



Housing cost disease by Borri and Reichlin – discussion

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Summary: the housing cost disease

- Increase in manufacturing relative to construction productivity leads to increases in
 - Real housing prices
 - Wealth-to-income
 - Share of housing in wealth
 - Capital share of income
 - Reproduced using a two sector, life cycle model
 - Derive conditions on technologies and preferences under which the stylised facts are possible
 - Demand for housing sufficiently inelastic
 - Sufficiently small elasticity of substitution between capital and labor in construction
 - Manufacturing more capital intensive than construction
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Background: Baumol

Baumol (1967)

Manufacturing/services

Higher technology growth in M

No capital

No demand side

Deindustrialisation

- Relative price of services increase
- Nominal share of services increase
- Share employed in services increase

Borri, Reichlin

Manufacturing/construction

Higher technology growth in M

Capital

Demand (households)

Housing cost disease

- Relative price of housing increase
- Wealth-to-income increase
- Share of housing wealth increase

Conditions on technologies and preferences under which stylised facts can be reproduced

Comment/question 1

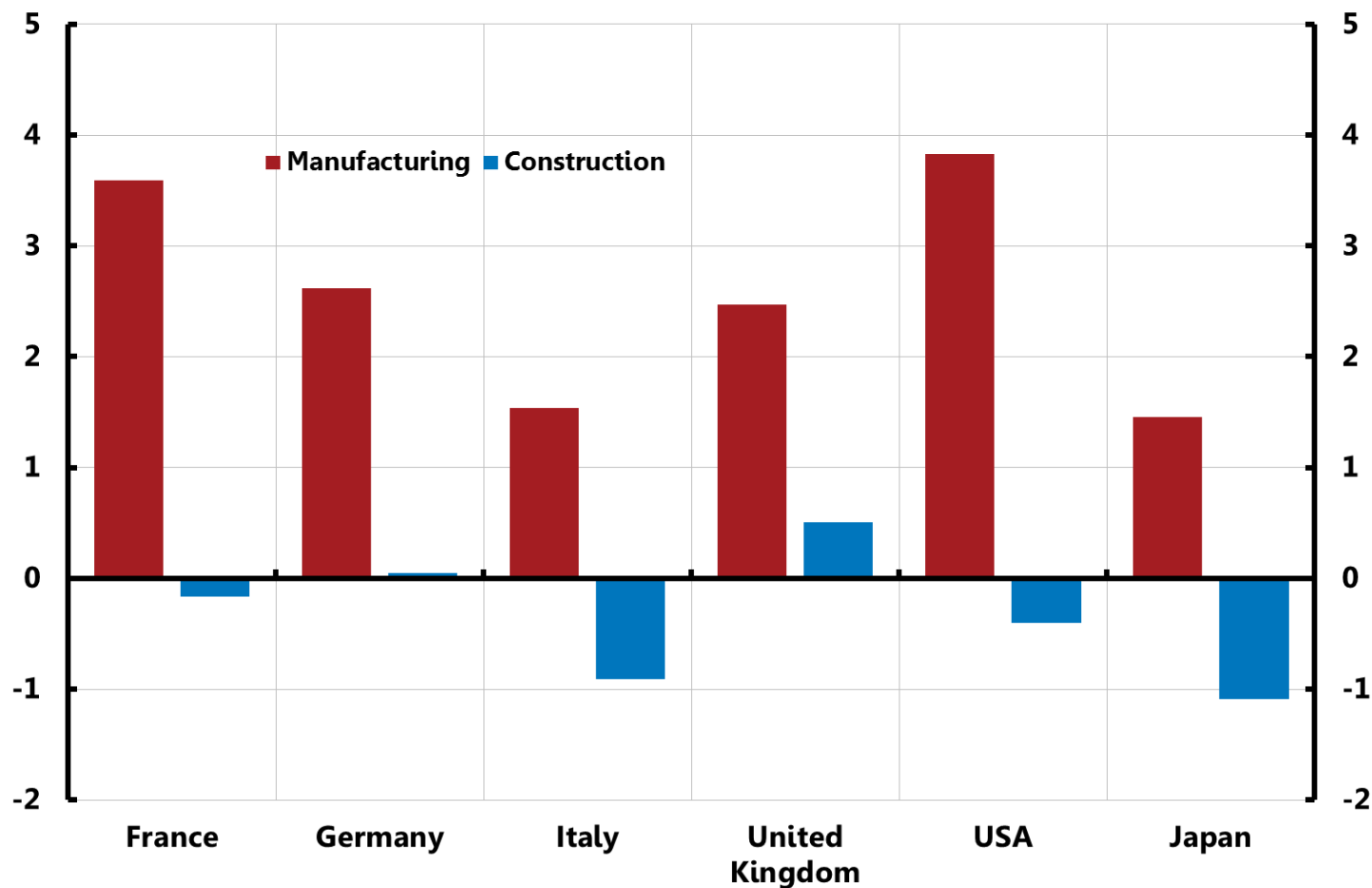
- What fraction of the trend increase in housing prices, and wealth/income, can be explained by technology growth in manufacturing relative to construction?
 - How important is the mechanism *quantitatively*? A key driver of housing prices?
 - Accounting exercise?
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Stylised facts

