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# Performance pricing and covenants in debt contracts in the UK

# (R. A. Chatterjee, 2006)[1]

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**Abstract**

This paper explores the development of performance pricing (PP) and empirically examines accounting triggers in covenants in debt contracts for UK companies. With covenants alone, the lender could increase the interest rate during the lifetime of a loan only if the borrowing company violated the covenants in the loan agreement. PP makes the link between accounting ratios and credit terms more formal, and automatic: changes in credit quality revealed in accounting ratios can lead directly to a change in the interest rate, via a formula agreed ex ante when the contract is designed. It can reduce the lender's and borrower's contracting cost-each change in the borrower's status does not lead to renegotiation, but to an automatic adjustment in terms.

We find that the innovation in debt contracts witnessed in recent years in the US is making inroads in the UK debt market. If such devices become as commonly used in the UK, they could have a material effect on moral hazard, adverse selection and transaction costs for lenders and borrowers. They could also create new incentives for creative accounting: due to these contracts, manipulation of accounts can have an effect on earnings, by reducing the interest rate.

## 1. Introduction

This paper explores the development of performance pricing and looks at accounting triggers in covenants in debt contracts for UK companies. Performance pricing is at a relatively recent stage of evolution in debt contracting from the well-established utilisation of covenants in such contracts. With covenants alone, the lender could increase the interest rate during the lifetime of a loan (generally represented as a fixed spread over a floating benchmark) only if the borrowing company violated the covenants in the loan agreement. For the UK, Day and Taylor (2001) have analysed such covenants, written in terms of financial ratios such as balance sheet gearing or interest cover. If these ratios deteriorate so that the borrower violates the covenant, the bank can in principle call in the loan immediately; but more commonly there would be a re-contracting of terms: the effective interest rate would be increased and/or extra collateral be required. If, on the other hand, the ratios improve during the term of the loan – a proxy for improvements in credit quality – the borrower can only benefit by securing a replacement contract (with the existing or a fresh lender), which reflects the borrower's improved status.

Performance pricing makes the link between accounting ratios and credit terms more formal, and automatic: changes in credit quality revealed in accounting ratios[i] can lead directly to a change in the interest rate, via a formula agreed ex ante when the contract is designed:-changes in borrower performance is monitored. For the lender this reduces potential vulnerability to declines in the lender's credit quality – reducing moral hazard and adverse selection costs. It can reduce the lender's contracting costs – each change in the borrower's status does not lead to complex renegotiation, but to an automatic adjustment in terms. Similarly, the borrower does not have to incur significant re-contracting costs in order to benefit from a lower interest rate if its credit quality rises.

These potential benefits of performance pricing (building on the benefits long acknowledged (e.g. Watts and Zimmerman, 1986) of using accounting information to reduce contracting costs) may, however, in some cases be accompanied by certain costs. Earlier uses of accounting information in contracts have been found to stimulate the use of earnings management and other creative accounting devices in order to

make opportunistic gains. For example, companies close to violating debt covenants appear to have manipulated accounting data (Sweeney, 1994)[ii], as have those approaching triggers in performance related pay contracts (Healy 1985); and awareness of these tendencies has increased in the wake of the scandals such as Enron, Xerox and WorldCom. By pushing back the frontiers of contracting with accounting information, performance pricing therefore relates to a whole family of current issues in corporate finance and accounting, from adverse selection to earnings management.

In the United States, the market for debt has rapidly adopted performance pricing in contracts. Asquith, Beatty and Weber (2005) (hereafter Asquith et al.) report on 8099 contracts in the period 1994 to 1998 which embody performance pricing. In the UK, while it is clear from casual observation that performance pricing has appeared in some debt contracts, we are aware of no systematic review of their use. This paper therefore offers a description of the incidence and type of performance pricing provision in the debt contracts of a defined population of UK companies. It reviews the contracts of UK based companies in the Securities Data Company's (SDC) database for the period January 1992 to January 2002, identifying contracts with performance pricing provisions, identifying the accounting variables driving those contract provisions, reporting the sensitivity of interest rates to changes in accounting variables, and sketching some characteristics of lenders and borrowers in these contracts. In addition, we also examine the characteristics of the various accounting triggers which are in place in covenants from this sample.

