

**CFA INSTITUTE RESEARCH &
POLICY CENTER VIEW:
*REFRAMING FINANCIAL MARKETS
THROUGH A SYSTEMS LENS***

CFA Institute Research & Policy Center View

Reframing Financial Markets Through a Systems Lens



Genevive Hayman, PhD
Senior Researcher, Research, Advocacy, and
Standards @ CFA Institute





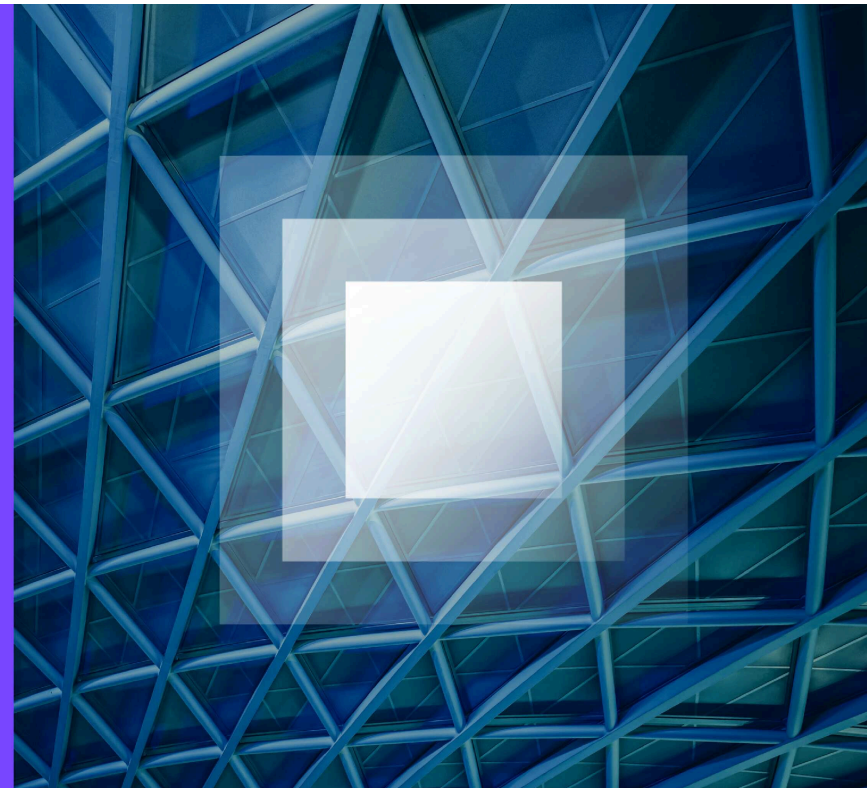
Reframing Financial Markets as Complex Systems

A Complexity Science Foundation for System-Level Investing

Genevieve Hayman, PhD Senior Researcher, Research and Policy Center | CFA Institute

5th Annual Symposium on System-Level Investing · April 14, 2026

What if we treat financial markets as complex systems?



Reframing Financial Markets as Complex Systems

Genevieve Hayman, PhD
Raymond Ka-Kay Pang, PhD

Tools for Systemic Risk Analysis,
Portfolio Management, and
System-Level Investing

Our frameworks were designed for a different kind of problem

What traditional frameworks are designed for

- Identifying mispriced securities.
- Maximizing risk-adjusted return.
- Optimizing portfolios assuming future behavior is consistent with past behavior.

What they were not designed to ask

- What forces affect long-term capital market dynamics and structure?
- What risks only become visible at the system level?
- What if systemic risk arises not from exogenous events, but as something markets generate from within?
- How does capital at scale affect the broader environment it operates in?

Portfolio Optimization Assumptions Can Overlook Real Market Behavior

Rational Agents & Equilibrium

In practice, markets exhibit persistent trends, bubbles, crashes, and regime shifts.

Normal Distributions

Heavy tails, volatility clustering, and nonlinearity are documented features of real return distributions.

Historical Correlations

Diversification strategies built on historical correlations fail in crises: assets assumed to be uncorrelated become highly correlated under stress.

Standard systemic risk models fail exactly where they're needed most

01 The Isolation Issue

Models that assess investors individually miss the emergent dynamics they collectively create.

02 The Exogeneity Issue

Standard models treat systemic risk as an external shock.

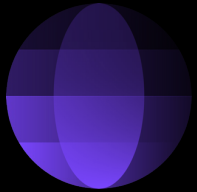
03 The Measurement Issue

Common systemic risk metrics measure the symptom, not the structural vulnerability.

“

...the notion of systemic risk in the financial system bears a strong resemblance to the dynamics of many complex adaptive systems in the physical world.”

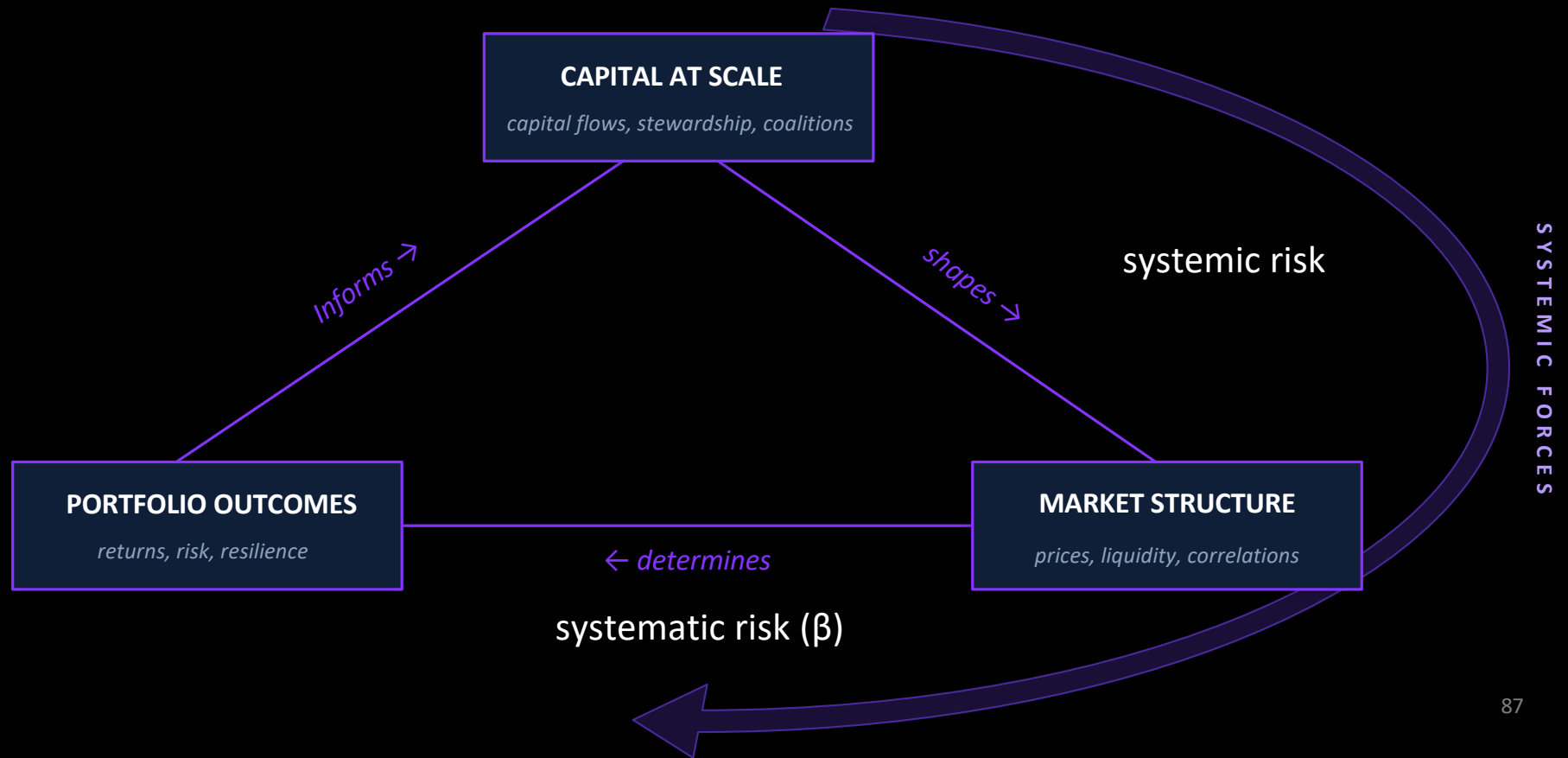
— Federal Reserve Bank of New York
2007 Economic Policy Review



Characteristics of Complex Systems



Investors don't observe markets — they co-constitute them



Most institutions have one theory of change. System-level investors need two.

PORTFOLIO THEORY OF CHANGE

How does this allocation improve risk-adjusted returns for my beneficiaries?

+

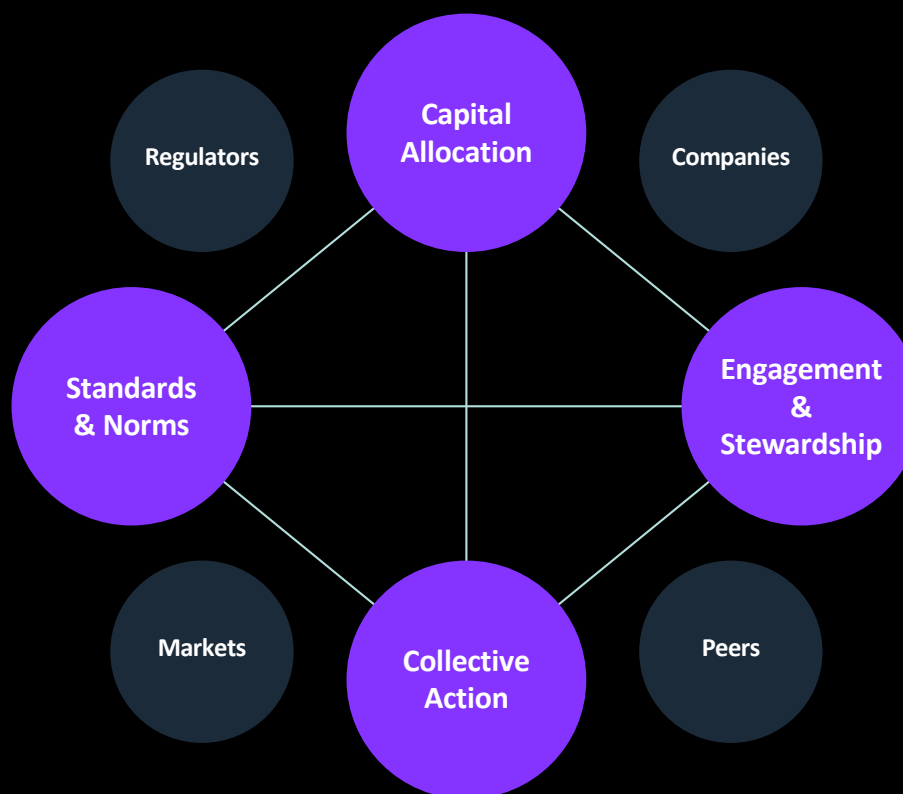
CAPITAL MARKETS THEORY OF CHANGE

How does capital at scale reshape the dynamics of the systems my beneficiaries depend on?

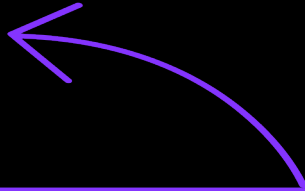
Without a capital markets theory of change, the ceiling on impact — and on managing systemic risk — is low.

IN PRACTICE

The tools are already in your hands



The tools are familiar. The network they form is the system-level strategy.



THEME: SUSTAINABILITY

18 June 2024 | Enterprising Investor Blog

What Is Systems Thinking? A Primer with Applications for Sustainable Investing

Thank you

Full Report





Genevieve Hayman

Senior Researcher

genevieve.hayman@cfainstitute.org

I'd be happy to hear your feedback.

Please feel free to reach out.

