	24%	-3%	21%
2010	84	325	26%	-2%	24%
2011	140	394	36%	7%	43%
2012	172	491	35%	2%	37%
2013	207	585	35%	4%	39%
2014	274	739	37%	3%	40%
2015	371	965	38%	-3%	35%
2016	395	1261	31%	1%	32%
2017	463	1622	29%	4%	33%

(a) Historical figures restated to comply with revised definition.

Our shareholders’ Average Invested Capital grew 29% in 2017, which was above its ten-year compound average growth rate, but a large amount of the retained capital was undeployed at year-end. We have ramped up our acquisition team, which may help with the capital deployment, but is also likely to put some pressure on our Free Cash Flow ("FCF") margin (i.e. FCF/Net Revenue).

The return on our shareholders' Average Invested Capital ("ROIC") dropped to 29% in 2017. The decrease was a function of a slew of new investments with lower ROIC's and of our increasing cash balance. I expect this metric to continue to drop.

Constellation's Organic Net Revenue growth has averaged only 2% during the last decade. This has been disappointing for me and the Operating Group managers. Some of our businesses serve shrinking verticals or those that are otherwise troubled, so we don't necessarily expect strong organic growth from them. We do expect each business unit ("BU") to provide constantly evolving software and systems that help their clients refine and strengthen their businesses, even in the face of industry headwinds. In 2017 our Organic Net Revenue growth was 4%.

ROIC + Organic Net Revenue growth ("ROIC+OGr") remained relatively flat at 33% in 2017. Over time, ROIC+OGr should move asymptotically towards our hurdle rate if we are deploying all of our FCF on acquisitions and are accurately forecasting the internal rates of return ("IRR's") on those acquisitions.

There has been some confusion regarding the ROIC+OGr metric. When we were investing more than our FCF and generating attractive returns, we were comfortable using the ROIC+OGr metric as the single best measure of Constellation's performance. Competition for acquisitions has increased, as has our FCF, so it is unlikely that we will be able to invest all of our FCF at attractive returns over the next decade. That got me thinking about a new "single best metric" for shareholders. I like incremental return on incremental invested capital (e.g. $((ANI_1-ANI_0)/(IC_1-IC_0))$), but it is very volatile, and share issuances or repurchases can throw it out of kilter. The increase in Net Maintenance Revenue per share is an interesting metric but is easily abused because it can't be derived from the audited financial statements. I'm now leaning towards the growth in FCF per share (e.g. $((FCF_1/\#Shares_1)/(FCF_0/\#Shares_0)-1))$). This metric takes into account share count, interest expense and capex, but doesn't include an adjustment for the increase in our minority interest liability. If the minority interest is growing at rates similar to FCF, then that's not a problem, but they may not always track together. The growth in FCF per share metric isn't very sensitive to debt and cash, but right now our net cash is not significant. Jamal's preferred measure of our progress is the growth in ANI per share. It is less volatile than FCF per share (because the variance in net working capital largely washes out over the long run), and it does adjust for the portion of ANI that should accrue to minority shareholders.

I gave the growth in FCF per share metric a trial run by looking at the last three years for ROIC+OGr (averaged 33%), our US$ market capitalisation (average increase of 28% per annum), our FCF per share (average increase of 16% per annum) and our ANI per share (average increase of 20% per annum). If I had to stake my reputation on one of those as the best proxy for the annual increase in intrinsic value, I would go with the increase in FCF per share. Jamal may yet argue me around to the growth in ANI per share. Keep in mind that you don't need to use any single metric to judge our performance. Enterprising long-term investors will look at many metrics.

In Table 2 we have presented a couple of IFRS-based metrics that we believe can be important in assessing our business. Total Revenue per Share increased 17% in 2017, in line with the increase in ANI per share. This strikes me as a fairly torrid pace. If we come close to achieving that level over the next five years, I will be pleased. The amount of capital being deployed by competitors in the vertical market software ("VMS") sector was recently reported to be at an all time high, and private equity firms who know the space have never had as much undeployed capital (Hampleton Partners, "Enterprise Software M&A Overview H1 2018").