The rest of the paper is organised as follows. Section 2 provides background on the reporting requirements of debt contracts in the US and UK. Section 3 provides an overview of accounting triggers in loan covenants and examines general provisions relating to covenants. Section 4 discusses the sample selection procedures, and section 5 uses the performance pricing contract and covenant of a UK company (Stagecoach PLC) as an example of the features which may be found in these contracts. Section 6 presents our results and the conclusions are discussed in section 7.

**2. Reporting Requirements in the US**

The performance pricing and covenant disclosures we have picked up for UK firms is contingent upon the firm being cross-listed in the US, and voluntarily disclosing details in their Securities and Exchange Commission SEC 20-F reports. SEC 20-F reports are filed annually by most foreign issuers, six months after the end of their fiscal year. They are essentially the foreign equivalent of the annual 10-K report. The SEC documents the disclosure requirements relating to long term public debt (defined as 'instruments defining the rights of security holders including identures', exhibit 4 of the annual 10-K or 20-F report) and material contracts (exhibit 10 of the annual 10-K or 20-F report) under Item 601. The disclosure requirements of exhibit 4 (instruments defining the rights of security holders including identures) are:

i. All instruments that define the rights of holders of the equity or debt securities that the issuer is registering, including the pages From the articles of incorporation or by-laws that define those rights.

ii. All instruments defining the rights of holders of long-term debt unless the total amount of debt covered by the instrument does not exceed 10% of the total assets of the small business issuer.

iii. Copies of indentures to be qualified under the Trust Indenture Act of 1939 shall include an itemized table of contents and a cross-reference sheet showing the location of the provisions inserted in accordance with Sections 310 through 318(a) of that Act.

The disclosure requirements for exhibit 10, Material Contracts are:

i. Every material contract, not made in the ordinary course of business, that will be performed after the filing of the registration statement or report or was entered into not more than two years before such filing. Also include the following contracts:

   A. Any contract to which directors, officers, promoters, voting trustees, security holders named in the registration statement or report, or underwriters are parties other than contracts involving only the purchase or sale of current assets having a determinable market price, at such market price;

   B. Any contract upon which the small business issuer's business is substantially dependent, such as contracts with principal customers, principal suppliers, franchise agreements, etc.;

C. Any contract for the purchase or sale of any property, plant or equipment for a consideration exceeding 15 percent of such assets of the small business issuer; or

D. Any material lease under which a part of the property described in the registration statement or report is held by the small business Issuer.

The combination of the long-term public debt (exhibit 4) and material contract (exhibit 10) clauses leads to the availability of details relating to certain loan covenants and performance pricing. In this paper, we take advantage of foreign issuers of debt who are cross-listed on the US stock exchange, who voluntarily disclose such details in their 20-F filings.

**Reporting requirements in the UK**

Disclosure requirements relating to debt are contained within FRS 4 (Accounting for capital instruments). In summary, the UK disclosure requirements are far less detailed than the US. Typically, the main disclosure requirements relate to the debt maturity analysis (within one year, one to two years, two to five years and five years or more) and for any debentures issued during the year, the amount, class and consideration received.[iii] This is in stark contrast to the US requirements detailed above, where material loans have to be disclosed in full, i.e. giving details of covenants and performance pricing where applicable.

**3. Accounting triggers in loan covenants**

For the UK Citron (1992) found that the accounting variables most commonly represented in loan covenants were minimum net worth, interest cover and gearing. Day and Taylor (2003) analyse financial ratio covenants in the clothing and media/ marketing industries[iv] and confirm the recurrence of those same three variables, along with a financial covenant based on a working capital-based test (the "debenture test" is essentially a covenant based on trade debtors or trade debtors plus stock). We analysed the available covenants for UK companies on the SDC database: these are presented below in table 6.

*Accounting policy re: fixed / rolling UK GAAP:- General Provisions relating to covenants*

Covenants also lay out whether, and to what extent, covenants may be affected by mandatory and voluntary changes in GAAP (see Beatty, Ramesh and Weber, 2002). Below is the wording related to Accounting Principles extracted from one of Danka PLC's (a provider of office imaging equipment, solutions and related services and supplies) loan agreements. This wording essentially suggests that the loan covenants are calculated upon the GAAP as at the outset of the loan, and excludes any subsequent voluntary changes in GAAP. However, the wording below appears to allow the lenders to adopt mandatory changes in GAAP. In this loan agreement, GAAP is defined as US GAAP.

