MARKET EFFICIENCY

& MARKET FAILURE

JAY K. ROSENGARD

KENNEDY SCHOOL OF GOVERNMENT

HARVARD UNIVERSITY

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Market Efficiency

→ *See Stiglitz and Rosengard, Chapter 3*

- Theory/ideal/analytic tool
  - Help understand the role of the public sector
  - Identify market failures, evaluate policy alternatives
  - Like doctor making diagnosis to prescribe appropriate medicine
- Efficiency exists in relative > absolute terms
  - If all markets perfectly efficient, limited need for government intervention (or public finance course)
  - Key is direction of movement, becoming more or less efficient
- Market efficiency/welfare economics theorems
  - Pareto Efficient, Pareto Optimal, Pareto Improvement
  - Competitive economy, decentralized market, consumer sovereignty
  - Efficiency ≠ Equity; not explicit consideration
  - Market Equilibrium: S = D = P; MB = MC = P

Market Equilibrium
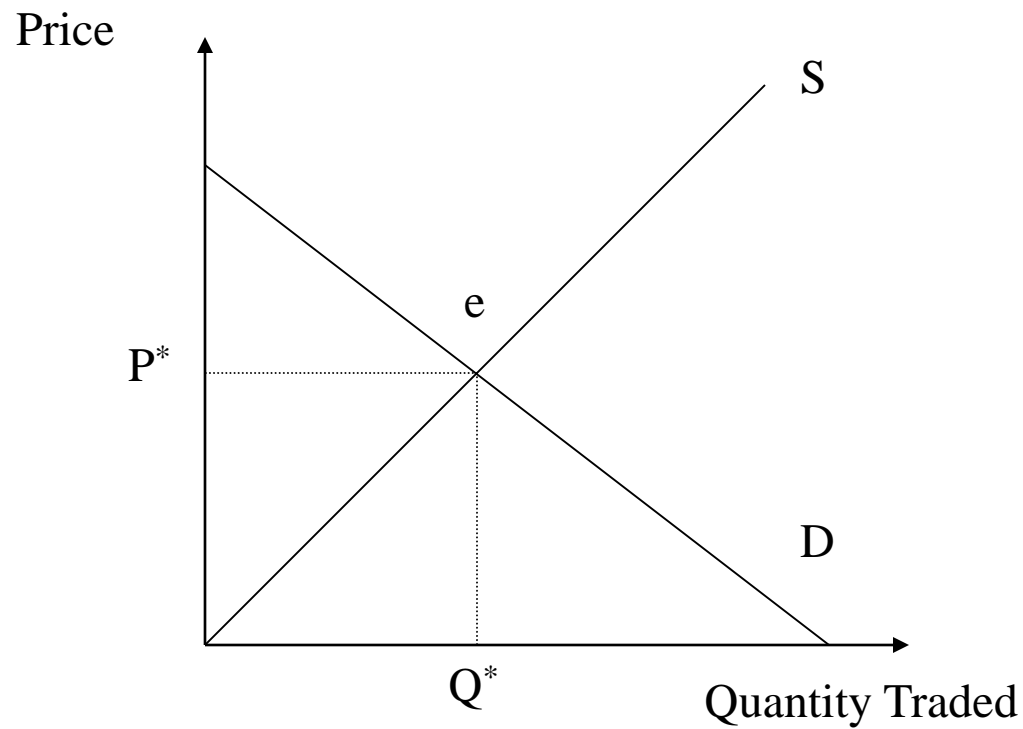
→ See Stiglitz and Rosengard, Figure 3.1

Market Failures:
Failure To Achieve An Efficient Allocation of Resources

→ *See Stiglitz and Rosengard, Chapter 4*

- Failure of competition: monopoly/oligopoly market power
  - Economies of scale (size), scope (complementarities), contiguity (service area)
  - Characteristics of user demand
  - Policy options: produce or regulate
  - Is preferential government treatment a market failure?
- Public goods: jointly consumed, non-exclusionary (next slide)
- Externalities: spillover effects on non-users
  - Impose costs without payment, benefits without compensation
  - Negative externalities overproduced, positive externalities underproduced
  - Policy options: tax/subsidize or regulate
- Incomplete markets: provision shortfalls
  - Failure to provide good/service even when cost < willingness to pay
  - Student loans and incomplete reform of incomplete markets
  - Policy options: produce or regulate or tax/subsidize
- Information failures: asymmetries of information
  - Savers and borrowers
  - Policy options: produce or regulate
- Macroeconomic disequilibrium: global economic crisis
  - Fiscal and monetary policy
  - Regulatory policy

