

*Informing the IASB Standard Setting Process
IAAER – KPMG Research Opportunities
Round 7*

Are Non-GAAP Measures Running Amok?

**Evidence on the Proliferation of Non-GAAP Adjustments and the
Transparency of the Related Disclosures**

Grant Report #1

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by

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EXECUTIVE SUMMARY:

Research Questions:

The purpose of this study is to investigate the following four research questions:

- (1) Has the distribution of types of non-GAAP adjustments changed after the Securities and Exchange Commission (SEC) issued an updated Compliance and Disclosure Interpretation (C&DI) about non-GAAP measures in May 2016?
- (2) Do the non-GAAP adjustment amounts typically tie to audited amounts in the financial statements or notes?
- (3) Are the disclosures about the more complex non-GAAP adjustments adequately transparent?
- (4) Does the transparency of disclosures differ by country, industry, size, profitability, analyst following, and other disclosure-related explanatory variables?

Progress to Date:

- Considered comments on *General Presentation and Disclosures* Exposure Draft.
- Collected filings, earnings reports, and investor presentations for 121 companies filing 20-Fs (2015-2019). Completed non-GAAP data collection for 27 useable companies.
- Created matched sample for US companies filing 10-Ks. Completed non-GAAP data collection for 11 companies.
- Created matched sample for international companies filing neither 20-Fs nor 10-Ks. Completed non-GAAP data collection for 1 company.
- Identified factors indicative of transparent disclosures about non-GAAP measures.
- Presented data for 27 companies on:
 - Types of non-GAAP adjustments
 - Location of the adjustments
 - Numerical difference between GAAP and non-GAAP measures
 - Traceability of non-GAAP adjustments to the audited financial statements and footnotes
 - Disclosure of non-GAAP reconciliations in company footnotes
 - Adjustments that appear to be reversing new accounting standards

Feedback Requested:

We particularly welcome feedback on the data collection process, the sample matching process, and how we propose to measure disclosure transparency.

Introduction

A number of academic studies have documented the market relevance of non-GAAP earnings measures compared to GAAP or other income measures (e.g. Bradshaw and Sloan 2002; Bhattacharya et al. 2003; Brown and Sivakumar 2004; Entwistle, 2010; Clinch et al. 2017). However, other studies have provided evidence that Non-GAAP measures can also be misleading and researchers have shown that companies sometimes use non-GAAP earnings to exceed benchmarks (Black and Christensen, 2009; Doyle et al. 2013; Black et al. 2017).

After the SEC warned against misleading non-GAAP reporting (2002) and adopted Regulation G (2003), researchers observed short-term decreases in the frequency of non-GAAP reporting (Marques 2006) and an improvement in the quality of non-GAAP earnings (Heflin and Hsu 2008). Then in 2016, the SEC issued a Compliance and Disclosure Interpretation (C&DI) update that provided additional explicit guidance about the use of non-GAAP measures. Interestingly, the C&DI was viewed by some as notable because it did not *discourage* the use of these alternative performance measures. In fact, some anecdotal evidence suggests that non-GAAP adjustments have further proliferated.

It is yet to be seen whether the IASB's 2019 Exposure Draft (ED), *General Presentation and Disclosures*, will be viewed as signaling more restrictions on or greater acceptance of "management performance measures" (MPMs). In one important section of the ED, the Board proposes to require companies to provide an explanation of "how the management performance measure is calculated" (par. 106(a)(i)). More specifically, companies will "explain the specific principles, bases, conventions, rules, and practices it applies" (par. B84). It is this aspect of the ED that is the focus of this research study.

Historically, many non-GAAP adjustments were simple add-backs of expenses (e.g., adding back an impairment loss). For these types of non-GAAP adjustments, the ED's proposed requirement seems reasonably straightforward. If the adjustments were amounts calculated on a GAAP basis, the measurement basis would be generally understood. In addition, one could reasonably expect to find these amounts disclosed in the audited financial statements or notes. Thus, information presented about the adjustment could be quite transparent.

However, discussion at our last grant meeting in October 2019 suggested that more complex non-GAAP adjustments (e.g., adjusting for use of a fair value basis other than that used in the financial statements) may be becoming more frequent. In addition, certain companies appear

to be making adjustments that effectively “un-do” recent accounting standards such as IFRS 9 (Financial Instruments), IFRS 15 (Revenue from Contracts with Customers), and IFRS 16 (Leases). For these more complex non-GAAP adjustments, significant challenges may exist in producing transparent disclosures about how the adjustments (and thus the MPM) are calculated. Thus, more guidance may be required to help companies achieve the Board’s goals for MPM presentation.

The purpose of this study is to investigate the following related research questions on the proliferation and transparency of non-GAAP measures:

- (1) Has the distribution of types of non-GAAP adjustments changed after the Securities and Exchange Commission (SEC) issued an updated Compliance and Disclosure Interpretation (C&DI) about non-GAAP measures in May 2016?
- (2) Do the non-GAAP adjustment amounts typically tie to audited amounts in the financial statements or notes?
- (3) Are the disclosures about the more complex non-GAAP adjustments adequately transparent?
- (4) Does the transparency of disclosures differ by country, industry, size, profitability, analyst following, and other disclosure-related explanatory variables?

In the remainder of this first grant report, we discuss the sample we will use to investigate these research questions, followed by the process we will use to collect the data. We next discuss factors indicative of transparent disclosures about non-GAAP measures. Finally, we describe preliminary data gathered from 27 companies with the required information available.

Samples

Our sample will include 121 IFRS companies that file a 20-F. These companies are a good starting point because they are generally larger international companies filing under IFRS, but are also likely to have been influenced by the SEC’s issuance of the C&DIs in 2016. After collecting data for these companies, we will then collect data for two matched samples: a sample of US companies filing 10-Ks, and a sample of IFRS companies that are not cross-listed in the US. Appendix A presents a list of the 121 20-F companies, along with tentative matches in the other two categories. The matched companies were selected by hand, searching within each company’s

4-digit SIC code for companies that were close on both total assets and total sales. We are investigating alternative matching processes.

Data Collection

We will examine each company's non-GAAP measures presented in 2015 (the baseline year) through 2020. For each company year, we will gather information about the adjustments these companies use to calculate their non-GAAP earnings (see example data collection in Table 1). We will begin the data collection in the management commentary, and will identify the type and amount of each adjustment. We will then document whether the data was disclosed in the press release and/or investor presentation. We will next document whether the adjustment type and adjustment amount can be tied to the audited financial statements and/or notes. We will also gather more detailed data about adjustments that involve measurement changes, particularly those related to revenue recognition, leases, and financial instruments. Finally, we will create a disclosure quality score for each company's non-GAAP disclosures and investigate the determinants of high quality non-GAAP disclosures.

In Table 1, we present a compact form of our data collection instrument for three companies: one 20-F company, one 10-K company, and one international company that files neither a 20-F nor a 10-K. The data collection instrument captures data for 2015 – 2019, and allows you to see the types and amounts of non-GAAP measures, how the non-GAAP measures and adjustments changed over time, where these amounts were reported, whether they can be traced to the audited financial statements and notes.

What Does It Mean to be Transparent?

