Wine Stock Financing
An Empirical Study of the French Wine Industry

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Abstract

The aim of the study is to examine the importance of wine stocks in a sample of French wine companies. The objective of this study is to investigate the determinants of wine stocks, the consequences of wine stocks on financial performance of companies and the ways these stocks are funded. We will specifically study new financing instruments such as wine stock securitization.

Theory

Stock behavior can be explained by residual adjustments or unintended accumulation or by precautionary, transaction, and speculative purposes. The motives for inventory holding include convenience yield, stockout yield, and coverage yield. Bukenya and Labys (2007) make a literature review of researches in inventory theory. A distinguishing characteristic in the wine industry is quality enhancement from length of time in storage (see Wohlgenant (1982), for a dynamic model of winery incorporating aging).

We have to propose theoretical models of the links between industry business cycle, the financial characteristics of a given company and its level of wine stocks. The relation between stock levels and business cycle effects has been already studied by Labys (2001). The production-smoothing model, whereby inventories are used to shift output to periods in which production costs are low can also be used to avoid stockout and to reduce scheduling costs.

As French wine companies are in great majority SMEs, they are likely to be financially constrained. They are thus likely to find difficulties to finance high level of stocks. In consequences they could be obliged to sell their wine stocks in bad condition or to finance these stocks at high costs. High stocks in period of difficulties (crisis) should be at the origin of lower financial performance. Trying to reduce the financing costs of inventories some companies seek for new financing solutions. In asset-based financing, a lender (usually a bank) loans money to a firm with the maximum amount of the loan linked to the firm’s assets in the form of cash, inventory, and accounts receivable (see Buzacott and Zhang (2004) for a theoretical analysis of such financing). Going a step further, we will present Champagne inventories’ securitization initiated by the French Groupe Marne et Champagne.

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Based on the related literature and our economic reasoning, we formulate the following hypotheses:

**H1:** Companies’ inventories react differently from aggregate shocks depending on their activities, legal status (cooperative or not), financial constraints,…

**H2:** The impact of stock importance on companies’ performance will depend on companies financial and economic characteristics.

**H3:** Stock financing structure will depends on the financial situation of each company.

We will address H1-H3 by first studying the business cycle sensitivity of stock level and operating profitability of the French wine firms and then studying the stock financing problem.

*Data description*

**Sample**

Identification of wine companies: according to the industry, we must distinguish firms by region, their position in the vertical integration of activities (producers and traders) and possibly their status (cooperatives and corporations). This distinction involves the proper allocation to these categories; this is controlled through experts’ interviews. Financial statements are extracted from Diane database over 9 years during the period 2002 to 2010. We drop companies with sales lower than 1 million €. As a result of this process we obtain a sample of 962 companies.

**Variables**

We use the following industry business cycle variables: total sales of the industry, total export sales, total added value, total production and consumption in volume in France.

Classical financial variables: investment level; financing: net contribution of shareholders, cash flows, debt; evolution of working capital and cash; profitability: analysis: margins, invested capital turn-over, ROI, ROE.

Financial constraint is measured using the synthetic Whited and Wu (2006) Index.

*Estimation methods*

Eichenbaum (1984, 1989) analyses a target level of inventories and the linear-quadratic cost of deviating from that level. This model was tested by Labys and Lord (1992) using error-correction model (ECM) for several traded agricultural commodities. We will implement models inspired by this methodology.
Keywords: financial constraint, inventory management, asset-based financing, dynamic panel data,

References:


