Big picture

- Intense focus on income inequality (industrial countries)
- Against background of dramatic improvements in global health equality, global living standards, and significant convergence (Deaton, “Great Escape”)
- Inequality byproduct of progress?
Issues

- Concern about distribution of economic benefits across agents relative to some benchmark
- Primary focus on intra-country issues (cross-country issues see growth)
- Focus on economic arguments (not societal value, political preferences)
- Leave aside measurement issues (pre-tax/after tax)
Basic Concern

- Okun: “Equality and Efficiency: The Big Tradeoff”
- Do economies face a choice between efficient production and equitable income (and wealth) distribution?
- Returns to marginal product or rents?
- What is an agent’s marginal product and do deviations from efficient compensation (rents) matter?
Kuznets Curve

- Kuznets hypothesized an inverted-U shaped relationship between development and inequality.
- An initial positive correlation with economic growth will be reversed in later stages of development.
Income Distribution Trends

Share of National Income Earned by Top 1 Percent, 1920-2011

Note: Incomes exclude capital gains and are measured before taxes.
Source: Alvaredo, Atkinson, Piketty, and Saez (The World Top Incomes Database).
Top 1% - Panel A (Alvaredo et al)

A: Top 1 Percent Income Shares in English-speaking Countries (U-Shape)

- United States—including capital gains
- Australia
- Canada—including capital gains from 1972
- United Kingdom—families
- United Kingdom—adults
Top 1% - Panel B (Alvaredo et al)

B: Top 1 Percent Income Shares in Continental Europe and Japan (L-Shape)

- France
- Germany—including capital gains from 1950
- Japan—including capital gains from 1947
- Sweden—including capital gains
Gini Coefficient

(Yellow Area/Lower Triangle) * 100

Income Bracket

% of Income

Lorenz Curve
Ginis by Country

The chart above shows the distribution of Ginis by country. Each country is represented by a different color and the y-axis indicates the Ginis ranging from 0 to 80. The countries included are SWED, JAP, GERM, NETH, CANA, AUSL, UK, US, HK, PHIL, BRAZ, MEXI, SAFR, HAI, and NAMI. The chart visually compares the Ginis across these countries, with higher bars indicating higher Ginis.
Gini Coefficients, G-7, 1975-2008 (OECD)
Gini Coefficients, 1988-2008 (OECD)
## Household Income Growth, 1980-2008 (OECD)

<table>
<thead>
<tr>
<th>Country</th>
<th>Total population</th>
<th>Bottom decile</th>
<th>Top decile</th>
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<td>1.7</td>
<td>1.2</td>
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<td>0.9</td>
<td>1.6</td>
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<td>Ireland</td>
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<td>Israel(^1)</td>
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<td>Japan</td>
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</table>
Percent Gini Changes 2007-2010 (OECD)
Inequality Measurement

- Gini tends to overweigh middle incomes
- Alternative: Palma Index (ratio of average incomes of top 10% to bottom 40%)
- Highly correlated with Gini, but more intuitively interpretable
Inequality Trends in Developing/Emerging Economies

- Sharply rising inequality in East Asia (1990s, 2000s)
- Significant reduction in inequality in Latin America over same period
- Dramatic rise in inequality in Eastern Europe and Russia
- Substantial regional differences in Africa, but trend upwards
Inequality and Growth

- Basic recognition: Some inequality is essential for the effective functioning of a market economy (incentives for investment and growth)
- But how can inequality affect long-term growth?
- Examine growth theory
- Subsequent focus on sustainability of growth spells
Common Global Threads

- Globalization raises importance of human capital basis
- Structural inequalities interact with market forces
- Technical progress raises returns to capital and skilled labor
- Regulatory capture enables rent seeking
- Persistent inequalities affect intergenerational mobility
Growth factors

- Growth in labor participation (annual hours of work)
- Growth in labor quality (skill of the work force)
- Growth in capital deepening (physical capital invested per worker)
- Total factor productivity (output per unit of quality-adjusted capital and labor)
What drives TFP?