Table 2

	Total Revenue per Share	YoY △	Cash Flow from Operating Activities per Share	YoY △
2008	15.60	36%	2.96	83%
2009	20.67	32%	3.85	30%
2010	29.92	45%	5.06	32%
2011	36.49	22%	6.49	28%
2012	42.05	15%	6.83	5%
2013	57.13	36%	10.40	52%
2014	78.77	38%	16.11	55%
2015	86.75	10%	18.68	16%
2016	100.28	16%	23.16	24%
2017	117.00	17%	24.90	8%
CAGR		26%		31%

It is important to keep an eye on debt when using CFO/Share because this metric does not take interest cost into account. Similarly, the metric isn't adjusted for capital expenditures (although they tend to be small for Constellation). My preference would be to use a FCF/share metric, which subtracts both interest and capital expenditures, but shareholders specifically asked for some IFRS defined metrics that weren't subject to management "adjustment".

In 2017, CFO/Share increased only 8% vs 2016. The primary reason was the payment of cash taxes in 2017 that were associated with earnings in 2016. If we make the cash tax timing adjustment to match cash taxes to ANI before tax, the growth in CFO/Share is similar in both 2016 and 2017. It is also in line with Net Revenue growth and ANI growth. On that basis, the top and bottom line growth are in sync, so neither economies of scale nor creeping overheads are evident.

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Our current policy is to invest all of our retained investor's capital (and then some) when we think we can achieve our targeted hurdle rates. When we can't find enough attractive investments, we plan to maintain our hurdle rates and build cash for as long as our shareholders and board will allow. We believe that long-term shareholders and boards should set those policies, which segues nicely into discussing shareholder democracy and the role of boards.

Almost half of our shares trade each year, which suggests that many of our shareholders are not long-term oriented. These traders are buying our shares because they hope they will be able to sell them at higher prices in three months or six months.

Another class of shareholders are indexers. They buy our stock because we are part of whatever index they are emulating. Their actions are formulaic. Despite the fact that they may be long-term holders, it is difficult to find someone to speak with at these indexing institutions and even if we do, they rarely know much about our company.

There is another class of long-term Constellation shareholders who invest time and effort to get to know our company and may even try to contribute to its growth and prosperity. We are fortunate to have a couple of dozen institutional investors, several hundred personal investors and several thousand employee shareholders who have taken this view. I'll refer to these as "enterprising investors" (perhaps stretching the original definition). They are the groups that we consult when we need advice and input from engaged shareholders.

One of the ways that our enterprising investors can contribute is by helping find and elect excellent Directors. Shortly after our IPO we started asking our major institutional shareholders to suggest people from their ranks for our board. A couple of enthusiastic investment managers tried to convince their organisations to take that step, but the institutional barriers to them being Directors are apparently insurmountable.

We have also asked our enterprising investors to suggest board candidates from outside of their ranks. This has not been very productive so far, probably because I didn't do a good job of explaining the characteristics of an ideal Director from our perspective. A couple of years ago we started creating a screen for Director searches - I've appended it to this letter so that our enterprising investors will have a better sense of who we are seeking. If you know anyone who would rank well vs the screen, and if you think they would be interested in being a Constellation Director, please let us know.

Qualified and competent Directors are very rare, and not surprisingly, the track record of most boards is awful. According to the 2017 Hendrik Bessembinder study of approximately 26,000 stocks in the CRSP database, only 4% of the stocks generated all of the stock market's return in excess of one-month T-Bills during the last 90 years. The other 96% of the stocks generated, in aggregate, the T-bill rate over that period. This means that 4% of boards oversaw all the long-term wealth creation by markets during that period. Even more disturbing, the boards for over 50% of public companies saw their businesses generate negative returns during their entire existence as public companies.

