

Intergenerational Markets

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The Notion of Intergenerational Markets

Three population groups: **YOUNG**, **WORKING-AGE**, **RETIRED**

All output of goods and services are produced by **WORKING-AGE**

YOUNG and **RETIRED** are “dependents”

How does output get transferred to dependents?

Gifts – main provision for **YOUNG**

RETIRED consume “stuff” they put aside while working

Financial markets offer **WORKING-AGE** opportunity to purchase claims on future output when they are **RETIRED**

Government redistributes output from **WORKING-AGE** to **YOUNG** or **RETIRED**

Non-market method, used when voluntary approaches fail

Personal Resources: The Life-Cycle View

Borrowing and saving to smooth consumption

Problems:

Inability to borrow against future income

Lack of knowledge to invest wisely

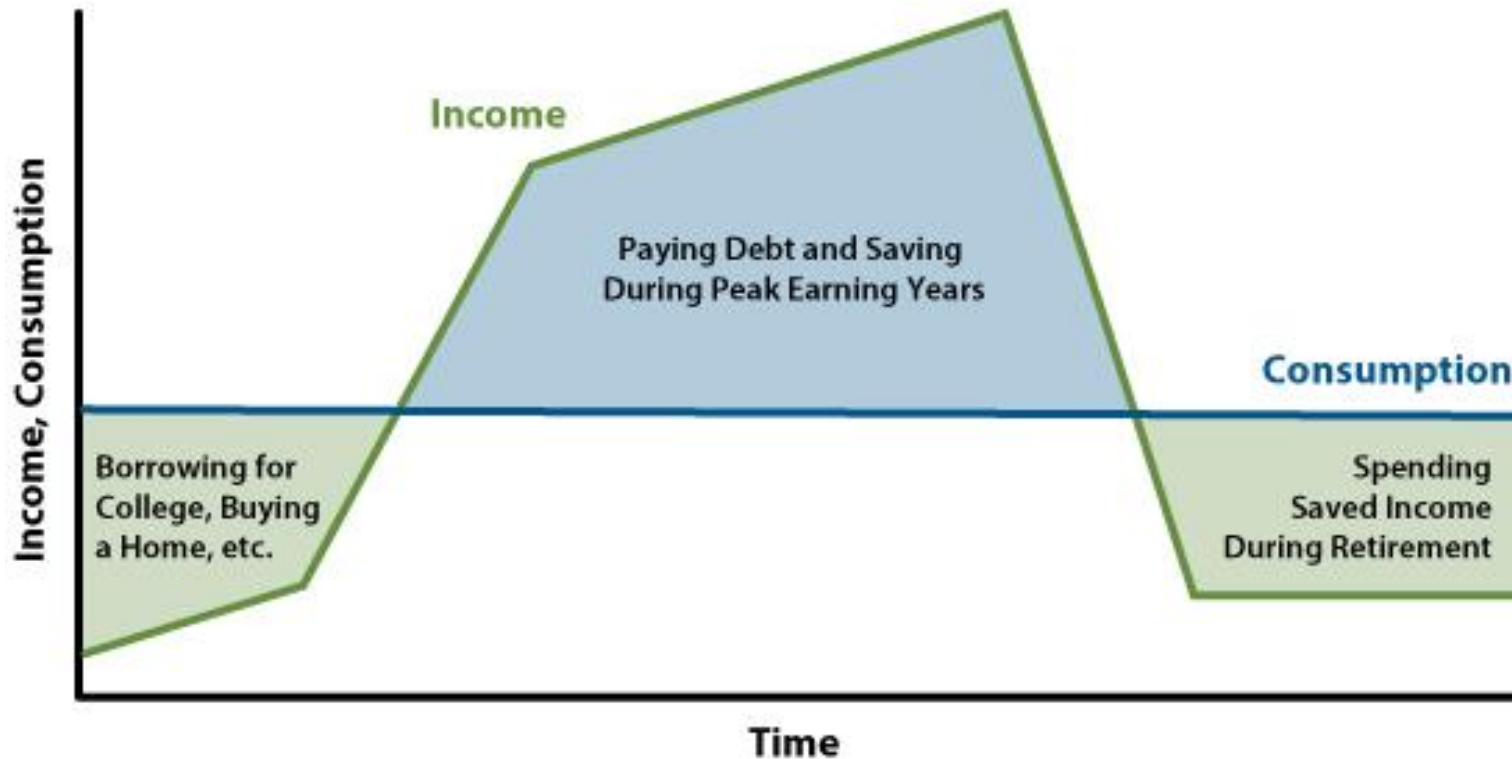
Bad luck in investing

Unforeseen family or personal obligations

Uncertainty of health: lack of health insurance markets

Uncertainty of length of life: lack of annuity markets

Life-Cycle View of Income, Consumption, and Saving



Why Don't Private Annuity Markets Flourish?

