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# **Risk Management Disclosure Practices of UK Non-financial Firms after FRS 13**

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## **Abstract**

In the United Kingdom Financial Reporting Standard (FRS) 13, which came into force for March 1999 year-ends, requires narrative and numerical disclosure of all financial instruments held or issued, in order to provide information about their impact on the firm's risk profile. We use this information to examine the interest rate and currency profile of financial liabilities and assets. We find that UK firms on average have a greater proportion of assets and liabilities tied to floating rates of interest and that they tend to match the interest rate profile of assets and liabilities. Although sterling liabilities on average represent over half of total liabilities, for firms holding sterling and non-sterling debt the US dollar was the dominant currency. We also find a relationship between the level of foreign operations and foreign debt. Since the foreign debt profile is disclosed after the effect of derivatives, this result suggests that cross-currency swaps are used for hedging.

*Key words:* Corporate Hedging, Derivatives, Foreign Currency Debt  
*JEL classification:* G32

## **1. INTRODUCTION**

In March 1999 Financial Reporting Standard (FRS) 13 – “Derivatives and Other Financial Instruments: Disclosures” came into force. FRS 13 requires narrative and numerical disclosure in annual reports of all financial instruments held or issued. In particular firms must specify the currency in which liabilities and assets are held, and show separately those liabilities and assets at fixed interest rates and those at floating interest rates. This information is disclosed after the effect of financial derivatives. The objective is to provide information on the firm's financial risk profile. This paper collects this information from the annual reports of 100 UK non-financial firms for the period March 1999 to December 1999 and analyses it in terms of the fixed floating interest rate mix and the foreign currency debt mix. This breakdown is important for distinguishing between firms that use financial derivatives for hedging and those that use them for speculation. For example, if a firm is using currency or interest rate derivatives, then a currency mismatch between assets and liabilities or an interest rate mismatch between assets and liabilities implies speculation rather than hedging and, thus, higher risk.

## **2. INTEREST RATE PROFILE OF FINANCIAL LIABILITIES AND ASSETS**

Across the sample an average of 44.8 per cent of total debt is fixed, 52.4 per cent is at floating rates of interest and around 3 per cent is non-interest bearing. Therefore, firms, on average, have a higher proportion of floating rate liabilities than fixed rate.

Where the currency breakdown on fixed rate liabilities is concerned, fixed rate liabilities were held most frequently in Sterling, the US dollar and the Euro. Sterling liabilities were fixed on average for 6.94 years, US dollar liabilities for 4.75 years, and Euro liabilities for 3.18 years. The interest rate profile of financial assets is slightly different to that of liabilities. Whereas floating rates accounted for only 52.4 percent of liabilities, 79 per cent of financial assets earned floating rate interest.

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At first glance it seems that there might be a speculative exposure due to a mismatch between floating assets and liabilities. However, for matching to be successful it is not necessary that the proportion of floating rate financial liabilities equal the proportion of floating rate financial assets. Successful matching takes place when, the amount of floating rate financial liabilities is equal to the amount of floating rate financial assets. For example, consider a firm that has total debt amounting to £100m with £10m or 10% of this debt at floating rates of interest. This firm holds £10m worth of financial assets, all at floating rates of interest. Although, in this example the proportions of floating rate debt and assets are not equal the actual amounts are equal.

Relevant data on floating rate financial assets and liabilities was available for 81 firms. Of these, 22 firms had more floating rate financial assets than floating rate liabilities, which means that floating rate liabilities were fully hedged. A further 14 firms hedged between 71 and 100 per cent of their floating rate liabilities, and 7 firms hedged between 51 and 70 per cent. Therefore, of the 81 firms with available data, more than half hedged over 50 per cent of their floating rate financial liabilities with floating rate financial assets.

### *Industry Analysis of Fixed-Floating Interest Rate Mix*

Table 1 presents the average proportion of fixed rate debt for firms by industry and the level of gearing for the firm with the lowest and highest proportion of fixed rate debt in each industry. The table ranks industries by the average proportion of fixed rate debt and shows that there is a great deal of variation in the fixed-floating debt mix across industries. A comparison of gearing levels within an industry reveals that in 15 out of 27 industry sectors the level of gearing for the firm with the highest proportion of fixed rate debt is greater than that for the firm with the lowest proportion of fixed rate debt. This finding suggests that the level of gearing is potentially one of the factors that influence a firm's fixed-floating debt profile.

An industry analysis of the length of time fixed rates are fixed generates results that are very similar to those above, which examine the fixed-floating debt mix across industries. We find that firms with the highest proportion of fixed rate debt also tend to fix the interest rates on this debt for the longest period of time. For example, firms in the property sector not only have on average the highest proportion of fixed rate debt but they also fix this debt for the longest number of years.

### **3. FOREIGN CURRENCY PROFILE OF FINANCIAL LIABILITIES**

The currency profile of financial liabilities provides details of the currencies in which liabilities are held and the amounts of fixed and floating rate liabilities held in each currency. The amount of debt held in each currency is disclosed after the effect of interest rate and currency derivatives. Our analysis shows that liabilities were held most frequently in Sterling followed by the US dollar, the Euro and the Australian dollar.