Non-GAAP measures are often criticized for being misleading. For example, a company could “cherry pick” a number in order to meet an earnings benchmark. However, a counterargument made by management is that a non-GAAP measure or specific adjustment is made to make the financial statements more useful; e.g., to remove one-time items or items that do not reflect the economic performance of the business. This is hard to refute because ostensibly management understands their company better than outsiders. Although it is difficult to evaluate managers' arguments about whether non-GAAP measures reflect the way a company is managed, it is more straight-forward to assess whether the non-GAAP measures are transparent to financial

statement users. If the non-GAAP measure is truly a better measure of performance, then managers' have incentives to make this information clear and understandable in the annual report and other regulatory filings. Below are the factors that we believe indicate transparent disclosures about non-GAAP measures (↑ denotes increased transparency and ↓ denotes decreased transparency):

- Consistency over time for both 1) non-GAAP measures used (e.g., disclosing adjusted EBITDA one year and adjusted earnings the following year), and 2) titles of the non-GAAP adjustments (e.g., adjusting for 'reorganization expenses' one year and 'reorganization expenses associated with cost control measures' the next year). ↑
- Similar adjustments made to different non-GAAP measures disclosed by the same company in the same year (e.g., adding back a goodwill impairment to both adjusted EBITDA and adjusted earnings). ↑
- Adding a new adjustment for a recurring item (e.g., adding back amortization expense when it has never been added back before). If the item is recurring then it likely existed previously and raises the question of why it was not adjusted for previously. ↓
- Comparability of adjustments made by companies in the same industry. ↑
- Presence of a reconciliation in management commentary, investor presentations, and earnings releases. ↑
- Identical titles, descriptions, and adjustments in management commentary, investor presentations, and earnings releases. ↑
- Traceability of non-GAAP measure and specific adjustments to the audited financial statements and/or notes. ↑
- Presence of a reconciliation in audited footnotes. ↑
- Use of a non-GAAP adjustment to undo accounting related to how something is measured under GAAP (e.g., an adjustment that alters how revenue is recognized versus a simple add-back of a one-time item). ↓

Preliminary Data

The results of this study will inform the Board and the Staff about the types of MPM adjustments companies are using, as well as the transparency of the disclosures related to these adjustments. This evidence will support the Board's continued work related to the *General Presentation and Disclosure* ED. In addition, the study will indirectly inform the post-implementation reviews of IFRS 9 (Financial Instruments), IFRS 15 (Revenue from Contracts with Customers), and IFRS 16 (Leases) by providing information about whether and how companies are adjusting for these new standards in calculating their non-GAAP measures.

This section discusses the preliminary data gathered from 27 companies with the required information available. Table 2 provides the types of adjustments and shows how many companies make each adjustment type (denoted by a '1'). For example, only one company (FCAU) made a non-GAAP adjustment related to capital expenditures (CAP), and only one company (BTI) made a non-GAAP adjustment related to investments (INV).

Table 3 provides information on: 1) the location of the non-GAAP disclosure (management commentary, investor presentations, and/or earnings releases); 2) how many different non-GAAP measures each company disclosed (e.g., BTI disclosed 10 different non-GAAP measures, BTI1 to BTI10); 3) how many adjustments were made in calculating each non-GAAP measure for each disclosure location and each year (e.g., BTI made 2 to 8 adjustments depending on the non-GAAP measure and year); and 4) whether there were more non-GAAP measures and/or adjustments in later years.

Table 4 reports the difference between GAAP and non-GAAP measures calculated as the non-GAAP measure less the GAAP measure. A positive number for the profitability related measures indicates that the non-GAAP adjustments made profitability look better. For this subset of the sample, there are more positive numbers than negative.

Finally, Table 5 reports on our ability to trace the non-GAAP measures and/or adjustments to the audited financial statements and footnotes. Each cell in the table contains the number of adjustments. For example in the first row you can see that ACST1 disclosed a non-IFRS operating loss in 2019 that it arrived at by making 4 adjustments. We were able to trace 3 of those adjustments to the primary financial statements and 4 to the footnotes.

Table 1: Example of Data Collection for One Matched Set of Companies

Panel A: 10-K Company

Clearwater Paper Corporation	2015								2016								2017								2018								2019												
	Type	Adjustment Amount (M)	Management Commentary Earnings Release			Investor Presentation			Primary Financial Statements			Notes to Financial Statements			Type	Adjustment Amount (M)	Management Commentary Earnings Release			Investor Presentation			Primary Financial Statements			Notes to Financial Statements			Type	Adjustment Amount (M)	Management Commentary Earnings Release			Investor Presentation			Primary Financial Statements			Notes to Financial Statements					
Net earnings (loss)		55.983	R	R	R	Y	T	Y	T		49.554	R	R	R	Y	T	Y	T		97.34	R	R	R	Y	T	Y	T		(143.77)	R	R	R	Y	T	Y	T		(5.600)	R	R	R	Y	T	Y	T
Interest expense, net	INT	31.182	R	R	R	Y	T	Y	T	INT	30.651	R	R	R					INT	31.37	R	R	R	Y	T	Y	T	INT	30.62	R	R	R	Y	T	Y	T	INT	44.900	R	R	R	Y	T	Y	T
Income tax provision (benefit)	TAX	36.505	R	R	R	Y	T	Y	T	TAX	31.112	R	R	R	Y	T	Y	T	TAX	(56.39)	R	R	R	Y	T	Y	T	TAX	10.31	R	R	R	Y	T	Y	T	TAX	(2.300)	R	R	R	Y	T	Y	T
Depreciation and amortization expense	DEP	84.732	R	R	R	Y	T	Y	T	DEP	91.090	R	R	R	Y	T	Y	T	DEP	104.99	R	R	R	Y	T	Y	T	DEP	101.95	R	R	R	Y	T	Y	T	DEP	115.600	R	R	R	Y	T	Y	T
EBITDA		208.402	R	R	R						202.407	R	R	R						177.32	R	R	R						(0.89)	R	R	R													
Directors' equity-based compensation (benefit) expense	STK	(4.073)	R	R	R			Y	P	STK	4.779	R	R	R			Y	T	STK	(2.83)	R	R	R					STK	(2.34)	R	R	R													
Goodwill impairment																													IMP	195.08	R	R	R	Y	T	Y	T								
Gain on divested assets, net																											DSP	(23.95)	R	R	R	Y	T	Y	T										
Consumer products reorganization related expenses																											RST	1.05	R	R	R														
Manchester Industries acquisition related expenses										ACQ	2.665	R	R	R					ACQ	0.22	R	R	R																						
Costs associated with Neenah paper machines shutdown										PPE	1.049	R	R	R																															
Costs associated with Oklahoma City facility closure										DSP	0.318	R	R	R					DSP	11.06	R	R	R																						
Reorganization expenses associated with SG&A cost control measures																		RST	2.26	R	R	R					RST	6.94	R	R	R														
Costs associated with Long Island facility closure	DSP	2.463	R	R	R					DSP	1.891	R	R	R		Y	T		DSP	1.44	R	R	R		Y	P																			
Write-off of assets as a result of Warehouse Automation project																		DEP	41.00	R	R	R																							
Pension Settlement Expense										PEN	3.482	R	R	R		Y	T																												
Non-operating pension and other postretirement benefit costs																																				PEN	5.700	R	R	R	Y	T	Y	T	
Legal Expenses and settlement costs	LGL	1.972	R	R	R																																								
Costs associated with labor agreement	OTH	1.730	R	R	R																																								
Reorganization related expenses	RST	1.470	R	R	R																																								
Loss (gain) associated with optimization and sale of the specialty mills	DSP	(1.267)	R		R	Y	T	Y	T	DSP	(1.755)	R	R	R	Y	T	Y	T																											
Debt retirement costs																																				DBT	2.700	R	R	R	Y	T	Y	T	
Other operating charges, net																											OTH	0.84	R	R	R					OTH	6.300	R	R	R	Y	T	Y	T	
Adjusted EBITDA		210.697	R	R	R						214.836	R	R	R						189.51	R	R	R						176.73	R	R	R						167.300	R	R	R				

R = reconciliation can be found in management commentary, earnings release, and/or investor presentation.

Y = yes, an adjustment can be found in management commentary, earnings release, and/or investor presentation, but not in a reconciliation.

Y = yes, the adjustment can be traced to the primary financial statements/notes.

