

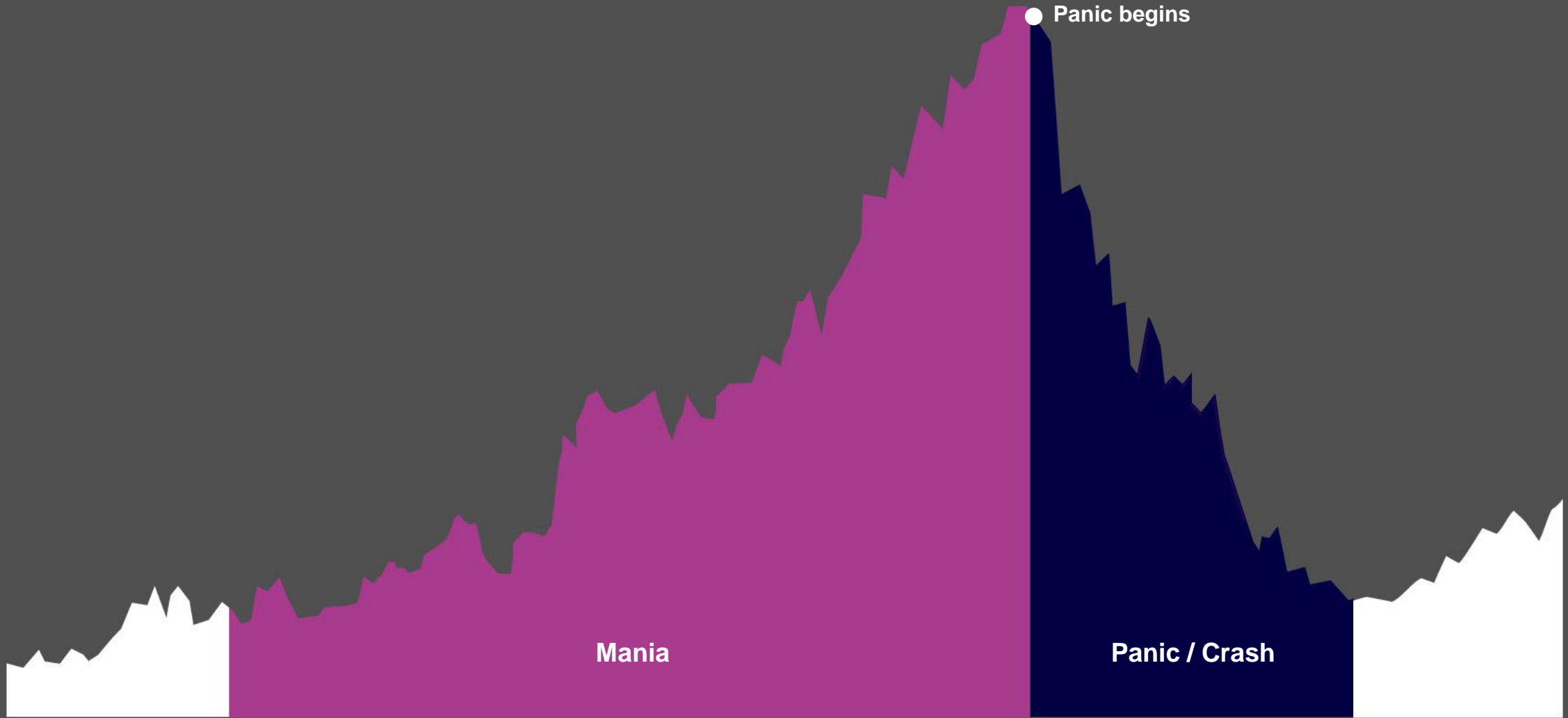
Are We Safer? The Case for Strengthening the Bagehot Arsenal

Per Jacobsson Lecture

Timothy F. Geithner
October 8, 2016

The Anatomy of a Financial Crisis

Kindleberger's *Manias, Panics, and Crashes*



If you want peace, prepare for war.

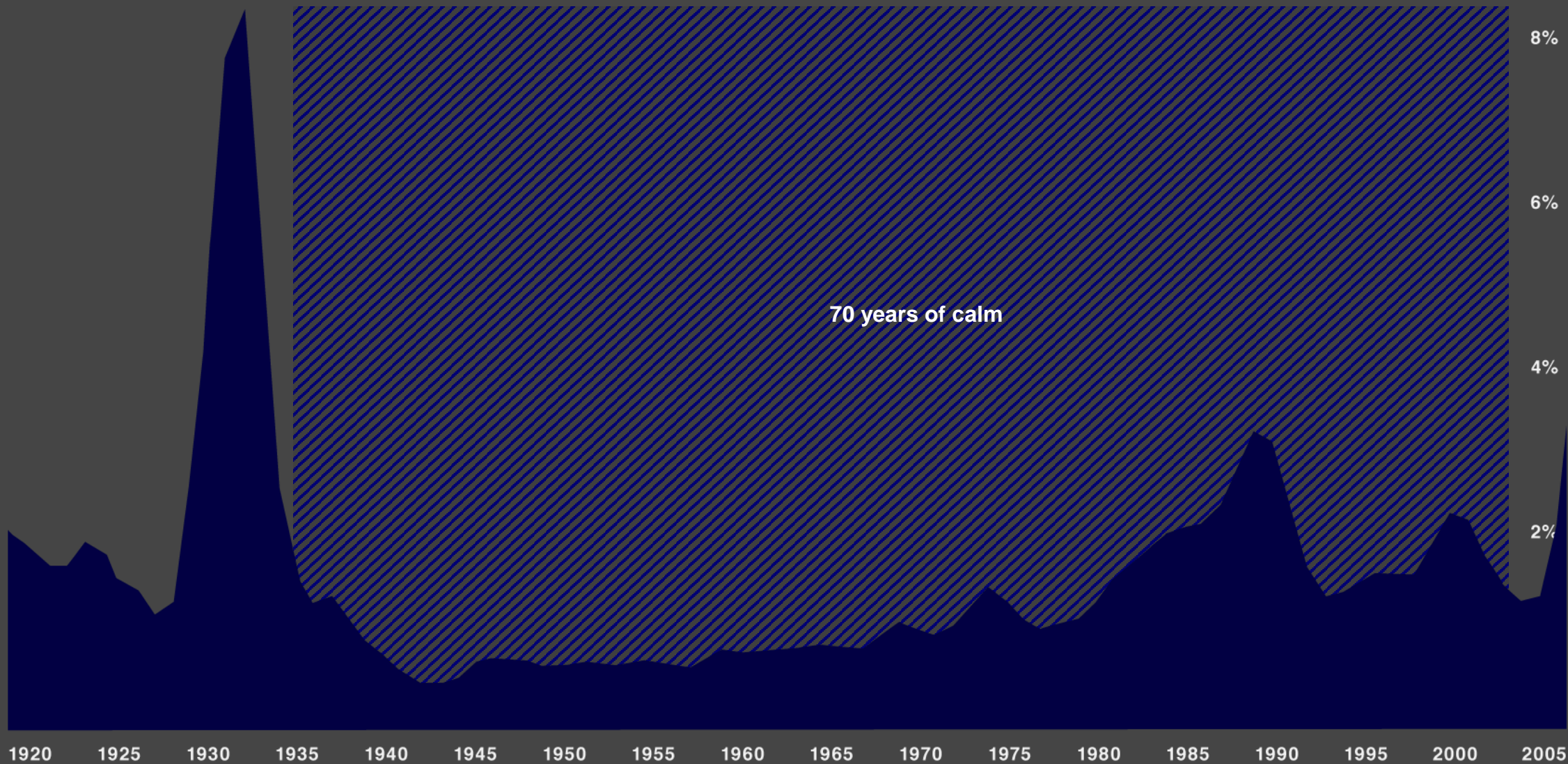
Attributed to Sun Tzu, and Plato, and others

Some Lessons From This Crisis

Starting with the deep forces that produced the boom

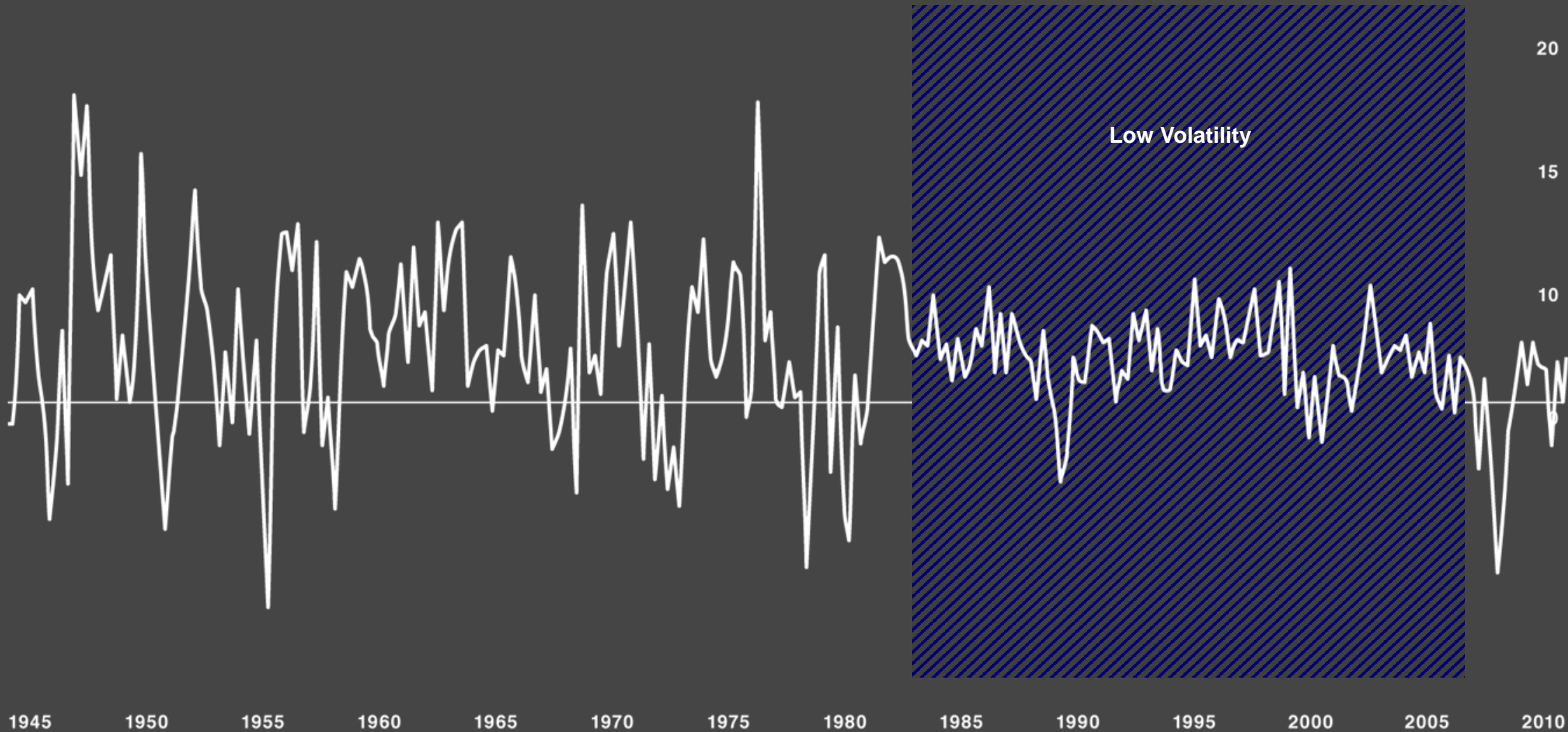
The Quiet Period

Commercial Bank Two-Year Loan Loss Rate



“The Great Moderation”

Quarterly Real GDP growth



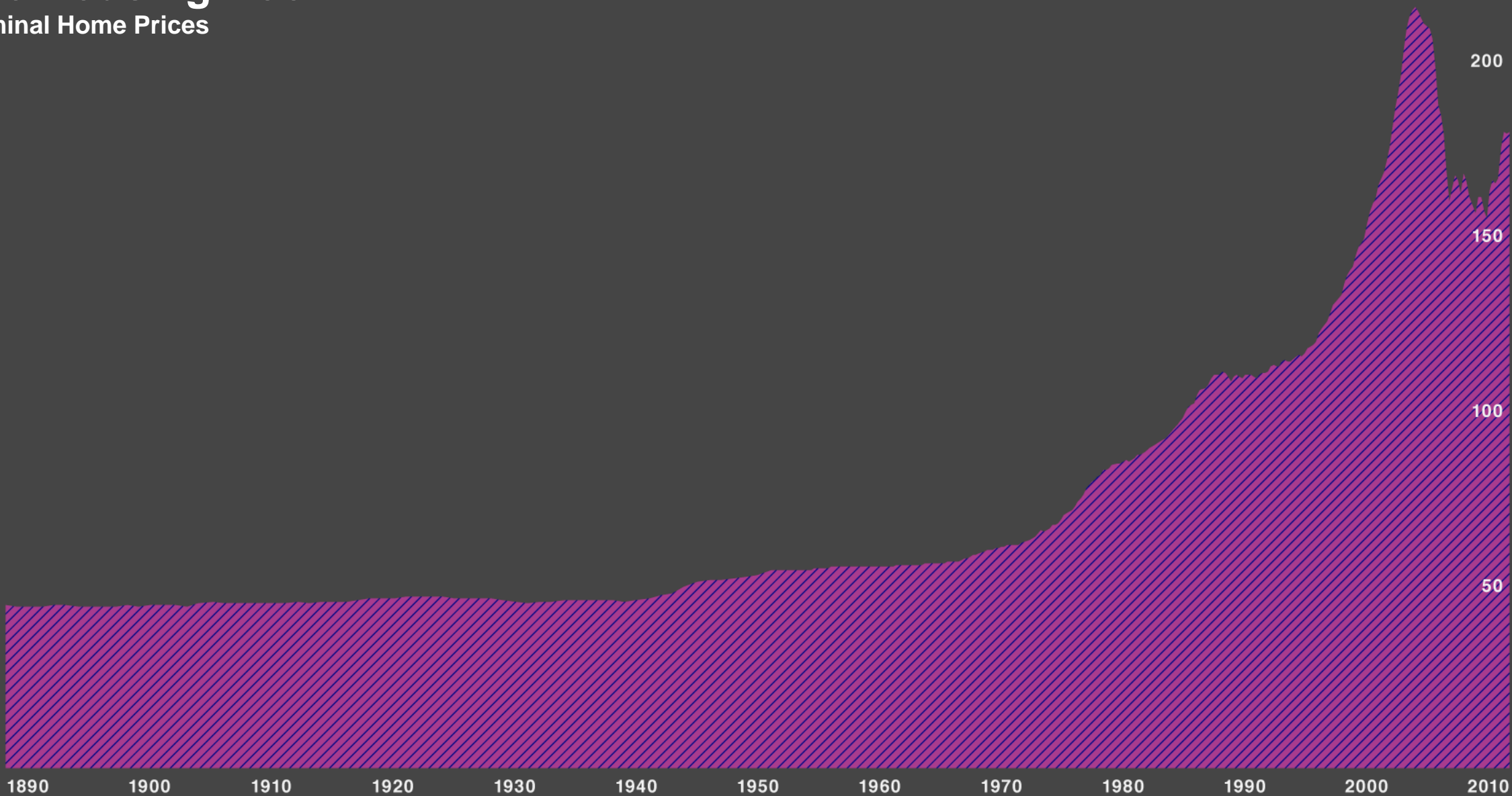
The Long Decline in the Risk Free Rate

10-Year Treasury Constant Maturity Rate



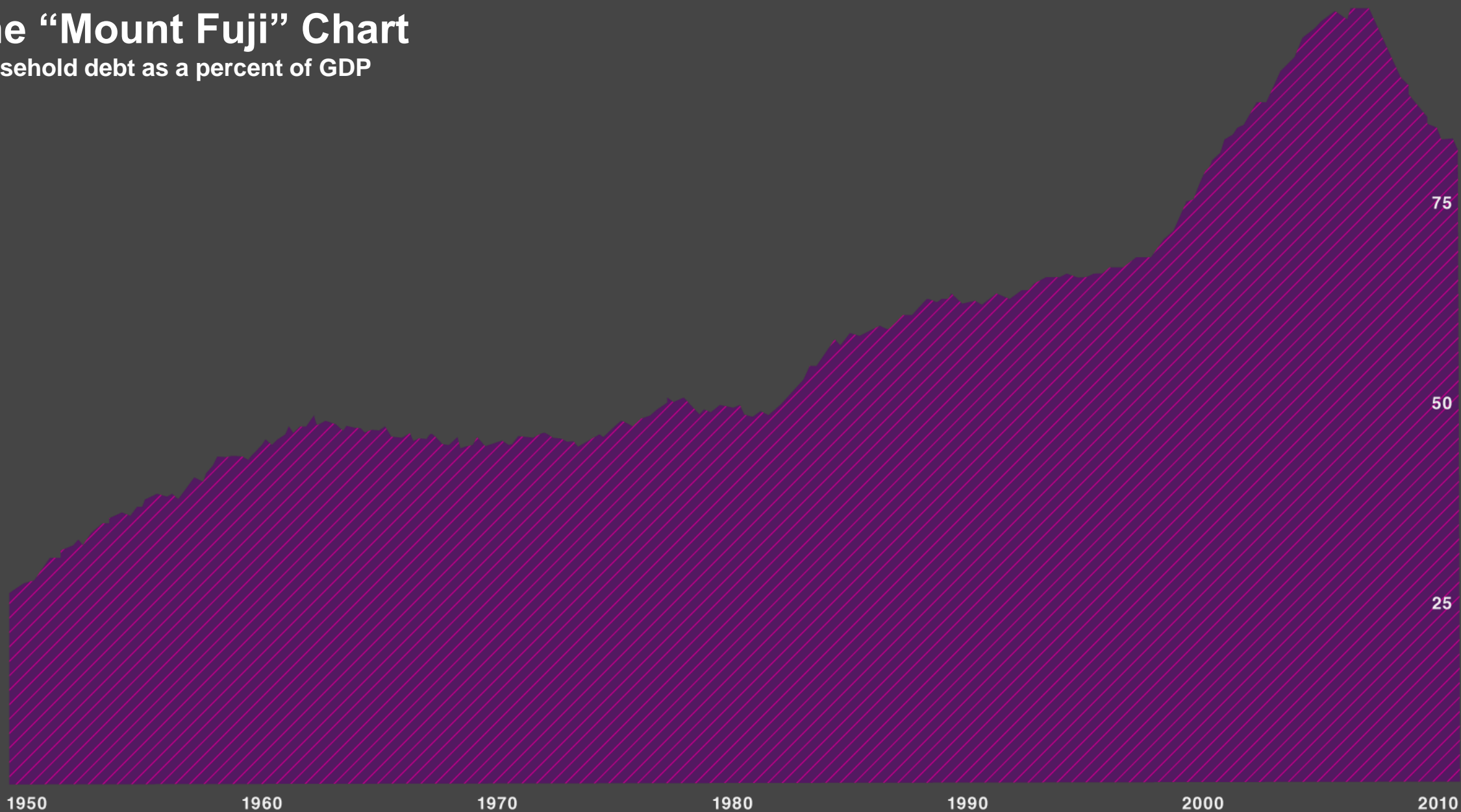
The Housing Boom

Nominal Home Prices



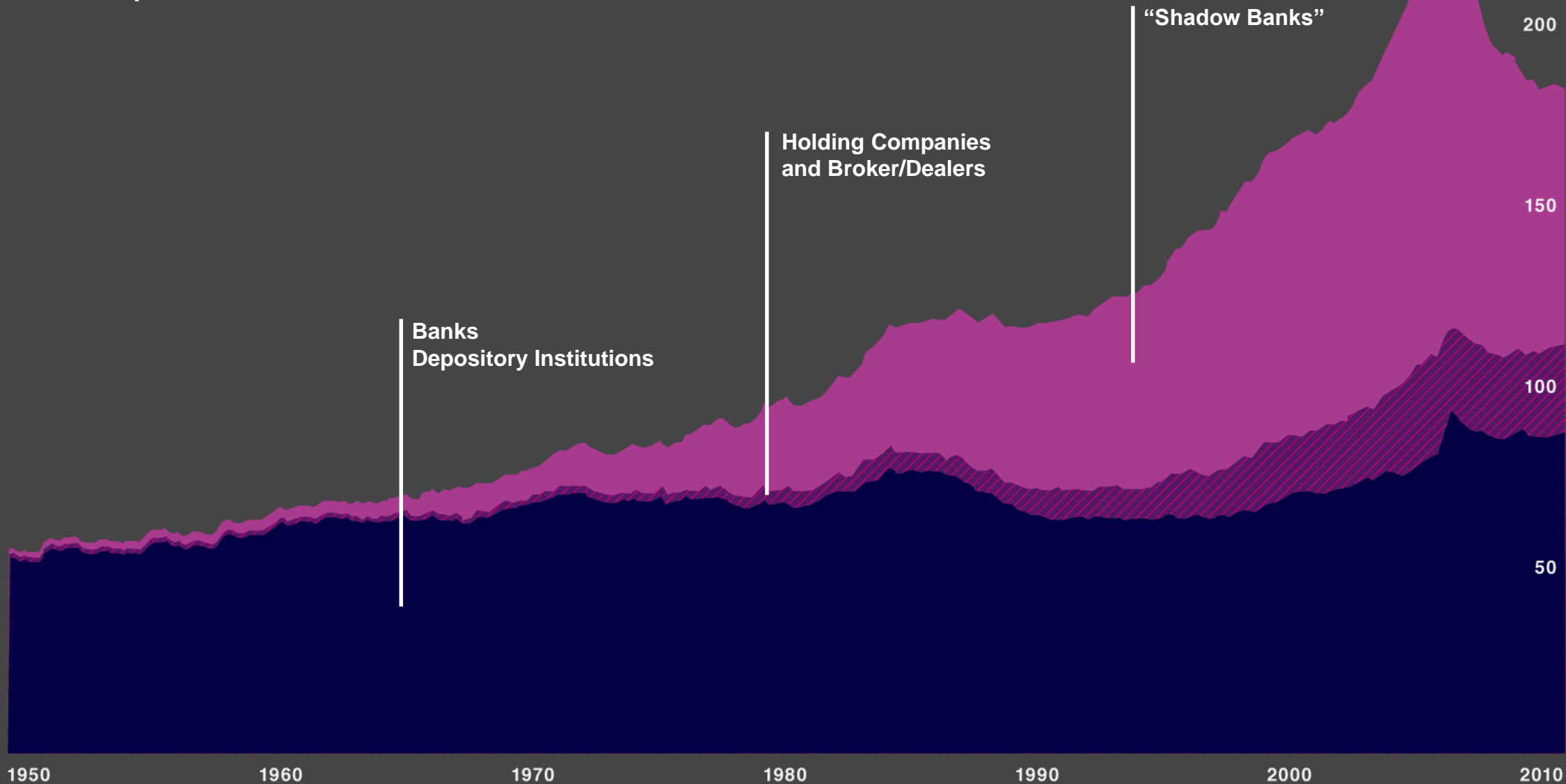
The “Mount Fuji” Chart

Household debt as a percent of GDP



The Rise of “Shadow Banking”

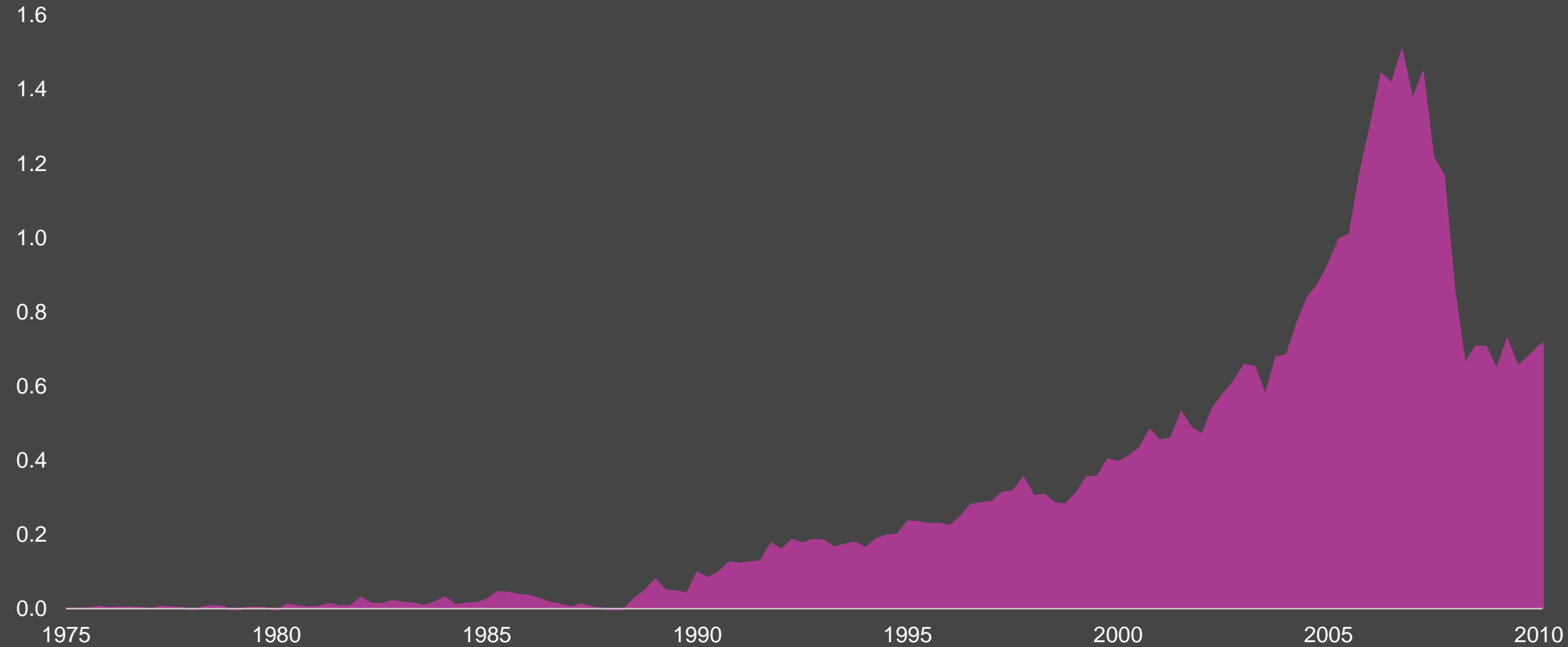
Liabilities as a percent of GDP



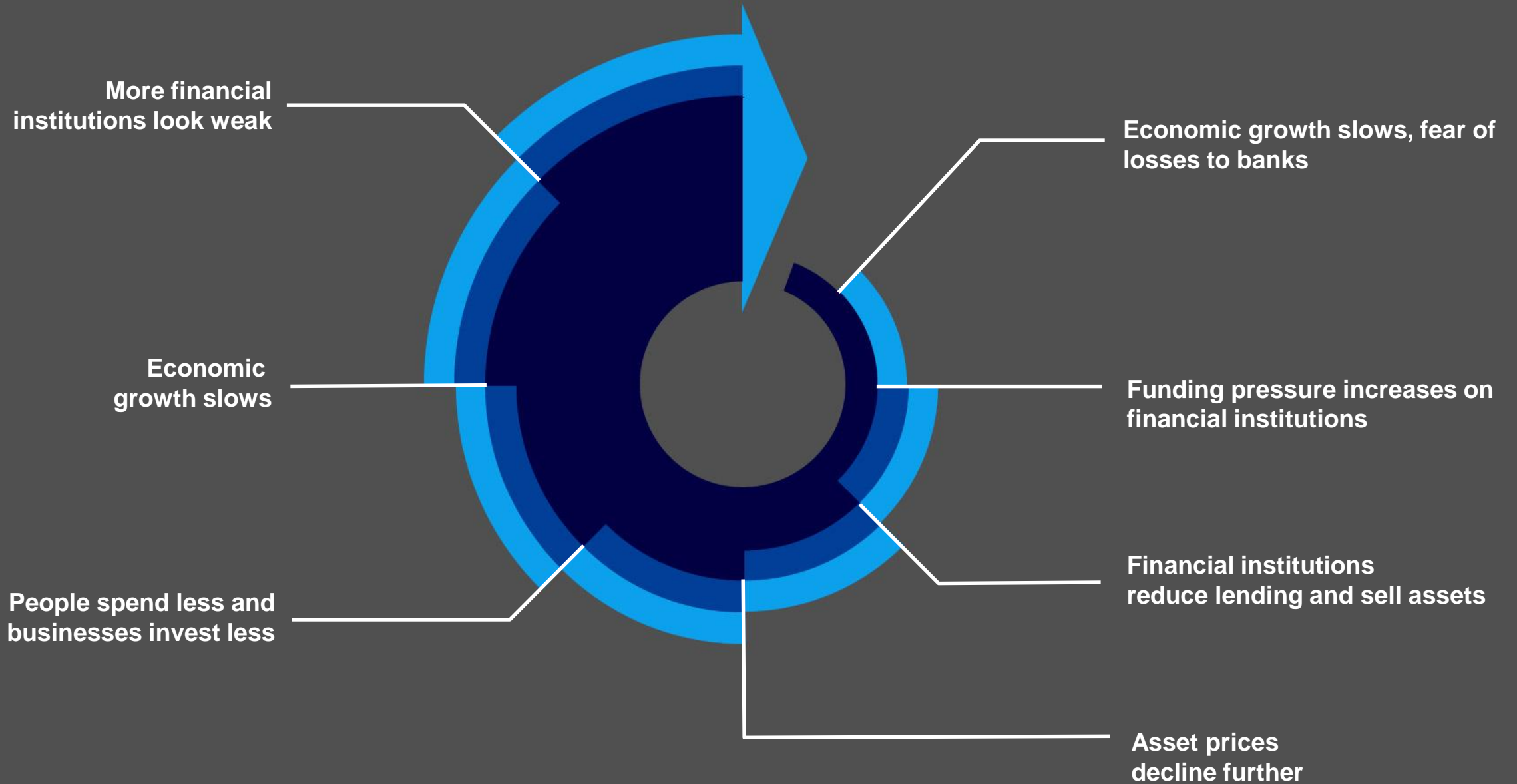
Short Term, Deposit-like Liabilities

Net Repo Funding to Broker/Dealers

\$ Trillions

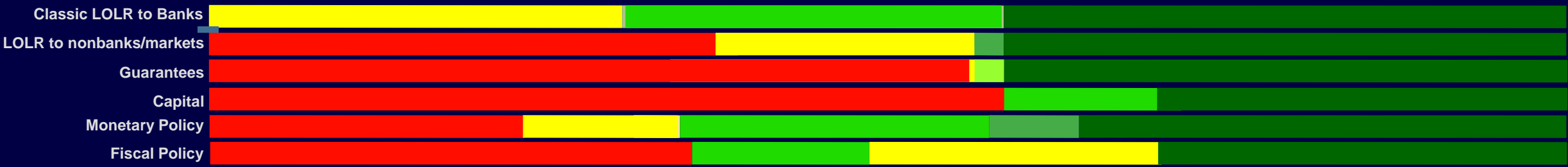


Financial Crises Damage the Economy: The Vicious Spiral



Policy Inflection Points

Banks' CDS, basis points



Some Lessons From This Crisis

The dangers in long booms

Hard to get more capital into the system at the peak of the boom

Crisis defense requires full arsenal of tools, well beyond Bagehot

Very costly to fall behind the curve of panic

Dangerous to leave the central bank out there all alone too long

Capital alone is not enough in a panic

Hair cuts accelerate runs

Need more of the burden to fall on fiscal policy

Beyond Bagehot

Lender of Last Resort

Discount window lending to banks

Emergency lending to non-banks

Lending to support market funding

Guarantees

Guarantees of liabilities of financial institutions

Capital

Institution-specific

Broad-based

Resolution

Orderly liquidation authority

How Should We Define “Safe”?

What level of “safety” should we be trying to manage to?

Objective should not be to prevent financial failure. Failure has its merits.

The overriding objective should be to reduce the risk of a classic run on the financial system and to limit the attendant damage to the economy.

Make the system “safe for failure.”

Are We Safer?

01

**Level of ex ante
vulnerability**

02

**The Keynesian
Macroeconomic
Policy Arsenal**

03

**Emergency
Financial
Authorities:
Beyond Bagehot**

04

**Policy choices in
crises**

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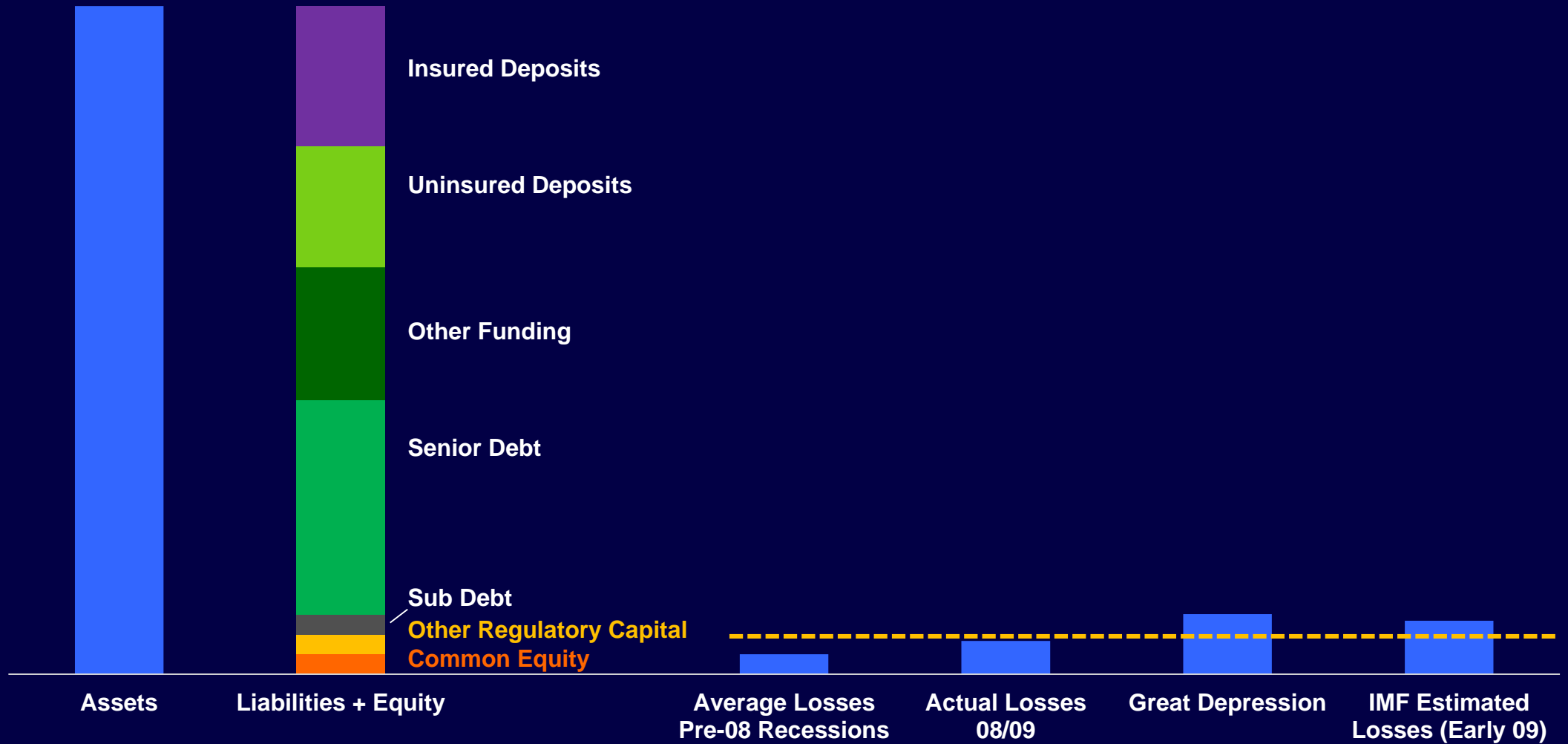
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Pre-Crisis Capital Structure



Capital Buffers Are Higher

Capital Requirements under Basel III

Percent of risk-weighted assets

16

14

12

10

8

6

4

2

Additional Tier 1 Capital

Additional Common Capital Surcharge for Systemically Important Banks

Tier 1 Common



Short-term, Deposit-like Liabilities

Net Repo Funding to Broker/Dealers

\$ Trillions

1.6

1.4

1.2

1.0

0.8

0.6

0.4

0.2

0.0

1975

1980

1985

1990

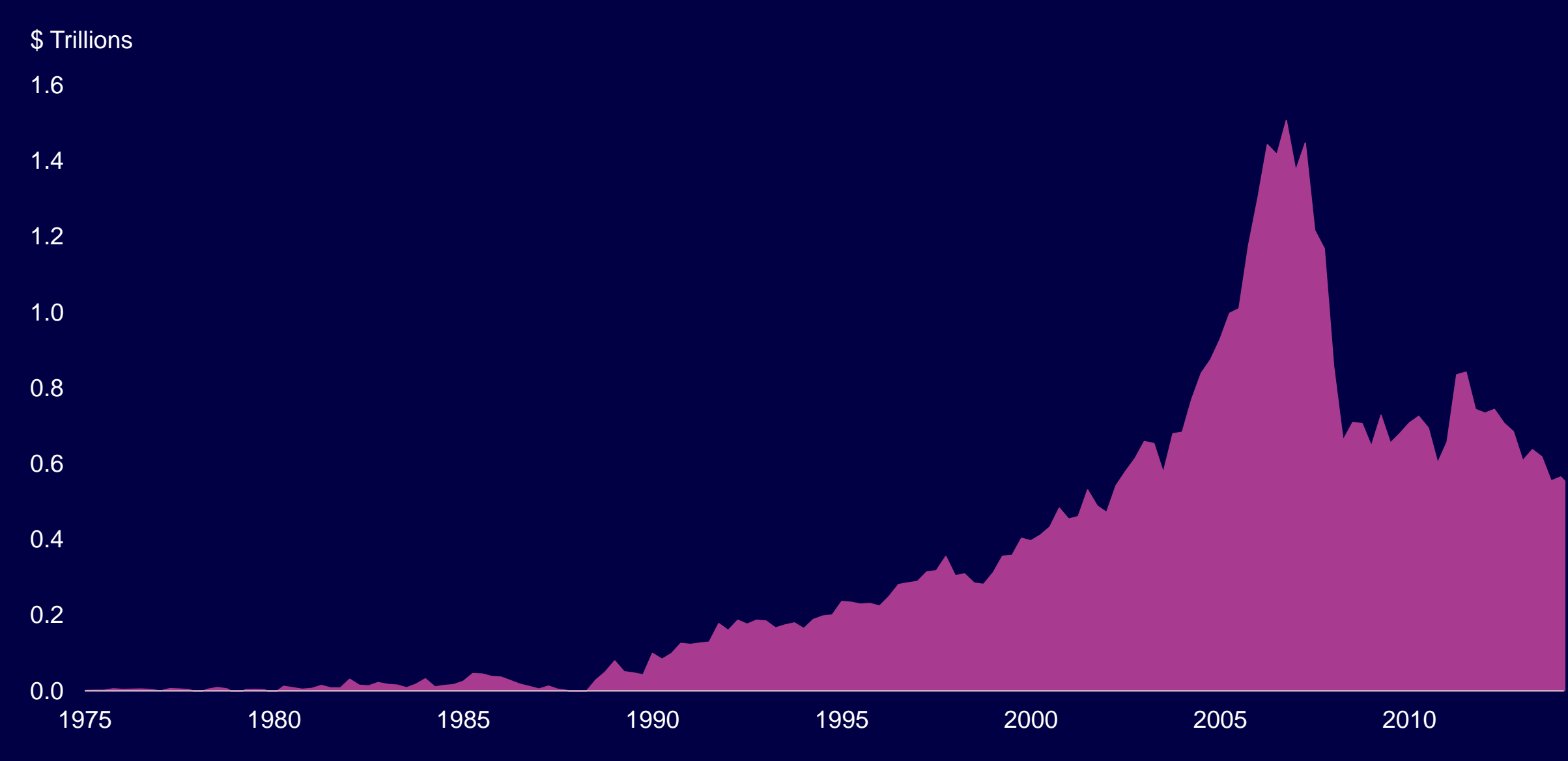
1995

2000

2005

2010

Source: Federal Reserve Flow of Funds, based on calculations from Metrick and Gorton (2015). "Who Ran On Repo?"



Stronger Shock Absorbers, but . . .

The less reassuring facts

Economic growth rates are lower, with a smaller margin between expansion and recession.

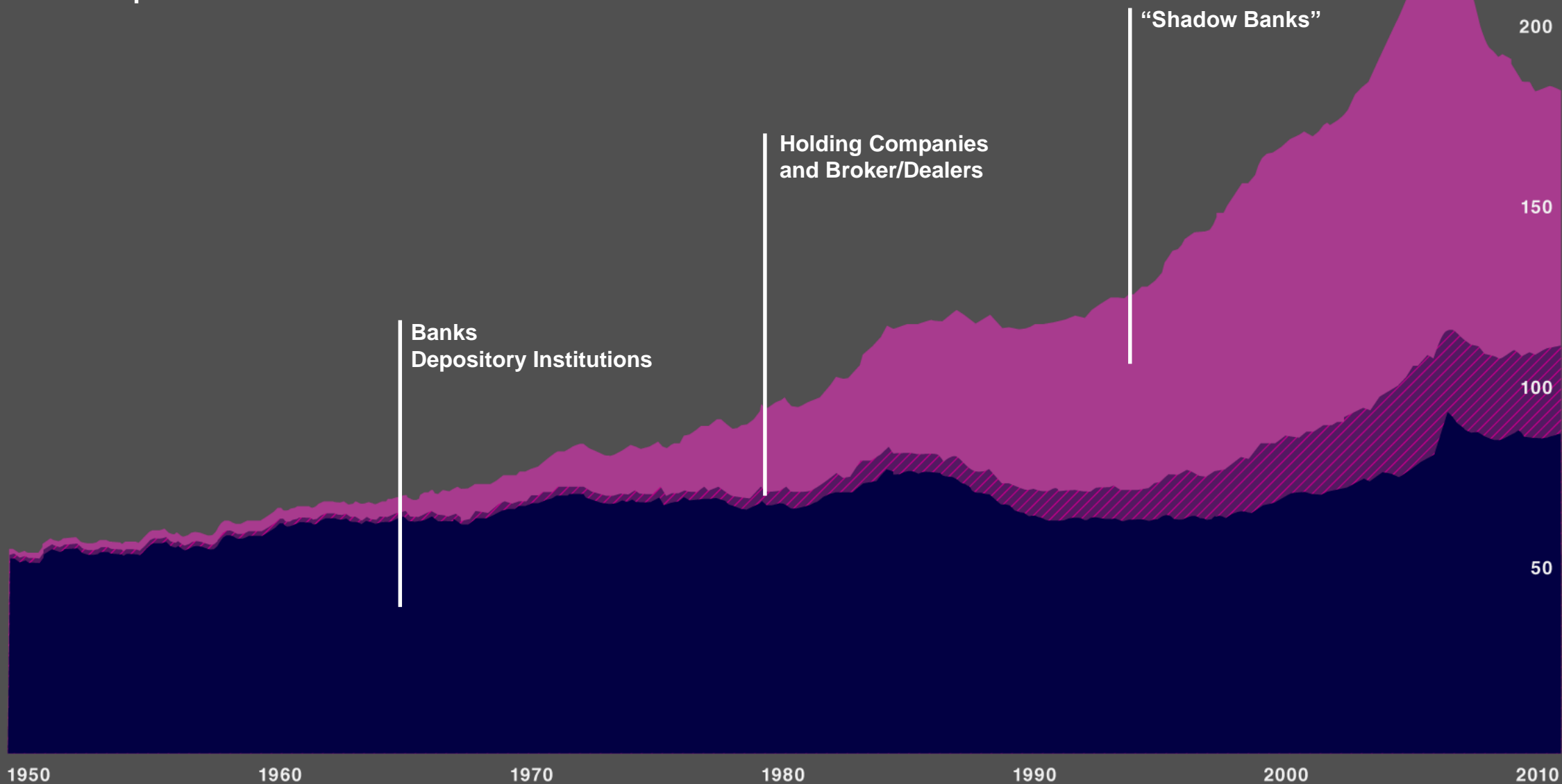
New capital levels high relative to loss in crisis, but those losses were limited by recourse to the now diminished Keynesian policy arsenal.

There is no reason for confidence in our ability to preempt “shocks.”

The migration of maturity transformation away from banks is still limited, but over time risk will move outside the financial system. Moving market-making capacity and credit provision outside of banks leaves it in weaker hands in a crisis.

The Rise of “Shadow Banking”

Liabilities as a percent of GDP



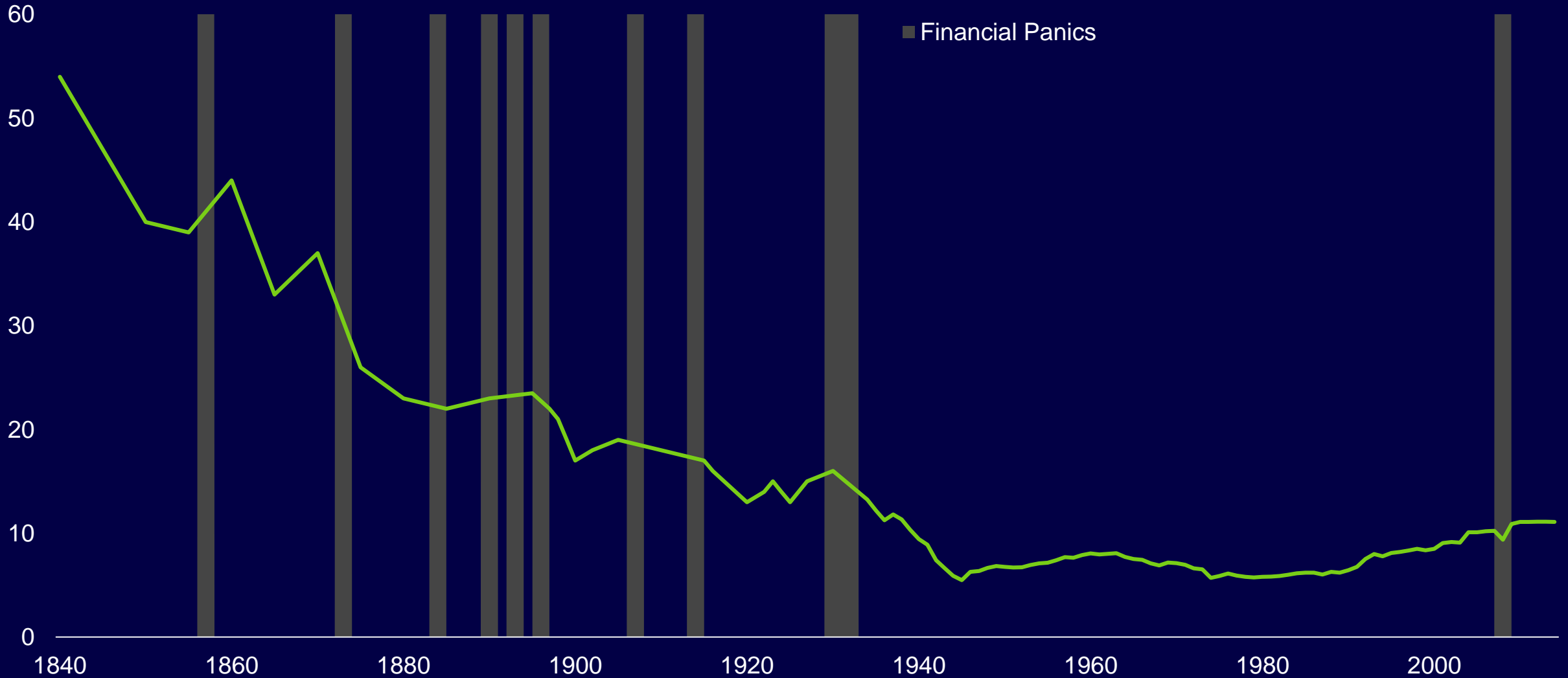
Stronger Shock Absorbers, but . . .

The less reassuring facts

History is not that reassuring about the value of higher capital ratios alone as protection against panic.

Book Equity to Assets of U.S. Banks Since 1840

Percent



Source: Book equity to assets compiled by Hanson, Kashyap and Stein (2010). "A Macprudential Approach to Financial Regulation." Journal of Economic Perspectives. Historical panic dating compiled by Gorton (1988). "Banking Panics and Business Cycles." Oxford Economic Papers.

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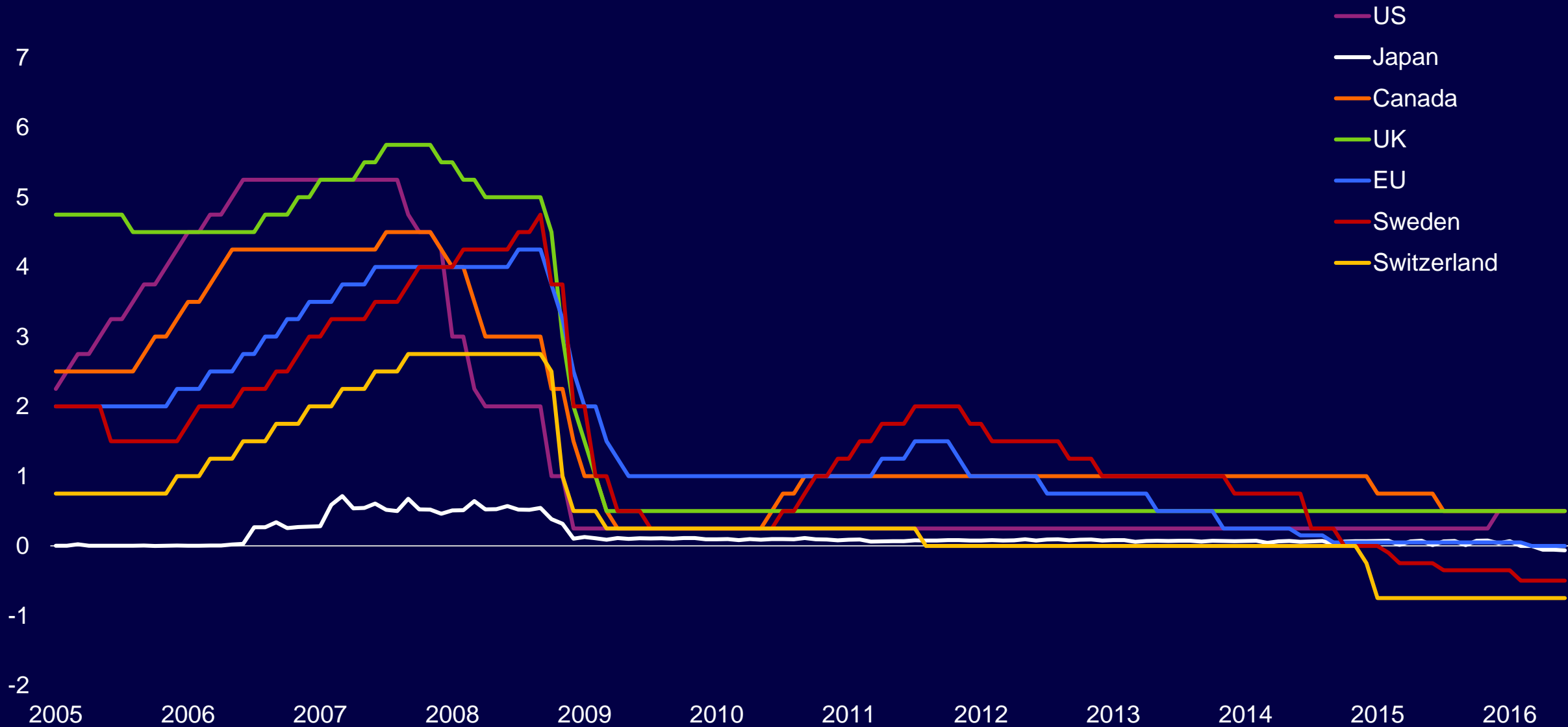
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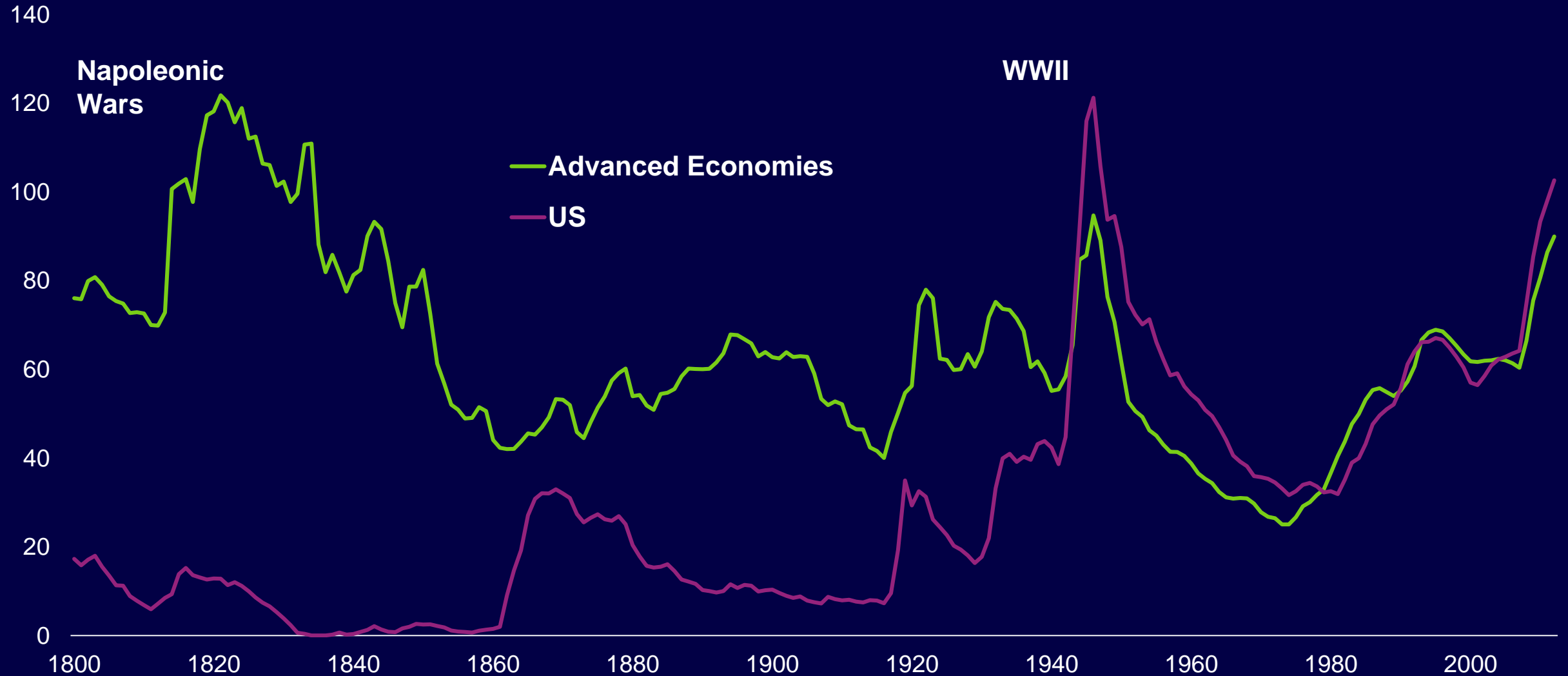
Long Decline in G-10 Policy Rates

Target Policy Rate, Percent



Public Debt to GDP Since 1800

Percent



Source: Reinhart, Reinhart and Rogoff (2012). "Public Debt Overhangs: Advanced Economy Episodes Since 1800." Journal of Economic Perspectives.

Keynesian Arsenal in “Advanced” Economies is Exceptionally Weak

Public sector debt burdens are much higher as a share of GDP.

Policy rates are close to, or below, zero.

The long end of sovereign yield curve is close to, or below, zero.

High grade credit spreads are low.

There is no recent precedent for this.

Keynesian Arsenal in “Advanced” Economies is Exceptionally Weak

Implications

The incremental room available for policymakers in “advanced” economies to respond to a crisis is dramatically more limited than in 2008.

The impact of a shock will cause more damage, last longer, and spread wider.

There is much less room for error in management of panics.

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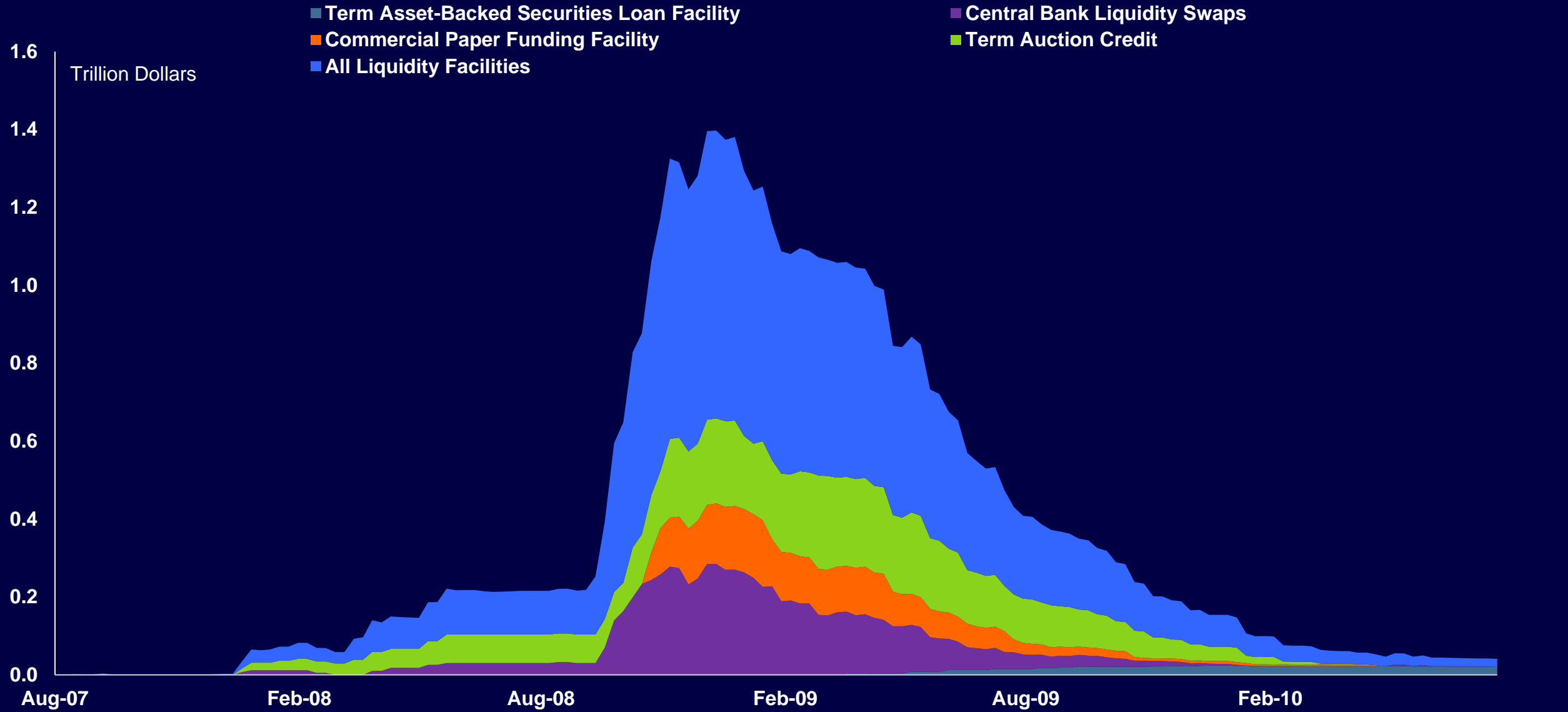
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Fed Liquidity Facilities



Source: Federal Reserve.

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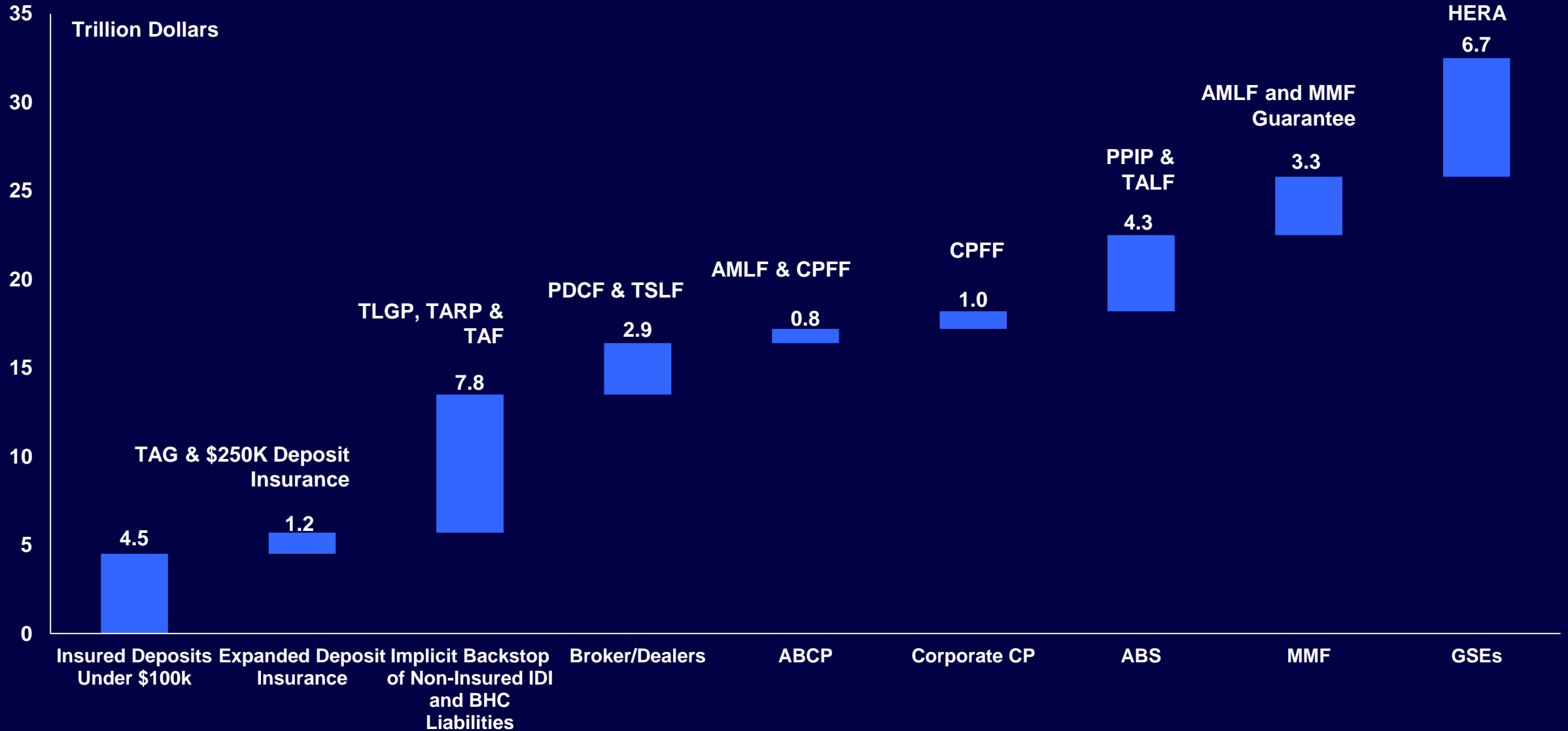
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Key Support for Markets and Institutions



Authorities Used in the Crisis

	Lending Programs	Institution	Peak Value (\$ Billions)
Banks	FHLB Advances	FHLB	1,012
	Discount Window	Federal Reserve	112
	TAF	Federal Reserve	493
	Central Bank Swap Lines	Federal Reserve	583
Beyond Banks	TSLF	Federal Reserve	236
	PDCF	Federal Reserve	148
Market Support	CPFF	Federal Reserve	351
	AMLF	Federal Reserve	152
	TALF	Federal Reserve/Treasury	48
Firm Specific	AIG	Federal Reserve	90
	Maiden Lane I	Federal Reserve	29
	Maiden Lane III	Federal Reserve	27
	Maiden Lane II	Federal Reserve	20

Authorities Used in the Crisis

Guarantee Programs	Institution	Peak Exposure (\$ Billions)
TAG	FDIC	722
FDIC Insurance Increase	FDIC	480
DGP	FDIC	346
MMMF Guarantees	Treasury	3,200
AGP – BofA and Citi	Treasury	419

Capital Programs & Other Programs	Institution	Peak Value (\$ Billions)
TARP Capital Investments	Treasury	315
Commitment to GSEs	Treasury	188
Agency MBS Program	Treasury	142
PPIP	Treasury	19
TALF	Federal Reserve/Treasury	48

Post Reform Limitations

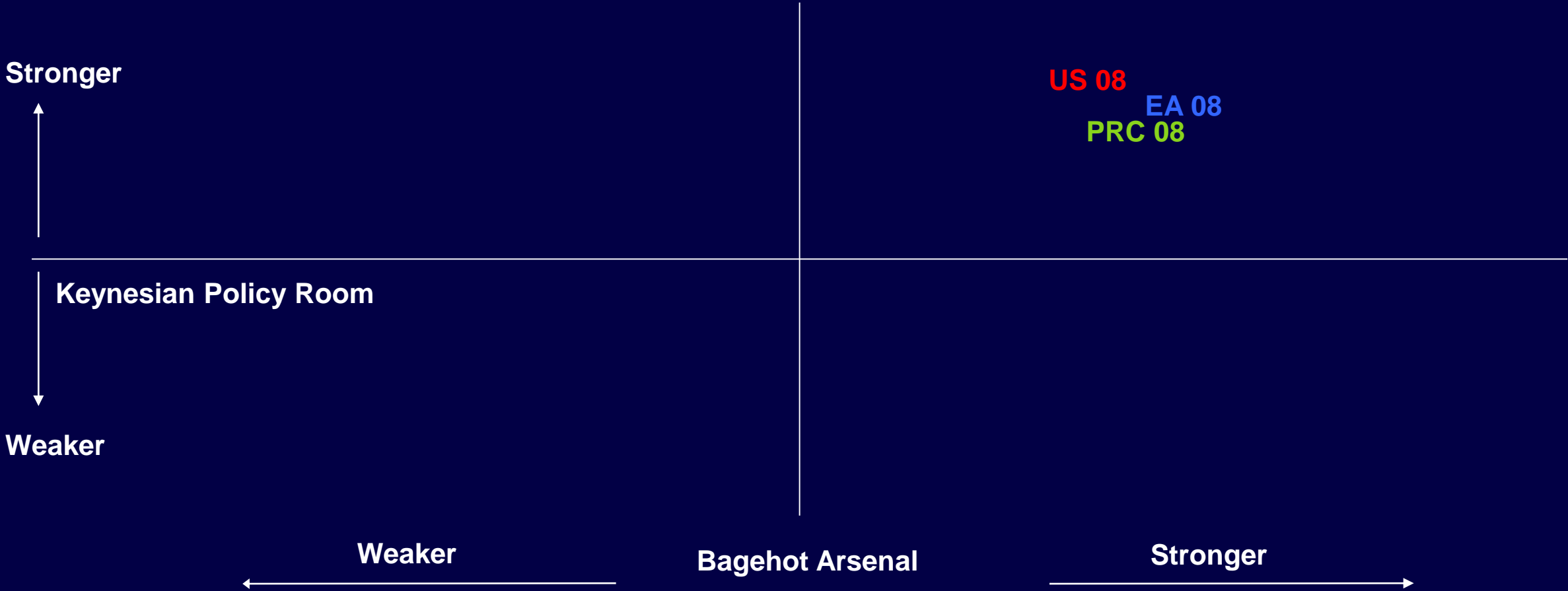
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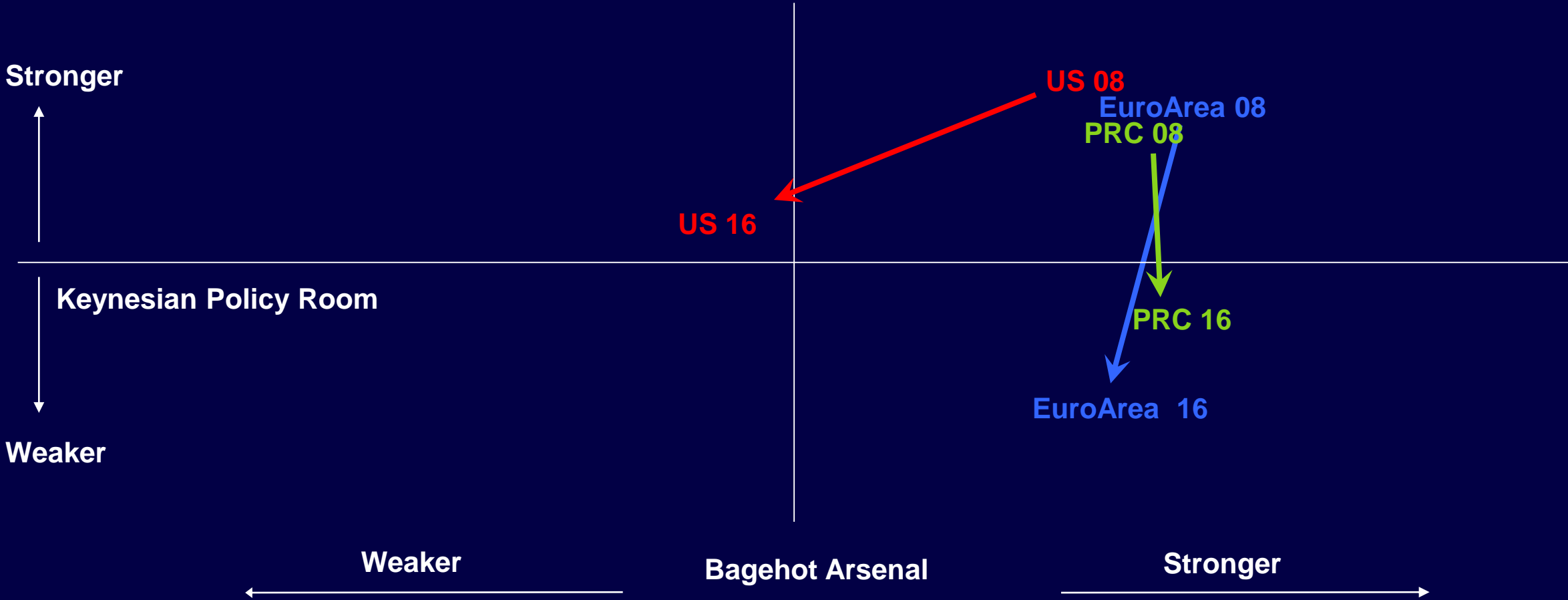
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Post Crisis Erosion in the Policy Arsenal for Financial Crises



Post Crisis Erosion in the Policy Arsenal for Financial Crises



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Beliefs, Loss of Memory, Lack of Experience, Politics . . . All Distort Policy Choices in Crisis

More fear of the political costs of bailout rather than of the economic costs of uncontrolled panic.

Confusion about the role of brakes and the accelerator; the appropriate sign of fiscal policy

Confusion about how best to limit loss to taxpayer

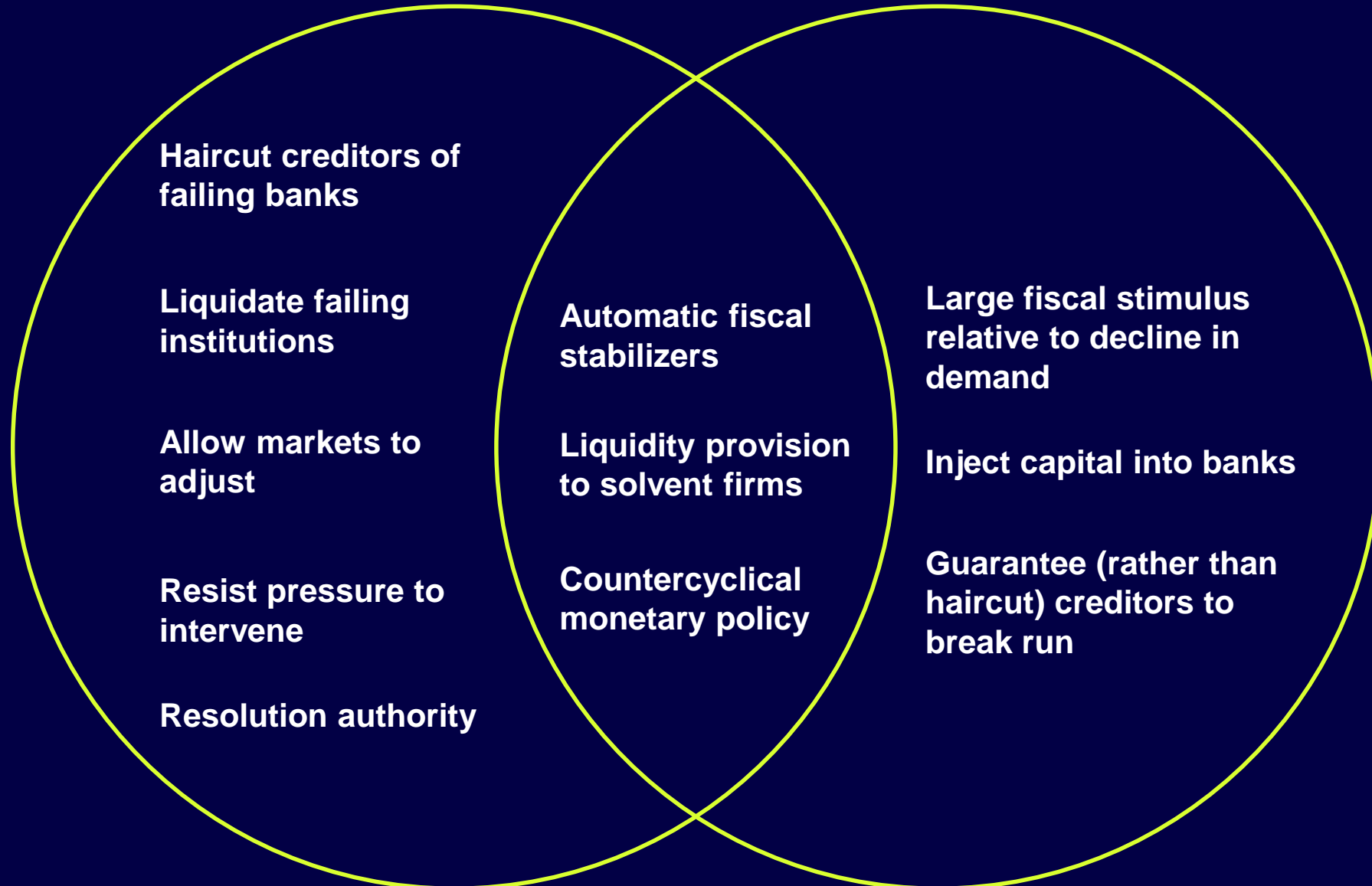
Moral hazard fundamentalism

The lack of knowledge of what to do increases the power of these beliefs

Fear of the political costs of bailouts rather than the economic costs of uncontrolled panic

Idiosyncratic Shock

Systemic Financial Shock



Moral Hazard and its Perils

It's hard to solve a moral hazard problem in the midst of the crisis, without dramatically intensifying the crisis.

One of the many paradoxes in financial crisis management is that if you do not act swiftly and effectively to break a panic, then you might end up having to socialize more risk and guarantee more liabilities, with complicated and potentially worse moral hazard implications.

More Practical Ways to Limit Moral Hazard

Prudential regulation has to bear most of the burden of limiting the moral hazard risk.

Preserving flexibility and uncertainty about the pace of escalation and perimeter of support in crisis should leave investors and creditors of financial institutions with healthy sense of fear, until you need to act to stop a panic.

Impose tougher conditions on access to emergency support in the event you have to extend that support to institutions that are “systemic.” Provide liquidity and guarantees at a price, below the levels prevailing in a panic, but well above normal conditions, to limit the risk of prolonged use or abuse.

The Challenge for Democracies

The consequences of limiting discretion, and the asymmetry of discretion across policy tools

The Challenge for Democracies

Democracies have evolved a mix of checks and balances for circumstances where it makes sense to provide discretion for action in emergencies.

Need to introduce more discretion and power in the financial arsenal.

The financial crisis framework should recognize that success requires allowing the government and central bank to take risks the market will not take and losses the market cannot absorb.

And needs flexibility for speed and ability to adapt.

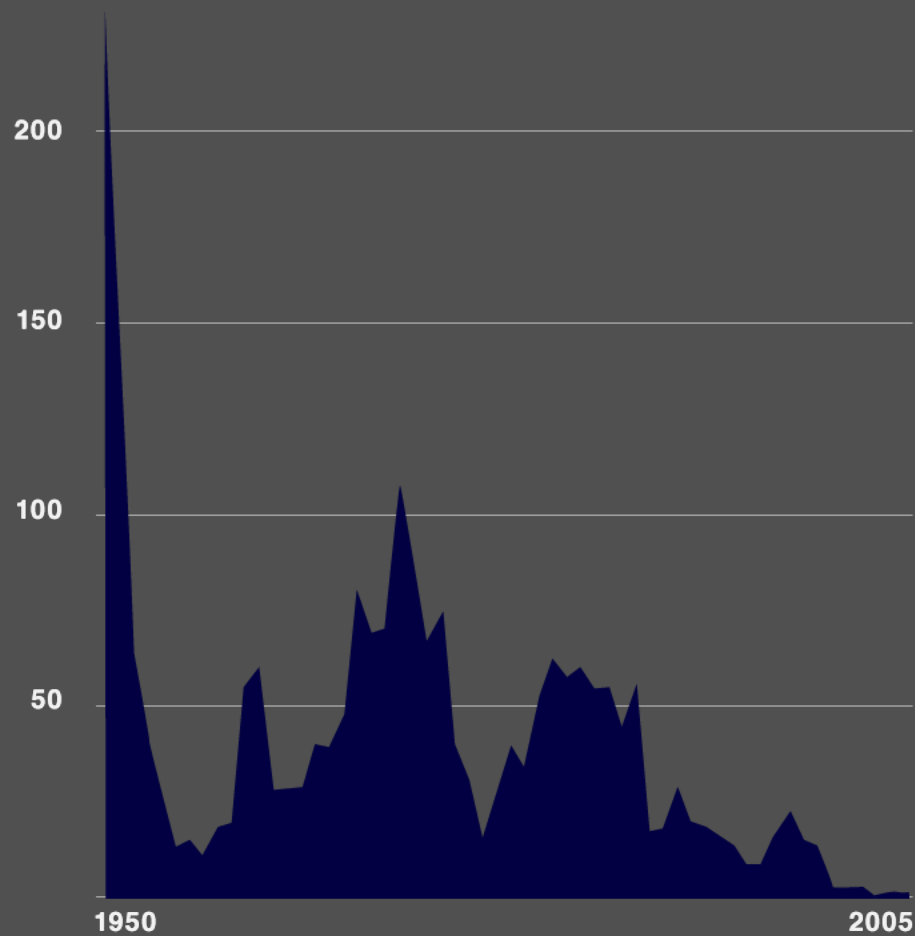
Are we safer?

Living with the current mix of constraints is dangerous for the United States.

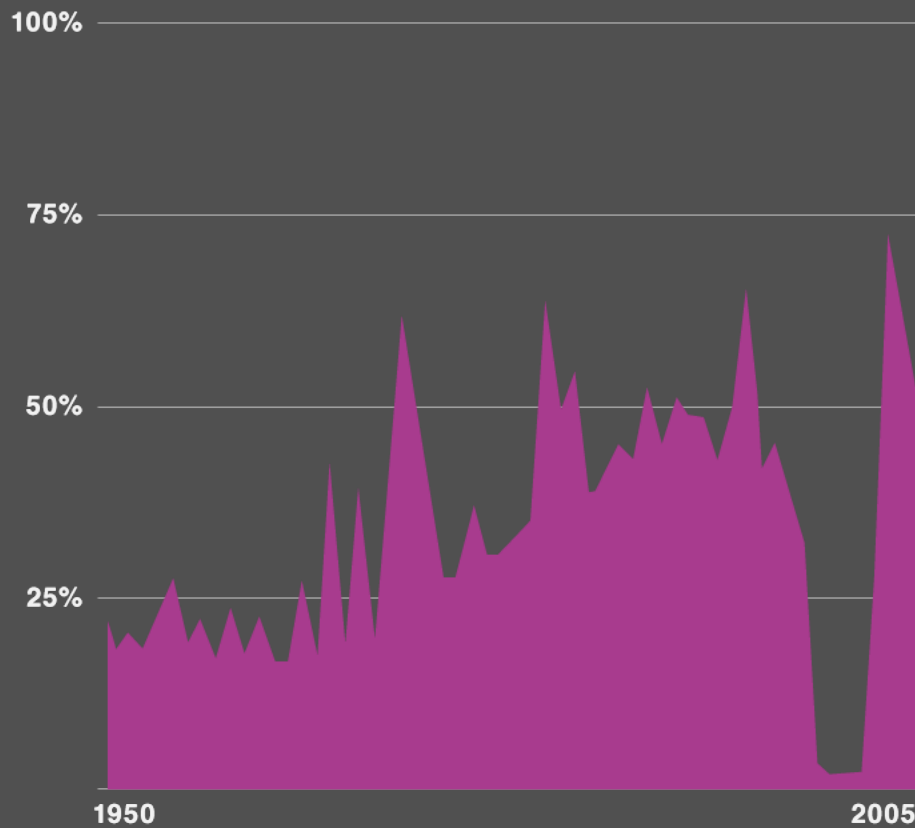
And it is irresponsible, given the importance of the U.S. financial system and the dollar to the world economy.

We should try to rebuild the arsenal of emergency authorities and invest more in learning how best to deploy those authorities in crises.

Wars vs Financial Crises



Battle Deaths per million of world population



Financial Crises, share of world GDP

We Can Do Better.