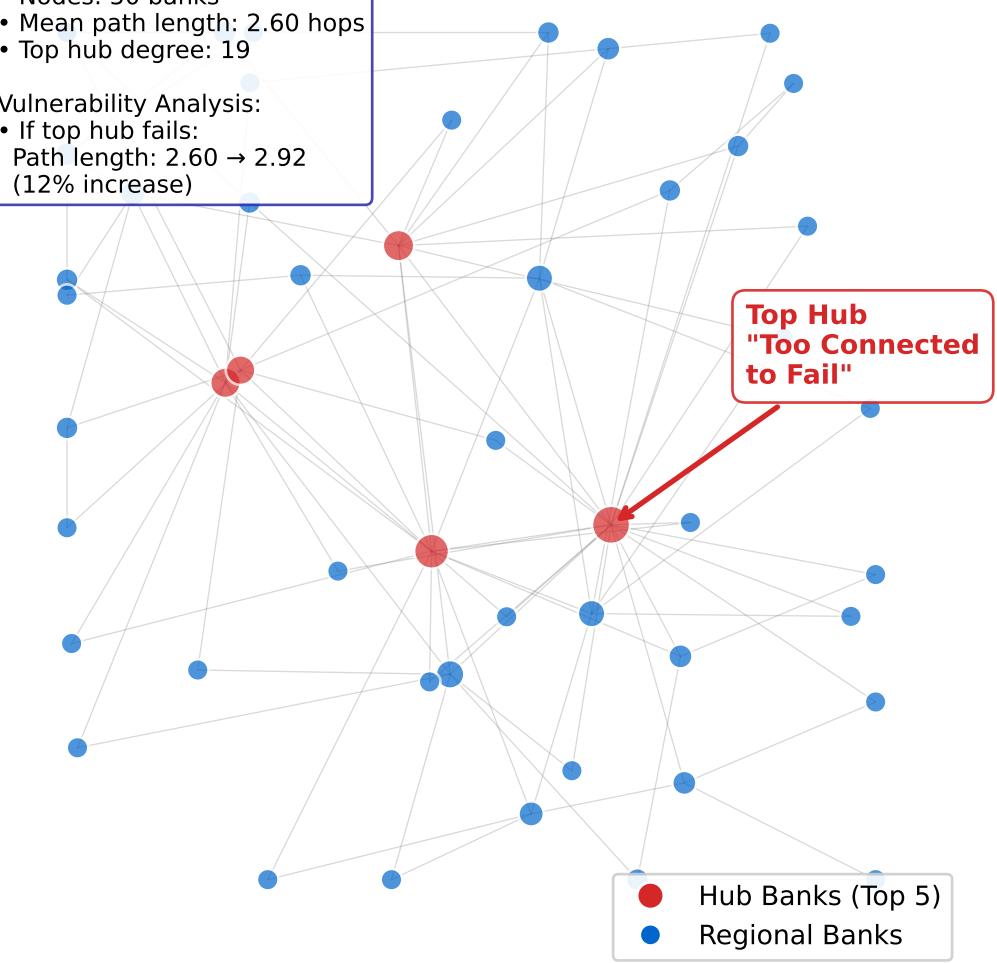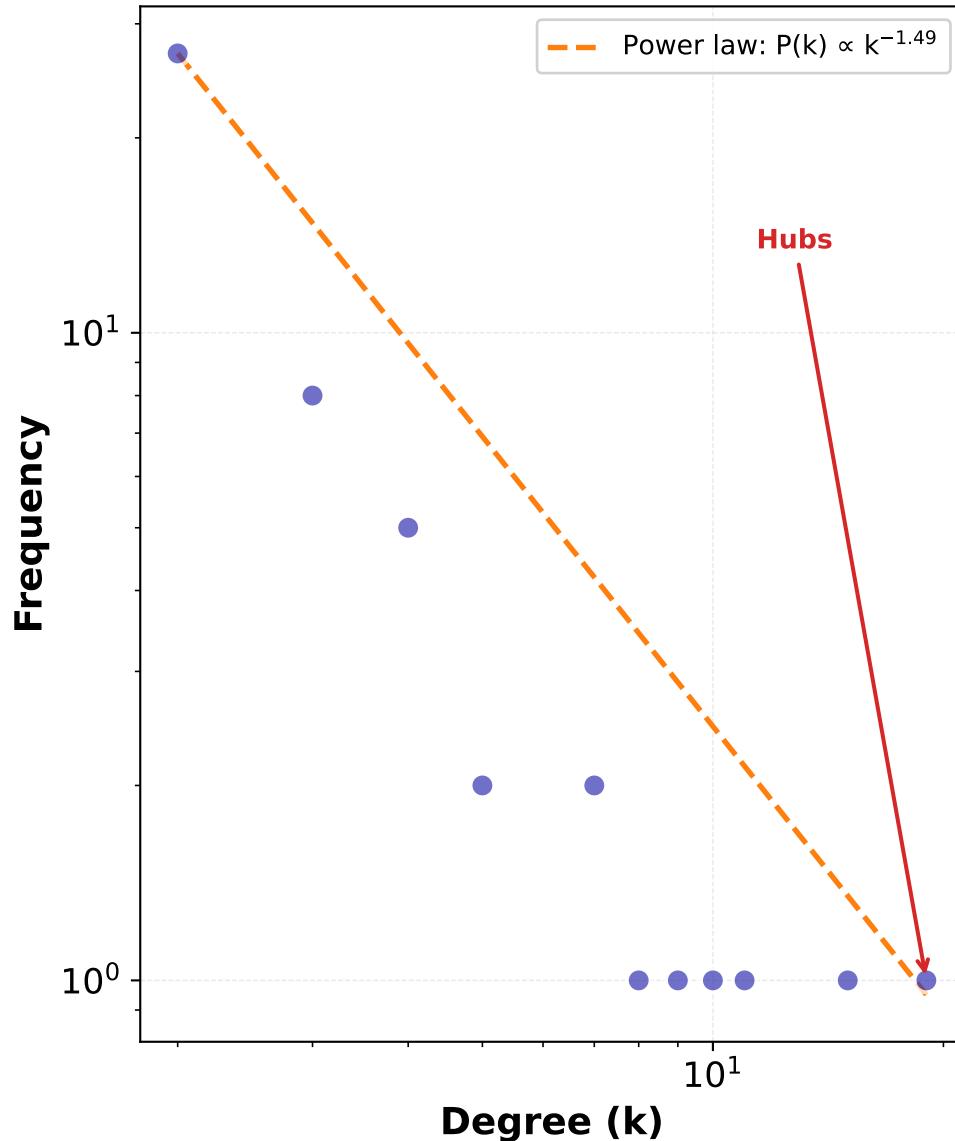# Correspondent Banking Network Topology (Barabasi-Albert Scale-Free Model)

Network Metrics:
- Nodes: 50 banks
- Mean path length: 2.60 hops
- Top hub degree: 19

Vulnerability Analysis:
- If top hub fails:
  Path length: 2.60 → 2.92
  (12% increase)

Top Hub "Too Connected to Fail"

- ● Hub Banks (Top 5)
- ● Regional Banks

Degree Distribution (Scale-Free Property)

Power law: $P(k) \propto k^{-1.49}$

Hubs

Frequency

Degree (k)

Theory: Barabási & Albert (1999), "Emergence of Scaling in Random Networks", Science