T = the total amount of the adjustment can be found in the primary financial statements/notes.

P = partial amounts of the adjustment can be found in the primary financial statements/notes.

U = unclear where adjustment amount came from.

Table 1: Example of Data Collection for One Matched Set of Companies

Panel B: 20-F Company

INTERTAPE POLYMER GROUP INC	2015										2016										2017										2018										2019										
	Type	Adjustment Amount (M)	Management Commentary Earnings Release Investor Presentation				Primary Financial Statements		Notes to Financial Statements		Type	Adjustment Amount (M)	Management Commentary Earnings Release Investor Presentation				Primary Financial Statements		Notes to Financial Statements		Type	Adjustment Amount (M)	Management Commentary Earnings Release Investor Presentation				Primary Financial Statements		Notes to Financial Statements		Type	Adjustment Amount (M)	Management Commentary Earnings Release Investor Presentation				Primary Financial Statements		Notes to Financial Statements												
Net earnings		56.7	R	R	Y	Y					51.1	R	R	Y							64.0	R	R		Y					46.6		R						41.2	R	R		Y									
Interest and other finance costs	FIN	3.2	R	R		Y	T	Y	T		INT	5.0	R	R		Y					INT	3.8	R	R		Y	T				INT	20.9	R	R		Y	T	Y	T			INT	35.0	R	R		Y	T	Y	T	
Income tax expense (benefit)	TAX	11.0	R	R		Y	T	Y	T		TAX	19.6	R	R		Y		Y			TAX	13.0	R	R	Y	Y	T	Y	T		TAX	9.8	R	R		Y	T	Y	T			TAX	16.3	R	R		Y	T	Y	T	
Depreciation and amortization	DEP	30.9	R	R		Y	T	Y	T		DEP	31.0	R	R		Y		Y	U		DEP	36.1	R	R		Y		Y	Y	T	DEP	44.8	R	R		Y	T	Y	T			DEP	61.4	R	R		Y	T	Y	T	
EBITDA		101.7	R	R							106.7	R	R								117.0	R	R								122.2	R	R								154.0	R	R								
Manufacturing facility closures, restructuring and other related charges	RST	3.7	R	R		Y	T	Y	T		RST	2.4	R	R		Y	T	Y	T		RST	1.4	R	R		Y	T	Y	T		RST	7.1	R	R		Y	T	Y	T			RST	5.1	R	R		Y	T	Y	T	
M&A Costs															Y						ACQ	7.5	R	R							ACQ	9.5	R	R								ACQ	11.2	R	R	Y					
Stock-based compensation expense	STK	3.2	R	R		Y		Y			STK	8.2	R	R		Y		Y	T		STK	3.3	R	R		Y	T	Y	T		STK	1.9	R	R		Y	T	Y	T			STK	0.5	R	R		Y	T	Y	T	
(Reversal of impairment) impairment of long-lived assets and other assets	IMP	(5.8)	R	R			Y	P			IMP	0.2	R	R			Y	U			IMP	0.2	R	R		Y	T	Y	T		IMP	0.1	R	R			Y	U				IMP	0.9	R	R			Y	U		
(Gain) loss on disposals of property, plant and equipment	DSP	(0.8)	R	R			Y	T			DSP	0.1	R	R			Y	T			DSP	0.3	R	R				Y	T		DSP	0.2	R	R			Y	T				DSP	0.6	R	R			Y	U		
Other item: Provision related to the resolution of a contingent liability	OTH	-	R	R																																															
Other item: Litigation Settlement											LGL	1.9	R	R	Y		Y	T			LGL	-	R	R							LGL	-																			
Other item: Brantford Pension Charge	OTH	-	R	R							OTH	-																																							
Adjusted EBITDA		102.0	R	R	Y						119.5	R	R	Y								129.6	R	R	Y							140.9	R	R	Y							172.2	R	R	Y						

R = reconciliation can be found in management commentary, earnings release, and/or investor presentation.

Y = yes, an adjustment can be found in management commentary, earnings release, and/or investor presentation, but not in a reconciliation.

Y = yes, the adjustment can be traced to the primary financial statements/notes.

T = the total amount of the adjustment can be found in the primary financial statements/notes.

P = partial amounts of the adjustment can be found in the primary financial statements/notes.

U = unclear where adjustment amount came from.

Table 1: Example of Data Collection for One Matched Set of Companies

Panel C: Other International Company

Bong AB	2015					2016					2017					2018					2019							
	Type	Adjustment Amount (M)	Management Commentary Earnings Release Investor Presentation	Primary Financial Statements	Notes to Financial Statements	Type	Adjustment Amount (M)	Management Commentary Earnings Release Investor Presentation	Primary Financial Statements	Notes to Financial Statements	Type	Adjustment Amount (M)	Management Commentary Earnings Release Investor Presentation	Primary Financial Statements	Notes to Financial Statements	Type	Adjustment Amount (M)	Management Commentary Earnings Release Investor Presentation	Primary Financial Statements	Notes to Financial Statements								
EBITDA							61.0	Y	R			91.0		R			71.0	Y	R									
Non-recurring items - Restructuring cost	RST	(18.0)	Y	Y	R						RST	(5.0)	Y	Y	R	Y	U	(1.0)		R	Y	U						
Adjusted EBITDA							79.0		Y	R		96.0		R			72.0		R									
EBIT							9.0	Y	Y	R	Y	45.0	Y	Y	R	Y	T	(52.0)	Y	Y	R							
Non-recurring items, financial net	FIN	430.0	Y		R						FIN	-			R	Y	T	(11.0)	Y	Y	R							
Non-recurring items, impairment goodwill											IMP	(76.0)	Y	Y	R			(76.0)	Y	Y	R							
Adjusted EBIT												25.0		R				25.0		R								
EBT							393.0	Y		R		1.0		R			(108.0)	Y		R								
Profit/Net result																												
Financial charges	FIN	39.5																			(24.0)	Y	Y	R	Y	T		
Tax	TAX	13.9																				39.5		R		Y	U	
Depreciations	DEP	88.8																				13.9		R	Y	T	Y	T
Restructuring cost	RST	7.4																				88.8		R	Y	T	Y	T
Transaction cost	OTH	2.3																				7.4		R			Y	U
Gains/losses outside ordinary business																						2.3		R				
Minority result	OTH	0.4																										
Aquired/divested companies																						0.4		R	Y	T		
IFRS 16, lease payments	LES	(59.0)																				(59.0)		R			Y	T
Adjusted EBITDA																						69.5		R				

R = reconciliation can be found in management commentary, earnings release, and/or investor presentation.

Y = yes, an adjustment can be found in management commentary, earnings release, and/or investor presentation, but not in a reconciliation.

Y = yes, the adjustment can be traced to the primary financial statements/notes.

T = the total amount of the adjustment can be found in the primary financial statements/notes.

P = partial amounts of the adjustment can be found in the primary financial statements/notes.

U = unclear where adjustment amount came from.

