Introduction

(Chapter 1, Gruber textbook)

131 Undergraduate Public Economics
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PUBLIC ECONOMICS DEFINITION

Public Economics (or public finance) = Study of the Role of the Government in the Economy

Government is instrumental in most aspects of economic life:

1) Government in charge of huge **regulatory** structure

2) **Taxes:** governments in advanced economies collect 35-50% of National Income in taxes

3) **Expenditures:** tax revenue funds **traditional public goods** (infrastructure, public order and safety, defense) and **welfare state** (Education, Retirement benefits, Health care, Income Support)

4) Macro-economic **stabilization** through central bank (interest rate, inflation control), fiscal stimulus, bailout policies

Four questions of public finance

1) When should the government intervene in the economy?

2) How might the government intervene?

3) What is the effect of those interventions on economic outcomes?

4) Why do governments choose to intervene in the way that they do?

When should the government intervene in the economy?

1) Market Failures: Market economy sometimes fails to deliver an outcome that is efficient $\Rightarrow$ Government intervention may improve the situation

2) Redistribution: Market economy generates substantial inequality in economic resources across individuals $\Rightarrow$ People willing to pool their resources (through government taxes and transfers) to help reduce inequality

First part of the class focuses on Redistribution

Second part of the class focuses on Market Failures

Main Market Failures

1) Externalities: (example: greenhouse carbon emissions) $\Rightarrow$ require govt interventions (Pigouvian taxes/subsidies, public good provision)

2) Imperfect competition: (example: monopoly) $\Rightarrow$ requires regulation (typically studied in Industrial Organization)

3) Imperfect or Asymmetric Information: (example: adverse selection in health insurance may require mandatory insurance)

4) Individual failures: People are not always rational. This is analyzed in behavioral economics, field in huge expansion (example: myopic people may not save enough for retirement)

Inequality and Redistribution

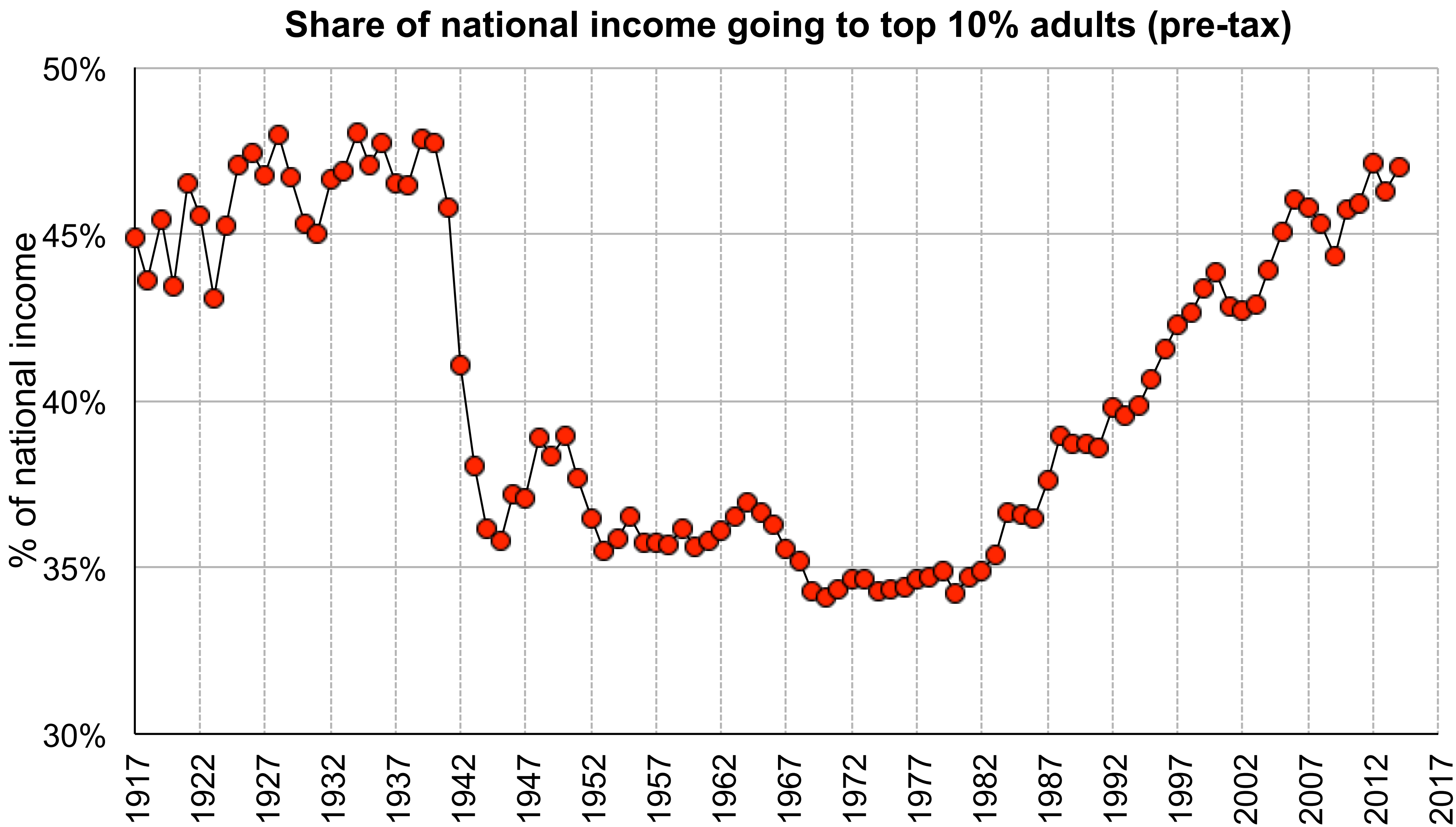
Even if market outcome is efficient, society might not be happy with the market outcome because market equilibrium might generate very high economic disparity across individuals

