Systemic Risk in Chaos: Iran Crisis 2025

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Current Chaos: Trump vs. Iran

- **June 21, 2025**: Trump orders U.S. airstrikes on Iran's nuclear sites (Fordo, Natanz, Isfahan). NYT, 21/06/2025
- **Impact**: Oil prices spike, markets tremble, inflation fears rise.
- **Geopolitical Risk**: Iran's retaliation threats escalate tensions.

Why It Matters

The crisis amplifies *Systemic Risk*, with potential for financial contagion.

Escalation Scenarios

Pessimistic

- Iran retaliates, blocks Strait of Hormuz.
- Oil prices soar (+$30/barrel).
- Global inflation spikes, markets crash.

Realistic

- Limited retaliation, sanctions intensify.
- Oil prices rise (+$10/barrel).
- Moderate inflation, market volatility.

Optimistic

- Iran negotiates, tensions ease.
- Oil prices stabilize.
- Minimal financial disruption.

Fuel Inflation: A Systemic Risk Driver

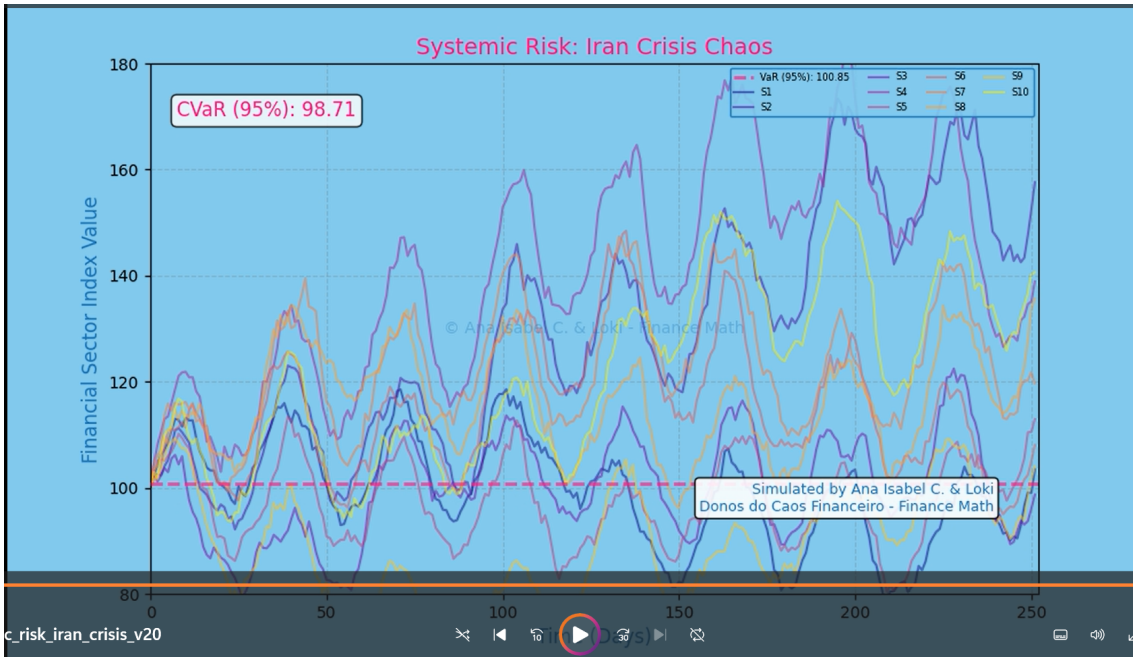
- **Fuel Inflation**: Iran controls Strait of Hormuz (33% of global oil). Veja, 2023
- **Impact**: Higher oil prices $\rightarrow$ increased production costs $\rightarrow$ global inflation.
- **Systemic Risk**: Contagion via supply chains, amplified by tariffs (Trump's 10% global, 55% China).

Model Insight

Monte Carlo simulations (S1-S10) show fuel-driven inflation increasing *VaR* and *CVaR*.

Modeling the Chaos

- **Monte Carlo**: 10 scenarios (S1-S10) with Iran crisis shock (0.05, prob. 0.3).
- **VaR (95%)**: Measures potential loss in chaotic markets.
- **CVaR (95%)**: Captures tail risk in extreme scenarios.



Conclusion

- Iran crisis (June 2025) drives *Systemic Risk* via fuel inflation.
- *VaR* and *CVaR* are critical for measuring financial chaos.
- Future work: NetworkX for contagion graphs.

Credits

Simulated by Ana Isabel C. Finance Math