Table 2: Types of Adjustments

TIC	RST	STK	IMP	DSP	OTH	TAX	FIN	DEP	PPE	CSH	DBT	SPI	LES	INT	REV	ACQ	AMT	PEN	DIV	LGL	CAP	INV	EXP	COV
ACST		1			1	1	1	1												1				
BTI	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				1	1		1		
BUD					1	1	1	1				1												
CAAP						1	1	1				1			1								1	
CGG		1		1	1	1	1	1		1	1								1					
CLS		1	1			1	1	1	1		1		1	1										
CXRXF		1	1		1	1		1			1			1		1	1			1				
DEO				1	1											1								
EROS	1	1	1		1	1	1	1	1								1							
EURN						1	1	1																
EXFO	1	1			1	1		1						1		1	1							
FCAU	1		1	1	1	1	1			1	1	1								1	1			
GOOS	1	1			1	1	1	1			1			1			1							1
IHG		1		1	1	1	1	1	1	1	1		1	1	1	1								
ITPOF	1	1	1	1	1	1	1	1	1					1		1				1				
NOK	1		1		1											1	1	1						
PSO	1					1									1	1	1	1						
PUK	1		1	1	1	1		1																
TEAM		1			1	1			1				1				1							
TRIB							1							1										
UN			1	1	1	1	1		1	1	1			1	1	1								

ACQ=Acquisitions; AMT=Amortizations; CAP =Capital Expenditures; COV=Covid; CSH=Cash; DBT=Debt; DEP=Depreciation; DIV=Dividends; DSP=Disposals; EXP=Expenses; FIN=Finance; IMP=Impairment; INT=Interest; INV=Investments; LES=Leases (includes IFRS 16);LGL=Legal; PEN=Pensions; PPE=PP&E; REV=Revenue Recognition; RST=Restructuring; SPI=Special Items; STK=Stock compensation; TAX=Tax; OTH=Other.

. Table 3: Location of Adjustments

		2015				2016				2017				2018				2019			
TIC NUM	Type of Reconciliation	# Adjustments	In Mgt Comm	In Earn Report	In Invest Pres	# Adjustments	In Mgt Comm	In Earn Report	In Invest Pres	# Adjustments	In Mgt Comm	In Earn Report	In Invest Pres	# Adjustments	In Mgt Comm	In Earn Report	In Invest Pres	# Adjustments	In Mgt Comm	In Earn Report	In Invest Pres
ACST1	Earn - Non-IFRS operating loss	4	4			5	5			5	5	1		4	4			4	4	1	
BTI1	NI - Adjusted revenue									2	2	2	1	2	2	2		2	2	2	
BTI2	NI - Adj profit from ops, inclusive of dividends from associates and JVs									8	8	6		8	8	6		7	7	7	
BTI3	NI - Adjusted profit from operations									3	3	3	1	3	3	3		3	3	3	
BTI4	NI - Adj profit before tax, excluding associates and JVs									5	5	4	1	2	2	2		2	2	2	
BTI5	NI - Adjusted taxation									8	8	8	3	8	8	8		7	7	7	
BTI6	Cash - Adj cash generated from ops													5	5	5		5	5	5	
BTI7	Cash - Free Cash Flow													5	5	5		4	4	4	
BTI8	Debt - Closing net Debt									4	4	4		5	5	5		5	5	5	
BTI9	Debt - Adjusted Net Debt													5	5	5		5	5	5	
BTI10	Earn - Adjusted EBITDA																	2	2	2	
BUD1	Earn - EBITDA, as defined	5	5		5	6	6		6	6	6		6	5	5	1	5	6	6		6

		2015				2016				2017				2018				2019			
TIC NUM	Type of Reconciliation	# Adjustments	In Mgt Comm	In Earn Report	In Invest Pres	# Adjustments	In Mgt Comm	In Earn Report	In Invest Pres	# Adjustments	In Mgt Comm	In Earn Report	In Invest Pres	# Adjustments	In Mgt Comm	In Earn Report	In Invest Pres	# Adjustments	In Mgt Comm	In Earn Report	In Invest Pres
CAAP1	Earn - Adjusted EBITDA									5	5	5	4	8	8	8	7	8	8	8	
CGG1	Debt - Net financial debt	4	4	4		4	4	4		4	4	4									
CGG2	Earn - EBITDAS	13	13	13																	
CGG3	Earn - EBITDAS					8	8	8	1	8	8	8	1								
CLS1	NI - Non-IFRS adjusted gross profit	1	1		1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1
CLS2	NI - Non-IFRS adjusted SG&A	1	1		1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1
CLS3	Earn - Non-IFRS op earnings (adjEBIAT)	4	4		4	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4
CLS4	Earn - Non-IFRS adjusted net earnings	9	9		9	8	8	8	8	9	9	9	9	9	9	9	9	8	8	8	8
CLS5	Cash - Non-IFRS free cash flow	4	4		4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3
CLS6	Tax - Non-IFRS adjusted tax expense									5	5	4	4	4	4	4	4	5	5		5
CXRXF1	Earn - Adjusted Gross profit									1	1	1									
CXRXF2	Earn - Adjusted EBITDA									13	13	13									
CXRXF3	NI - Adj NI, continuing operations									11	11	8									
DEO1	NI - 2015 reported	2	2	2		2	2	2		3	2	3		2	2	2		2	2	2	
EROS1	Earn - Adjusted EBITDA	8	8	8		6	6	6	6	7	7	7		15	15	15		15	15	15	

		2015				2016				2017				2018				2019			
TIC NUM	Type of Reconciliation	# Adjustments	In Mgt Comm	In Earn Report	In Invest Pres	# Adjustments	In Mgt Comm	In Earn Report	In Invest Pres	# Adjustments	In Mgt Comm	In Earn Report	In Invest Pres	# Adjustments	In Mgt Comm	In Earn Report	In Invest Pres	# Adjustments	In Mgt Comm	In Earn Report	In Invest Pres
EURN1	Earn - EBITDA	3	3	3	3	3	3	3		3	3	3	1	3	3	3	3	3	3	3	3
EURN2	Earn - Adjusted EBITDA	6	6	3	3	6	6	6		6	6	6		6	6	6	3	6	6	6	3
EXFO1	Earn - Adjusted EBITDA for the year	8	8	8	1	7	7	7		8	8	8		8	8	8		9	9	9	1
FCAU1	Debt - Net Industrial Cash/(Debt)	5	5			13	13	2	2	12	12	2	1	15	15	2	2				
FCAU2	Debt - Net Cash/(Debt)	5	5	1		12	12	6	6	11	11	5	5	14	14	4	4				
FCAU3	Earn - Adjusted EBIT	8	4	6	6	11	11	11	11	12	12	12	12	14	14	14	12	7	7	7	7
FCAU4	NI - Adjusted net profit					2	2	2	2	5	5	5	5	3	3	3	3	3	3	3	3
FCAU5	Cash - Industrial free cash flows																	5	5	5	5
GOOS1	Earn - Adjusted EBITDA									10	10	10	10	7	7	7	7	8	8	8	
GOOS2	NI - Adjusted net income									10	10	10	10	6	6	6	6	6	6	6	
IHG1	NI - Total Op Profit before EI & tax																	2	2	2	1
IHG2	NI - Underlying Group Opg Profit																	2	2	2	1
IHG3	Debt - Net Debt									2	2	2	1	3	3	3	2	4	4	4	1
IHG4	Cash - Free Cash Flow													4	4	4		4	4	4	
ITPOF1	NI - Adjusted net earnings	7	7	6		6	6	6	2					6	6	6		7	7	7	1
ITPOF2	Earn - Adjusted EBITDA	9	9	9		8	8	8	1	9	9	9	1	8	8	8		8	8	8	1