Governments use taxes and transfers to redistribute from rich to poor and reduce inequality

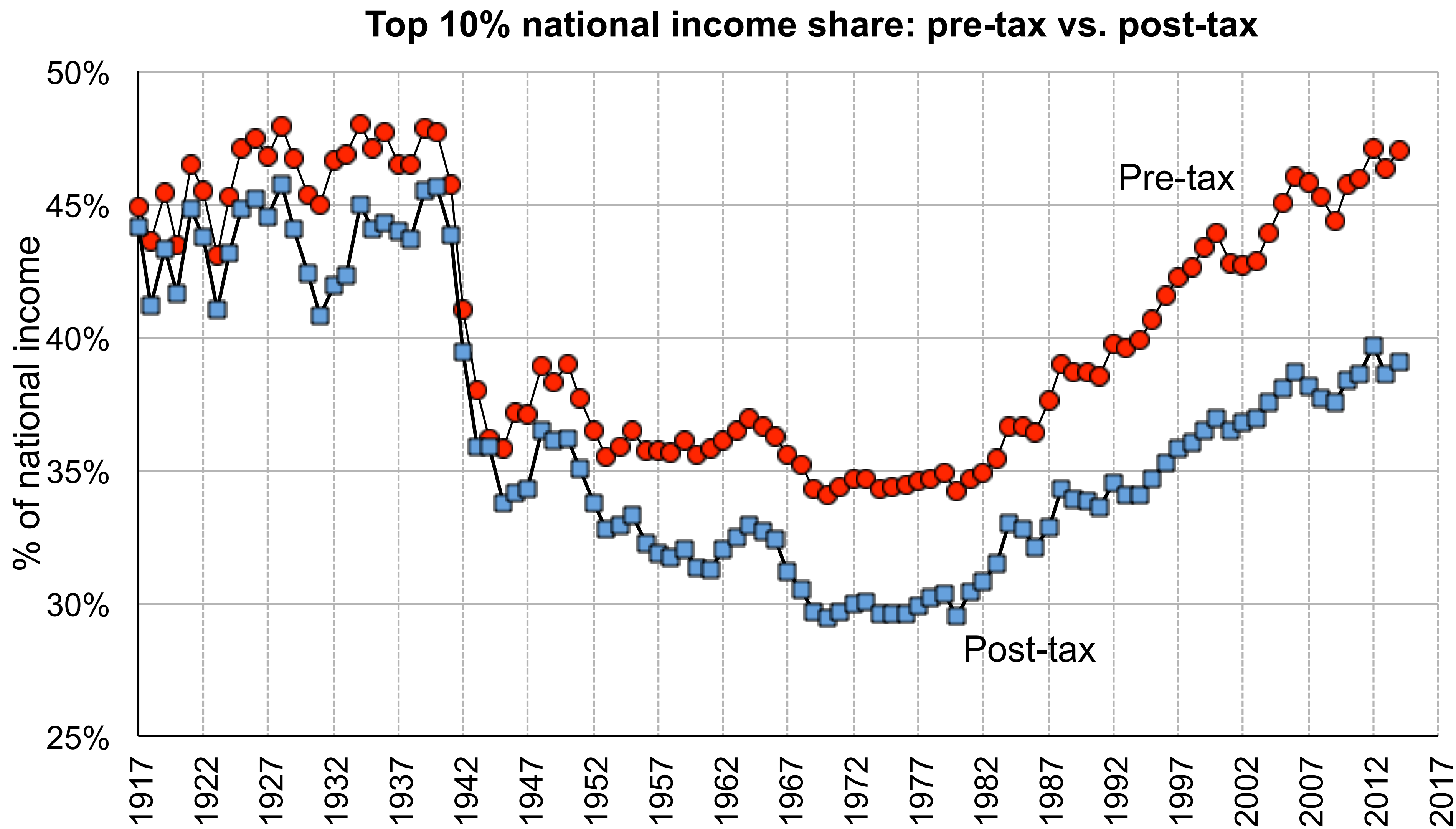
Redistribution through taxes and transfers might reduce incentives to work (**efficiency costs**)