Accounting Principles (taken from a Danka PLC loan agreement, FORM-TYPE: 10-Q Exhibit 4. Rights of Security Holders- FILING-DATE: **August** 13, 2002)

'Unless the context otherwise clearly requires, all accounting terms not expressly defined herein shall be construed, and all financial computations required under this Agreement shall be made, in accordance with GAAP, consistently applied as utilized by the Companies. If any change after the Closing Date in GAAP as in effect on the Closing Date shall result in a change in any calculation required to determine compliance with any provision contained in this Agreement, the Companies and the Majority Banks will negotiate in good faith to amend such provision in a manner to reflect such change such that the determination of compliance with such provision shall yield the same substantive result as

would have been obtained prior to such change in GAAP. Until such an amendment is entered into, covenants shall be calculated in accordance with GAAP as in effect immediately preceding such change.'

**4. Sample selection**

The contracts analysed are obtained from the Thomson Financial SDC Global New Issues, Syndicated Loans Database. The database contains financial information on public and private UK firms, but in particular, we focussed upon debt contracts containing a performance pricing component. The source of the SDC data is from SEC filings, news sources, wires and surveys of loan syndication contacts.

We identified all companies satisfying the following conditions:

i) they had an ultimate parent registered in the UK
ii) their debt contracts fell in the period January 1992 to January 2002
iii) their debt contracts included a performance pricing condition

Our initial search, however, was for UK firms having bank debt contracts on the SCD database, and this led to a sample of 5928 observations. This sample includes companies who have fixed interest rates, performance pricing features based on measures of financial performance and 'date-based' performance pricing measures i.e. the rate of interest on the loan changes for different time periods. Of the sample of 5928 contracts, 123 observations remained once we excluded observations which did not have performance pricing debt contracts:- this comprised 64 distinct companies, and 59 additional contracts (i.e. having the same performance pricing grid, margin description and interest rate structure as the first contract of the company, but differing in the principal amount being drawn) from the 64 distinct firms. Additionally, there were 9 observations which had missing information e.g. no grid. Thus, the total potential sample, including those with no performance grid, comprised 132 observations. For this paper, we focused our performance pricing analysis upon the 64 distinct firm observations, and our covenant analysis upon the 69 observations that included data on covenants.
Our results are presented in section 6.

This performance pricing total was surprisingly low in view of the fact that Asquith et al. (2005) found 8099 contracts for US companies in the period 1994 to 1998 alone. It is probable that most UK firms choose not to disclose details of their contracts as there is no compulsion to do so. It is therefore probable that reporting was incomplete for the UK sub-population, and that our sample is therefore incomplete; but there is no

clear way of testing for this; and so we analyse the available data, but with the disclaimer that there may be other unreported cases, and those other cases will not necessarily have the same characteristics as the ones
we assess.

**5. Performance Pricing Contract and Covenant of Stagecoach PLC**

Table 1 provides an example of a typical pricing grid. It is from a Stagecoach PLC loan contract, a leading UK based transportation company.

**Table 1: Performance Pricing and Loan Covenant of Stagecoach PLC, a leading UK based transportation company**

*Descriptive Information on Stagecoach's $750 million line of credit agreement*
The following information was abstracted from Stagecoach's loan.

| | |
|---|---|
| Loan commences | 1/11/99 |
| Loan expires | 31/10/03 |
| Grid | Yes |
| Adjustment Period | Annually, at balance sheet date |
| Initial Spread at Inception | Missing |

**Performance Pricing Grid**

| Level | Debt/EBITDA | LIBOR Plus |
|---|---|---|
| 1 | >4 | 112.5 |
| 2 | >3.5 = 4 | 100 |
| 3 | >3 = < 3.5 | 87.5 |
| 4 | =<3 | 75 |