This governance problem is well understood, and the tools-du-jour for fixing boards are Director independence, diversity, and term limits. These tools are a great starting point when you are dealing with most public companies. However, when you are dealing with a high-performance company, I don't think governance should be the key role of the board. Governance is still necessary, but it is not sufficient. Helping extend the extraordinary track record of building intrinsic value should be the board's primary function. You are unlikely to achieve that by replacing their proven and obviously very rare Directors and Officers with new ones who are statistically unlikely to have ever experienced anything like consistent high performance.

Last year a proxy advisory firm, on behalf of the Fonds de solidarité FTQ ("FTQ"), a tiny Constellation shareholder, proposed that we change our proven Director and Officer recruiting methods to give preference to diverse candidates. During the ensuing year we have appointed a female Director and have undertaken to diligently include diverse candidates in any Director and Officer search processes.

The FTQ have a similar proposal on this year's ballot. We thought we had addressed their primary concerns prior to the motion being submitted, so we asked their proxy advisor to withdraw it. They have refused. Our formal response to the proposal appears in our proxy. Jamal and I are once again lobbying our institutional investors to vote against this proposal. We hope you'll vote against the FTQ's resolution and in accord with management's recommendation at the AGM again this year.

We recently received another challenge to our board practices. This time a significant shareholder (holding hundreds of thousands of Constellation's shares) expressed concern about extended board tenures and a preference for "board refreshment". They proposed that we consider limiting board tenure to 10 years. I appreciated them consulting with us directly, rather than just putting it on the ballot as a shareholder proposal. I thought I'd respond to them as part of this letter so that all shareholders can see how we think about Director selection and tenure.

We believe that when you limit a competent Director's term, you limit their opportunity to learn and hence to add value.

There was a 1994 peer-reviewed journal article about the role of deliberate practice in becoming an expert (Ericsson & Charness). The concept was popularised and extended by Malcolm Gladwell in his book "Outliers", as the 10,000 hour rule. I understand that you don't need 10,000 hours of deliberate practice to be able to fire a CEO who has his hand in the till or is abusing employees. I'll refer to this as the "governance" role of Directors. However, I also think there's something to be said for Directors intently studying an industry and a company over a period of many years to acquire relevant expertise so that they can contribute more than just governing. I'll refer to this as the "coaching" role of a Director.

In some instances, you are fortunate and can find Directors like Mark Miller and Jeff Bender who have 10,000 hours of relevant experience. They were master practitioners of the VMS craft long before they were appointed to the Constellation board. For most Directors, however, learning about VMS and Constellation's particular approach to VMS, is a long journey. A couple of the outside Directors remarked how humbling it was to have these insiders on our board, because Jeff and Mark had so much context, experience and nuance to bring to most board discussions.

Our outside Directors spend about 30 hours in board meetings each year, and let's assume preparation time doubles that. For an especially engaged Director, committees, special projects and extra-curricular Constellation-related activities might drive their time with us up to 200 hours per year. At 200 hours per year, and if you believe the 10,000 hour rule, then this especially engaged Director needs to put in 50 years on the job to offer deeply contextual expert level coaching.

Some prospective Directors don't have the appetite or incentive to invest 10,000 hours to make the transition from a monitoring/governing role to a coaching/nurturing role. Most prospective Directors are simply too old to make that journey. Unfortunately, that means that the default role for most Directors is as a governor not a mentor. Some investors find that acceptable. I'd argue that governing is table stakes. Coaching and talent nurturing are the places where Directors can make a significant contribution and help a company become part of Bessembinder's 4%.

Simple math suggests that if a Director is not from the industry or the company, then they have no hope of coaching and nurturing unless they start in the Director job when they are young. Ideally we'd like to get them in their 40's or 50's and keep them for 30 or 40 years or until their health deteriorates. We certainly don't want to kick them out after they've served for 10 years.

We've been searching for great Directors for years. We've gone on long campaigns to land individual candidates whom we admire. One observation from those frustrating pursuits is that a lot of high quality people don't want to be Directors. They may be intrigued by the company and the managers and the business philosophy. Despite that, the "policing" responsibility is an unpleasant one, and the prospect of investing a huge amount of time to learn the business and win management's trust and respect is daunting.