$\Rightarrow$ Redistribution creates an **equity-efficiency trade-off**

Income inequality has soared in the United States in recent decades, and has moved to the forefront in the public debate (Piketty's 2014 book success, stats from Piketty-Saez-Zucman '16)



Source: Appendix Tables II-B1 and II-C1



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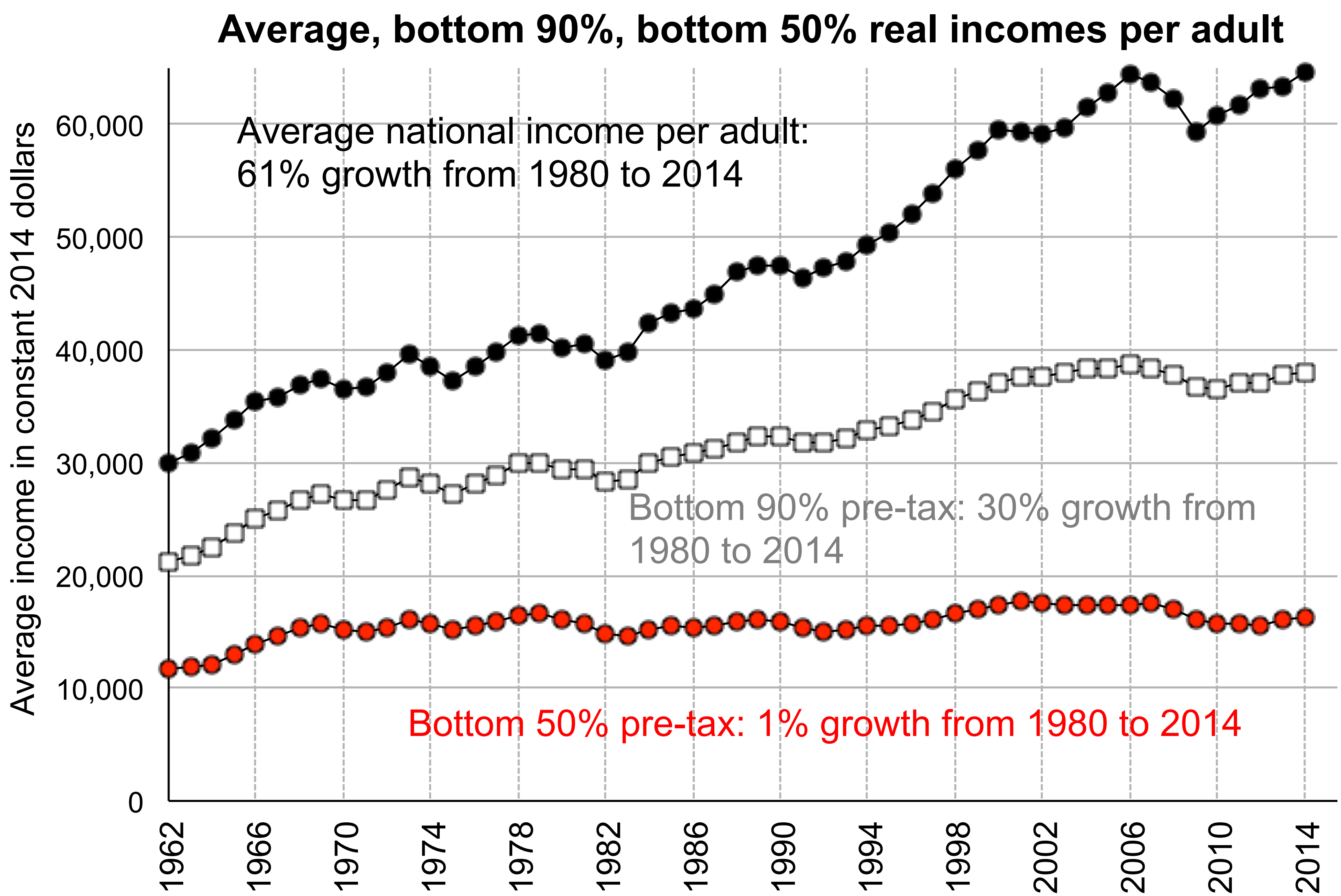

Average, bottom 90%, bottom 50% real incomes per adult
Average national income per adult:
61% growth from 1980 to 2014
Bottom 90% pre-tax: 30% growth from
1980 to 2014
Bottom 50% pre-tax: 1% growth from 1980 to 2014
Average income in constant 2014 dollars
0
10,000
20,000
30,000
40,000
50,000
60,000
1962
1966
1970
1974
1978
1982
1986
1990
1994
1998
2002
2006
2010
2014

How Might the Government Intervene?