**Covenants**

| Begin Date | End Date | Covenant | Value |
|---|---|---|---|
| 1/11/99 | 31/10/00 | Debt-EBITDA | <=4.5 |
| 1/11/99 | 31/10/00 | Interest Cover | >=3.5 |
| 1/11/00 | 31/10/01 | Debt-EBITDA | <=3.5 |
| 1/11/00 | 31/10/01 | Interest Cover | >=3.5 |
| 1/11/01 | 31/10/02 | Debt-EBITDA | <=3.5 |
| 1/11/01 | 31/10/02 | Interest Cover | >=4.0 |
| 1/11/02 | 31/10/03 | Debt-EBITDA | <=3.0 |
| 1/11/02 | 31/10/03 | Interest Cover | >=4.0 |
| 1/11/99 | 31/10/03 | Net Worth | >= £350m plus proceeds from new equity |

The pricing grid in this contract has 4 levels and details the LIBOR rate that will be charged for corresponding total debt-to-EBITDA (earnings before interest, tax, depreciation and amortisation) ratios. The contract requires that the spread over LIBOR be adjusted at the end of each financial year at the balance sheet date. The performance-pricing range is 37.5 basis points as the spread over LIBOR can be reduced to 75 basis points or increased to 112.5 basis points depending upon whether Stagecoach experiences a corresponding decrease or an increase in their debt-to-EBITDA ratio.

Changes in the borrower's credit quality as apparently reflected by accounting ratios will rapidly be reflected in the interest rate during the loan period; but it can also be seen that, if, in the draft accounts, Stagecoach's debt-to-EBITDA ratio falls, for example, just above the trigger point of 3, there will be incentives to embark upon creative accounting to reduce it below that level and secure an interest rate lower by 12.5 basis points.

The net worth covenant is concerned with ensuring that the total assets minus the total liabilities of Stagecoach exceed £350m. This figure excludes any proceeds from the issue of new equity (which the company may otherwise choose to embark upon to prevent a breach of this covenant).

The initial spread at the inception of the loan is, unfortunately, missing.

Turning now to covenants, from table 1 above, we witness examples of a tightening of the debt-EBITDA ratio (from 4.5 to 3.5, down to 3 over the period 1/11/99 to 31/10/03), and also an increase in the interest cover ratio from 3.5 to 4 over a similar period. These are both examples of escalating/tightening/ratcheting of covenants. One possible explanation for this tightening up/ ratcheting effect may be that as the loans get closer to maturity, banks seek greater comfort that the company is likely to be in a position to be able to repay the principal outstanding.

Note that there is also a net worth covenant, stipulating that the net worth of Stagecoach is no less than £350m plus proceeds from new equity from 1/11/99 to 31/10/03.

## 6. Results

*Performance Pricing*

Table 2 below reports the triggers used in our sample of 64 firm observations.

**Table 2: Triggers used in performance pricing contracts**

| **Margin Description** | No. | % |
|---|---|---|
| Debt / EBITDA | 26.5 | 41.41% |
| S&P LT Debt Rating | 12 | 18.75% |
| Utilization | 8 | 12.50% |
| Interest coverage | 5.5 | 8.59% |
| Moodys LT Debt Rating | 5 | 7.81% |
| Amount Outstanding | 2.5 | 3.91% |
| Debt (liab) to net worth (Equity) | 2 | 3.13% |
| Comittment Level | 1 | 1.56% |
| Debt / Capitalisation | 1 | 1.56% |
| Fixed Charge coverage ratio | 0.5 | 0.78% |
| | | |
| Total | 64 | 100% |

From table 2, we observe that agencies' debt ratings (combining S&P and Moodys) account for around 26.6% of the triggers, and coverage ratios accounting for some 9.4% of triggers (Asquith et al. (2005), for the US, report debt ratings occurring in some 15% of performance pricing contracts in the US, and coverage ratios occurring some 8% of the time); but the most common trigger (over 41% of the cases) is the accounting ratio, debt-to-EBITDA, combining balance sheet and income statement data. In this respect the results resemble those of Asquith et al. (2005) who found 49.4% use the debt-to-EBITDA ratio. Some 26.5% of the performance pricing contracts contain two or more financial measures of performance (Asquith et al. (2005) found only 7% of their contracts containing two or financial measures of performance).