Voluntary participation leads to high prices, limited coverage

Asymmetric information, adverse selection

Those who expect to live long will purchase

Insurers must raise cost, drive more away

Moral hazard

Insured more inclined to take life-prolonging measures

Lack of foresight, tendency to underestimate risk

Complexity, high decision-making and administrative costs

Annuity payments are not totally secure – no national re-insurer

Income distribution considerations: poor can't afford annuities

Providing for Retirement

Personal and family resources

Imperiled by rise of wage labor,
financial collapse in Great Depression

Company pensions

Alfred Dolge Co., 1882 (pianos, organs)
1% withheld, added 6% p.a.
Company closed a few years later

In 1900, only 5 companies offered pensions

In 1932, only 15% of labor force had company pensions

In 1974, Pension Benefit Guarantee Corp. established

State pensions

By 1935, 30 states had some form

Poorly funded; benefits meager, limited to 3% of elderly

Elderly reluctant to “go on welfare”

Social Security: History and Features

Enacted in 1935 as public pension-like system

Individuals “contribute” portion of earnings during working years

Funds accumulate with interest until retirement

Benefits paid after retirement for remaining life

Initially conceived as “fully-funded”; by 1939, “pay-as-you-go”

Under pay-as-you-go, current contributions pay current benefits

Why not fully-funded system?

- Immediate need to provide income to destitute elderly

- Fear of mismanagement of funds

- Question of where to invest funds

- Fully-funded is an unnecessary myth for federal program

Social Security: History and Features

Benefit structure

Monthly benefit depends on wages over lifetime

Benefit increases with wages, but less than proportionately

Normal age for benefit was 65, now 66, going to 67

Benefit can begin at age 62, but smaller

Benefit greater if start delayed until after 66

Added amount for dependent spouse or child

Benefit rises automatically with cost of living (CPI)

Up to 85% of benefit taxable if income exceeds base amount

Average monthly benefit, Jan. 2015

Retired worker	\$1,331
Retired worker and spouse	\$2,181

Social Security: History and Features

Financing structure

Flat-rate payroll tax up to maximum taxable earnings

	Max tax earnings	Rate (%), each Worker and employer
1930	\$3,000	1.0
1950	3,000	1.5
1970	7,800	4.2
1990	51,300	6.2
2016	118,500	6.2

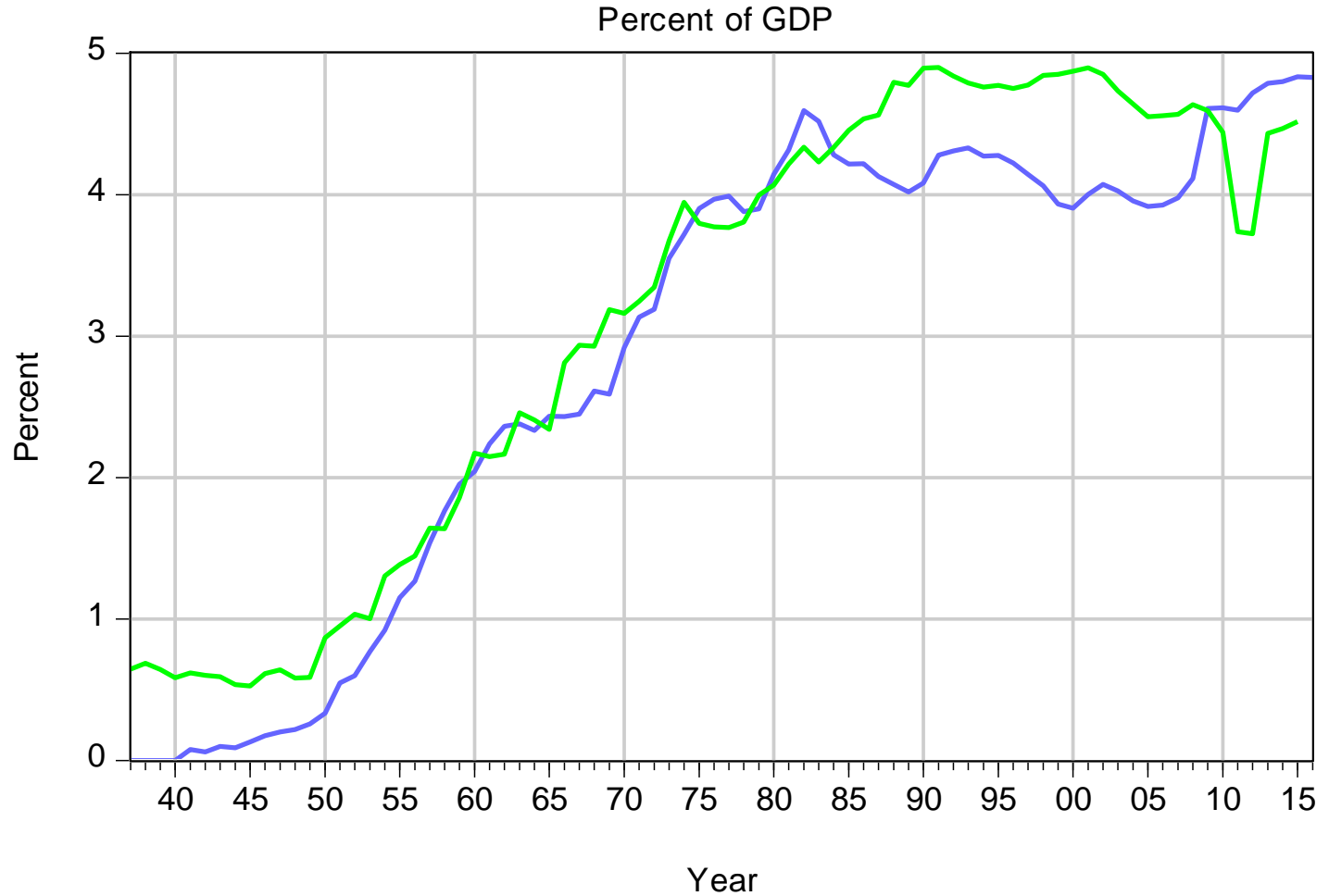
Why split between worker and employer?

