

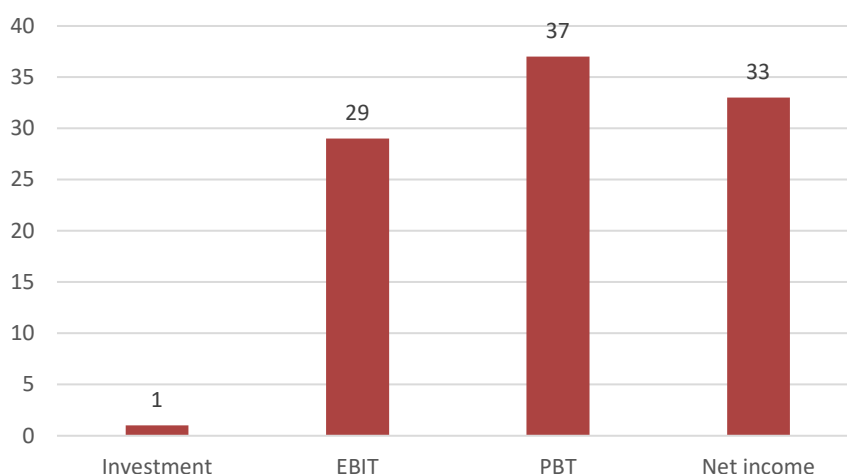
## Cashflow accounting

### The need for consistency

According to the US Securities and Exchange Commission, “Cashflow statements report a company’s inflows and outflows of cash”. This is such a simple and obvious statement. Unfortunately, the failure of accounting bodies around the world to adopt a consistent reporting method means that the derivation of operational cashflows, is anything but simple and consistent. To highlight the issue, a survey of the companies that comprise the FTSE 100 shows that the ‘indirect’ approach is used by the majority (70%) of companies. There is recognition for the need to improve with a discussion paper issued by the UK Financial Reporting Council entitled ‘Improving the Statement of Cash Flows’.

- ▶ **Derivation of cashflow:** Two approaches are adopted. The most common is ‘indirect’, which starts with the net income and then adds back in a plethora of accruals, only to perform a U-turn and allow for the cash items. The second approach is ‘direct’ which in essence is a cash equivalent P&L that starts with all the receipts, and then takes off all the costs, to generate a change in cash.
- ▶ **Auditors:** The survey highlighted that all the main external auditors (Deloitte, EY, KPMG & PWC) use all of the approaches to generating cashflows. Moreover, examples were found where the same signatory from an auditing firm had used different starting points for the cashflow reconciliation of different companies.
- ▶ **EPS:** Market focus on earnings per share has been, and always will be, the first valuation metric because it is quick and easy to obtain. However, companies always want to portray their results in the best possible light and adopt ‘non-GAAP’ or ‘core EPS’, which are inconsistent and lead to wide variances.
- ▶ **Hardman approach:** Irrespective of the way a company presents the information, we adopt a prescriptive method of analysing financial results. This initially determines an underlying EBIT, which requires minimal adjustment to generate the operational cashflows of the business and calculation of returns.

#### Starting point for cashflows for FTSE 100 companies



Source: Company Annual Reports; Hardman & Co Life Sciences Research

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## Cashflow accounting

A recent article<sup>1</sup> in AB (Accounting & Business) Magazine, the official journal of the Association of Chartered Certified Accountants (ACCA) highlighted the global discrepancies in the approach to cashflow statements and the need for change. Easy to say but difficult to achieve. The catalyst for change must be that most listed companies worldwide ignore the local accounting standards of reporting and generate their own calculation of 'core earnings' and free cashflow. However, there is no consistency amongst CFOs and/or auditors about what is or is not included in these calculations. Having worked at two of the largest investment banks renowned for their approach to accounting, I use this good training to generate underlying P&L performance which bridges directly to the generation of operational cashflow, which in turn links to the change in net debt/cash in the balance sheet. This analysis allows a direct comparison of the financial performance between global companies.

### Background

If you had asked me when I was five years of age: "What would you like to be when you grow up?" The answer was always: "A bank manager!" I have no idea why, other than I have always been sharp with numbers, combined with a head-start having (voluntarily) entered primary school at three years of age – my parents lived next door to the school and I simply entered with all the other children on the first day of the new academic year. It took the teachers all day to work out that there was one pupil too many in the class! Perhaps it was also learning basic mathematics through evenings spent playing cards with my family, in the days when few had a television, which has held me in good stead throughout my life.