PUBLIC GOODS

& PRIVATE GOODS

Pure Public Goods

- Non-Rival Consumption
  - Benefits entirely externalized (zero marginal cost of additional unit of consumption)
  - Capacity utilization assumption
- Non-Excludability
  - Impractical or inefficient to exclude
  - Reasonable cost and effort assumption
- No Price Mechanism
  - Charging → Under consumption
  - No Charge → Under supply
- Examples
  - National defense, aviation security
  - Lighthouse, street lamp

Pure Private Goods

- Rival in Consumption
  - Benefits entirely internalized
  - Capacity utilization assumption
- Excludability
  - Practical and efficient to exclude
  - Reasonable cost and effort assumption
- Price Mechanism for Allocation
  - Charging $\rightarrow$ S = D = P
  - User fees as public sector prices
- Examples
  - Pizza, beer
  - Health, education

Impure/Quasi-Public Goods

- Social goods or collective goods
- Some but not all properties of pure public goods (quasi public goods)
  - Non-rival but excludable (police and fire protection)
  - Rival but non-excludable (congested urban street)
- Property rights and market failures
  - Tragedy of the commons
  - Tragedy of the anticommons
- Publicly produced and/or provided private or quasi-public goods
  - Externalities
  - Distributive considerations
  - Merit goods
- Nature of good vs. producer/provider

Market Failures: Failure To Achieve A Desirable Allocation of Resources

- Income redistribution:

    Social equity *vs.* economic efficiency

    Social equity *and* economic efficiency

- Merit goods:

    Paternalism *vs.* consumer sovereignty
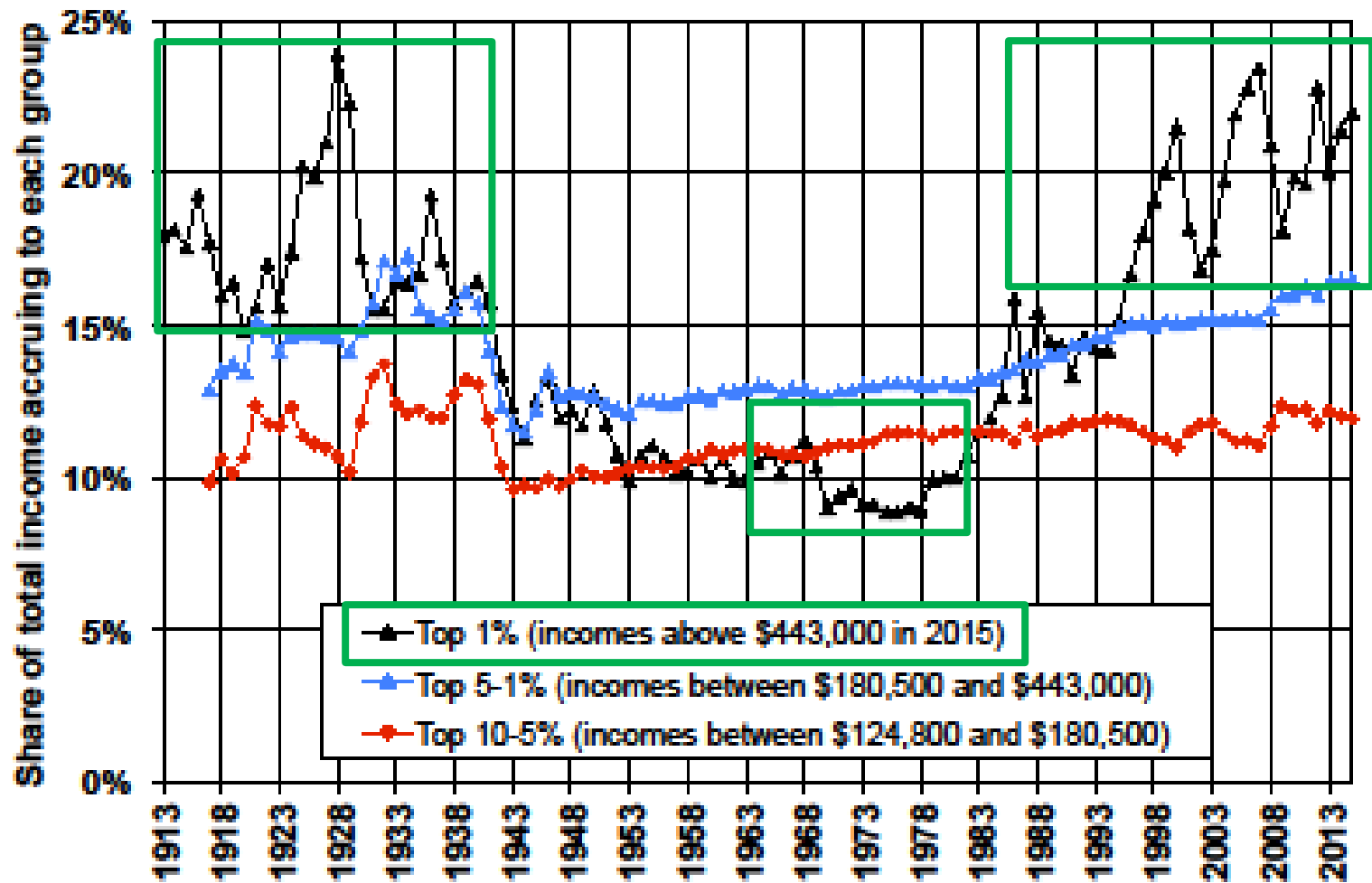
    Paternalism *and* social norms