		2015				2016				2017				2018				2019			
TIC NUM	Type of Reconciliation	# Adjustments	In Mgt Comm	In Earn Report	In Invest Pres	# Adjustments	In Mgt Comm	In Earn Report	In Invest Pres	# Adjustments	In Mgt Comm	In Earn Report	In Invest Pres	# Adjustments	In Mgt Comm	In Earn Report	In Invest Pres	# Adjustments	In Mgt Comm	In Earn Report	In Invest Pres
ITPOF3	Cash - Free CF	1	1	1		1	1	1		1	1	1		1	1	1		1	1	1	
NOK1	NI - Total non-IFRS operating profit	4	2	4																	
NOK2	NI - Total segment operating profit									7	7	7		9	9	9			8	8	
PSO1	NI - Total Adjusted Operating Profit	3	2	3	1	3	3	3	3	4	4	4	4	4	3	4	4	3	2	3	3
PUK1	NI - Adjusted operating profit																	7	7		1
PUK2	NI - Adj IFRS op profit based on LT investment returns					4	4			4	4			4	4						
PUK3	NI - Op profit (loss) based on LT investment returns	5	5																		
TEAM1	Earn - Non-IFRS gross profit					2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
TEAM2	NI - Non-IFRS operating income					2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
TEAM3	NI - Non-IFRS Net Income					3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4
TEAM4	Cash - Free Cash Flow					1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TRIB1	NI - Adjusted profit after tax	3	3	3		3	2	3		2	2	2		2	1	1		3	1	3	
UN1	Cash - Free cash flow	3	3	3		3	3	3		3	3	3		3	3	3		3	3	3	
UN2	Earn - Core op profit	3	3	3		3	3	3		1	1	1		1	1	1		1	1	1	
UN3	Debt - Net Debt	5	5	5		5	5	5		6	6	6		5	5	5		6	6	6	

Table 4: Difference between GAAP and Non-GAAP Measures

Non-GAAP - GAAP						
TIC NUM	Adjustment	2015	2016	2017	2018	2019
ACST1	Earn - Non-IFRS operating loss	-6.851	-0.252	3.449	5.409	11.409
BTI1	NI - Adjusted revenue			-258	-180	-50
BTI2	NI - Adjusted profit before taxation, excluding associates and joint ventures			1517	1034	2114
BTI3	NI - Adjusted taxation			-22487	611	1696
BTI4	Cash - Adjusted cash generated from operations			-10220	-223	-438
BTI5	Cash - Free Cash Flow			-2065	-2224	-2165
BTI6	Debt - Closing net Debt				-2611	-2477
BTI7	Debt - Adjusted Net Debt				1220	1777
BTI8	Earn - Adjusted EBITDA			-3879	-4102	-3640
BTI9	NI - Adjusted profit from operations				4640	6055
BTI10	NI - Adjusted profit from operations, inclusive of dividends from associates and joint ventures					2366
BUD1	Earn - EBITDA, as defined	7190	13592	12246	15675	10341
CAAP1	Earn - Adjusted EBITDA			394.7	456.5	386.5
CGG1	Debt - Net financial debt	-385.3	-538.8	-315.4		
CGG2	Earn - EBITDAS	1610.4				
CGG3	Earn - EBITDAS		850.2	700.2		
CLS1	NI - Non-IFRS adjusted gross profit	16	15	15.5	16.3	14.6
CLS2	NI - Non-IFRS adjusted SG&A	-22	-18	-16	-18.7	-19.5
CLS3	Earn - Non-IFRS operating earnings (adjusted EBIAT)	86	60.2	84.1	132	58.3
CLS4	Earn - Non-IFRS adjusted net earnings	78	64.6	67.3	50.9	1.2
CLS5	Cash - Non-IFRS free cash flow	-83	-63.1	-106	-131.5	-43.8
CLS6	Tax - Non-IFRS adjusted tax expense			6.7	56.7	7.6
CXRXF1	Earn - Adjusted Gross profit			0.311		
CXRXF2	Earn - Adjusted EBITDA			1906.145		
CXRXF3	NI - Adjusted net income, continuing operations			1600.541		
DEO1	NI - 2015 reported	90.1	0.2	-4.2	-1.8	5.5
EROS1	Earn - Adjusted EBITDA	51.82	57.564	44.209	88.32	514.298
EURN1	Earn - Adjusted EBITDA	297.889	299.63	292.365	364.886	453.068
EXFO1	Earn - Adjusted EBITDA for the year	8.481	13.139	21.19	29.1	28.065
FCAU1	Debt - Net Industrial Cash/(Debt)	21633	17925	13932	13994	
FCAU2	Debt - Net Cash/(Debt)	21238	17480	13305	13610	
FCAU3	Earn - Adjusted EBIT		4242	3544	3408	3968
FCAU4	NI - Adjusted net profit		702	260	1377	1597
FCAU5	Cash - Industrial free cash flows					-8349
GOOS1	Earn - Adjusted EBITDA			59.37	53.118	86
GOOS2	NI - Adjusted net income			22.507	-1.948	8
IHG1	NI - Total Operating Profit before exceptional items and t	3	-273	-286	-214	
IHG2	NI - Underlying Group Operating Profit		-853	-866	-1129	
IHG3	Debt - Net Debt		-1712	-2019	-2234	-2860
IHG4	Cash - Free Cash Flow			779	798	1002
ITPOF1	NI - Adjusted net earnings	1.9	8.6		15.4	16.6
ITPOF2	Earn - Adjusted EBITDA	45.3	68.4	65.6	94.3	131
ITPOF3	Cash - Free cash flows	-34.3	-49.9	-85.3	-75.8	-48.2
NOK1	NI - Total non-IFRS operating profit	0				
NOK2	NI - Total segment operating profit			2571	2239	1518
PSO1	NI - Total Adjusted Operating Profit	-4057	-3917	-3937	-3583	-3288
PUK1	NI - Adjusted operating profit					4558
PUK2	NI - Adjusted IFRS operating profit based on longer-term investment re		2335	2309	1814	
PUK3	NI - Operating profit (loss) based on longer-term investm	2103				
TEAM1	Earn - Non-IFRS gross profit		12.8	21.4	33.1	45.5
TEAM2	NI - Non-IFRS operating income		83	167.3	220.1	314.6
TEAM3	NI - Non-IFRS Net Income		66.9	127.4	237.9	852.1
TEAM4	Cash - Free Cash Flow		-34.2	-16.1	-30.3	-44.1
TRIB1	NI - Adjusted profit after tax	-9.1	3	3	3.7	4.4
UN5	Cash - Free cash flow	-4555	-4496	-4101	-4085	-4509
UN6	Earn - Core operating profit	350	245	543	-3176	1239
UN7	Debt - Net Debt	-6716	-7164	-12375	-17546	-18360