*Good foundations in basic mathematics from an early age...*

*...has led to a 30 year career in the City as an analyst*

It is staggering to think that 2017 is my 30<sup>th</sup> year as an analyst in the City, especially given my relatively late start having spent my early working years in pharmaceutical research both in academia and with a drug company (Warner Lambert). Given this scientific background, I entered the City with no financial experience or qualifications.

*Tremendous training at UBS and HSBC, both of which have strong accounting principles...*

However, I was very fortunate to spend most of my analytical career with two investment banks that were renowned for their strength in accounting practises – UBS Phillips & Drew (UBS) and HSBC James Capel (HSBC). These two firms were regularly at the top of the Exel rankings for two reasons:

- ▶ Both encouraged analysts to undertake thought provoking fundamental company research and industry analysis
- ▶ Both adopted a prescribed methodology for analysing the accounts of every company being researched in exactly the same way, so that comparative analysis could be performed

*...used irrespective of the way a company/auditor showed the information...*

It really did not matter how a company described or portrayed something in its own accounts, UBS and HSBC analysts would put the numbers into its systems in a particular way that generated an output that allowed direct comparisons among companies to be made. Both investment banks would have company analysis and new forecasts on clients' desks on the morning following results, which were stored in a file on a sector-by-sector basis. The file also contained a definitions page, which detailed how all the relevant ratios were calculated.

<sup>1</sup> 'Go with the flow' by Jane Fuller in AB Magazine, May 2017

*Interest cover*

For example, at that time, the common calculation for interest cover – and using Glaxo (fiscal year 2000; now GSK) as an example – was as follows:

$$\text{Interest cover} = \frac{\text{Operating profit}}{\text{Net interest}} = \frac{4745}{159} = 29.8x$$

In contrast, the UBS methodology was the much purer calculation, as follows:

$$\text{Interest cover} = \frac{\text{Operating profit} + \text{Interest receivable}}{\text{Interest payable}} = \frac{4745+158}{317} = 15.5x$$

*...and avoided any arguments with companies*

Being required to input the numbers in this specific way really helped me to find my way around a set of accounts and the accompanying notes. It also avoided any arguments with companies, as they respected the fact that UBS and HSBC prepared everything in a specific way irrespective of the size or importance of that company.

*P/E and dividend yield are still the basis valuation metrics...*

*P/E and dividend yield*

In addition, when I joined the City, the two areas of focus for investment purposes were P/E (share price divided by earnings per share) and dividend yield (net dividend (after relevant tax withholding) divided by share price presented as a percentage). It is still the same today. Both of these ratios are simple to calculate and readily available. However, what I learned from the HSBC and UBS models was that the EPS figure could be easily manipulated, putting into doubt the 'apparent' P/E being used by the market.

*...because they are simple and quick to calculate*

*But 'Accounting for Growth' highlighted how EPS could be distorted...*

*'Accounting for Growth'*

This principle was demonstrated brilliantly by the research report conceived and edited by Richard Hannah at UBS, called 'Accounting for Growth', which won several awards and was published subsequently as a book of the same name by the then head of research, Terry Smith. Publication of this research in January 1991 certainly claimed a few scalps! I was incredibly proud to have been involved in that report having identified and reported on some bad accounting practices at Reckitt & Colman and London International Group. All this without needing an accounting qualification!

*...with companies using dubious accounting practices to enhance EPS*

In the late eighties, one of the big issues surrounded classification of exceptional and extra-ordinary items. Companies were frequently looking for ways to exclude certain items (e.g. restructuring costs) in order to boost EPS and thus lower the P/E. The likes of 'Accounting for Growth', coupled with certain other events (Polly Peck going bust) forced the Accounting Standards Board to make changes towards improving transparency with the aim of making accounts more comparable on a global basis.

