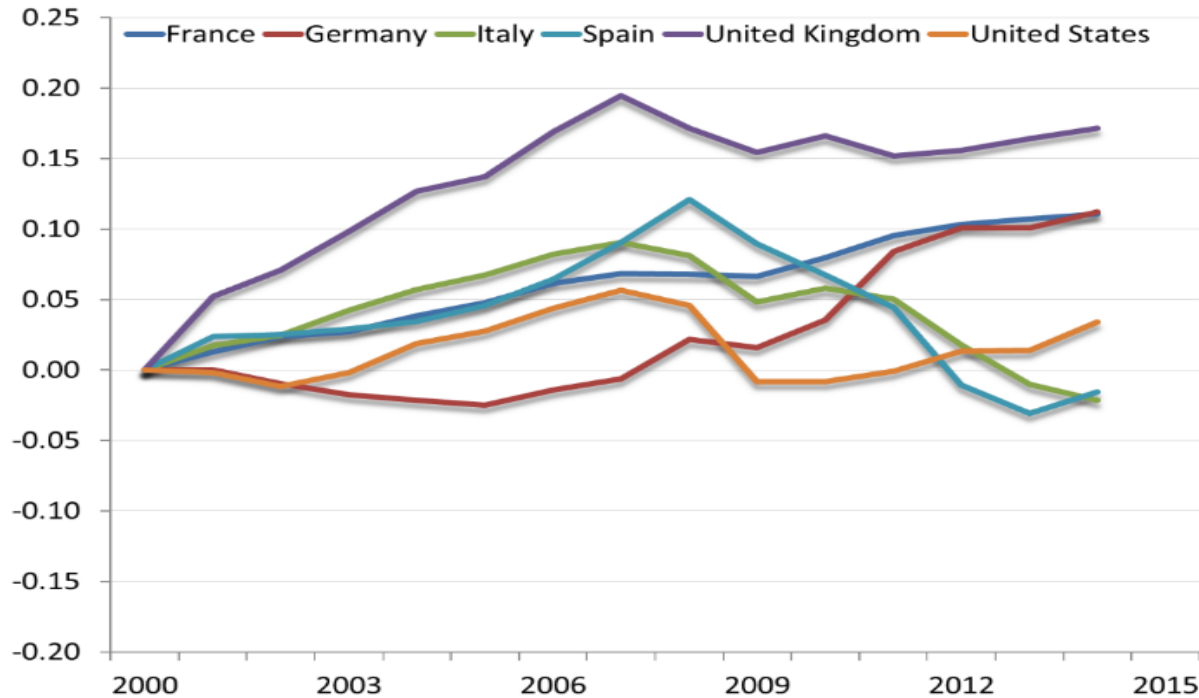


# Hall: Sources and Mechanisms of Stagnation and Impaired Growth in Advanced Economies

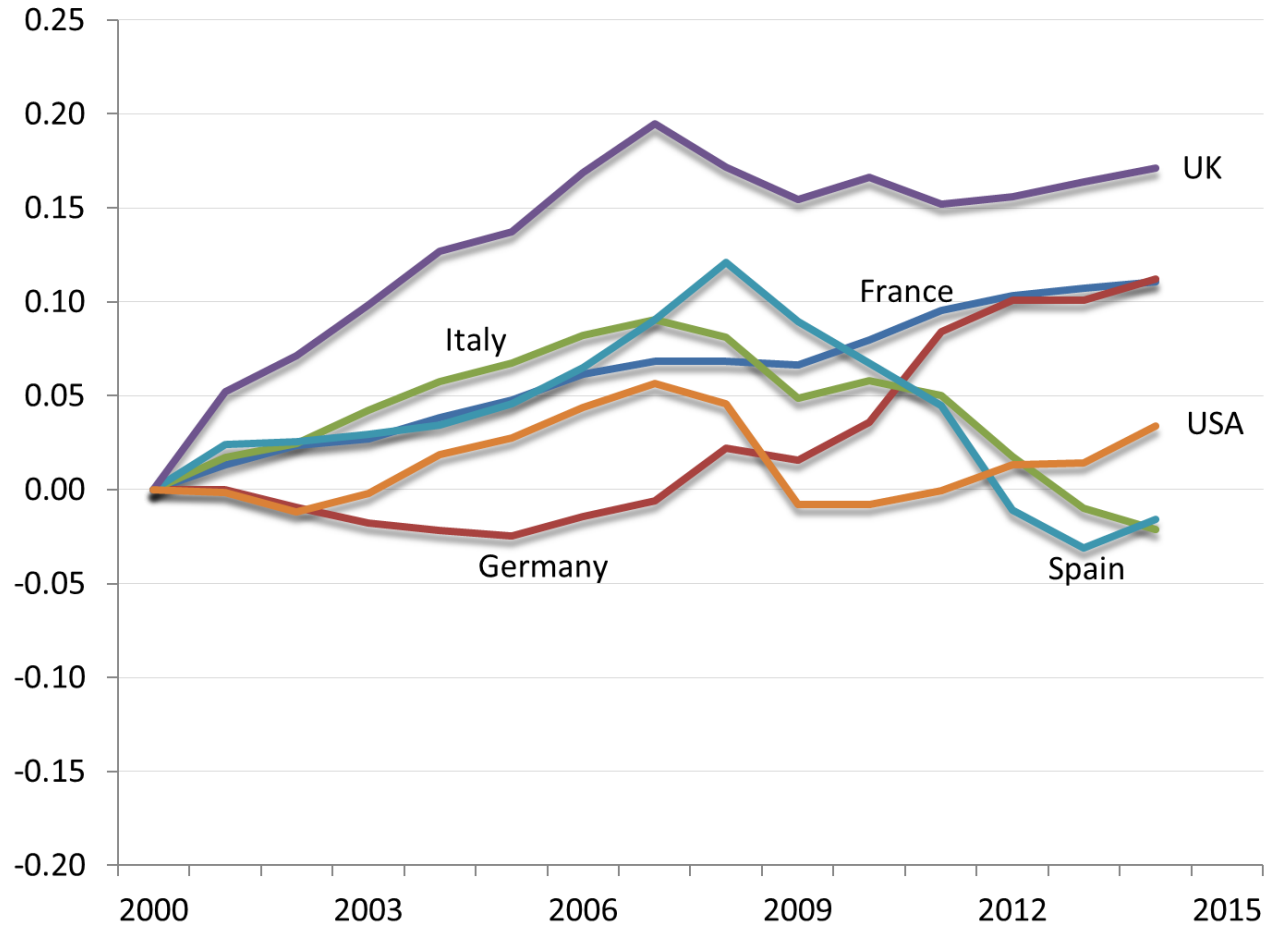


Indexes of real earnings per member of the population

# Stagnation

- The financial crisis of late 2008 sent many advanced economies into stagnation.
- Real labour earnings per member of the population is a suitable measure of performance in judging stagnation.
- Labour earnings measure the well-being of the majority of the population.

# Indexes of real earnings per member of the



# Real Earnings per Member of the Population

- Total real earnings = [labour share] × [real output].
- Real output = [output per unit of labour input] × [volume of labour input].
- Output per unit of labour input = function of [multifactor productivity] and [capital/output ratio].
- Volume of labour input = [hours per worker] × [workers per member of the labour force] × [members of the labour force per person of working age] × [people of working age as a fraction of the total population]

