



Supply Chain Risk & Resiliency Playbook

April 17, 2024



Hi, we're
NYU Stern!



33 students
10 weeks
1 playbook
Many pivots!

LUXURY

This Week: What's LVMH's Take on Tariffs?

The luxury conglomerate's earnings will provide a window into how the sector's biggest brands expect the rest of 2025 to go.



LUXURY

This Week: What's LVMH's Take on Tariffs?

The luxury conglomerate's earnings will provide a window into how the sector's biggest brands expect the rest of 2025 to go.



RETAIL

Fashion Stocks Soar After Trump Pauses Tariffs on All Countries But China

The US will temporarily impose a universal 10 percent tariff instead of the higher levies announced last week, but duties on China will climb to 125 percent.



LUXURY

This Week: What's LVMH's Take on Tariffs?

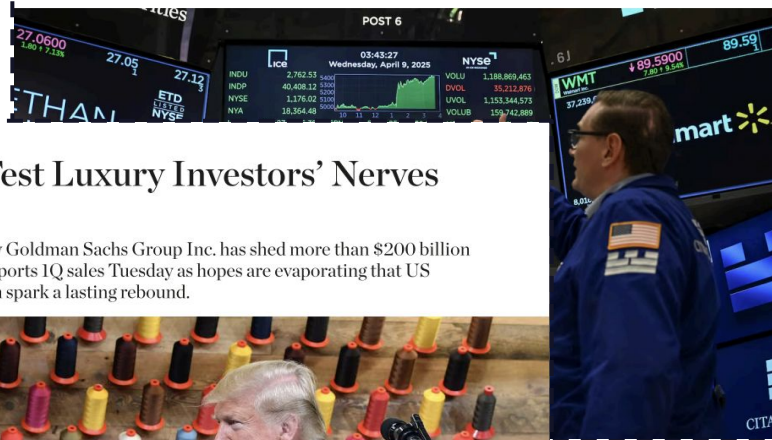
The luxury conglomerate's earnings will provide a window into how the sector's biggest brands expect the rest of 2025 to go.



RETAIL

Fashion Stocks Soar After Trump Pauses Tariffs on All Countries But China

The US will temporarily impose a universal 10 percent tariff instead of the higher levies announced last week, but duties on China will climb to 125 percent.



LUXURY

LVMH Sales to Test Luxury Investors' Nerves After Tariff Pain

A luxury stocks index compiled by Goldman Sachs Group Inc. has shed more than \$200 billion from its February peak. LVMH reports 1Q sales Tuesday as hopes are evaporating that US resilience or Chinese stimulus can spark a lasting rebound.



“There is a world in which a U.S.-China trade war could benefit European luxury brands, if it prompts the EU and China to forge closer economies ties... The impact of tit-for-tat tariffs won’t be contained to the U.S. and China. The uncertainty of the last two weeks, and the promise of more upheaval to come, is weighing heavily on consumer confidence and contributing to recession fears in the U.S.

But Really, It’s the Tariffs: Even with ‘reciprocal’ tariffs postponed, the U.S. will still slap a 10 percent tax on imports from all countries, and a whopping 145 percent duty in Chinese goods.”

Brian Baskin, Business of Fashion

“There is a world in which a U.S.-China trade war could benefit European luxury brands, if it prompts the EU and China to forge closer economies ties... The impact of tit-for-tat tariffs won't be contained to the U.S. and China. The uncertainty of the last two weeks, and the promise of more upheaval to come, is weighing heavily on consumer confidence and contributing to recession fears in the U.S.

But Really, It's the Tariffs: Even with 'reciprocal' tariffs postponed, the U.S. will still slap a 10 percent tax on imports from all countries, and a whopping 145 percent duty in Chinese goods.”

Brian Baskin, Business of Fashion

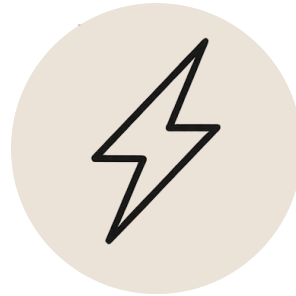
LVMH operates in an increasingly volatile global landscape, with geopolitical shocks, climate risks, and evolving consumer expectations are putting pressure on traditional supply chains.



Global Volatility



Resiliency



Agility



Profitability

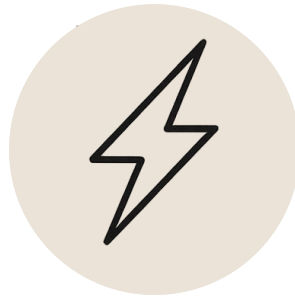


Strategic Direction

LVMH operates in an increasingly volatile global landscape, with geopolitical shocks, climate risks, and evolving consumer expectations are putting pressure on traditional supply chains.



Resiliency



Agility



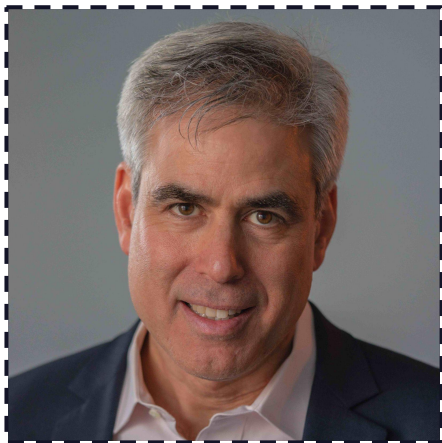
Profitability

Our research methodology consisted of...

- Academic resources and NYU expertise
- Current events and news
- Proprietary LVMH information (*Life 360, etc.*)
- Best-in-class case studies

Some of our constraints were...

- Access to internal financials; *mitigant*: institutional modeling framework
- Cost of data providers; *mitigant*: macro level approach



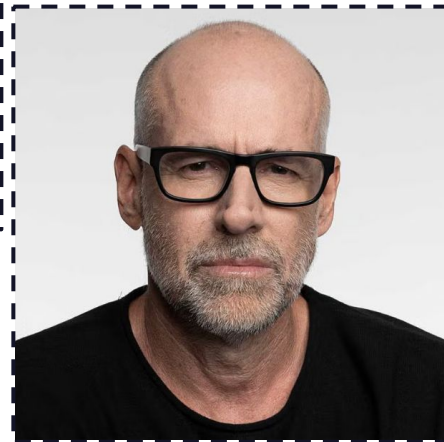
Jonathan Haidt
Social Psychology

Thomai Serdari
Luxury Marketing



Aswath Damodaran
Finance & Markets

Scott Galloway
Brand Strategy





LVMH

Agenda

1. Current State Assessment
2. Competitive Landscape
3. Strategic Framework
4. Insights & Takeaways
5. Timeline & Roadmap
6. Call to Action
7. Case Study in Action: Rissmann
8. Appendix



LVMH

*Current State
Assessment*

Current State
Assessment

Competitive
Landscape

Strategic
Framework

Insights &
Takeaways

Timeline &
Roadmap

Call to Action

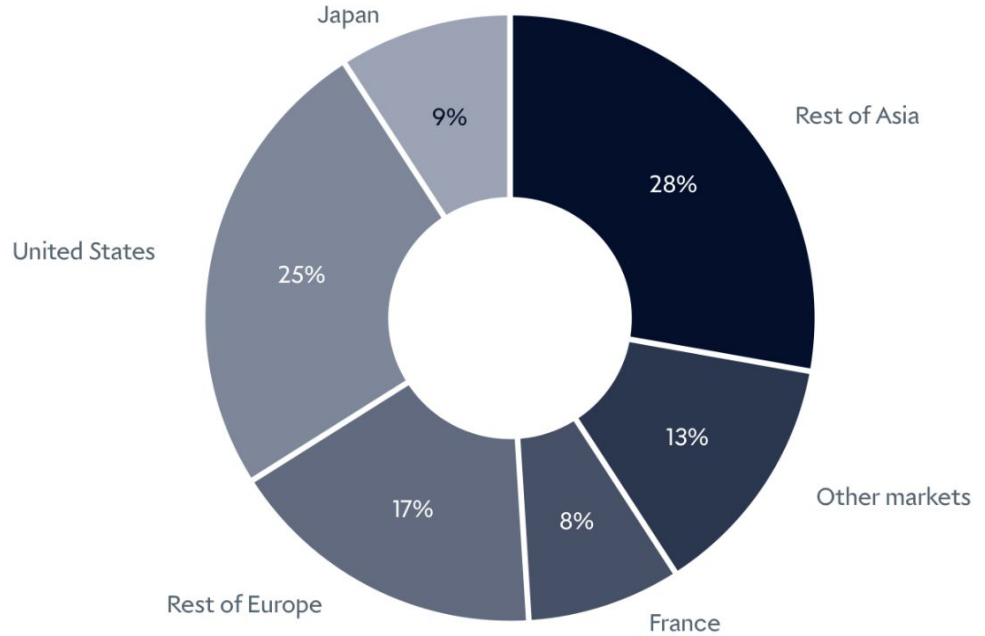
Rissmann



**What makes
LVMH's supply
chain unique?**

As the world's leading luxury conglomerate, LVMH has effectively integrated quality, craft, and excellence within its supply chain.

With a global sales footprint, your business depends on effective distribution of products to key markets.



Revenue by Region for 2024
As a percentage of total revenue



What are the key drivers of success for LVMH?

