

Goal: Provide clarity on two issues raised publicly by TDO

The wine industry has not been able to generate an adequate return on invested capital over a full cycle. Consolidation is the key to addressing this problem.

What this is not about:

An excuse for TDO's current position in the wine industry hierarchy.

Putting TDO up for sale.

A revision to our five-year strategic plan (which remains a firm commitment).

A matter of life or death for TDO.

TDO's final big move.

What this is about:

An objective analysis of the wine industry from the outside, leveraging deep internal knowledge. A choice between mediocrity or fundamentally transforming the paradigm for the entire industry.

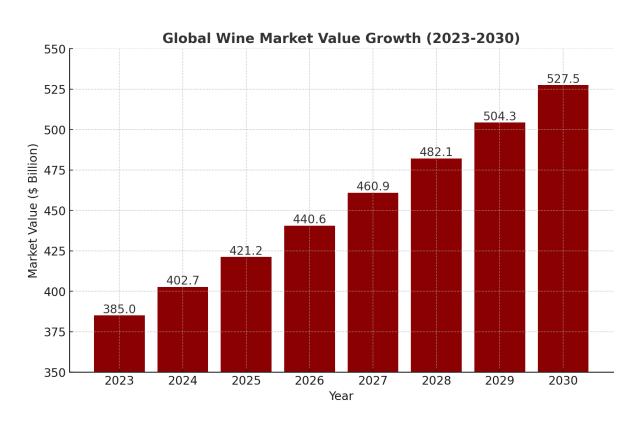
Applied to the wine industry:

Analysis: The current fragmentation in the sector limits the ability to generate returns on capital and compete on a global scale. **Vision**: Consolidation is not just an option; it is a necessity to transform the industry, improve operational efficiency, create value for producers, and earn rightful recognition on the global stage.

Objective: This is not about TDO alone; it is about the entire Italian wine industry and its ability to choose between maintaining an inefficient structure or evolving into a modern, resilient, and competitive model.

An industry that fails to earn its cost of capital cannot sustain its future, and the time to act is now.

This chart highlights the remarkable growth trajectory of the global wine market, which is set to expand from \$350 billion in 2020 to \$500 billion by 2025. This reflects a solid CAGR of approximately 5%, driven by shifting consumer preferences and emerging market opportunities.



Key Highlights:

- The Global wine market value projected to grow from \$350 billion in 2020 to \$500 billion in 2025 (~5% CAGR).
- Steady year-on-year growth reflects the industry's resilience and rising demand.

Growth Drivers:

- **Premiumization**: Shift toward higher-quality, artisanal, and organic wines.
- **E-commerce Expansion**: Direct-to-consumer models and subscription services.
- **Emerging Markets**: Strong demand growth in Asia-Pacific (China, India).
- Sustainability Trends: Eco-friendly packaging, organic/biodynamic practices.

Strategic Implications:

- Capitalize on growth through better financial structure, operational leverage premiumization and innovation (e.g., low-alcohol wines, blockchain for traceability).
- Address challenges like regulatory hurdles, climate change, and competition from alternative beverages.

EXECUTIVE SUMMARY | The wine value chain



The European Union (EU) has developed a complex value chain that involves different economic sectors and accounts for 62% of the world's total wine production



Wine value chain

Economic sectors | Market value¹ (B€)



Viti-viniculture (Agriculture)

€29.4 B

Production value²



Winemaking (Industry)

€50.3 B



€100.3 B

Market size4

Main activities involved

- Vineyard care and management
- Grape harvesting
- Agricultural on-holding wine production using self-harvested grapes
- Wine production using not selfharvested grapes
- Crushing and fermentation
- Bottling, aging and maturation
- Distribution
- Retail sales
- · On-trade consumption

The market value of each sector in the value chain incorporates the market value of the preceding sector. For example, the market value of commercialization encompasses the market value of winemaking.

62%
The EU is responsible for 62% of global wine production volume⁵

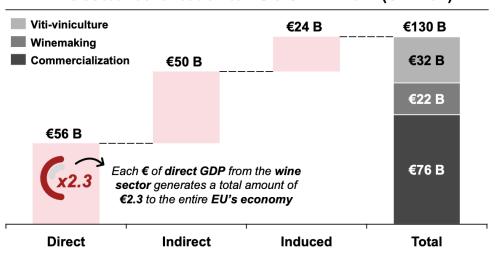
(1) The market value represents the total revenue estimated or generated by each activity within the value chain. This can encompass the estimated value of production (in the case of viti-viniculture), the actual value of sold production (in winemaking), or the turnover generated through on-trade and off-trade sales channels (in commercialization). (2) Source: Eurostat – Economic Accounts of Agriculture, (3) Source: Eurostat Statistics on the production of manufactured goods, Value of sold production, (4) Source: Statista, (5) Source: OIV. World production accounted for 258 Mhl in 2022



