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Measuring Wine Market Performance in the European Union

(Preliminary)

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Outlines



- ✧ **Status of the EU wine sector**
- ✧ **Import structure of wines in the EU**
- ✧ **The method of Constant-Market-Shares (CMS) approach**
- ✧ **Estimating the wine import market performance in the EU**
- ✧ **Conclusions**

The EU Wine Sector



The role in the global term

- The EU has a traditional comparative advantage in producing and exporting wines and keeps **a leading position in the global wine industry.**
- In 1999, the EU provided **64.2%** of world wine production and accounted for **80.5%** and **59.0%** of world wine exports and imports in the value term, respectively.

The EU Wine Sector



The role in the Community term

- EU winegrowing is a highly diversified sector and significantly **contributes to the multifunctional nature of agriculture** on the economic, rural, and environmental development for most winegrowing regions of EU Member States.
- **Community market intervention** has been used to protect the EU wine sector for the past decades and now is needed to be refined.

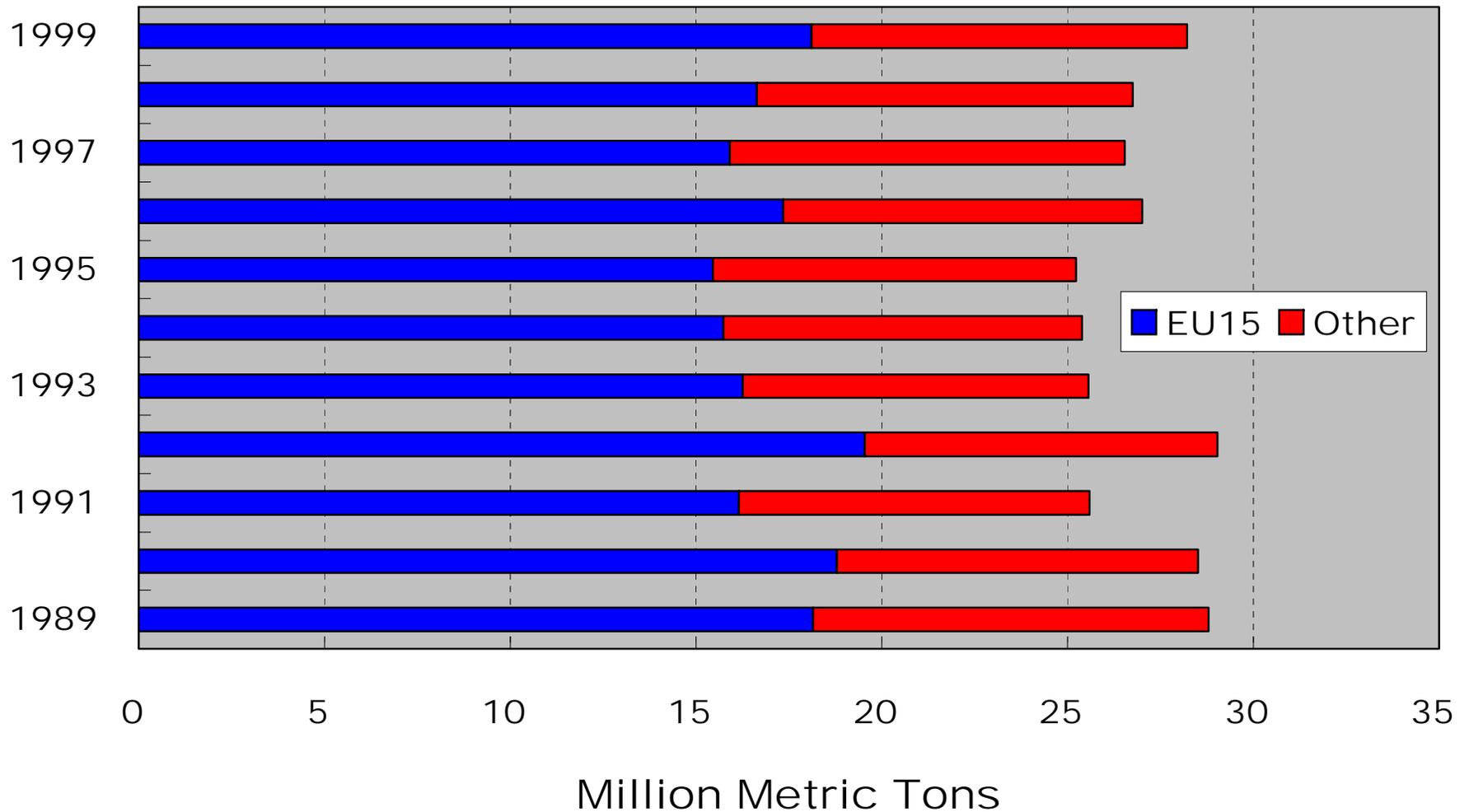
The EU Wine Sector



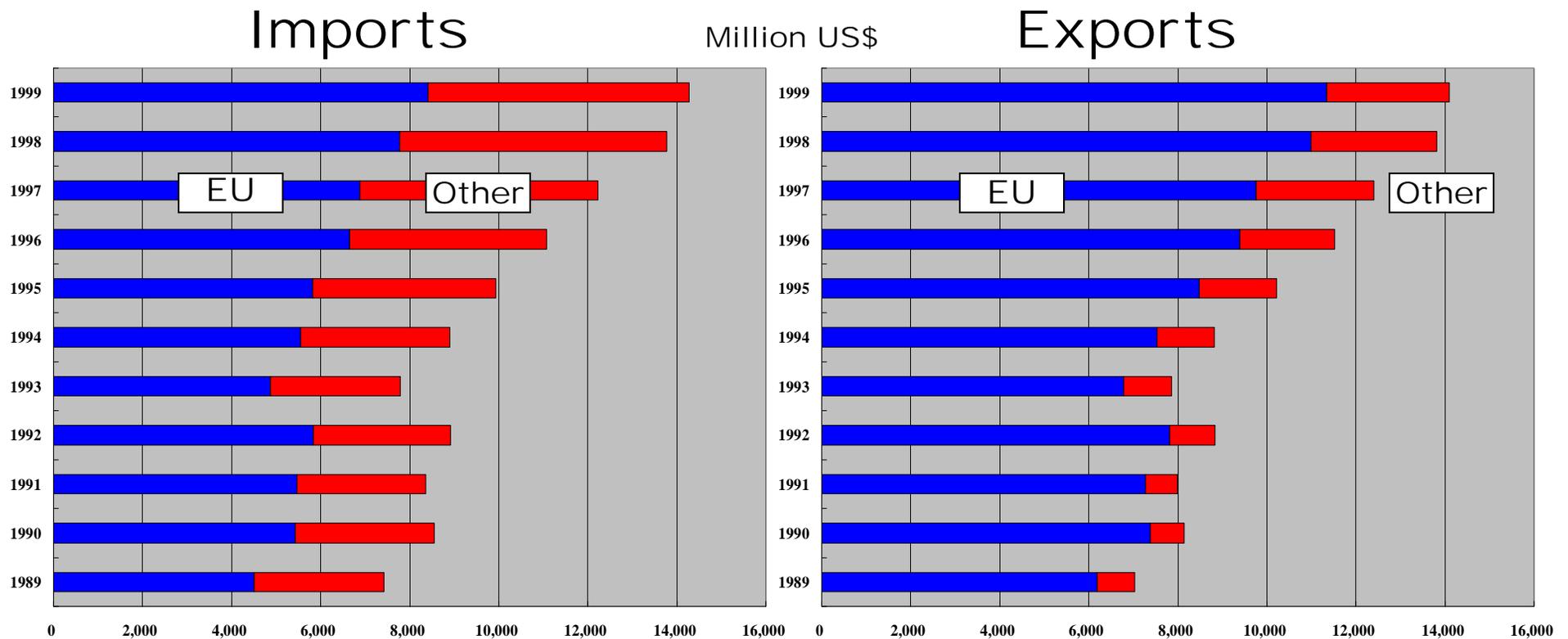
The role in the Community term

- Following the trade liberalization in accordance with the WTO agreements, the EU wine sector is opening to **increasing competition from foreign wine producers.**
- In addition to maintaining a better market balance of wines, the main aim of the Common Market Organization for wines is to enable the EU wine sector **more competitive, in terms of production and market.**

