

Introduction

For accounting periods beginning on or after 1st January 2005, all UK's listed companies must adopt international accounting standard in their group financial statement. This Regulation introduces important changes, this report is aimed to provide an evaluation of the impact of such changeover from UK GAAP to International GAAP (IFRS) on the performance and financial position of two UK listed companies -- the BOC group and Porvair Plc, both of which are operating in the chemical industry.

Being a capital-intensive industry, the quality of research and development expenditures has significant impact on chemical companies' activities of almost all aspects.

The following parts of this report are directed to be industry-specific and firm-specific, where institutional background will be reviewed to briefly examine issues specific and relevant to this industry and two selected companies. Also, detailed analysis will be initiated to look at the impact of such changeover on three particular issues that are central to financial statements. After that, implications to the balance sheet and reported earnings per share (EPS) for each company will be given. In conclusion part, limitation of this report will be accompanied by brief recommendation as to the impact on accounting quality resulted from the changeover.

Although the latest accounts of Porvair plc are not available, the comparability will not be affected.

Institutional Background

The chemical industry I am looking at is regulated and no specific standard for this industry is found. Although the two firms share similar long-term objectives of delivering superior returns for shareholders based on sustained growth in earnings and improvements in capital efficiency. Porvair Plc is focused on significantly increasing research and development investment and improving operational efficiencies. However, the BOC group is prone to merger and acquisition internationally. In addition, Porvair's new adoption of FRS 17 had noticeable impact on its 2002 accounts, especially with higher charge to its P/L account.

Both firms face certain degree of financial risks, for example, Porvair plc is currently operating in different trading conditions, which force them to cut cost where necessary and accelerate new product programmes, while problems in currency assets transfer may impact significantly on the BOC group's balance sheet. Those issues are likely to have noticeable impact on the two companies' financial statements.

Analysis

Timing of adoption to International Accounting Policies

There is no statement found as to the 2005 adoption of international accounting standards (IAS) in any of the two companies' annual accounts obtained. However, since the BOC group is also listed in the New York Stock Exchange, reconciliation from UK GAAP to US GAAP was made to certain accounts. Because the current international accounting standards share many similarities with the US GAAP, the BOC group may find it relative easier in adopting IAS next year compared to Porvair Plc, having made initiatives to review the difference of accounting standards in different regions.

It may be predicted that the two companies may initiate some changes to their accounting policies to respond to this convergence in this ongoing year, since they may need the 2004 accounts in place to give comparatives.

Deferred Tax

Although both IAS 12 and FRS 19 require full provision for deferred tax, they use a different approach to determine the provision, suggesting that the overall bases of those two standards differ fundamentally. FRS 19 liability method is based on timing differences, with no recognition of permanent difference. IAS 12 adopts the temporary difference approach whereby an entity should provide for deferred tax whenever there is a difference between the carrying amount and the tax base of an asset or liability, which may also cause some permanent difference to be recognized. In addition, discounting of deferred tax allowed under FRS 19 is prohibited under IAS 12. Those differences in recognition methods determine different amounts of deferred tax, since arguably IAS 12 is believed to lead to companies making excessive provisions.

Although in the case of the two companies understudy, it is stated in their accounting policies that deferred tax assets and liabilities are not discounted. In order to make meaningful comparison for FRS 19 to IAS 12 without the knowledge of detailed information relating to how deferred tax is recognized in the selected companies' statements, *the following assumptions are necessary to validate the calculations below*,

- The amount of deferred tax will be the same arising from timing difference and temporary difference.
- The current discount rate under UK GAAP is 10%

PORVAIR PLC

It is provided in the company's 2002 report that deferred tax is £2.5m under FRS 19. Therefore, under IAS 12, this figure will be adjusted to $£2.5m \times 1.10 = £2.75m$.

The BOC GROUP

The company's reported deferred tax under UK GAAP is £272.6m in 2003. Under IAS 12, the deferred tax figure will increase to $£272.6m \times 1.10 = £299.8m$.

The calculations seem to prove that the tax liability for a UK company will increase due to the prohibition of discounting deferred tax under IAS 12. This may affect reported earning after taxation and interest expense to decrease.

Retirement Benefits

UK pension standard FRS 17 – Retirement benefits requires that immediate recognition of all actuarial gains and losses in the statement of total recognized gains and losses (STRGL). In contrast, IAS 19 allows them to be included in the profit and loss account, except that they need not be recognised if they fall below the corridor, which is equivalent to 10% of the greater of the present value of the obligation and fair value of the fund. It also permits any excess to be spread forward over remaining working lives of scheme members. In addition, disclosure is major issue for both standards, while FRS 17 is arguably more extensive with numerous extra requirements, attempting to give full information to the users of the financial statements about the status of the pension schemes. In addition, it is said that FRS 17 has promoted concerns over its volatility in reported earnings and the exposure of previously hidden deficits in companies' pension funds, as a result, companies may decide to reduce their pension funding to improve earnings; while to a certain extent, the pension treatment of IAS 19 can smooth out its impact on revenues.

