Increasing inequality?

A tale of two countries

What do the real numbers say about changes in inequality in the US and Denmark over the past 40-50 years?
Hypotheses of income distribution and growth

Do highly educated individuals receive all the benefits...

... while unskilled workers lose ground?
... while wage earners are losing relative to the company owners?

The financial crisis of 2008 has triggered a vigorous discussion of whether global economic growth is lifting all boats
Hypotheses of income distribution and growth

In his book ‘Capital’ Thomas Piketty claims that...

... this is indeed what we have witnessed over the past decades – especially in the US/UK

... this pattern will spread to other countries

And he is not alone:

OECD, ILO etc. is on the same beat
How strong is the evidence supporting these conclusions in the US and DK?
USA

The labor share is falling but profits are not increasing: Why?

- The labor share of total value added is falling:
  58% (1960)  47% (2012)

- Profits have stagnated at around
  20% the past 50 years
USA

What became of the 10 percentage points?

- Increasing depreciations:
  10% (1960) → 15% (2012)

- Increase in employer social security contributions:
  5% (1960) → 10% (2012)
Increasing productivity is eroded by higher social security contributions

Distribution of the pie in the non-financial business sector in the United States, 1960 to 2013

- Compensation of employees (paid)
- Wages and salaries
- Operating surplus, net
- Operating surplus, net + consumption of fixed capital
Increase in inequality? A tale of two countries

Higher social security contributions is a consequence of a massive increase in health expenditures (and possible longer life expectancy):

An understated part of the story of measured inequality

Two dimensions of inequality

Dimension 1:
Erodes increases in productivity

Dimension 2: Especially in the middle
  - Low-paid workers without coverage
  - Health benefit costs/premium weigh less on top income earners (better package but..)
  - Part of the reason why:
    - Low paid/skilled workers have narrowed gap to medium paid workers...
    - ...while high income workers increased gap to mid level
    - ....since end of 1080s.
USA: A massive increase in health expenditures
Health insurance premiums rise faster than inflation and wages

Avg. increase in health insurance premiums 1994-2014

- 1999 - 2004: 72% Premium increases, 13% Overall inflation, 17% Workers' Earnings
- 2004 - 2009: 34% Premium increases, 13% Overall inflation, 19% Workers' Earnings
- 2009 - 2014: 26% Premium increases, 11% Overall inflation, 11% Workers' Earnings
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Increasing in-kind benefits eating mid-income pay raises

- In-kind benefits as a share of income going up for nearly all groups in period 1980 to 2010
- But mostly in the middle..
- ...a bit at the bottom...
- ....and not at all at the very top

- Why:
  - Coverage ratios low at bottom end
  - Benefits no way proportional with gross wages
  - So more costs eats most at mid income levels

Share of after-tax income consisting of employee and government health benefits and other in-kind transfers

<table>
<thead>
<tr>
<th>Share of after-tax income</th>
<th>Bottom four fifths of income distribution</th>
<th>Top fifth of income distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>20%</td>
<td>1%</td>
</tr>
<tr>
<td>2010</td>
<td>23%</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>17%</td>
<td>7%</td>
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<td></td>
<td>12%</td>
<td>9%</td>
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<td></td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>6%</td>
<td>17%</td>
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<td></td>
<td>5%</td>
<td>12%</td>
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<td>4%</td>
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<tr>
<td></td>
<td>10%</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>25%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: Gary Burtless, Brookings institute
Personal income distribution in the United States: 
The most wealthy earns a bigger share!

Facts about the total income shares from 1978 – 2008 by income fractile

- **90% - 95%**
  No change, remains at 12%

- **90% - 99%**
  Small increase, from 24% to 27%

- **Top 1%**
  Significant increase, from 8% to 16% and...
... only the real, real high earners get a bigger share of the pie!

Income distribution for the most wealthy 1978-2008

% of total income
Unequal work efforts, unequal total pay?

- What is inequality
  - High skilled workers benefit from skill-biased progress (also problematic concept in practice) leading to increase in relative wages
  - ...or total income rises more at top because rich people work more

- The question matters:
  - Over the last 30 years, high income earners and high skilled work more and more....
  - ...while low income earners work less and less

### Percentage of men working long hours

(1978=100)

<table>
<thead>
<tr>
<th>Year</th>
<th>First Quintile</th>
<th>Second Quintile</th>
<th>Third Quintile</th>
<th>Fourth Quintile</th>
<th>Fifth Quintile</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>100</td>
<td>90</td>
<td>80</td>
<td>70</td>
<td>60</td>
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<tr>
<td>1982</td>
<td>115</td>
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<td>1986</td>
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<td>1998</td>
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<td>125</td>
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<td>105</td>
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<tr>
<td>2002</td>
<td>140</td>
<td>130</td>
<td>120</td>
<td>110</td>
<td>100</td>
</tr>
</tbody>
</table>

