

# **How Should Monetary Policy Respond to Housing Inflation?**

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**Discussion by Dan Greenwald**



# Summary

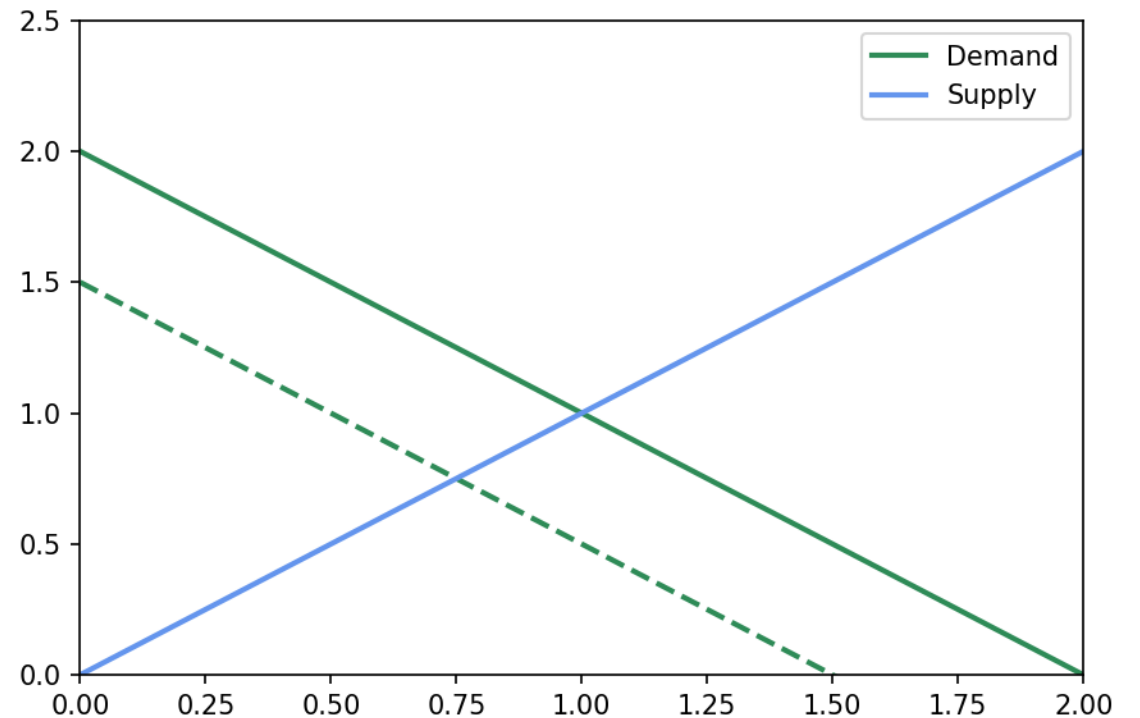
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- **Question:** how should monetary policy respond to housing inflation?
  - Highly salient as shelter inflation has diverged from rest of CPI
- **Approach:** model with nominal rigidities, nondurable goods, and housing
  - Housing is inelastically supplied, rationed according to a search technology
- **Main Findings:** optimal policy leans against housing inflation very little
  - Completely neutral with respect to housing inflation when search costs  $\rightarrow 0$
- **This discussion:**
  - Review of the key mechanisms
  - Questions about (i) the broader impact of rationing, (ii) the sign of the shock, (iii) distributional impacts, and (iv) the role of housing construction

# Simple supply and demand example

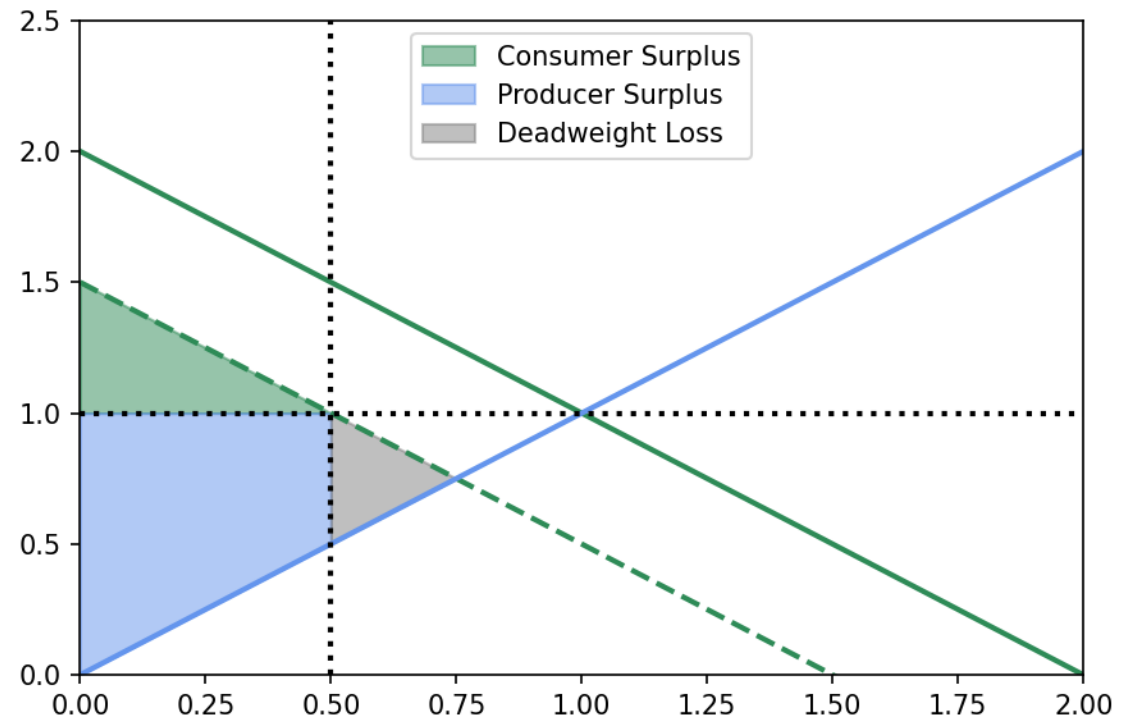
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- Let's start with a simple supply and demand framework
- Right: effects of a **contractionary** demand shock with **flex** prices



