



Trends and Patterns in US Wage Inequality

Elias Dinopoulos
University of Florida

August 2011



Agenda

- Review recent changes in U.S. wage inequality
- Inequality in the 1980s
- Inequality in the 1990s
- Implications, explanations and challenges
- Concluding Remarks



U.S. Wage inequality: 1980s

- Several influential studies established
 - Inequality had been growing sharply in the 1980s
 - The primary factor behind the growth in inequality was the increase in the relative demand for skill



U.S. wage inequality: 1980s

- Relative demand for skill had been growing since the 1970s
- All dimensions of inequality were growing in the 1980s
- Bound and Johnson (1992), Katz and Murphy (1992), Lemieux (2008).



Explanations

- Skill-biased technical change (SBTC), driven by the computer revolution, was the primary cause for growth in the relative demand for skill
- The leading alternative explanation, globalization, was rejected as the main source of the increase in the relative demand for skill



Challenges

- France, Japan and Germany failed to experience any significant growth in inequality during the 1980s
- If technological change was the primary cause, these countries should have experienced the same growth in inequality as the US.
- Supply, demand and institutions



More recent evidence

- The growth in wage inequality is concentrated in the top end of the wage distribution
- The difference between the 90th and 50th percentile of the distribution increased substantially
- Residual inequality at the low end (the 50-10 gap) actually decreased