FIGURE 2
Decomposing the Top Decile US Income Share into 3 Groups, 1913-2015

Source: Emmanuel Saez, *Striking it Richer: The Evolution of Top Incomes in the United States (Updated with 2015 preliminary estimates)*, June 30, 2016.

Table 1. Real Income Growth by Groups

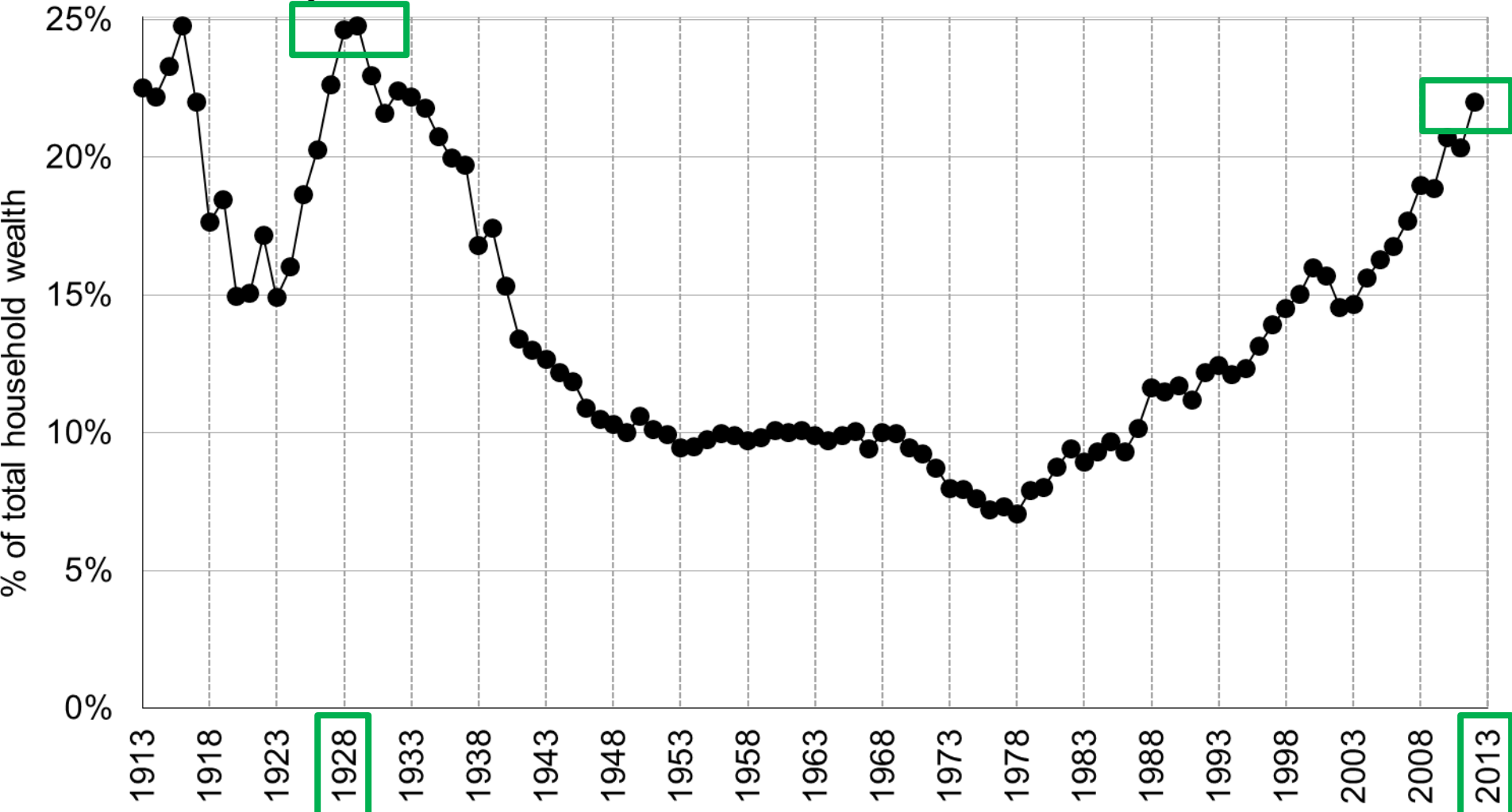|	Average Income Real Growth	Top 1% Incomes Real Growth	Bottom 99% Incomes Real Growth	Fraction of total growth (or loss) captured by top 1%
	(1)	(2)	(3)	(4)
Full period 1993-2013	15.1%	62.4%	7.3%	59%
Clinton Expansion 1993-2000	31.5%	98.7%	20.3%	45%
2001 Recession 2000-2002	-11.7%	-30.8%	-6.5%	57%
Bush Expansion 2002-2007	16.1%	61.8%	6.8%	65%
Great Recession 2007-2009	-17.4%	-36.3%	-11.6%	49%
Recovery 2009-2012	6.9%	34.7%	0.8%	91%
Top tax increase 2012-2013	-3.2%	-14.9%	0.2%	106%