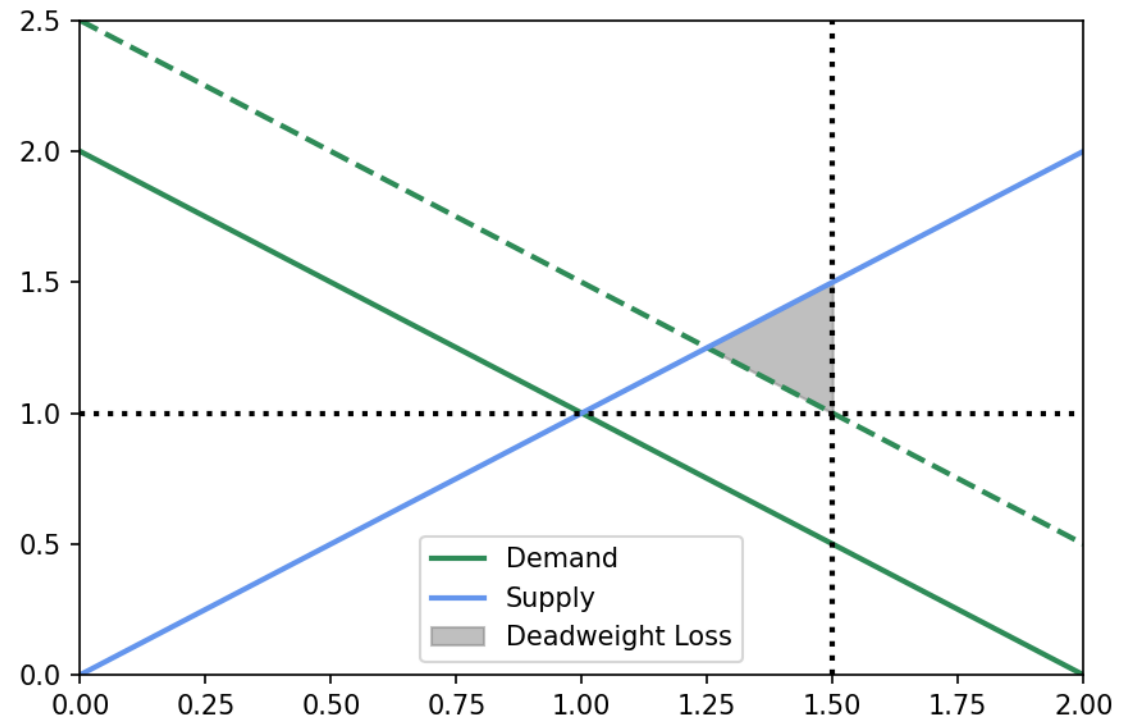
# Adding sticky prices

- Let's start with a simple supply and demand framework
- Right: effects of a **contractionary** demand shock with **sticky** prices
  - Assume prices are perfectly rigid, quantity is demand-determined
  - Producers forced to keep price too high following drop in demand
  - Result: quantity transacted is too low
  - Deadweight loss from lost transactions



# Adding sticky prices

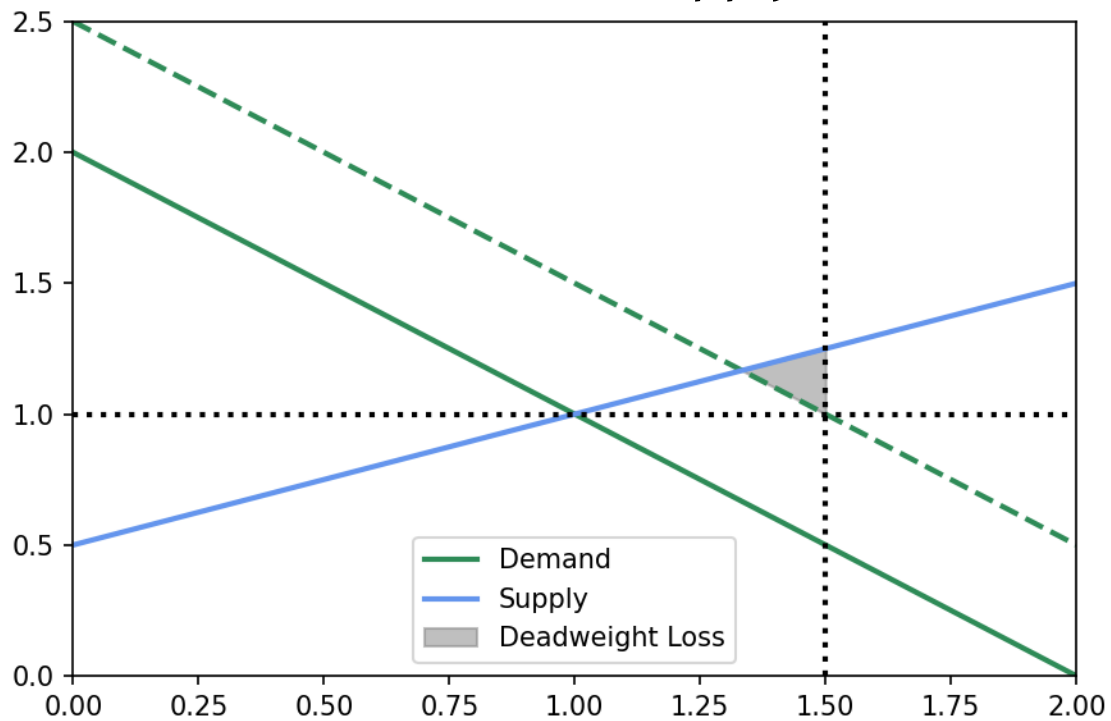
- Let's start with a simple supply and demand framework
- Right: effects of an **expansionary** demand shock with **sticky** prices
  - Now price is too low ex-post, quantity transacted is too high
  - Producers forced to sell below reservation price
  - Deadweight loss from excess output due to costs borne by producers



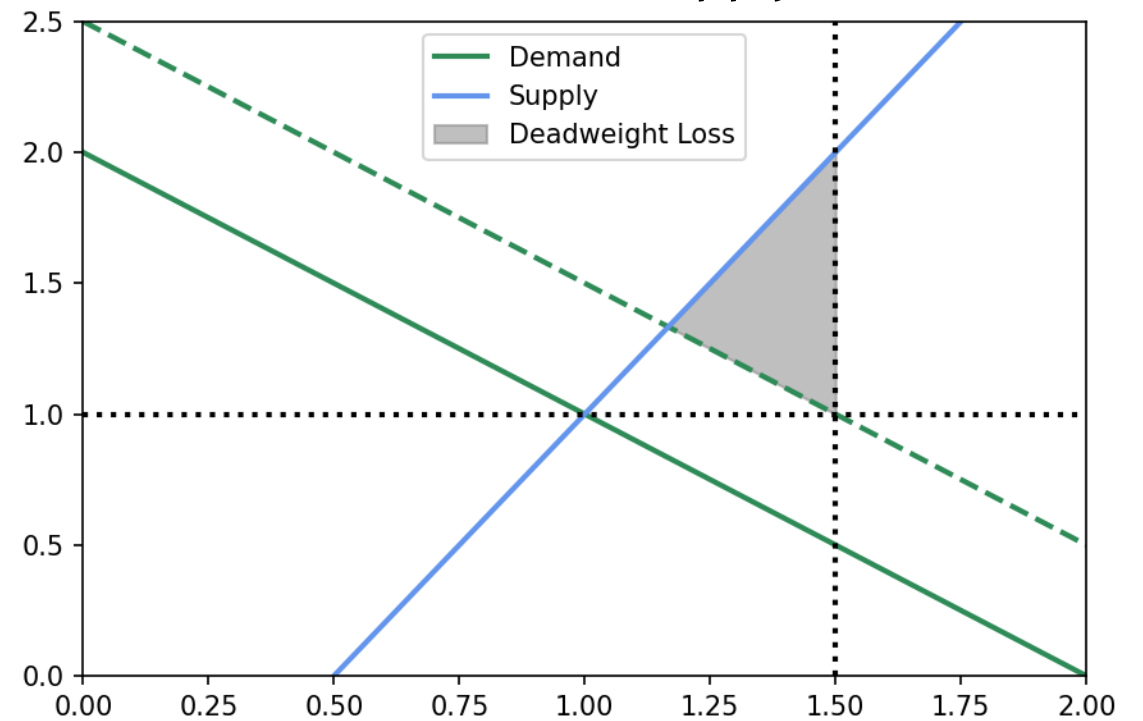
# Effects of elasticity

- In this setting, deadweight losses are larger with less elastic supply
  - Quantity is always demand determined, but excess costs are higher