There are a number of reasons people serve on boards: the halo effect of being associated with a good company, compensation, curiosity, and a desire to give back. However, I can think of only two really compelling reasons why a high-quality candidate would want to serve on a board and commit hundreds of hours per year to the task: 1) it is a way to invest a significant portion of your net worth and be able to watch it closely, and 2) you can learn and apply those learnings to your own career and investments.

I have difficulty forecasting long-term growth in Constellation's intrinsic value per share that exceeds 12% per annum. For many Directors who are adept capital allocators, that is insufficient to justify investing a significant portion of their net worth. For them, the first compelling reason doesn't apply.

Only a tiny number of CEO's/Owners/Managers and some academics are going to want to study Constellation's decentralised multiple small business unit model for application in their own careers. That suggests the second compelling reason creates even fewer candidates.

The overlap in the Venn diagram between high quality Director candidates and those that have a compelling interest in serving as a Director is tiny. Making Director tenures shorter, or limiting candidates to a particular gender, race, or religion, just exacerbates this situation.

The current movement to limit Director tenure makes great sense if you think your investee company is poorly governed. However, if you think the governance is good, then limiting Director tenure hurts the company. It is analogous to firing a high-performance employee on their tenth anniversary.

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Constellation has some intelligent, curious and irreverent employees who regularly challenge management's fondly held assumptions and beliefs. We don't appreciate those employees enough. One of them posed the following questions to me:

- Why are we doing this? What is the greater vision/mission of Constellation?
- If you keep on buying and you don't sell, where does it end?

I am suspicious of "vision". Long-term studies suggest that the underlying predictions or assumptions for visions are nearly always impractically vague or outright wrong (see Tetlock's "Superforecasting"). I am not much happier with the term "mission". It feels too heavily freighted with overtones of hierarchy and unquestioning compliance. I prefer to talk about Constellation's objective. Our objective is to be a great perpetual owner of VMS businesses. We like VMS businesses because they are asset-light, have robust moats, and attract the sort of managers and employees with whom we enjoy working. Lots of investors seek businesses with those characteristics, but great owners are rare. Far too many owners mistake themselves for great operators. Others, particularly some of those who invest in public companies, abdicate their responsibilities as owners, preferring instead to be traders or passive indexers.

As perpetual owners, we care about the long-term health of our many small businesses. We try to provide an environment in which they can flourish. The primary way we can do that is by making sure that they have high-quality managers who are compensated according to rational long-term oriented incentive programs. We make sure that BU managers have access to capital when they have opportunities. We try to foster a collegial environment so that best practices are shared. Late last year, when we reviewed our BU demographics, we had 243 separately managed BU's, up from 193 the prior year. We currently see no fundamental limit to the number of BU's that we can manage, but we are very worried about limits to the number of good VMS businesses that we will be able to buy at reasonable prices.

To understand the "where does it end?" question, it is useful to look at a much older industry with some similarities to the VMS sector.

If Constellation had started in 1895 instead of 1995, we might have had the objective of being a great perpetual owner of daily newspapers. The newspaper industry underwent a long period of high growth which attracted many new entrants, followed by local consolidation, conglomeration, and eventual decline. I anticipate that the VMS industry will evolve similarly.

Many standalone newspaper businesses and newspaper conglomerates did well for extended periods, generating far above average ROE's. They had deep moats and attracted more than their fair share of intelligent, ethical, driven employees. Some of these businesses returned their FCF to stakeholders, and some deployed it to buy other newspapers. As their industry matured, a few of the newspaper conglomerates acquired somewhat related businesses (book publishing, magazine publishing, radio stations, TV stations, cable franchises, database vendors, etc.). Only a tiny minority of the newspaper conglomerates made the "diversification" transition successfully. A couple have done extraordinarily well. If you had bought shares of the Washington Post (now the Graham Holdings Company) four decades ago, you would have more than trebled the gains generated by the S&P500 over those forty years.