Table 5: Ability to Trace the Non-GAAP Adjustments

TIC NUM	Type of Reconciliation	2015			2016			2017			2018			2019		
		# Adjustments	To Prim Fin Stmt	To Notes	# Adjustments	To Prim Fin Stmt	To Notes	# Adjustments	To Prim Fin Stmt	To Notes	# Adjustments	To Prim Fin Stmt	To Notes	# Adjustments	To Prim Fin Stmt	To Notes
ACST1	Earn - Non-IFRS operating loss	4	4	4	5	5	5	5	5	5	4	4	4	4	3	4
BT11	NI - Adjusted revenue												2	2	2	1
BT12	NI - Adj profit from ops, inclusive of dividends from associates and JVs												8	8	6	
BT13	NI - Adjusted profit from operations												3	3	3	1
BT14	NI - Adjusted profit before taxation, excluding associates and joint ventures												5	5	4	1
BT15	NI - Adjusted taxation												8	8	8	3
BT16	Cash - Adj cash generated from ops															
BT17	Cash - Free Cash Flow															
BT18	Debt - Closing net Debt												4	4	4	
BT19	Debt - Adjusted Net Debt															
BT110	Earn - Adjusted EBITDA															
BUD1	Earn - EBITDA, as defined	5	5	4	6	5	5	6	6	6	5	5	5	6	6	6
CAAP1	Earn - Adjusted EBITDA							5	4	5	8	5	8	8	5	8
CGG1	Debt - Net financial debt	4	4	4	4	4	3	4	4	4						
CGG2	Earn - EBITDAS	13	13	3												
CGG3	Earn - EBITDAS				8	8	7	8	7	5						
CLS1	NI - Non-IFRS adjusted gross profit	1			1			2		1	2		1	1		1
CLS2	NI - Non-IFRS adjusted SG&A	1			1			2		1	1			1		1
CLS3	Earn - Non-IFRS operating earnings (adjusted EBIAT)	4	3	3	5	4	4	5	3	3	5	3	5	4	3	4
CLS4	Earn - Non-IFRS adjusted net earnings	9	5	5	8	4	4	9	5	5	9	4	5	8	5	4
CLS5	Cash - Non-IFRS free cash flow	4	2	2	4	3		4	3	1	3	2		3	1	
CLS6	Tax - Non-IFRS adjusted tax expense							5			4			5		
CXRXF1	Earn - Adjusted Gross profit							1	1	1						
CXRXF2	Earn - Adjusted EBITDA							13	12	9						
CXRXF3	NI - Adj NI, continuing ops							11	7	6						
DEO1	NI - 2015 reported	2			2			3	0	0	2			2		
EROS1	Earn - Adjusted EBITDA	8	5	8	6	5	6	7	6	7	15	8	14	15	9	12
EURN1	Earn - EBITDA	3	2	2	3	2	2	3	2	2	3	1	1	3	1	1
EURN2	Earn - Adjusted EBITDA	6	2	5	6	2	2	6	2	5	6	1	1	6	1	3
EXFO1	Earn - Adjusted EBITDA for the year	8	7	5	7	7	5	8	6	5	8	7	4	9	7	6
FCAU1	Debt - Net Industrial Cash/(Debt)	5			13			12			15		2			
FCAU2	Debt - Net Cash/(Debt)	5	3	3	12	1	2	11	1	3	14	1	5			
FCAU3	Earn - Adjusted EBIT	8	1	8	11	4	11	12	5	12	14	3	14	7	4	7
FCAU4	NI - Adjusted net profit				2			5		3	3			3		
FCAU5	Cash - Industrial free cash flows													5	1	1
GOOS1	Earn - Adjusted EBITDA							10	2	5	7	3	3	8	4	6
GOOS2	NI - Adjusted net income							10	1	4	6		1	6	1	4
IHG1	NI - Total Op Profit before EI and tax													2		1
IHG2	NI - Underlying Group Operating Profit													2		
IHG3	Debt - Net Debt							2			3			4	3	
IHG4	Cash - Free Cash Flow										4	2	2	4	2	3
ITPOF1	NI - Adjusted net earnings	7	2	4	6	2	5				6	2	4	7	2	5
ITPOF2	Earn - Adjusted EBITDA	9	5	7	8	5	7	9	6	6	8	5	7	8	5	7
ITPOF3	Cash - Free cash flows	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NOK1	NI - Total non-IFRS operating profit	4		4												
NOK2	NI - Total segment operating profit							7		7	9			8		8
PSO1	NI - Total Adjusted Operating Profit	3	1	2	3	2	3	4	1	4	4	2	4	3	1	3
PUK1	NI - Adjusted operating profit													7	5	7
PUK2	NI - Adj IFRS op profit based on LT investment returns				4	2	4	4		3	4	1	4			
PUK3	NI - Op profit (loss) based on LT investment returns	5	3	5												
TEAM1	Earn - Non-IFRS gross profit				2	2	1	2	2		2	2		2	2	
TEAM2	NI - Non-IFRS operating income				2	1	1	2	1	2	2	1	2	2	1	2
TEAM3	NI - Non-IFRS Net Income				3	1	1	3	1	2	4	1	2	4	1	2
TEAM4	Cash - Free Cash Flow				1	1		1			1	1		1	1	
TRIB1	NI - Adjusted profit after tax	3		3	3	1	3	2	1	2	2	1	2	3	1	2
UN1	Cash - Free cash flow	3			3	1		3	1		3	1		3	1	
UN2	Earn - Core operating profit	3			3		3	1	1	1	1	1	1	1	1	1
UN3	Debt - Net Debt	5	3		5	4	5	6	4	5	5	4	2	6	4	6

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APPENDIX A: Matched Samples (based on 2018 data)

	20-F Sample			10-K Sample			Other International Sample		
SIC	20-F Company Name	Assets	Sales	10-K Company Name	Assets	Sales	Other International Company Name	Assets	Sales
1000	BHP GROUP LTD	111,993	43,885	FREEPORT-MCMORAN INC	42,216	18,628	ANGLO AMERICAN PLC	52,196	27,610
1000	RIO TINTO GROUP	90,949	41,563	SOUTHERN COPPER CORP	14,485	7,097	KGHM POLSKA MIEDZ SA	37,237	20,487
1000	NEXA RESOURCES SA	5,735	2,491	CLEVELAND-CLIFFS INC	3,530	2,333	KAZ MINERALS PLC	5,040	2,162
1000	PLATINUM GROUP METALS LTD	42	-	TRILOGY METALS INC	55	-	EUROMAX RESOURCES LTD	41	-
1000	NORZINC LTD	18	-	SOLITARIO EXPLORATION & RLTY	28	1	ORECORP LTD	17	0
1044	AVINO SILVER&GOLD MINES LTD	109	34				SILVER MINES LTD	58	0
1220	PARINGA RESOURCES LTD	88	-	RAMACO RESOURCES INC	188	228	BATHURST RESOURCES LTD	119	48
1311	SUNDANCE ENERGY AUSTRALIA	802	165	LONESTAR RESOURCES US INC	744	201	SOCO INTERNATIONAL PLC	818	160
1381	PACIFIC DRILLING SA	2,748	265	PARKER DRILLING CO	828	481	CALFRAC WELL SERVICES LTD	1,783	2,256
1382	CGG	3,897	1,194	CSI COMPRESSCO LP	827	439	WORLEYPARSONS LTD	4,476	4,822
1389	NATIONAL ENERGY SERVICES REU	1,343	486	FRANK'S INTL NV	1,194	522	TRICAN WELL SERVICE LTD	1,038	901
1400	NEXTSOURCE MATERIALS INC	0	-	SMART SAND INC	320	212	SRG MINING INC	6	-
2060	ADECOAGRO SA	2,277	793	SANFILIPPO JOHN B&SON	416	889	AGRANA BETEILIGUNGS-AG	2,389	2,444
2082	ANHEUSER-BUSCH INBEV	232,103	54,619	MOLSON COORS BREWING CO	30,110	10,770	CARLSBERG A/S	117,700	62,503

2085	DIAGEO PLC	39,209	16,049	BROWN FORMAN CORP	5,139	3,324	DAVIDE CAMPARI SPA	4,583	1,712
2086	COCA-COLA EUROPEAN	20,855	13,187	MONSTER BEVERAGE CORP	4,527	3,807	KOFOLA CESHOSLOVENSKO AS	6,563	7,119
2111	BRITISH AMER TOBACCO PLC	186,513	31,215	ALTRIA GROUP INC	55,638	19,627	IMPERIAL BRANDS PLC	40,244	20,090
2300	CANADA GOOSE HLDG	725	831	OXFORD INDUSTRIES INC	727	1,121	FNG NV	835	512
2670	INTERTAPE POLYMER GROUP INC	1,005	1,053	CLEARWATER PAPER CORP	1,788	1,724	BONG AB	1,482	2,220
2721	RELX PLC	17,842	9,549	MEREDITH CORP	6,727	2,247	ASCENTIAL PLC	1,144	349
2721	RELX NV	13,999	7,492	WILEY (JOHN) & SONS -CL A	2,937	1,800	ARNOLDO MONDADORI EDITORE SP	1,110	891
2731	PEARSON PLC	10,075	5,262	HOUGHTON MIFFLIN HARCOURT CO	2,495	1,322	BLOOMSBURY PUBLISHING PLC	207	163
2833	ACASTI PHARMA INC	48	-	CHROMADDEX CORP	42	32	FERMENTALG SA	47	0
2834	SANOFI	127,551	40,847	PFIZER INC	159,422	53,647	GEDEON RICHTER PLC	797,883	445,484
2834	GLAXOSMITHKLINE PLC	74,005	39,662	MERCK & CO	82,637	42,294	MERCK KGAA	36,888	14,836
2834	ASTRAZENECA PLC	60,651	22,123	ABBOTT LABORATORIES	67,173	30,578	H LUNDBECK A/S	23,011	18,117
2834	NOVO NORDISK A/S	16,989	17,152	BAXTER INTERNATIONAL INC	15,641	11,127	RECIPHARM AB	12,716	6,333
2834	ADVANSZ PHARMA CORP	1,831	537	LANNETT CO INC	1,575	685	MAYNE PHARMA GROUP LTD	1,831	530
2834	VERONA PHARMA PLC	95	-	VERRICA PHARMACEUTICAL	92	-	LOGICBIO THERAPEUTICS INC	83	-
2834	ONCOLYTICS BIOTECH INC	15	-	SUNESIS PHARMACEUTICALS	15	0	CASSIOPEA SPA	17	-
2834	INTELLIPHARMACEUTICS INTL	11	2	EYEGATE PHARMACEUTICALS	14	2	CURASAN AG	11	6