More Elastic Supply

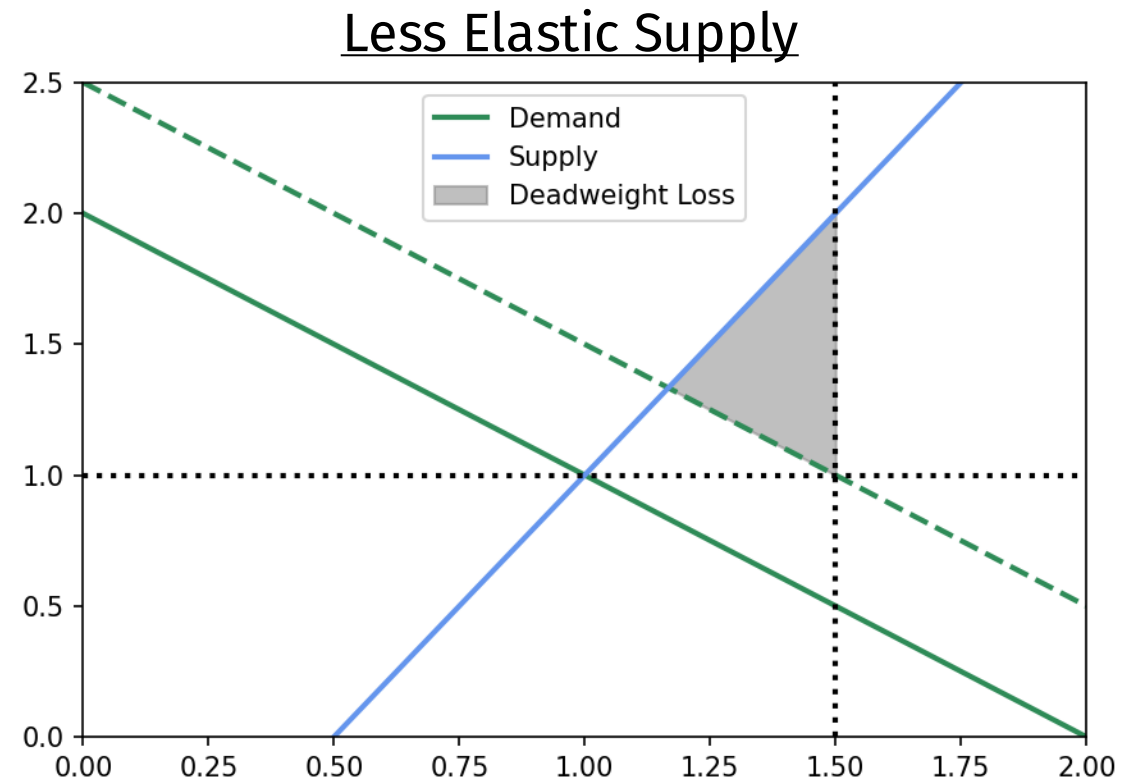
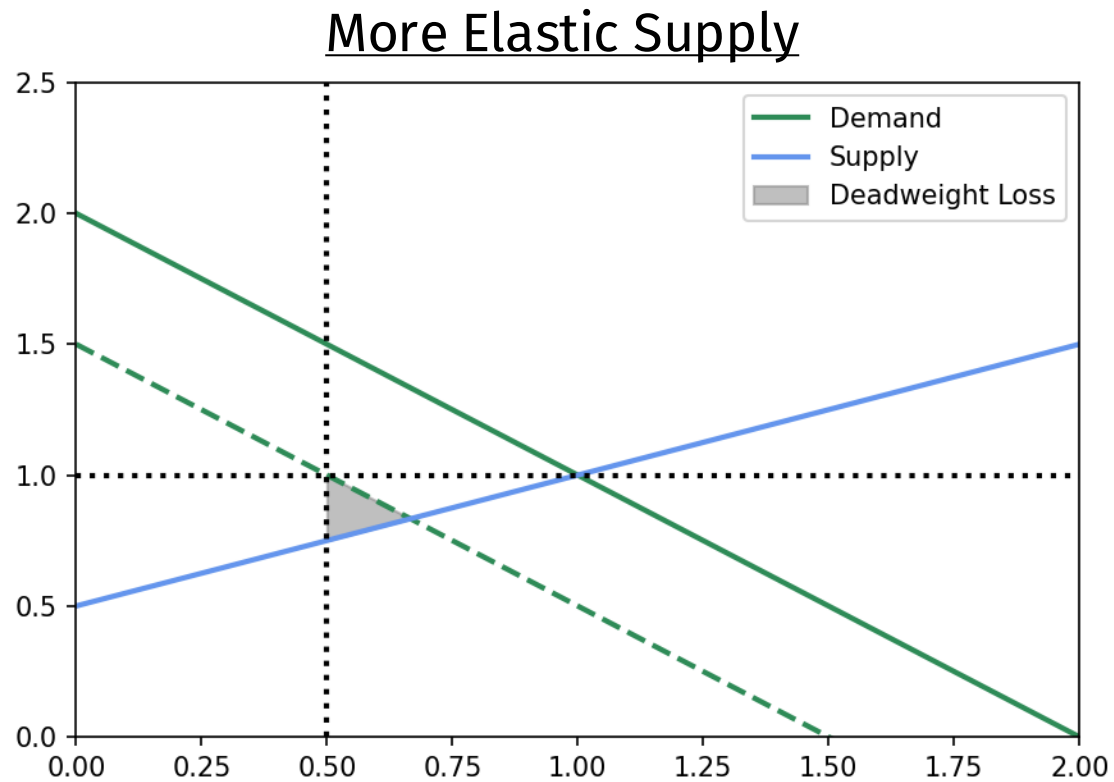