PORVAIR PLC

There is total actuarial loss of 2.4m recognized in the statement of recognized gains and losses. Under IAS 19, since this figure has exceeded so-called 10% corridor by comparing with present value of plan liabilities of 22.1m found on note 27 of Porvair's 2002 accounts, such excessive losses will be allowed to spread over the expected average remaining service lives of scheme members and subsequently recognized as an expense in the P/L account.

Assume the expected average remaining working lives of scheme member is 25 years.

As a result, under IAS 19, Porvair's profit for this financial year will accordingly decrease by $(2.4m/25) = 0.096m$

The BOC GROUP

Actuarial loss recognized on the pension schemes of £ (17.5)m is found on STRGL ended 30 September 2003, while gross pension liability is £ (341.8)m. Under IAS 19, actuarial loss does not need to be recognized in the income statement, since it falls below the specified level, in other words, the changeover from FRS 17 to IAS 19 will have little impact on 2003 P/L account of the BOC group.

Intangible Assets

FRS 10 and IAS 38 contain many similar requirements relating to intangible assets. For example, expense research cost as incurred, capitalization of purchased goodwill etc. However, there are fundamental differences between UK GAAP and IAS that will affect quoted UK plc financial statements in this area.

- The criteria for capitalizing development costs under IAS are similar, but stricter than criteria under UK GAAP. Also, if such criteria are met, development costs must be capitalized, as in IAS 38, rather than optional as is the current position in UK GAAP.
- FRS 10 allows an intangible asset, especially goodwill to have an indefinite life, while IAS 38 does not. Under IAS 38, it is agreed that any amortization should be written off over 5 years, which may however be extended. Under FRS 10, intangible assets are amortised over their economic useful life, which normally no more than 20 years. Therefore, compared to FRS 10, intangible assets have a shorter written-off period under IAS 38.

Currently, UK Practice varies with companies capitalizing their development costs, while others writing off all development expenditure as it is incurred.

Under UK GAAP, prudence may prevail, such a conservative policy may lead to an understatement of a company's assets, thus it may not give a true presentation of the business. By contrast, compulsory capitalization of specific development costs under IAS 38 may increase the net assets of those entities, also the income statement will be affected by amortization, rather than by expense. In addition, IAS 38 requires a reporting entity to demonstrate, rather than have reasonable expectations of future benefits to be able to capitalize. In my opinion, although IAS 38 may be more rule-based, it allows better comparability arising from improved consistency of treatments.

PORVAIR PLC

Research and development expense of 5.2m can be found in 2002 consolidated profit and loss account. Goodwill (35.7m) is the only item of intangible assets of Porvair Plc founded in balance sheet and is currently amortised over its average economic life of 15 years under FRS 10.

The BOC GROUP

Research cost of 21.5m and development expenditure of £14m are included in administrative expenses of year 2003. At 30 September 2003, intangible assets including goodwill of the BOC group is 232.3m, amortization of which is 31.1m.

The following assumptions may be necessary to carry on the calculations to see the impact resulting from the changeover from FRS 10 to IAS 38 on financial statements of the two companies.

- Since Porvair Plc sees their R&D costs are of a development nature, so it is reasonable to assume that R&D cost of Porvair can be capitalized.
- Development expenditure of both companies satisfies the criteria for development costs to be recognized as an asset, as prescribed by IAS 38, thus can be capitalized and amortised from the year it is incurred.
- Under IAS 38, all intangible assets are assumed to be written off over 5 years on a straight line basis.
- Ignore amortisation of intangible assets including development expenditure and goodwill acquired in proceeding years.

Porvair Plc

P/L Account for the year ended 30 November 2002

Group 2002 £'000

<i>Gross Profit</i>	22,002
<i>Costs & Expenses</i>	
Distribution cost	(1,892)
Amortisation of R&D (5.2m/5)	(1040)
Administrative – other	(16,009)
Goodwill amortization	(7146)
Other income	<u>87</u>
<i>Total group operating profit /(loss) Under IAS 38</i>	(3978)
<i>Total group operating profit /(loss) Under FRS 10</i>	(4061)
<i>Difference</i>	83

Balance Sheet as at 30 November 2002

Group 2002 £'000

<i>Intangible fixed assets</i>	
Goodwill	35,731
Goodwill amortization	(7,146)
R&D capitalized	5,900
Amortization of R&D incurred (5.2m/5)	<u>(1,040)</u>
<i>Intangible fixed assets Under IAS 38</i>	33,445
<i>Intangible fixed assets Under FRS 10</i>	33,349
Difference	96