One day Constellation may find that VMS businesses are too expensive to rationally acquire. If that happens, I hope we'll have had the foresight and luck to find some other high ROE non-VMS businesses in which to invest at attractive prices. I am already casting about for such opportunities. If we don't find attractive sectors in which to invest, then we'll return our FCF to our investors. Even if re-investment opportunities become scarcer, Constellation doesn't end… it will continue to be a good (hopefully great) perpetual owner of its existing VMS portfolio, and will still deploy some capital opportunistically.

You may have noticed that I deferred the "why are we doing this?" question. The answer to that is personal to each of us who are involved in Constellation. My motivation is to help create a company where worthy people succeed. Whether they join us with an acquisition or are hired from the outside, I want to support and encourage employees who work hard, treat others well, continuously learn, and share best practices. I try to make sure that sycophants, spin-doctors, and mercenaries don't survive in Constellation's senior ranks. Harder, but not impossible, is helping identify and remove hidebound managers who rely upon habit and folklore to run their businesses rather than rational enquiry and experimentation. Constellation is as close to a meritocracy as I have experienced. I hope it will continue to provide an environment where entrepreneurs and corporate refugees can invest their lives and their capital and thrive.

A career path for an ambitious employee joining Constellation might be something like this: Immerse yourself in learning about the peculiarities of VMS economics. At some point, transition from analyst or knowledge worker into a leader of people. I find there is no magic to managing and leading. If you are smart, work harder than everyone else around you, treat people fairly, do not ask them to do anything you would not or have not done, share the credit, keep learning and keep teaching, then pretty soon you have followers. If you make sure that the team members are intelligent, energetic, and ethical people with whom you would want to work for the rest of your career, it won't be long until you are running one of our BU's. Whatever vertical you end up in, that specialisation, that focus, will require a multi-year effort to build a trusted network of employees, customers, other industry participants, and even competitors.

If I were advising my 35 or 40-year-old self on where to go from there, I would tell him to stay put. Work closely with the best customers in your vertical. Help provide them with the software and systems that they need to prosper. Do an occasional tuck-in acquisition to buy a product or customer base more cheaply than you could otherwise build it. Grow revenues per employee so that you can pay your team significantly more every year. Become a master Craftsman in the art of managing your VMS business. It is the most satisfying job in Constellation and will generate more than enough wealth for you to live very comfortably and provide for your family.

For those whose ambition exceeds their good sense, we have a role that we call a Player/Coach. A Player/Coach continues to run their BU, but ambition drives them to acquire a sizable business, usually in another geography or another vertical. We set up most of these acquisitions as stand-alone BU's because verticals differ, and it is difficult to create a high-performance team if they are geographically dispersed. The BU manager for the newly acquired business is nearly always from the acquisition itself, and hence has deep expertise in the vertical. Should the Player/Coach find a second or third stand-alone business to acquire, they eventually have to give up the day to day responsibilities for running their original BU and become a full-time Portfolio Manager ("PM"). If the PM is good at finding acquisitions, and helping them learn relevant best practices, and continues to deploy at least the FCF produced by their portfolio, then we refer to them as a Compounder.

The journey from Craftsman to Compounder can be very financially rewarding, but there are some significant sacrifices. At best, a PM is an advisor: they fly in (usually clocking hundreds of thousands of airmiles per annum), gather information, share ideas, provide referrals to others within Constellation who have dealt with similar issues, and then they move on to the next portfolio company. The excitement and satisfaction of doing and deciding has to be traded for the lukewarm cocoa of mentoring and coaching. Fortunately, the Compounders are regularly learning about new verticals, and acting as ambassadors to VMS entrepreneurs who might one day want to sell their businesses to Constellation. The multi-year relationships with VMS founders can be very rewarding.

The difference between a Craftsman and a Compounder is often one of personality. Successful Craftsmen can be autocratic or consultative, brilliant or average intelligence, introverted or extraverted, mercurial or imperturbable. Lots of different personalities and styles work.