Less Elastic Supply



# Implications for stabilization

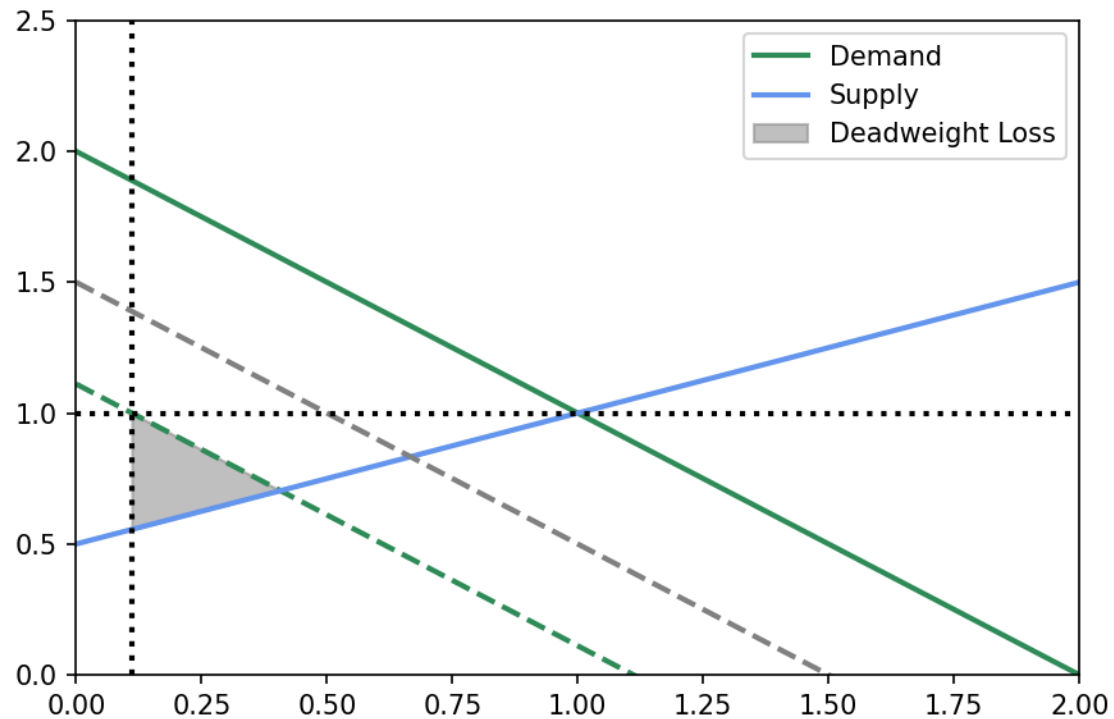
- Imagine that the central bank is facing opposing demand shocks
  - Larger losses in inelastic market → weight it more heavily (Eusepi et al, 2011)



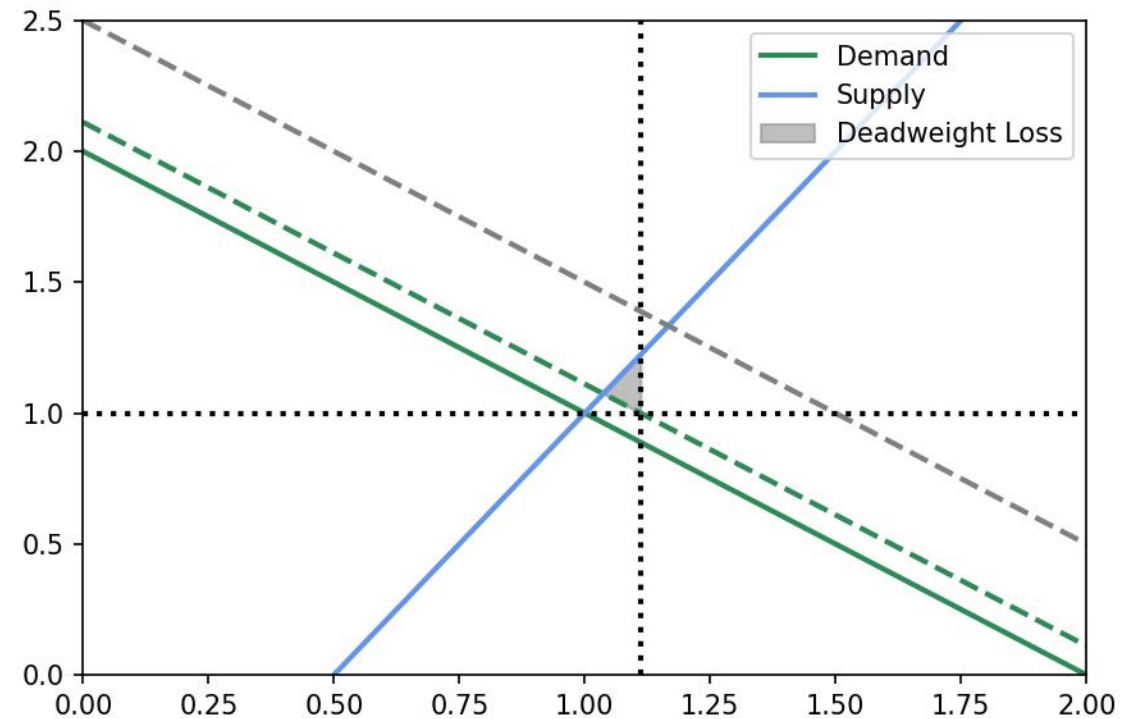
# Implications for stabilization

- More weight on less elastic → depress aggregate demand (in this case)
  - Reduces overall deadweight loss by reallocating to elastic market

More Elastic Supply



Less Elastic Supply





# Back to the paper

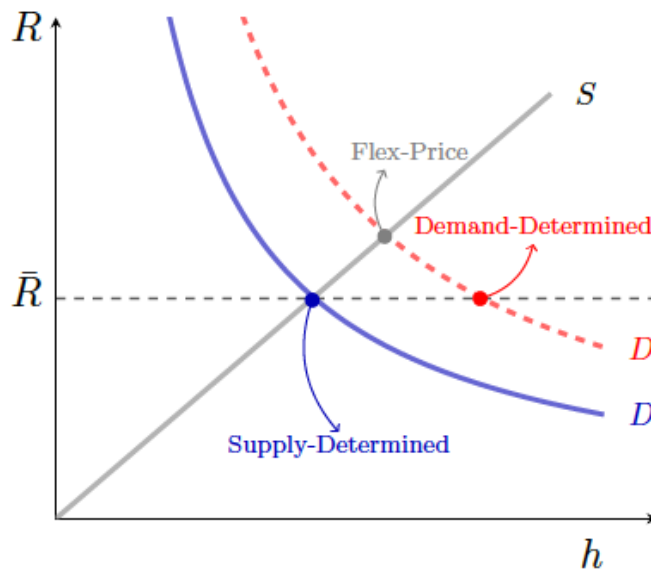
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- In this paper we are considering a good (housing) that:
  - Has sticky prices
  - Has inelastic supply
  - Is durable
- All of these seem like they should make undoing distortions in the housing market a high priority!
  - I.e., should put a **high weight** on housing inflation
- Instead, the paper argues we should put **zero** weight on housing inflation
  - What's going on here?