The BOC group

P/L Account for the year ended 30 September 2003

£m

<i>Gross Profit</i>	1,580.4
<i>Net operating expenses</i>	
Distribution cost	(321.7)
Research costs	(21.5)
Amortisation of development cost incurred (14m/5)	(2.8)
Administrative – other	(873.3)
Amortisation of intangible assets	(46.5)
Other income	<u>1.7</u>
<i>Operating profit /(loss) Under IAS 38</i>	312.3
<i>Operating profit /(loss) Under FRS 10</i>	309.2
Difference	3.1

Balance sheet as at 30 September 2003	£m
<i>Intangible assets</i>	
Development costs	18.4
Amortisation of development cost incurred (14m/5)	(2.8)
Intangible assets	232.3
Amortisation of intangible assets	<u>(46.5)</u>
<i>Total intangible assets Under IAS 38</i>	201.4
<i>Total intangible assets Under FRS 10</i>	206.1
Difference	(4.7)

Proven by above calculations, initial overstatement of reported profits and intangible assets by capitalizing development expenditure under IAS 38 was subsequently diminished through quicker amortization of goodwill and other intangible assets. With goodwill as a large component of intangible assets of the BOC group, 5 year amortization leads a decrease of 4.7 million in total intangible assets after the standards changeover.

Cash Flow

There are many other issues that may arise from the changeover from UK GAAP to international GAAP. One of the most significant issues is the difference relating to cash flow statement. FRS 1 is generally considered to be superior to IAS 7. Firstly by focusing on more narrowly on changes in cash, FRS 1 separates changes between cash and cash equivalents, while under IAS 7 hidden manipulation may be undetected, since the term of cash equivalent contains a level of subjectivity. In addition, by requiring a reconciliation of changes in cash to net debt, FRS 1 provides more information about an enterprise's treasury activities, thus comparability of accounts may improve due to more extensive disclosure requirements.

Porvair Plc

Since increase in cash showed on the company's 2002 consolidated cash flow statement is simply the difference between the 2002 balance of cash at bank and in hand and the equivalent 2001 balance. Also there is no fraudulent treatment detected relating to misclassification of liability to profit. Therefore, the changeover from FRS 1 to IAS 7 is unlikely to have any impact on the 2002 cash flow statement.

The BOC group

There is a decrease in cash of 102.5m showed on the 2003 Group cash flow statement, however, it excluded a decrease of 16.2m in liquid resources like government bonds. If assume those liquid resources fall within the classification of cash equivalent, they will be required to be included on cash flow statement under IAS 7. Therefore, the standard changeover will result in 16.2m decrease in cash and cash equivalent.

In the absence of fraud, the change in cash (and cash equivalent) flow will not affect the P/L account which is under an accrual basis nor the balance sheet.

Implication

Balance Sheet

The balance sheets of the two companies are reconstructed as follows, comparison between the accounts under IAS and FRS are also made.

PROVAIR PLC

	IAS £'000	FRS £'000
Fixed assets		
<i>Intangible fixed assets</i>		
Goodwill	35,731	35,731
Goodwill amortization	(7,146)	(2,382)
R&D capitalized	5,900	
Amortization of R&D incurred	(1,040)	
<i>Intangible fixed assets</i>	33,445	33,349
Tangible assets	20,734	20,734
Investments	<u>2,348</u>	<u>2,348</u>
	56,527	56,431
Current assets	<u>37,716</u>	<u>37,716</u>
	94,243	94,147
Current liabilities	(28,442)	(28,442)
Net current assets/(liabilities)	9,274	9,274
Total assets less current liabilities	65,801	65,705
Provision for liabilities and charges (Deferred tax)	(2,750)	(2,455)
Net assets	<u>63,051</u>	<u>63,250</u>

The BOC GROUP

	IAS <i>£million</i>	FRS <i>£million</i>
Fixed assets		
<i>Intangible assets</i>		
Development costs	18.4	
Amortisation of development cost	(2.8)	
Intangible assets	232.3	232.3
Amortisation of intangible assets	<u>(46.5)</u>	<u>(31.1)</u>
	201.4	206.1
Tangible assets	2,913.4	2,913.4
Investments	<u>656.7</u>	<u>656.7</u>
	3,771.5	3,776.2
Current assets	<u>1,104.9</u>	<u>1,104.9</u>
	4,876.4	4,881.1
Current liabilities	(1,168.2)	(1,168.2)
Total assets less current liabilities	3,708.2	3,712.9
Long-term liabilities	(1,133.1)	(1,133.1)
Provision for liabilities and charges (including deferred tax)	(403.8)	(376.6)
Net assets	<u>2,171.3</u>	<u>2,203.2</u>

It can be clearly observed that the changeover of standards may influence total net assets of both companies to be understated under IAS as opposed to FRS. Such a decrease in net assets may vary a number of accounting ratios, thus the competitiveness of both companies may be negatively affected.