Table 3 below summarises the performance pricing grids in these contracts, showing the sensitivity of the interest rate to changes in the performance measure. It shows the number of contracts in which a particular performance metric appears, the average spread over LIBOR for each performance metric, the average performance

pricing range due to the steps over the grid (by how much the interest rate changes over the grid), the average initial spread over LIBOR at the inception of the contract. Table 3 also shows the average number of steps across the grid, and the average amount borrowed under the debt contract, in millions of dollars.

**Table 3: Descriptive statistics on the design of performance pricing grids**

| **Performance Pricing Measure** | **Number of Contracts** | **Average Spread (in basis points) over LIBOR** | **Average Performance Pricing Range** | **Average Initial Spread (in bps) over LIBOR** | **Average Number of Steps** | **Average Amount ($m)** |
|---|---|---|---|---|---|---|
| Debt-to-EBITDA | 27 | 76.7-128 | 51.3 | 115.5 | 3.37 | 669.5 |
| S&P LT Debt Rating | 18 | 54.3-103.2 | 48.9 | 68.8 | 3.33 | 5930.2 |
| Moodys LT Debt Rating | 12 | 63.5-113.8 | 50.3 | 76.3 | 3.42 | 5871.4 |
| Utilization | 10 | 49.1- 77.3 | 28.2 | 62 | 2.70 | 1510 |
| Interest coverage | 6 | 86.5-120 | 33.5 | 117.5 | 2.83 | 493.4 |
| Amount Outstanding | 3 | 125 -175 | 50 | 175 | 2.5 | 215 |
| Debt (liab) to net worth (Equity) | 2 | 50 - 60 | 10 | 50 | 3 | 429.2 |
| Commitment Level | 1 | 40-55 | 15 | 55 | 3 | 3152.1 |
| Debt / Capitalisation | 1 | 30-32.5 | 2.5 | 32.5 | 2 | 82.5 |
| Fixed Charge coverage ratio | 1 | 37.5-100 | 62.5 | - | 4 | 400 |
| **Total** | **81** | | | | | |
| **Sample Average** | | **65.9-110.3** | **44.4** | **90.3** | **3.24** | **2653.8** |

The average pricing grid for this sample has between 2 and 4 performance pricing steps (between 4 and 5 for the US, Asquith et al. (2005)) – an overall average of 3.2, as against 4.8 in the Asquith et al. (2005) study for the US. The impact of the steps change across the grid in the trigger variable ranges from 2.5 to 62.5 basis points, with an average of 44 compared with 56.4 for the US.[v] Performance pricing contracts that use the Debt-to-EBITDA ratio have a pricing range of 51 basis points, while contracts

that use debt ratings have a range of almost 49.5 basis points:- the pricing range for the Debt-to-EBITDA ratio is in contrast to the findings of Asquith et al. (2005) who find a range of 92 basis points, although our findings for the debt ratings concur with those of Asquith et al. (2005), who report 48 basis points. Overall, then, it would appear that the US has a slightly greater average performance pricing range, across a greater number of grids compared to the UK. One possible reason for this maybe that the US has more experience in performance pricing contracts, and has consequently slightly more sophisticated contracts compared to the UK.

Performance-pricing contracts also provide an additional source of evidence on the nature of the contracting costs they are designed to reduce. This evidence is in the design of interest pricing grids. On first pass, it might be expected that the initial interest rate spread would occur in the middle of the pricing grid. And on the basis of the average initial spread over LIBOR, and the average spread over LIBOR across the entire grid, this does indeed appear to be borne out (although the loans are initially priced slightly above the middle of the grid). There are, however, notable differences between where the loan is initially priced, according to the performance pricing measure being used. We find, for example, that firms having Debt-to-EBITDA, interest coverage, amount outstanding, commitment level and debt/capitalisation performance pricing measures, have contracts starting the firm towards the top of the performance pricing grid. Conversely, debt rating measures and debt to net worth ratios lead to firms starting at the bottom of the performance pricing grid, with firms using the utilization measure falling somewhere in the middle of the grid initially. A possible explanation could be the fact that debt ratings are conducted by external agencies, and therefore may be less susceptible to manipulation relative to other measures, which may be driven by financial data, over which management may have some scope for discretion. Consequently, firms having debt agency performance pricing measures may be 'rewarded' through a relatively lower initial spread at the inception of the loan contract.

Our findings are in the same direction, although not as strong as Asquith et al. (2005), who report that the plurality of loans are initially placed at the top of the pricing grid. They conjecture that the high percentage of firms at the top is probably because the aspect of performance pricing that is the greatest innovation is the ability to re-contract for increases for credit quality. For firms at the top of the grid, deterioration

in credit quality is penalised in the same way as firms with standard fixed-spread debt. That is, covenants allow the lender to renegotiate the terms of the contract.

Finally, turning to the average size of the loans that have performance pricing components, we see that loans appear to involve not insignificant amounts (some $2.65bn). Further, we observe some interesting differences in the average amount of the loan according to the performance pricing ratio e.g. when debt rating ratios are used, the average amount of the loan exceeds $5.9bn, although this falls to under $670m when Debt-to-EBITDA is the performance ratio, and to $82.5m when Debt/Capitalisation is the measure used. A possible explanation of why the average size of the loan appears to be large for contracts using debt ratings might be because only larger companies (who might be expected to borrow more in absolute terms) would have their debt rated by an external rating agency.

**The lenders**

Table 4 below shows the banks who were lenders for this sample of performance pricing contracts.[vi] As can be seen, the list is dominated by a handful of banks i.e. over 70% of all the performance pricing contracts are relationships involving the top 6 banks in the table. And of these top 6 banks, 5 are banks whose origins can be traced to the United Kingdom.

**Table 4: Banks who are lenders of performance pricing contracts**

| Lenders of PP firms | No. | % |
|---|---|---|
| Barclays | 15 | 23.4% |
| Royal Bank of Scotland | 8 | 12.5% |
| Natwest | 7 | 10.9% |
| HSBC | 6 | 9.4% |
| Chase | 6 | 9.4% |
| Lloyds | 3 | 4.7% |
| Citicorp | 3 | 4.7% |
| ABN Amro | 3 | 4.7% |
| WestLB | 2 | 3.1% |
| Rabobank | 2 | 3.1% |
| LBCMG | 2 | 3.1% |
| First Union | 2 | 3.1% |
| Bank of America | 2 | 3.1% |
| Scapus | 1 | 1.6% |
| Nationsbank | 1 | 1.6% |
| Den Norske | 1 | 1.6% |
| | 64 | 100.0% |

**Industry of the borrowers**

From table 5 below it appears that three industries appear to dominate the performance pricing arena- namely, the telecommunications, electricity and leisure industry, which combined account for almost 25% of the performance pricing sample. Note that manufacturers are disaggregated according to what they manufacture, but combined together, they represent approximately 19% of the sample (12 out of 64 observations), which combined with the three industries mentioned above account for some 44% of observations.

**Table 5: Industry of the borrowers using Performance Pricing in Debt Contracts**

| Sorted by industries | Number | % |
|---|---|---|
| Pvd global communications svcs | 6 | 9.38 |
| Electric utility | 5 | 7.81 |
| Own and operate public houses, hotels | 4 | 6.25 |
| Dvlp finl, healthcare software | 3 | 4.69 |
| Investment holding company | 3 | 4.69 |
| Manufacture chemical products | 3 | 4.69 |
| Publish newspapers, periodicals | 3 | 4.69 |
| Manufacturing of bikes, cars, bus bodies | 2 | 3.13 |
| Mnfr turbine components | 2 | 3.13 |
| Oil and gas exploration prod | 2 | 3.13 |
| Own and operate cable TV sys, radio | 2 | 3.13 |
| Produce beverages | 2 | 3.13 |
| Produce foods; holding company | 2 | 3.13 |
| Provide non-banking fin svcs | 2 | 3.13 |
| Pvd computer svcs | 2 | 3.13 |
| Pvd electricity prodn, distn | 2 | 3.13 |
| Water utility | 2 | 3.13 |
| Diving company | 1 | 1.56 |
| Insurance agency | 1 | 1.56 |
| Mnfr cement, concrete, hldg co | 1 | 1.56 |
| Mnfr paper,pkg prod | 1 | 1.56 |
| Mnfr photgraphic equip,film | 1 | 1.56 |
| Mnfr prepared pharmaceuticals | 1 | 1.56 |
| Mnfr, whl prepared animal feeds | 1 | 1.56 |
| Produce breakfast cereals | 1 | 1.56 |
| Provide data processing svcs | 1 | 1.56 |
| Provide freight transp svcs | 1 | 1.56 |
| Provide home health care svcs | 1 | 1.56 |
| Pvd communications services | 1 | 1.56 |
| Provide public transport srvcs | 1 | 1.56 |
| Pvd recruitment, security svcs | 1 | 1.56 |
| Retail frozen foods; holding co | 1 | 1.56 |
| Special purpose company | 1 | 1.56 |
| Whl photocopiers, parts | 1 | 1.56 |
| | 64 | 100.00 |

