

Discussion: Real Effects of the ECB's Quantitative Easing: A Housing Portfolio Channel

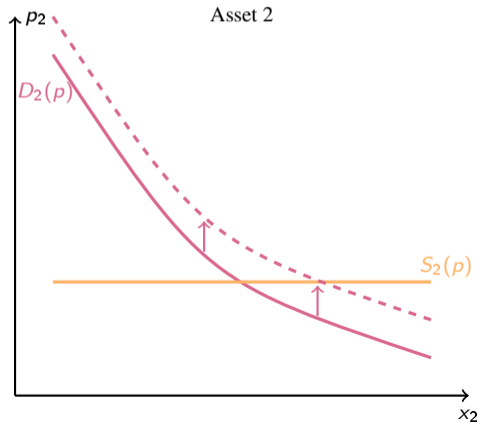
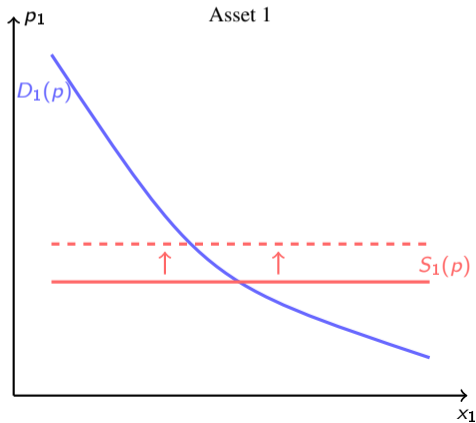
Bodding, te Kaat, Ma and Rebucci

Portfolio Choice: frictionless case

Portfolio choice problem:

$$\max_{x_1, x_2} \mathbb{E}[U(x_1, x_2)], \quad U_{12} < 0,$$

$$s.t. p_1 x_1 + p_2 x_2 \leq W.$$

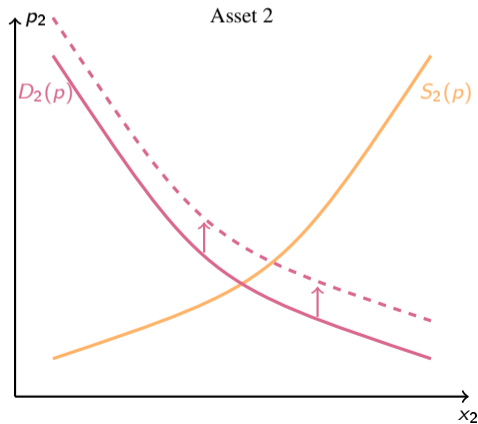
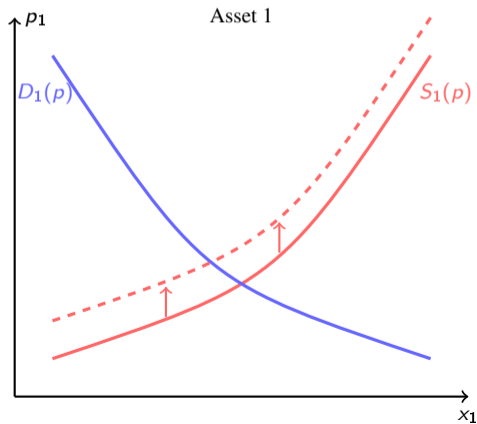


Portfolio Choice: with preferred habitat

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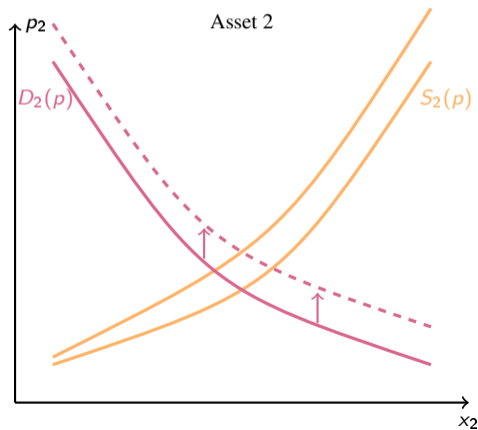
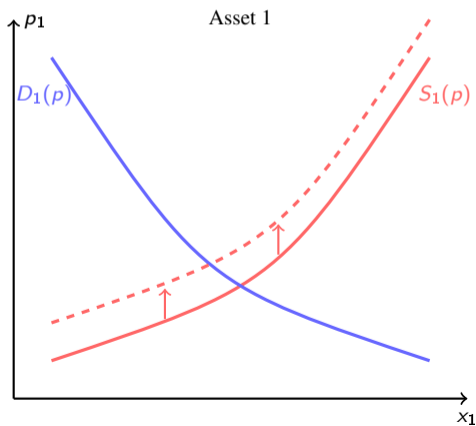


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Three sources of variation

1. **Supply shifter in asset 1:** ECB balance sheet.
2. **Measure of supply elasticity in asset 2:** regional housing constraints in Germany.
3. **Asset 2 price response:** regional rental yields.