*Even with greater transparency in a more timely manner...*

While there is undoubtedly more information available today, and in a more timely manner, it has made analysis of accounts more complicated, open to more diverse interpretation, and has resulted in wide variance in what companies often describe as their 'non-GAAP<sup>2</sup> earnings' or 'core EPS'. These metrics are created by the companies themselves to adjust standards-compliant earnings to *exclude* items required by accounting standards or to *include* items that are not permitted by accounting standards and are applied at the discretion of the management team. Therefore, reliable consistent analysis has become even more important.

*...it is disturbingly still the same today*

<sup>2</sup> GAAP = Generally Accepted Accounting Principles

Non-GAAP earnings come in a number of guises and this was the subject of an excellent report recently in Financial Analysts Journal<sup>3</sup>. Part of the reason for this is the market's obsession with 'guidance' and company management seeks to set an earnings figure that it expects to beat. Gone are the days when analysts were simply left to analyse and come up with their own numbers.

### *Underlying EPS calculation*

The following table shows the methodology by which Hardman calculates underlying EPS for all companies under coverage, regardless of how the information is presented to us by the companies themselves and the extent to which this differs from the statutory numbers. The aim is to have EPS as closely aligned as possible to the operational cashflows of the business.

Profit & Loss account	
	Comments
Sales of products	Excludes license fees, milestones, royalties
Operating costs	Excludes share based payments, amortisation of goodwill
Depreciation	Usually included in operating costs
Other income	License fees, milestones, royalties, grant income
<b>Underlying EBIT</b>	
Amortisation of goodwill	On acquisitions only
Share-based payments	Non-cash item
Exceptional items	Usually restructuring charges (an arguable point); IPO costs
<b>Statutory EBIT</b>	
Net interest	Interest receivable on cash/payable on debt only
<b>Underlying PBT</b>	= Underlying EBIT + net interest
Other financial	Forex gains/losses; associate income/losses
Extraordinary items	Little used today; capital gains on disposals etc
<b>Statutory PBT</b>	
Underlying tax	Tax on operations
<b>Underlying net income</b>	= Underlying pre-tax profit less tax due on operations
Exceptional tax	Tax associated with disposals and exceptional items
<b>Reported net income</b>	
Weighted average shares	
<b>Underlying EPS</b>	= Underlying net income divided by weighted average no. shares
Statutory EPS	

*Source: Hardman & Co Life Sciences Research*

There are two key issues in this calculation. The first is where a company has used shareholders' money to grow inorganically through acquisition and paid a hefty premium for those assets. Should the amortisation of goodwill be considered, or not, as part of the underlying operational earnings? The second involves payments to executives and senior management in the form of shares. However, the topic of earnings is separate to this article, which is focused on cashflow, and will be the subject of a future article.

## Cash is king

*Cash is so much more important than earnings*

Crucially, the UBS methodology and 'Accounting for Growth' alerted me to the importance of cash when assessing a company's financial performance. In all his writings in the City, Terry Smith has never wavered from the "importance of cash". While I have not always agreed with Terry, on this topic I wholeheartedly concur – and cash generation was the foundation of all analysis performed at UBS and HSBC.

<sup>3</sup> Accounting's tower of Babel: Key considerations in assessing non-GAAP earnings. Ciesielski J.T. and Henry E. *Financial Analysts Journal* (2017)

*Operational cashflow per share shows the true returns in a business...*

*...but requires considerably more work and time to be generated...*

*...not helped by the lack of consistency by accounting bodies around the world*

*Different geographical approaches pave the way to different outcomes*

### Focus on cashflows

The figure that analysts and investors should all be working towards is 'operational cashflow (OCF) per share', as it shows the true operational returns of a business. However, it takes much longer to determine than EPS and, in the past, given that the annual report with all the relevant details was often published several weeks after the preliminary results were announced, it was not readily available in contrast to EPS. Today, most companies provide detailed financials and notes at each reporting period, and many have their annual report available on the day that final results are announced to the market.

In addition, the cost of maintenance cap-ex should ideally be included in the OCF figure. This is, however, very difficult to ascertain, and even a direct question to the CFO may not be fruitful. Therefore, it is generally not included in operational cashflows, and is encompassed within the overall capital expenditure figure that is used for calculating free cashflow.