- Rising trends
 - Manufacturing relative to construction productivity
 - Real housing prices
 - Wealth-to-income
 - Share of housing in wealth
 - Capital share of income
 - Share of workers employed in construction is predicted to increase
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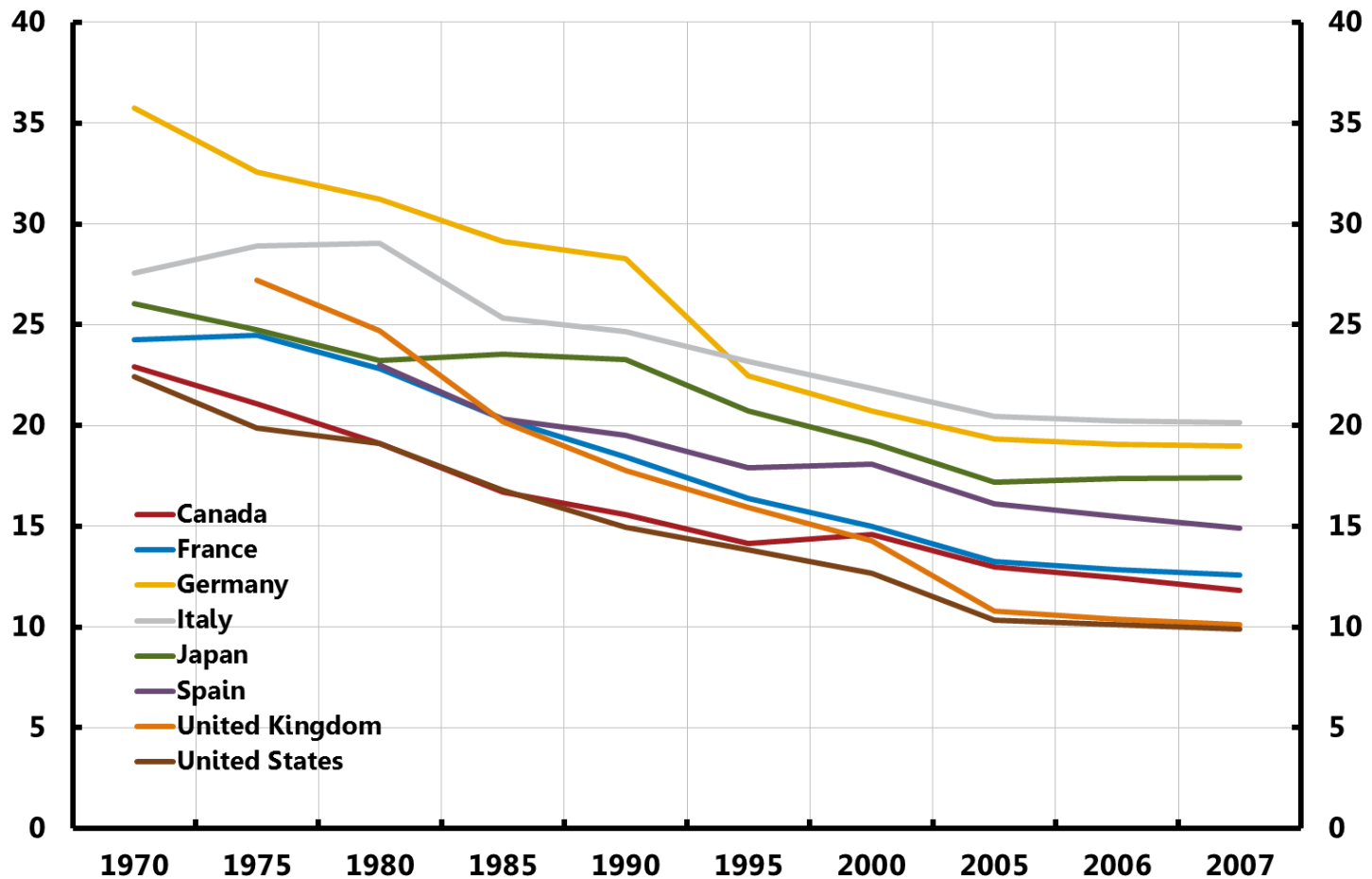
Driver: productivity growth higher in manufacturing than in construction

