Title
CROSS-BORDER MERGERS AND ACQUISITIONS IN THE WINE INDUSTRY: AN EXAMINATION OF ITS DETERMINANTS

I want to submit an abstract for:
Conference Presentation

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Keywords
Cross-Border Mergers and Acquisitions, Wine Industry

Research Question
What are the determinants of cross-border mergers and acquisitions in the international wine industry?

Methods
Following Erel et al. (2012), we model the motivations cross-border operations through a multivariate regression.

Results
Our primary results show the importance of geography on the determinants of cross-border deals in the wine industry. Further, we test the above model to explain the dominance of cash.

Abstract
The volume of cross-border mergers and acquisitions (M&As) in the wine industry increased in the last decades but was impacted by the financial crisis. Generally speaking, the conceptual determinants of mergers and acquisitions tend to be the same as in cross-border deals. However, cross-border operations add a new set of frictions that can facilitate or impede the deals (Chapman, 2003; Erel et al., 2012; Xie et al., 2017). M&As research has received a great number of contributions from several fields of knowledge. The main research streams in M&As are antecedents (i.e. motivations) and outcomes (performance) (Lebedev et al., 2015). The primary focus of this paper is on the determinants of cross-border mergers and acquisitions in the wine industry. On the fields of international business and finance there is a significant literature on the determinants of mergers and acquisitions however it focuses primarily on domestic mergers (see, for example, Xie et al., 2017). Our analysis focuses on the effects that potentially impact cross-border operations but that are not presented to
the same extent in domestic deals, such as geographic distance and international tax effects. In short, in this paper we investigate what are the determinants of cross-border mergers and acquisitions in the international wine industry. Given the expansion of cross-border deals in the international wine industry, we contribute to the literature by specifically analyzing this unexplored question.

Further, only few studies addressed the choice of payment methods in M&A as a strategic decision (see, for example, Faccio and Masulis, 2005). The explanation of the decision to finance M&A with `cash’ or `shares’ may be specific to an industry (Garcia-Feijó et al., 2013). We explore the choice of payment methods across different institutional environments to structure M&A deals in selected international markets.

In this paper we also investigate the following question: what are the determinants of the payment methods, cash versus other methods, in cross-border M&As in the wine industry?

This work uses a sample of M&A deals that includes approximately 300 M&As completed cross-border deals for the period 2000-2016. First, following Erel et al. (2012), we model the motivations for cross-border operations through a multivariate regression. The dependent variable measures the percentage of cross-border mergers and acquisitions for a given country over the entire sample period. Dependent variables include the characteristics of the target and the bidder, institutional features, the choice of the payment method, cultural and distance factors, and differences in international taxes.

On a second stage, we test the following model (see Coelho et al., 2016):

Consider a firm i located in country j, which desirers acquire another firm located in country k; cash, stock and combination of cash and stock are the utilized methods. This implies that our dependent variables (DV) is multinomial and therefore apply a Multinomial Logit Model (MLM).

We model the payment method as a set of binary choices that each firm makes on whether or not to use cash in any operation of M&A. This means that we estimate the following model:

$$Pr[(v_{ij}=h) = f(M_j, T_{jk}, G_k), h=0,1,2, (1)]$$

Where:

- $v_{ij}$=0 when the firm i of country j uses cash in doing M&A; $v_{ij}$=1 when the firm i of country j uses stock; and finally $v_{ij}$=2 when the firm i of country j uses a combination of cash and stock.
- $M_j$ is a vector of country specific variables; $T_{jk}$ is a vector of variables taking into account the relationship between the home country and target country; $G_k$ is a vector of variables specific to the target country.

In the MLM we estimate a separate binary logit for each pair of outcome categories. MLM requires the estimation of N-1 equations, where N represents the number of categories need to be estimated. Each multinomial model will therefore require the estimation of two equations, if the cash is the base reference category for the other groups, then Stock versus Cash and Combination versus Cash will be the estimated equation. A third equation examines whether any significant differences exist between payment methods.

Our estimation can be stated as follow:

$$v_{ijt} = \exp[(\text{distances}_{ij} + \text{legal rules}_{ij} + \text{industry}_{ij} + \text{friendly}_{jkt} + \text{crossborder}_{jk} + \text{ultimate}_{jkt} + \text{subsidary}_{k} + \text{targetpub}_{kt} + \text{control}_{jkt} + \text{profit taxes}_{jkt} + \text{GDPPC}_{jkt} + \text{GDPPC}_{kt} + \epsilon_{ijt})]$$

Where:

- $v_{ij}$ is the payment method used in the transaction between firm i in country j and host country k at time t;
- Distance is the geographic distance in km between capitals of two countries’ jk. This variable accounts for the degree of economic integration between two counties. We assume that costs are lower if countries share the same border.
- legal rules is a variable describing the similarity on legal rules between firm i country j and target country k.
- Institutional aspects are important in explaining the location of subsidiary;
- industry is an indicator equal to 1 if merging firms are in same 3 digit SIC code and 0 otherwise. We identify cross-border deals in SIC codes following Fama & French (1997);
- friendly is a dummy variable equal to 1 if the bid is hostile, and unsolicited, or a with knight, and equal to 0 otherwise;
- cross-border is a dummy variable equal to 1 if bidder i and target j countries differ and 0 otherwise;
- ultimate is the acquirer ultimate owner. It takes the value 1 if the ultimate owner is a public listed company and 0 otherwise;
- Subsidiary is a variable equal to 1 if the target is subsidiary of another firm and 0 otherwise;
targetpub is a dummy variable indicating if the target company is a public listed company or not; control is the percentage of shares acquired in deal of the target company; Profit\_taxes is the differences in profit taxes between acquirer home country j and the target home country k; GDPPC is the Gross Domestic Product per capita in the acquirer country j and in the target country k. GDP per capita is a proxy for having some opportunities in the foreign market k. Indeed a country would prefer to expand their activities in a country where the economic growth is higher. Finally \( \varepsilon \) \_ijkt is the error term.

This work extends our primary results presented at the AAWE meeting (Bordeaux, 2016) and focus primarily on cross-border deals. Our primary results show the importance of geography on the determinants of cross-border deals in the wine industry. Further, we test the above model to explain the dominance of cash in cross-border M&As.

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ABSTRACT

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Our estimation can be stated as follow:

$$v_{ijkt} = \exp(distance_{ijk} + legal\_rules_{jk} + industry_{ijkl} + Friendly_{jkt} + crossborder_{jk} + ultimate_{jkt} + subsidiary_{k} + targetpub_{kt} +$$

Where:

- $v_{ij}$ is the payment method used in the transaction between firm $i$ in country $j$ and host country $k$ at time $t$;
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- \( \text{legal rules} \) is a variable describing the similarity on legal rules between firm \( i \) country \( j \) and target country \( k \). Institutional aspects are important in explaining the location of subsidiary;
- \( \text{industry} \) is an indicator equal to 1 if merging firms are in same 3 digit SIC code and 0 otherwise. We identify cross-border deals in SIC codes following Fama & French (1997);
- \( \text{friendly} \) is a dummy variable equal to 1 if the bid is hostile, and unsolicited, or a with knight, and equal to 0 otherwise;
- \( \text{cross-border} \) is a dummy variable equal to 1 if bidder \( i \) and target \( j \) countries differ and 0 otherwise;
- \( \text{ultimate} \) is the acquirer ultimate owner. It takes the value 1 if the ultimate owner is a public listed company and 0 otherwise;
- \( \text{Subsidiary} \) is a variable equal to 1 if the target is subsidiary of another firm and 0 otherwise;
- \( \text{targetpub} \) is a dummy variable indicating if the target company is a public listed company or not;
- \( \text{control} \) is the percentage of shares acquired in deal of the target company;
- \( \text{Profit taxes} \) is the differences in profit taxes between acquirer home country \( j \) and the target home country \( k \);
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