1) Tax or Subsidize Private Sale or Purchase: Tax goods that are overproduced (e.g. carbon tax) and subsidized goods underproduced (e.g., flu shots subsidies)

2) Restrict or Mandate Private Sale or Purchase: Restrict the private sale or purchase of overproduced goods (e.g. fuel efficiency requirements), or mandate the private purchase of underproduced goods (e.g., auto insurance)

3) Public Provision: The government can provide the good directly, in order to potentially attain the level of consumption that maximizes social welfare (example is National Defense)

4) Public Financing of Private Provision: Government pays for the good but private sector supplies it (e.g., privately provided health insurance paid for by US government in Medicare-Medicaid)

What Are the Effects of Alternative Interventions?

1) Direct Effects: The effects of government interventions that would be predicted if individuals did not change their behavior in response to the interventions.

Direct effects are relatively easy to compute

2) Indirect Effects: The effects of government interventions that arise only because individuals change their behavior in response to the interventions (sometimes called **unintended effects**)

Empirical public economics analysis tries to estimate indirect effects to inform the policy debate

Example: increasing top income tax rates mechanically raises tax revenue but top earners might work less and earn less, reducing tax revenue relative to mechanical calculation

Why Do Governments Do What They Do?

Political economy: The theory of how the political process produces decisions that affect individuals and the economy

Example: Understanding how the level of taxes and spending is set through voting and voters' preferences

Public choice is a sub-field of political economy from a Libertarian perspective that focuses on **government failures**

government failures = situations where the government does not act in the benefit of society

Normative vs. Positive Public Economics

Normative Public Economics: Analysis of How Things Should be (e.g., should the government intervene in health insurance market? how high should taxes be?, etc.)

Positive Public Economics: Analysis of How Things Really Are (e.g., Does govt provided health care crowd out private health care insurance? Do higher taxes reduce labor supply?)

Positive Public Economics is a required 1st step before we can complete Normative Public Economics

Positive analysis is primarily empirical and Normative analysis is primarily theoretical

Paternalism vs. Individual Failures

In many situations, individuals may not or do not seem to act in their best interests [e.g., many individuals are not able to save for retirement]

Two Polar Views on such situations:

1) **Paternalism [Libertarian View]** Individual failures do not exist and government wants to impose its own preferences against individuals' will

2) **Individual Failures [Behavioral Economics View]** Individual Failures exist: Self-control problems, Cognitive Limitations

Distinguishing the 2 views: Under Paternalism, individuals are opposed to government interventions. If individuals understand they have failures, they will support govt interventions.