Low-end and top-end inequality

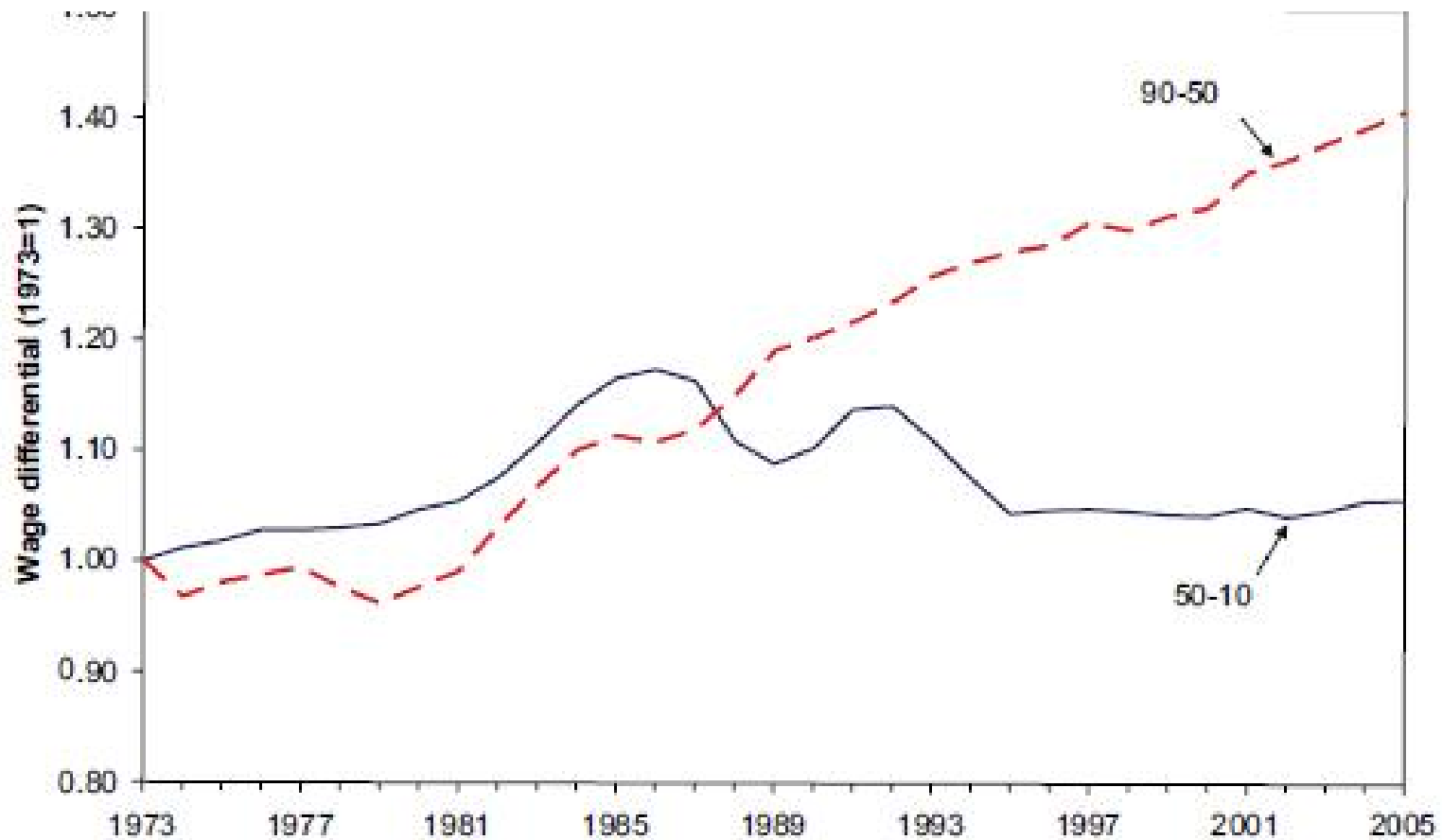


Fig. 1 Low-end and top-end wage inequality, men



Low-end and top-end inequality

- For men, both the 90-50 and the 50-10 gaps were stable in the 1970s
- These gaps grew steeply in the 1980s
- The two gaps diverged sharply after the 1980s
- While the 50-10 gap returned to its level of the 1970, the 90-50 gap kept growing steadily