In 2022, the wine sector in the EU contributed 130 billion euros to the Gross Domestic Product (GDP), equivalent to 0.8% of the EU's GDP



Wine sector contribution to EU's GDP in 2022 (€ Billion)





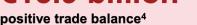
Equivalent to

- 0.8%¹ of EU's GDP: The economic activity generated by 125 Wine sectors would be equivalent to the whole economy of the EU
- 47.9%² of EU's Primary sector: The economic activity generated by the EU Wine sector is equivalent to almost half of the total agriculture, forestry and fishing Gross Value Added inside the EU
- 9.7%³ of Spain's GDP: The economic activity generated by 10 EU wine sectors would be comparable to the size of Spain's economy

Wine exports



€15.9 billion





The wine produced in the EU generates a strong demand from abroad...

3.7%

Without wine, **trade deficit** of the EU in 2022 would have been **3.7%** higher

nd

Wine was the **second most exported EU agrifood product** by value during 2022⁵

Source: PwC estimates using Input-Output Methodology, Eurostat and Statista data

(1) Source: Eurostat National Accounts GDP current prices for EU-27 in 2022. (2) Source: Eurostat Gross value added by industry current prices for EU-27 in 2022 (3) Source: Eurostat National Accounts GDP current prices for Spain in 2022. (4) Source: Eurostat International trade in goods with Extra-EU countries. (5) Source: European Commission Monitoring EU AGRI. FOOD TRADE March 2023

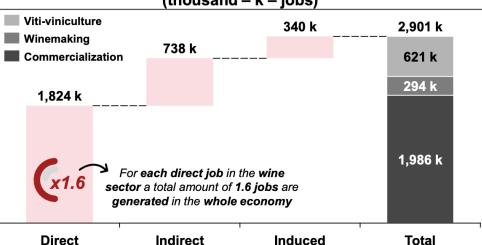
EXECUTIVE SUMMARY | Employment contribution



In terms of employment, the wine sector generated a total amount of 2.9 million jobs in 2022, which represents 1.4% of EU employment¹







Wine total contribution to EU's employment (2022)

Equivalent to

- 1.4% of EU's employment: The employees associated with 71 EU wine sectors are equivalent to the total jobs in the EU
- 20.3%² of EU's Construction employment: The associated employment of 5 EU Wine sectors is comparable to the total number of construction employees within the EU
- 11.3% of Italy's employees: The employment generated by 9 EU wine sectors would be on par with the total employment in Italy

Labor productivity⁴ of wine is higher than that of its counterparts at every stage of the value chain...









Additionally, wine farms are 15% more profitable than the average farm in the EU

Source: PwC estimates using Input-Output Methodology, Eurostat and Statista data

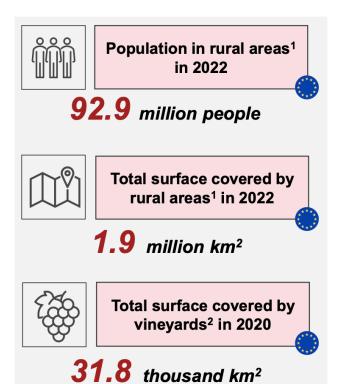
(1) Source: Eurostat Employment for EU-27 in 2022. (2) Source: Eurostat employment by industry breakdowns for EU-27 in 2022. (3) Source: Eurostat Employment for Italy in 2022. (4) Labor productivity measured as GVA per employee. The values for counterparts 7 were collected from Eurostat.

EXECUTIVE SUMMARY | Social contribution

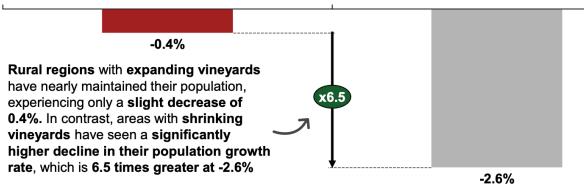


Rural areas in the EU, which have experienced a notable decrease in population, account for almost half of the territory. Vineyards, given its socioeconomic impacts, play a crucial role revitalizing them





