

Capital Gains: Cash versus Stock in Swiss Mergers

Thesis Proposal

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1 Motivation

The goal of this thesis is to examine whether cash mergers are associated with higher takeover premia in Switzerland. Gilson, Scholes and Wolfson (1988) point out that in a cash-for-stock deal target shareholders pay capital gains tax immediately. In a stock deal the taxes are only realized when the asset is sold. Therefore takeover premia should be higher in cash deals. The existing empirical literature finds some support for this. For example, Huang and Walkling (1987) and Hayn (1989) find that target announcement returns in US deals are higher when taxes have to be paid immediately. Consistent with this, Eckbo and Langohr (1989) document higher premia for all cash tender offers in France.

In Switzerland there is no capital gains tax which implies that target shareholders do not have to be compensated in cash transactions. This implies that examining takeover premia in Switzerland provides an excellent opportunity to investigate why cash mergers offer larger premia.

Formally the first hypothesis that I will test is,

H_1 : When there is no capital gains tax (in Switzerland) there is no difference in the takeover premia between cash and stock offers

Additionally, the lack of capital gains tax in Switzerland implies that cash premia should be lower in Switzerland than in other countries. Therefore the second hypothesis of the thesis is:

H_2 : Cash premia should be lower in Switzerland than in countries with capital gains tax.

Formally, the capital gains tax that the investor has to pay depends on the jurisdiction in which the investor pays taxes. This suggests that the country of residence of the investor is going to impact the cash premium (e.g., Nestlé and Roche have a significant amount of foreign owners which all might be liable to pay capital gains in a cash merger). Thus our third hypothesis is:

H₃ : The cash premium in Swiss mergers is increasing in the fraction of foreign ownership.

Both H_1 and H_2 can be tested using readily available data (see Data section), while H_3 requires investor ownership data.

2 Data

Stock price data is collected from Datastream. Merger announcements dates and also descriptive variables (such as information about multiple bidders or method of payment) are available from the Securities Data Corporation (SDC) Database for most developed countries. When I only consider deals where the target is Swiss results in 841 transactions in the period from 1981 to 2014.¹ Further, only keeping those deals where stock price and premium is non-missing and removing duplicates yields 523 deals.

3 Methodology

3.1 Descriptive evidence

The thesis will start by describing in detail the relevant tax situation for private individuals that tender in mergers in Switzerland and in the other countries studied in the thesis.

The premium π_i will be calculated as in Betton and Eckbo (2000):

$$\pi_i = \frac{p_0 - p_{-60}}{p_{-60}},$$

where p_0 is the price at completion date and p_{-60} is the price (corrected for dividends and stock splits) 60 days prior to completion.

The thesis will provide a detailed description of the data set and provide preliminary evidence using univariate sorts. This means comparing the mean offer premium in cash transaction to the mean offer premium in stock transaction and evaluating statistical significance using a simple t-test. Also, the thesis will compare the mean offer premium in Switzerland to those of the other countries studied. The thesis will also present correlations between the variables of interest.

¹According to Baker and Savasoglu (2002) p. 97 SDC is a reliable source from 1981 onwards.

3.2 Tests within Switzerland

Hypothesis 1 will then be tested by running the following regression (control variables and specification is motivated by Betton and Eckbo, 2000):

$$\pi_{i,t} = \alpha_t + \beta_1 MoP_i + \beta_2 Markup_i + \beta_3 Multibid_i + \beta_4 Hostile_i + \beta_5 Toehold_i + \beta_6 Reval._i + \epsilon_{i,t},$$

where *MoP* is a dummy variable that takes the value 1 if the method of payment is cash and 0 if the method of payment is stock. *Multibid* indicates whether there were multiple bids, *Hostile* is a dummy variable that indicates whether the target was hostile towards the acquirer, *Reval.* is the amount of revaluation (as in Malmendier et al., 2014) and *Toehold* indicates the percentage of outstanding shares held by the acquirer prior to making the first bid. The regression will also include time (year) and possibly industry dummies to control for unobserved heterogeneity. We reject H_1 that there is no difference in premia between cash and stock mergers if β_1 is significantly different from zero at conventional levels.

The control *Reval.* is motivated by Malmendier et al. (2014). They provide an alternative reason for cash transactions offering higher premia. Essentially, firms that are purchased with cash are undervalued. The intuition for this is that a bidder will pay with cash in case the target is undervalued because this means the benefit of the undervaluation is not shared with target shareholders. However, if the bidder pays with stock then the undervaluation surplus is shared between bidder and target shareholders.

3.3 Cross-Country analysis

A second implication of the lack of capital gains tax in Switzerland is that cash premia in Switzerland should be lower than in countries with capital gains tax. Thus I can test H_2 using only cash transactions from multiple countries by estimating the following regression:

$$\pi_{i,t} = \alpha_t + \beta_1 Swiss_i + \beta_2 Markup_i + \beta_3 Multibid_i + \beta_4 Hostile_i + \beta_5 Toehold_i + \beta_6 Reval._i + \epsilon_{i,t},$$

where *Swiss* is a dummy variable that takes the value of 1 if the firm is located in Switzerland and otherwise is 0. From H_2 : we would expect that Swiss cash transactions offer lower premia and therefore we reject H_0 if β_1 is negative and statistically significant (we can use a one-sided test).

If time permits and data is available suitable tests for H_3 will be developed and undertaken.

4 Contribution to the literature

The closest paper to this proposal is Franks, Harris and Mayer (1988) that study mergers in the U.K. They find that cash transactions offer a premium, but that this premium was present before the introduction of capital gains (in 1965). This suggests that the cash premium is not solely due to taxes. As such this thesis is a test of this in a modern context.

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