Ninety firms held liabilities in Sterling and on average, these liabilities represented 54.2 per cent of total liabilities for these firms. Sixty-eight firms held liabilities in US dollars and on average these dollar liabilities made up 42.6 per cent of the total for these firms. The average proportion of Euro liabilities held by firms was 24.8 per cent. For firms holding both Sterling and US dollar liabilities the average proportion of US dollar liabilities exceeded the average proportion of Sterling liabilities. Furthermore, 54.1 per cent (33 firms) of these firms had a higher proportion of US dollar financial liabilities than Sterling liabilities.<sup>1</sup> For firms that possess Sterling, US dollar and Euro financial liabilities, the US dollar is by far the most dominant currency with on average 43.26 per cent of financial liabilities held in US dollars. Furthermore, 65.6 per cent (21 firms) of these firms had a higher proportion of US dollar financial liabilities than Sterling liabilities.

Where a company has extensive overseas investments, it may borrow in foreign currencies to protect the balance sheet. In order to examine the relationship between level of foreign debt (non-sterling financial liabilities) and the level of foreign operations we divide the sample of 100 firms into two groups, those with the proportion of foreign debt less than or equal to the median level of 52.9 per cent and those higher than the median level. We examine whether there is a significant difference in the level of foreign operations between these two groups by using two proxies for the level of foreign operations, foreign sales by origin divided by total sales and the foreign tax ratio, defined as the ratio of foreign tax to total tax. The results in Table 2 show that firms with higher levels of foreign debt have statistically significant higher levels of foreign operations. This finding is consistent with the notion that firms use foreign debt to hedge the foreign exchange exposure arising from foreign operations.

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<sup>1</sup> A further 3 firms had US dollar financial liabilities but no Sterling financial liabilities.

**Table 1. Proportion of Fixed Rate Debt by Industry and Gearing Levels by Industry for Firms with Lowest and Highest Proportion of Fixed Rate Debt**

Industry	No. of firms	Average % of fixed rate debt in industry	Gearing for firm with lowest % of fixed debt	Gearing for firm with highest % of fixed debt
Property	4	71.9	40	22
Electricity Production & Distribution	6	69.8	33	8
Broadcasting & Satellite TV	2	66.2	18	1
Telecommunication	6	62.8	0	24
Tobacco	3	59.5	36	3
Water	3	57.0	18	15
Medical Equipment	2	56.1	15	31
Airlines & Airports	2	55.4	3	22
Hotels & Leisure Facilities	4	53.8	0	20
Oil	3	51.5	21	1
Food Retailing	4	50.1	21	0
Pharmaceuticals	2	49.4	1	34
Breweries, Pubs & Restaurants	4	48.5	17	38
Business Support	3	45.6	12	1
Chemicals	3	45.5	5	24
Engineering, Defence, Aerospace	6	43.7	3	31
Publishing & Printing	8	42.2	4	24
Software	2	42.0	0	16
Rail, Road & Freight	3	38.2	12	0
Building Materials & Merchants	5	36.3	0	1
Retailers, Multiple Department Stores	4	30.8	68	5
Media Agencies	2	29.8	4	6
Gas Distribution	2	25.5	5	6
Mining	2	25.1	9	15
Electronic Equipment	3	23.9	0	19
Food Processors	2	22.8	9	0
Computer Services	3	8.9	64	5
Paper Manufacture	1		NA	
Distillers & Vintners	1		NA	
Household Products	1		NA	
Distributing Industrial Components	1		NA	
Retailers, Soft Goods	1		NA	
Retailers, Hardlines	1		NA	
Shipping & Ports	1		NA	
TOTAL	100			

**Table 2. Differences in the Mean Level of Foreign Operations between Firms with High and Low Levels of Foreign Debt**

Level of Foreign Operations	Foreign debt > median		Foreign debt ≤ median		Mean % Difference	t -statistic	p-value
	No.	Mean %	No.	Mean %			
Foreign sales by origin – 1998	44	60.21	36	27.48	32.74	5.46	0.000
Foreign sales by origin – 1999	45	61.23	36	28.58	32.65	5.58	0.000
Foreign tax ratio – 1998	49	54.73	48	16.98	37.76	6.62	0.000
Foreign tax ratio – 1999	48	36.98	46	17.07	19.91	2.47	0.016

#### **4. SUMMARY AND CONCLUSIONS**

This paper has presented the initial results from an analysis of FRS13 disclosures in the annual reports of 100 UK non-financial firms for the period March 1999 to December 1999. We find that liabilities and assets are mainly held in Sterling, the US dollar and the Euro. We also find that in the case of both financial liabilities and assets firms on average have a greater proportion of liabilities and assets tied to floating rate indices than to fixed rates of interest.

We find evidence of attempts made by firms to match the interest rate profile of liabilities and assets. This suggests that the level of financial assets might be one of the factors that influence a firm's fixed floating debt mix. Our analysis shows that sterling liabilities were on average equal to over half of total liabilities. However, for firms holding sterling and non-sterling debt the US dollar was the dominant currency in which debt was held. We also find evidence in support of a relationship between the level of foreign operations and the level of foreign debt. This is consistent with the argument that firms use foreign currency debt for the purposes of hedging the exposure arising from foreign currency assets. Since the foreign currency debt mix is disclosed after the effect of derivatives this finding also implies that cross currency swaps are on average being used for hedging purposes.

#### **REFERENCES**

Accounting Standards Board (1998) *FRS 13 - Derivatives and other Financial Instruments: Disclosures*.