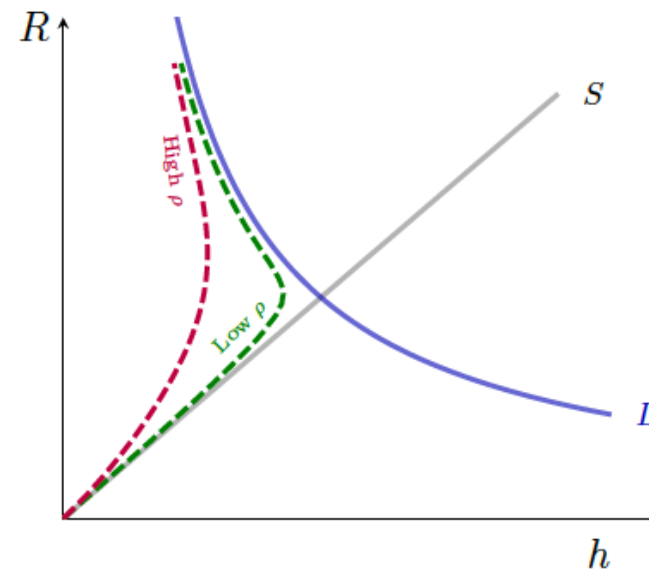
# Back to the paper

- Key difference: in the paper we are not using demand-determined output, but instead are **rationing** using a search model
  - Similar to “short-side” rule: quantity is lesser of demand and supply
  - Intuition: no one is involuntarily buying or selling

(a) Supply vs. Demand Determined Eqm.

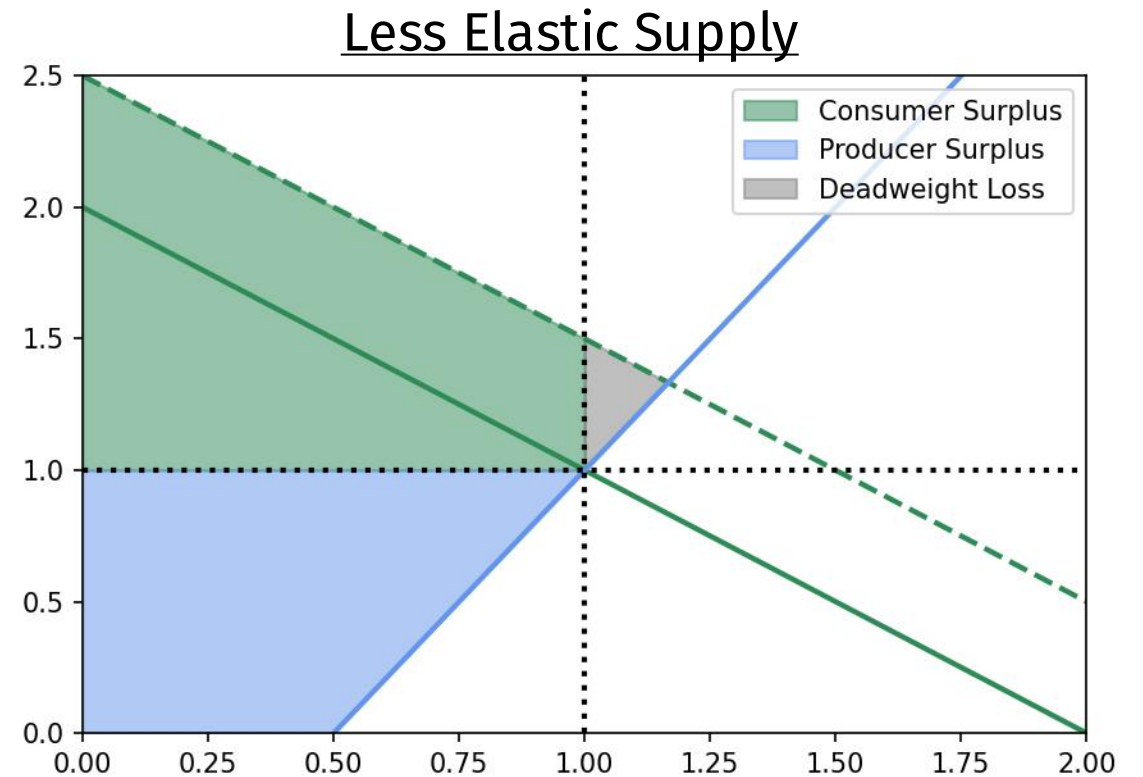
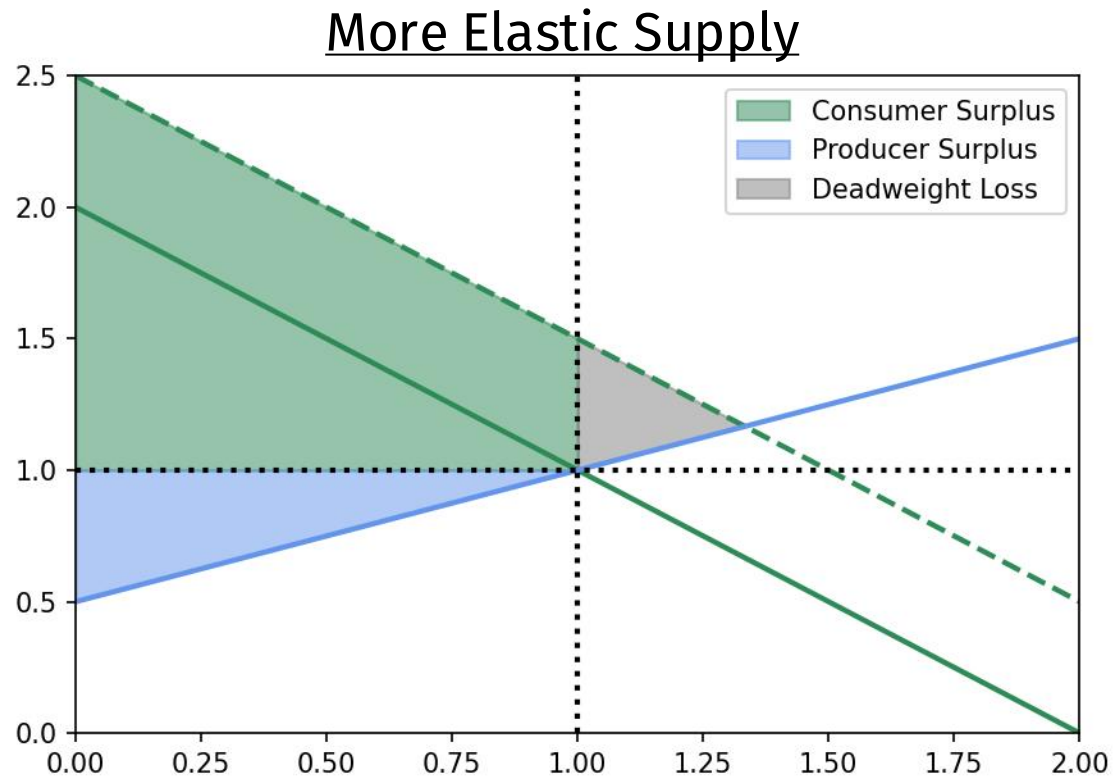