### International Accounting Standards (IAS)

According to the US Securities and Exchange Commission, "Cashflow statements report a company's inflows and outflows of cash". This is such a simple and obvious statement. Unfortunately, the failure of accounting bodies around the world to adopt a consistent method, for example the US insist on using US GAAP rather than adopting IAS means that the derivation of operational cashflows, which would broadly be a 'cash equivalent' of the Profit & Loss account, is anything but simple and consistent.

### Different geographical approaches

The following table highlights different approaches taken in different jurisdictions. This, of course, paves the way to different outcomes.

Different geographical approaches to cashflow		
US/Japan	Australia	UK/Europe
<b>Net income</b>	<b>Receipts from customers</b>	<b>EBIT/PBT/net income</b>
+Depreciation/Amortisation	Payments to suppliers/employees	+Depreciation/Amortisation
+Asset impairment charges	Tax paid/credit	+Share based compensation
±Forex	Interest received	+Asset impairment charges
±Gains/losses on disposal	Borrowing costs	±Provisions
±Gains/losses from affiliates	<b>Operational cashflow</b>	+Net financial income
±Deferred tax	Capital expenditure	Receivables
+Share based compensation	Asset disposals	Inventories
Other	<b>Free cashflow</b>	Payables
Receivables		Net interest
Inventories		Income tax paid/credit
Payables		<b>Operational cashflow</b>
Income tax paid/credit		Capital expenditure
Exceptionals/provisions		<b>Free cashflow</b>
Other assets/liabilities		
<b>Operational cashflow</b>		
Net interest		
Capital expenditure		
<b>Free cashflow</b>		

Source: Hardman & Co Life Sciences Research

Two techniques are generally adopted, involving 'indirect'...

### 'Indirect' vs 'Direct'

Two approaches are adopted. The most commonly used is 'indirect', which starts with the net income (US GAAP) or net profit (Japanese GAAP), and then adds back in a plethora of accruals and non-cash items to reach a cash operating profit, only to perform a U-turn and allow for the cash items (e.g. working capital, income tax paid) to run the business. US GAAP does not even include the interest cost/receipts as part of operational activity.

...or 'direct' methodologies

The second approach is 'direct' which in essence is a cash equivalent P&L that starts with all the receipts, and then takes off all the costs, to generate a change in cash. This approach is used in Australian accounts and allows a particular number to be followed all the way through the financial statements.

Auditors of UK companies use an array of starting points for cashflow statements

### The UK sits somewhere in the middle

UK accounting standards fall somewhere in the middle of the two approaches. Auditors adopt a variety of starting points ranging from EBIT, either statutory or adjusted, statutory profit before tax, or statutory net income. A survey of the latest annual report from each of the FTSE 100 companies clearly demonstrates this inconsistency. The following simple analysis highlights the need for change.

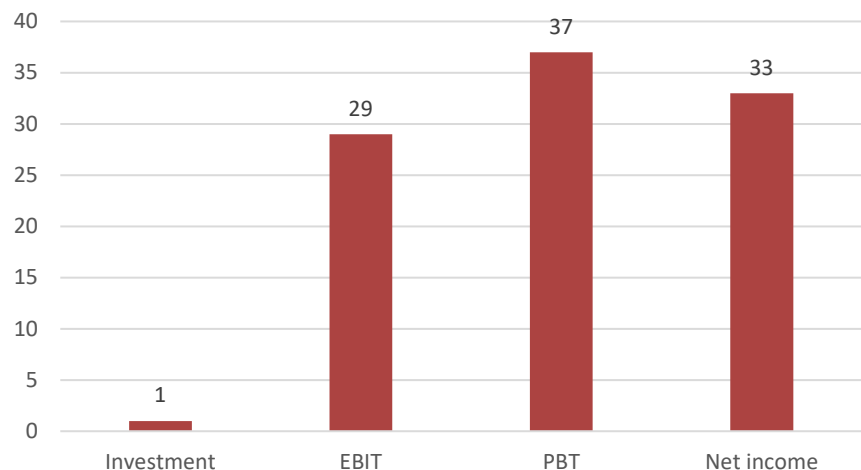
## Survey of FTSE 100 companies

A survey of the most recent annual report produced by companies that constitute the FTSE 100 index has been undertaken to assess the starting point for the presentation of cashflows that appear in the cashflow statement.

