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The future of labor market participation – some comments on papers by David Autor and David Autor & Anna Salomons

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Main points

- . Impressive papers and presentations
- . Fundamental questions
- . Thorough empirical work



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Lessons from the China Shock

- . Important findings in a series of papers
- . Negative and long-lasting direct effects of trade shocks
- . Self-stabilizing effects are not strong
 - .Also negative demand effects on other jobs



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Does productivity growth threaten employment?

- . Even more fundamental question
- . Impressive empirical work
- . Some remarks from a macro perspective



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Does rising productivity raise or lower industry employment?

- . Industry demand $Y_i = P_i^{-\epsilon} Y$
- . Price markup on cost $P_i = mW/A_i$
- . Employment $E_i = Y_i/A_i$

- . If industry elasticity of demand $\epsilon < 1$
 - . Reasonable empirical assumption
- . Higher productivity => lower employm.
- . No implications for agg. employment



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Does it matter in which sector productivity growth originates?

- . Least negative effect in manufacturing
- . Distinguish between traded and non-traded sectors(?)
 - . Country-specific productivity growth

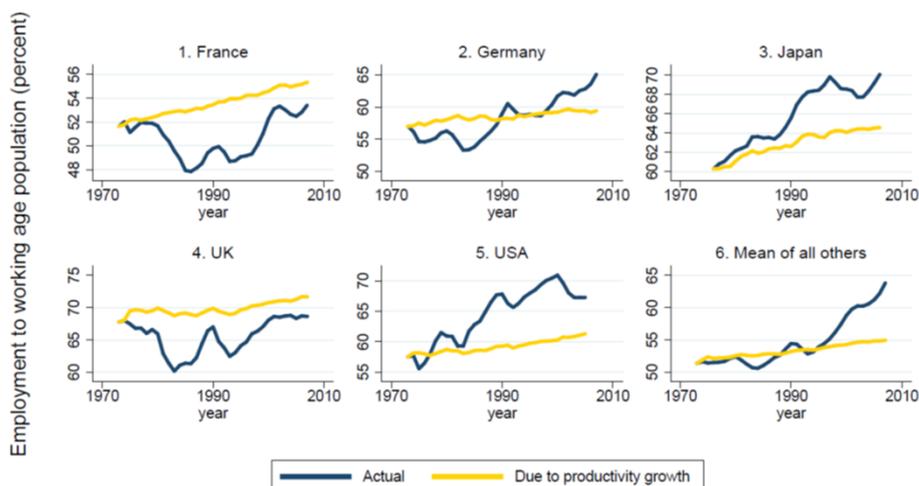
- . Higher country-spec. productivity in traded sector leads to lower price and higher market share
- . => higher empl. (relative to compet.)



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Effect of productivity growth on employment (direct & indirect)

Difficult to interpret and no visible correl.



Figures are for the total economy, excluding agriculture, public administration, private households and extraterritorial organizations. Productivity is gross output per worker.



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Alternative approach

- Effect on equilibrium employment, E^*
 - .Employment consistent with stable inflation
 - .Central bank ensures that actual $E = E^*$
- Skill biased technical change $\Rightarrow E^*$ down
- Higher rate of job loss $\Rightarrow E^*$ down
- Lower worker barg. power $\Rightarrow E^*$ up
- Higher country-spec productivity growth \Rightarrow higher market share $\Rightarrow E^*$ up



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BUT: Lower bound on interest rate

- . May prevent CB from stimulating the economy sufficiently
- . Periods with insufficient aggregate demand are likely also in the future
- . => actual $E < E^*$ (in some periods)



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Effects of productivity growth on aggregate demand

- . Lower investment rates because physical capital is less important (?)
- . Higher saving due to increased income inequality
 - . Higher profits in winner-takes-all firms
 - . Lower labour share
 - . Increased wage inequality
- . => Lower aggregate demand



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Maintain high employment under rapid productivity growth

- . Not too rapid productivity growth
- . Training of employees
- . Stay ahead of competitors