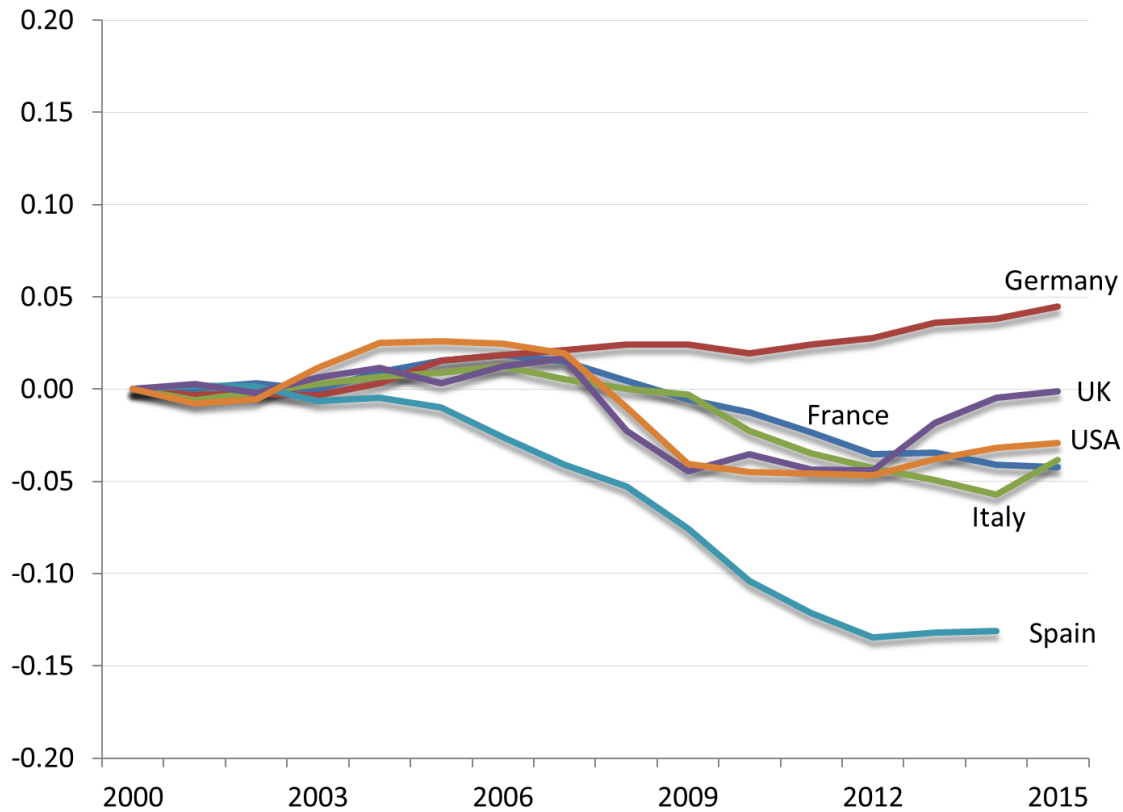
# Seven-way breakdown of real earnings per member of the population

1. Labour share
2. Multifactor productivity
3. Capital/output ratio
4. Hours per worker
5. Employment rate:  $1 - \text{unemployment rate}$
6. Ratio of labour force to working-age population
7. Ratio of working-age population to the population of all ages

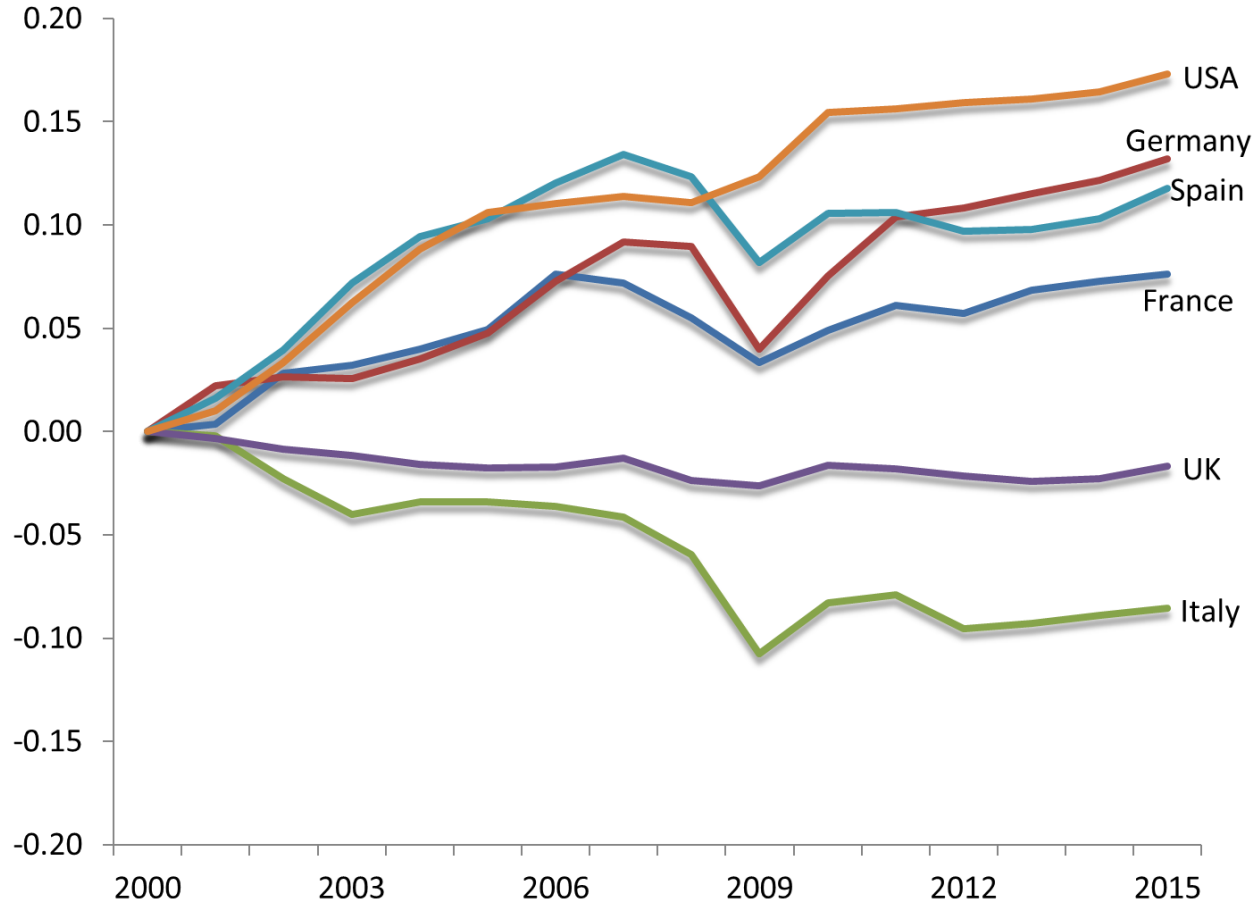
# Annual Percentage Growth Rates of Real Compensation per Member of the Population in the Pre- and Post-Crisis Years

