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The choice of hedging techniques and the characteristics of UK industrial firms

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Abstract

This study presents the empirical results for the relationship between the use of hedging techniques and the characteristics of UK multinational enterprises (MNEs). All the firms in the sample hedge foreign exchange (FX) exposure. The results indicate that UK firms focus on a very narrow set of hedging techniques. They make much greater use of derivatives than internal hedging techniques. The degree of utilisation of both internal and external techniques depends on the type of exposure that is hedged. Furthermore, the characteristics of the firms appear to explain the choice of hedging technique but the use of certain hedging techniques appears to be associated with increases in the variability of some accounting measures. This adverse impact of hedging has not been emphasised in the finance literature. The results imply that firms need to ensure that the appropriate techniques are used to hedge exposures. © 2000 Elsevier Science B.V. All rights reserved.

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1. Introduction

Most theoretical studies that seek to explain why industrial firms hedge exposure focus on differences in the financial characteristics of users and non-users of hedging techniques[1]. The empirical work which seeks to test the theoretical predic-

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[1] For a review of the literature see Levi and Sercu (1991), Nance et al. (1993) and Joseph and Hewins (1997).

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tions takes a similar focus. However, the findings for certain hypothesised relationships are often weak in both univariate and multivariate statistical tests (see Dolde, 1993; Nance et al., 1993). One possible explanation for the weak empirical results of certain theoretical predictions relates to research design. For example, to identify US industrial firms as hedgers (users) and non-hedgers (non-users), both Nance et al. (1993) and Dolde (1995) used a questionnaire survey which required respondents to indicate whether or not they use one (or more) of *four* currency derivatives, i.e. forward, futures, swap and/or option contracts. In contrast, Berkman and Bradbury (1996) choose to categorise the firms in their study in terms of the hedging information contained in their audited financial reports (see also Francis and Stephan, 1993; Geczy et al., 1997). Since firms are only required to disclose exposure information if such information is material, this latter approach may not fully capture the hedging activities of firms. However, both approaches seem restrictive since firms use a wide range of internal and external techniques (including derivatives) to hedge foreign exchange (FX) and interest rate exposures (see Stanley and Block, 1980; Khoury and Chan, 1988). Furthermore, some firms may not hedge simply because they have no exposure while others may not hedge or partially hedge depending on their perception about FX rate behaviour and/or their confidence in using derivatives (see Dolde, 1993). These considerations therefore have important implications for the empirical results of prior studies.

This study seeks to provide additional insights into the hedging behaviour of UK firms by focusing on: (i) the degree of utilisation of a broad set of hedging techniques; (ii) the maturity structures of those hedging techniques; and (iii) the sources or types of exposures that are hedged. Those aspects are examined because firms are known to make use of a wide range of techniques when hedging exposure and to exercise substantial flexibility in hedging decisions (see Hakkarainen et al., 1998). Although newer financial innovations can reduce the demand for traditional types of hedging techniques (see Tufano, 1995), empirical evidence indicates that firms are not very receptive to the newer and more complex types of derivatives. This is because firms are concerned about the banks' commitment to those products and their ability to provide real solutions to exposure problems (see Fairlamb, 1988; Glaum and Belk, 1992). Furthermore, managers can always adjust their hedging decisions to reflect their expectations of changes in financial prices. Thus, if the forward rate is a biased predictor, managers can alter their hedging strategies to accommodate this effect. Here, a partial or no hedge or fully hedged strategy can be optimal for both transaction and economic exposures (see Berg and Moore, 1991; Schooley and White, 1995). Since firms tend to place more emphasis on transaction exposure than on economic and translation exposures (Khoury and Chan, 1988; Joseph and Hewins, 1991), their use of hedging techniques may reflect the types of exposures they hedge.

An examination of a broad set of hedging techniques is also warranted since in certain situations, the use of some techniques can give rise to adverse