Nearly entirely born by worker

Why such a regressive tax?

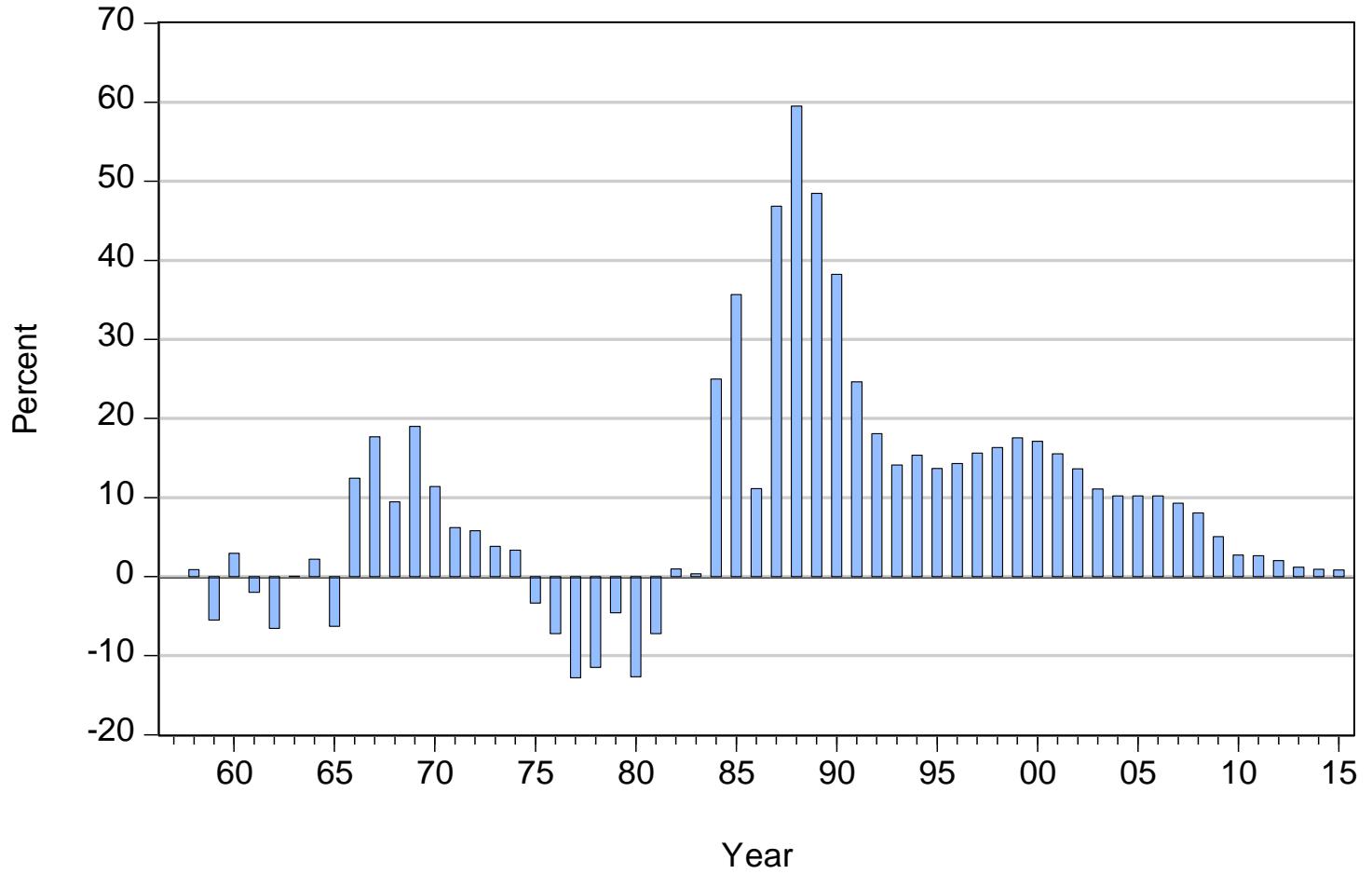
Perpetuates fiction that Social Security is like a private pension plan