(b) Search Equilibrium



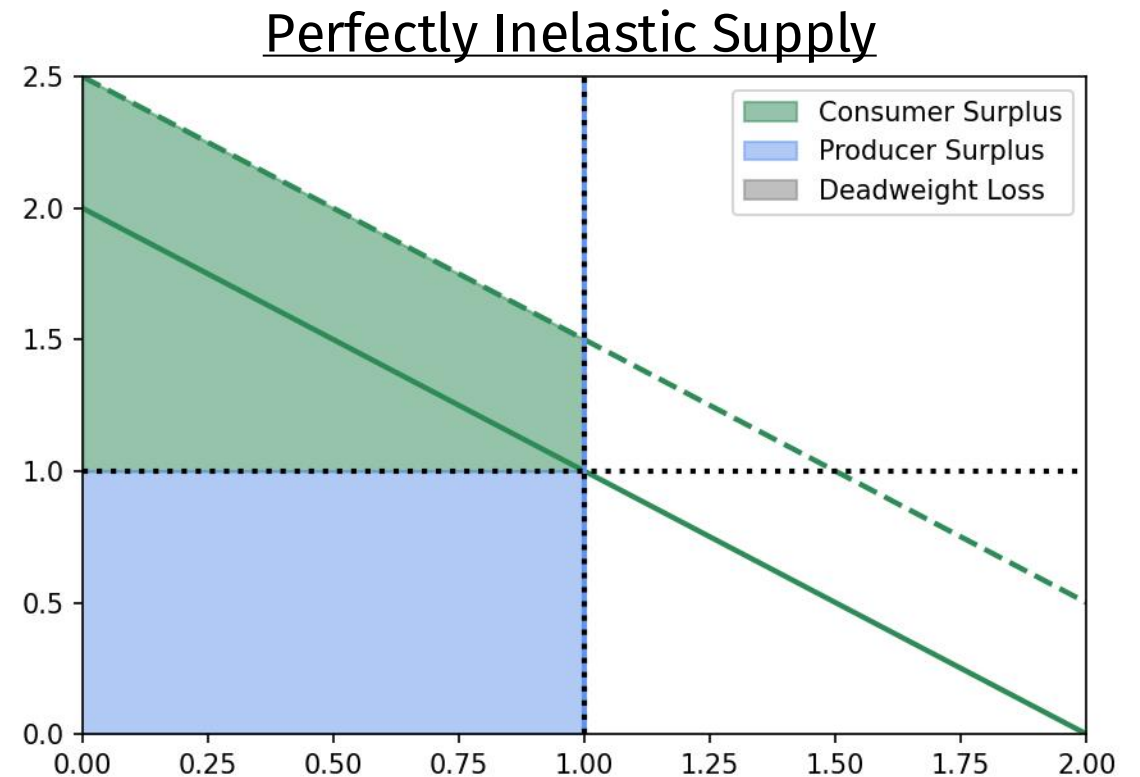
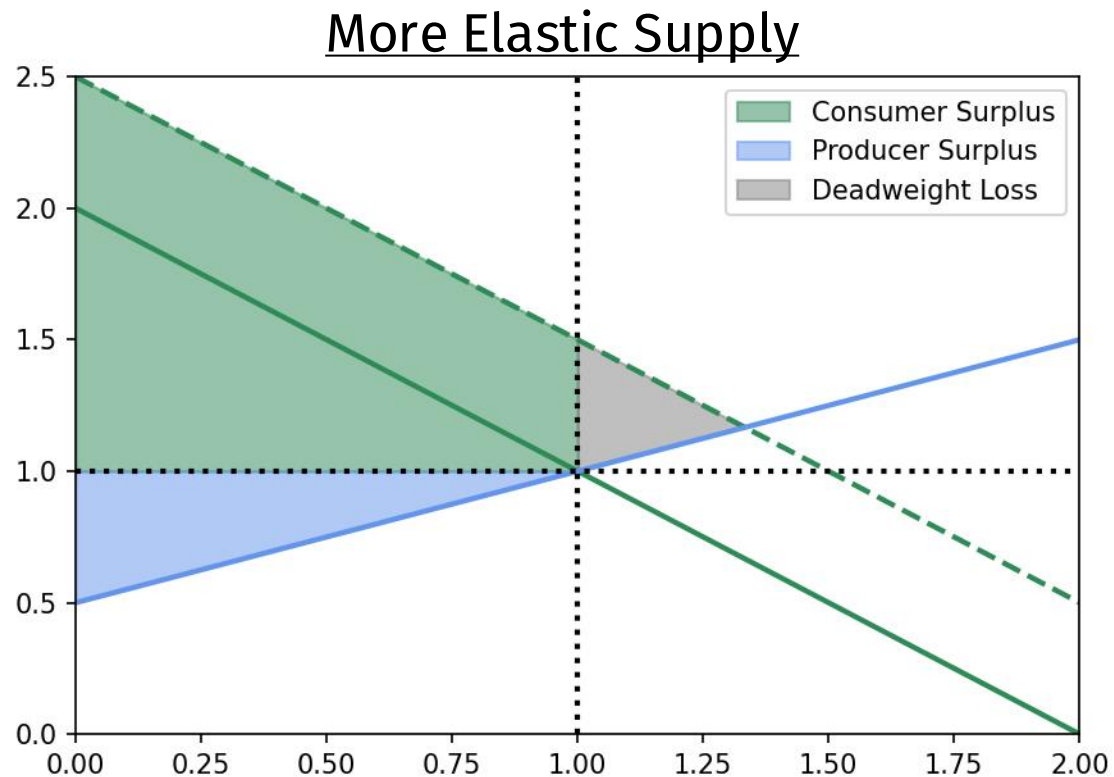
# Comment #1: effects of rationing

- Rationing can flip the implications for stabilization
  - After a demand expansion, quantity is supply-determined
  - Lower elasticity  $\rightarrow$  smaller losses