2835	TRINITY BIOTECH PLC	152	97	NANOSTRING TECHNOLOGIES INC	148	107	PZ CORMAY SA	161	70
2836	GRIFOLS SA	14,285	5,137	ALEXION PHARMACEUTICALS	13,932	4,131	SWEDISH ORPHAN BIOVITRUM AB	17,183	9,139
2836	GALAPAGOS NV	1,648	364	SAREPTA THERAPEUTICS INC	1,642	301	GENMAB AS	1,298	417
2836	MESOBLAST LTD	692	17	ARENA PHARMACEUTICALS	687	18	KAROLINSKA DEVELOPMENT AB	794	3
2836	ARGEN-X SE	662	33	DENALI THERAPEUTICS INC	662	129	STALLERGENES GREER PLC	574	277
2836	MORPHOSYS AG	617	88	SANGAMO THERAPEUTICS INC	590	84	XVIVO PERFUSION AB	587	188
2836	CELLECTIS SA	501	13	GW PHARMACEUTICALS	491	13	INNATE PHARMA SA	451	80
2836	ORCHARD THERAPEUTICS PLC -ADR	366	2	G1 THERAPEUTICS INC	371	-	IMMUNICUM AB	450	-
2836	AUTOLUS THERAPEUTICS -ADR	273	1	ACHILLION PHARMACEUTICALS	278	-	GENFIT	263	-
2836	DBV TECHNOLOGIES	197	17	ARVINAS INC	199	14	EMERALD HEALTH THERAPEUTICS	207	2
2836	ZEALAND PHARMA AS	189	6	CHIMERIX INC	191	7	CANTARGIA AB	171	-
2836	CLEMENTIA PHARMACEUTICALS	177	-	SCHOLAR ROCK HOLDING CORP	181	-	EIDOS THERAPEUTICS INC	160	-
2836	ERYTECH PHARMA SA	168	-	EVELO BIOSCIENCES INC	160	-	REPLIMUNE GROUP INC	154	-
2836	CELYAD SA	108	4	SYROS PHARMACEUTICALS	107	2	TRANSGENE	109	1
2836	MEDICURE INC	104	29	ARATANA THERAPEUTICS	106	35	PROMETIC LIFE SCIENCES INC	103	47
2836	FORWARD PHARMA A/S -ADR	83	-	MILLENDI THERAPEUTICS INC	84	-	KIADIS PHARMA NV	83	-
2836	SUMMIT THERAPEUTICS PLC	79	76	CODEXIS INC	79	61	VELOXIS PHARMACEUTICALS AS	77	39

2836	OASMIA PHARMACEUTICAL	68	0	SPRING BANK PHARMACEUTICALS	69	-	BIONOMICS LTD	65	4
2836	TRILLIUM THERAPEUTICS INC	55	-	ALPINE IMMUNE SCIENCES INC	55	1	ABIVAX SA	54	0
2836	MIDATECH PHARMA PLC	26	2	ARCADIA BIOSCIENCES INC	24	1	PAION AG	24	3
2836	AETERNA ZENTARIS INC	25	27	AVEO PHARMACEUTICALS	28	5	NEUREN PHARMACEUTICALS LTD	27	14
2836	MOTIF BIO PLC	19	-	NANOVIRICIDES INC	19	-	QUANTUM GENOMICS CORP	18	-
2836	ESSA PHARMA INC	16	-	REXAHN PHARMACEUTICALS	16	-	CYNATA THERAPEUTICS LTD	16	-
2836	ALTERITY THERAPEUTICS LTD	14	-	VISTAGEN THERAPEUTICS INC	14	-	EUROCINE VACCINES AB	12	-
2836	AKARI THERAPEUTICS PLC -	8	-	HEPION PHARMACEUTICALS	8	-	IMMUPHARMA PLC	9	0
2836	IMMURON LTD	7	1	ARCA BIOPHARMA INC	7	-	GENEDRIVE PLC	6	2
2840	UNILEVER NV	40,223	34,490	PROCTER & GAMBLE CO	118,310	66,832	RECKITT BENCKISER GROUP PLC	37,650	12,597
2840	UNILEVER PLC	27,848	23,879	CHURCH & DWIGHT INC	6,069	4,146	HENKEL AG & CO KGAA	29,623	19,899
2911	ROYAL DUTCH SHELL PLC	399,194	388,37	EXXON MOBIL CORP	346,196	279,332	MOL HUNGARIAN OIL	4,611,581	5,168,668
2911	BP PLC	282,176	298,75	CHEVRON CORP	253,863	158,902	REPSOL SA	69,585	58,794
2911	TOTAL SA	256,762	184,10	MARATHON PETROLEUM CORP	92,940	96,504	POLSKI KONCERN NAFTOWY ORLEN	64,141	109,706
2911	ENI SPA	135,525	87,566	PHILLIPS 66	54,302	111,461	GRUPA LOTOS SA	22,224	30,122
3241	CRH PLC	40,269	30,672				HEIDELBERGCEMENT AG	35,783	18,095
3270	JAMES HARDIE INDUSTRIES PLC	4,033	2,507	USG CORP	3,842	3,336	ADELAIDE BRIGHTON LTD	2,078	1,631

3312	ARCELORMITTAL	91,249	76,033	NUCOR CORP	17,921	25,067	SSAB CORP	92,487	74,941
3312	TERNIUM SA -ADR	12,548	11,455	UNITED STATES STEEL CORP	10,982	14,178	VOESTALPINE AG	15,652	13,561
3317	TENARIS SA	14,251	7,659	NORTHWEST PIPE CO	271	172	TUBACEX SA	992	681
3330	FERROGLOBE PLC	2,124	2,320	MATERION CORP	800	1,208	IMPEXMETAL SA	2,898	3,300
3523	CNH INDUSTRIAL NV	46,100	27,831	DEERE & CO	70,108	36,578	AG GROWTH INTERNATIONAL	1,234	932
3559	ASML HOLDING NV	23,055	12,530	APPLIED MATERIALS INC	17,773	17,253	FLSMIDTH & CO AS	21,743	18,750
3663	NOKIA CORP	45,243	25,851	APPLE INC	365,725	265,359	GN STORE NORD A/S	13,017	10,607
3663	TELEFONAKTIEBOLAGET LM ERICS	30,242	23,724	MOTOROLA SOLUTIONS INC	9,409	7,343	DORO AB	1,464	1,906
3674	NXP SEMICONDUCTORS NV	21,530	9,407	ANALOG DEVICES	20,450	6,201	INFINEON TECHNOLOGIES AG	12,640	8,829
3674	STMICROELECTRONICS NV	10,867	9,664	ON SEMICONDUCTOR CORP	7,588	5,878	AMS AG	3,585	1,426
3674	CANADIAN SOLAR INC	4,893	3,745	SKYWORKS SOLUTIONS INC	4,829	3,868	SILTRONIC AG	1,818	1,457
3674	CELESTICA INC	3,738	6,633	CYPRESS SEMICONDUCTOR CORP	3,693	2,484	DIALOG SEMICONDUCTOR PLC	1,717	1,442
3674	SEQUANS COMMUNICATIONS -ADR	63	40	KOPIN CORP	60	24	CML MICROSYSTEMS PLC	56	28
3674	POET TECHNOLOGIES INC	25	4	RESONANT INC	26	1	MEMSCAP SA	21	13
3711	FIAT CHRYSLER AUTOMOBILES NV	110,910	126,410	GENERAL MOTORS CO	227,339	147,049	RENAULT SA	114,996	57,419
3711	FERRARI NV	5,555	3,916	OSHKOSH CORP	5,294	7,706	RHEINMETALL AG	6,759	6,148