Social Security Benefits and Payroll Taxes



Source: National Income Accounts

Percent Change in Social Security Trust Fund



Source: Social Security Administration

National Commission on Social Security Reform, 1981

Trust Fund estimated to be depleted by August 1983

President Reagan appoints Alan Greenspan to head study group
Greenspan had been head of CEA under Ford

Major recommendations:

Reject making SS voluntary or fully-funded pension

Increase contribution rates gradually to present 6.2%

Begin taxation of benefits received by high-income persons

Raise normal retirement age gradually to 67

Possible Effects of Social Security

Reduces labor force participation of elderly?

Reduces household saving?

Redistributes income among generations?

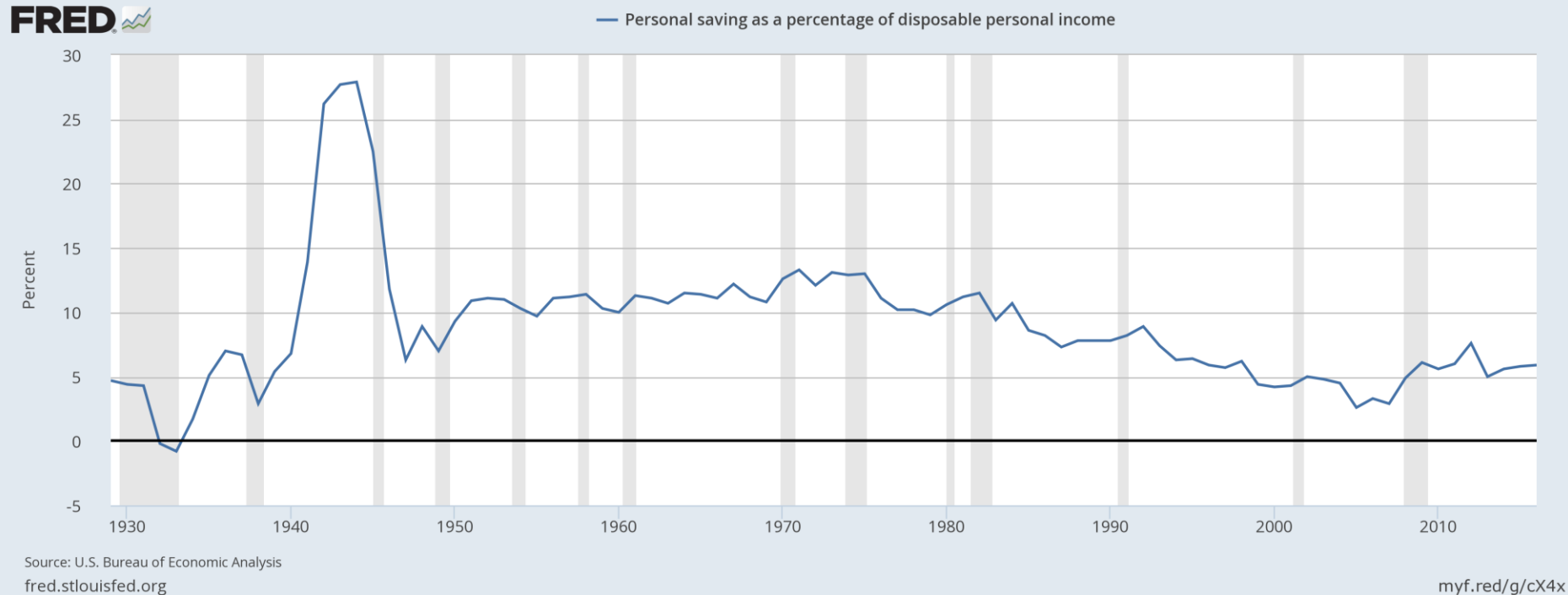
Labor Force Participation Rates

Labor force as % of civilian non-institutional population

	Ages 55-64		Ages 65+	
	Men	Women	Men	Women
1942	---	---	47.1	8.1
1950	86.9	27.0	45.8	9.7
1970	83.0	43.0	26.8	9.7
1998	68.1	51.2	16.5	8.6
2017	70.0	58.8	19.1	16.0

Source: Bureau of Labor Statistics, Historical Statistics of the U.S.

