Comments on “Global Housing Returns, Discount Rates, and the Emergence of the Safe Asset, 1465-2024”

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Contributions

- New data on German housing transactions from 1465-1943; around 600 housing units but allows for repeat sales approach

- Findings:
  - Housing prices were “dynamic” before WWII
  - “Hockey stick” pattern (prices flat before mid-20th century) not correct
  - Prices can be “backcast”

- Not going to discuss stationarity or discount rates

Americanists take note: the Thirty Years War was a giant bummer

Figure 2: German real house price index (RHPI, log), raw and sqm-basis, 1465-2025.

The new dataset on German cities

Table 2.1: Summary Statistics for Housing Index (RHPI), repeat sales

	# properties	# transactions	Property-years
Erfurt			
1300-1670	5	6	564
Stengberg			
1465-1860	17	108	4,240
Mainz			
1604-1808	2	5	140
Frankfurt			
1358-1864	27	146	6,280
Koblenz			
1408-1806	18	58	2,742
Berlin			
1658-1858	170	1,351	18,185
Munich			
1391-1904	211	2,299	49,474
Freiburg			
1572-1904	3	3	55
Dessau			
1655-1933	30	144	3,142
Nuremberg			
1387-1943	101	754	27,046
Aschaffenburg			
1591-1928	22	65	2,133
Total			
1300-1943	606	5,075	114,830

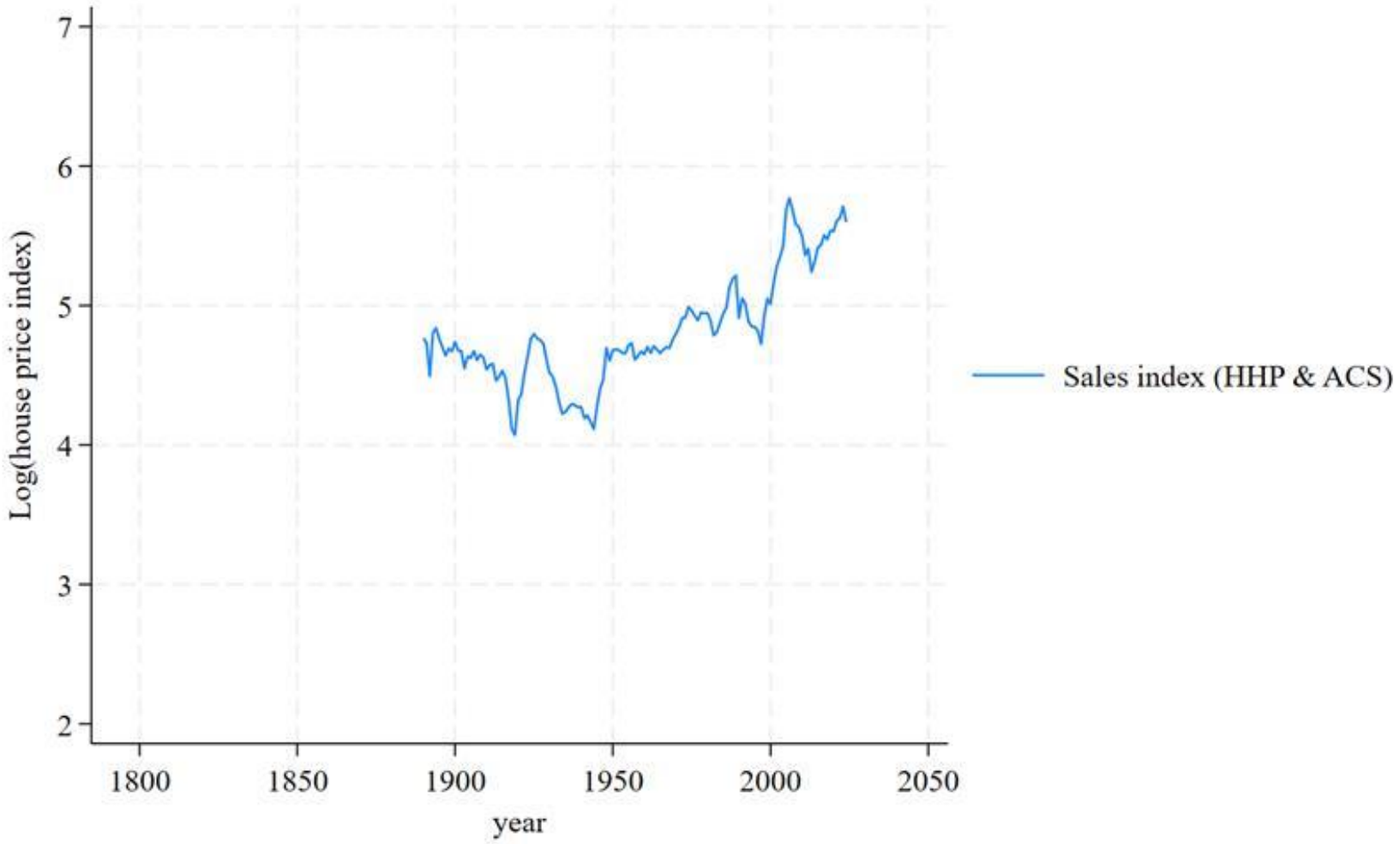
Housing price indices with sparse historical data