3825	EXFO INC	285	270	FORMFACTOR INC	728	530	SPIRENT COMMUNICATIONS	513	477
3826	QIAGEN NV	5,748	1,502	BIO-RAD LABORATORIES INC	5,611	2,289	SARTORIUS AG	2,527	1,566
3841	NEOVASC INC	12	2	NEUROMETRIX INC	12	16	CROSSJECT LTD	20	2
3842	SMITH & NEPHEW PLC	8,059	4,904	EDWARDS LIFESCIENCES CORP	5,324	3,723	ONTEX GROUP N.V.	2,790	2,292
3845	KONINKLIJKE PHILIPS NV	29,789	20,747	BOSTON SCIENTIFIC CORP	20,999	9,823	ELEKTA AB	24,064	13,555
4412	EURONAV	4,127	605	SEACOR HOLDINGS INC	1,471	836	CONCORDIA MARITIME AB	2,793	1,053
4412	TORM PLC	1,714	635	SEACOR MARINE HLDGS INC	1,103	254	D AMICO INTL SHIPPING	1,040	399
4512	RYANAIR HOLDINGS PLC	14,872	8,639	ALASKA AIR GROUP INC	10,912	8,264	QANTAS AIRWAYS LTD	18,647	15,577
4581	CORPORACION AMER ARPRT	3,845	1,426	MACQUARIE INFRASTRUCTURE CP	7,444	1,762	BBA AVIATION PLC	4,271	2,347
4812	VODAFONE GROUP PLC	160,346	49,010	VERIZON COMMUNICATIONS INC	264,829	130,863	VIVENDI SA	34,403	13,932
4812	TELEFONICA SA	130,572	56,347	SPRINT CORP	84,601	33,597	TELEFONICA DEUTSCHLAND	13,796	7,320
4812	MILLICOM INTL CELLULAR SA	10,316	4,074	TELEPHONE & DATA SYSTEMS INC	9,783	5,109	FREENET AG	4,635	2,916
4813	ORANGE	110,588	48,247	CENTURYLINK INC	70,256	23,443	DEUTSCHE TELEKOM	166,439	86,618
4813	TELECOM ITALIA SPA	75,127	22,103	FRONTIER COMMUNICATIONS CORP	23,659	8,611	TELE2 AB	82,644	23,704
4813	BT GROUP PLC	60,280	30,551	WINDSTREAM HOLDINGS INC	10,258	5,713	TDC A/S	50,906	17,356
4899	INTELSAT SA	12,242	2,161	ZAYO GROUP HOLDINGS INC	9,217	2,604	TELEKOM AUSTRIA AG	8,481	5,078
4911	NATIONAL GRID	81,997	19,447	DOMINION ENERGY INC	77,914	13,581	RWE AG	91,715	15,563

4991	ATLANTICA YIELD PLC	9,919	1,127	PATTERN ENERGY GROUP INC	5,294	477	NORTHLAND POWER INC	10,336	1,556
6020	HSBC HLDGS PLC	2,558,124	75,436	JPMORGAN CHASE & CO	2,622,532	131,412	BNP PARIBAS	2,336,548	78,336
6020	BANCO SANTANDER SA	1,670,716	67,686	BANK OF AMERICA CORP	2,354,507	111,313	SOCIETE GENERALE GROUP	1,499,161	52,349
6020	DEUTSCHE BANK AG	1,543,479	42,266	WELLS FARGO & CO	1,895,883	100,858	INTESA SANPAOLO SPA	901,860	22,469
6020	BARCLAYS PLC	1,444,369	34,009	BANK OF NOVA SCOTIA	998,493	40,770	ANZ-AUSTRALIA & NEW ZEALD BK	682,321	25,801
6020	LLOYDS BANKING GROUP PLC	1,016,539	27,502	U S BANCORP	467,374	25,775	NATIONAL AUSTRALIA BK	583,795	24,712
6020	ROYAL BANK OF SCOTLAND GROUP	884,803	20,131	PNC FINANCIAL SVCS GROUP INC	382,315	19,993	DANSKE BANK AS	548,847	11,917
6020	BBVA	774,740	46,009	BANK OF NEW YORK MELLON CORP	362,873	19,213	NATIONAL BANK CANADA	262,471	10,691
6020	WESTPAC BANKING	636,695	27,650	STATE STREET CORP	244,626	12,973	SWEDBANK AB	252,739	5,970
6199	ING GROEP NV	1,015,559	20,646	CITIGROUP INC	1,917,383	96,720	TIMBERCREEK FINANCIAL CORP	1,945	97
6311	PRUDENTIAL PLC	648,268	31,775	METLIFE INC	687,538	67,957	AVIVA PLC	548,644	22,412
6311	AEGON NV	449,525	23,910	LINCOLN NATIONAL CORP	298,147	16,202	POWER FINANCIAL CORP	447,055	47,025
7011	INTERCONTINENTAL HOTELS GRP	3,753	4,337	EXTENDED STAY AMERICA INC	3,924	1,275	MELIA HOTELS INTL SA	3,475	1,831
7359	AERCAP HOLDINGS NV	43,209	4,552	AIR LEASE CORP	18,482	1,631	BRAMBLES LTD	7,839	5,597
7370	SOHU COM LTD	3,299	1,883	ALLSCRIPTS HEALTHCARE SOLTNS	3,181	1,750	EWORK GROUP AB	3,317	11,036
7370	ATLASSIAN CORP PLC	2,425	874	CARS.COM INC	2,601	662	SCOUT24 AG	2,465	550
7370	GLOBANT SA	437	522	ALARM.COM HOLDINGS INC	441	420	GROUPE NEURONES	449	490
7372	SAP SE	58,952	28,287	SALESFORCE.COM INC	30,737	13,282	DASSAULT SYSTEMS SA	9,129	3,981

7372	MICRO FOCUS INTL PLC	16,781	3,684	SS&C TECHNOLOGIES HLDGS INC	16,108	3,421	CONSTELLATION SOFTWARE INC	4,005	4,176
7374	ATENTO SA	1,213	1,827	SYKES ENTERPRISES INC	1,172	1,626	CEGEDIM	648	468
7812	EROS INTERNATIONAL PLC	1,094	270	WORLD WRESTLING ENTMT INC	700	930	TECHNICOLOR SA	4,304	4,566
8090	FRESENIUS MEDICAL CARE AG&CO	30,045	18,944	DAVITA INC	19,110	11,405	MD MEDICAL GROUP INVTS	25,078	14,937
8731	ICON PLC	2,354	2,596	PRA HEALTH SCIENCES INC	3,186	2,872	PROBI AB	1,209	604
Mean		133,708	20,748		126,892	20,293		123,849	56,482
Median		5,555	2,596		3,842	1,800		2,527	1,712
SD		372,915	49,973		416,070	46,840		503,453	470,675