FTSE 100 companies – Audit analysis of cashflow starting point					
Auditor	Investment	EBIT	PBT	Net income	Totals
BDO	0	0	0	1	1
Deloitte	0	7	6	9	22
EY	1	4	6	5	16
KPMG	0	5	14	5	24
PWC	0	13	11	13	37
<b>Totals</b>	<b>1</b>	<b>29</b>	<b>37</b>	<b>33</b>	<b>100</b>

PWC = PricewaterhouseCoopers  
Source: Hardman & Co Life Sciences Research

### Starting point for cashflows for FTSE 100 companies



Source: Company Annual Reports; Hardman & Co Life Sciences Research

### Summary of survey outcomes

Analysis of the accounts from companies that constitute the FTSE 100 show the following:

- ▶ **Starting point:** Different starting points for reconciliation of cashflows have been adopted by all the major auditing firms
- ▶ **EBIT:** Operating profit has been used as the starting point in 29 cases. However, in some cases statutory EBIT (e.g. Centrica) has been used, whilst in others (e.g. Babcock International) the same auditing firm has started with an underlying EBIT – i.e. adjusted for restructuring costs, exceptionals and amortisation
- ▶ **Profit before tax:** The most common starting point, being used in 37 cases
- ▶ **Net income** (profit after tax): Used in 33 cases
- ▶ **Lack of clarity:** Interestingly, in 11 cases, the auditor did not state which ‘profit’ was being used as the starting point for reconciling cashflows; only by cross referencing back to the P&L account could this be determined
- ▶ **Positioning of information:** Irrespective of methodology used, most companies report the cashflows and adjustments within the consolidated cashflow statement or in a note shortly thereafter. However, over 30% of companies still have the reconciliation buried in a note (usually somewhere around note 25-35)
- ▶ **Inconsistency:** Examples were found where the same signatory from an auditing firm had used different starting points for the cashflow reconciliation of different companies

*Our approach is to apply a consistent methodology to every company...*

*...making direct comparisons about financial performance possible*

### Hardman approach

Today, the Life Sciences team uses exactly the same approach that was adopted throughout my time at UBS and HSBC. The core definitions, principles, and analysis methods remain broadly unchanged, with updated terminology – for example, ‘stocks’ has been replaced by ‘inventories’; and ‘shares issued’ has been replaced by ‘capital increases’. This is very important for sectors like Pharmaceuticals/Healthcare/Life Sciences, which are truly global industries. Using this approach, direct comparisons about financial performance can be made among global competitors such as Pfizer (US), GlaxoSmithKline (UK), Roche (Switzerland) and Takeda (Japan).

#### Calculation of free cashflow

	Comments
<b>Underlying EBIT</b>	Operational profit/loss from P&L
Depreciation	Add back non-cash item
<i>Inventories</i>	
<i>Receivables</i>	
<i>Payables</i>	
Change in working capital	Often reflects rate of growth
Exceptionals/restructuring	True cost of running the business and cannot be ignored
Other	
Net interest	Actual cash movement
Tax paid/received	Tax paid on operations/tax credits on R&D spend
Maintenance cap-ex	Often difficult to ascertain without asking CFO
<b>Operational cashflow</b>	
Capital expenditure	Usually includes both maintenance and investment cap-ex
<b>Free cashflow</b>	
Weighted average shares	
<b>OCF/share</b>	= Operational cashflow divided by weighted average shares

*Source: Hardman & Co Life Sciences Research*



*Key is to start with underlying EBIT highlighted earlier....*

*...which has little need for major adjustments...*

*...with the aim of generating the 'change in net cash/debt'*

*Knowing which jurisdiction the debt and cash is held...*

*...is very important as a tax liability on repatriation could significantly alter the 'apparent' position*

The table above shows exactly how we calculate OCF for all companies under our coverage. It is very clean, using underlying EBIT as the starting point which requires minimal adjustments for reconciliation back to the P&L account. In the event that a company has incurred restructuring costs, these are all part of operating a business and are fully encompassed and affect the calculation. Therefore, their exclusion from the underlying EBIT calculation is irrelevant.