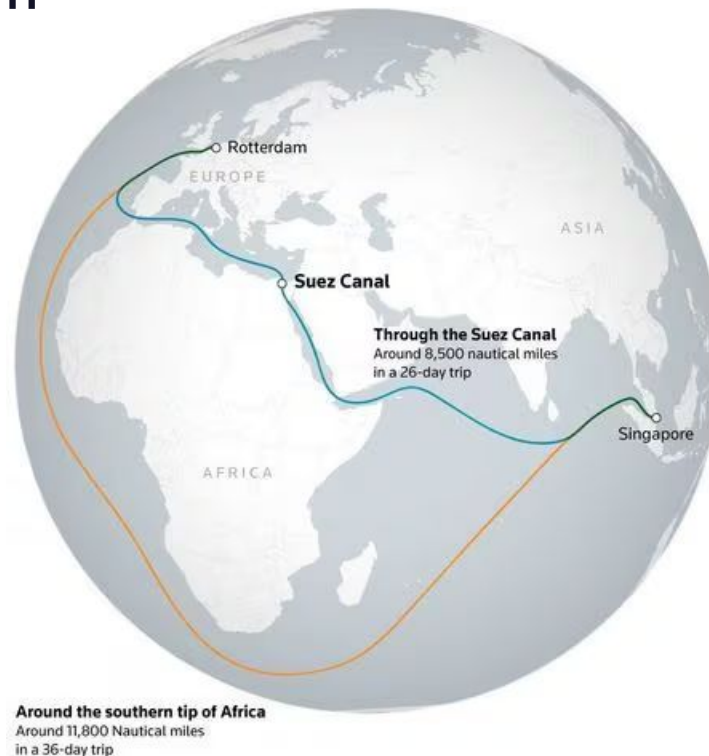
Expansive network of brands and suppliers across multiple verticals

Globally recognized and demanded heritage brands

ESG leadership in luxury

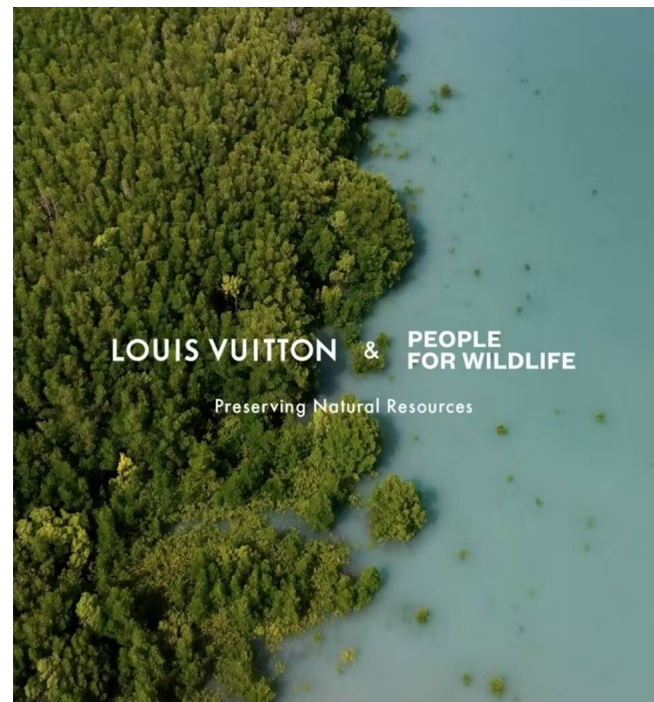
Key Supply Chain Risks: Short Term

The Risk	The Impact
<p>Trade Restrictions</p>	<p>Raises production costs, triggers decline in demand, and forces expenditure in new manufacturing</p>
<p>Escalating Global Conflicts</p>	<p>Prevents shipping in conflict zones, reduces demand for products</p>



Key Supply Chain Risks: Long Term

The Risk	The Impact
<i>Aging Tech Infrastructure</i>	Slow response to breaking news, poor risk mitigation, inventory overproduction
<i>Raw Material Shortages</i>	Cost incurred through redeveloping supplier networks
<i>New Regulations</i>	COGS increases due to stringent product requirements
<i>Cyberattacks</i>	Random, unpredictable attacks compromise brand reputation and reduce revenue



High capacity to “weather the storm”

Scenario	Price Target Δ	
<i>Raw Material Volatility</i>	-40%	+9%
<i>Trade Conflict</i>	-27%	-8%
<i>Sustainability Regulations</i>	-33%	-3%*

*If handled properly, difference likely to be indistinguishable from 0 (95% conf.)



**Build upon
competencies
in turbulent
times.**



LVMH

*Competitive
Landscape*

Current State
Assessment

Competitive
Landscape

Strategic
Framework

Insights &
Takeaways

Timeline &
Roadmap

Call to Action

Rissmann



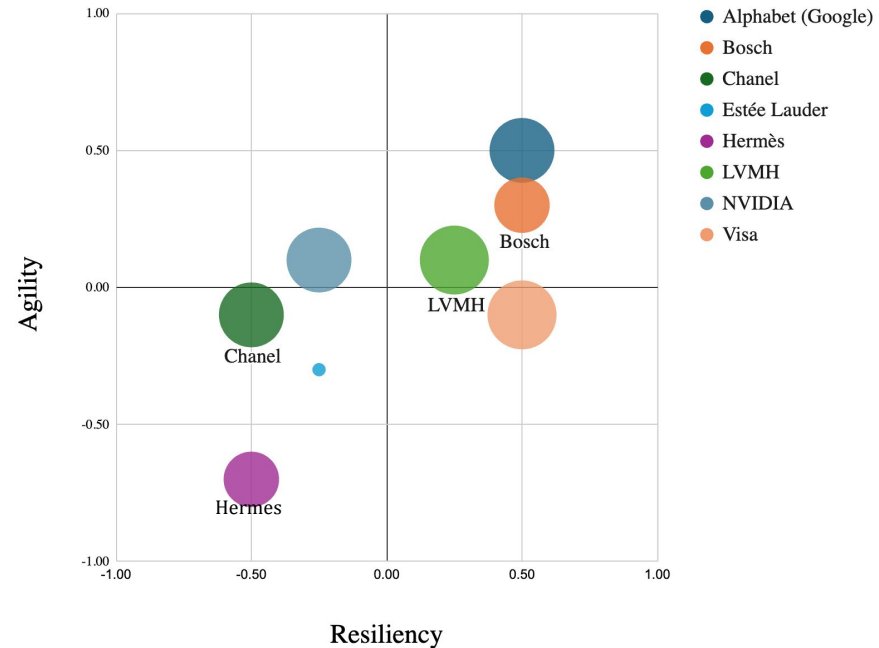
Where LVMH's
supply chain
fits in the
landscape...

Competitive Benchmarking

With benchmarking, LVMH can see their place in the supply chain ecosystem.

*LVMH ranked **higher than Chanel and Hermès** across all three capabilities*

No one sector consistently showed strong practices of supply chain management



How LVMH Can Set Supply Chain Standards

By adapting to current market conditions and learning from other industries, LVMH can pull ahead, via opportunities to increase *resiliency* and *agility* by improving...

Innovation

Risk Mitigation

Sustainability

Efficiency

How LVMH Can Set Supply Chain Standards

By adapting to current market conditions and learning from other industries, LVMH can pull ahead, via opportunities to increase *resiliency* and *agility* by improving...

Innovation

Risk Mitigation

Sustainability

Efficiency

How LVMH Can Set Supply Chain Standards

By adapting to current market conditions and learning from other industries, LVMH can pull ahead, via opportunities to increase *resiliency* and *agility* by improving...

Innovation

Risk Mitigation

Sustainability

Efficiency

How LVMH Can Set Supply Chain Standards

By adapting to current market conditions and learning from other industries, LVMH can pull ahead, via opportunities to increase *resiliency* and *agility* by improving...

Innovation

Risk Mitigation

Sustainability

Efficiency



LVMH is a leader; how do we push further?

SAVE YOUR
WARDROBE

MAIN POINT

HOW IT SOLVES IT

USE CASE

LVMH

*Strategic
Framework*

Current State
Assessment

Competitive
Landscape

Strategic
Framework

Insights &
Takeaways

Timeline &
Roadmap

Call to Action

Rissmann



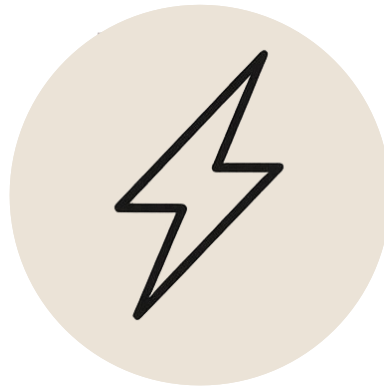
Our thoughts
on decision
making...

Decision-Making Pillars

These pillars represent LVMH's future-oriented supply chain, grounded in a strategic philosophy favoring long-term stability over short-term optimization.



Resiliency



Agility



Profitability

Pillar 1: Resiliency

Risk exposure is increasing for global brands due to an uncertain geopolitical environment and increasing climate challenges

Compounding global risks

Demand for speed, personalization, and ESG

LVMH has room to further enhance resiliency

Pillar 1: Resiliency

Case Study: Bosch

Bosch leveraged AI predictive analytics and nearshoring to reduce supply chain disruptions by 25% and increase efficiency



Pillar 1: Resiliency

Invest in next-gen factories closer to key target markets

Embed Blockchain
within product
production

Suppliers to invest in
production facilities
close to target
markets

Implement
dual-sourcing and
modular production

Pillar 2: Agility

LVMH lacks the infrastructure to quickly respond to shifting trade environments, customer preferences, and product demand

Rapid decision-making and local adaptation are critical

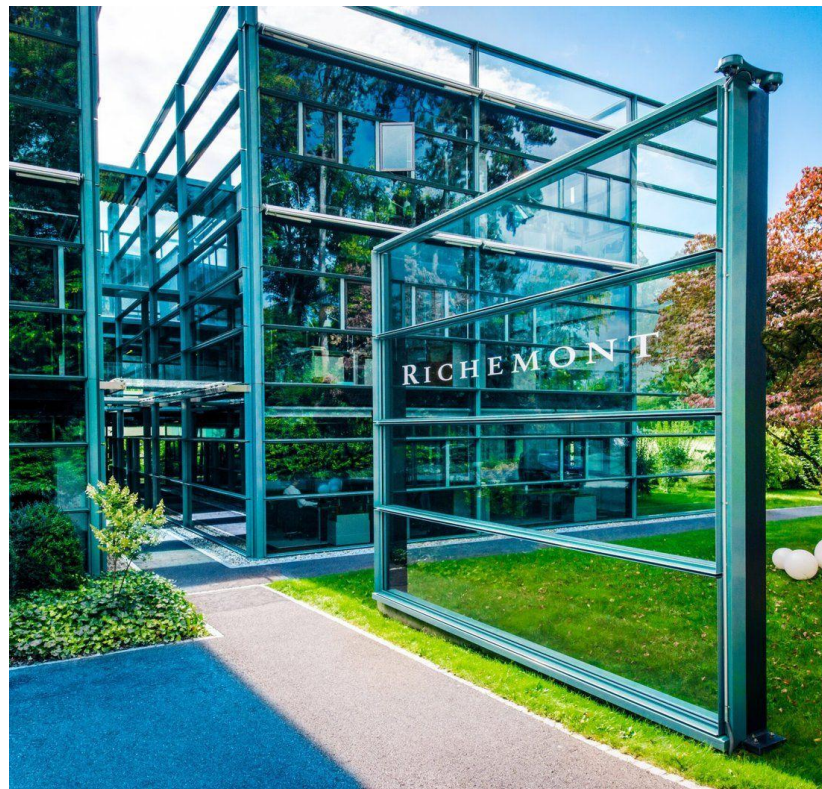
Challenges are slow decision-making, data silos, and regional dependence

Pillar 2: Agility

Case Study: Richemont

Used blockchain and ESG tools for 50% warehouse process reduction and improved responsiveness

RICHEMONT



Pillar 2: Agility

Embed data tracking and analysis in key Supply Chain touchpoints for improved decision-making speed

Leverage AI analytics, cloud platforms, and IoT to problem solve

Use digital twin technology to test disruption scenarios

Expand Data & AI Academy to upskill platforms

Pillar 3: Profitability

Disruption raises costs for exporters and creates supply chain bullwhip, challenging efforts to meet global demand

Instability and global supply chain disruptions raise costs and delay production

Slowdown in demand due to global economic recovery challenges

Pillar 3: Profitability

Case Study: Kering

Drove resilience by investing in regional production, dual sourcing, and transparent supplier frameworks

K E R I N G



Pillar 3: Profitability

Invest in training and technology to make nearshored factories productive and profitable

Prioritize nearshoring critical components at bottlenecks

Implement advanced data analytics



Luxury industry's future won't be defined by who we are today, but by how well we adapt to tomorrow's disruptions.