World Wine Production 1989-99



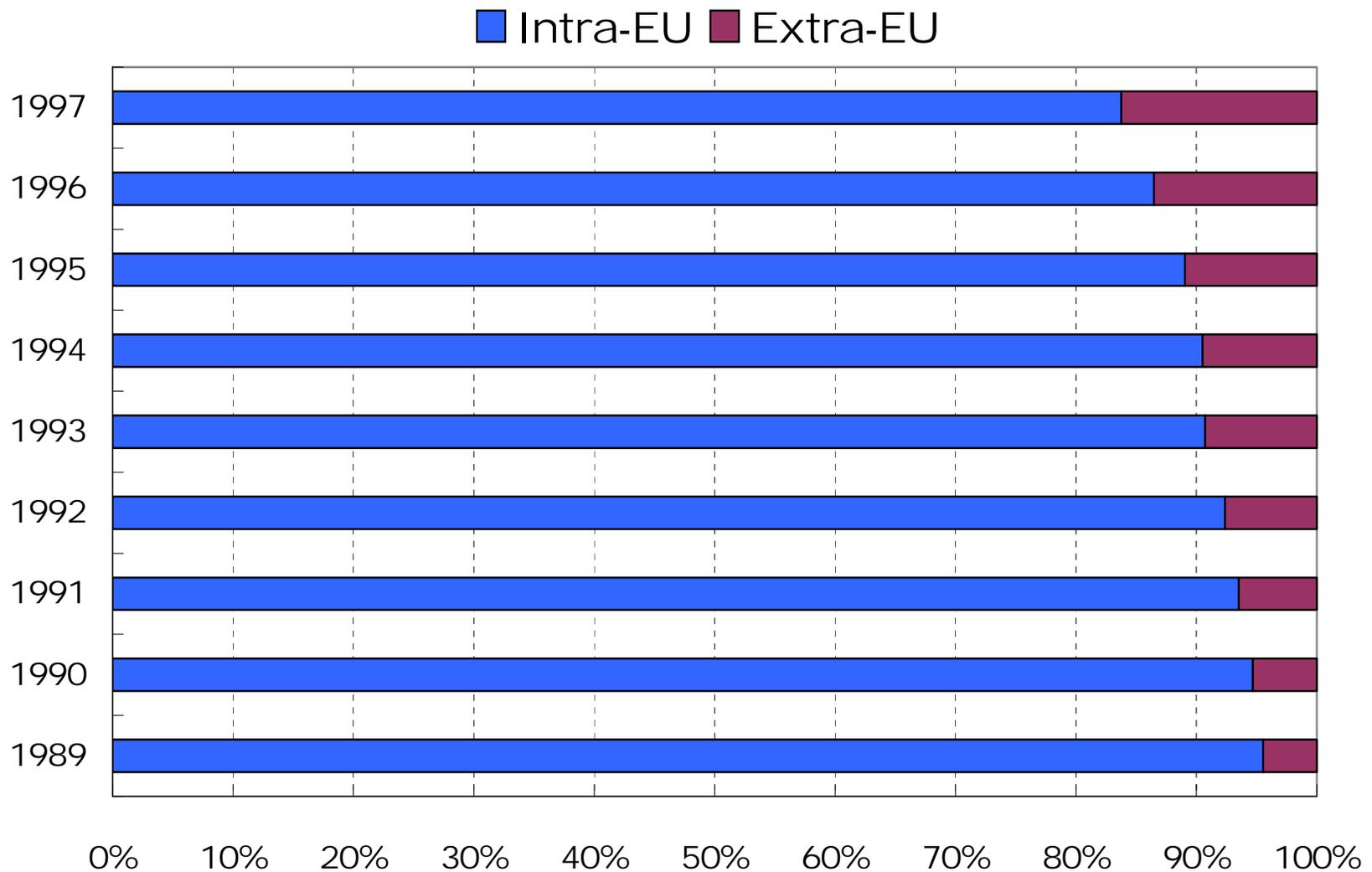
World Wine Trade 1989-99



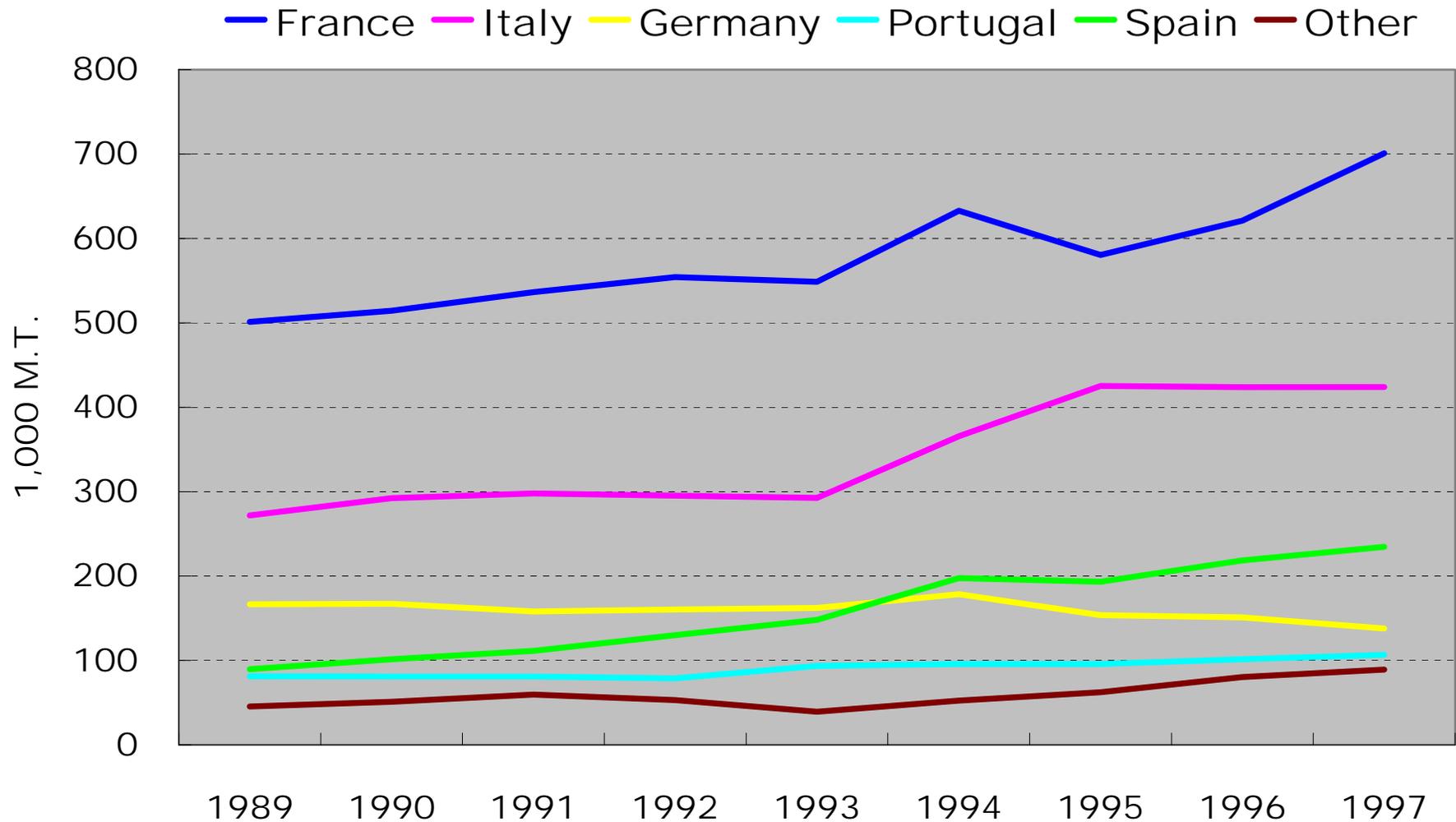
- The market share of the EU wine imports had decreased from 61% to 59%.

- The market share of the EU wine exports had decreased from 88% to 80%.