Low-end and top-end inequality

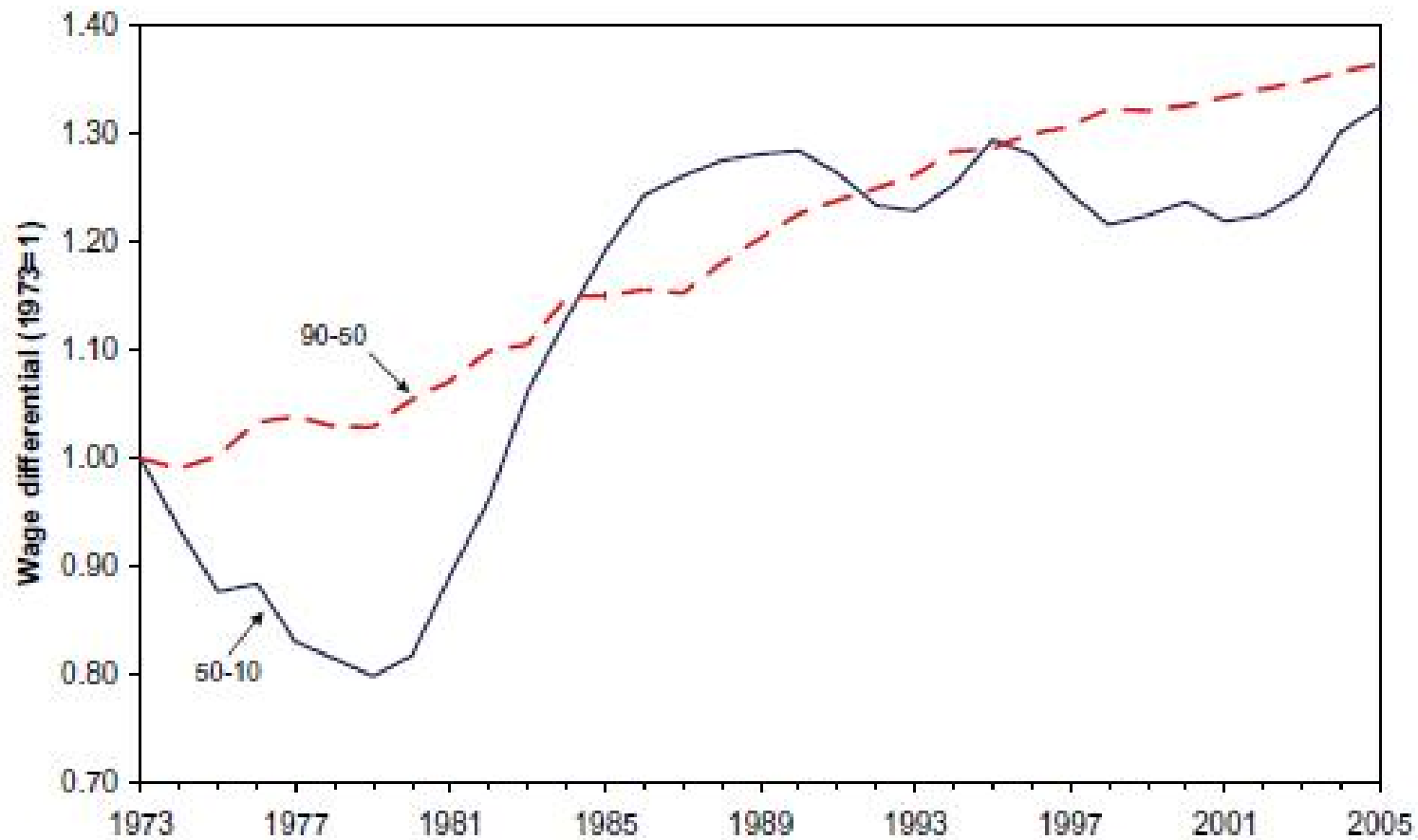


Fig. 2 Low-end and top-end wage inequality, women



Low-end and top-end inequality

- The 90-50 gap for women grew steadily over most of the period.
- The 50-10 gap declined sharply in the 1970s, increased dramatically in early 1980s, and has remained stable since then.