The personal saving rate fell to a postwar low of 2.6% in 2005



Social Security: Distributional Effects

Payroll tax regressive, but benefits appear progressive

Actuarially fair if: Discounted benefits = discounted taxes

Estimated lifetime taxes and benefits (discounted)

Year of Retirement		Low (45%) Earner	Average Earner	High (MTW) Earner
1980	Benefits	67	111	139
	Taxes	28	62	82
	Gain	39	50	57
1995	Benefits	75	124	159
	Taxes	55	121	171
	Gain	21	3	-12
2015	Benefits	108	179	236
	Taxes	89	198	315
	Gain	19	-20	-78

Future of Social Security

Strong points:

Broad coverage

Fully portable

No "leakage" from early withdrawals

Inflation-indexed benefits that last for life

Benefits continue for widowed spouses

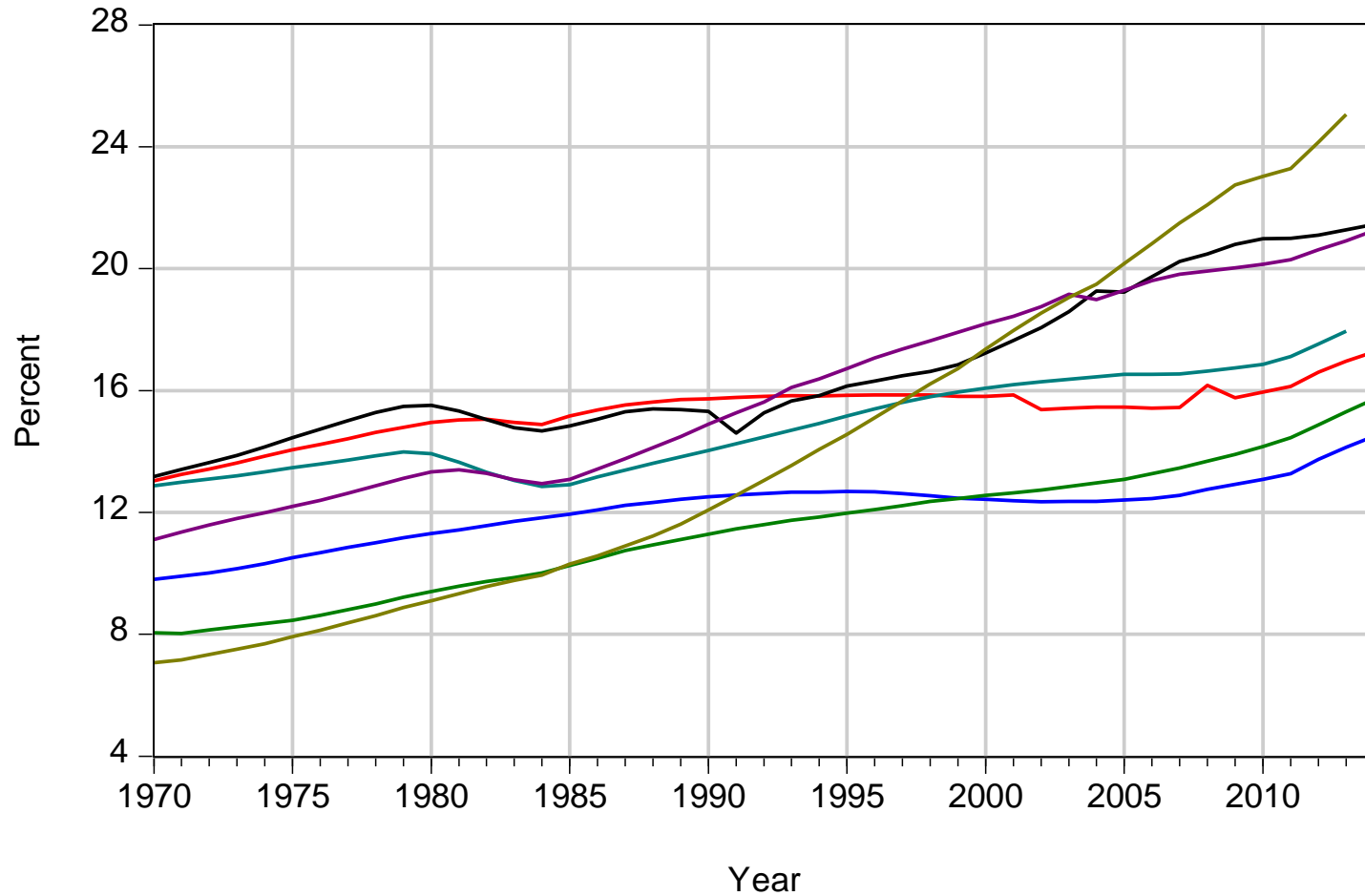
Low administrative costs

Issues:

Burden of aging population, depletion of Trust Fund

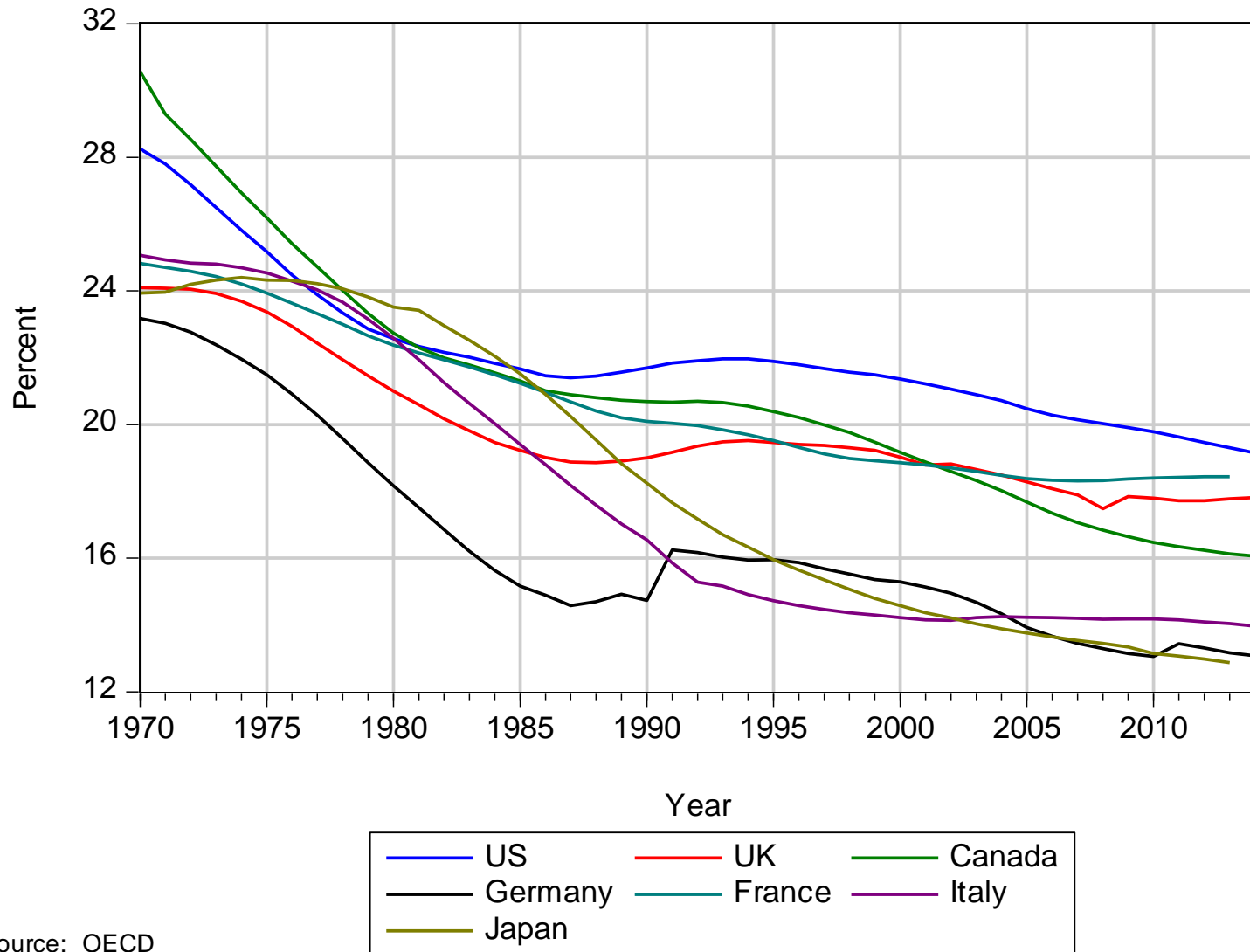
Inadequate private saving for retirement