LVMH

*Insights &
Takeaways*

Current State
Assessment

Competitive
Landscape

Strategic
Framework

Insights &
Takeaways

Timeline &
Roadmap

Call to Action

Rissman



What do we
want you to
walk away
with?

Digital Transformation

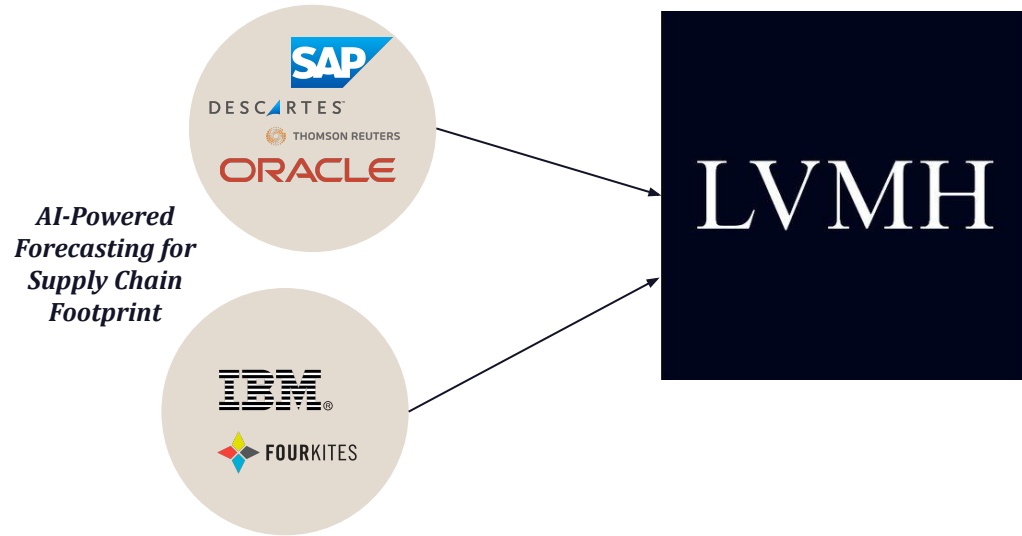
**With luxury supply chains face rising disruption,
LVMH must elevate resilience without
compromising brand heritage**

Digital Transformation

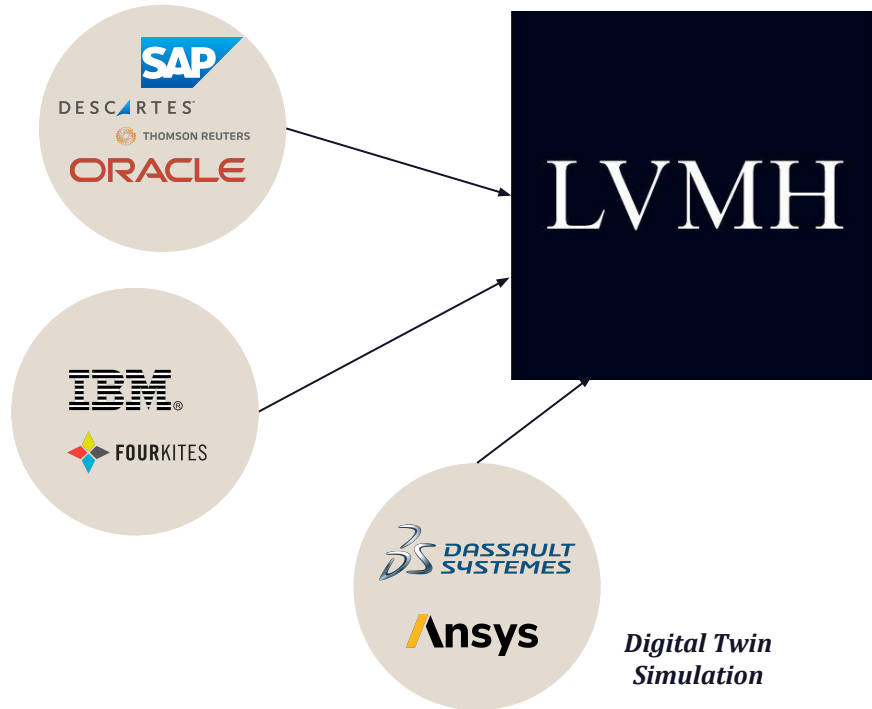
LVMH's Strategic Opportunity

Move from reactive to predictive operations with technology that enables precision, transparency, and speed at scale

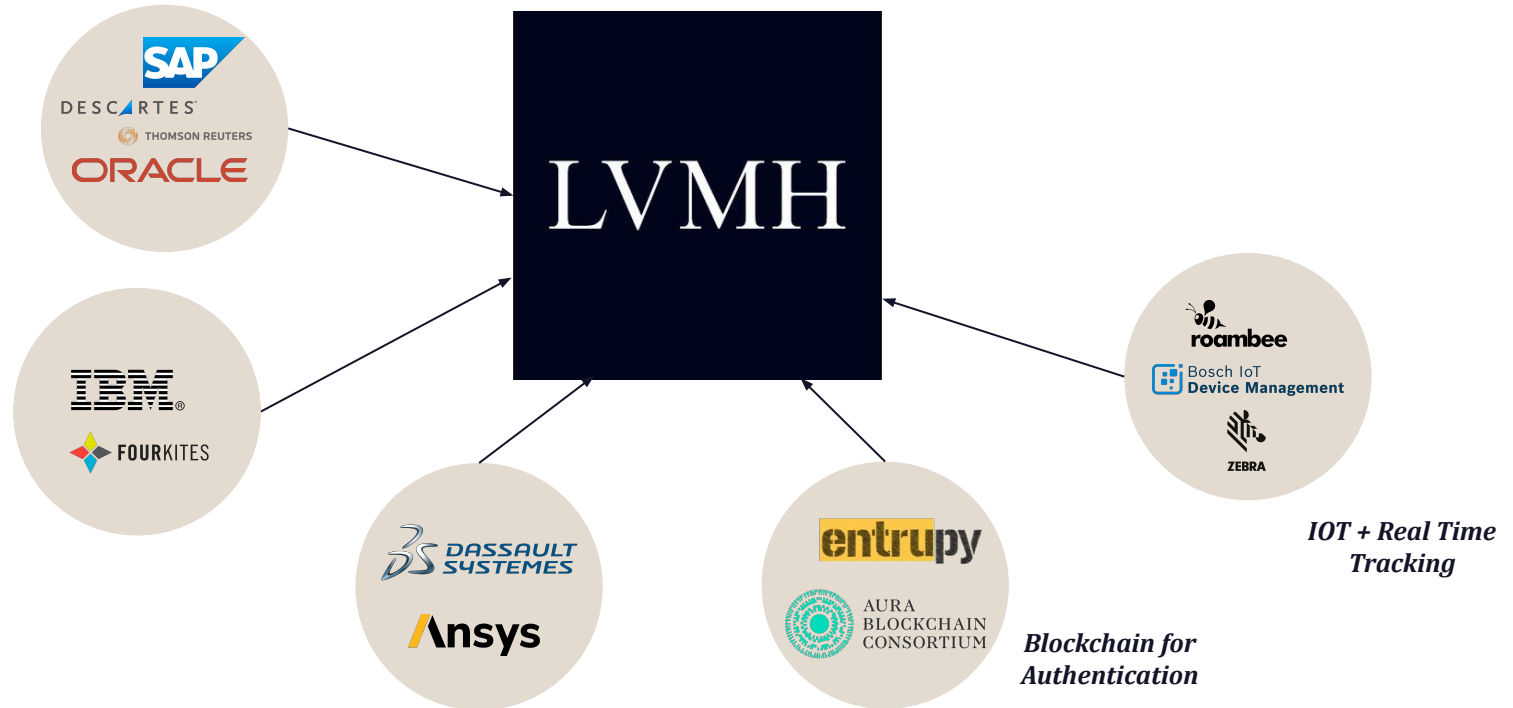
Digital Transformation



Digital Transformation



Digital Transformation



Digital Transformation



Cross-Maison Collaboration

Siloed operations slow LVMH's response during disruption, but scale becomes strength when Maisons collaborate and LVMH leads synergies

Cross-Maison Collaboration

LVMH's Strategic Opportunity

Agility isn't built brand-by-brand; it requires shared systems, harmonized planning, and alignment across all Maisons

Cross-Maison Collaboration

Establish a Resilience Council

Centralize across Tech and ESG

Cross Sector Scenario Planning



Cross-Maison Collaboration

Establish a Resiliency Council

Centralize across Tech and ESG

Cross Sector Scenario Planning

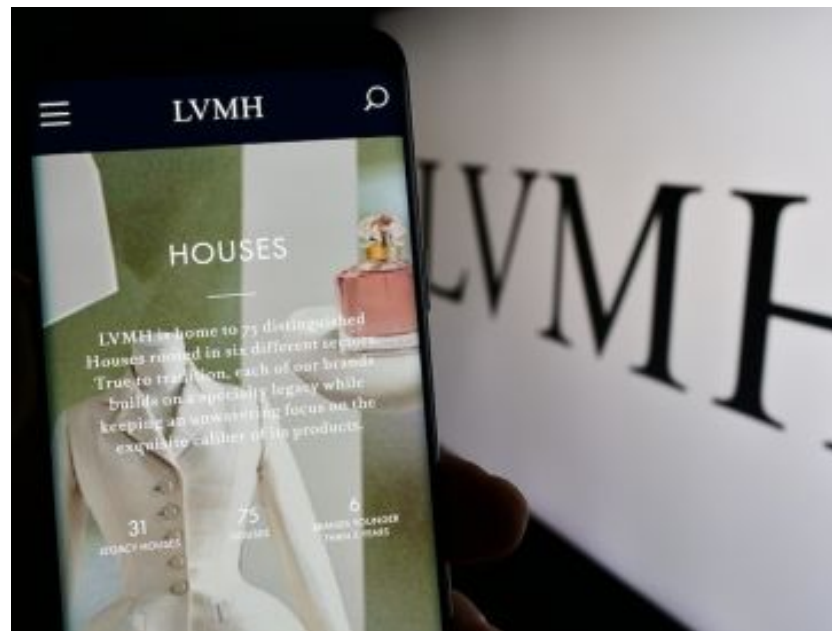


Cross-Maison Collaboration

Establish a Resiliency Council

Centralize across Tech and ESG

Cross-Sector Scenario Planning





Faster pivots,
faster decisions,
fewer disruptions,
and innovation at
scale.