Key Facts on Taxes and Spending

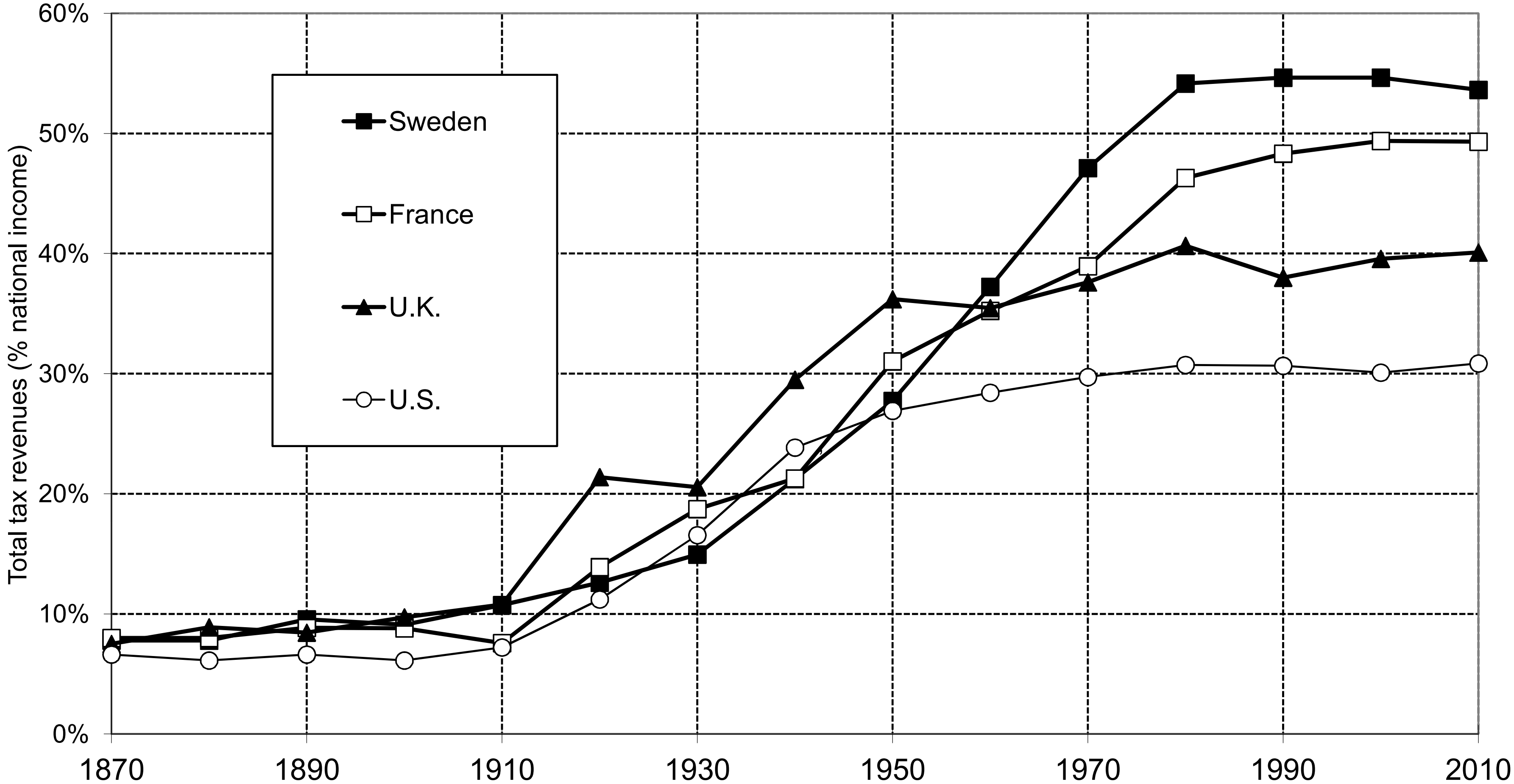
1) Government Growth: Size of government relative to National Income grows dramatically over the process of development from less than 10% in less developed economies to 30-50% in most advanced economies

2) Government Size Stable in richest countries after 1980

3) Government Growth is due to the expansion of the **welfare state:** (a) public education, (b) public retirement benefits, (c) public health insurance, (d) income support programs

4) Govt spending $>$ Taxes: Most rich countries run deficits and have significant public debt (relative to GDP), particularly after Great Recession of 2008