Successful Compounders have no choice but to be (or become) more hands-off and trusting. They can be curious and driven, but they can't be directive. They can nurture, goad and suggest, but they can't order. No PM can personally know the customers, products, employees, and competitors sufficiently well across multiple BU's in different geographies and verticals, to make the critical decisions required at the BU level. In the infrequent instances where the manager of a BU isn't making the grade…if they are failing to build the team, extend their moat and generate an adequate return on their capital, then the PM needs to find a replacement for the BU manager.

There will be a couple of dozen PM's attending the AGM and participating in the break-out sessions. Please take the opportunity to ask them about the satisfactions and challenges of their jobs and the trade-offs that they have to make between capital deployment and portfolio nurturing.

Hopefully the analogy between the Compounder's job and that of Constellation's board is obvious.

Both have a governance role. In the rare instance where the manager who reports to them has to go, they need to pull the plug. If this governance role is consuming most of their time, it is a sad reflection on their competence.

Our expectation is that both the Compounder and the Constellation Board spend much of their time in coaching/nurturing roles, bringing along managers and their teams, and making sure that there is a strong bench of talent if they have to change a manager. As aspiring "great owners", our Operating Groups avoid imposing unqualified PM's on high performance BU managers. I'd hope Constellation's owners will show us the same courtesy and allow us to choose our Directors and Operating Group managers based on the criteria that we believe are important rather than on specific targets or quotas.

Lastly, both the Compounder and the Board should be worried about finding good places to deploy capital while maintaining investment discipline. It is one of our most significant challenges.

As you are aware, our AGM is to be held at a larger venue this year. Subsequent to the regular meeting and Q&A session, we have six break-out rooms where each of our Operating Group managers, accompanied by some of their PM's, will make a presentation followed by a Q&A session. If you haven't already signed up for one of the break-out sessions, please do so as soon as possible, as seating is limited.

For as long as I can recall, I've been using these letters to thank our employees on behalf of all shareholders for another wonderful year. This year is no different. See if you can find an employee at the AGM and thank them personally.

Mark Leonard
April 20, 2018

CSI Board Role Search Criteria

THE ROLE	
Thought Partner	Thought partner for senior leadership.
Long-term Orientation	Unfazed by short term pressure. Focused on CSI's long-term issues.
Timeframe	Able to serve on the board for 20+ years.
Investment in CSI	Willing to make a significant equity investment in CSI, above and beyond board comp.
THE CANDIDATE	
High Quality Business	Understands what constitutes a high quality business.
Autonomy	Appreciates the motivational power of autonomy, decentralisation.
Cultural Fit	Respects and gets along with the current senior CSI management as well as the board.
Ownership	Believes in the motivational power of equity ownership.
High Impact / Low Ego	Will intervene when necessary, contribute meaningfully, but not dominate discourse.
Out of Kitchen	Can resist the urge to get into the kitchen when there's a chef already in there.
EXPERIENCE	
Builder	Helped build or maintain (as a director, manager or major shareholder) a large organisation (>1000 employees) over an extended period, while providing a superior return to owners (ideally including employee owners).
Decentralized	Experience with a decentralised company (nice, not necessary).
Capital Allocation	Experience in a capital allocation role (nice, not necessary).
LIKELY BACKGROUND	
	Family owned business operator or director.
	CEO / #2 for exceptional business.
	Entrepreneur
SEARCH PATHS	
	Multi-generational family owned businesses with high ROIC within reach of our network and ideally local to CSI (increases involvement, eases reference checks, more likely to know CSI, decreases absenteeism).
	High quality businesses with strong shareholder alignment.
	Great capital allocators in the corporate world.
	CEOs with great shareholder letters and high quality businesses.

Glossary

For 2009 and prior periods, the financial information for Constellation was derived from the consolidated financial statements which were prepared in accordance with Canadian generally accepted accounting principles ("GAAP"). 2010 and subsequent year financial information for the Company was derived from the consolidated financial statements which were prepared in accordance with International Financial Reporting Standards ("IFRS"). Certain totals, subtotals and percentages may not reconcile due to rounding.