• Basic issues:
  - Human Capital Development (skills)
  - Knowledge, “Learning-by-Doing”
  - Knowledge Spillover (“Agglomeration”)
  - Effort, Efficiency
  - Institutions, Incentives

All of them can be negatively affected by increasing inequality.
Evidence I

- Globalization and technical progress allowed labor market segmentation and increase skill premia
- Low-skilled (and some high-skilled) jobs could be offshored
- Specialization allowed highly educated work force to congregate in certain jobs, sectors, and jurisdictions
Evidence II

- Regulatory capture has allowed rent-seeking in certain sectors
- Social mobility has declined in parallel with increased inequality
- Social power reduces empathy (social cohesion reduced, social distance increased)
- Political economy has strongly favored efficiency over equity (austerity policies)
Inequality and Growth (IMF)

Chart 3

**Lasting effects**

More inequality seems to spell less sustained growth.

(years in growth spell)

![Graph showing the relationship between inequality and growth](image-url)

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Length of Growth Spells (IMF)

Growth spells
Factors have differing impacts on how long growth periods last. Income distribution appears quite important, whereas other factors are less so.

(change in expected growth duration, percent)

- Income distribution
- Political institution
- Trade openness
- Exchange rate competitiveness
- External debt
- Foreign direct investment
Inequality and Business Cycles (1)

- **Competition is weakened** and market adjustments hindered (asymmetric information, market distortions, rents)
- Possibly harder for governments to implement policy choices (taxes, public spending)
- **Differences in agents’ behavior accentuated** (mpc, deleveraging)
- Representative agent paradigm unrepresentative
Inequality and Business Cycles (2)

- Link between inequality, debt, and crises (increased vulnerability, reduced flexibility)
- Increased cross-agent utility comparisons can cause bubbles
- Labor income vs. capital gains (increased dependence on stock markets)
- Reduces automatic stabilizers
Tentative conclusion 1

- Linkage between growth and inequality tenuous
- But some evidence that higher degree of equality generates more robust and sustainable growth paths
- But poorly designed efforts to reduce inequality could be counterproductive
- Evidence suggests some short-run trade-offs, but long-run benefits
Tentative Conclusion II

- Mounting evidence that inequality beyond a certain point increases cyclical vulnerability
- In addition, reduces the effectiveness of counter-cyclical policies
- Less clear what the societally optimal levels of inequality are (compare Northern Europe, Central Europe, and North America)
Some global developments
Role of Finance (Philippon/Resheff)
Inequality and Growth: Summary

- Some inequality is essential to the effective functioning of a market economy (incentives for investment and growth)
- But how can inequality affect long-term growth? Reduces sustainability of growth spells
- Further Issues: (1) amplifies potential for financial crises (2) reduces growth potential and induces distortionary taxes (3) results from delinking compensation and marginal product (superstars)
- Political economy / Regulatory capture
Private Wealth/National Income Ratios (Piketty/Zucman, 2013)
Great Gatsby Curve (Corak/Krueger)

Intergenerational earnings elasticity

United States (2010 Gini)

y = 2.2x - 0.27
R² = 0.76

Source: Corak (2011), OECD, CEA estimates
Inequality is a Choice (Stiglitz)

- Stable growth threatened by sustained income and wealth inequalities
- Inequality is highly self-perpetuating (intergenerational mobility)
- Progressive taxation must correct market failures
- Corrections to wealth distributions necessary to strengthen intergenerational mobility (Europe vs. US)
Factors behind distribution dynamics

- Policies and institutions (+/-)
- Employment and unemployment effects (+/-)
- Changes in distribution of other market income: savings, capital income (+)
- Changes in in-kind benefits from public services (+/-)

- Globalisation (+/-)
- Individual wage dispersion (workers)
- Individual earnings dispersion (working-age)
- Household earnings inequality
- Household market income inequality
- Household disposable income inequality
- Household adjusted disp. income inequality

- Technological change (+)
- Changes in household structure (+)
- Earnings and employment correlation of household members (+/-)
- Changes in household taxes and cash transfers (+/-)
US Income Growth (Piketty/Saez)
Figure 3: Inequality in the world, by country and income class.