Total change in population between 2015-2019 in rural regions with vineyards³



Rural regions where area under vineyards has increased

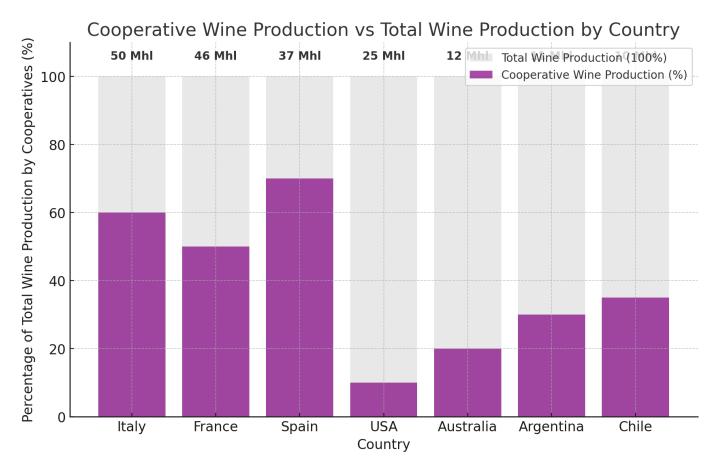
Rural regions where area under vineyards has decreased

-4%

Population in rural areas has been experiencing an annual **decrease** of around **0.7%** since 2014⁴, resulting in a total decrease of 4%

(1) Source: Eurostat classification of NUTS3 regions using population living in urban clusters or rural grid cells, (2) Source: Eurostat, (3) Source: PwC analysis using Eurostat data. (4) People from 0 to 64 years old. Source: Eurostat: Population by broad age group, sex and other typologies. Population for Predominantly rural regions, Estonia, Italy and Croatia don't report data until 2021,

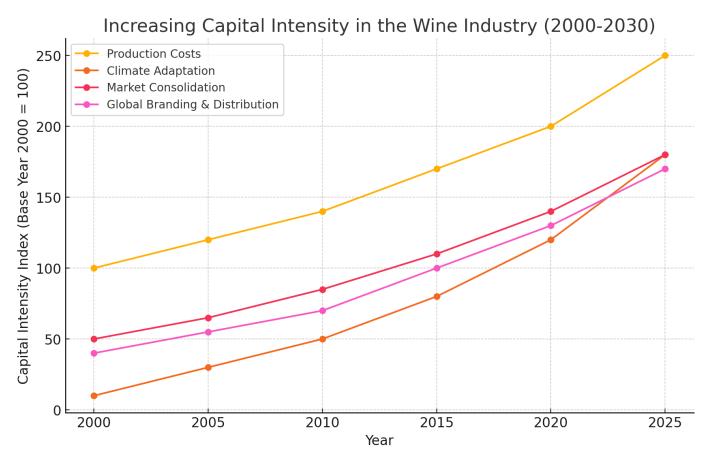
The wine sector is globally fragile, with 60-70% at financial risk. Italy (60%), France (50%), and Spain (70%) rely on cooperatives, most of which struggle with thin margins, low capital access, and bulk pricing pressures. The U.S. and Australia are corporate-driven, but small wineries face financial strain. • U.S. wineries sector: \$31.3B revenue in 2024, growing at a 5.6% CAGR. This structural weakness leaves the industry exposed to economic shocks, trade restrictions, and climate change.



Key Insights:

- 60-70% of global wine production is financially at risk due to fragile cooperative structures.
- Italy (60%), France (50%), and Spain (70%) depend on cooperatives, yet few exceed \$100M in revenue.
- Most cooperatives operate on thin margins,
 prioritizing volume over value, making them
 vulnerable to price volatility and climate change.
- **Spain is most exposed,** relying heavily on bulk wine with low profitability.
- **France** benefits from negociants, offering better financial stability.
- The U.S. and Australia are corporate-driven, but small wineries struggle financially.
- Latin America and South Africa have mixed models, yet many remain fragile.
- <u>U.S. wineries sector</u>: \$31.3B revenue in 2024, growing at a **5.6% CAGR**.

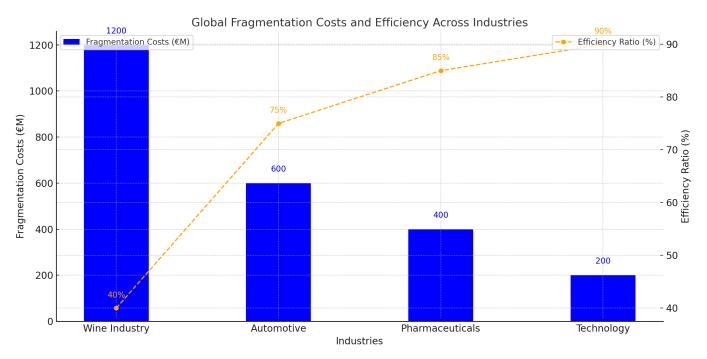
The wine industry is facing a multi-billion dollar surge in capital intensity, with production costs exceeding \$100 billion annually, climate adaptation investments surpassing \$10-15 billion, market consolidation driving \$20-30 billion in M&A, and branding & distribution requiring \$10-20 billion, making financial restructuring essential for long-term survival and competitiveness.