''Adjusted net income'' effective Q1 2008, means adjusting GAAP or IFRS net income for non-cash expenses (income) such as amortization of intangible assets, deferred income taxes, the TSS membership liability revaluation charge, and certain other expenses (income), and excludes the portion of the adjusted net income of Total Specific Solutions (TSS) B.V. ("TSS") attributable to the minority owners of TSS. Prior to Q1 2008, Adjusted net income was derived by adjusting GAAP net income for the non-cash amortization of intangibles and charges related to appreciation in common shares eligible for redemption. The calculation was changed to include future income taxes since the majority of future income taxes relate to the amortization of intangible assets, and thus are added back to more closely match the non-cash future tax recovery with the amortization of intangibles. All previously reported Adjusted net income figures have been restated in the table above to reflect the new calculation method. The Company believes that Adjusted net income is useful supplemental information as it provides an indication of the results generated by the Company's main business activities prior to taking into consideration amortization of intangible assets, deferred income taxes, the TSS membership liability revaluation charge, and certain other non-cash expenses (income) incurred or recognized by the Company from time to time, and adjusts for the portion of TSS' Adjusted net income not attributable to shareholders of Constellation.

"Average Invested Capital" represents the average equity capital of Constellation, and is based on the company's estimate of the amount of money that its common shareholders had invested in Constellation. Subsequent to that estimate, each period the company has kept a running tally, adding Adjusted net income, subtracting any dividends, adding any amounts related to share issuances and making some minor adjustments, including adjustments relating to our use of certain incentive programs and the amortization of impaired intangibles. The company believes that Average Invested Capital is a useful measure as it approximates the retained earnings of the company prior to taking into consideration amortization of intangible assets, deferred income taxes, and certain other non-cash expenses (income) incurred or recognized by the company from time to time.

"ROIC" means Return on Invested Capital and represents a ratio of Adjusted net income to Average Invested Capital. The Company believes this is a useful profitability measure as it excludes non-cash expenses (income) from both the numerator and denominator.

"Net Revenue". Net Revenue is gross revenue for GAAP or IFRS purposes less any third party and flow-through expenses. Constellation believes Net Revenue is a useful measure since it captures 100% of the license, Maintenance and services revenues associated with Constellation's own products, and only the margin on the lower value-added revenues such as commodity hardware or third-party software.

"Total Capital" is the sum of Net debt plus Invested Capital "Net Debt" is debt less cash.

"Maintenance 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.

"Free Cash Flow" in this letter, unlike under IFRS is cash flow from operating activities less interest paid and property and equipment purchased. I figure if you have to pay interest and buy new computers, the cash used for those purposes is no longer available, and shouldn't be included in FCF.

"EBITA" is earnings before interest, taxes and the amortisation of intangible assets.

"CRSP": Centre for Research in Security Prices, University of Chicago Booth School of Business.

Forward Looking Statements

Certain statements in this letter 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 letter. 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. Although the forward looking statements contained in this letter 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 letter 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-GAAP/IFRS Measures

Adjusted net income and Organic Net Revenue Growth and Free Cash Flow are not recognized measures under GAAP or IFRS and, accordingly, shareholders are cautioned that Adjusted net income and Organic Net Revenue Growth and Free Cash Flow should not be construed as alternatives to net income determined in accordance with GAAP or IFRS as an indicator of the financial performance of the Company or as a measure of the Company's liquidity and cash flows. The Company's method of calculating Adjusted net income, Organic Net Revenue Growth, and Free Cash Flow may differ from other issuers and, accordingly, may not be comparable to similar measures presented by other issuers. Please refer to Constellation's most recently filed Management's Discussion and Analysis for reconciliation, where applicable, between the IFRS, GAAP and non-GAAP/IFRS measures referred to above.

"We should no more trust executives who rely solely on experience than we should trust doctors who ignore clinical trials." Simon London, Financial Times, Jan. 2006.

"Science is organised scepticism." Robert K. Merton

"Too much of business is disorganised optimism." Poster in Constellation's board room.

"You can't be normal and expect abnormal results." Jeffrey Pfeffer