Average productivity growth, 1991-2014



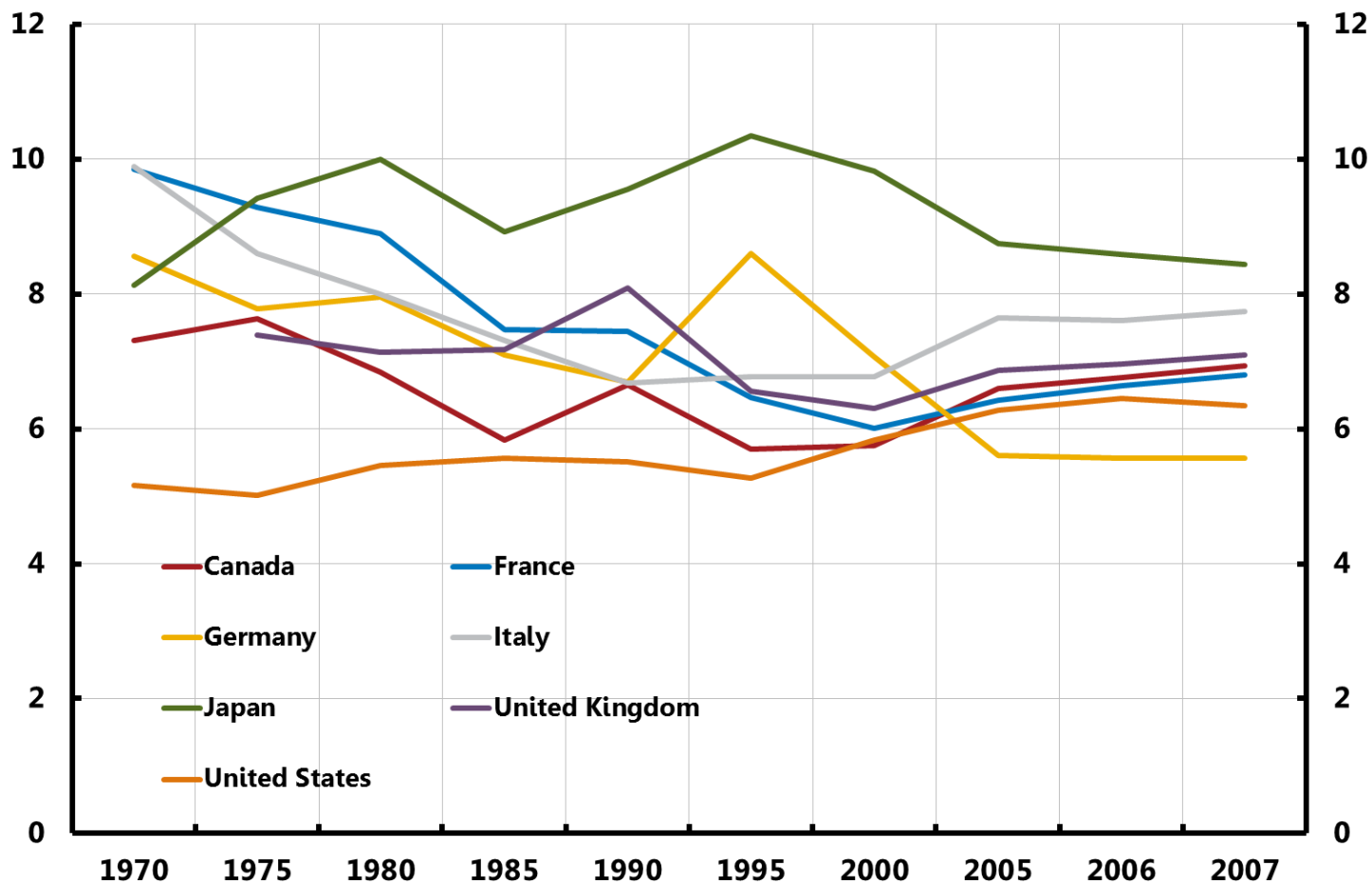
Source: OECD, Japan Productivity Center, BLS (US)