Key Insights:

- Capital intensity has surged 2.5x since 2000, driven by rising costs in production, climate adaptation, market consolidation, and global branding.
- Production costs have increased by 150% ($100 \rightarrow 250 \text{ Bln}$ \$) due to inflation, supply chain disruptions, and labor expenses.
- Climate adaptation costs have risen 18x (10 → 180 Bln\$) as wineries invest in irrigation, resistant vines, and sustainability measures.
- Market consolidation costs have more than tripled ($50 \rightarrow 180$ Bln\$) as large players acquire small wineries, increasing competition.
- Global branding & distribution costs have more than quadrupled ($40 \rightarrow 170 \text{Bln}$ \$) to compete in premium segments and global markets.
- Financial restructuring is now critical, as smaller wineries and cooperatives struggle to keep pace with rising capital demands.

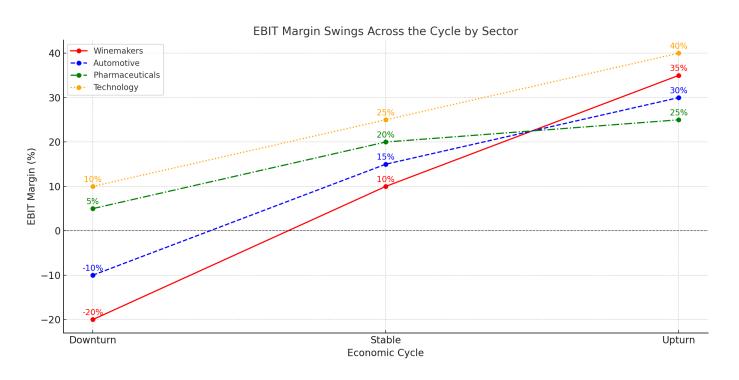
The wine industry faces the highest fragmentation costs (€1.2B) and lowest efficiency (40%), while more consolidated sectors like technology (90% efficiency) operate far more effectively, highlighting the need for industry restructuring.



Blue Bars: Represent fragmentation costs (in million euros).

- Technology sets the benchmark, showcasing how consolidation and integration drive efficiency and reduce costs.
- **Consolidation** in the wine industry could bring substantial improvements, aligning it closer to the efficiency levels seen in other industries.
- Wine Industry: €1,200M, the highest due to significant fragmentation and lack of integration.
- Automotive: €600M, with notable consolidation reducing costs.
- Pharmaceuticals: €400M, benefiting from highly efficient structures.
- Technology: €200M, the most consolidated sector with minimal inefficiencies.
- **Orange Line**: Shows efficiency levels (%) across industries.
- Wine Industry: 40%, significantly lower compared to other sectors.
- **Technology**: 90%, the most efficient industry, driven by integration and process optimization

High operational leverage amplifies profitability swings across economic cycles, with winemakers experiencing the most volatility, while pharmaceuticals and technology maintain greater stability due to resilient demand and flexible cost structures.

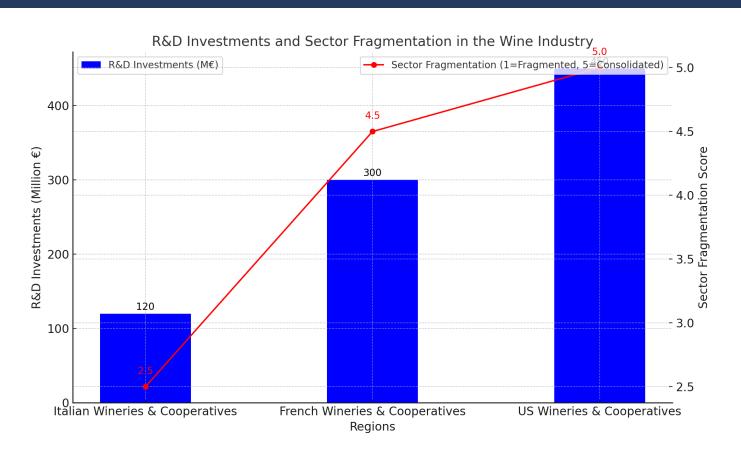


How high operational leverage amplifies profitability swings (EBIT margin) throughout the economic cycle, comparing the wine industry to other sectors:

- Winemakers: The most extreme fluctuations, with EBIT margins ranging from -20% during recessions to 35% in periods of growth, reflecting the sector's sensitivity to economic cycles and high fixed costs.
- **Automotive**: Moderate fluctuations, with EBIT margins varying between -10% and 30%, thanks to a more consolidated operational structure.
- **Pharmaceuticals**: More stable margins, ranging between 5% and 25%, supported by resilient demand and relatively low fixed costs.
- **Technology**: High and stable margins, fluctuating between 10% and 40%, driven by innovation and flexible business models.