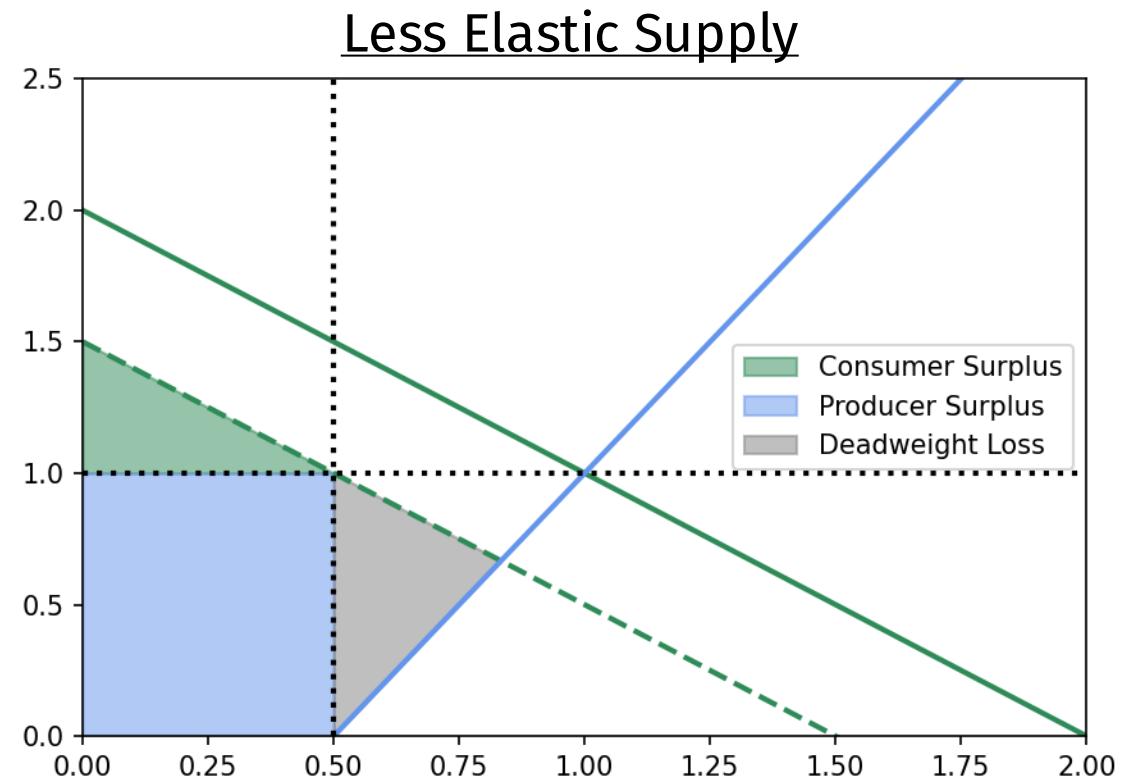
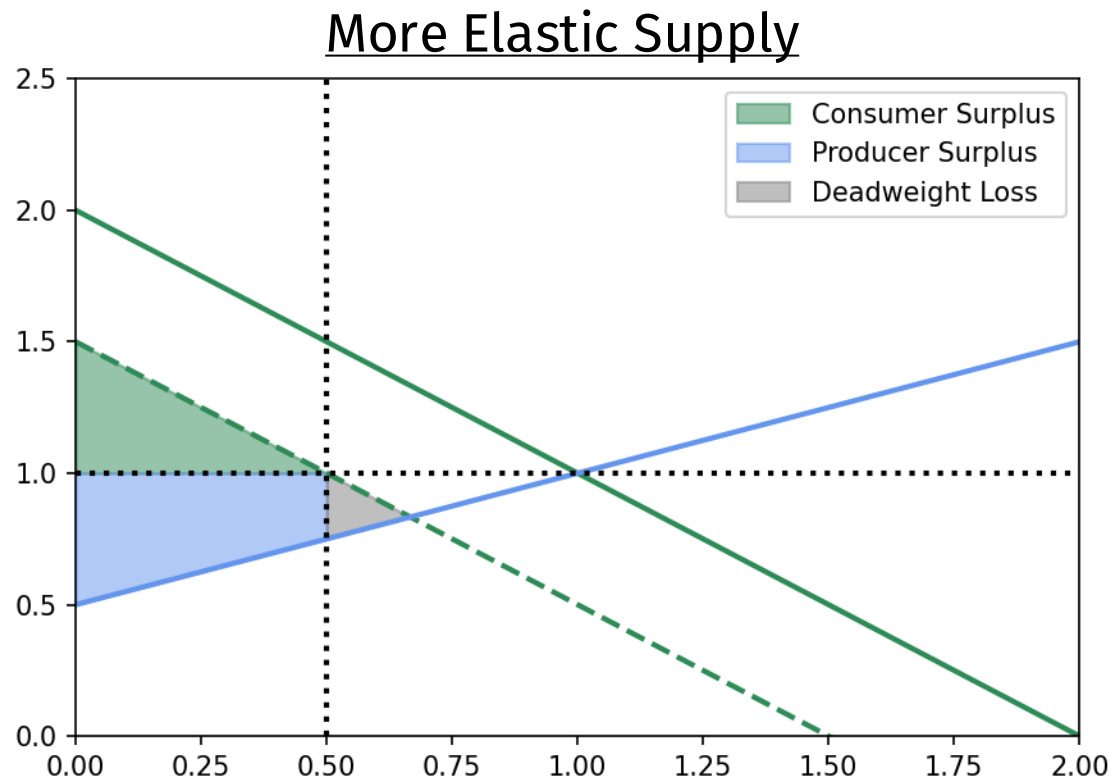
# Comment #1: effects of rationing

- Zero losses under perfectly inelastic supply (right panel)
- But seems like moving to rationing has big effects at any elasticity
  - Seems like major implications for optimal policy beyond housing application