Figure 13.1. Tax revenues in rich countries, 1870-2010

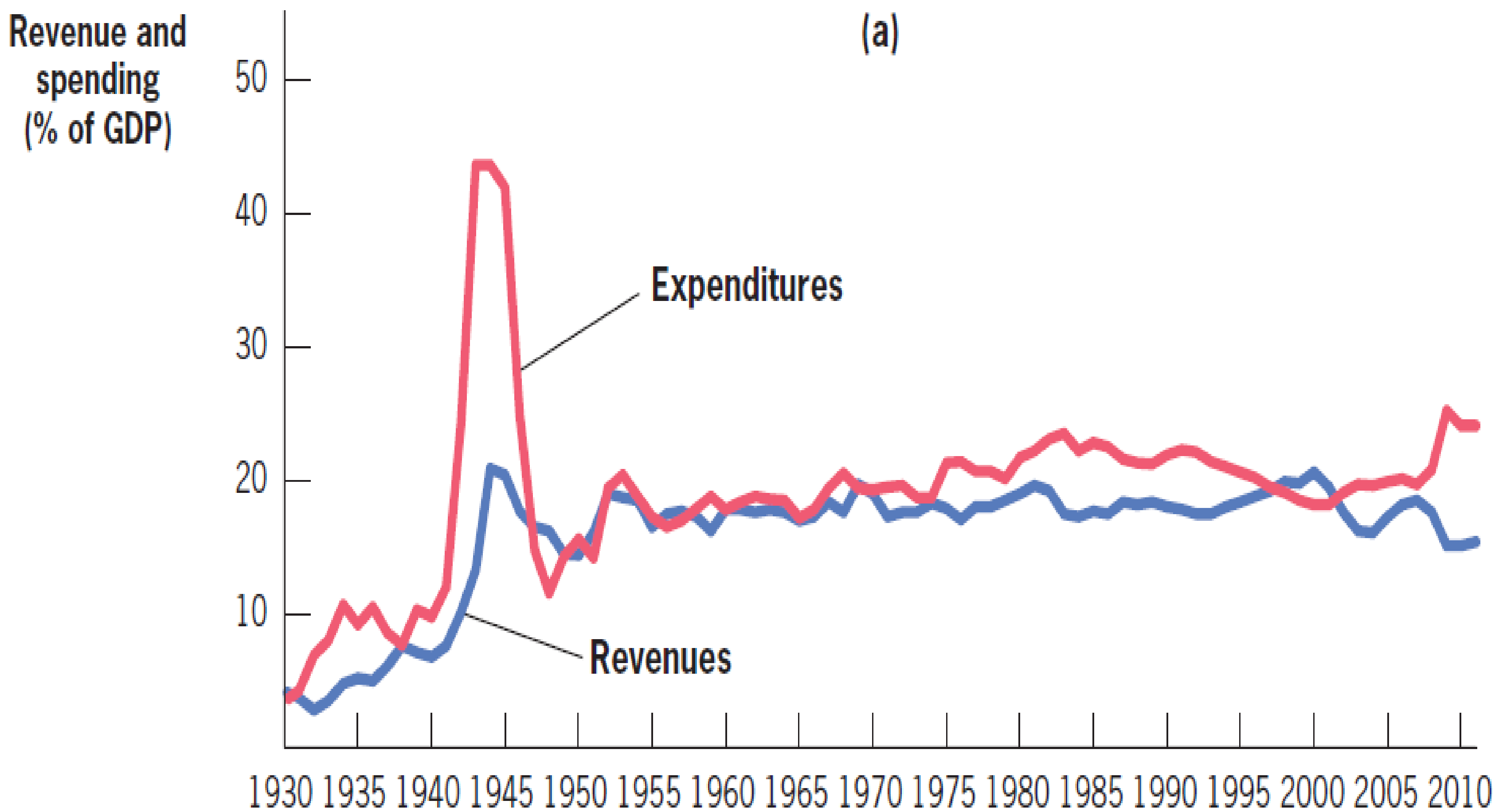


Total tax revenues were less than 10% of national income in rich countries until 1900-1910; they represent between 30% and 55% of national income in 2000-2010. Sources and series: see piketty.pse.ens.fr/capital21c.

Source: Piketty (2014)

1.2

Federal Revenues and Expenditures, 1930−2011



DIFFERENT LEVELS OF GOVERNMENTS

US Federal govt raises about 20% of National Income in taxes