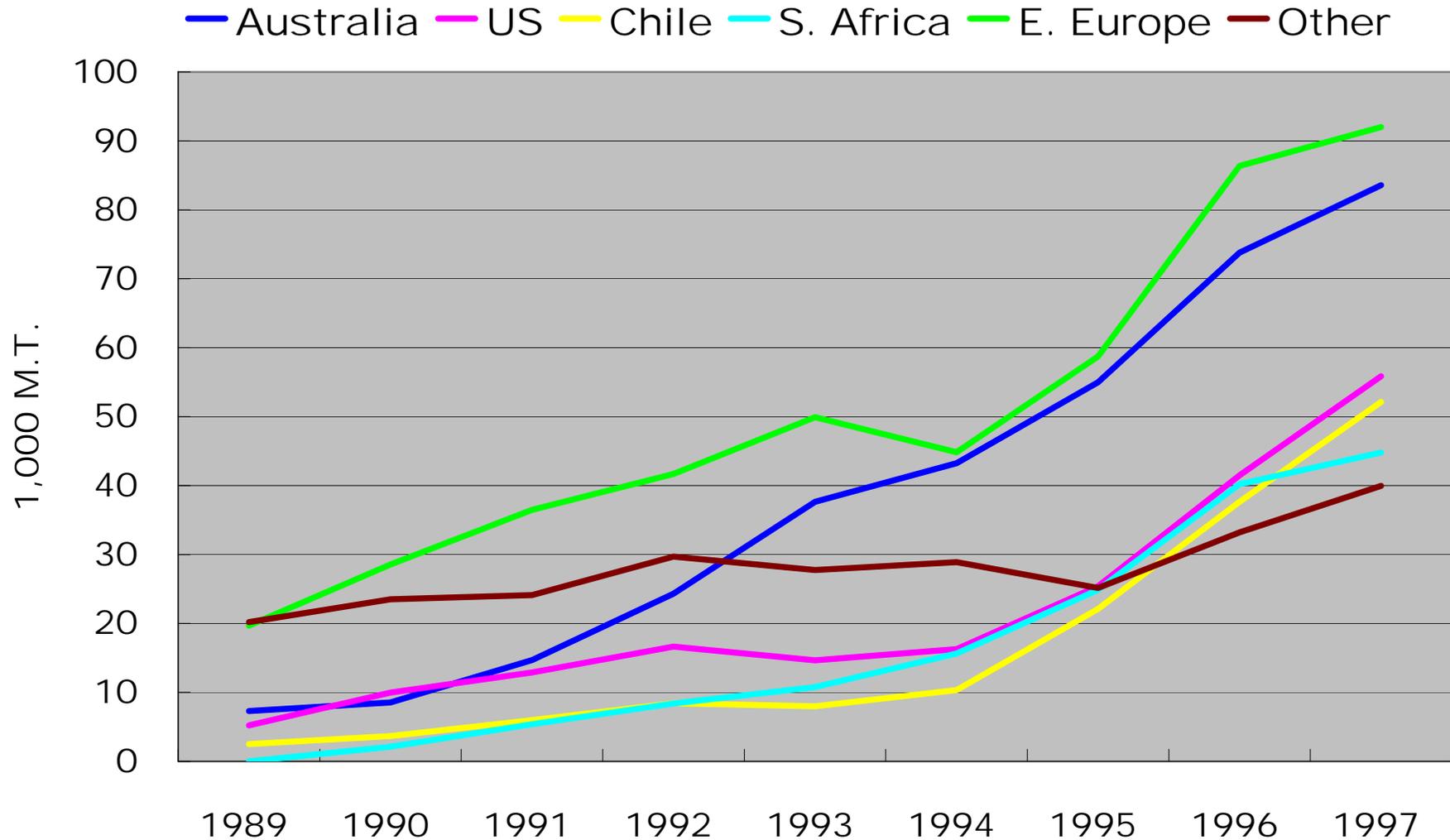
EU Wine Imports by Origin



Intra-EU Wine Imports by Origin



Extra-EU Wine Imports by Origin



Factors to the Competitiveness of the Wine Sector

Systems	Factors	Performances
Production	<ul style="list-style-type: none">• Endowments• Cultivation practices• Vine (grape) variety	<ul style="list-style-type: none">• Productivity• Production cost
Oenological Processing	<ul style="list-style-type: none">• Wine-making methods• Characteristics: color, alcoholic strength acidification, sweetness• Product information: labeling, brand, registers	<ul style="list-style-type: none">• Taste• Quality
Market	<ul style="list-style-type: none">• Market structure• Market distortions• Trade barriers	<ul style="list-style-type: none">• Price• Market share

Constant-Market-Shares (CMS) Method: Traditional Approach

- **Market share (S) of wine i:** $S_i = \frac{q_i}{Q}$, $Q = \sum_{i=1}^n q_i$

- **Imports of wine i:** $q_i = S_i Q$

- **Imports of wine i differentiating with respect to time:** $\Delta q_i = \Delta Q S_i^0$ (growth effect)
 $+ \Delta S_i Q^0$ (residual)
(interaction effect) $+ \Delta Q \Delta S_i$

Constant-Market-Shares (CMS) Method: Revised Approach

- **Market share (S) of wine i on market j:**

$$\Delta \mathbf{q}_{ij} = \sum_{i=1}^n \sum_{j=1}^m \Delta \mathbf{Q}_{ij} \mathbf{w}_{ij}^0 \quad \text{(growth effect)}$$