Education wage differentials

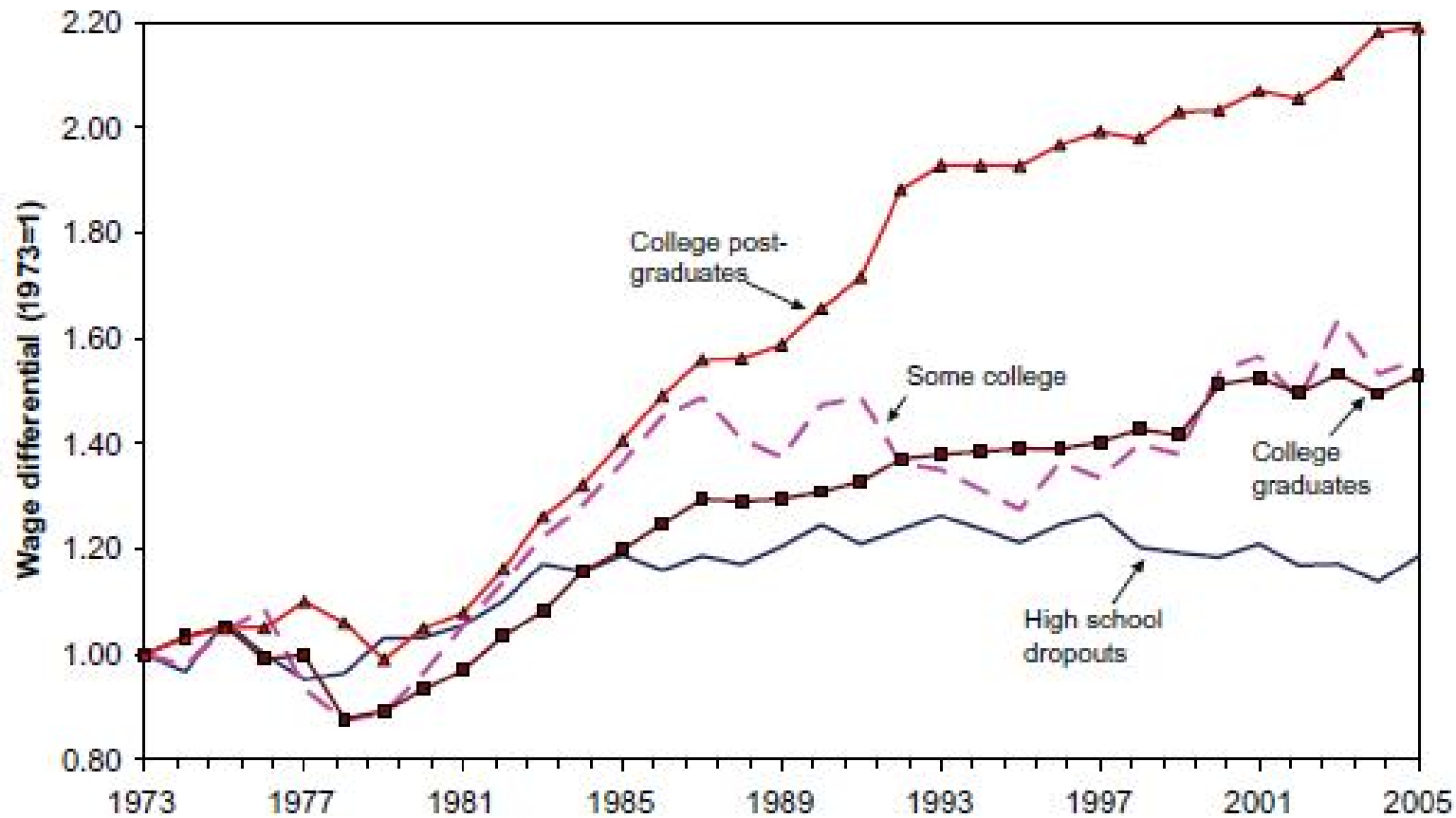


Fig. 3 Education wage differentials relative to high school graduates, men



Education and inequality

- All education wage gaps:
 - are stable in the 1970s
 - increase in the early 1980s
 - and diverge after the mid 1980s
- Lemieux (2006) argues that the annual return to post graduate education increased from 6% in 1974 to 13% in 2004