### *'Change in net debt/cash'*

When analysing company accounts, the bottom line for us is to ascertain the change in net debt during the reporting periods. In contrast, the goal from an auditor's standpoint is to reconcile the change in cash & cash equivalents. The latter, however, elicits a number of questions, particularly relevant to US companies. Is the company storing cash in overseas bank accounts while taking on debt in the US? How sustainable is this in the longer term? If there were a need to repatriate that cash, is it a 'true' cash position or is there an enormous tax liability should repatriation occur?

The best working example that I have is Schering-Plough, a former pharmaceutical darling of the US stock market and now wholly-owned by Merck & Co. In its heyday (2000-2001), Schering-Plough was very successful and hugely cash generative, both in the US and internationally. It had a strong balance sheet (cash \$2.7bn, debt \$0.9bn giving net cash of \$1.8bn), with most of the cash having been generated from overseas operations and held in international bank accounts, whilst the debt was largely US denominated. The company then hit difficult times – patent expiry on key drugs being crucial. But rather than looking at restructuring, management believed that its investment in R&D would bear fruit. Therefore, it continued to pay and grow ordinary share dividends, and with its policy to buy-back its own shares (another topic for discussion!), paid for these by taking on more US debt.

This strategy eventually came home to roost: the company reached a position where it could not take on any more debt, but equally could not repatriate its cash because it would create an enormous tax liability. By 2007, Schering-Plough had a disastrous balance sheet (Cash \$2.3bn, Debt \$9.5bn giving net debt of \$7.2bn), having spent \$5.0bn on a share buy-back programme in an attempt to support its share price, and because all management teams believe that their company is undervalued by the market. In 2010, Schering-Plough was put out of its misery by being acquired by Merck & Co.

## Conclusion

Accounting standards across the world should be more consistent with the goal of aligning the P&L account with the cashflow statement and with the balance sheet to help in their understanding. The catalyst for change should be the fact that virtually every listed company provides, but then ignores, the statutory reporting requirements and generates its own version of non-GAAP core EPS, largely because they are much larger than statutory/reported EPS and management remuneration is often linked to EPS performance/growth.

There is recognition for the need to improve with a discussion paper issued by the UK Financial Reporting Council entitled 'Improving the Statement of Cash Flows'. Meanwhile, the Hardman Life Sciences team will continue to generate underlying performance figures through the P&L account and use the 'direct' approach to generate operational cashflows and OCF/share figures from which the financial performance of companies can be compared.

## FTSE 100 auditor survey – 2016/17

FTSE 100 auditor survey			
Ticker	Company	Starting point for cashflow reconciliation	Auditor
III	3I GRP.	Investments	Ernst & Young
ADM	ADMIRAL GROUP	Net income/PAT	Deloitte
AAL	ANGLO AMERICAN	Profit before tax	Deloitte
ANTO	ANTOFAGASTA	Profit before tax	PricewaterhouseCoopers
AHT	ASHTREAD GROUP	Operating profit (BE & Amort)	Deloitte
ABF	ASSOCIATED BRITISH FOODS	Profit before tax	Ernst & Young
AZN	ASTRAZENECA	Profit before tax	KPMG
AV.	AVIVA	Operating profit (BE)	PricewaterhouseCoopers
BAB	BABCOCK INTL	Operating profit (BE & Amort)	PricewaterhouseCoopers
BA.	BAE SYSTEMS	Net income/PAT	KPMG
BARC	BARCLAYS	Profit before tax	PricewaterhouseCoopers
BDEV	BARRATT DEVELOPMENTS	Operating profit	Deloitte
BLT	BHP BILLITON	Profit before tax	KPMG
BP.	BP	Profit before tax	Ernst & Young
BATS	BR.AMER.TOB.	Operating profit	KPMG
BLND	BRITISH LAND	Operating profit	PricewaterhouseCoopers
BT.A	BT GROUP	Profit before tax	PricewaterhouseCoopers
BNZL	BUNZL	Profit before tax	PricewaterhouseCoopers
BRBY	BURBERRY GRP	Operating profit	PricewaterhouseCoopers
CCL	CARNIVAL	Net income	PricewaterhouseCoopers
CNA	CENTRICA	Operating profit	PricewaterhouseCoopers
CCH	COCACOLA HBC AG	Net income/PAT	PricewaterhouseCoopers
CPG	COMPASS GROUP	Operating profit	KPMG
CTEC	CONVATEC	Net income	Deloitte
CRH	CRH	Profit before tax	Ernst & Young
CRDA	CRODA INTL.	Operating profit	PricewaterhouseCoopers
DCC	DCC	Net income	KPMG
DGE	DIAGEO	Net income	PricewaterhouseCoopers
DLG	DIRECT LINE	Net income	Deloitte
EZJ	EASYJET	Operating profit	PricewaterhouseCoopers
EXPN	EXPERIAN	Profit before tax	KPMG
FERG	FERGUSON	Net income	Deloitte
FRES	FRESNILLO	Net income	Ernst & Young
GFS	G4S	Operating profit	PricewaterhouseCoopers
GKN	GKN	Operating profit	Deloitte
GSK	GLAXOSMITHKLINE	Net income/PAT	PricewaterhouseCoopers
GLEN	GLENCORE	Profit before tax	Deloitte
HMSO	HAMMERSON	Operating profit	Deloitte
HL.	HARGREAVES LANSDOWN	Net income/PAT	PricewaterhouseCoopers