This highlights **how cost structure and operational leverage** significantly impact a sector's ability to withstand or thrive through economic cycles.

The wine industry faces substantial inefficiencies due to its fragmented nature, leading to significantly higher costs compared to more consolidated sectors like automotive or technology.



Key Takeaways:

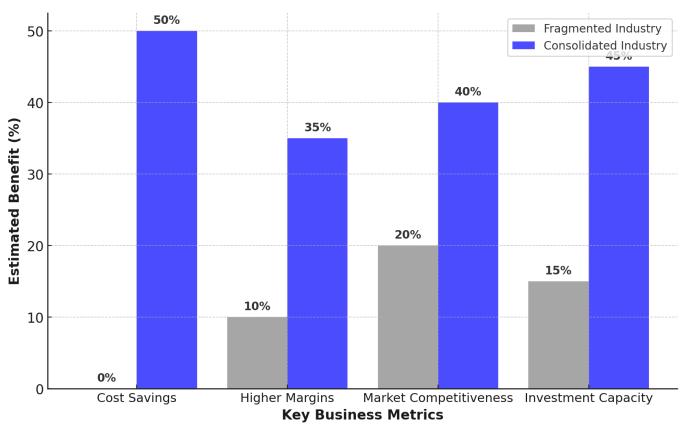
- Italy has the lowest R&D investment (€120M) and highest fragmentation (2.5), reflecting its highly dispersed cooperative model, limiting innovation and efficiency.
- France invests more (€300M) and has a higher consolidation score (4.5), indicating a more structured market with stronger funding for research and development.
- The U.S. leads with €400M in R&D investment and a fully consolidated industry (5.0), showing that less fragmentation enables greater reinvestment in technology, branding, and efficiency.

Conclusion:

Higher sector consolidation correlates with increased R&D investment, reinforcing that fragmentation limits financial resources for innovation and competitiveness in the wine industry.

Consolidation strengthens the wine industry by reducing inefficiencies, improving margins, and increasing global competitiveness.





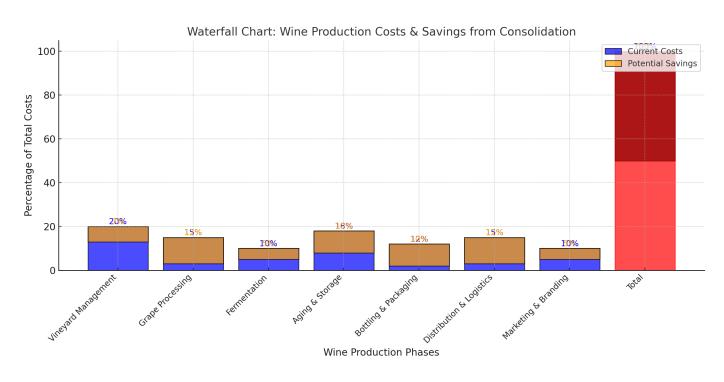
Kev Features of the Chart:

- Gray bars represent the fragmented industry, showing minimal efficiency benefits.
- Blue bars highlight the gains from consolidation, demonstrating significant improvements.

Key Insights:

- Cost Savings: Consolidation cuts inefficiencies by 50%, freeing capital for reinvestment.
- Higher Margins: Profitability increases by 35%, reducing financial strain.
- Market Competitiveness: Stronger branding and global reach improve positioning by 40%.
- Investment Capacity: Financial strength allows a 45% boost in strategic investments.

This visualization underscores the economic benefits of consolidation in the wine industry. By rationalizing production processes, sharing facilities, and leveraging economies of scale, significant cost reductions can be achieved, enhancing profitability and competitiveness.