LVMH

*Timeline &
Roadmap*

Current State
Assessment

Competitive
Landscape

Strategic
Framework

Insights &
Takeaways

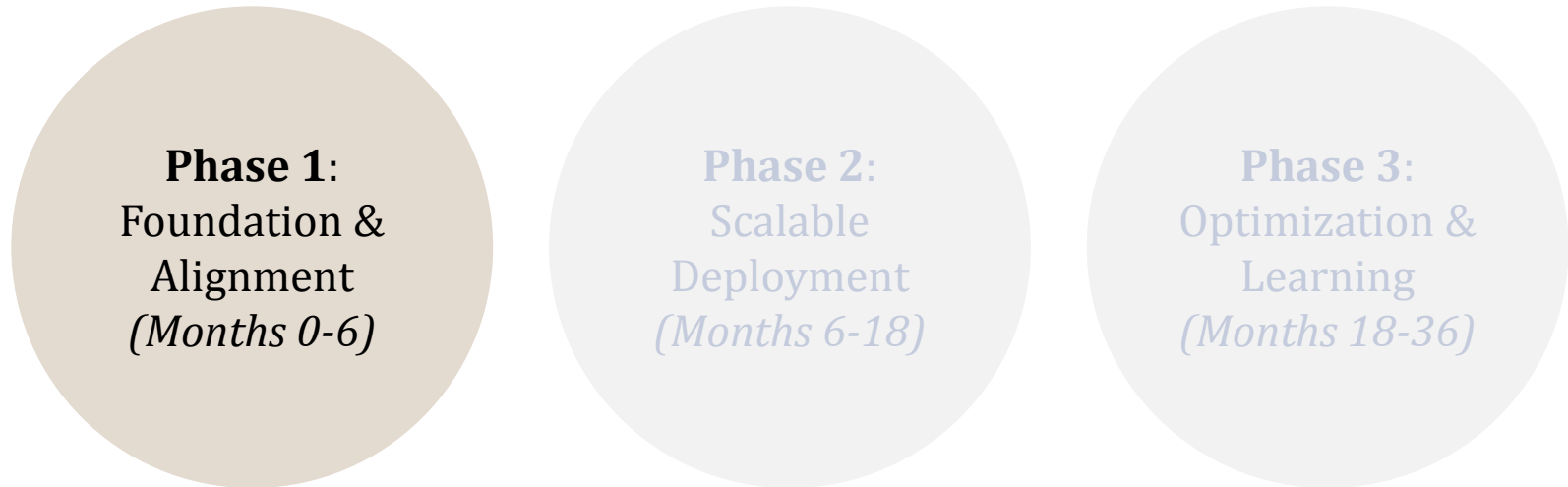
**Timeline &
Roadmap**

Call to Action

Rissmann

Phased Roadmap to Resilience & Agility

LVMH must balance speed and structure, delivering early visibility gains while scaling long-term transformation across Maisons.



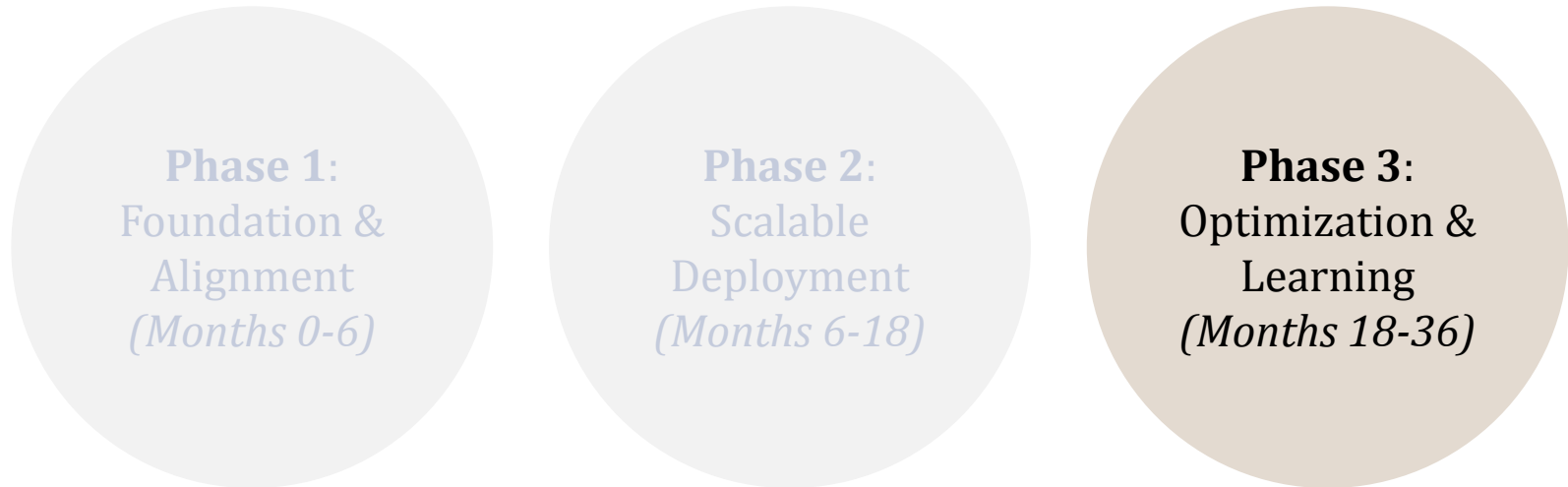
Phased Roadmap to Resilience & Agility

LVMH must balance speed and structure, delivering early visibility gains while scaling long-term transformation across Maisons.



Phased Roadmap to Resilience & Agility

LVMH must balance speed and structure, delivering early visibility gains while scaling long-term transformation across Maisons.





A replicable approach to maximize resilience.

A photograph of a high-end LVMH retail store interior. The space is elegantly designed with light-colored wood paneling and recessed lighting. Shelves and display cases are filled with various luxury handbags and accessories. A central display features a mannequin wearing a vibrant, multi-colored patterned outfit. The floor is a mix of polished stone and dark wood. The overall atmosphere is sophisticated and luxurious.

LVMH

*Call to
Action*

Current State
Assessment

Competitive
Landscape

Strategic
Framework

Insights &
Takeaways

Timeline &
Roadmap

Call to Action

Rissmann

Lead the Future of Luxury Supply Chain

WHAT	HOW	WHY
Unify where it counts: shared platforms, tools, and governance	Launch a Resilience Council to align cross-functional strategy	A supply chain worthy of its brands
Scale what works: pilots in agility, traceability, and regional production	Fund targeted digital and regional transformation pilots	A foundation for luxury that's resilient, agile, and profitable
Invest intentionally: in AI, supplier visibility, talent, and ESG infrastructure	Tie agility and ESG metrics to performance and investment criteria	Long-term leadership in a rapidly evolving world

Lead the Future of Luxury Supply Chain

WHAT	HOW	WHY
Unify where it counts: shared platforms, tools, and governance	Launch a Resilience Council to align cross-functional strategy	A supply chain worthy of its brands
Scale what works: pilots in agility, traceability, and regional production	Fund targeted digital and regional transformation pilots	A foundation for luxury that's resilient, agile, and profitable
Invest intentionally: in AI, supplier visibility, talent, and ESG infrastructure	Tie agility and ESG metrics to performance and investment criteria	Long-term leadership in a rapidly evolving world

Lead the Future of Luxury Supply Chain

WHAT	HOW	WHY
Unify where it counts: shared platforms, tools, and governance	Launch a Resilience Council to align cross-functional strategy	A supply chain worthy of its brands
Scale what works: pilots in agility, traceability, and regional production	Fund targeted digital and regional transformation pilots	A foundation for luxury that's resilient, agile, and profitable
Invest intentionally: in AI, supplier visibility, talent, and ESG infrastructure	Tie agility and ESG metrics to performance and investment criteria	Long-term leadership in a rapidly evolving world