Population 65 and Over, % of Total



Source: OECD

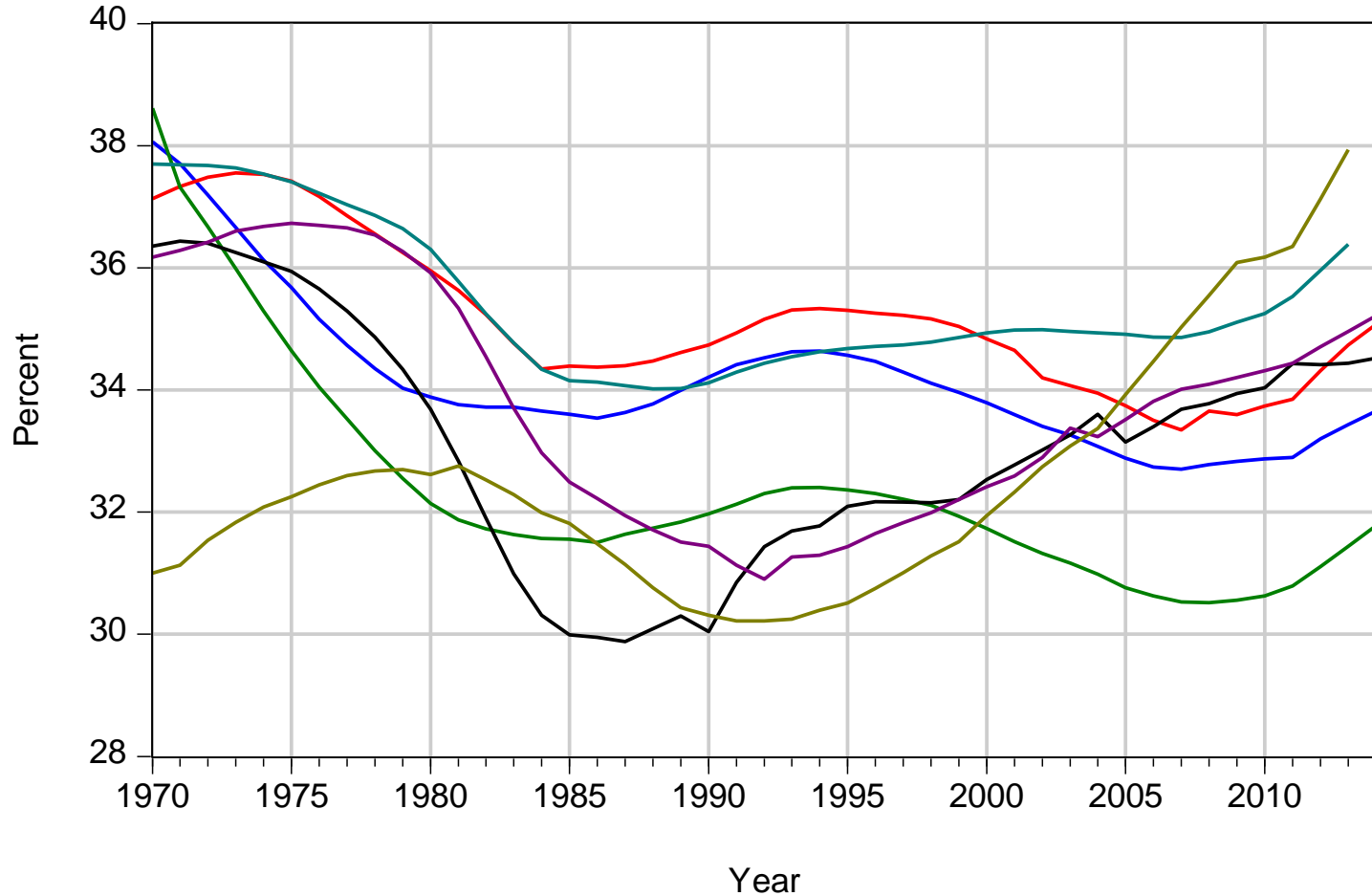
Population under 15, % of Total



Source: OECD

Dependent Population, % of Total

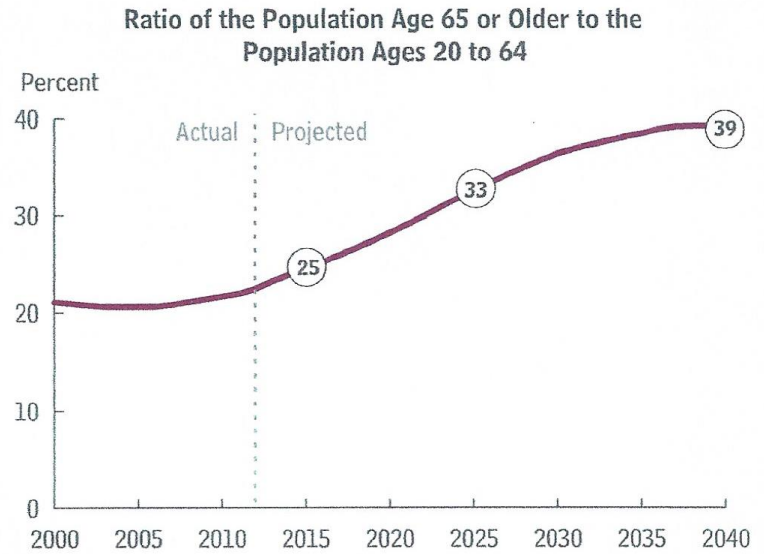
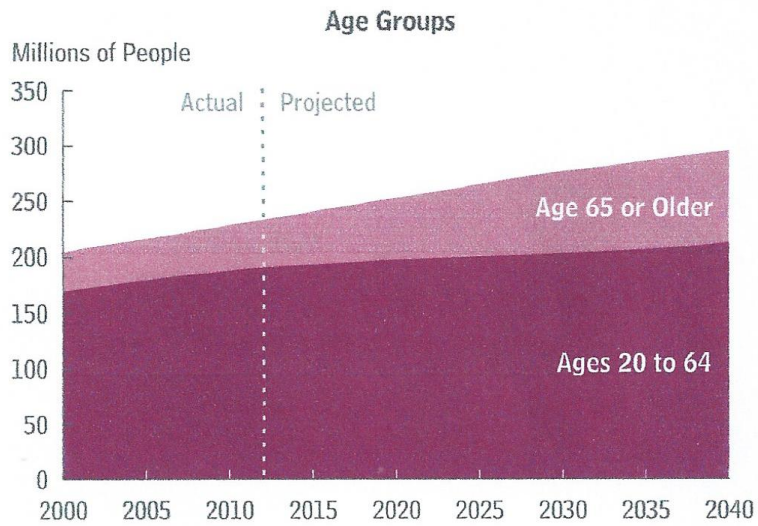
Ages 0-15 and 65 and over



