

# **Export implicit financial performance measurement: the case of French wine companies**

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# 1. Conceptual and technical problem

- Performance is a multidimensional concept, with no single criterion being adequate
- Problem that results in a variety of measures (Diamantopoulos, 1998)
- Financial performance of export is one important dimension (Zou *et al.* (1998), Katsikeas *et al.* (2000), Shoham (1996))
- Financial performance of export is difficult to measure:
  - companies do not report the financial details of their export activities,
  - costs and benefit of export activities are inherently related to how a company views these activities (Leonidou *et al.* 2002).

## 2. The Model

- H1 : The more the company export the more management is supposed to be satisfied with export.
- H2 : More specifically, proportions of domestic and export activities are supposed to be the result of **expected mean-variance utility optimization** behaviour.

# The model : equations

Mean variance utility function

Domestic margin ratio

Coefficient of risk aversion

$$E[u(\tilde{m}_G)] = E[(\tilde{m}_D s_D + \tilde{m}_X (1 - s_D))] - \frac{\lambda}{2} V[(\tilde{m}_D s_D + \tilde{m}_X (1 - s_D))]$$

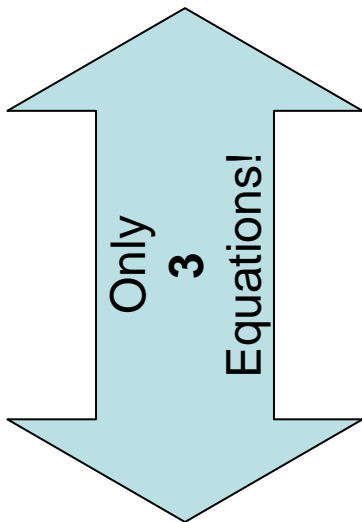
% domestic activities

Export margin ratio

Optimal %

$$s_D^* = \frac{\bar{m}_D - \bar{m}_X + \lambda[V(\tilde{m}_X) - Cov(\tilde{m}_D, \tilde{m}_X)]}{\lambda[V(\tilde{m}_D) + V(\tilde{m}_X) - 2Cov(\tilde{m}_D, \tilde{m}_X)]}$$

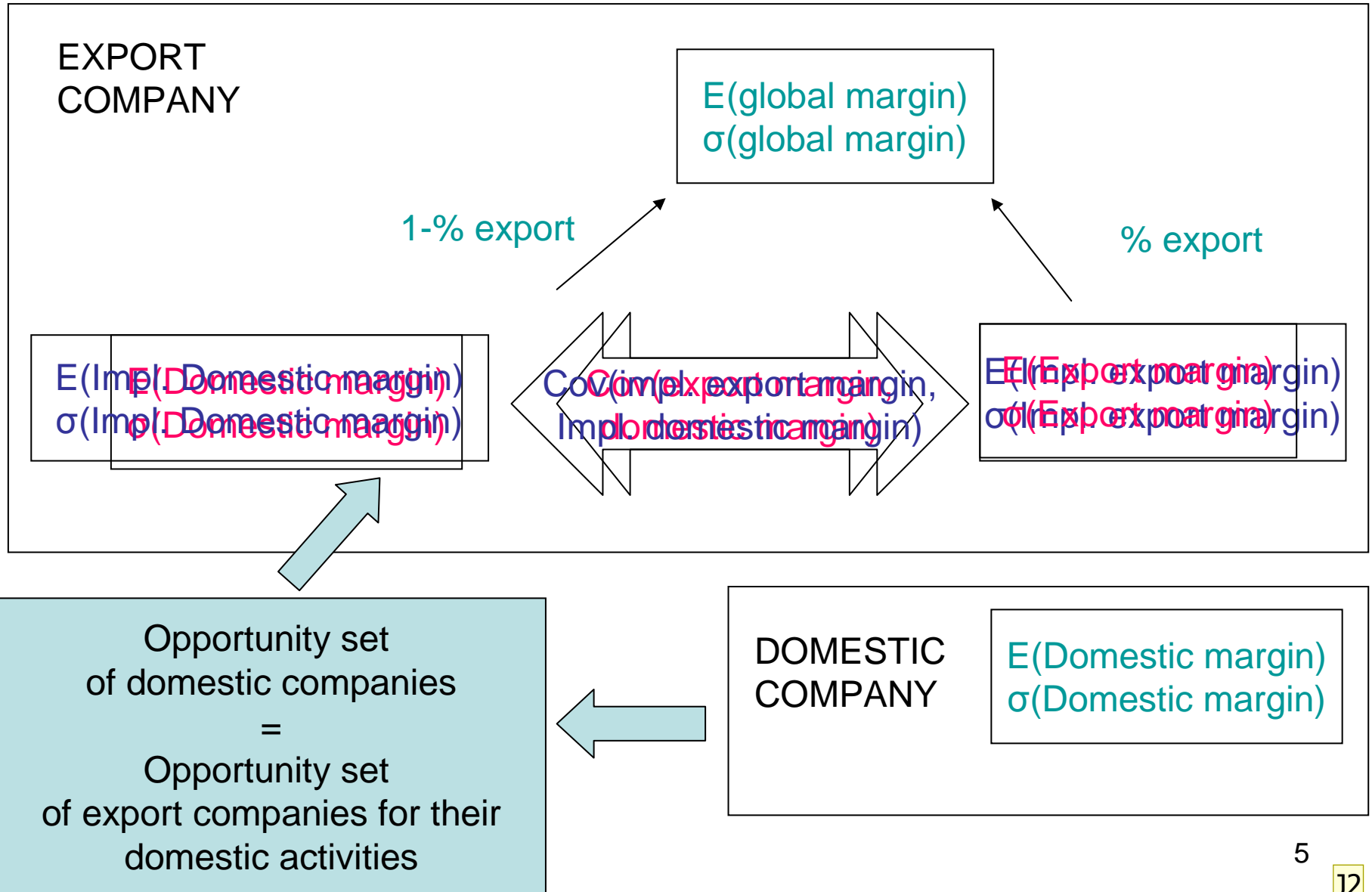
6 unknowns !