**Accounting triggers used in UK covenants**

Table 6 below summarises the accounting triggers used in UK covenants.

**Table 6: Accounting triggers used in a sample of UK covenants**

| COVENANT DATA [2] | Number | Percentage |
|---|---|---|
| **Debt-to-EBITDA** | 17.663 | 25.6% |
| **Interest Cover** | 15.10 | 21.9% |
| **Fixed Charge Cover** | 12.17 | 17.6% |
| **Tangible Net Worth** | 8.414 | 12.2% |
| **Capital Expenditure** | 5.25 | 7.6% |
| **Gearing** | 2.6 | 3.8% |
| **Cash Flow-Debt** | 2 | 2.9% |
| **Insurance** | 1.6 | 2.3% |
| **Accounting policies** | 1.6 | 2.3% |
| **Changing Business** | 1.6 | 2.3% |
| **Revenue** | 1 | 1.4% |
| **Total** | 69 | 100.0% |

Interest cover, fixed charge cover and tangible net worth are leading measures; and they are led by the debt-to-EBITDA ratio, which, as we saw in table 2, is also the most dominant variable used in performance pricing contracts.

[2] The reason why the numbers are not integers in the first column is because where a company has more than one covenant measure, these are divided so that the weighting for each company is one.

## 7. Summary

We confirm that the innovation in debt contracts witnessed in recent years in the US is making inroads in the UK debt market. Although doubts remain about omissions from our sample, we have found evidence of contracts by UK companies incorporating performance pricing. The most common trigger of a revised interest rate turns out to be the debt-to-EBITDA ratio: on average, crossing thresholds for this ratio located 3.37 steps apart leads to a change of 51 basis points in the interest rate. Overall for our entire sample, we find that on average, crossing across the 3.24 steps leads to a change of 44 basis points in interest rates, over a range of some 66 to 110 basis points. Additionally, we find that the initial spread over LIBOR is some 90 points, which is approximately in the middle of the pricing grid, although very much towards the 'higher end' of the middle of the grid. Finally, we found that the average size of the loans that have performance pricing components appears to be relatively large, at some $2.65bn.

If such devices become as commonly used in the UK as in the US, they could have a material effect on moral hazard, adverse selection and transaction costs for lenders and borrowers. They could also create major new incentives for creative accounting: because of these contracts, manipulation of the accounts can have a significant effect on earnings[vii], by reducing the interest rate.

## Notes

[i] Again, it should be stressed that this assumes that the accounting ratios used in these contracts measures credit quality- in reality, is likely that accounting ratios can only be a proxy at best for a change in credit quality.
[ii] It should be noted that Sweeney (1994) uses proxy measures for closeness to debt covenants, and does not actually use the covenants themselves.
[iii] There are some relevant operating and financial review disclosures, but these are not mandatory.
[iv] Albeit for small businesses.
[v] The average number of levels on the performance pricing grid for Continental European firms (i.e. excluding the UK) for a sample of 181 firms was 4.40. Thus, the UK has a statistically significantly lower number of levels on the grid (at the 1% level of significance) compared to the rest of Europe.
[vi] The generalised comments we make should be read in the context that our sample size is small (and quite possibly unrepresentative). This caveat also applies to the generalisations we make below regarding the industry of the borrowers.
[vii] Although not as costly as a covenant breach.

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