



Some insights into the foreign exchange pricing puzzle: Evidence from a small open economy

Jianguo Chen*, Michael Naylor, Xingshen Lu

*Department of Finance, Banking and Property, College of Business, Massey University,
Palmerston North, New Zealand*

Received 3 January 2002; accepted 6 March 2003

Abstract

One of the great puzzles of international finance research has been the surprising finding that firm value is only mildly sensitive, if at all, to exchange rate fluctuations. This runs against the conclusions of the standard net discounted cash flow theory. In this article we examine this puzzle, and provide some insights by looking at whether the result is peculiar to large economies like the US, using improved methodology including a residual regression model, the use of individual firm data, and looking at the effect of different exchange rates. We do find clear evidence that exchange rate movements affect the value of listed firms. We also find that the direction and degree of sensitivity is dependant on the currency used.

© 2003 Elsevier Science B.V. All rights reserved.

JEL classification: G12

Keywords: Exchange rate risk; Asset pricing; New Zealand stock market; Small and open economy

1. Introduction

The effect of exchange rate movements on the value of a firm has become an important field in both academic research and practical investment analysis. Academic researchers and industry investors are faced with important questions to answer: (i) does the volatility of exchange rates affect firm value and (ii) is this exchange rate effect reflected in stock prices? Then, if the answers are yes, the next two questions are: (iii) how sensitive is the value of firms to exchange rate movement and (iv) what factors are important in determining the degree of this sensitivity?

* Corresponding author. Tel.: +64-6-359-5077x2338; fax: +64-6-350-5651.

E-mail address: J.G.Chen@massey.ac.nz (J. Chen).

Conventional wisdom and economic theory suggest a positive answer to the first question—changes in the relative prices of domestic and foreign goods are widely believed to influence the current and future expected cash flows of the firms with foreign sales and operations abroad. This should change the NPV of the firm, and thus the market capitalisation of the firm will react to movements in exchange rates. Even firms that are mainly domestic in nature may also be affected by exchange rates as their input and output price linkages, or their supply and demand chains, or their competitors' prices, might be influenced by currency movements.

The efficient market hypothesis would also argue that this information should be priced into share prices immediately. The size of the reaction will be complex, as it will depend on the various determinants of the NPV, the diversification of the firm's cash flows and assets/liabilities, and the expected duration of the change in the exchange rate. However, the effect should be significant. Note that only unexpected changes in the exchange rate will affect share prices, as expected changes will already be priced in.

There is a two-step linkage here: (i) changes in exchange rates should affect firm value and (ii) investors should recognize this information and price it into shares. A failure to find a relationship between exchange rates and share prices could be caused by the break down of either link. We would argue that, given the unusually exposed nature of the New Zealand (NZ) economy, both these links, in theory, should be stronger in NZ than in the US.

The puzzle in this area arises because previous empirical studies have shown only mixed results with regard to the impact of unexpected changes in foreign exchange rate on firm value. Findings vary depending on the firm sample selection and models employed. However, the general research conclusion is that firm value is only mildly sensitive to exchange rate fluctuations, if at all.

There have been a limited number of research papers that have documented a small but significant correlation between exchange rate movements and changes in firm value. [Choi and Prasad \(1995\)](#), [Booth and Rotenberg \(1990\)](#) and [Frennberg, \(1994\)](#) did find significant sensitivity. However, the mean values of that sensitivity were far lower than they should be in theory. Conversely [Jorion \(1990\)](#), [Amihud \(1994\)](#), [Gao \(2000\)](#), [Doidge et al. \(2000\)](#), [Di Iorio and Faff \(2002\)](#) and [Griffin and Stulz \(2001\)](#) found only weak or insignificant sensitivity of firm value to exchange rate exposure, [Bartov and Bodnar \(1994\)](#) found only a lagged relation, implying a degree of market inefficiency, and [Allayannis \(1997\)](#), [Chow et al. \(1997\)](#) and [Bodnar and Wong \(2000\)](#) found only exposure over a long horizon. [Jorion \(1990\)](#) and [Shin and Soenen \(1999\)](#) also found that hedging activities exhibit economies of scale and, consequently, the magnitude of exchange rate exposure is less for large firms than for small firms.

The failure to find the expected theoretical relationship has normally been explained in two ways: (i) there were methodological issues, or (ii) there is a basic theoretical failure of the fundamental cash flow model to match reality. We, however, would argue that it is also possible that the relative lack of sensitivity found in previous studies is a peculiarity of large markets. Given that the US stock market is large, with domestic factors playing a predominant role in the determination of both share and consumer goods prices, it is possible that investors are not very focused on changes in international factors. There also tends to be a high degree of price stickiness in the goods market, and delayed exchange

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات