

FOOLPROOF

remarks by Greg Ip
Chief economics commentator
The Wall Street Journal

Why safety can be dangerous

- Stability and a sense of safety encourage us to take more risk
- Eliminating one type of risk often causes a different sort of risk to emerge elsewhere, hidden from view
- Individuals, in trying to protect themselves, often put all of society at greater danger

The progressive era

- The financial panic of 1907 finally created political support for a central bank
- Robert Latham Owen: “It is the duty of the United States to provide a means by which the periodic panics which shake the American Republic and do it enormous injury shall be stopped.”
- 1913, Woodrow Wilson signs the Federal Reserve Act

Forests, too ...

- Fires of 1910 burn 5,000 square miles of forest in western U.S., kill 85
- U.S. Forest Service chief Gifford Pinchot:
“Forest fires are wholly within the control of men... The first duty of the human race is to control the earth it lives upon.”
- USFS dedicated to fires suppression
- All fires to be controlled by 10 a.m. day after discovery

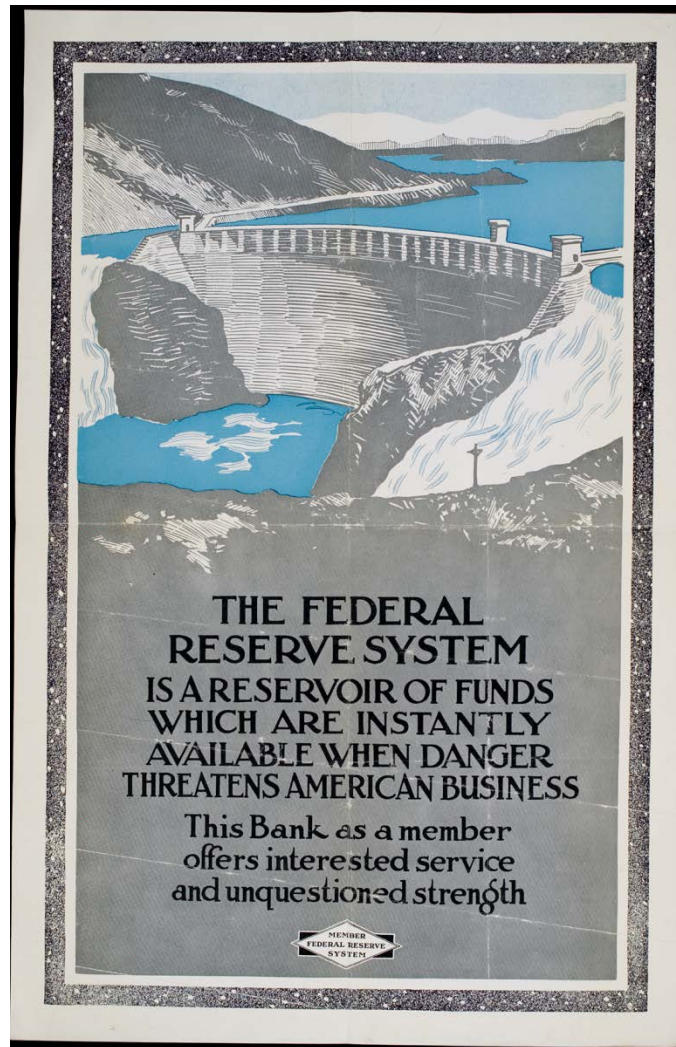


Image courtesy of Federal Reserve Bank of San Francisco

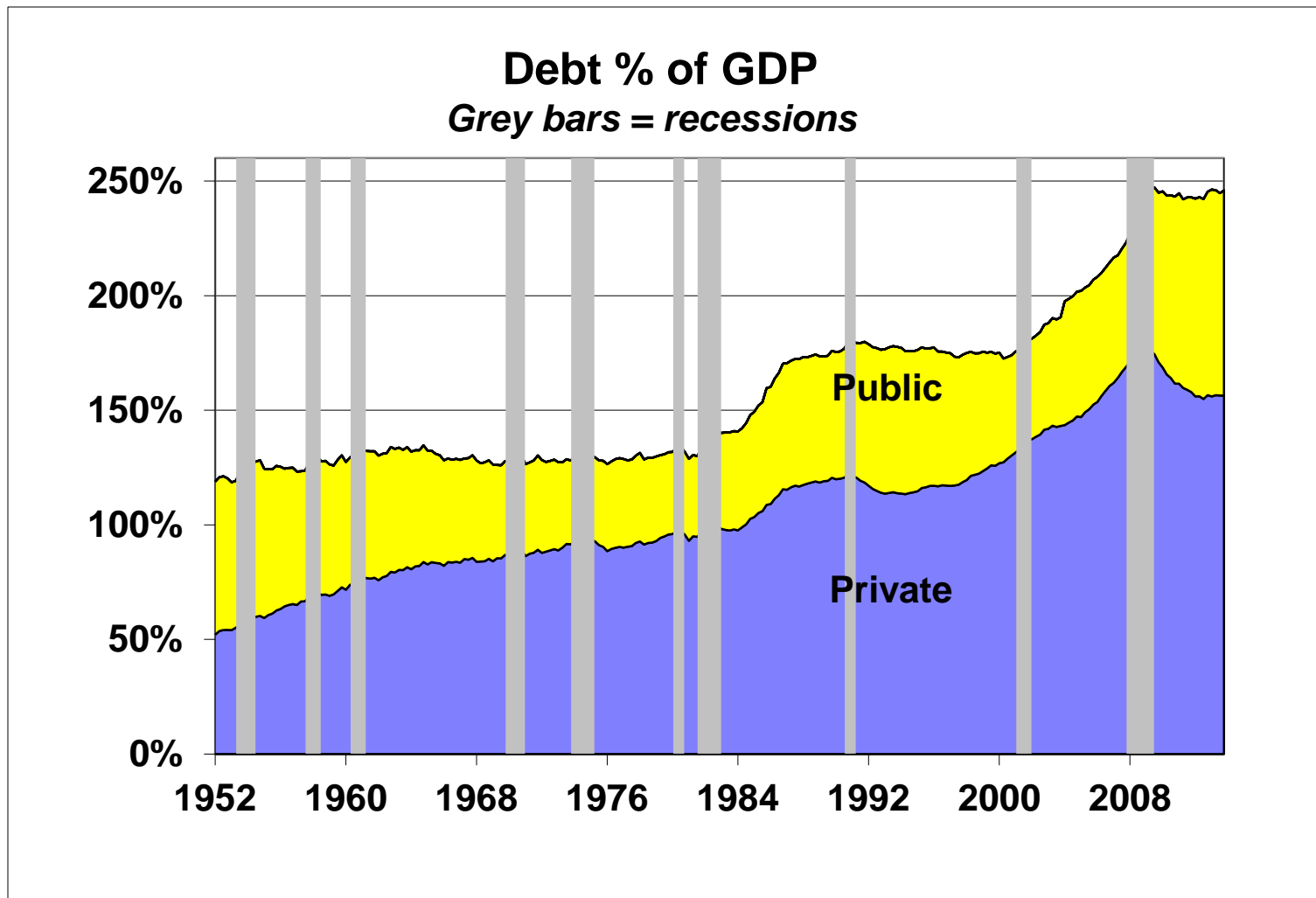
Was it successful?

- We still have financial crises like the 2007-09 crisis.
- We still have wildfires. In fact, they're getting bigger.
- Why? Because of the success of the Fed and the Forest Service

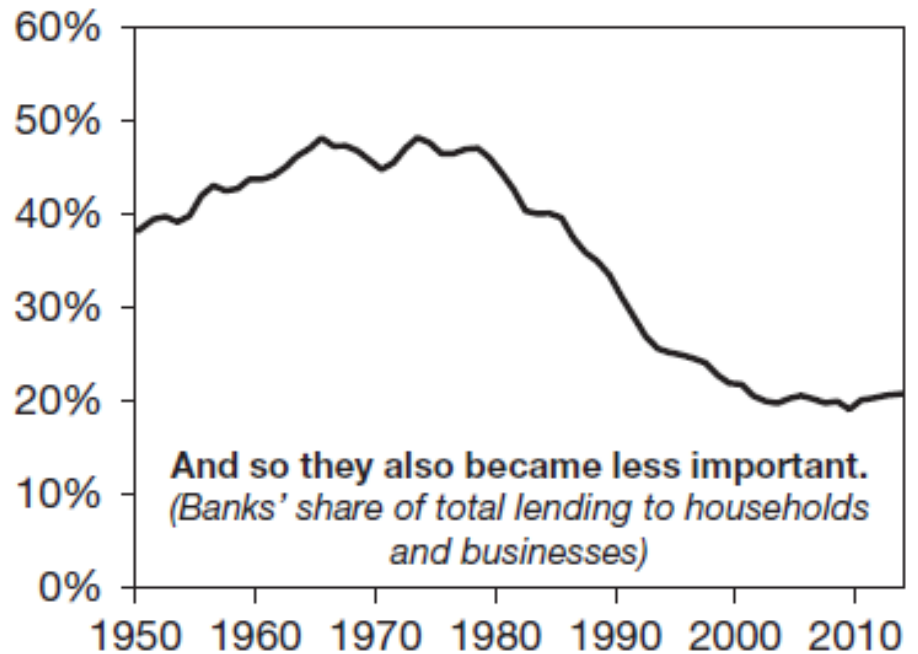
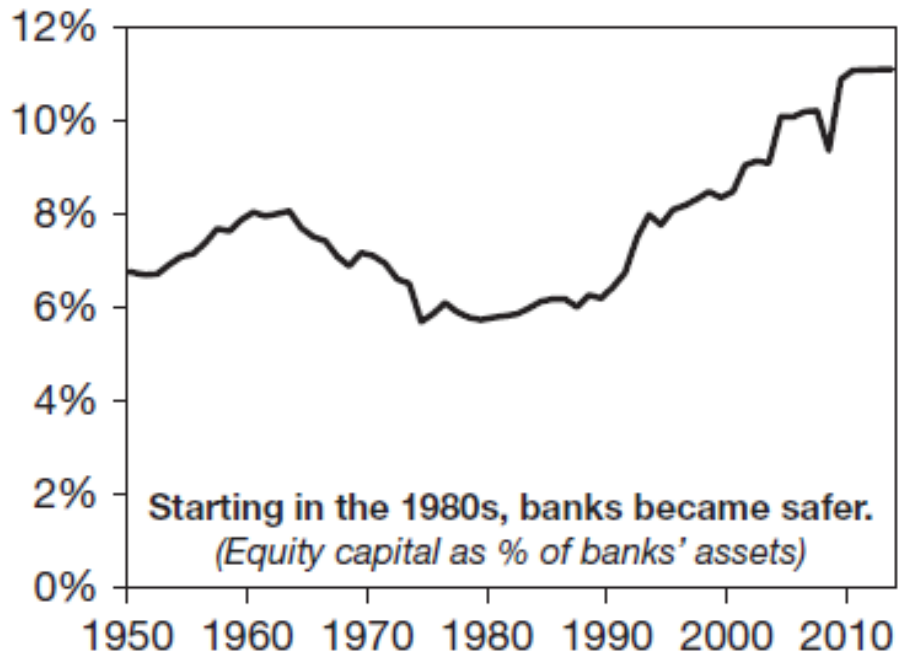
Two schools of thought

- Engineers: use knowledge, expertise to control the economy, environment, make it more stable, safer, more prosperous
- Ecologists: people and the environment adapt, so efforts to control them will always have unintended consequences that may be worse than the problem

The Great Moderation



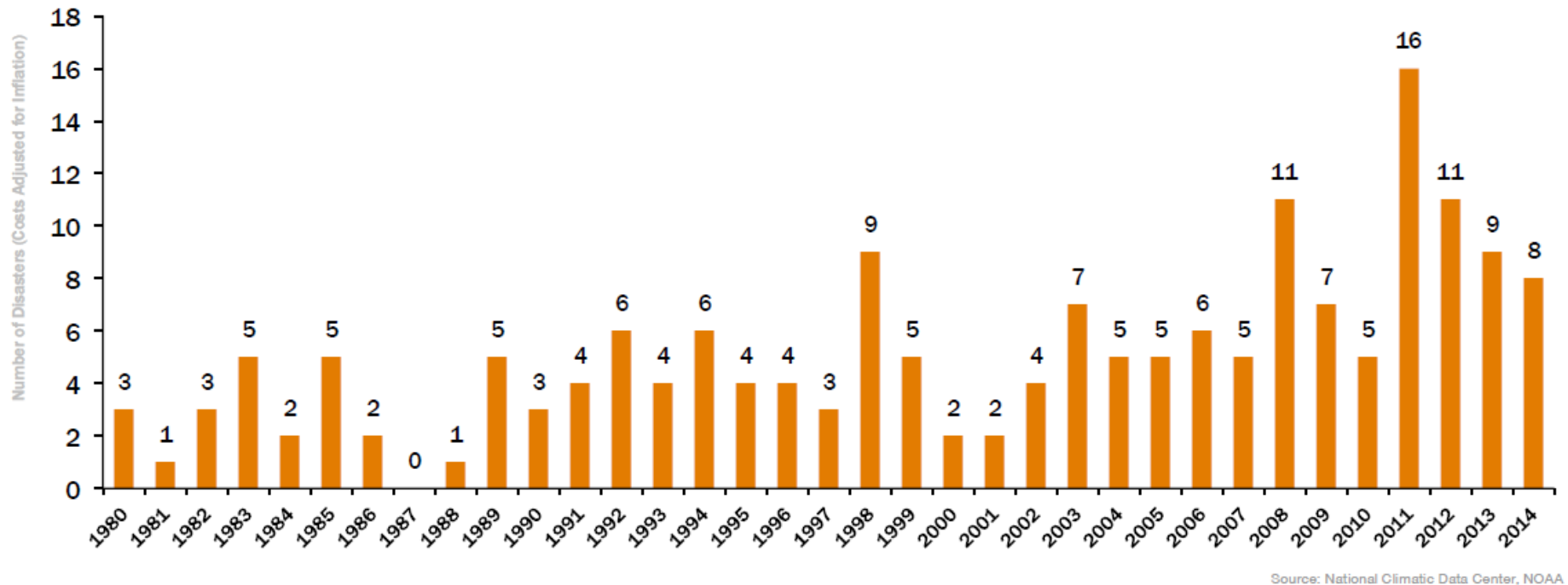
As banks became safer, risk went elsewhere



Source: Greg Ip based on Federal Reserve data

Why are storms getting costlier?

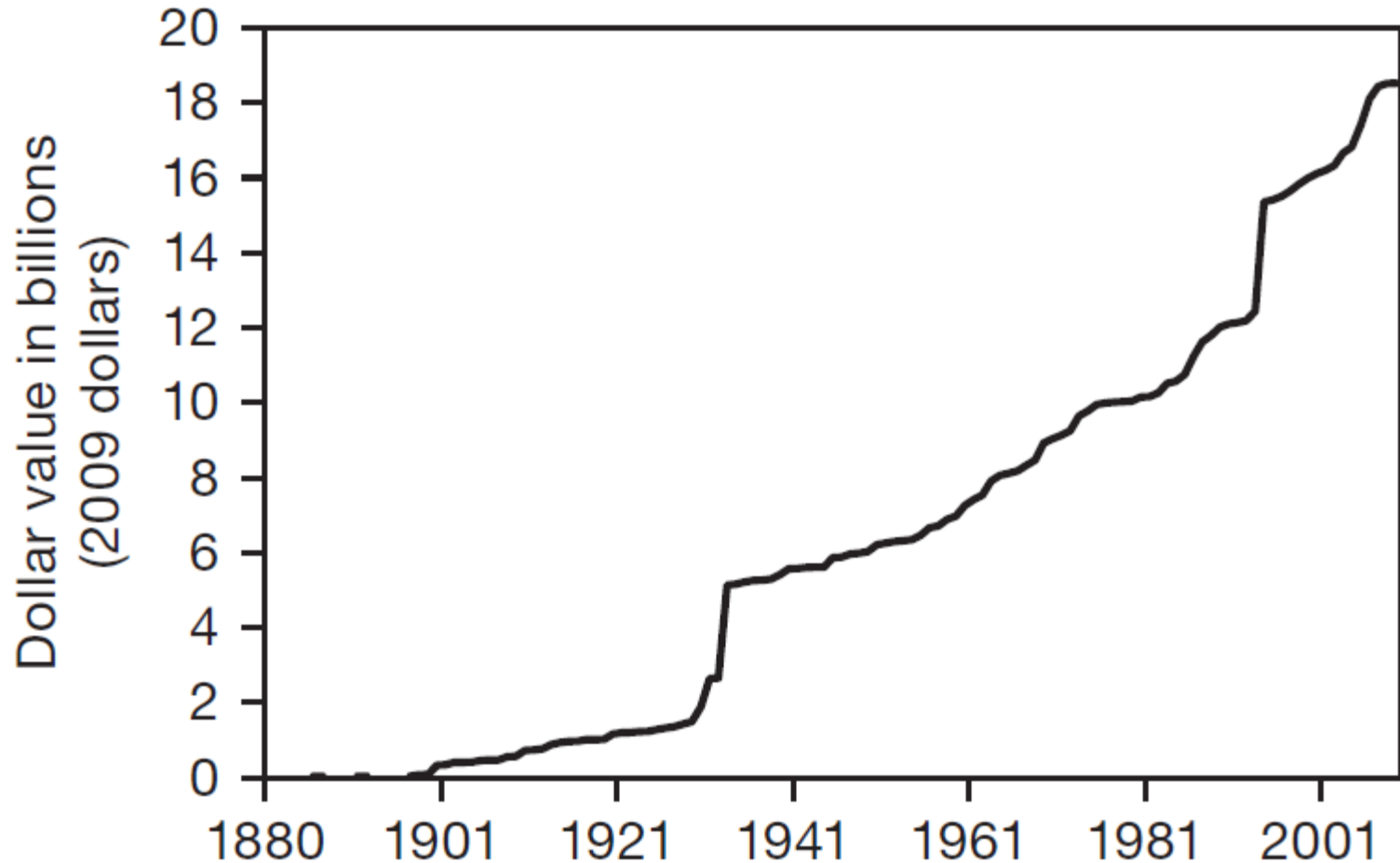
Billion dollar disasters, constant dollars



Source: Smartersafer.org

Because coastal cities are becoming more prosperous

Value of structures in NYC's 100-year flood zone



Source: Jeroen C. J. H. Aerts and W. J. Wouter Botzen

Superstorm Sandy: inevitable disaster

Manhattan in 1609 vs Sandy surge areas



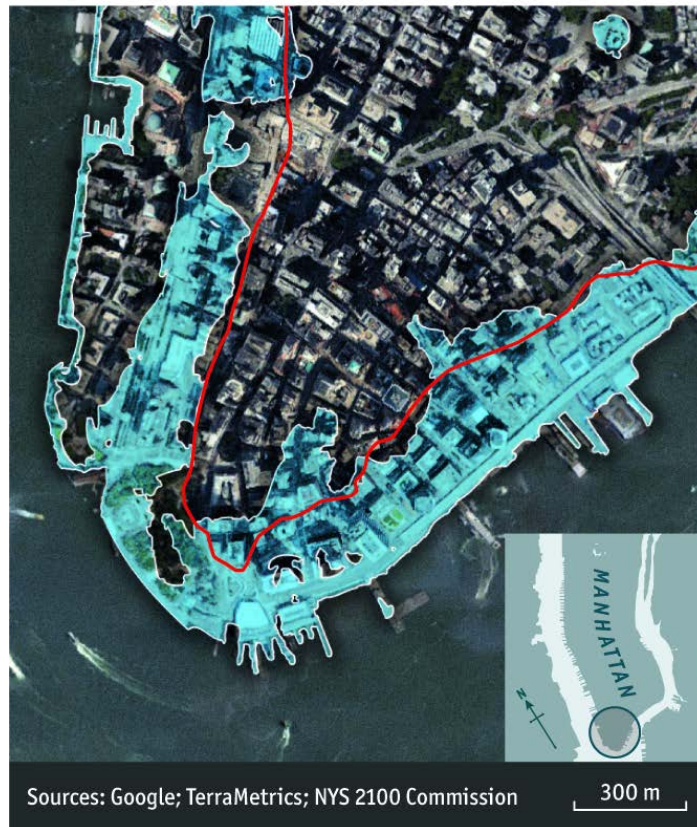
Vulnerable Manhattan



Hurricane Sandy storm-surge areas

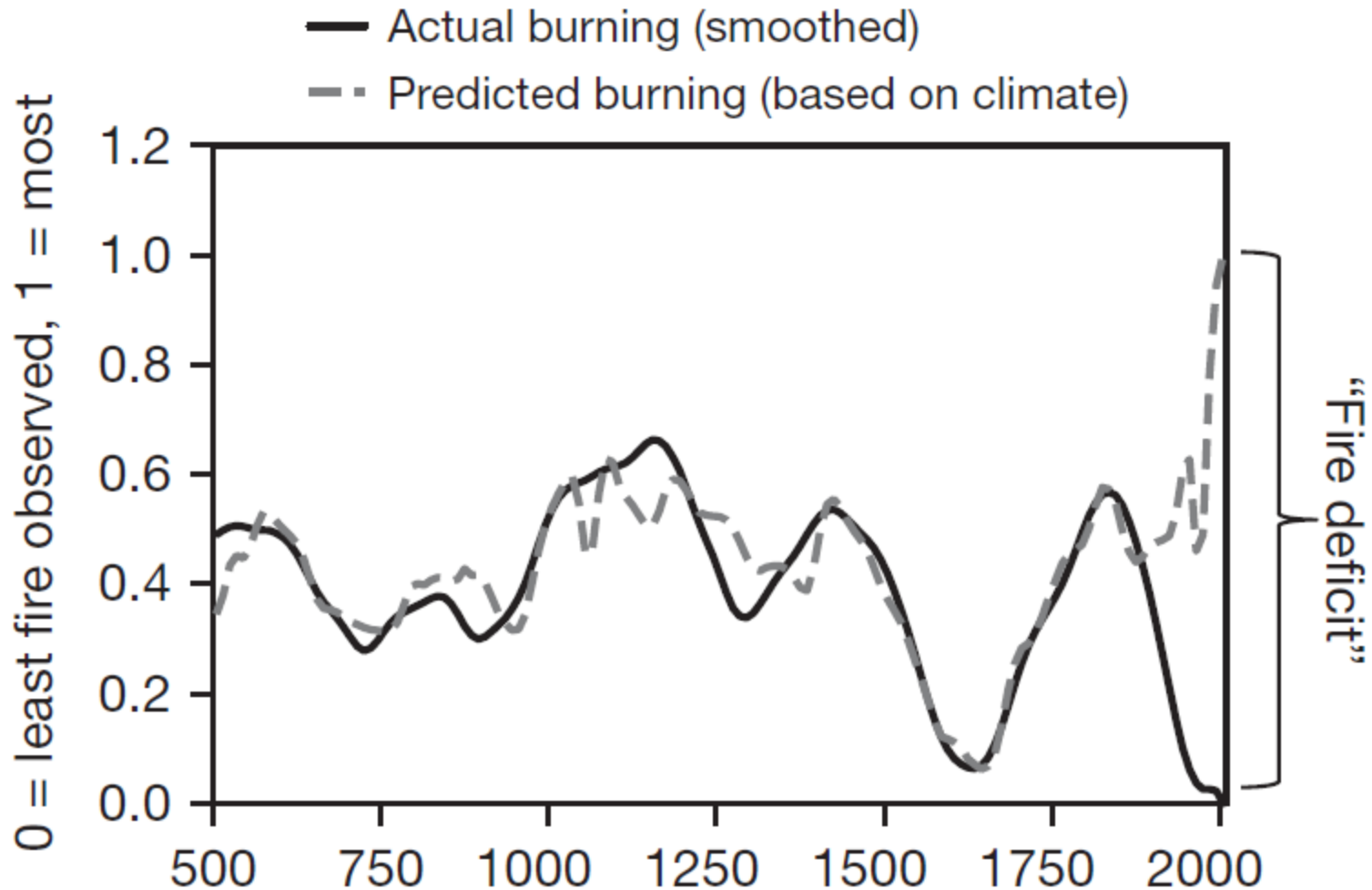


Outline of Manhattan Island as it was in 1609, before land reclamation



Source: The Economist

The legacy of fire suppression



Source: Jennifer Marlon et al.

The Peltzman Effect

- In 1975 Sam Peltzman argued that safety belts had resulted in fewer driver but more pedestrian deaths
- Subsequent research suggests safety belts actually do save lives
- But some devices e.g. antilock brakes do not
- And more generally, the Peltzman effect appears in many settings
- E.g. with football helmets, financial derivatives

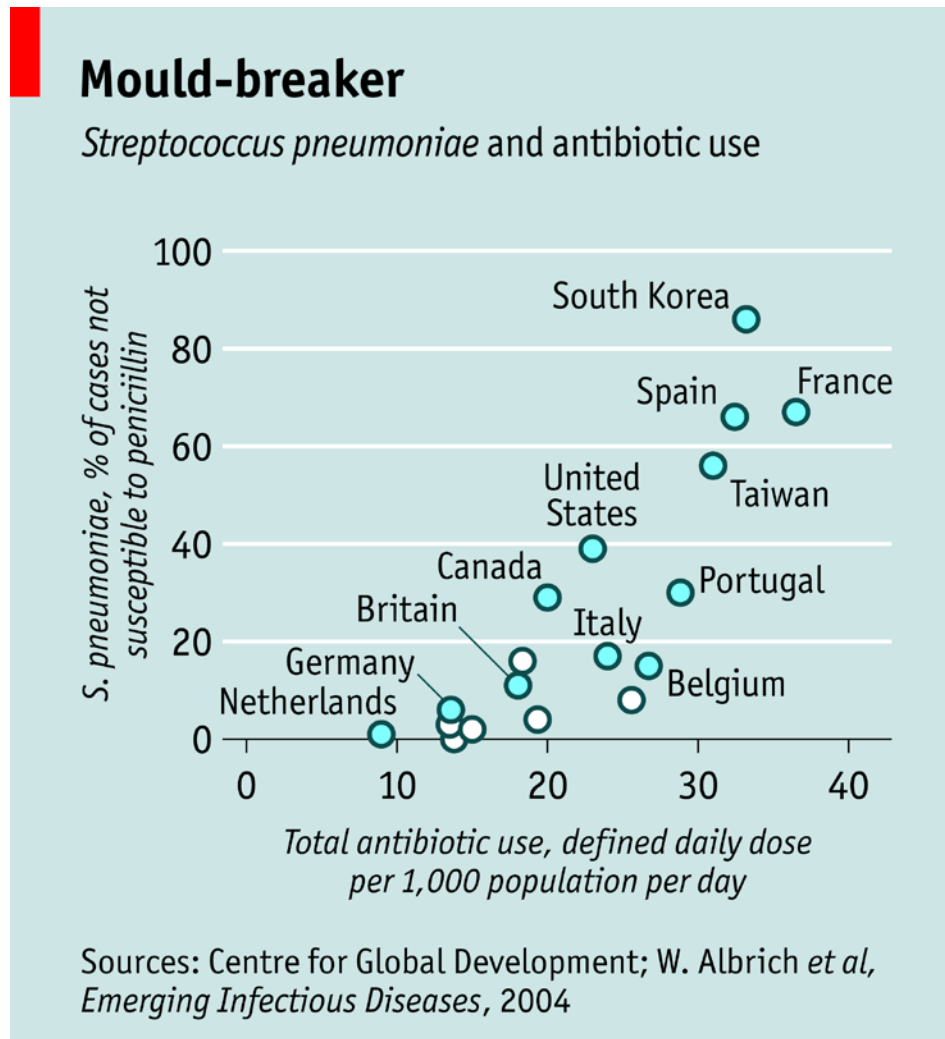
“Airbus said their aircraft could never stall.”
Wreckage of Air France Flight 447



The fallacy of composition

- When making yourself safer makes others less safe
- Example: antilock brakes encourage harder braking, raise risk of rearend collisions
- Financial derivatives reduce a bank's idiosyncratic risk but raise systemic risk
- Antibiotics reduce your risk of harmful infection but make society vulnerable to resistant bugs

Correlation between antibiotic use and resistance

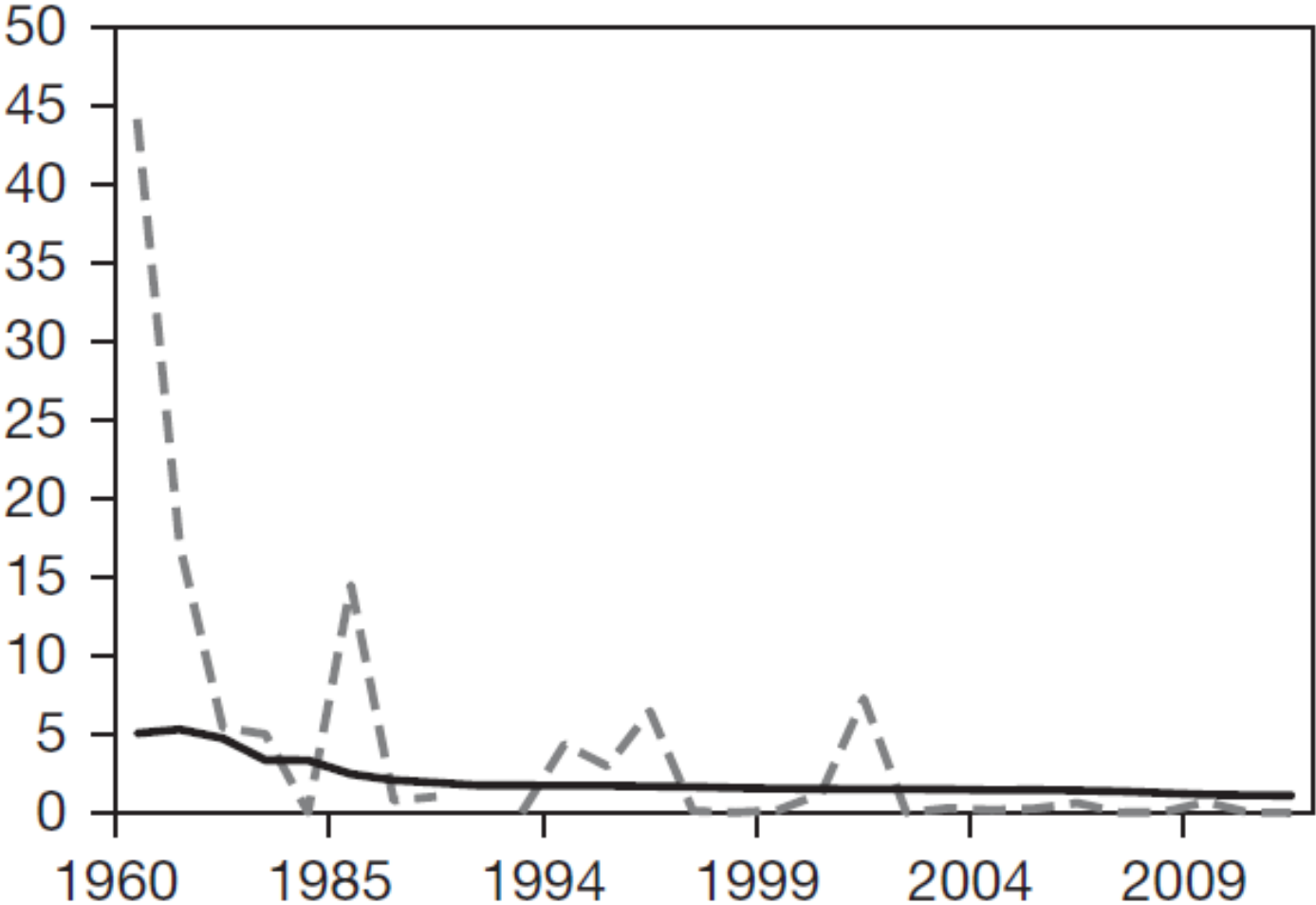


What should we do?

How Danger Makes Us Safe

Pilots, controllers “little bit scared”

--- Aviation fatalities per 100 million miles
— Auto fatalities per 100 million miles



Source: Greg Ip based on Department of Transportation figures

The importance of space

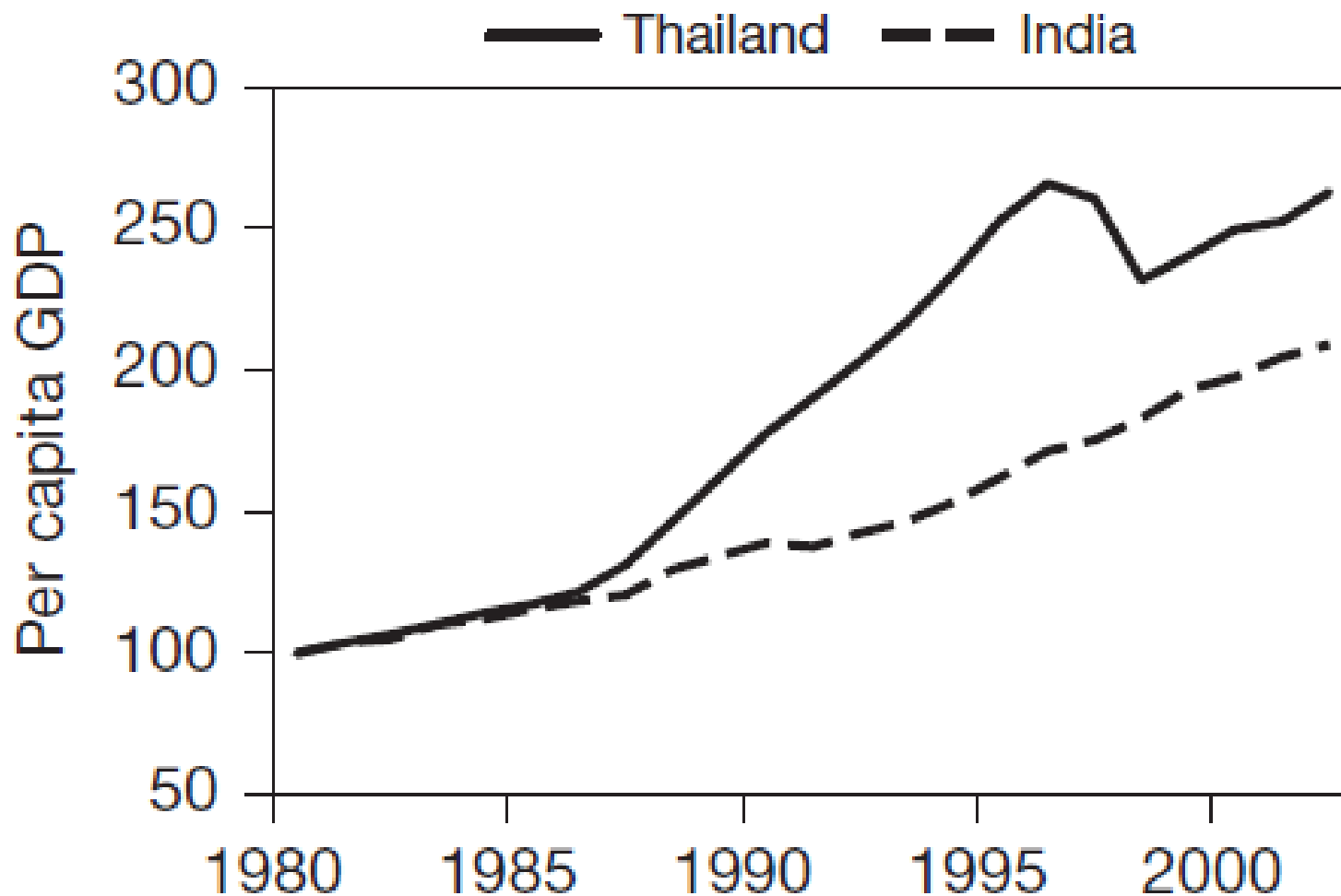
- Space between the water and our buildings is safer than a levee
- Space between homes and the forest is safer than fire suppression
- Space between a bank's debts and assets (i.e. capital) is better than hedging with derivatives
- Space is why flying is so safe "Big sky, little airplanes"

Do your homework

- Cost/benefit research tells us what helps and what doesn't
- Requiring airplane seats for “lap babies” would save 5 lives on airplanes but cause 82 highway deaths
- Motorcycle helmet laws save lives without causing offsetting behavior; bicycle helmet laws have limited benefit and seem to discourage cycling – with negative effects on health and road safety

We should not seek to eliminate
disaster and crises altogether

Crises, risk-taking go together



Source: Aaron Tornell et al.

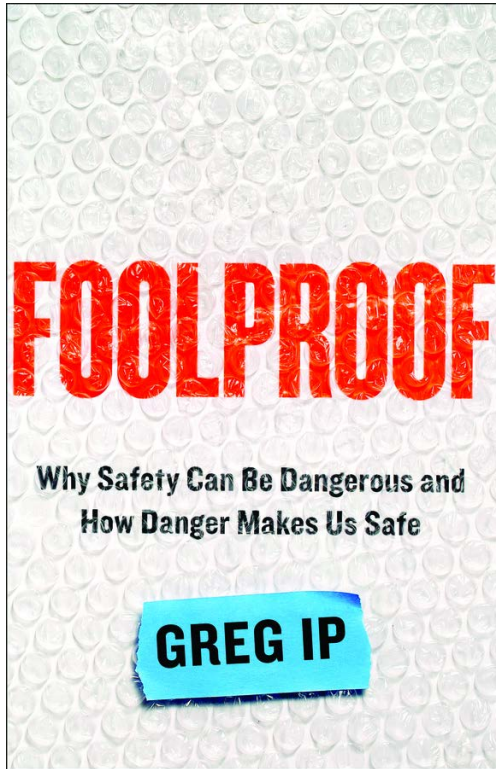
Nuclear risk: fear vs. reality

Energy Chain	Fatalities 1970-2008 OECD
Coal	2259
Oil	3495
Natural Gas	1258
LPG	1856
Hydro	14
Nuclear	0
Biofuel	0
Biogas	0
Geothermal	0

Source: Peter Burgherr et al.

Allow little disasters, so we can survive the big ones

- Allow cities to flood safely so that they can bounce back more quickly
- Leave some bacteria, viruses untreated so that antibiotics remain potent when needed
- Allow large banks to fail so that they are not treated as too big to fail and don't accumulate too much debt



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