State+Local govts raise about 10% of Nat. Income in taxes

Decentralized states = states where a larger fraction of taxes/spending take place at local level

Decentralized states give additional power to individuals who can also vote with their feet

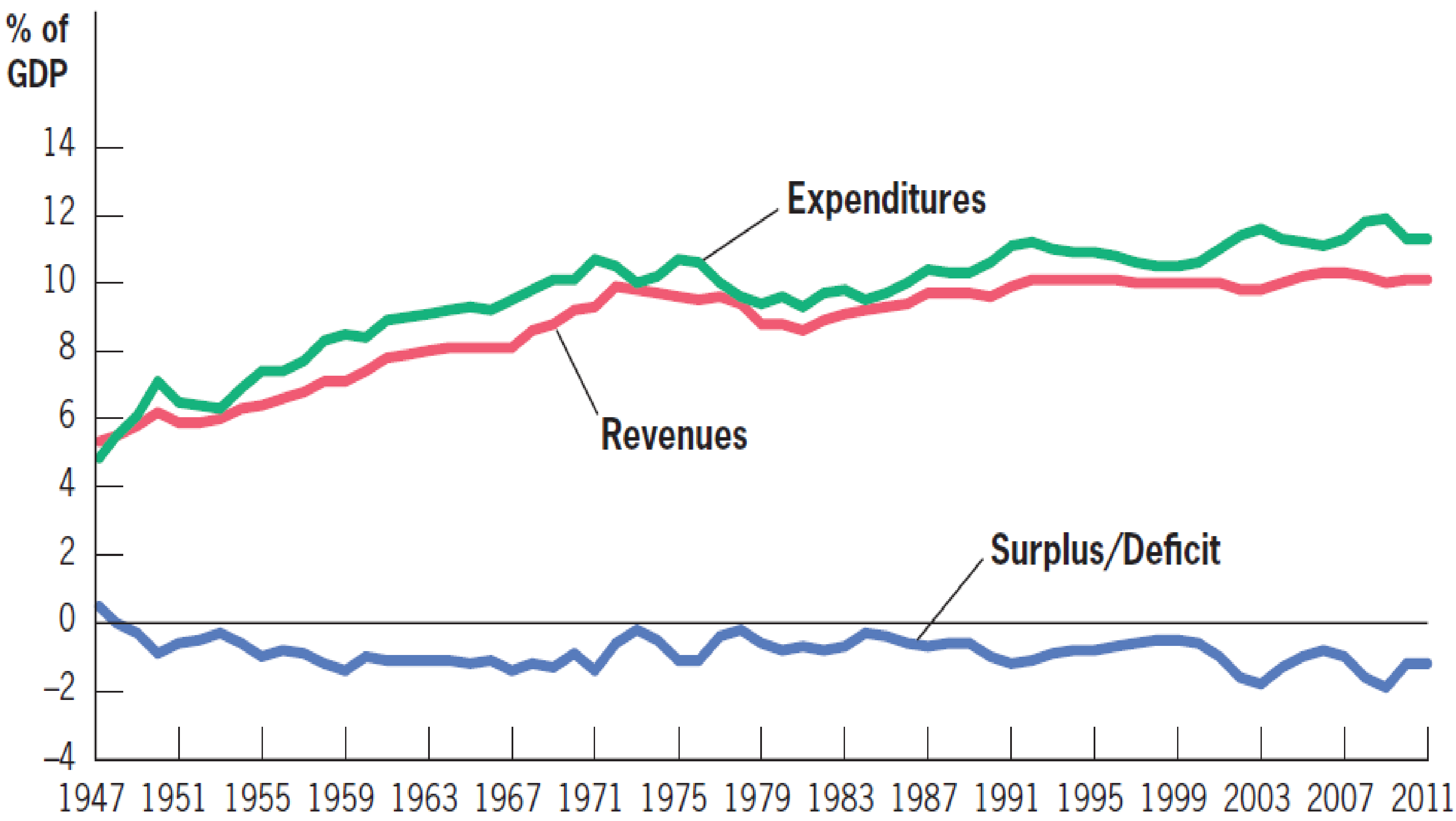
Creates competition between local govts: If local govt is inefficient (high taxes and wasteful spending), residents can leave, putting the local govt out of business