LVMH

*Framework
& Case Study
in Action:
Rissmann*

Current State
Assessment

Competitive
Landscape

Strategic
Framework

Insights &
Takeaways

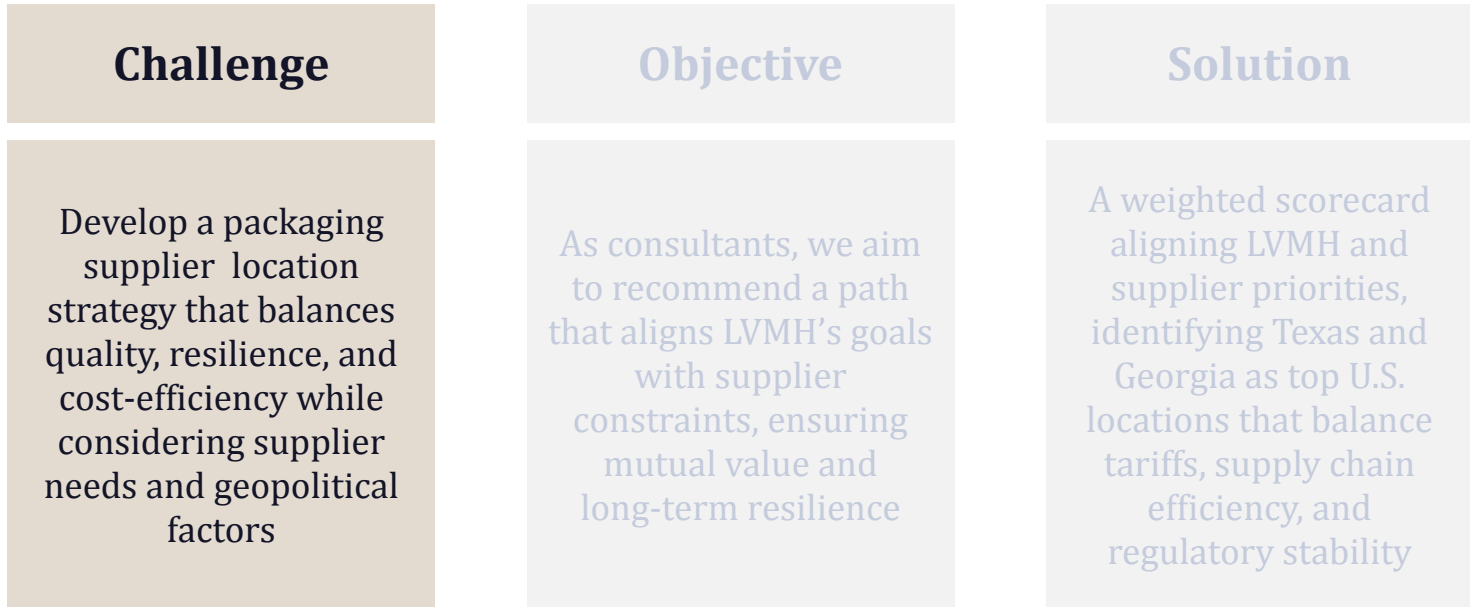
Timeline &
Roadmap

Call to Action

Rissmann

Rissmann Executive Summary

Partnered with an LVMH packaging supplier to develop a relocation strategy that aligns both strategic and supplier priorities.



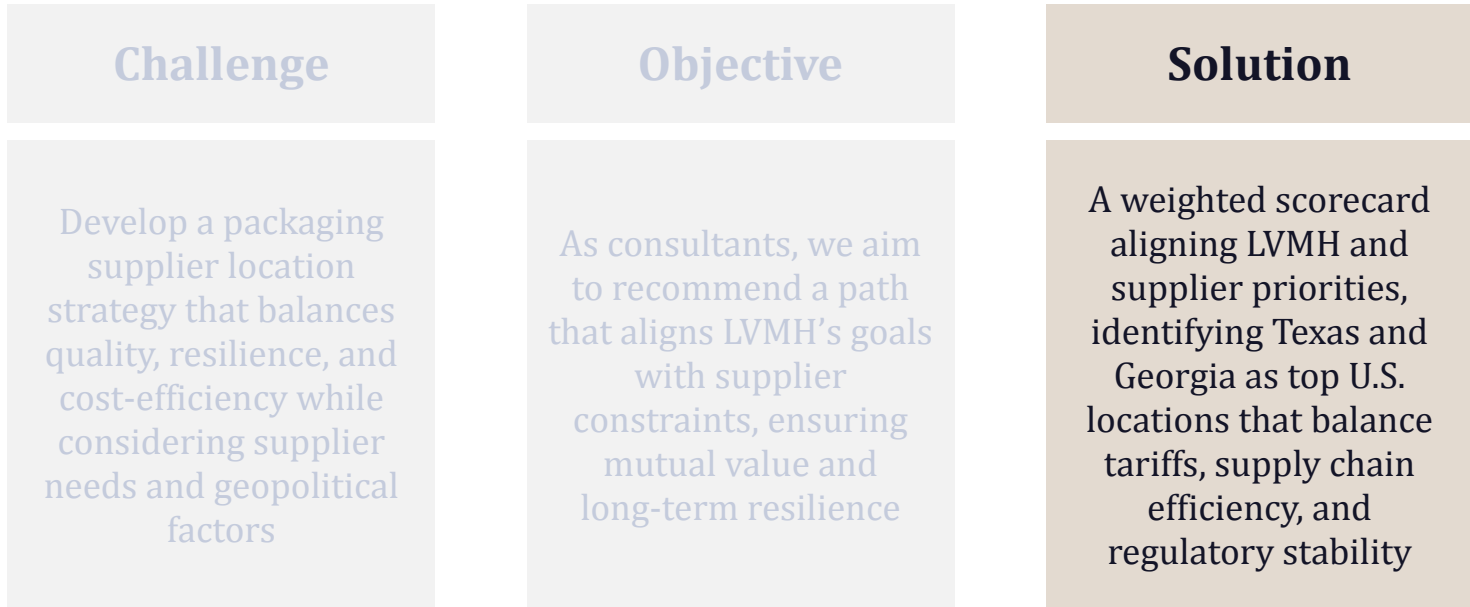
Rissmann Executive Summary

Partnered with an LVMH packaging supplier to develop a relocation strategy that aligns both strategic and supplier priorities.



Rissmann Executive Summary

Partnered with an LVMH packaging supplier to develop a relocation strategy that aligns both strategic and supplier priorities.



Rissmann Location Strategy

We used a funnel approach to our location strategy research, initially evaluating regions both within and outside the U.S., and narrowed it down to the following regions for our relocation analysis.



LVMH Packaging Manufacturing Location Strategy Scorecard

File Edit View Insert Format Data Tools Extensions Help

100% 123 Cambria - 12 + B I A

164 | fx

FACILITY LOCATION SELECTION SCORECARD OVERVIEW

RISSMANN LVMH

Scores Available from 1-5 (5 being the most attractive location per attribute). Basis for scoring must be listed with specific examples.

Criteria Checklist		Brazil	Texas	Louisiana	Indiana	Georgia	Overview of basis for rating
1. Costs & Financial Considerations							
Tariff Savings		3	5	5	5	5	
Manufacturing Costs		4	3	3	1	3	Average Manufacturing Wage, Utilities & Energy Costs, Tax Incentives, Regulations & Compliance Costs, Currency Stability & Inflation
Corporate Tax		1	5	2	4	3	Texas offers the lowest tax burden, while Brazil has the highest; Indiana, Georgia, and Louisiana rank in the middle.
Set Up Costs		5	1	4	3	2	Import Duties & Tariffs on Equipment, Factory Rental, Access to Skilled Workforce for Installation, Construction & Facility Setup Costs, Logistics & Transport
Average Score		3.25	3.50	3.50	3.25	3.25	
2. Operational & Supply Chain Efficiency							
Logistics & Shipping		1	5	2	3	4	Increased regulatory and economic stability in Indiana and Texas; moderate barriers in Georgia and Louisiana; elevated political and inflationary risk in Brazil.
Workforce Availability		1	3	2	4	5	Strong manufacturing talent pipeline in Georgia; competitive wages in Indiana and Louisiana; Brazil offers low labor cost but higher regulatory complexity.
Impacts with Suppliers & Raw Materials		4	3	1	3	5	Proximity to Current Supplier, Import vs Local Sourcing, Raw Material Pricing & Volatility, Reliability & Lead Times, Customs & Trade Agreements
Automation Availability		2	5	1	3	4	Strongest automation infrastructure and import access in Texas; moderate capability in Indiana and Georgia; Brazil faces import complexity and talent gaps; Louisiana least prepared due to limited vendor access and infrastructure risk.
Average Score		2.00	4.00	1.50	3.25	4.50	
3. Market & Business Environment							
Business Stability		2	5	4	5	4	Stronger regulatory and economic stability in Indiana and Texas; moderate barriers in Georgia and Louisiana; elevated political and inflationary risk in Brazil.
Scalability & Long Term Growth		2	5	1	3	4	Texas leads in scalability and growth with top infrastructure and business climate, followed by Georgia and Indiana, while Brazil and Louisiana offer niche strengths but face structural and regulatory challenges.

Overview of Ranking | Brazil | Texas | Louisiana | Indiana | Georgia

Next Steps

For Rissmann

Present final recommendations and financial investment analysis.

Provide a short-term and long-term solution for moving operations to the U.S.

For LVMH

Apply the scorecard framework to assess whether other manufacturing partners should consider relocating or establishing facilities in the U.S.

Next Steps

For Rissmann

Present final recommendations and financial investment analysis

Provide a short-term and long-term solution for moving operations to the U.S.

For LVMH

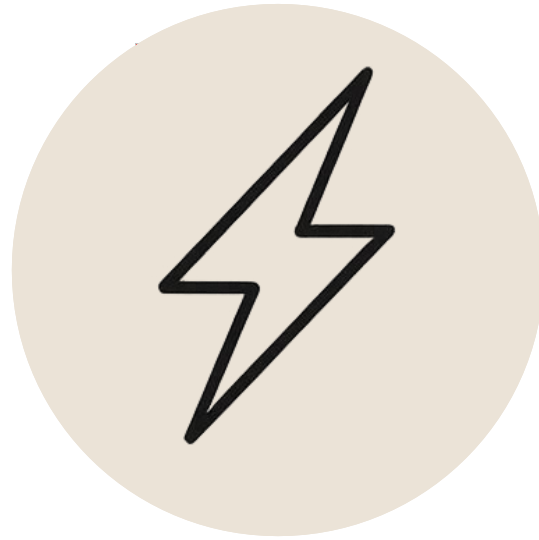
Apply the scorecard framework to assess whether other manufacturing partners should consider relocating or establishing facilities in the U.S.



The way
forward...



Resiliency



Agility



Profitability

LVMH
LVMH
LVMH
LVMH
LVMH
LVMH
LVMH
LVMH

Thank you!
Questions?