Source: OECD



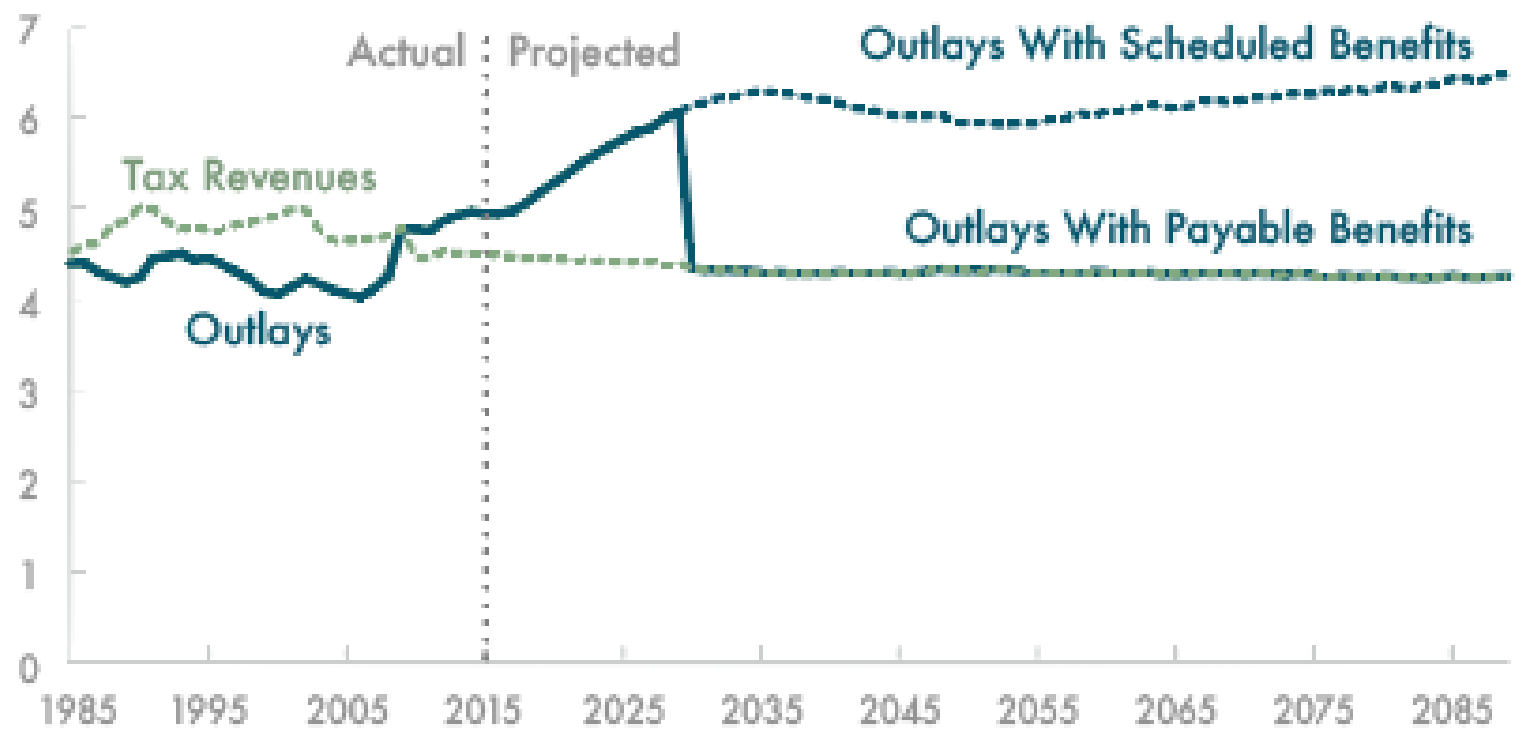
Population, by Age Group



Source: Congressional Budget Office.

Social Security Tax Revenues and Outlays, With Scheduled and Payable Benefits

Percentage of Gross Domestic Product



Burden of Aging Population on Workers

$$\text{Burden} = \frac{B \times R}{E \times P} = \text{“tax rate” on payrolls}$$

B = Average social security benefit

R = Number of retirees collecting benefits

E = Number of employed

P = Output per employee (productivity)

To reduce burden:

Reduce *B* and/or *R*

Increase *E* and/or *P*

Recommendations to Improve Intergenerational Markets

Social Security is a safety net, not a pension scheme

Forget myth of Trust Fund

Encourage private saving for retirement

Publicly-seeded retirement accounts for all

Tax free contributions to private accounts

Make private and state-local pensions --

Tax favored

“Defined contribution”

Restricted investment opportunities

Portable

Inflation-protected

Publicly insured

END