| <i>Country</i> | <i>2000-2007</i> | <i>2007-2014</i> |
|----------------|------------------|------------------|
| France         | 1.14             | 0.71             |
| Germany        | -0.10            | 1.97             |
| Italy          | 1.51             | -1.87            |
| Spain          | 1.51             | -1.77            |
| UK             | 3.25             | -0.39            |
| US             | 0.94             | -0.38            |

# Annual Growth of the Log of the Labour Share, Percent

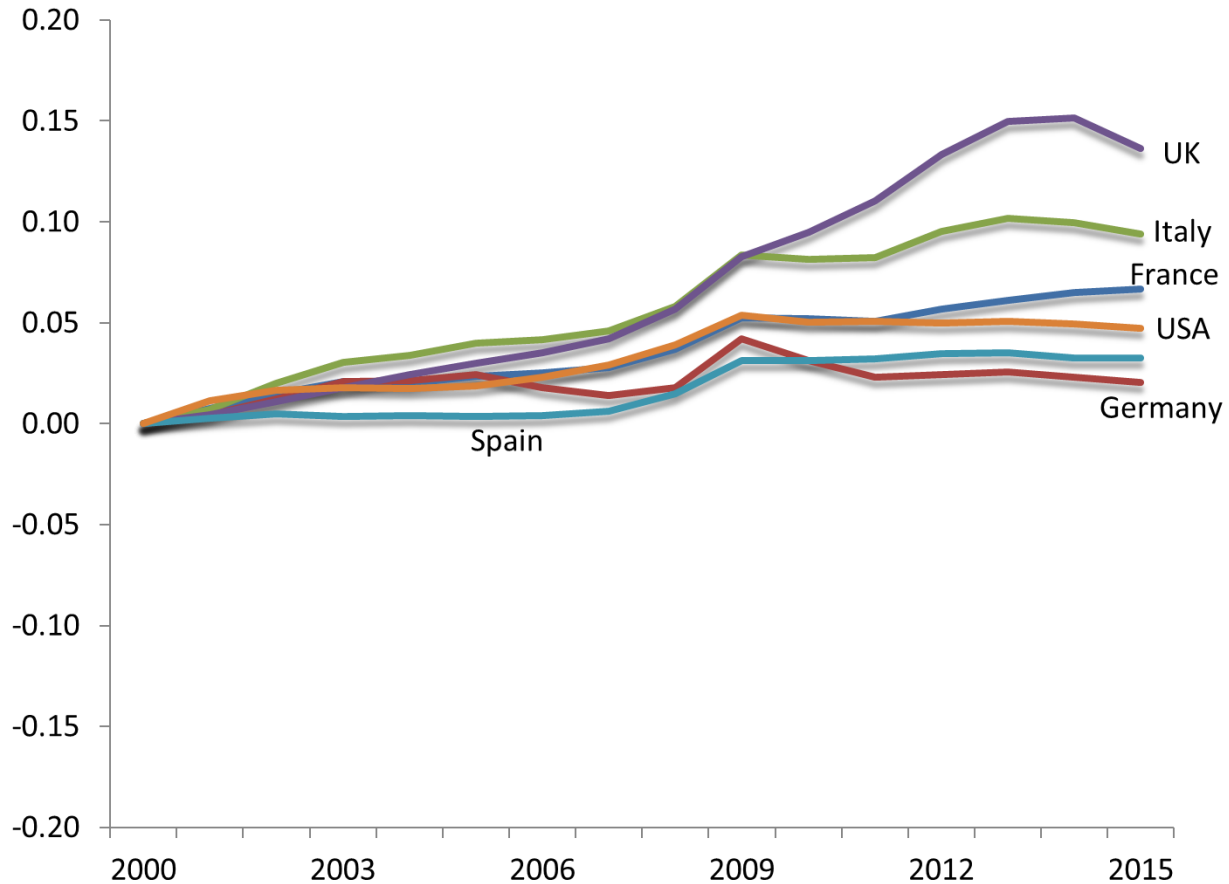