Appendix A: Presenters & Acknowledgements



Caroline Citarella

Luxury & Retail MBA

Vertical: *Client Services*

Favorite Maison: *Dior*



Joan Daly

Luxury & Retail MBA

Vertical: *Marketing &*

Digital Strategy

Favorite Maison:

Givenchy



Adam Das

Full-Time MBA

Vertical: *Strategy & Supply*

Chain Operations

Favorite Maison:

Loro Piana



Liam Glass

Full-Time MBA

Vertical: *Consulting &*

Entertainment

Favorite Maison:

Loro Piana



Vincent Hao

Luxury & Retail MBA
*Vertical: Consulting &
Strategy*
Favorite Maison: Loewe



Jeal Patel

Luxury & Retail MBA
*Vertical: Marketing &
Technology Management*
*Favorite Maison:
Chaumet*



Alex Plosch

Luxury & Retail MBA
*Vertical: Marketing &
Management*
*Favorite Maison:
Fendi*

LVMH Client & Contacts

Sarah Luisi, Matthew Morford, Olivia Insuasty

Professor & Partners

Alex T. Puutio, Thomai Serdari, Sarah Ryan, Jenna Schmidt

NYU Stern Luxury & Retail Solutions Class

Funto Adesanya, Kishwar Ahmed, Emily Batts, Samantha Cannon, Caroline Citarella, Isabella Cramner, Joan Daly, Sean Davey, Adam Das, Basma Elmogy, Angela Flegert, Benjamin Forman, Liam Glass, Jacqueline Greenfield, Aditi Gupte, Vincent Hao, Elizabeth Janko, Julia Kinsock, Samantha Klein, Zain Lakhani, Brittany LaPointe, Rithika Matta, Morgan Moinian, Jeal Patel, Hannah Patrick, Alex Plosch, Emileigh Sanger, Matt Sarafa, Joe Shavel, Jenna Sherman, Jinan Talitha, Tina Viscelli, Serena Wang

Appendix B: Competitive Analysis & Benchmarking

Benchmarking Secondary Capabilities

Resiliency	Agility	Profitability
Supplier Diversification	Innovation Capacity	Revenue Growth
Global Presence	Market Responsiveness	Profit Margins
Risk Management Practices	Organization Flexibility	Cost Management
Adaptability to Disruptions	Supply Chain Flexibility	Market Share
	Digital Transformation	Return on Investment

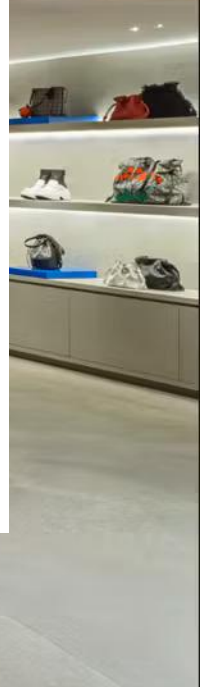
Appendix C: Case Studies



LVMH

Case Studies:

Risk Mitigation and
Flexibility



Strategic Pillar: Risk Mitigation & Flexibility



Key Takeaways:

- 1 Diversify the supplier base:** Mitigate risks associated with geopolitical disruptions and natural disasters by expanding and diversifying suppliers.
- 2 Implement nearshoring strategies:** Consider moving some production closer to key markets to reduce lead times and transportation costs.
- 3 Develop a multi-hub manufacturing model:** Create regional production centers to ensure seamless customer experiences and reduce dependency on single locations.

Selected Case Studies:



BOSCH

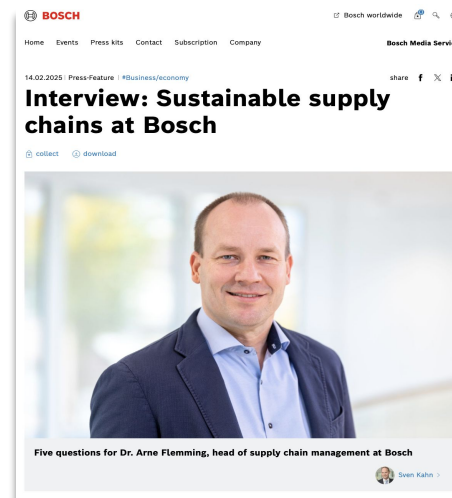
RICHEMONT

Case Study: Bosch using AI-powered tools & nearshoring to boost resilience in manufacturing

Bosch has implemented advanced technologies and strategies to enhance supply chain resilience and flexibility. By leveraging **AI-powered risk management tools**, SupplyOn's digital collaboration platform, and **Industry 4.0 principles**, Bosch has optimized production scheduling, **improved real-time visibility**, and mitigated risks associated with geopolitical disruptions and natural disasters. These initiatives have enabled Bosch to **proactively address supply chain bottlenecks** while maintaining operational continuity.

Achieved +30-40% in efficiency in admin processes with the integration of SupplyOn's Transport Management System (TMS) with Bosch's supply chain operations

Reduced supply chain disruptions by 25% using AI-powered predictive analytics to identify and mitigate risks in real time



Deep Dive: Bosch using AI-powered tools & nearshoring to boost resilience in manufacturing

Manufacturing & Procurement

Primary Hubs:

- Europe: Germany, Hungary, Poland
- Asia: China, India, Malaysia
- North America (Nearshoring): Mexico and U.S. plants for automotive & consumer goods

Key Technologies:

- **Use Industry 4.0 Smart Factories with IoT, AI, and robotics for increased efficiency**
- Power lean manufacturing principles with predictive maintenance and automated QC
- **Manage risk with AI powered predictive analytics**

Sustainability

Supplier Partnerships:

- Work with **packaging firms in Mexico & U.S.** for **eco-friendly materials**

Automation & Digital Printing:

- **Code packaging with RFID & QR-coded** for tracking & authentication
- Use smart labels with real-time product data

Nearshoring initiatives

Manufacturing:

- Mexico: Bosch has expanded automotive & appliance manufacturing to **reduce U.S. import costs.**
- U.S.: Bosch produces high-tech automotive sensors & semiconductors

Benefits:

- U.S. and Mexico regional hubs improve delivery speed & reduce international freight dependency.
- Higher labor costs in the U.S. are offset by reduced tariffs & lower transportation expenses.
- Resilience against global disruptions (e.g., semiconductor shortages, trade restrictions).

Key Takeaways

- **Nearshoring model** (Mexico & U.S.) **reduces risks** and **shortens lead times.**
- **Smart Factories** using AI and IoT devices **enhance efficiency & product quality.**
- AI-driven logistics & RFID tracking create an agile supply chain.
- **Sustainable packaging achieved with smart labels and tracking**
- Omnichannel fulfillment and multi-hub manufacturing model ensures a seamless customer experience.

Case Study: Richemont leveraging blockchain and digital collaboration to enhance supply chain visibility and resilience

Richemont has implemented advanced technologies and governance frameworks to enhance risk mitigation and supply chain flexibility. By adopting the **SAP Business Network for Supply Chain**, Richemont has improved supplier collaboration, real-time visibility, and operational efficiency. Additionally, the company employs **ESG screening tools** and rigorous due diligence processes to proactively address risks such as geopolitical disruptions, ethical compliance, and material sourcing challenges.



**Reduced employee effort
by up to 50% in warehouse
receiving processes through
digitalized workflows
enabled by SAP Business
Network**

**Decreased confirmation
feedback cycle times by 12
days (from 17 days to 5 days),
accelerating procurement
operations and improving
responsiveness**



LVMH

Case Studies:

Cost Optimization
and Efficiency

Strategic Pillar: Cost Optimization & Efficiency

Key Takeaways:

1

Leverage economies of scale: Implement bulk purchasing of raw materials across brands to reduce costs.

2

Integrate online and offline inventory: Optimize distribution by creating a unified stock management system.

3

Invest in 3D printing technology: Explore opportunities to reduce production costs for certain components.

4

Implement lean manufacturing principles: Adopt methodologies like Six Sigma to reduce waste and improve productivity.

Case Study: L'Oréal Leveraging Automation & Digital Tools to Optimize Costs & Efficiency

L'Oréal has implemented advanced automation technologies and digital tools to drive cost optimization and improve supply chain efficiency. By adopting **PipeChain's collaborative supply chain software** for supplier logistics, **layer picking automation**, and **Dematic AGVs (Automated Guided Vehicles)**, L'Oréal has streamlined operations, reduced manual labor, and improved order accuracy. These efforts have enhanced productivity, reduced operational costs, and supported sustainability goals across their global supply chain.

Reduced production costs by 33% using MJF 3D printing technology to create adjustable pucks for transport, filling, and labeling

Decreased operation hours from three shifts to two at the Walton, KY facility by implementing a fully automated layer picking system, improving efficiency and reducing labor costs

Case Study: Diageo Expands into Alabama for Operational Resilience in Rising Costs

Diageo is investing \$415 million in a new facility in Montgomery, Alabama, to **strengthen its supply chain, cut costs, and expand market access** while prioritizing sustainability. The project leverages digital innovation, regional incentives, and strategic partnerships to **drive efficiency** and long-term growth in North America.

The investment in this project is **expected to save \$8.2 million annually** by shortening distribution distances.

The investment enables the planned closure of two legacy facilities by 2028, **saving \$45 million in costs**

Case Study: Hermès Enhances Supply Chain Transparency with Shared Documentation of Technology & Best Practices

Hermès utilizes a **comprehensive supplier code of conduct**, sharing it with its partners to **foster transparency and trust**, facilitate efficient dispute resolution, and **proactively manage risks**. This commitment is reinforced by cultivating enduring supplier relationships that safeguard specialized expertise, ensure supply security, and **promote ethical purchasing practices**.

Hermès **buyers must adhere to a rigorous “supply chain toolbox”** when sourcing materials this is shared with all suppliers.

Achieved an inventory **turnover of 195 days, outperforming the industry average by 80 days** and demonstrating superior supply chain efficiency.

Case Study: Apple Moving Manufacturing To Houston Texas

February 2, 2025, Apple announced it will be making a \$500 billion investment in a Houston Texas Manufacturing facility

- I. Apple is setting up a potentially successful infrastructure for business practices, which LVMH's supplier can potentially duplicate if successful
- II. Advantages: Government favoritism and support for US manufacturing, proximity to US Market, easy access to ports for transportation, highly skilled workforce through Rice and University of Houston.

Case Study: DHL & Life Sciences Supply Chain Optimization

DHL partnered with a global leader in the life sciences sector to transform logistics operations across all divisions. By implementing end-to-end visibility and standardizing processes, DHL improved data accuracy and planning, leading to increased efficiency and cost savings.

Implemented **advanced tracking systems** to monitor and maintain optimal conditions for sensitive products

Developed digital dashboards for **real-time data visibility**, enabling proactive adjustments in supply chain operations

Case Study: DHL on Engineering & Manufacturing Supply Chain Redesign

In 2016, DHL acted as the Lead Logistics Partner for a major engineering firm, streamlining the flow of components into manufacturing plants and distribution centers. This partnership resulted in enhanced logistics cost efficiency, improved supply chain visibility, and optimized delivery times. The idea is DHL is flexible and will be able to adapt to a changing situation effectively better than competitors.

Coordinated precision-timed deliveries aligned with manufacturing schedules,
reducing operational delays

Integrated real-time data analytics to **enhance inventory tracking** and **streamline production flows**

Case Study: How Kingsdown Optimized their Supply Chain via UPS

Kingsdown, a premium sleep systems manufacturer based in North Carolina, sought to streamline its delivery fleet, increase efficiency, and decrease delivery error. They partnered with UPS, which provided a dedicated contract carriage solution supported by advanced transportation technology dedicated contract carriage (DCC) solution. A major advantage of the DCC solution is its adaptability to Kingsdown's fluctuating business needs. During peak periods UPS expands its fleet by adding extra drivers etc. to handle surge in demand.