Redistribution through taxes and transfers harder to achieve at local level (rich can leave if local taxes are too high)

$\Rightarrow$ Conservatives/libertarians tend to prefer decentralized states

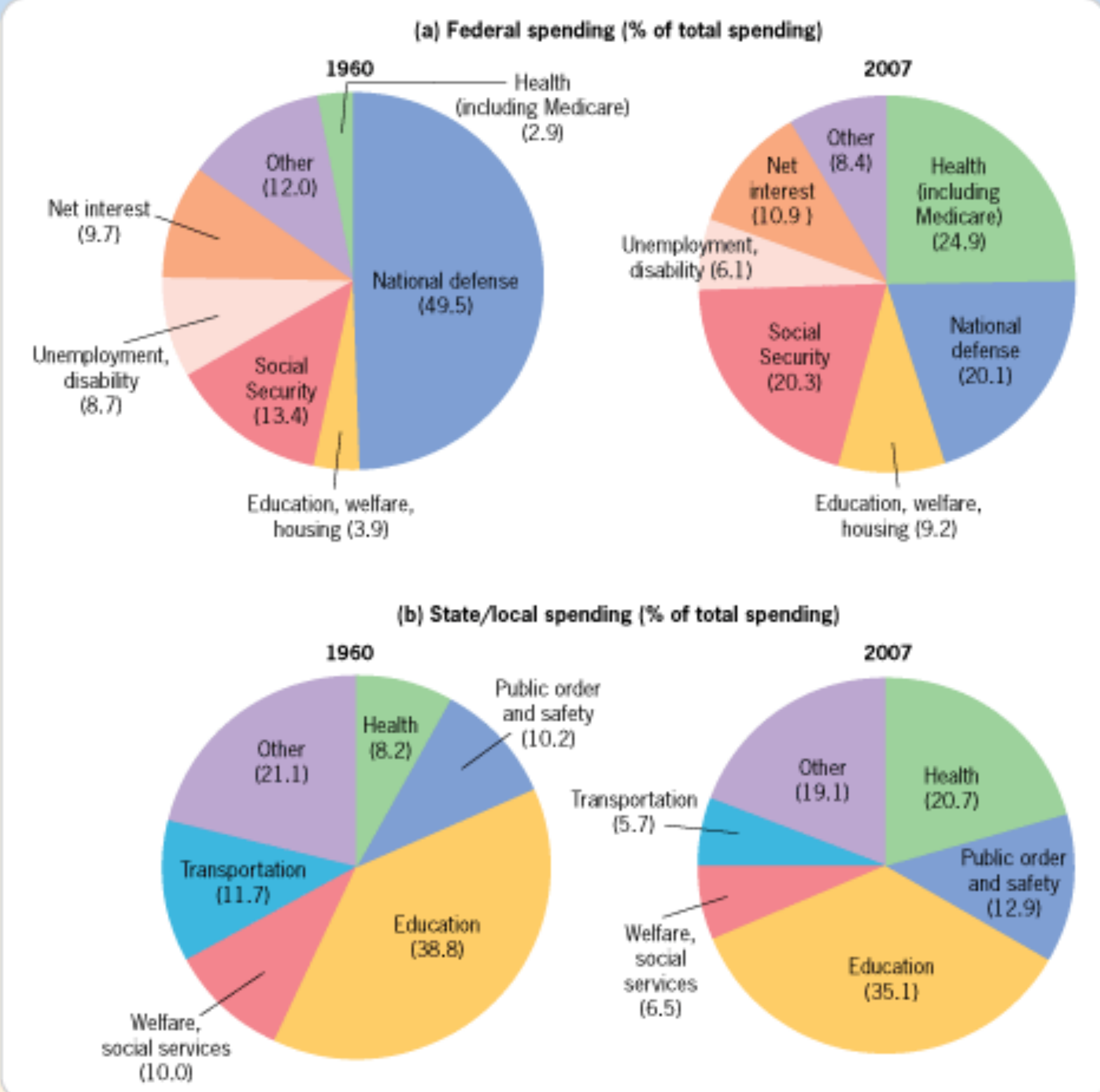
1.2

State and Local Government Receipts, Expenditures, and Surplus, 1947−2008



Distribution of Spending

■ FIGURE 1-7



The Distribution of Federal and State Expenditures, 1960 and 2007 • This figure shows the changing composition of federal and state spending over time, as a share of total spending. (a) For the federal government, defense spending has fallen and Social Security and health spending have risen. (b) For the states, the distribution has been more constant, with a small decline in education and welfare spending and a rise in health spending.

DISTRIBUTION OF TAXES

US Federal govt raises about 20% of GDP in taxes, State+Local govt raises about 10% of GDP in taxes.

Main Federal taxes: (1) Individual income tax (40%), (2) payroll taxes on earnings (40%), (3) corporate tax (15%)

Main State taxes: (1) real estate property taxes (30%), (2) sales and excise taxes (30%), (3) individual and corporate state taxes (30%)

Key questions: who bears the burden of those taxes (tax incidence), what impact do they have on the economy?

REGULATORY ROLE OF THE GOVERNMENT

Another critical role the government plays in all nations is that of *regulating economic and social activities*. Examples:

1) **Minimum wage** at the Federal level is \$7.25 (States can adopt higher min wages) $\Rightarrow$ Potential impact on inequality

2) The **Food and Drug Administration (FDA)** regulates the labeling and safety of nearly all food products and approves drugs and medical devices to be sold to the public

3) The **Occupational Safety and Health Administration (OSHA)** is charged with regulating the workplace safety of American workers

4) The **Environmental Protection Agency (EPA)** is charged with minimizing dangerous pollutants in the air, water, and food supplies

PUBLIC DEBATES OVER SOCIAL SECURITY, HEALTH CARE AND EDUCATION

Taxes, health care, and climate change are each the subject of debate, with both the "liberal" and "conservative" positions holding differing views in their approach to each problem.

Taxes: Obama's administration increased taxes on top earners significantly in 2013 (repeal of Bush tax cuts + Obamacare taxes). New Trump administration wants to reverse these changes and more.

Health Care: Up to 2013, about 20% of the non-elderly U.S. population did not have health insurance Obamacare cut this number down to 10% but might be repealed

Climate change: Carbon emissions are generating global warming with potentially huge negative consequences in the future (sea rise, extreme weather, agricultural output). Debate on costs of global warming. What should govt do?

PROFESSOR SAEZ' RESEARCH

Most of my research (available on my webpage) is in public economics:

1) Design of optimal tax policies and optimal transfer programs (theory, normative)

2) Analysis of the effects of taxes and transfers on individual behavior (empirical, positive)

3) Analysis of inequality overtime and across countries (empirical, descriptive)

I will discuss some of my research in this course when we cover the relevant topics

REFERENCES

Jonathan Gruber,Public Finance and Public Policy, Fifth Edition, 2016 Worth Publishers, Chapter 1

National Center for Education Statistics “Highlights from TIMSS 2007: Mathematics and science achievement of US fourth-and eighth-grade students in an international context.” Institute of Education Sciences, US Department of Education, 2009.(web)

Piketty, Thomas, *Capital in the 21st Century*, Cambridge: Harvard University Press, 2014, Chapter 13, (web)

Piketty, Thomas and Emmanuel Saez “Income Inequality in the United States, 1913-1998”, Quarterly Journal of Economics, 118(1), 2003, 1-39, series updated to 2012 in September 2013 (web)

Piketty, Thomas, Emmanuel Saez, and Gabriel Zucman, “Distributional National Accounts: Methods and Estimates for the United States”, NBER Working Paper No. 22945, 2016. (web)