- 478 years, 602 properties, 5000 sales
- Finding is that housing prices were “highly dynamic” prior to the 20th century
- How should we think about “dynamics” when the indices are estimated from very sparse long-run data sources?

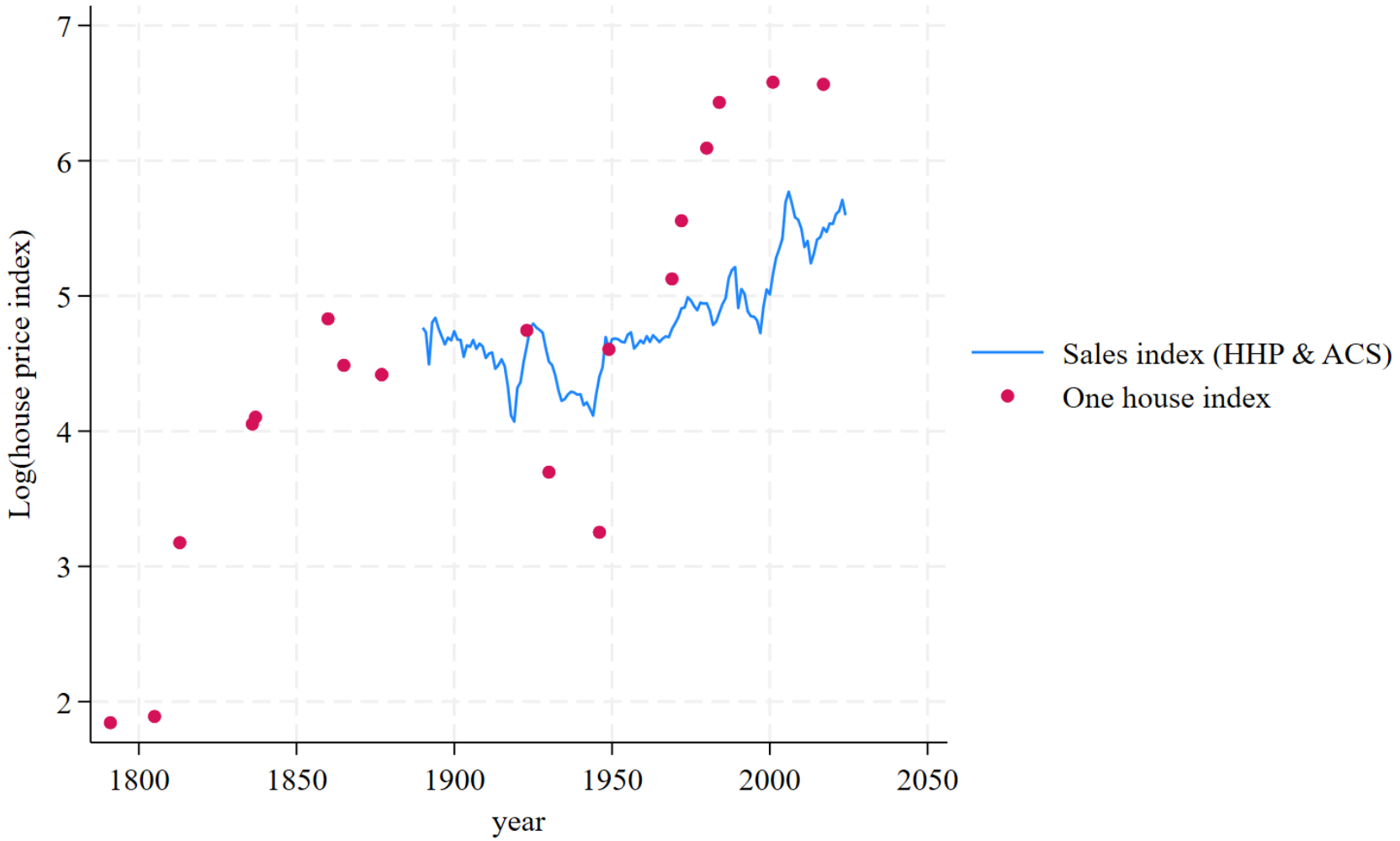
A thought experiment from a single house on Elfreth Alley in Philadelphia