This collaboration enhanced **supply chain visibility, improved data access**, and allowed Kingsdown to **focus on its core competencies** while UPS managed logistics.

Via route planning, UPS can create automated trip plans, & operations supervisors communicate with the drivers using the computer's text messaging system to react to delays

Case Study: A UPS Perspective on the benefits of Nearshoring

UPS explains how nearshoring can be a green decision, focusing on environmental, social, and governance sustainability. It discusses the implications of nearshoring on the supply chain, particularly in the healthcare sector. Catalysts for Nearshoring include: The pandemic's impact, which highlighted vulnerabilities in global supply chains, prompting companies to consider more localized operations. Increased labor challenges in distant markets have made nearshoring more attractive. Lastly, distant supply chains faced significant disruptions during the pandemic, emphasizing the need for proximity.

Strategic considerations to keep in mind are intellectual property protection and ESG goals, because nearshoring can support ESG by promoting sustainable practices

Benefits of Nearshoring include: enhanced control, cost reductions, time zone alignment, improved sustainability via shorter transportation



LVMH

Case Studies:

Digital
Transformation and
Technology

Strategic Pillar: Digital Transformation and Technology



Key Takeaways:

- 1 Implement AI-driven demand forecasting:** Leverage machine learning models to improve inventory management, order accuracy, and reduce waste.
- 2 Adopt blockchain technology:** Enhance product traceability and authentication throughout the supply chain.
- 3 Integrate IoT sensors:** Deploy real-time monitoring systems for improved supply chain visibility.
- 4 Invest in robotic automation:** Implement advanced robotics in manufacturing and warehousing to boost inventory processing efficiency and reduce labor costs.

Selected Case Studies:

BURBERRY

amazon

CHANEL

KERING



Case Study: Burberry using AI and predictive analytics to optimize inventory and reduce waste

Burberry has leveraged advanced technologies to optimize its supply chain operations. The company uses **machine learning models for demand forecasting**, enabling accurate stock allocation and reducing waste. Additionally, Burberry has adopted **blockchain technology in collaboration with IBM** to improve traceability and ensure product authenticity throughout the supply chain.

Reduced operational costs by 30% through the migration of SAP systems to AWS, enhancing scalability and efficiency



Improved demand forecasting accuracy with machine learning, optimizing inventory levels and minimizing overproduction

Case Study: Amazon leveraging AI and robotics to drive supply chain efficiency and scalability

Amazon has transformed supply chain operations through the integration of **advanced AI technologies, robotics, and machine learning**. By leveraging **AI-powered demand forecasting, real-time route optimization algorithms**, and the **Sequoia robotic inventory management system**, Amazon has optimized inventory, enhanced delivery, and set a global benchmark for operational performance, enabling Amazon to handle massive volumes during peak periods, reduce costs, and improve customer satisfaction.



Predicted 400 million daily products during Cyber Monday using AI-powered demand forecasting models

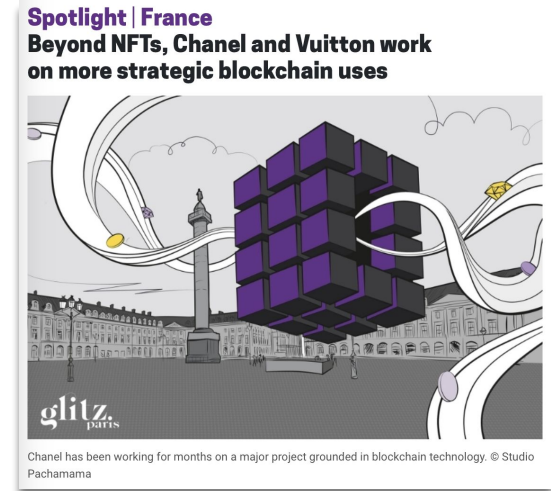
Improved inventory processing speed by 75% with the Sequoia robotic inventory management system

Case Study: Chanel deploying IoT and blockchain for real-time supply chain monitoring

Chanel has integrated cutting-edge technologies to enable **real-time monitoring and enhanced supply chain transparency**. By deploying **IoT sensors** for tracking, adopting **blockchain technology** for product traceability, and utilizing **AI-powered demand forecasting**, Chanel has improved inventory management, reduced stockouts, and strengthened operational efficiency.

**Reduced stockouts
by 30%** through
*AI-powered demand
forecasting models,
improving inventory
accuracy and
responsiveness to
market demand*

**Enhanced
traceability and
authenticity
verification** with
*blockchain
technology, ensuring
transparency across
the supply chain*



Case Study: Kering transforms supply chain operations with digital innovation

Kering Americas implemented advanced digital systems to **optimize warehousing**, streamline e-commerce, and **enable omnichannel operations**. This new operations hub provided a cutting-edge system and infrastructure technology integrated into the group's most sophisticated and **expansive regional operations** network.

Increased annual container loads **from 150 to over 1,000 between 2017 and 2023**, significantly improving logistics capacity.



Piloted blockchain technology to help **achieve 95% traceability** for raw materials across houses

A photograph of a high-end retail store interior, likely an LVMH boutique. The space is elegantly designed with light-colored wood paneling and recessed lighting. On the left, a staircase leads to an upper level. The central focus is a mannequin wearing a vibrant, multi-colored patterned outfit, displayed in a window with a mosaic background. To the right, several tall, narrow shelving units are filled with various handbags and accessories, each illuminated from within. In the foreground, a large, circular, polished metal sphere sits on a floor with a complex, multi-colored marble pattern. The overall atmosphere is sophisticated and luxurious.

LVMH

Case Studies:

Sustainability and
ESG Integration

Strategic Pillar: Sustainability & ESG Integration

- I. **Adopt circular economy principles:** Implement take-back programs and recycling initiatives to extend product life cycles and reduce waste.
- II. **Invest in renewable energy:** Set targets for renewable electricity usage across global operations to reduce carbon emissions.
- III. **Enhance sustainable sourcing:** Partner with suppliers to ensure responsible sourcing of raw materials, particularly for high-impact ingredients like palm oil.
- IV. **Implement water conservation technologies:** Adopt closed-loop water recycling systems in manufacturing facilities to reduce water consumption.

Case Study: Estée Lauder Companies Achieving Sustainability Through Zero Waste Operations

Estée Lauder Companies has integrated sustainability into its supply chain by implementing advanced waste management programs, transitioning to renewable energy sources, and adopting water conservation technologies. They have partnered with organizations like the Renewable Energy Buyers Alliance (REBA) to achieve its renewable energy goals and implemented closed-loop water recycling systems to reduce water consumption in high-stress regions, significantly reduced environmental impact while setting industry benchmarks for sustainable supply chain practices.

Achieved zero waste to landfill in 75% of manufacturing and distribution facilities through advanced waste management programs

Transitioned to 100% renewable electricity for global operations, reducing carbon emissions significantly

Implemented water recycling systems, reducing water consumption by up to 40% in water-stressed regions

Case Study: Richemont Advancing Sustainability Through Renewable Energy & Waste Reduction

Richemont has integrated sustainability into its supply chain by implementing renewable energy initiatives, responsible waste management programs, and biodiversity risk assessments. Additionally, Richemont phased out PVC in its products and packaging, saving one ton of waste, and increased recycled and composted waste through collaborations with local service providers.

97% renewable electricity usage globally, with a target of 100% by 2025, reducing Scope 2 emissions significantly.

Increased recycled waste by 18% and composted waste by 30%, improving waste management practices across operations

Case Study: Estée Lauder Companies Partnering For Sustainable Sourcing Of Raw Materials

Estée Lauder Companies has prioritized sustainability in its supply chain by focusing on responsible sourcing of raw materials, particularly palm oil. The company also collaborates with organizations like BASF and Solidaridad to support smallholder farmers, improve traceability, and promote sustainable agricultural practices. These initiatives have significantly enhanced transparency and reduced the environmental impact of Estée Lauder Companies' supply chain.

Achieved 95% sustainable palm oil sourcing through partnerships with RSPO-certified suppliers

Implemented traceability systems to ensure transparency across the palm oil supply chain

Appendix D: Financial Modeling

Financial Model Sample Inputs

Case Selector

Case to reference	Equity
Single scenario?	no
If yes, then select which:	
Scenario to reference	The Protectionist Wave

Multiplying the effect of multiple scenarios together, we use this first set of inputs:

Relevant Scenarios	Metric	Value	Include?
The Protectionist Wave, Bottleneck Economy	Gross Margin	1.00x	no
The Floating Premium, Material Crunch	COGS	1.00x	yes
The Energy Squeeze, Regulatory Crossroads, Operating Expenses		1.00x	no
The World on the Brink	Revenue	1.00x	no
Simple Effective Tax Rate Lever (beyond scen Effective Tax Rate		32%	no
The Energy Squeeze, The Risks of RFID and A CapEx		1.00x	no

Metric	Equity Case	Worst Case	Best Case
Gross Margin	1.00x	0.74x	0.94x
COGS	1.00x	1.68x	1.08x
Operating Expenses	1.00x	1.90x	1.15x
Revenue	1.00x	0.85x	1.03x
Effective Tax Rate	31.50%	34.50%	30.50%
CapEx	1.00x	1.55x	0.92x

Modeling the impact of a single scenario at a time, we use this second set of inputs:

Scenario (Playbook Section)	Metric	Value	Scenario Description
The World on the Brink (4.5)	Revenue	1.00x	Disruptions to market access,
The Protectionist Wave (4.5, 4.6, 4.7)	Gross Margin	1.00x	Tariffs increase input costs; also
The Floating Premium (4.8)	COGS	1.00x	Freight and insurance cost spikes
The Bottleneck Economy (4.9)	Gross Margin	1.00x	Port congestion causes higher
The Energy Squeeze CapEx (4.10)	CapEx	1.00x	Fuel costs raise delivery/logistics
The Energy Squeeze OpEx (4.10)	Operating Expenses	1.00x	Fuel costs raise delivery/logistics
Increasing Cyber Attacks (4.11, 4.13)	Operating Expenses	1.00x	Cybersecurity threats raise
The Risks of RFID Tracking and AI-Driven	CapEx	1.00x	RFID/AI inventory systems require
Challenges in the Reliability of Blockchain	Operating Expenses	1.00x	Blockchain traceability solutions
Material Crunch (4.16)	COGS	1.00x	Raw material scarcity drives up
Ethical Fault Lines (4.17)	Gross Margin	1.00x	Labor strikes or audits impact
Regulatory Crossroads (4.18)	Operating Expenses	1.00x	Sustainability regulations increase