$$\bar{m}_G = \bar{m}_D s_D^* + \bar{m}_X (1 - s_D^*)$$

$$V(\tilde{m}_G) = V(\tilde{m}_D) s_D^{*2} + V(\tilde{m}_X) (1 - s_D^*)^2 + 2s_D^* (1 - s_D^*) Cov(\tilde{m}_D, \tilde{m}_X)$$

# 3. Procedure



## Slide 5

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J2

Export intensity: mean on the period 2001-2005 of the annual ratios .

Expected margin ratio: mean on the period 2001-2005 of the annual ratios extracted from Diane.

Variance of margin ratios: variance on the 2001-2005 period of the annual margin ratios.

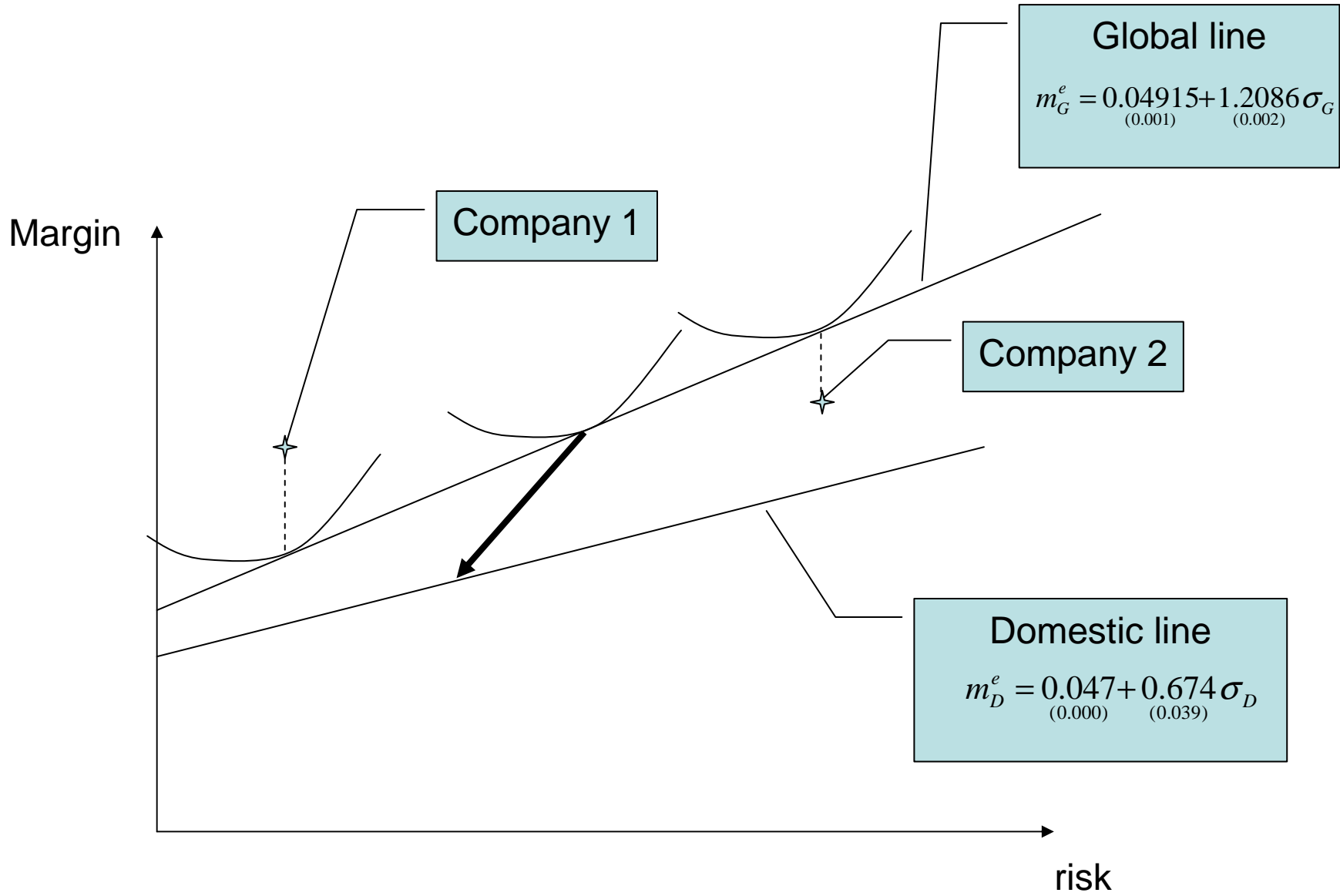
Companies with only domestic activities: in fact to obtain a large enough sub-sample we select companies with mean export intensity on the period 2001-2005 inferior to 5 %.

Export companies: only companies with mean export intensity on the period 2001-2005 superior to 15 % are chosen.

Jean-Laurent, 25/05/2009

### 3. Technical aspects

- Opportunity set: a linear relationship between risk and return
- The coefficient of risk aversion is calculated using the mean-variance utility function
- Knowing this coefficient we can deduce the expected domestic margin and risk of domestic activities for exporting companies





## Slide 7

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**J3**

So our objective is to calculate the position on the domestic line that an exporting company would have chosen if it was purely domestic.