- . Maintain aggregate demand
- . Dampen increase in income inequality



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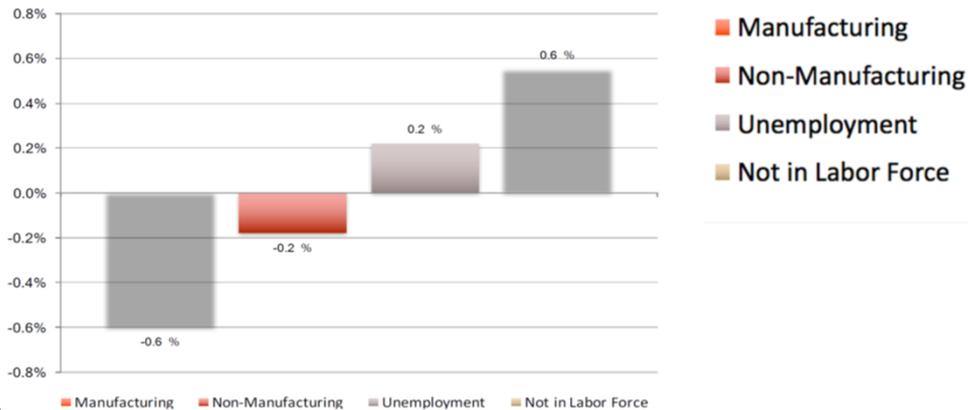
Extra slides



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Loss of Manufacturing Employment Not Primarily Offset by Rising Non-Manufacturing Employment

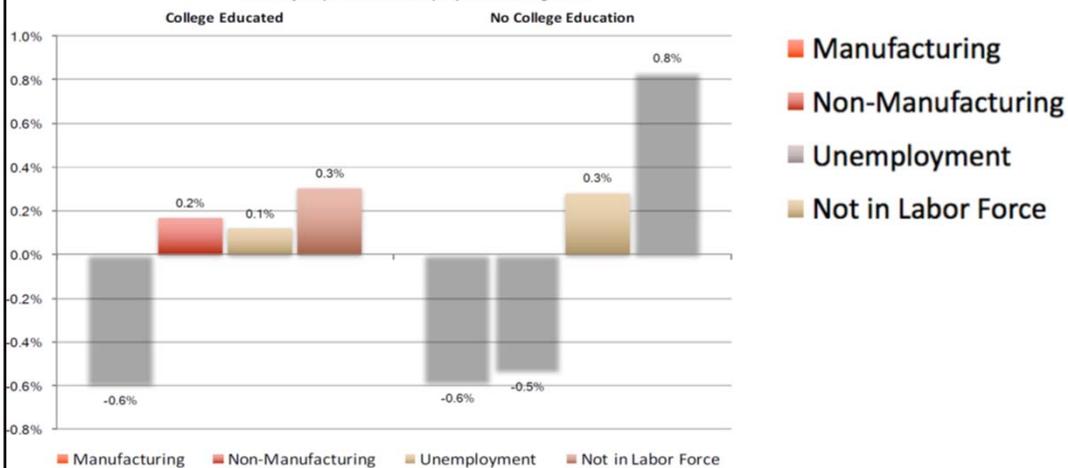
Effect of an \$1000 Per Worker Increase in Imports from China during 1990-2007 on Share of Population in Employment Categories



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Effects Much More Severe for Non-College Adults

Effect of an \$1000 Per Worker Increase in Imports from China during 1990-2007 on Share of Population in Employment Categories





Does rising productivity raise or lower industry employment?

- . Industry demand $Y_i = P_i^{-\epsilon} Y$
- . Price markup on cost $P_i = mW/A_i$
- . Employment $E_i = Y_i/A_i$
- . \Rightarrow
- . $\Delta p_i = \Delta w - \Delta a_i$
- . $\Delta e_i = \Delta y_i - \Delta a_i$ $\Delta e_i = (\epsilon - 1)\Delta a_i - \epsilon\Delta w + \Delta y$
- . $\Delta y = -\epsilon\Delta p_i - \Delta y$
- . At industry $\epsilon < 1 \Rightarrow \Delta a_i \uparrow \Rightarrow \Delta e_i \downarrow$
- . Higher productivity \Rightarrow lower empl.