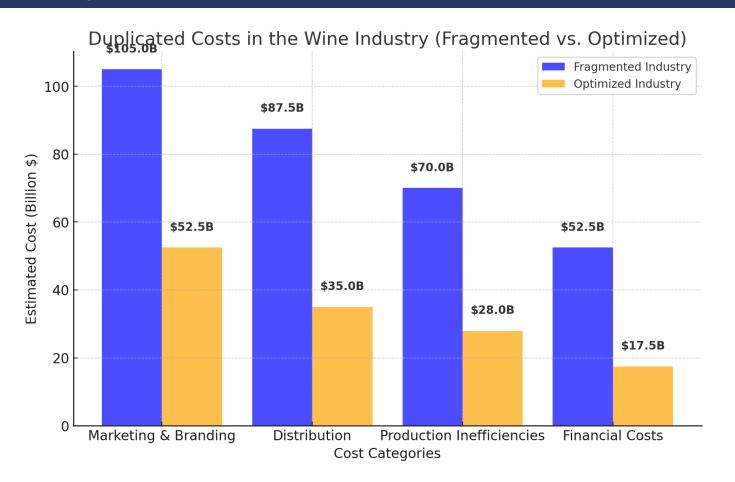


- Vineyard Management (20%) Moderate commonality (70%), some shared best practices.
- Grape Processing (15%) High commonality (80%), allowing for optimized shared equipment.
- Fermentation (10%) Moderate commonality, allowing some differentiation.
- Aging & Storage (18%) Efficiency gains from shared cellars and inventory (75% commonality).
- Bottling & Packaging (12%) High standardization (85%), major cost savings.
- **Distribution & Logistics (15%)** Very high commonality (90%), strong economies of scale.
- Marketing & Branding (10%) Lower commonality (50%), required for differentiation.

Savings Potential:

- Total potential savings: 50%
- High savings in bottling (10%) and distribution (12%) due to standardization.
- Significant savings in vineyard management (7%) and aging & storage (10%) through shared infrastructure.
- Lower savings in marketing & branding (5%) due to differentiation needs.

This chart illustrates how industry fragmentation inflates costs by over \$150 billion annually, with marketing, distribution, production inefficiencies, and financial costs driving excessive expenses. An optimized model could cut costs nearly in half, improving profitability, sustainability, and long-term competitiveness.



Key Insights from the Chart:

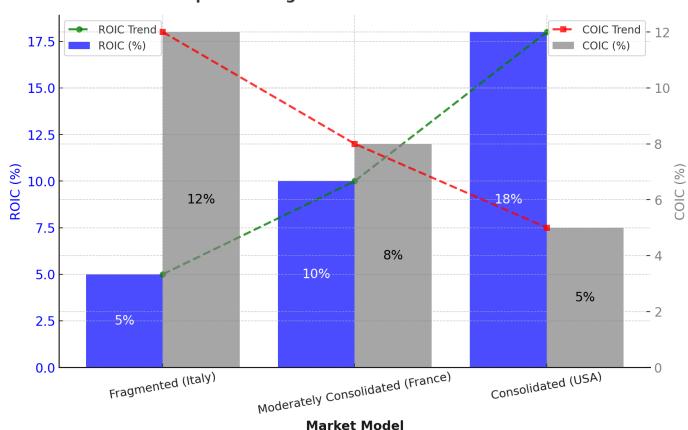
- Total industry costs are estimated at \$350 billion.
- Fragmented Industry (Blue) incurs significantly higher costs:
- Marketing & Branding: \$105B (30% of total costs) → could be reduced to \$52.5B.
- Distribution: \$87.5B (25%) → could drop to \$35B in an optimized model.
- Production Inefficiencies: \$70B (20%) → could be lowered to \$28B.
- Financial Costs: \$52.5B (15%) → could shrink to \$17.5B with better capital structures.

Key Takeaways:

- Industry fragmentation inflates costs by over \$150 billion annually.
- Optimized models could cut costs by nearly 50%, freeing capital for reinvestment in quality, sustainability, and profitability.
- Branding, distribution, and production inefficiencies are the largest drivers of waste.
- Financial restructuring and consolidation are crucial for long-term sustainability.

The inverse relationship between ROIC and COIC remains clear and visually emphasized, reinforcing that fragmentation limits profitability, while consolidation drives financial strength and sustainability.

Impact of Fragmentation on ROIC and COIC



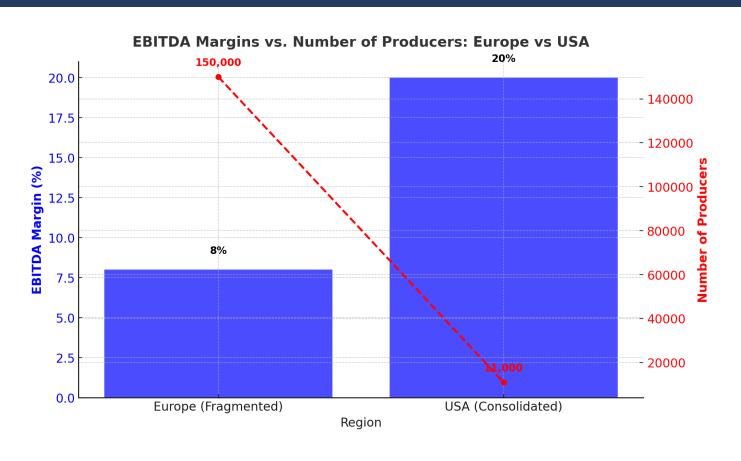
Key Takeaways:

- **Highly fragmented markets** (Italy) have the lowest ROIC (5%) and highest COIC (12%), making profitability difficult due to inefficiencies and high capital costs.
- Moderately consolidated markets (France) perform better, with ROIC at 10% and COIC at 8%, showing that partial consolidation improves returns.
- **Highly consolidated markets** (U.S.) achieve the highest ROIC (18%) and lowest COIC (5%), proving that scale, efficiency, and capital access drive superior financial performance.

