Valuation of Canadian- versus U.S.-Listed Equities: Is There a Discount?

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There is a perception that the equity of Canadian-listed firms trades at a discount relative to the equity of comparable firms listed on exchanges in the United States. If there are systematic differences in valuation between Canadian and U.S. equity markets, Foerster and Karolyi (1999) argue that firms will have an incentive to adopt financing strategies to reduce any negative effects. Such decisions by individual firms could affect the overall depth and liquidity of a country's financial markets, as well as the future viability of those markets.

Our study tests this hypothesis by examining the valuation ratios assigned to the equity of firms listed in these two markets. We find that Canadian-listed firms traded at a discount to U.S.-listed firms over the 1991–2000 period, based on a range of valuation measures. This discount exists even though the median Canadian-listed firm has, on average, a lower cost of equity and higher profitability over the past decade than its U.S.-listed peers. Based on a comparison of Canadian interlisted firms that report under both Canadian and U.S. GAAP, our study rejects accounting differences between Canada and the United States as the source of this discount.

The study focuses on book-to-market and earnings-to-price ratios, and finds that, in line with financial theory, part of the discount is explained by company-specific factors, such as size, industry membership, cost of equity, and profitability. Valuation is also affected by the characteristics of the market where the share is listed. A country discount persists after controlling for company-specific and market-specific factors. This finding is consistent with previous research, which suggests that Canadian and U.S. financial markets remain segmented (Doukas and Switzer 2000; Jorion and Schwartz 1986).

Methodology

The analysis uses annual company accounts data and monthly pricing data on Canadian- and U.S.-listed firms for the period 1990 to 2000. Data were provided by Standard & Poor's Compustat and the Canadian Financial Markets Research Centre. The sample consists of close to 10,000 firms, of which about 7 per cent are Canadian-listed firms and the remainder are U.S.-listed firms. Cross-listed Canadian firms were dropped from the sample in order to focus on country-specific effects.

Factors Affecting Valuation

Differences in valuation for the equity of any given company relative to that of its peers may be explained by company-specific, market-specific, and country-specific factors. Company-specific factors include company size, industry, cost of equity, profitability, the dividend policy of a firm, and secondary-market liquidity. Market-specific variables capture differences in the features of the equity markets that affect all firms listed and traded on a given stock exchange, such as the relative performance of the overall stock market. Finally, country-specific factors capture those institutional features of the financial markets that affect all firms listed and traded within a given jurisdiction, such as the accounting systems used to prepare financial statements.

Evidence of a Country Discount

To test for the existence of significant differences in the valuation of Canadian- and U.S.-listed equities, we compare the valuation of firms

* This note summarizes a recently published Bank of Canada working paper (King and Segal 2003).

listed either exclusively in Canada or in the United States and exclude interlisted firms. Each Canadian firm is matched with comparable U.S.-listed firms based on industry sector and the Canadian firm's size. The valuation of the Canadian-listed firm is then compared with the median of its U.S.-listed counterparts based on four valuation ratios. The valuation ratios are: book-to-market, earnings-to-price, free cash flow-to-enterprise value, and earnings before interest, taxes, depreciation, and amortization (EBITDA)-to-enterprise value.

On average, the median Canadian-listed firm traded at a discount to comparable U.S.-listed firms across a range of valuation measures, despite the fact that the average Canadian-listed firm was more profitable. The differences between Canadian-listed firms and their U.S. counterparts are both statistically significant and economically important. For example, the average Canadian firm traded at a multiple of book value that was 8 per cent lower than its U.S.-listed peers, despite having a return on equity that was higher by 1.5 per cent. Canadian-listed firms had a cost of equity that was higher from 1991 to 1995 by as much as 2 per cent, but they enjoyed a lower cost of equity from 1996 onwards.

The Effect of Accounting

Differences in cross-border valuation may result from differences between Canadian and U.S. generally accepted accounting principles (GAAP). This hypothesis is tested by considering the valuation of roughly 160 Canadian firms that interlist on a U.S. exchange. These firms provide financial results under Canadian GAAP, as well as a reconciliation of financial accounts under U.S. GAAP. The valuation and profitability ratios are calculated for each cross-listed Canadian company using both sets of results. The comparison shows that Canadian and U.S. GAAP are close substitutes, consistent with previous research (Bandyopadhyay, Hilton, and Richardson 2002). There is no statistical difference in return on equity, return on assets, or earnings-to-price between Canadian listings and U.S. listings. The differences in the other valuation measures based on Canadian versus U.S. GAAP were either not economically important or showed no consistent pattern. This comparison suggests that accounting differences do not explain the discount of Canadian-listed firms against their U.S.-listed peers.

The Effect of Market-Specific Factors

Differences in the valuation of Canadian- and U.S.-listed firms may be due to the impact of market-specific factors, such as the characteristics or performance of the stock exchange where a share is listed. This hypothesis is examined using a series of multivariate regressions. The dependent variable for these regressions is book-to-market in one specification and earnings-to-price in a second specification. Each regression includes company-specific variables that have been shown to affect valuation; namely, company size, industry sector, profitability, cost of equity, and earnings retention rate. The inclusion of these variables controls for their impact so that the contribution of market-specific factors can be measured.

Two market-specific variables are included in each regression. The impact of a company's shares having greater liquidity is controlled by including a measure of share turnover. Differences in the risk-adjusted equity returns between Canada and the United States are controlled by including a variable that captures any premium valuation of U.S.-listed firms that may be due to "irrational exuberance." This variable measures the risk-adjusted excess return of each stock market, using a Sharpe ratio. The objective of this specification is to see if a country dummy included in the regression has any incremental power for explaining a firm's valuation. The company-specific and market-specific variables are significant with the correct sign. More importantly, the country dummy is also significant, despite the presence of these other variables, and confirms that Canadian-listed firms trade at a discount to their U.S.-listed peers.

Conclusion

This study finds that Canadian-listed firms are not valued as highly as their U.S.-listed peers, based on comparisons across a series of valuation measures. Variables such as cost of equity, secondary market liquidity, and the risk-adjusted return of the overall stock market did explain part of the discount, but when these factors were controlled for, Canadian-listed firms still exhibited a systematic discount.

These results confirm earlier studies suggesting that Canadian and U.S. equity markets are not perfectly integrated as theory would suggest. Investors do not view Canadian- and U.S.-listed equities as perfect substitutes but assign a risk premium to Canadian listings. The existence of systematic differences in valuation creates incentives for Canadian firms to access U.S. equity markets. Given the findings of this paper, more research is needed to identify the sources of this market segmentation.

References

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