Source: Company reports; Hardman & Co Research

## FTSE 100 auditor survey cont...

Ticker	Company	Starting point for cashflow reconciliation	Auditor
HSBA	HSBC HOLDINGS	Profit before tax	PricewaterhouseCoopers
IMB	IMPERIAL BRANDS	Operating profit	PricewaterhouseCoopers
INF	INFORMA	Profit before tax	Deloitte
IHG	INTERCONTINTAL HOTELS	Net income	Ernst & Young
IAG	INTERNATIONAL AIRLINES GRP.	Operating profit	Ernst & Young
ITRK	INTERTEK GROUP	Net income	PricewaterhouseCoopers
ITV	ITV	Profit before tax	KPMG
JMAT	JOHNSON MATTHEY	Profit before tax	KPMG
KGF	KINGFISHER	Operating profit	Deloitte
LAND	LAND SECURITIES	Operating profit	Ernst & Young
LGEN	LEGAL&GENERAL	Net income/PAT	PricewaterhouseCoopers
LLOY	LLOYDS BANKING GROUP	Profit before tax	PricewaterhouseCoopers
LSE	LONDON STOCK EXCH. GROUP	Profit before tax	Ernst & Young
MKS	MARKS & SPENCER	Net income/PAT	Deloitte
MDC	MEDICLINIC	Profit before tax	PricewaterhouseCoopers
MERL	MERLIN ENTERTAINMENTS	Net income/PAT	KPMG
MCRO	MICRO FOCUS	Net income/PAT	PricewaterhouseCoopers
MNDI	MONDI	Profit before tax	Deloitte
MRW	MORRISON (WM)	Net income/PAT	PricewaterhouseCoopers
NG.	NATIONAL GRID	Operating profit	PricewaterhouseCoopers
NXT	NEXT	Operating profit	Ernst & Young
OML	OLD MUTUAL	Profit before tax	KPMG
PPB	PADDY POWER BETFAIR	Net income/PAT	KPMG
PSON	PEARSON	Net income/PAT	PricewaterhouseCoopers
PSN	PERSIMMON	Net income/PAT	Ernst & Young
PFG	PROVIDENT FIN.	Net income/PAT	Deloitte
PRU	PRUDENTIAL	Profit before tax	KPMG
RRS	RANDGOLD RESOURCES	Net income/PAT	BDO
RB.	RB GROUP	Operating profit	PricewaterhouseCoopers
REL	RELX GROUP	Profit before tax	Ernst & Young
RTO	RENTOKIL INITL.	Operating profit	KPMG
RIO	RIO TINTO	Net income/PAT	PricewaterhouseCoopers
RR.	ROLLS-ROYCE HLG	Operating profit	KPMG
RBS	ROYAL BANK SCOTLAND	Operating profit	Ernst & Young
RDSA	ROYAL DUTCH SHELL	Net income	Ernst & Young
RMG	ROYAL MAIL	Profit before tax	KPMG
RSA	RSA INSURANCE	Profit before tax	KPMG
SGE	SAGE GROUP	Net income/PAT	Ernst & Young
SBRY	SAINSBURY(J)	Profit before tax	Ernst & Young
SDR	SCHRODERS	Profit before tax	PricewaterhouseCoopers
MT	SCOTTISH MORTGAGE	Profit before tax	KPMG
SGRO	SEGRO	Operating profit	PricewaterhouseCoopers