Source: Emmanuel Saez, *Striking it Richer: The Evolution of Top Incomes in the United States (Updated with 2013 preliminary estimates)*, January 25, 2015.

Table 1: Thresholds and average wealth in top wealth groups, 2012

Wealth group	Number of families	Wealth threshold	Average wealth	Wealth share
A. Top Wealth Groups				
Full Population	160,700,000		$343,000	100%
Top 10%	16,070,000	$660,000	$2,560,000	77.2%
Top 1%	1,607,000	$3,960,000	$13,840,000	41.8%
Top 0.1%	160,700	$20,600,000	$72,800,000	22.0%
Top .01%	16,070	$111,000,000	$371,000,000	11.2%
B. Intermediate Wealth Groups				
Bottom 90%	144,600,000		$84,000	22.8%
Top 10-1%	14,463,000	$660,000	$1,310,000	35.4%
Top 1-0.1%	1,446,300	$3,960,000	$7,290,000	19.8%
Top 0.1-0.01%	144,600	$20,600,000	$39,700,000	10.8%
Top .01%	16,070	$111,000,000	$371,000,000	11.2%

Notes: This table reports statistics on the wealth distribution in the United States in 2012 obtained by capitalizing income tax returns. The unit is the family (either a single person aged 20 or above or a married couple, in both cases with children dependents if any). Fractiles are defined relative to the total number of families in the population. Source: Appendix Table B1.

Source: Emmanuel Saez and Gabriel Zucman, *Wealth Inequality in the United States Since 2013: Evidence From Capitalized Income Tax Data*, October 2014.

Top 0.1% wealth share in the United States, 1913-2012

This figure depicts the share of total household wealth held by the 0.1% richest families, as estimated by capitalizing income tax returns. In 2012, the top 0.1% includes about 160,000 families with net wealth above $20.6 million. Source: Appendix Table B1.

Source: Emmanuel Saez and Gabriel Zucman, *Wealth Inequality in the United States Since 2013: Evidence From Capitalized Income Tax Data*, October 2014.