Bottom line: 2-3% extra GDP growth in response to a 1 s.d. increase in the ECB balance sheet.

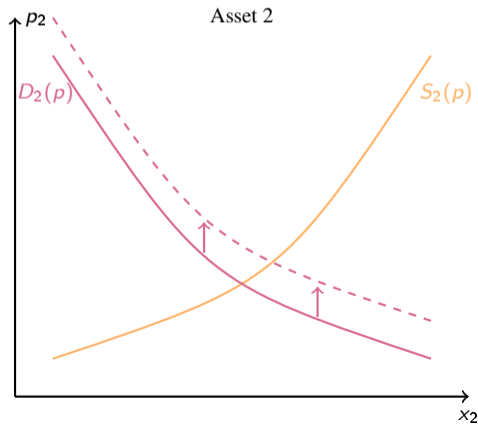
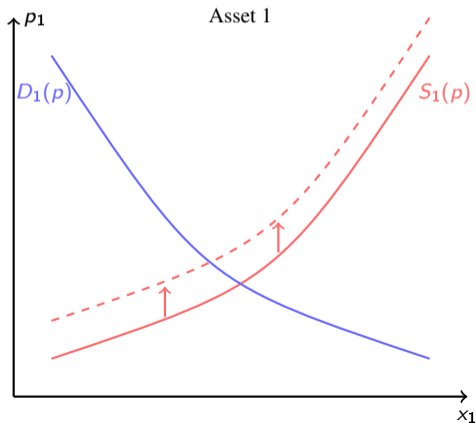
Will come back to the empirics. First some remarks on the mechanism.

(I) Three ingredients needed

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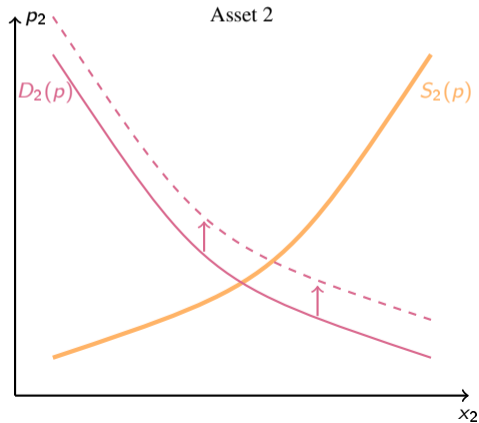
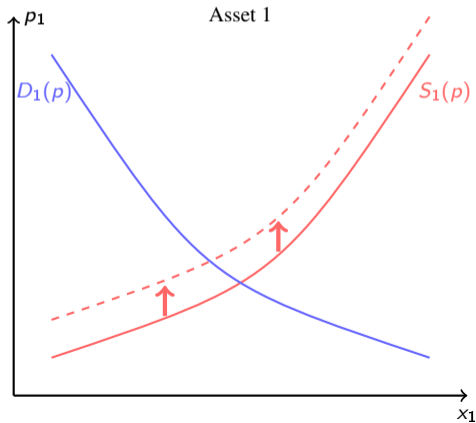