Deindustrialisation: share employed in manufacturing has decreased



But construction employment share has not increased

Source: OECD

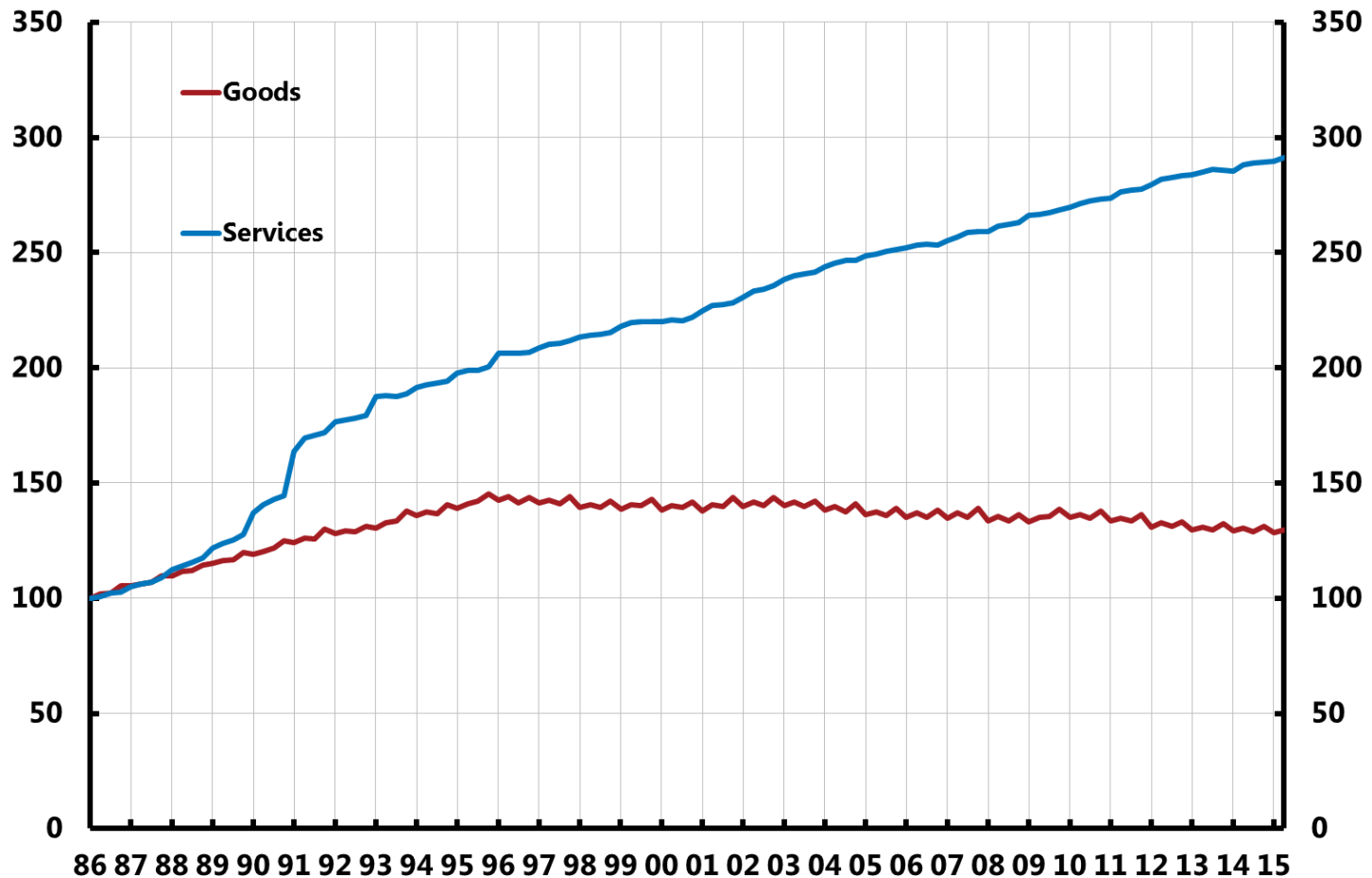


The model does not contain the largest sector – does it matter?