However it does not mean that this is the case for all companies, it has to depend on accounts of specific companies, since every company may be prone to different accounting policies and financial activities.

Earnings per share

The EPS figure is widely considered as a key figure to assess management performance of a company, a minor difference in reported figure can result in significant impact on the company's financial positions. The basic EPS as shown in the P/L accounts of the two companies are calculated by reference to the profit or loss attributed to shareholders and

the average number of shares in issue during the year on a time weighted basis. It appears the same as the diluted EPS in the case of those two companies.

IAS tends to interpret earnings differently from FRS. For example, an item may be continued in the UK EPS calculation, but excluded under IAS as discontinuing due to different classification of items. This in turn would affect an assessment of whether an item was dilutive. In addition, FRS 14 is seen to have more interpretative guidance than IAS 33. Thus, it is reasonable to predict that under IAS the EPS figure will be different from that proposed under FRS.

It shows in the table below that EPS of both companies appear to be lower under IAS, which is a compound effect that the changeover has on intangible assets, pension costs, deferred tax, compared to the equivalent figure under FRS. The difference arising from cash flow normally doesn't affect earnings in the short term.

Overall, this decrease in EFS may weaken the marketability of shares of the two companies.

	Porvair Plc 2002 account £'000	The BOC group 2003 account £m
Earnings (loss) per UK GAAP as stated in annual accounts	(1879)	219.1
Intangible assets differences (FRS10 to IAS 38)	+83	+3.1
Pension cost differences (FRS 17 to IAS 19)	-96	NIL
Deferred tax differences (FRS 12 to IAS 33)	-250	-27.2
Earnings per IAS	(2142)	195
Weighted average number of shares (in Million)	36.8	497.7
EPS per IAS (Diluted and basic) (in Pence)	(5.8)	39.2
EPS per UK GAAP (Diluted and Basic) (in Pence)	(5.1)	44.5

Conclusion

Despite the vast similarities, there are fundamental differences between UK GAAP and international GAAP, especially on the four major issues analyzed above. With the aid of assumptions and calculations, it can be claimed that the imminent changeover from UK GAAP to IFRS will affect the reported performance and financial position of Porvair Plc and the BOC group with lower net assets and earning per share. Although the analysis is case-specific, general implication is not difficult to conclude: IAS adopts relatively more aggressive accounting standards with rule-based framework, similar to US GAAP. While UK GAAP follow a more prudent approach with extensive disclosure requirements.

This report is a simplified analysis of the effect of standards changeover to the selected companies with many limitations, constrained by the scope of this course. Assumptions are stated before related calculations in order to simplify and validate the analysis.

If more time was allowed to spend on the report, I would like to analyze the above issues in greater depth and also address additional issues that might be affected by the changeover:

- Tangible fixed assets
- Consolidated balance sheet and profit and loss account
- Operating leases

To sum up, more efforts are expected of IASB to review the current IAS. Currently there is lack of international consensus on the major issue of appropriate measurement bases, if different companies in the same industry adopt significantly different accounting practice, reliability and comparability of accounts will be undermined. Overall, FRS has more extensive disclosure requirements compared to IAS, in the absence of further improvement, IAS may lower the quality of UK accounting by failing to deliver a complete picture of companies' financial and business activities to shareholders and investors. Therefore, it is essential for IASB to work closely with ASB to undertake a convergence project to solve the incompatibilities between UK GAAP and international GAAP and achieve general acceptance on fundamental issues

(word count: 2650)

Reference

Elliott, B & J, Elliott, 2004, Financial Accounting and Reporting, eighth edition, Glasgow: Prentice Hall

International accounting standards, similarities and differences between IAS, US GAAP and UK GAAP

Available at:

<http://www.pwcglobal.com/extweb/pwcpublishings.nsf/DocID/803E18F1DDD4A91E852568CC0055602B>

International accounting standards and 2005

Available at:

<http://www.avaudit.com/resources/publications/InternationalAccountingStandardsand2005.pdf>

Samantha Harrison, Publishing industry: the future of intangible assets under IAS

Available at: <http://www.iasplus.com/dtppubs/publish.pdf>

Student accountant: Convergence of UK GAAP to IAS Part 1

Available at: <http://www.acca.org.uk/publications/studentaccountant/568644>

Student accountant: Convergence of UK GAAP to IAS Part 2

Available at: <http://www.acca.org.uk/publications/studentaccountant/625482>