Wage inequality changes

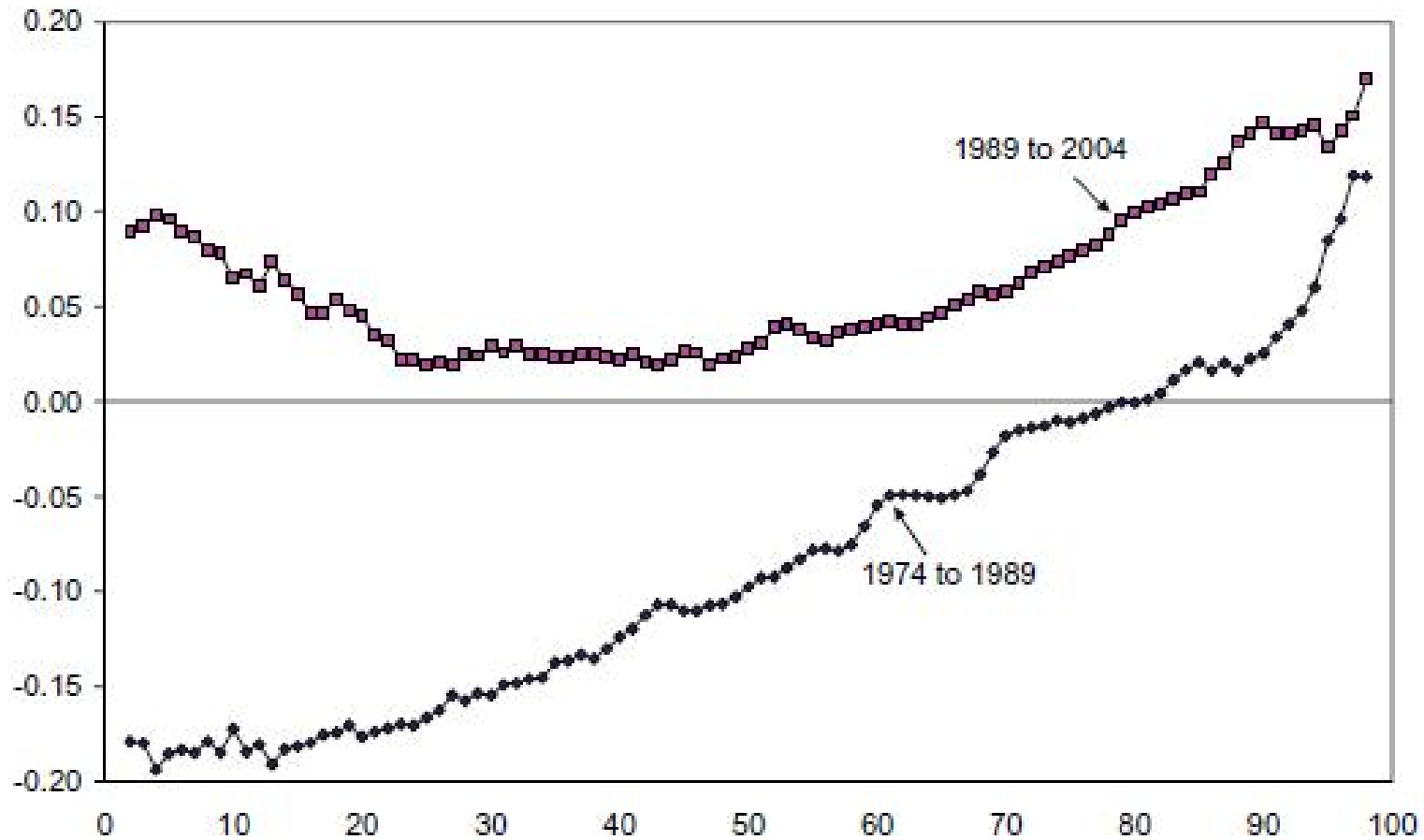


Fig. 4 Change in real wages by percentile, men



Changes in real wages

- The nature of the growth in wage inequality has changed substantially
 - The increase in inequality before 1989 is uniform across all percentiles
 - Before 1989 real wages decreased except for the top 20 percent of the distribution
 - After 1989 real wages increase at each and every point of the distribution



Polarization of wage changes

- The growth curve after 1989 is U-shaped.
- The U-shaped growth curve captures the so called “polarization” of wage income distribution
- Workers both at the lower and upper tails of the distribution experienced larger gains than workers in the middle end of the wage distribution.



Proposed explanations

- Top-end inequality
 - Top executives got better at setting their own pay or extracting rents at the expense of shareholders
 - The increase of CEO compensation may be attributed to a corresponding increase in firm size
 - Performance pay and effort accounts for 71% of the growth in the 99-80 percentile wage gap



Proposed explanations

- Low-end inequality
 - De-unionization accounts for a sizable share of changes in wage inequality
 - The level of minimum wage is correlated with the 50-10 wage gap (see next slide)