$\mathbf{w}_{ij}^0 = \mathbf{q}_{ij}^0 / \mathbf{q}^0$

$$+ \sum_{i=1}^n \sum_{j=1}^m \Delta \mathbf{S}_{ij} \mathbf{w}_{ij}^0 \quad \text{(competitive effect)}$$

$$+ \sum_{i=1}^n \sum_{j=1}^m \Delta \mathbf{Q}_{ij} \Delta \mathbf{S}_{ij} \mathbf{w}_{ij}^0 \quad \text{(Interaction effect)}$$

i = wines by origin j = EU Member States

Data



- **Type** **Wine of Fresh Grapes**
under the code of 220421
- **Origin** **EU wines** (France, Italy,
Germany, Spain, Portugal)
Non-EU wines (Australia, US,
Chile, South Africa, East Europe-
Hungary, Romania, Bulgaria)
- **Source** **Intra- and Extra-EU Trade**
EUROSTAT, 1990-1997

Result 1: Growth Effect of Import Wines by Origin

EU Wines by Origin

	France	Italy	Germany	Spain	Portugal	Other
1990-94	0.10	0.06	0.03	0.02	0.02	0.01
1995-97	0.04	0.03	0.01	0.01	0.01	0.00
1990-97	0.16	0.09	0.05	0.03	0.03	0.02

Non-EU Wines by Origin

	Australia	USA	Chile	S. Africa	E. Europe	Other
1990-94	0.01	0.01	0.00	0.00	0.02	0.02
1995-97	0.02	0.01	0.01	0.01	0.03	0.01
1990-97	0.03	0.03	0.01	0.01	0.09	0.07

Result 1: Interaction Effect of Import Wines by Origin

EU Wines by Origin

	France	Italy	Germany	Spain	Portugal	Other
1990-94	-0.02	-0.01	0.13	-0.05	-0.02	-0.06
1995-97	0.00	-0.02	0.00	-0.03	-0.01	0.02
1990-97	-0.06	-0.04	0.18	-0.20	-0.07	0.04

Non-EU Wines by Origin

	Australia	USA	Chile	S. Africa	E. Europe	Other
1990-94	3.12	0.27	1.26	5.02	0.21	-0.07
1995-97	0.20	0.62	0.72	0.37	0.23	0.24
1990-97	19.55	9.53	30.17	46.41	3.85	0.23

Result 2: Effects on the EU Major Wine-growing States

	France	Italy	Germany	Spain	Portugal
Growth Effect		import demand market			
EU wines	0.035	0.002	0.097	0.001	0.005
Non-EU wines	0.007	0.005	0.438	0.003	0.000
Competitive effect					
EU wines	0.002	0.000	-0.016	0.000	0.000
Non-EU wines	-0.040	0.003	0.258	0.000	0.000
Interaction effect					
EU wines	0.002	0.000	-0.006	0.000	0.000
Non-EU wines	-0.003	0.005	0.744	0.000	0.000

For the 1990-1997 period

Result 2: Effects on the EU Non Wine-growing States

	UK	Ireland	Nether.	Belgium	Denmark	EU12
Growth Effect	import demand market					
EU wines	0.091	0.005	0.014	0.027	0.038	0.315
Non-EU wines	2.304	0.146	0.320	0.029	0.146	3.400
Competitive effect						
EU wines	-0.081	-0.004	-0.015	-0.001	-0.003	-0.122
Non-EU wines	1.285	0.062	0.237	0.010	0.050	1.936
Interaction effect						
EU wines	-0.019	-0.002	-0.002	0.000	-0.003	-0.039
Non-EU wines	5.330	0.943	1.109	0.005	0.209	6.582

For the 1990-1997 period

Conclusion 1



- **Given the constant (unchanged) market shares, import wines by any origins have insignificant growth effect causing by the change rate in the import volume.**
- **However, taking into account the changes in the market share and import demand structure, **non-EU wines have a large degree of interaction effect** for the period of 1990-1997, particularly for Australian, Chilean, and South African wines.**

Conclusion 2



- EU wines have a positive growth effect (0.315), but **a negative competitive effect (-0.122)** in the EU resulting from decreasing market share of intra-EU wine imports.
- Non-EU wines show a strong market performance particularly **on UK, Netherlands, Germany and the EU** as a whole, which are associated with a high degree of decomposition of growth , competitive and interaction effects.

Further Research



- To study the competitiveness of EU wines classified **by geographical indication** in the global wine market.
- To develop marketing and product strategies to increase EU wine exports **to Asian growing demand markets**.
- To study **impact effects** of trade liberalization and policy reform on the EU wine industry.