Jean-Laurent, 25/05/2009

## 4. Sample

- Sample : “Survey about companies in the wine Industry – 2006. ” (EEAFV-2006) which is about the determinants of performance in French wine companies.
- It was carried out by Supagro, the Superior School of Agronomy in Montpellier (in the Languedoc Roussillon wine region).

Table 1. Comparison of domestic and export companies of the sample

	Domestic companies	Export companies	Signification probability
Sample size (number of companies)	46	90	
% export			
-Sample mean		0.4363	
-Standard deviation		0.2154	
Global turnover (mean 01-05)			
-Sample mean	9 814	45 109	0.000
-Cross-sectional standard deviation	8 850	54 302	
Global margin mean			
-Sample mean	5.92 %	7.84 %	0.2596
-Cross-sectional standard deviation	4.68 %	10.92%	
Global margin standard deviation			
-Sample mean	1.80 %	2.42 %	0.1962
-Cross-sectional standard deviation	2.12 %	2.87 %	
Margin to Risk Ratio (RRR) (a)			
-Sample mean	5.28	6.83	0.3963
-Cross-sectional standard deviation	4.89	11.82	9

# 5. Results

Table 2. Exports characteristics and implicit financial performance

	Sample mean	Sample standard deviation	min	max
Implicit margin mean of export	11.33 % Dom. 5.92	7.48 %	5.60 %	55.88 %
Implicit margin standard deviation (risk)	5.65 % Dom. 1.80	6.69 %	0.40 %	45.76 %
Implicit coefficient of correlation	-0.086	0.4816	-2.73	0.45
MRR export	2.97 Dom. 5.28	1.82	1.22	13.98