Conclusion:

Fragmentation limits profitability by raising capital costs and lowering returns. Consolidation allows firms to invest efficiently, scale operations, and secure capital at lower costs, driving sustainable growth.

Consolidation strengthens the wine industry by reducing inefficiencies, improving margins, and increasing global competitiveness.



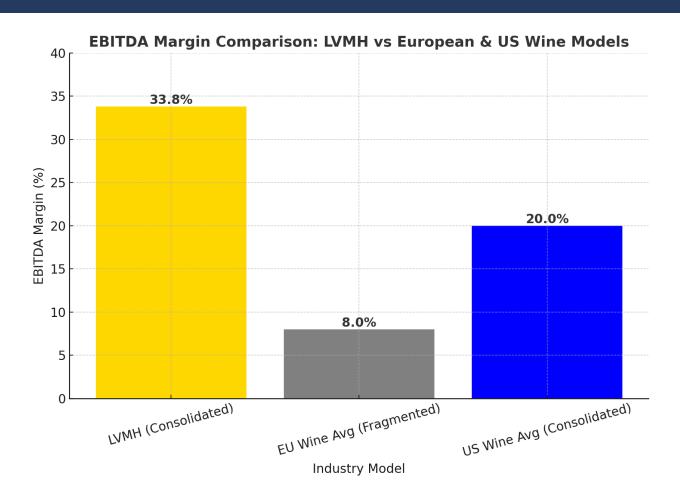
Key Insights:

- Europe's fragmented industry has ~150,000 producers, resulting in low EBITDA margins (~8%) due to inefficiencies, high costs, and weaker market positioning.
- The USA's more consolidated model has ~11,000 producers, enabling higher EBITDA margins (~20%) through economies of scale, stronger branding, and distribution power.
- Consolidation enhances financial performance, allowing for greater profitability, competitiveness, and investment capacity.
- Fragmentation weakens financial stability, as excess costs dilute profitability across too many small-scale producers.

Key Takeaway:

A more consolidated industry structure leads to higher margins and greater competitiveness, highlighting the need for strategic financial restructuring in fragmented markets like Europe.

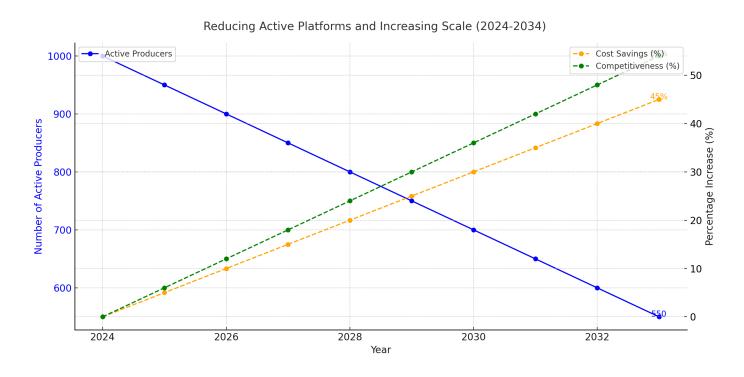
The chart shows LVMH's superior EBITDA margin (33.8%) compared to fragmented European (8%) and U.S. (15%) wine brands, highlighting how consolidation, scale, and premiumization drive profitability, while fragmentation limits financial performance.



Key Takeaways:

- LVMH leads with a 33.8% EBITDA margin, demonstrating the power of consolidation, premiumization, and operational efficiency.
- European fragmented brands struggle at 8%, weighed down by high costs, inefficiencies, and lack of scale.
- U.S. fragmented brands perform slightly better at 15%, benefiting from stronger branding, direct-to-consumer channels, and more structured distribution.
- The global fragmented wine industry averages only ~12% EBITDA, due to high perunit costs, inefficiencies, and weaker market positioning.
- Consolidation enables significantly higher profitability, reinforcing the financial benefits of scale.

The wine industry faces increasing pressure from global competition, rising production costs, and shifting consumer demand. This chart illustrates how a rationalization strategy focused on reducing active platforms and scaling operations can drive significant improvements in efficiency, cost savings, and competitiveness over the next 10 years (2024-2034).