**By Hourly Earnings Quintile:**
- First
- Second
- Third
- Fourth
- Fifth

### Fraction of men usually working +49 hours

<table>
<thead>
<tr>
<th>Year</th>
<th>Less than High School Graduates</th>
<th>High School Graduates</th>
<th>Some College</th>
<th>College Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>10%</td>
<td>15%</td>
<td>20%</td>
<td>25%</td>
</tr>
<tr>
<td>1990</td>
<td>12%</td>
<td>18%</td>
<td>22%</td>
<td>27%</td>
</tr>
<tr>
<td>2001</td>
<td>15%</td>
<td>20%</td>
<td>25%</td>
<td>30%</td>
</tr>
</tbody>
</table>

Source: Kuhn and Lozano (2005).
### Conclusions about the USA

#### Distribution between workers and employers
- In total a stable relationship between profits and total wage expenditure in the US over the past 50 years
- Increasing social security contributions (especially health) erodes potential for wage increases (in DK it is tax-financed)

#### Share between wage-earners
- Low-paid workers have caught up to middle-paid workers since the late 80s (lost in the 70s)
- The gap between the top and the rest is increasing significantly
- Keep focus on the difference between total labour costs per hour and wages per hour

#### Additional point
- Globalization favours the low-paid workers on the consumption side (Wallmart factor)

#### Implications?
- Health cost explosion (Obamacare was as much about cost containment as expended coverage)
- Weak corporate governance (the Delaware factor)
- ...more important than an increased trade with low income countries and technological advances
What has happened in Denmark?

Three dimensions

- The share of the pie between wage earners and company owners
- ...and between individuals
- Increase in pension wealth and housing wealth: what is the take on that?
Piketty’s hypotheses: Increase in capital stock and falling wage share? 
No signs of that in Denmark

Are wage earners and individuals with low wealth losing the fight over the division of the economic pie?

No

The capital stock in the private sector (as a share of GDP) has been stable over a long period of time and even shrunk after the financial crises of 2008. The wage share has been stable from 1966 till this day (as is the case in the US).
Piketty’s hypotheses: Increase in capital stock and falling wage share?

No signs of that in Denmark

**Capital stock in the private non-agricultural sector as share of gross value added, 1980-2030**

**The wage share, Danish manufacturing, 1966-2012**
The Danish income distribution remains largely unchanged over the past 20 years

**Gini coefficient 1994-2012**

- **Standard Gini**
- **Gini net of imputed capital income**
Capital income, housing wealth, and income distribution

4% yield on real estates explains the main part

A problematic approach though

- Housing prices has increased due to low interest rates and “migration” to areas with limited potential for new constructions
- Current house owners receive the benefits ...
- ... New house owners get no benefit from interest rate reductions but pay more for scarce land value
- Consumption is transferred between generations, not between high and low income
Capital income, housing wealth, and income distribution
4% yield on real estates explains the main part

Single-family house prices

mio. DKK

Region Hovedstaden  København  Region Sjælland
Region Syddanmark  Region Midtjylland  Region Nordjylland
Pension wealth and distribution

Increase in pension wealth influence generation distribution

The increase is driven by the lower interest rate that has led to an increase in the value of bond stocks:

- Bonds account for about 60-70% with an annual yield of roughly 6%

However, the low interest rates do not increase the wealth of pension owners in the long run

The high-paid workers lose since they are the primary pension owners...

... unless they retire before the interest rates rise once again
Pension wealth and distribution

Increase in pension wealth influence generation distribution

The pension fund’s investment assets

Billion DKR

2006

2012

Fixed income assets
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Pension wealth and distribution

More equality: Higher yield benefits more people

Median in the distribution of pension wealth for 60 year olds by education, 2003 and 2012

Net worth share for 60 year old by income decile, 2012
Crude international indicators suggest an increase in inequality. But inequality still low by any international means (Eurostat numbers are no good!)

DK inequality in international perspective

Change in Gini coefficient 2004-2010

Gini coefficient 2010
Conclusions

- Income distribution stable for 20 years and remains at the same level as in Sweden and Norway.
- Increasing housing wealth leads redistribution from young to old in larger cities...
- ... but not from low-income individuals to high-income individuals.
- Lower interest rates led to a significant increase in the pension wealth in favour of individuals considering retiring; for others it means lower yield.
- The relationship between capital and gross value added is not increasing...
- ... in fact wage earner’s share of the economic pie has been stable for more than 50 years showing some volatility due to business cycles.
IMPLICATIONS

- Labor market and tax system reforms (in particular those from 1990 and onwards) has increased productivity and employment without altering income distribution.

- Underlying trends in the global economy does not seem to distort the income distribution in Denmark.

- A good **starting point** for deciding on economic policy and distribution for the years to come...

- ..and be careful about doomsday scenarios?
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