- Manufacturing and construction combined share of employment is 20-25% today
 - Example: share of private sector value added in Sweden 2014
 - Goods: 27.3%, Construction: 7.7%, Services: 65.0%,
 - Three sectors? Add service sector
 - Employment share change: $S (+) > C (0) > M (-)$
 - Stylised fact above
 - Technological growth: $M > C > S$
 - Price increase: $S > C > M$
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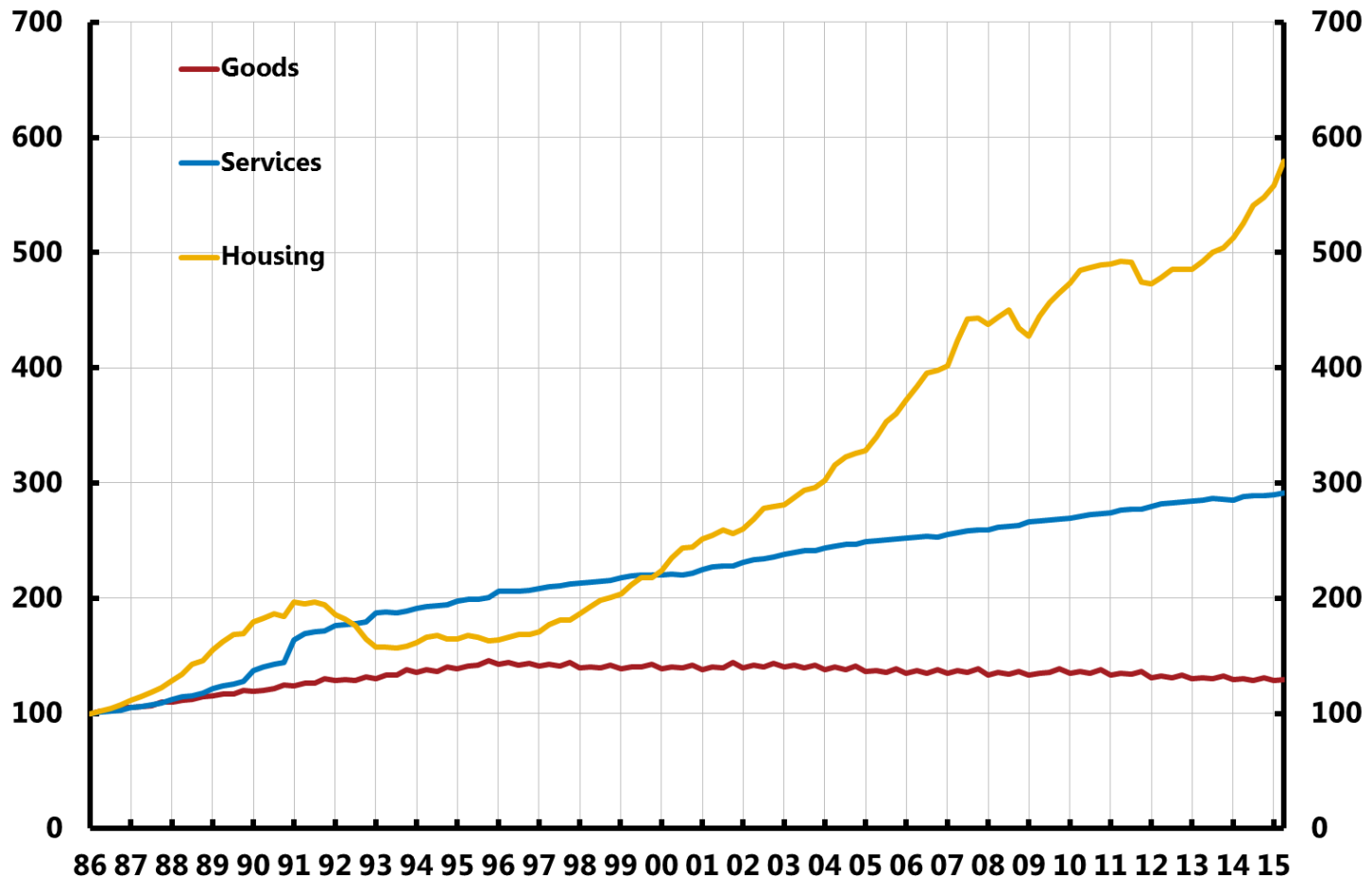
Prices of services increase faster than prices of goods

Sweden, goods and services in CPI, index 1986=100



But housing prices increase even faster

Sweden, goods and services in CPI, and housing prices, index 1986=100



- Change in employment shares are consistent with
 - Technological growth: $M > C > S$
 - Price increase: $S > C > M$
 - For goods/services this seems okay
 - But housing prices have increased much more than prices of goods **and services**
 - Possibilities
 - Technological growth in construction (much) lower than in services (?)
 - Housing price trend increase mainly explained by other factors (?)
 - (Further: regressions suggest that importance of relative productivity differ substantially between countries?)
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Comment/question 2

- "In the simulations, the rise in housing prices more than compensate for a decline in the housing stock", p.4.
 - "Note that the housing stock increases as well, so the increase in housing wealth is not exclusively driven by the valuation effect", p.33

 - Stylised fact on housing stock relative to output (h/y)?
 - Log utility in model for simulations
 - Could guide type of preferences of households
 - Baumol analogy: goods/services, real expenditure shares constant, possibly Leontief preferences
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