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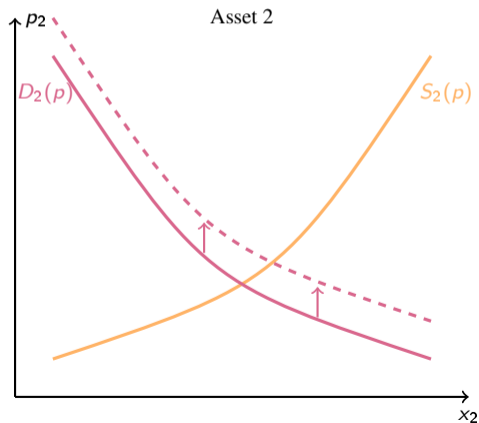
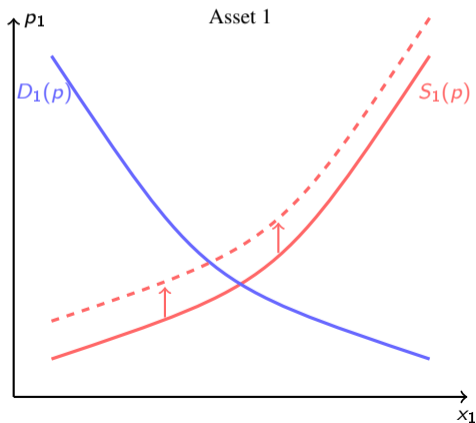
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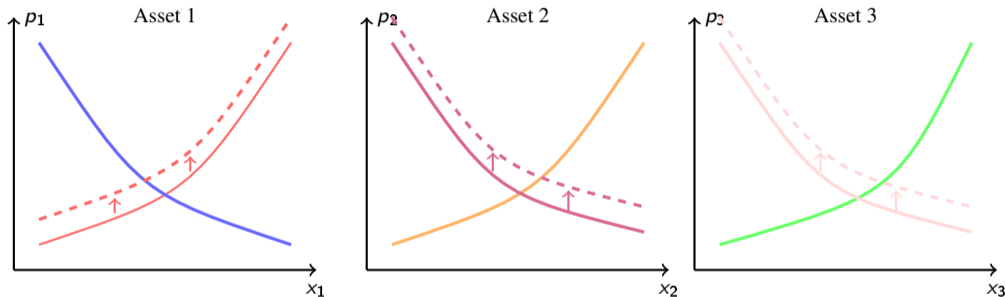


(II) Appears observationally equivalent to income/wealth effects

$$\begin{aligned} & \max_{x_1, x_2} \mathbb{E}[u_1(x_1) + u(x_2)], \\ & \quad \uparrow \text{following policy} \\ & \text{s.t. } p_1 x_1 + p_2 x_2 \underbrace{\equiv}_{\text{binding}} \overbrace{y + p_1 \bar{x}_1}^{\text{following policy}} + p_2 \bar{x}_2 \end{aligned}$$



(III) A third asset could still be driving results



Third asset could be investment in regional physical capital for example.

What exactly is the channel?

- ▶ It is portfolio balancing driving substitution from bonds to housing and consumption.
 - ▶ Substitution effects weak in the micro data (Campbell and Mankiw (1989)). albeit for interest rates.
 - ▶ Home ownership rates decline nationally. Any regional evidence?
 - ▶ Household level specification is framed in terms of wealth effects.
- ▶ I also wondered about the lack of a credit boom being evidence for no credit channel.
 - ▶ It would be nice to see regional evidence as we cannot assess a counterfactual from the aggregate.

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- ▶ Or substitution to entrepreneurship? (Corradin and Popov (2015))
- ▶ Ok to be agnostic about channel from housing to output. But all channels are correlated with the change in the rental yield so it wasn't clear to me how the research design isolates portfolio rebalancing.

Aggregation

- ▶ Typically we want to know how important the channel is for the aggregate effect of QE.
- ▶ Estimates are a mix of p.e. , local g.e. effects and, partly, relative spillovers to other regions.
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- ▶ With regional data violation of the SUTVA assumption means the overall effect may be biased in either direction.
- ▶ There are model based methods to address this
 - ▶ Divide-by-multiplier method in Guren et al (2020).
 - ▶ Chodorow-Reich (2019) has a simple model, in an environment similar to the setting in this paper.
- ▶ If aggregation is infeasible, estimating a spillover model (e.g. Berg et al (2021)) could be revealing about the channel.

Specification

Specification of the form:

$$\text{outcome}_{i,t} = \alpha_i + \beta_t + \gamma \times \text{shock}_t \times \text{exposure}_i + e_{i,t}$$

1. **Shock:** ECB balance sheet.

- ▶ Monetary policy mainly driven by non-policy shocks. ECB balance sheet not just QE.
- ▶ Why are the surprises not a baseline (or some accumulated identified measure)?
- ▶ The path/forward guidance part of policy is omitted, perhaps include a long rate.

2. **Exposure:** regional housing constraints in Germany.

- ▶ Davidoff critique in the US – what are these correlated with? Authors control for 65+ share, density, agri share \times shock.
- ▶ How about wealth/income, industry mix? Can the household analysis be used to discipline a control set?
- ▶ Voting patterns can still be correlated with omitted factors.

Household level evidence

- ▶ It would be nice if the model could be tied with this section.
 - ▶ The propositions are independent of the level of wealth, but the effect is stronger among wealthier households.
 - ▶ No role for initial bond holdings.
 - ▶ I suggest giving an initial endowment of assets (can be ex-ante optimal) and heterogeneous wealth + dropping power utility.
- ▶ My concern with this section is that 2011 versus 2017 is a long time window and trends may not be parallel.
 - ▶ If you have an earlier wave perhaps look at a pre-QE window.

Very interesting paper! Thank you