(h/t Jonathan Rose)

Historical Housing Prices Project index + ACS housing price index for Philadelphia



HHP + ACS index alongside all market sales of the Elfreth Alley house

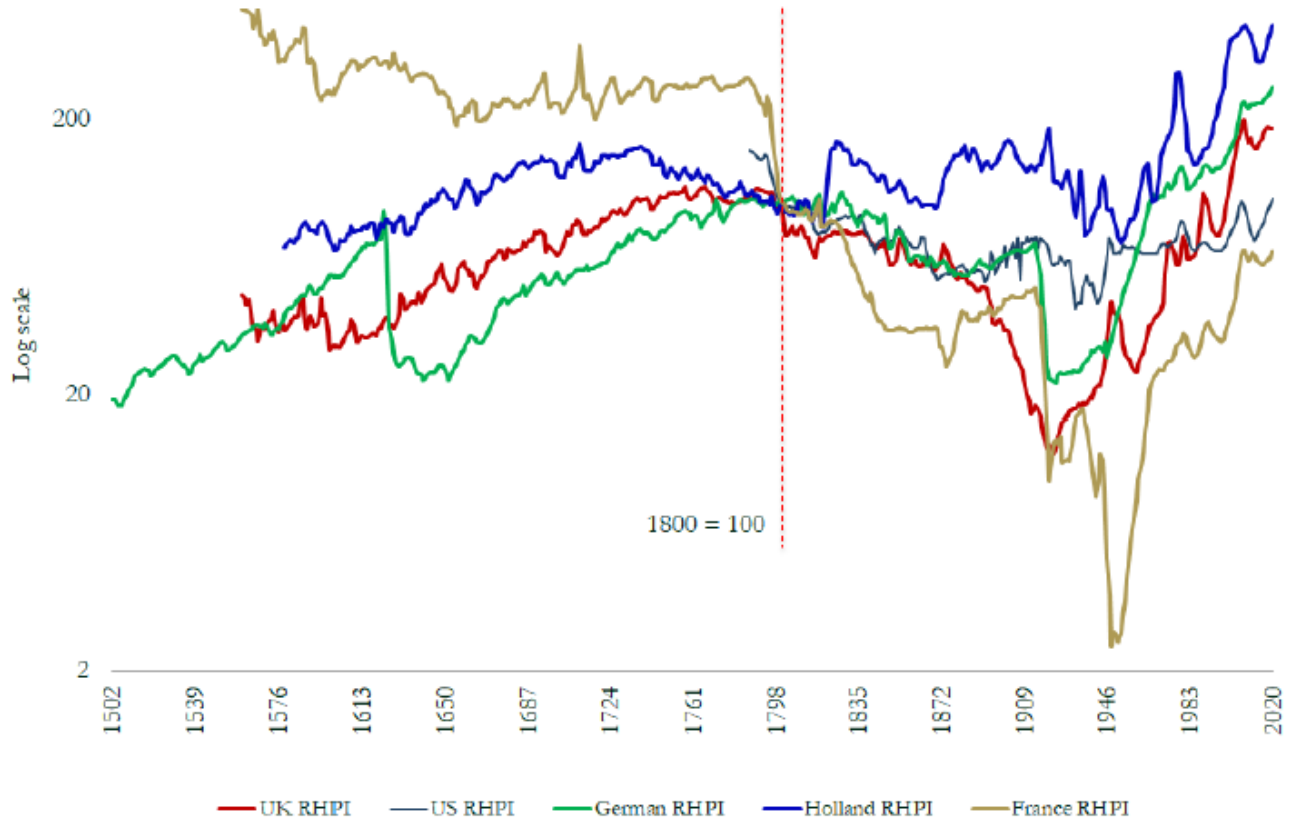


“Backcasting” housing prices

- Why even embark on archival data collection when you have ML
- Idea: train a model on German data from 1845-2020 from Jorda et al. database, backcast using ML methods to get an estimated series for Germany from 1502-1870, find R-squared of .54 with respect to archival series
- Then extend this methodology to four other countries to get the “global” returns referenced in title of paper (U.S., U.K., France, and Holland)
- Important variables are building costs, population growth, sovereign debt interest rate
- Deficit ratio and lagged inflation also seem to matter in preferred model