Composition of the bottom 90% wealth share
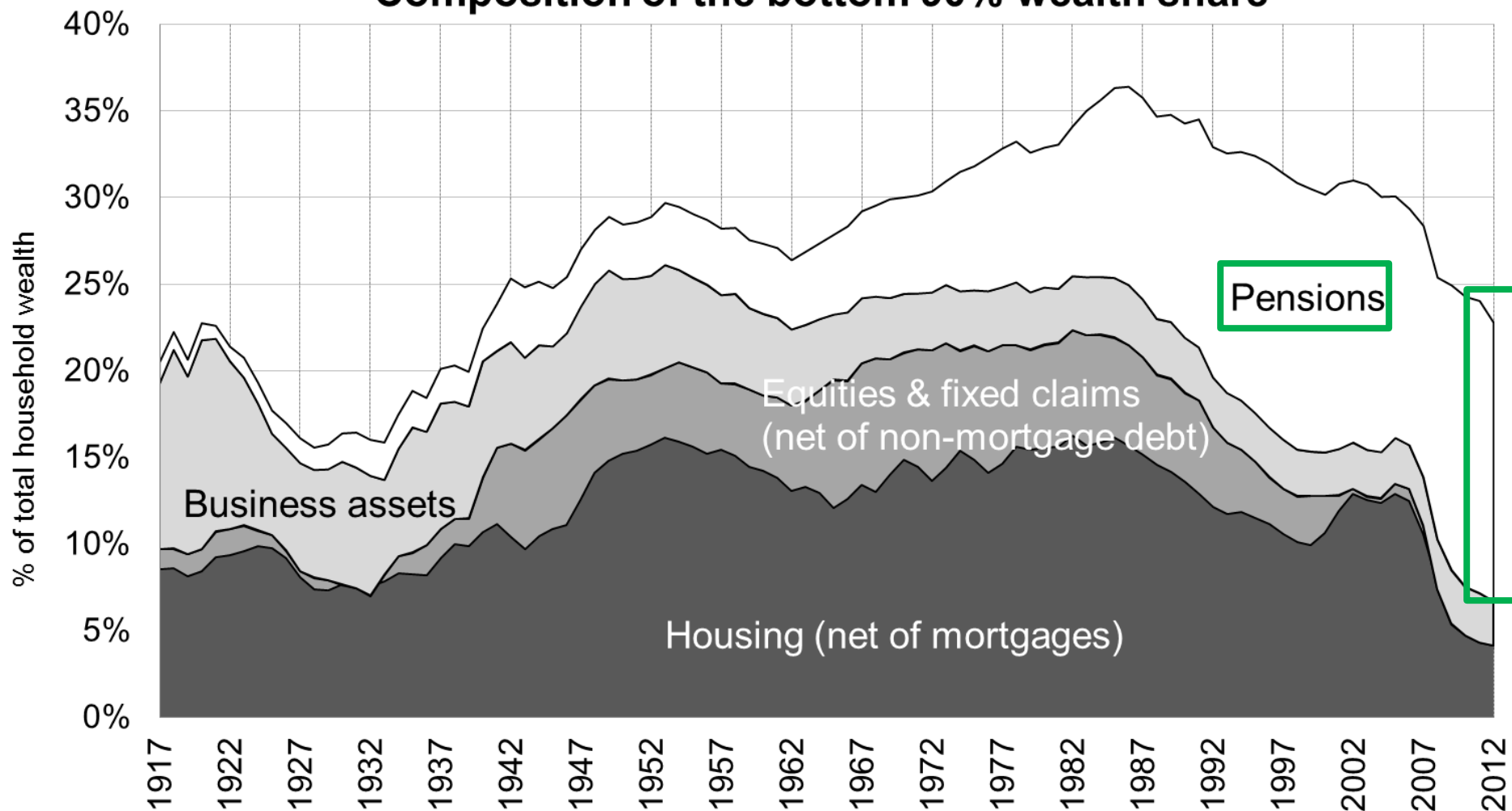
This figure depicts the share and composition of the wealth held by families in the bottom 90% of the wealth distribution, as estimated by capitalizing income tax returns. Source: Appendix Table B5.

Source: Emmanuel Saez and Gabriel Zucman, *Wealth Inequality in the United States Since 2013: Evidence From Capitalized Income Tax Data*, October 2014.

Market Failures: 9/11 Case Study

Optimal Provision of Aviation Security

- Private good or public good?

  → Conflicting objectives, insufficient financial incentives

- Negative externalities?

  → Belief this was a remote and insurable risk, underestimation of external costs

- Information failures?

  → Local vs. international threat, late/inadequate responses