Source: Company reports, Hardman &amp; Co Research

## FTSE 100 auditor survey cont...

Ticker	Company	Starting point for cashflow reconciliation	Auditor
SVT	SEVERN TRENT	Profit before tax	Deloitte
SHP	SHIRE	Net income	Deloitte
SKY	SKY PLC	Profit before tax	Deloitte
SN.	SMITH & NEPHEW	Profit before tax	KPMG
SMIN	SMITHS GROUP	Operating profit	PricewaterhouseCoopers
SKG	SMURFIT KAPPA	Profit before tax	PricewaterhouseCoopers
SSE	SSE	Operating profit	KPMG
STJ	ST.JAMES'S PLACE	Profit before tax	PricewaterhouseCoopers
STAN	STANDARD CHART.	Profit before tax	KPMG
SL.	STANDARD LIFE	Profit before tax	PricewaterhouseCoopers
TW.	TAYLOR WIMPEY	Operating profit	Deloitte
TSCO	TESCO	Operating profit	Deloitte
TUI	TUI AG	Net income/PAT	PricewaterhouseCoopers
ULVR	UNILEVER	Net income	KPMG
UU.	UNITED UTILITIES	Profit before tax	KPMG
VOD	VODAFONE GROUP	Net income/PAT	PricewaterhouseCoopers
WTB	WHITBREAD	Net income/PAT	Deloitte
WPG	WORLDPAY GROUP	Profit before tax	KPMG
WPP	WPP	Net income	Deloitte

Source: Company reports, Hardman & Co Research

## Life Sciences clients



## Hardman & Co Life Sciences Team

### Dr Martin Hall

020 7194 7632



Dr Martin Hall has been a pharmaceutical and healthcare analyst in the City for 30 years and joined Hardman & Co in 2013.

He studied Pharmacy (B.Pharm.Hons) at The London School of Pharmacy, followed by a Ph.D at the Institute of Psychiatry, London investigating the underlying mechanisms of Parkinson's Disease and schizophrenia. After post-doctoral experience at the Collège de France, Paris, and at the Parke-Davis (Warner Lambert) Research Centre in Cambridge, entered the City as a pharmaceutical/healthcare analyst in 1987, working mostly at UBS and HSBC, taking the strategic view that the sector should be viewed on a global basis. From 2004 until 2012, Martin worked at Eden Financial where he undertook bespoke research before developing a corporate finance franchise. This work has continued at Hardman & Co since 2013.

### Dr Dorothea Hill

020 7194 7626



Dr Dorothea Hill is relatively new to the City, joining the Life Sciences team at Hardman & Co in 2016.

Dorothea's expertise lies in next-generation sequencing, following her DPhil in molecular biology at the University of Oxford. Her academic research involved the use of genomics to understand the biology of bacterial pathogens in order to inform vaccine intervention. She was part of several public-private partnerships that involved biotech companies, patient charities, and Public Health England. Prior to her PhD, Dorothea worked for the Gates Foundation/Wellcome Trust-funded MenAfriCar Consortium, characterising the meningococcal epidemiology of countries of the African Meningitis Belt prior to MenAfriVac roll out. She is an author of nine peer-reviewed publications, and has a BA(Hons) in biological sciences from St Catherine's College, Oxford.

### Dr Gregoire Pave

020 7194 7628



Dr Gregoire Pave is also relatively new to the City, joining the Life Sciences team at Hardman & Co in 2016.

Greg has considerable experience in the field of drug discovery and development. After successfully gaining his PhD in medicinal chemistry in 2003, he obtained a post-doctoral position at Imperial College London, working on natural product synthesis. He then joined Cancer Research Technology, the development and commercial arm of Cancer Research UK in 2005 where he was involved in multiple oncology projects. Greg has broad experience in drug discovery/development projects from target identification/validation all the way through to clinical trials. He also gained valuable experiences in evaluating life science projects and their commercial opportunities. He played a role of reviewer in peer-review journals from the American Chemical Society. He is author of 14 scientific papers and owner of 4 patents, and holds the IMC and PRINCE2 qualifications.

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