The role of minimum wage

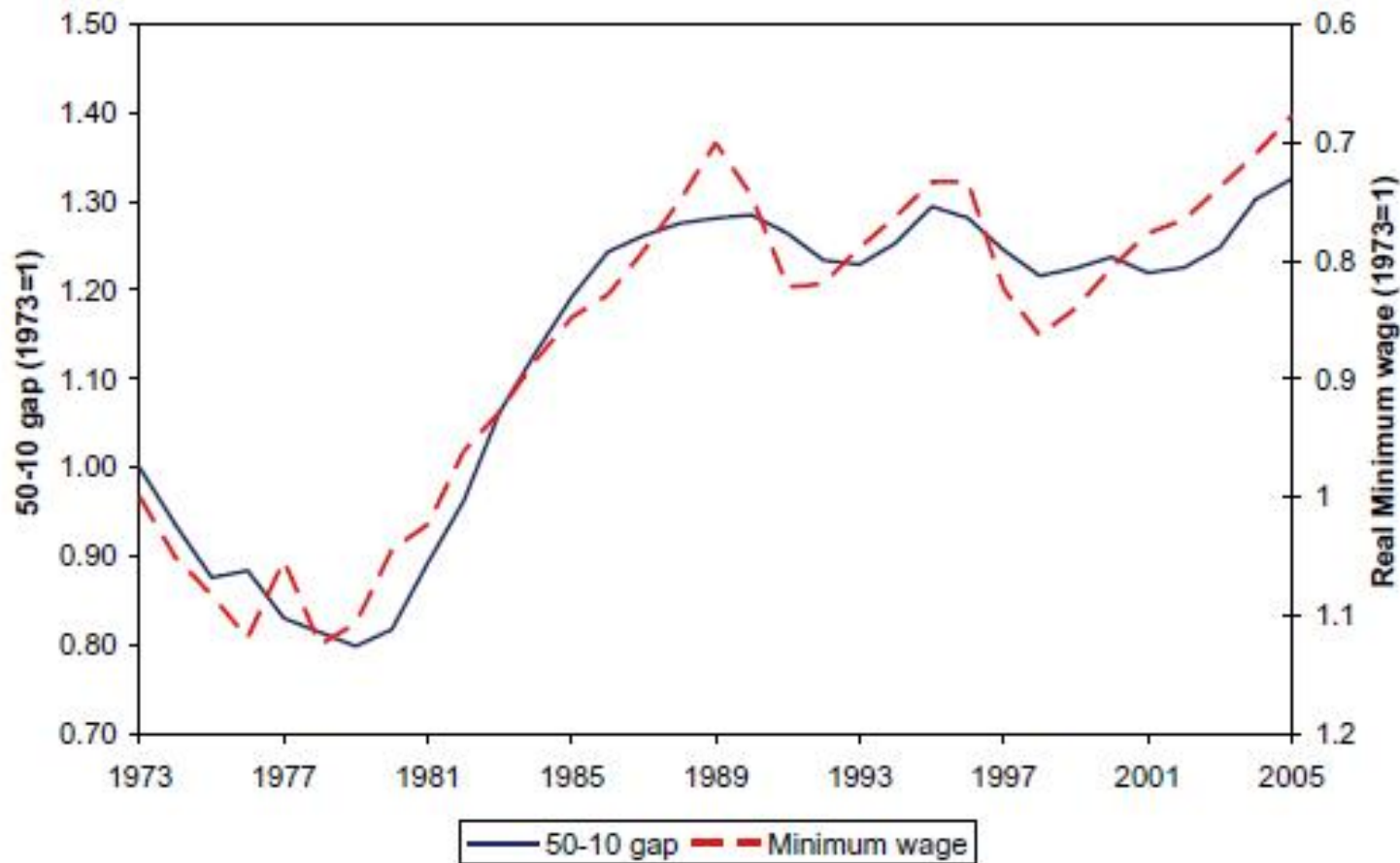


Fig. 5 50–10 gap for women vs minimum wage



Demand-side explanations

- International trade mechanisms
 - Stolper-Samuelson mechanism
 - Schumpeterian mechanism
- Trade and endogenous SBTC
 - Chamberlinean mechanism
 - Offshoring and performance pay