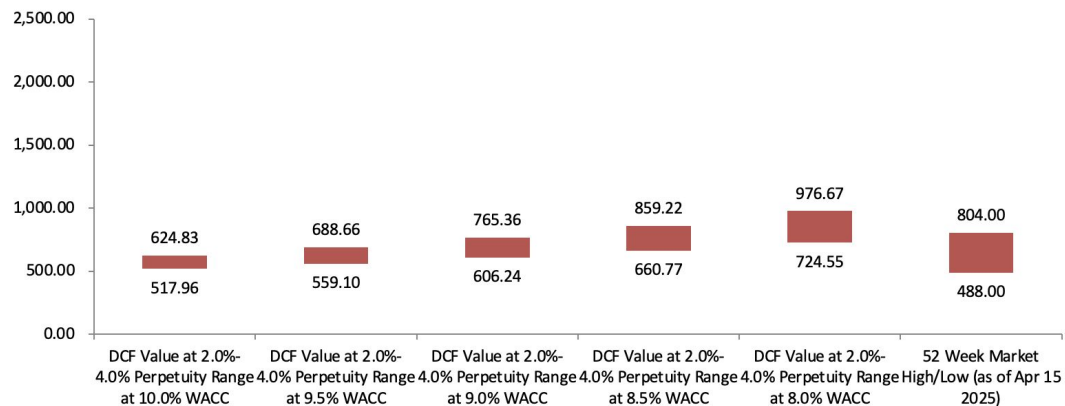
Metric	Equity Case	Worst Case	Best Case	Multiplier Rationale (Relative)
Revenue	1.00x	0.85x	1.03x	This scenario reflects significant
Gross Margin	1.00x	0.87x	0.97x	This scenario reflects a dual
COGS	1.00x	1.20x	1.03x	Freight volatility, especially for
Gross Margin	1.00x	0.94x	0.99x	This scenario drives margin
CapEx	1.00x	1.15x	0.97x	Fuel volatility could require LVMH
Operating Expenses	1.00x	1.15x	1.03x	Volatile energy costs increase last-
Operating Expenses	1.00x	1.20x	1.04x	LVMH faces rising cybersecurity
CapEx	1.00x	1.35x	0.95x	This scenario involves major
Operating Expenses	1.00x	1.10x	1.02x	Blockchain projects meant to
COGS	1.00x	1.40x	1.05x	This is the most volatile and
Gross Margin	1.00x	0.91x	0.98x	Ethical labor practices can
Operating Expenses	1.00x	1.25x	1.05x	This scenario presents broad OpEx

Financial Model Sample Outputs

LVMH - DCF Valuation Summary

NPV	€	389,575
Cash (Debt)	€	(11,291)
Equity Value, €mn	€	370,741
Per share, Eur	€	741.95
WACC		8.5%
LT Growth rate		3.0%
Average Gross Margin		69.3%
Average EBIT Margin		26.4%
Average EBITDA Margin		35.5%

DCF Equity Valuation Range (Price per Share, Euros)



Financial Model - Supplier Analysis

A deployable project level investment analysis (cost of capital vs IRR, NPV) following NYU Stern Prof. Damodaran's framework

Tax Rate	25%
Inflation Rate	3%
Initial Investment	\$ 250.00
Depreciation Years	10
% of Initial Funded by Debt	20%
Setup Delay (years until first product on market)	3
Products per year	1
Maximum Products	11
Revenue per Product	\$ 60.00
Development Cost per Product	\$ 100.00
Existing G&A	\$ 200.00
Existing G&A Growth per Year	5%
Incremental G&A \$ Per Year	\$ 50.00
Incremental G&A Growth per Year	10%
Incremental G&A Additional % of Total per Year	5%
Existing Advertising	\$ 150.00
Incremental Advertising as % of Existing	15%
Synergy Revenue per Year	\$ 50.00
Synergy Margin	49.59%
Gross Profit Margin	60%
AR WC % of Revenue	10%
Inventory WC % of COGS	10%
AP WC % of COGS	5%
Logistics Capacity Expansion Investment	\$ 200.00
Initial Logistics Demand	60%
Logistics Demand Growth per Year	5%
Incremental Logistics Demand per Product per Year	8%

NPV if Terminated after 15 years	\$ (168.82)
NPV beyond 15 years	\$ 966.06
NPV of Synergy	\$ 96.12
IRR if Terminated after 15 years	6.2%
IRR beyond 15 years	18.8%

Avg ROC
10.14%
15.07%

Avg ROE
10.28%
15.39%

With the following data points from suppliers, you can easily update and personalize the model:

1. Total debt
2. Total equity
3. Total cash
4. Total revenues
5. Total operating income
6. Expected funding ratio for project (what % debt? for example, 20% debt)
7. Effective tax rate (average across all operations)
8. Regional revenue breakdown (for example, 60% North America, 30% Europe, 10% Latin America, 10% Asia)

Financial Model Next Steps & Recommendations

1. Extension of model into NYU Stern Professor Aswath Damodaran's framework: bottom up beta analysis to estimate cost of capital (use weighted average by revenue by industry for beta and of regional equity risk premium by revenue by geography, as well as other inputs such as debt to equity, etc - see previous slide on Supplier) to re-estimate LVMH valuation and stock price (specifically, use Damodaran cost of capital in DCF instead of 8.5% value from equity model)
2. Update underlying tabs to use LVMH internals rather than public disclosures and equity analyst estimates and projections
3. Further **optimize and develop Supplier Analysis investment model referenced on previous slide to use with all suppliers** to support argument for opening production facility in new locations (model can be adapted to different geographies) - demonstrating another way how our Rissman analysis can be expanded and integrated throughout LVMH's supply chain and partners (see Facility Location Selection Scorecard slides for more detail)
4. Scale modeling framework by using detailed line items by scenario instead of high level multipliers (notably, some of this involves reworking the model to develop revenue numbers from given changes to previous margin percentages, for example) - see following page
5. Change outcome variables from DCF metrics and price target to the metrics used internally by each team (for example, Group Strategic Sourcing & Operations might use the model to sensitize metrics related to efficiency in managing the Group's logistics footprint (such as commercial lease expense growth) or CapEx in PPE as a % of Sales)

Financial Model Next Steps & Recommendations

The table below lists potential ways to integrate our scenario framework into line items deeper within financials.

Scenario	High-Level Metric	Detailed Metric 1	Detailed Metric 2	Detailed Metric 3
The World on the Brink	Revenue	Reported Sales Growth (%) by Region	Underlying Growth (%) by Brand	FX/Scope impact (%)
The Protectionist Wave	Gross Margin	Impact to COGS (FX/Inflation component)	Gross Margin %, yoy abs	Underlying growth % (reported sales)
The Floating Premium	COGS	COGS – FX impact EUR/USD/CHF %	Inventory days (Working Capital)	Impact to COGS (approx hedge)
The Bottleneck Economy	Gross Margin	Inventory days and Inventory Growth %	Working Capital as % of sales	Gross Margin %, yoy abs
The Energy Squeeze CapEx	CapEx	Capex as % Sales	Capex - PPE growth %	Depreciation and amortisation rate
The Energy Squeeze OpEx	Operating Expenses	Commercial Lease Expenses (Variable % Growth)	Other Marketing and Selling Expenses % growth	General and Administrative Expenses % Growth
Increasing Cyber Attacks	Operating Expenses	General and Administrative Expenses % Growth	Personnel Costs % Growth	Other marketing and selling expenses % growth
Risks of RFID Tracking and AI-Driven Inventory Systems	CapEx	Capex - Intangibles as % sales	Capex - PPE as % sales	Depreciation and amortisation (total D&A %)
Challenges in Reliability of Blockchain	Operating Expenses	General and Administrative Expenses % Growth	Personnel Costs % Growth	Income/Loss from JVs/Associates
Material Crunch	COGS	COGS % Inflation	Gross Margin %, yoy abs	Impact to COGS (approx hedge)
Ethical Fault Lines	Gross Margin	COGS: Price/Mix %	Personnel Costs % Growth	Gross Margin %, yoy abs
Regulatory Crossroads	Operating Expenses	General and Administrative Expenses % Growth	Other Marketing and Selling Expenses % Growth	Personnel Costs % Growth

Appendix E: Detailed Recommendations

Digital Transformation

Key Levers of Transformation

AI-Powered Forecasting for Supply Chain Footprint

Digital Twin Simulation

Blockchain Authentication

Cybersecurity Infrastructure

IOT and Real Time Tracking

Digital Transformation

Key Levers of Transformation

AI-Powered Forecasting for Supply Chain Footprint

Digital Twin Simulation

Blockchain Authentication

Cybersecurity Infrastructure

IOT and Real Time Tracking

Create fast decision-making processes, react to info real time



Recommended Vendors

Digital Transformation

Key Levers of Transformation

AI-Powered Forecasting for Supply Chain Footprint

Digital Twin Simulation

Blockchain Authentication

Cybersecurity Infrastructure

IOT and Real Time Tracking

Simulate risk scenarios before they happen



Recommended Vendors

Digital Transformation

Key Levers of Transformation

AI-Powered Forecasting for Supply Chain Footprint

Digital Twin Simulation

Blockchain Authentication

Cybersecurity Infrastructure

IOT and Real Time Tracking

Keep track of products at every stage of the journey



Recommended Vendors

Digital Transformation

Key Levers of Transformation

AI-Powered Forecasting for Supply Chain Footprint

Digital Twin Simulation

Blockchain Authentication

Cybersecurity Infrastructure

IOT and Real Time Tracking

Centralize cybersecurity between brands



Recommended Vendors

Digital Transformation

Key Levers of Transformation

AI-Powered Forecasting for Supply Chain Footprint

Digital Twin Simulation

Blockchain Authentication

Cybersecurity Infrastructure

IOT and Real Time Tracking

Monitor quality and delivery timing
of upstream vendors



*Recommended
Vendors*

Cross-Maison Collaboration

Key Levers of Transformation

Unified Predictive Platforms

Joint ESG Integration

Regionalization & Redundancy

Cross-Sector Scenario Planning

Supplier Transparency Networks

Cross-Maison Collaboration = Long-Term Agility

Recommendations & Strategic Impact

Establish a *Resilience Council* to align tech, logistics, and risk response across Maisons

Faster pivots, lower ESG risk, and innovation at scale