RESEARCH AND EMERGING TOPICS

FAST FASHION

transition risk

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WHO IS WORST / MOST EXPOSED?

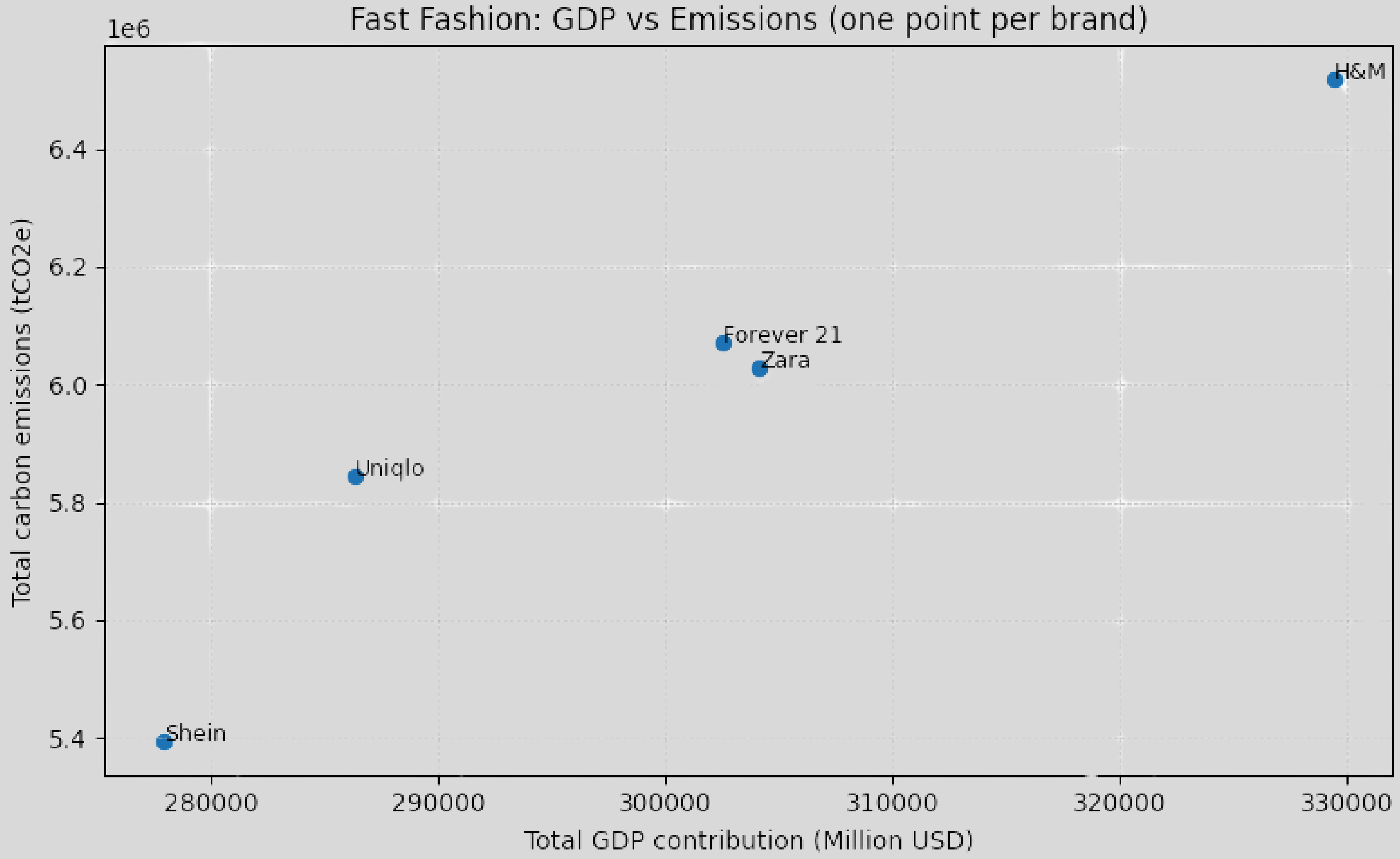
Rank	**Brand**	**Avg carbon cost (€M / year)**
1	**H&M**	**6,52**
2	Zara	6,09
3	Forever 21	6,07
4	Uniqlo	5,85
5	Shein	5,39

Why this matters for investors ?
H&M faces the highest financial exposure to carbon pricing, making operating margins particularly sensitive to future regulatory tightening.

WHO IS MOST SUSTAINABLE FOR THE SAME GDP IMPACT?

Optimal zone: lower-left quadrant (low emissions, high GDP efficiency)

Key insight :
Zara achieves the lowest emissions per unit of GDP (20.24 tCO_2e per $1M GDP), making it the most carbon-efficient brand in the sample.



INSIGHTS THAT DRIVE DECISIONS

DECARBONIZATION TARGET: SHEIN	BEST PRACTICE BENCHMARK: ZARA	KEY DRIVERS OF ESG EXPOSURE:	QUICK WINS:
Highest emissions-to-GDP ratio (24.19), margins highly vulnerable to carbon pricing	Strong carbon efficiency despite high production scale	o Carbon efficiency (CO_2 / GDP) o Production intensity o Supply-chain structure	o Reduce production cycles o Improve supply-chain efficiency o Prioritize carbon efficiency over volume growth

WHY DECARBONIZATION MATTERS

- Carbon pricing turns emissions into a direct financial cost
- Low transparency increases regulatory risk
- Low carbon efficiency → carbon costs absorb a larger share of profits

DIAGNOSTIC: SHEIN INDONESIA

Why? Shein shows the highest emissions to GDP ratio in the sample → weak carbon efficiency

This means the brand generates less economic value per unit of CO_2 emitted

- Low transparency and ESG scores → high transition risk
- Production model driven by volume and fast cycles

OPERATIONAL ROADMAP (12–24 MONTHS)

0-6 MONTHS

- Improve ESG disclosure
- Standardize emissions
- Regulate labor metrics

6-12 MONTHS

- Reduce return rates
- Improve quality control

12-24 MONTHS

- Reduce release cycles
- Lower production intensity

Actions are prioritized by speed of impact and implementation cost

EXPECTED BUSINESS GAINS

- Lower exposure to future carbon pricing
- Margin protection without having a heavy CapEx
- Stronger ESG credibility (to both regulators and investors)

RESILIENCE

RISK

CONCLUSION

Transition risk in fast fashion is primarily driven by carbon efficiency rather than absolute emissions

Benchmarking shows large differences in vulnerability across brands, with models that have low-efficiency and low-transparency facing the highest exposure

Operational and strategic actions show that decarbonization can reduce risk while still keeping business performance