Schumpeterian Mechanism

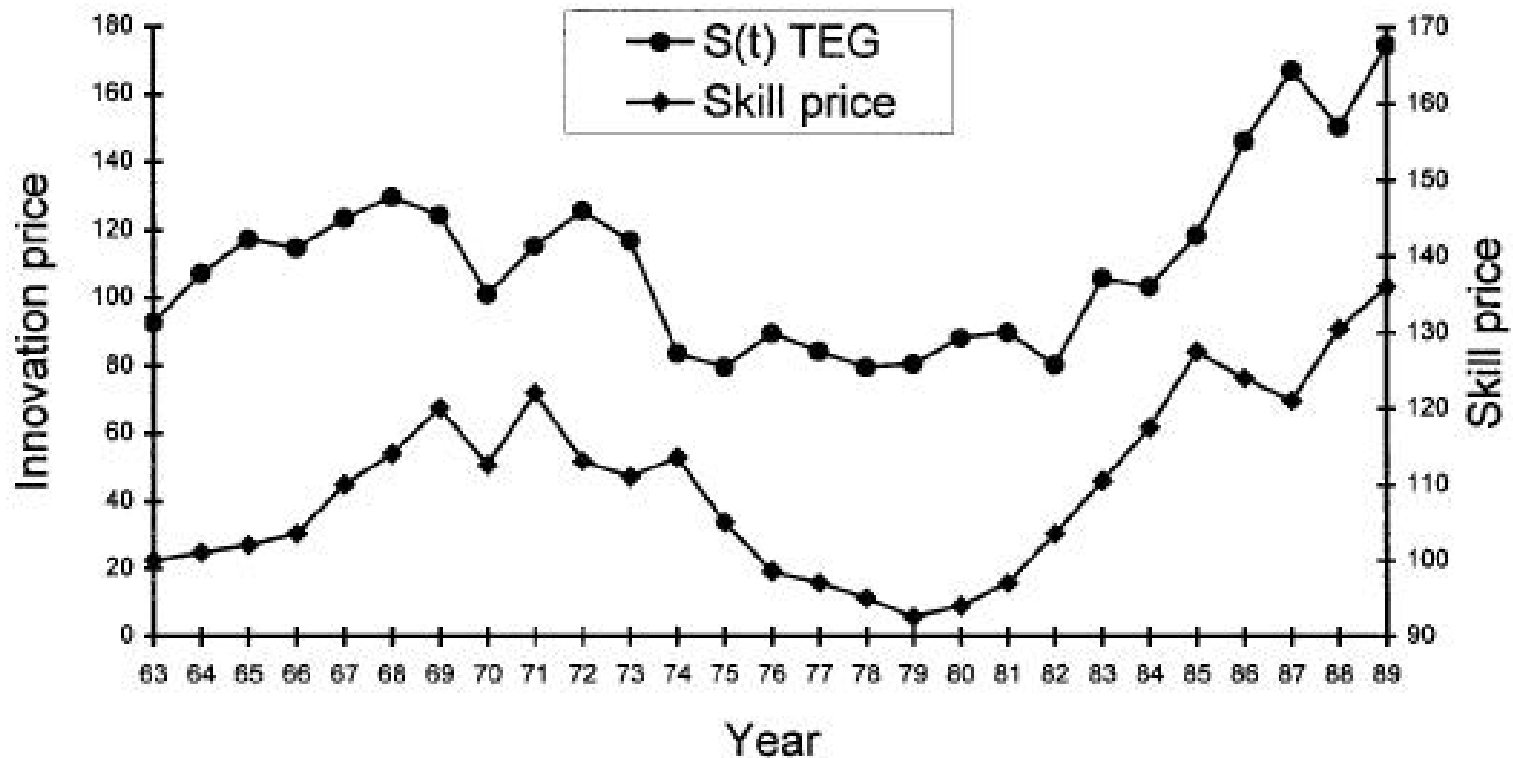


FIGURE 2. INNOVATION PRICE INDEX (LEFT AXIS) AND SKILL PRICE INDEX (RIGHT AXIS)



Concluding Remarks

- The growth of wage income inequality has been uneven at least for the United States
- Since the mid 1980s we have witnessed the phenomenon of “polarization” of wages and employment
- Globalization, SBTC, and institutional factors had contributed to the change in the structure of wages.
- We will examine in detail the nexus between trade, growth, and wages.