Orbital economics are not demand-driven. They are **constraint-driven**.

Markets don't scale by users in orbit.

They scale by tolerance to physics

If a system can't survive latency, silence, and inaccessibility — **it doesn't have a market.**

Reframe the Problem

Most people think the orbital economy is about:

🚀 Launch
🛰️ Satellites
📡 Bandwidth
📄 Contracts

That's surface-level thinking.

The real question is:
➡️ **Which layers determine** whether economic activity is even possible?

The Core Constraint

In orbit, systems must operate despite:

- 240ms latency
- Disconnection events
- Physical inaccessibility
- Adversarial conditions

Humans cannot be in the loop.
Connectivity cannot be assumed.

Continuity becomes the price of admission.

The Orbital Value Stack

As constraints increase, value migrates upward:

- Launch → capital intensive, finite risk
- Power & Storage → necessary but commoditized
- Compute & Networking → visible, but dependent
- Control & Autonomy → dominant value capture

Whoever owns autonomous control owns the orbital economy.

Why Control Wins

Autonomous control systems:

- Absorb latency internally
- Operate without human intervention
- Make decisions under silence
- Prevent cascading failures

This isn't about efficiency.
It's about survivability.

Where Risk Actually Lives

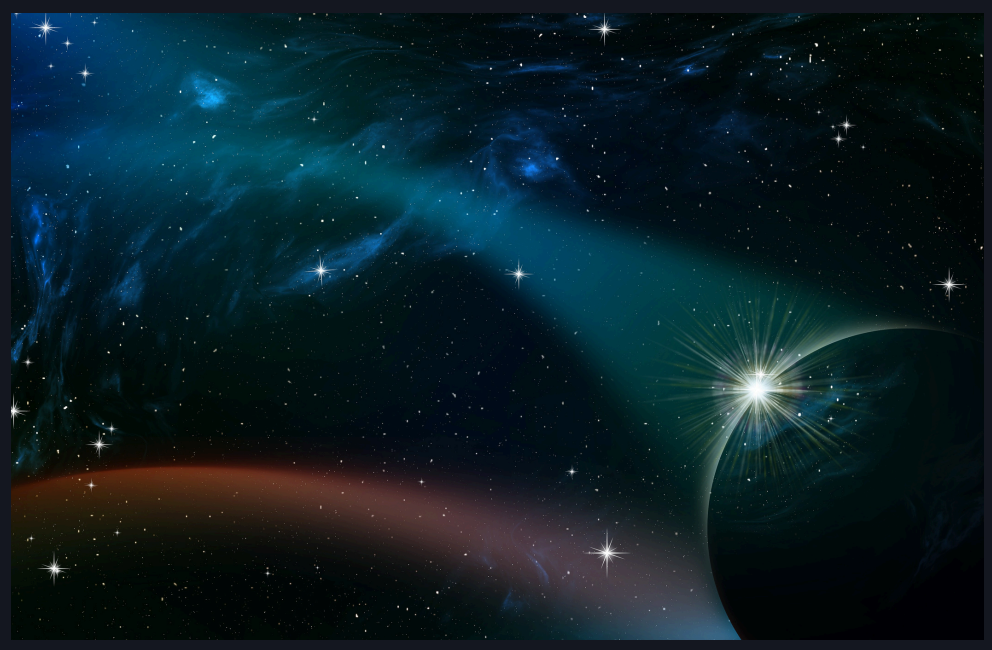
Risk is not evenly distributed.

As you move up the stack:

- Capital intensity decreases
- Value capture increases
- Risk concentration increases

Risk peaks at control.

Not because it's poorly designed — but **because every downstream failure manifests there first.**



The Inversion Most People Miss

Traditional cloud economics:

- Control = commodity
- Compute = value

Orbital economics:

- Compute = commodity
- Control = value

The inversion is everything.