# Log of Index of Multifactor Productivity

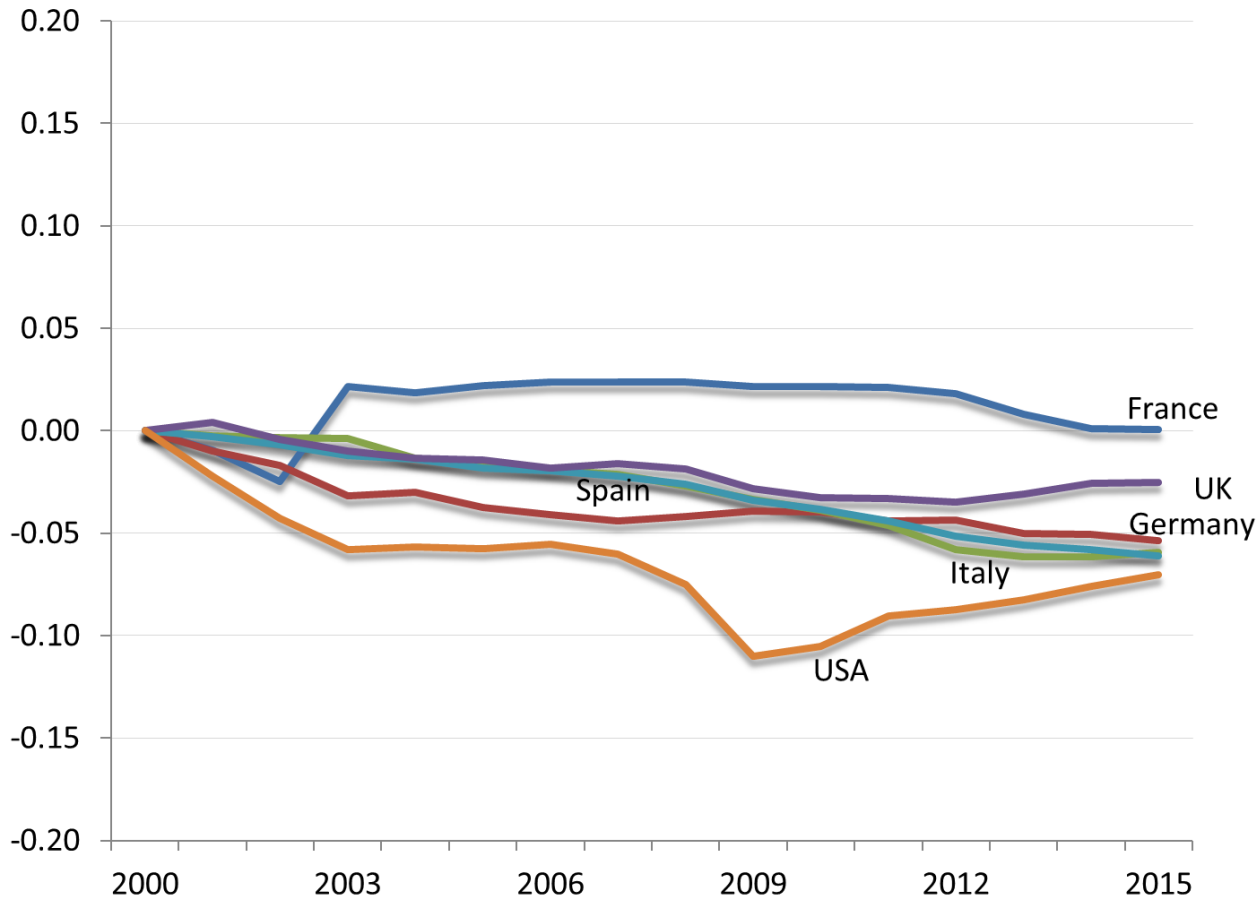




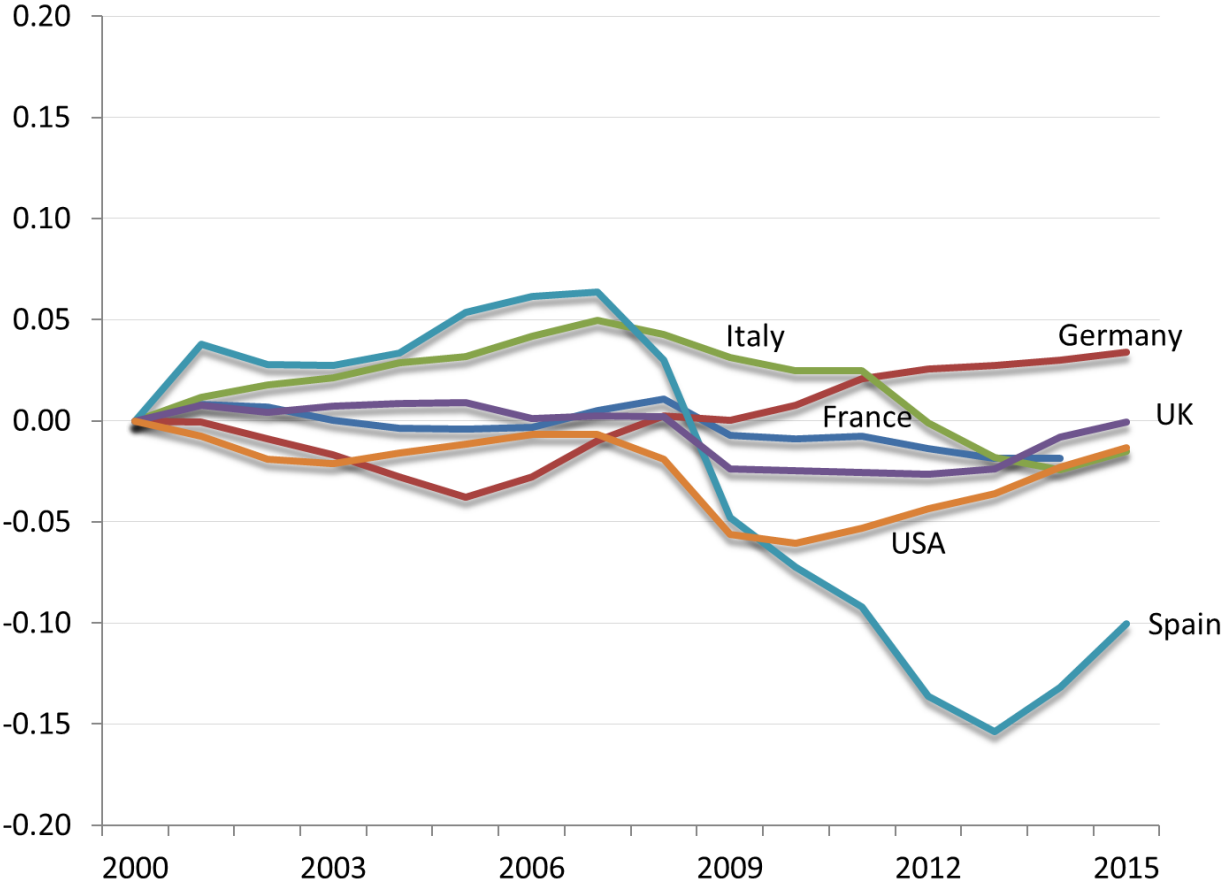
# Log of Index of Capital/Output Ratio



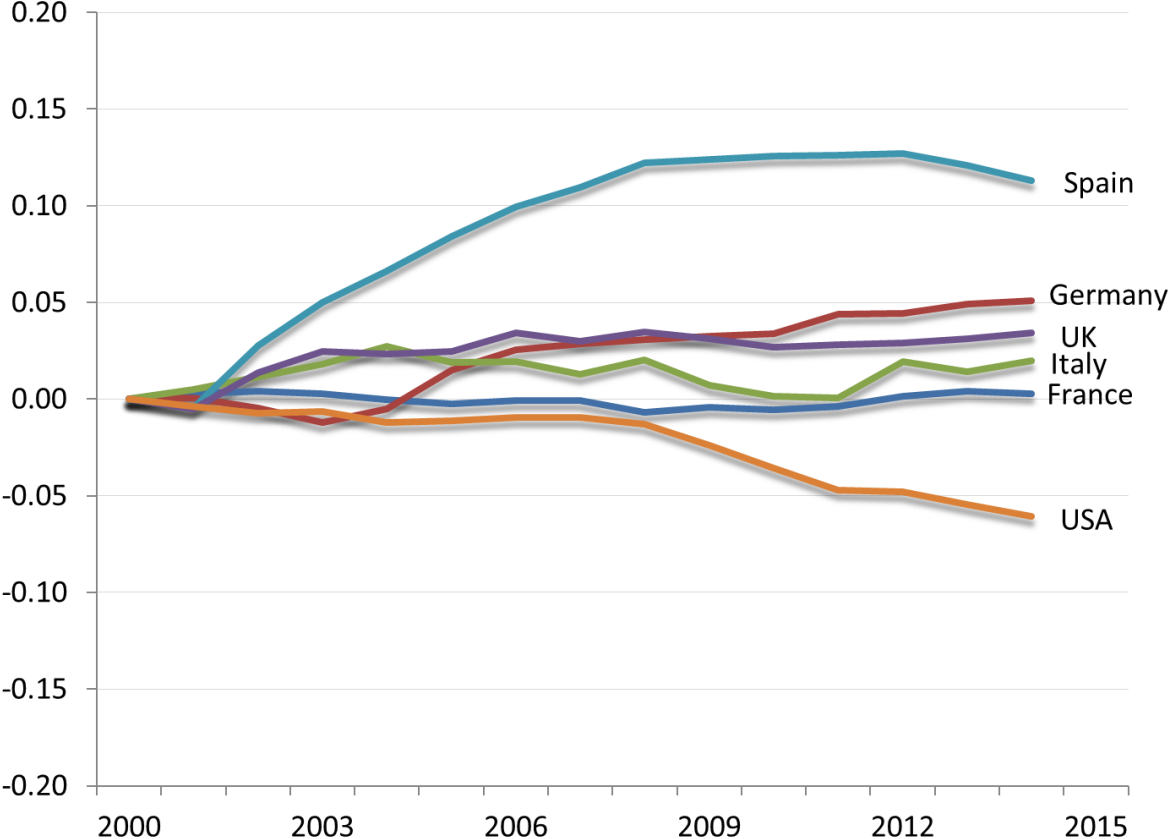
# Log of Index of Weekly Hours per Worker