HPIs for five countries, 1502-2020

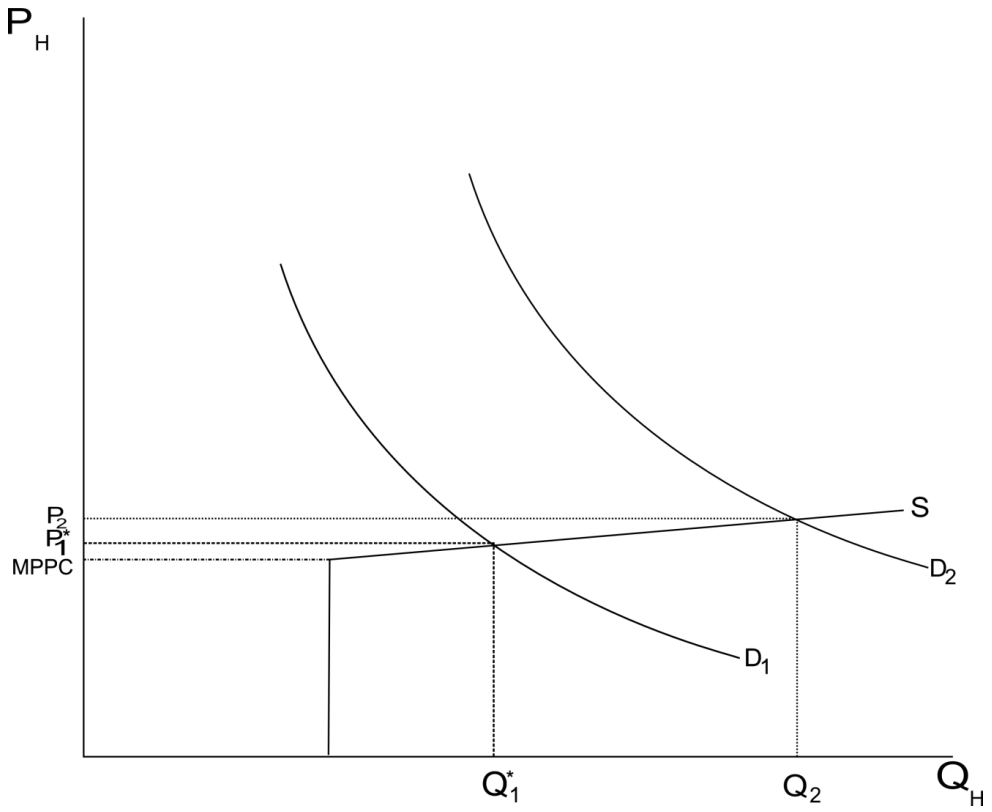
Figure 4: Seq2Seq+ Machine-Learning real house price index (LHS), 5 countries, 1800=100, 1502-2020.



Thinking about this approach from a housing markets lens

- Prices should be pinned down by construction costs in elastically supplied markets, which was virtually all of the U.S. in the 1800s. What about Holland?
- Note that construction costs stop being as important for housing prices by the 1970s, does this matter?
- Demand shocks like population growth will lead to more housing being built, not necessarily higher prices
- Lagged inflation and real housing prices? What kind of model do we have in mind here?

Equilibrium Housing Prices in an Elastically Supplied Market



Source: Gyourko teaching materials

Construction costs and scope

- Respect the use of the 1975 Adams *Journal of Economic History* paper to get construction costs for the U.S. before RSMeans
- Adams estimates building costs using the Bezanson survey of prices in Philadelphia from 1785-1860
- How should we think about the coverage of the backcast series? Major cities like Philadelphia?
- Urban share in the United States c. 1800 was like ~5%
- Could benefit from a discussion of urbanization, land prices, and geographic scope as in Knoll et al. (2017)

Fascinating work and I enjoyed reading your paper!