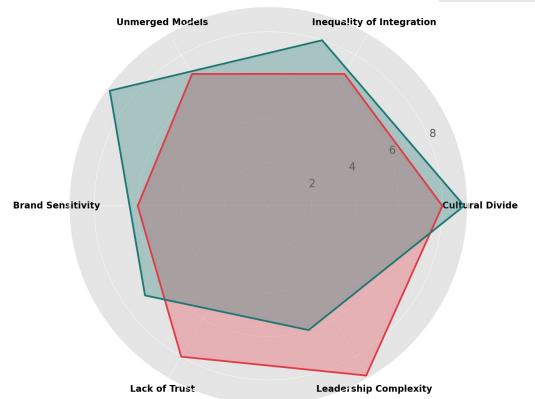


- Rationalization is necessary The number of active producers is expected to decrease from 1,000 to 550, creating a more sustainable and competitive industry.
- Significant cost savings Industry-wide cost reductions could reach 45%, driven by economies of scale, shared infrastructure, and technological advancements.
- Enhanced profitability and resilience A 54% increase in competitiveness, as larger entities leverage operational efficiencies, invest in innovation, and expand globally.
- Lessons from other industries Automotive and technology have successfully consolidated to improve margins, streamline operations, and strengthen global positioning.
- A shift toward a modernized industry Moving away from fragmentation toward professionalization, data-driven decision-making, and financial sustainability.
- A coordinated approach is essential —
 Stakeholders (producers, investors, policymakers) must work together to facilitate strategic mergers and innovation-driven growth.

Conclusion: Successful integration is complex but, when executed correctly, it reshapes the wine industry by increasing profitability, operational resilience, and global competitiveness.

Key Challenges vs. Success Factors in Wine Industry Merg





Key Challenges:

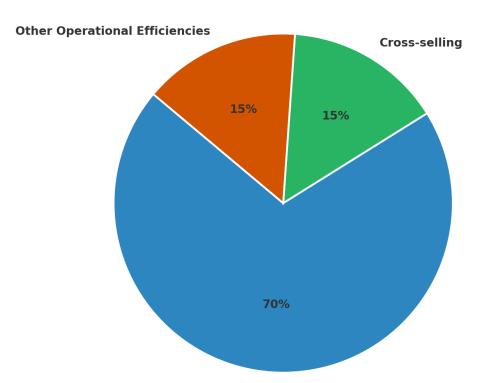
- Cultural Divide: Differences in corporate identity, regional traditions, and winemaking philosophies create friction.
- Inequality of Integrating Parties: Disparities in size, financial strength, and operational maturity hinder smooth mergers.
- Unmerged Operating Models: Radically different vineyard management, production, and distribution systems fail to align.
- Insufficient Sensitivity to Brand Identity: Failure to preserve brand heritage and customer loyalty undermines integration.
- Lack of Trust & Respect: Resistance from founders, employees, and stakeholders slows the process.
- Complexity Often Overwhelms Leadership Teams BUT

Successful Integration Enables:

- Rapid Expansion & Scale Well-executed M&A accelerates market positioning and global reach.
- **▼** Best-Practices & Operational Synergies Leveraging the best winemaking techniques, supply chain efficiencies, and common platforms creates competitive advantage.
- **The Potential Savings Are Too Large to Ignore**
- Economies of scale in production and sourcing significantly reduce costs.
- Optimized distribution networks improve market penetration.
- Shared innovation & R&D investments drive long-term profitability.

This visualization underscores the economic benefits of consolidation in the wine industry. By rationalizing production processes, sharing facilities, and leveraging economies of scale, significant cost reductions can be achieved, enhancing profitability and competitiveness.

Estimated Benefits from Consolidation of Wine Producers



Technology and Product Development

Estimated benefits from consolidation of wine producers Technology and product development (~70%)

(e.g., sharing research & development costs, vineyard optimization, and sustainable production practices)

- Standardizing vineyard management techniques to optimize yield and quality
- Shared R&D investments in fermentation techniques and aging processes
- Centralized sourcing for oak barrels, glass bottles, and packaging materials
- Leveraging expertise in viticulture and enology to enhance product consistency

Cross-selling (~15%)

- Expanding distribution channels across markets
- Co-branding and portfolio diversification strategies
- Creating synergies in direct-to-consumer and e-commerce platforms

Other operational efficiencies (~15%)

(e.g., purchasing, SG&A, logistics)

- · Bulk purchasing power for raw materials, equipment, and logistics
- · Streamlining salesforce and marketing efforts
- Optimizing logistics for domestic and international distribution
- Consolidating back-office functions such as finance, HR, and compliance

"In times of profound change, the key is to come together, not fall apart. Assets must be preserved, not scattered. We need to consolidate, not fragment. Build, not tear down. The only way forward—the only way to make this sector thrive—is through competence, strong leadership, and rational decision-making."

Umberto Callegari Terre D'Oltrepò