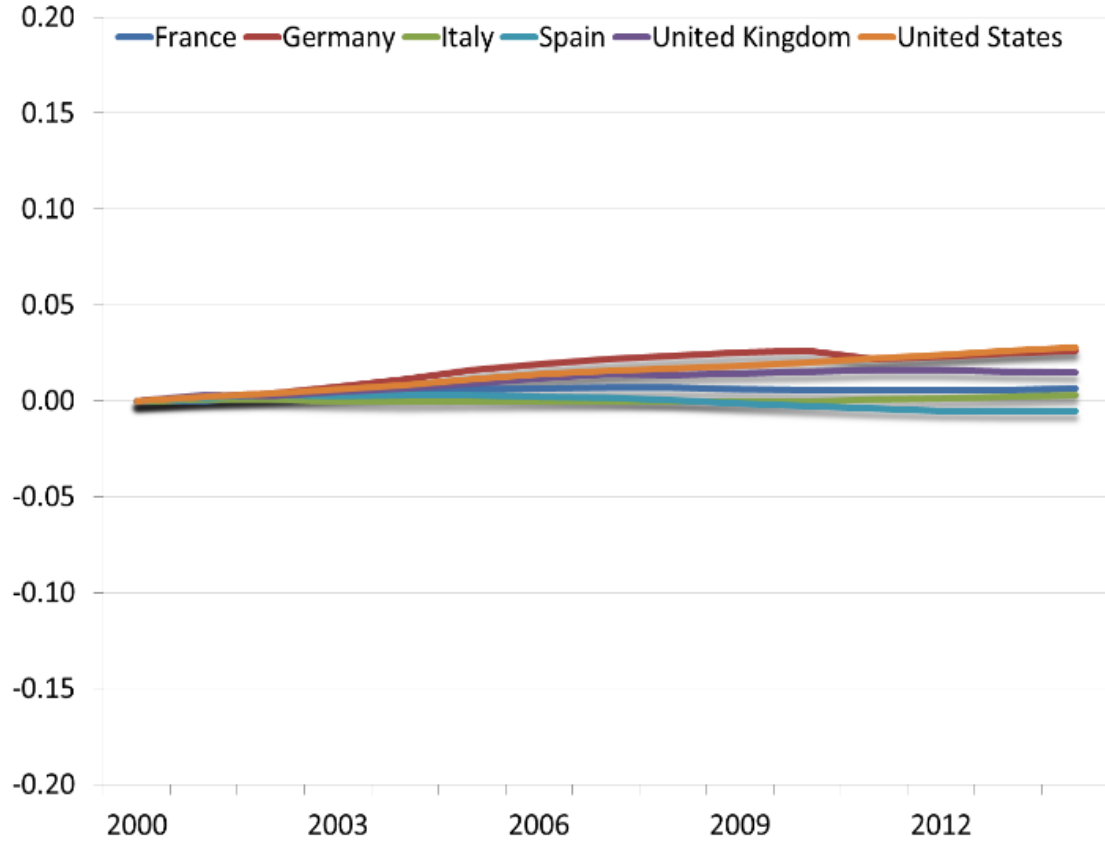
# Log of Index of the Employment Rate of the Labour Force



# Log of Index of the Labour-Force Participation Rate



# Log of Index of the Ratio of the Working-Age Population to Total Population



# Growth Rates of Components of Real Compensation per Member of the Population in the Post-Crisis Years

|         | <i>Share</i> | <i>Productivity</i> | <i>Hours/week</i> | <i>Employment rate</i> | <i>Participation</i> |
|---------|--------------|---------------------|-------------------|------------------------|----------------------|
| France  | -0.93        | 0.01                | -0.38             | -0.40                  | 0.07                 |
| Germany | 0.28         | 0.50                | -0.11             | 0.66                   | 0.37                 |
| Italy   | -1.04        | -0.80               | -0.67             | -1.23                  | 0.12                 |
| Spain   | -1.50        | -0.17               | -0.60             | -3.26                  | 0.05                 |
| UK      | -0.35        | -0.52               | -0.16             | -0.17                  | 0.07                 |
| US      | -0.85        | 0.85                | -0.26             | -0.27                  | -0.85                |

# Conclusions

- Unitary theories of stagnation are unhelpful in studying the behaviour of advanced economies since the crisis.
- Each country has its own story: factor shares, productivity growth, unemployment, labour supply, and demographics.
- How there can be so much heterogeneity in the stories, among advanced countries that operate on similar economic principles and were responding to similar shocks over the post-crisis period?
- Financial fragility is close to a common property, so development of much more robust financial systems would help avoid similar problems in the future.