Finite vs Infinite Risk

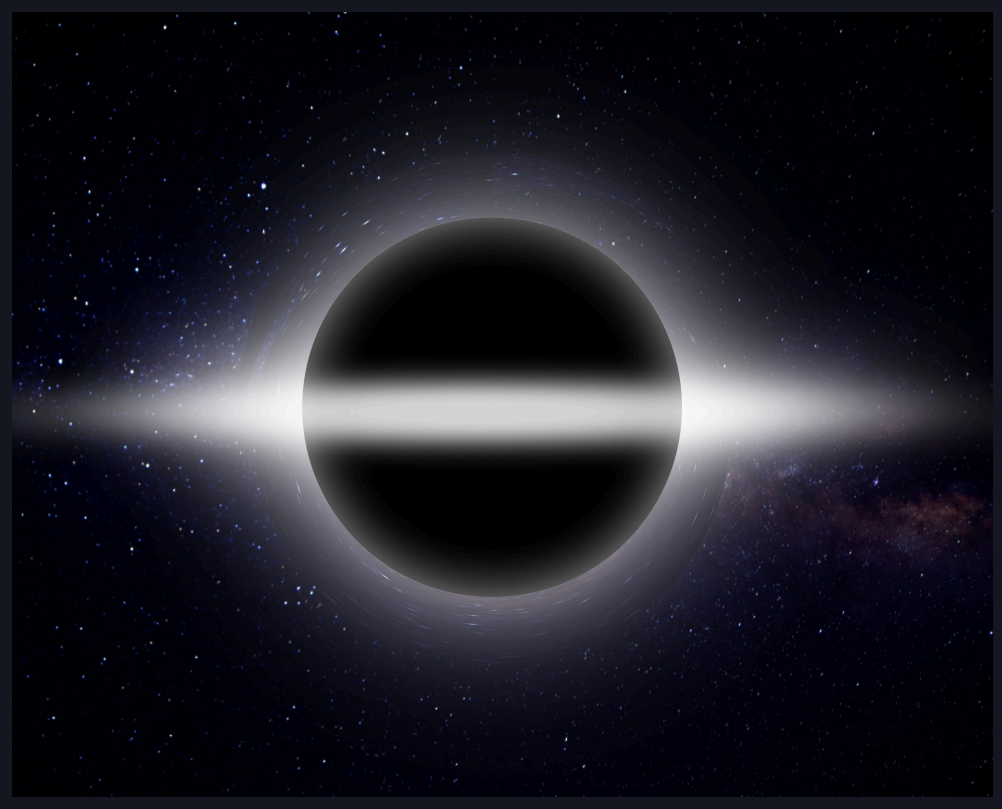
Launch risk:

- 💥 High impact, but **finite** (once in orbit, it's done)

Control risk:

- ⚠️ Lower per decision, but **infinite** (every decision, forever)

Control risk compounds. Launch risk doesn't.



The Systemic Consequence

Loss of control cascades across:

- Compute
- Networking
- Storage
- Power

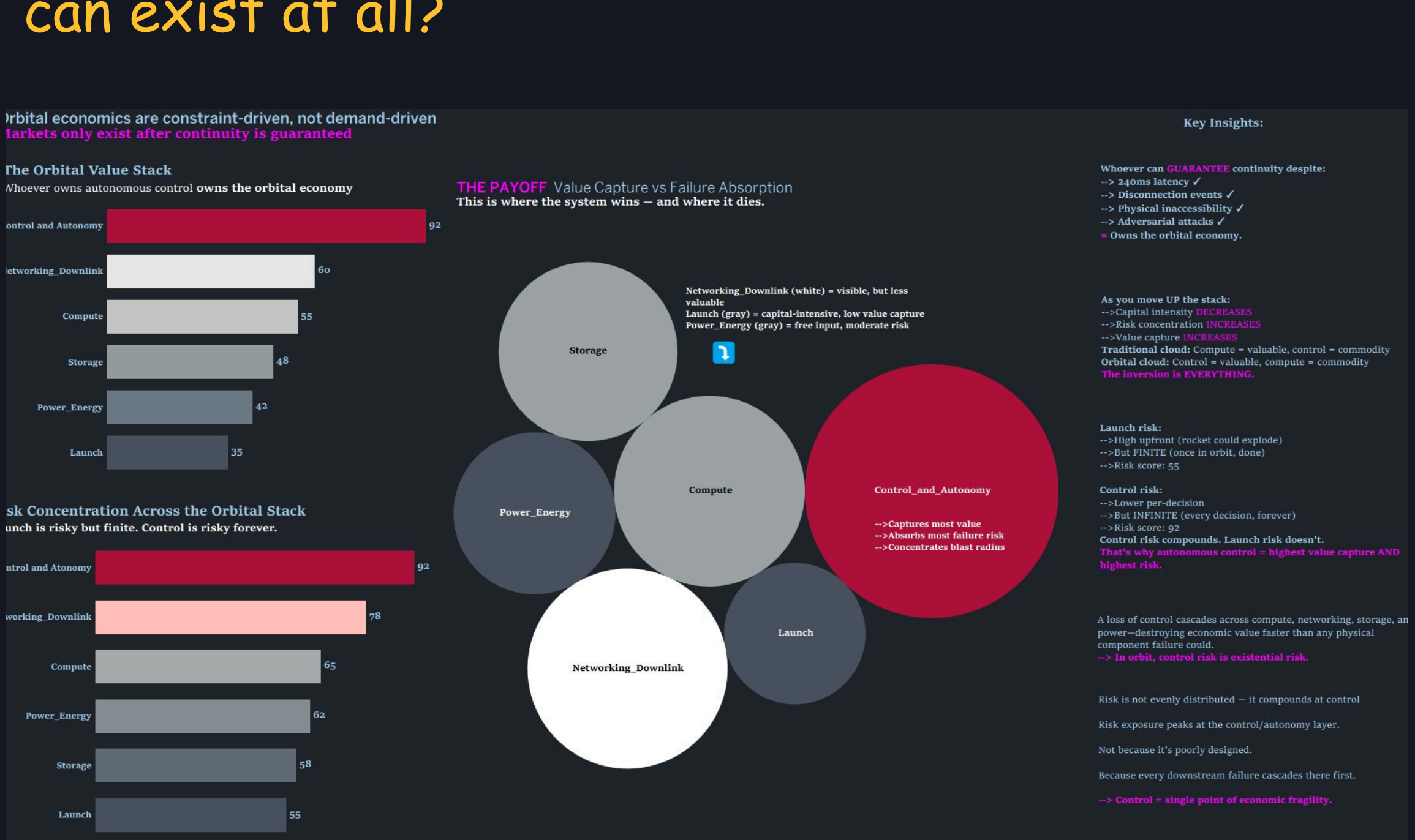
Destroying value faster than any physical failure could.

In orbit, control risk is existential risk.

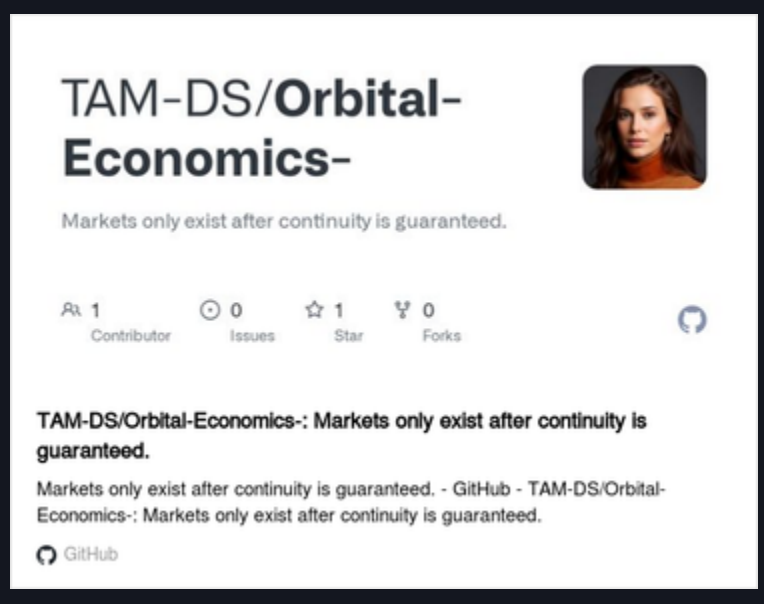
We modeled this.
An orbital economics dashboard that shows:

Built to answer one question:

Which layers determine whether an orbital market can exist at all?



Full system model in the dashboard.



The Economic Conclusion

This is the orbital economy:

- Not demand-driven
- Not cost-driven
- **Constraint-driven**

Markets only exist after continuity is guaranteed.

Survivability precedes profitability.

Control is the single point
of economic fragility.

autonomously

latency **disconnection** **physics**

wins the orbital economy.