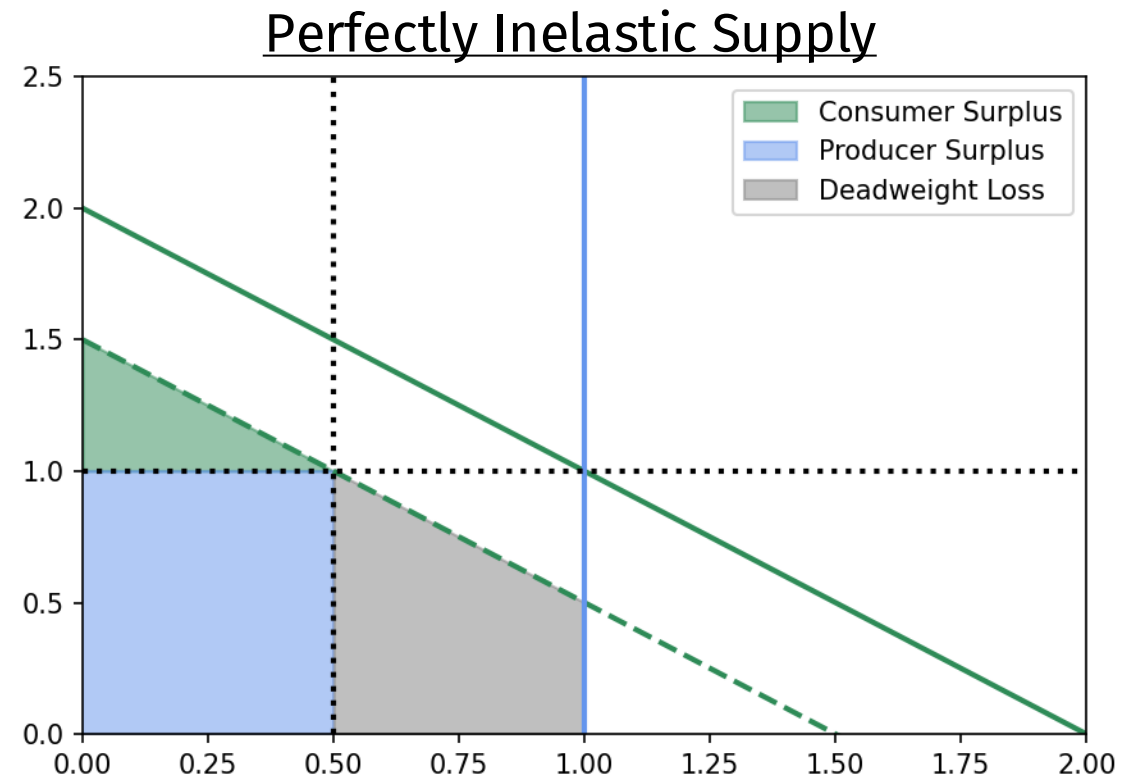
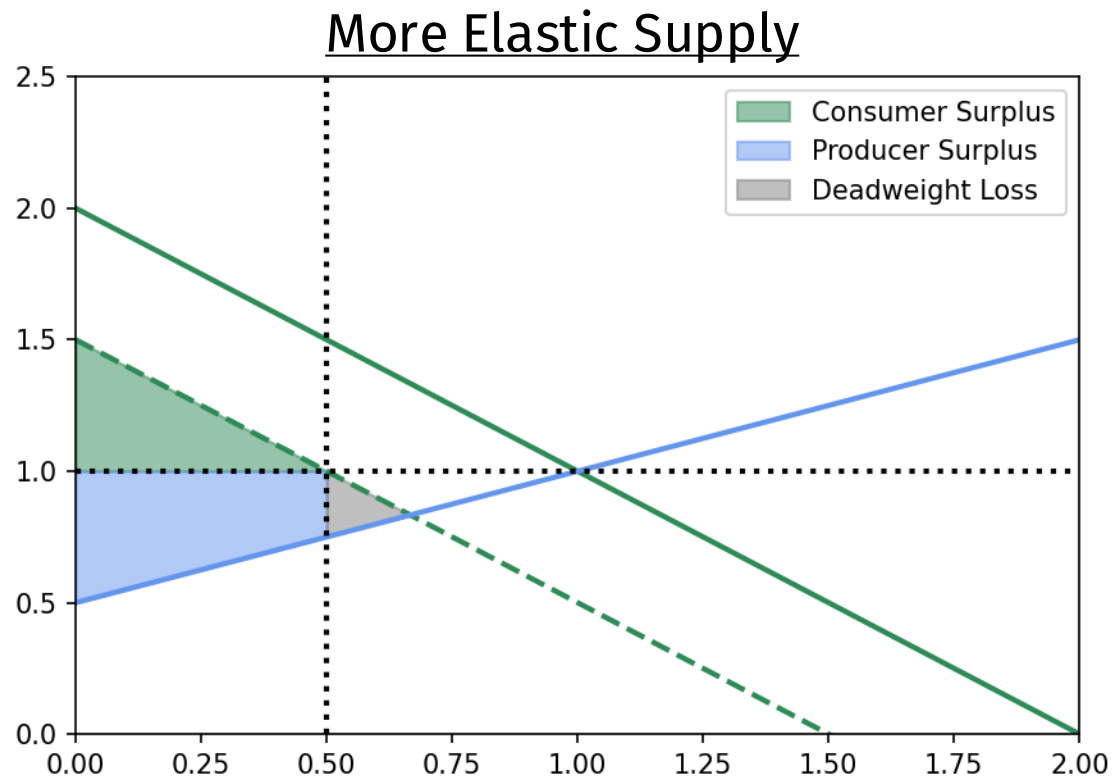
# Comment #2: sign of the shock

- Paper considers a **demand expansion** → quantity is **supply-determined**
- But in case of a **demand contraction** → quantity is **demand-determined**
  - In this case we would have larger losses at lower elasticity



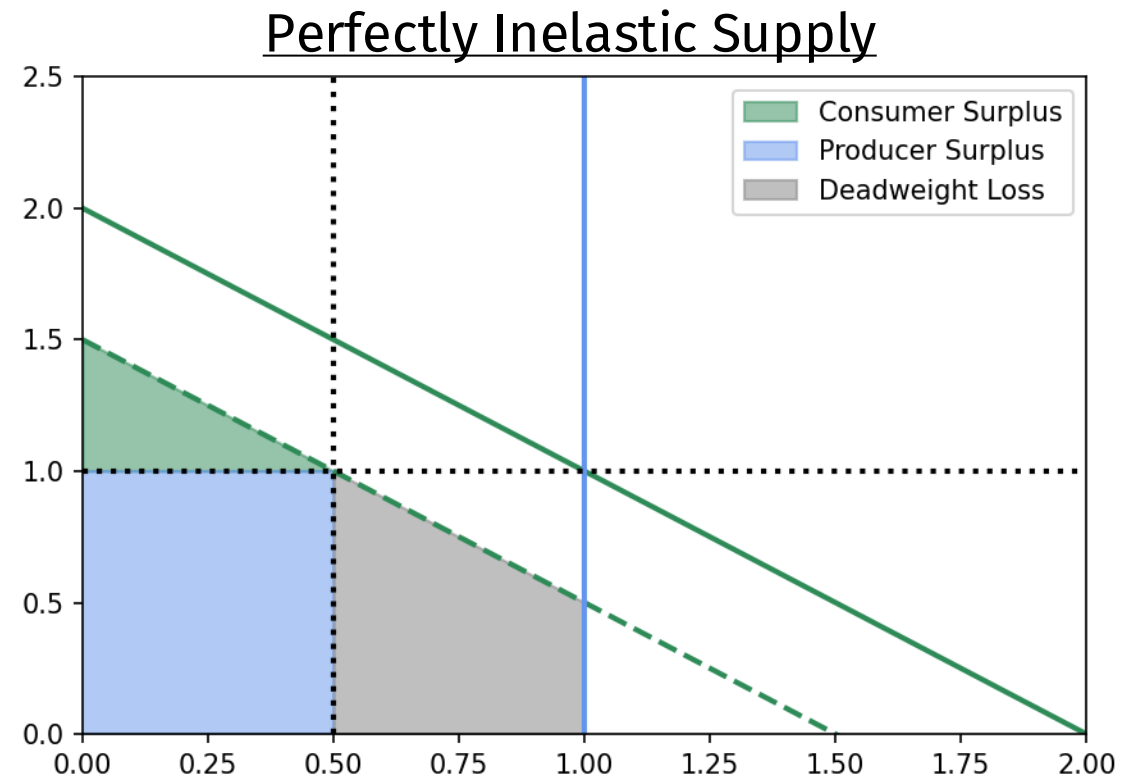
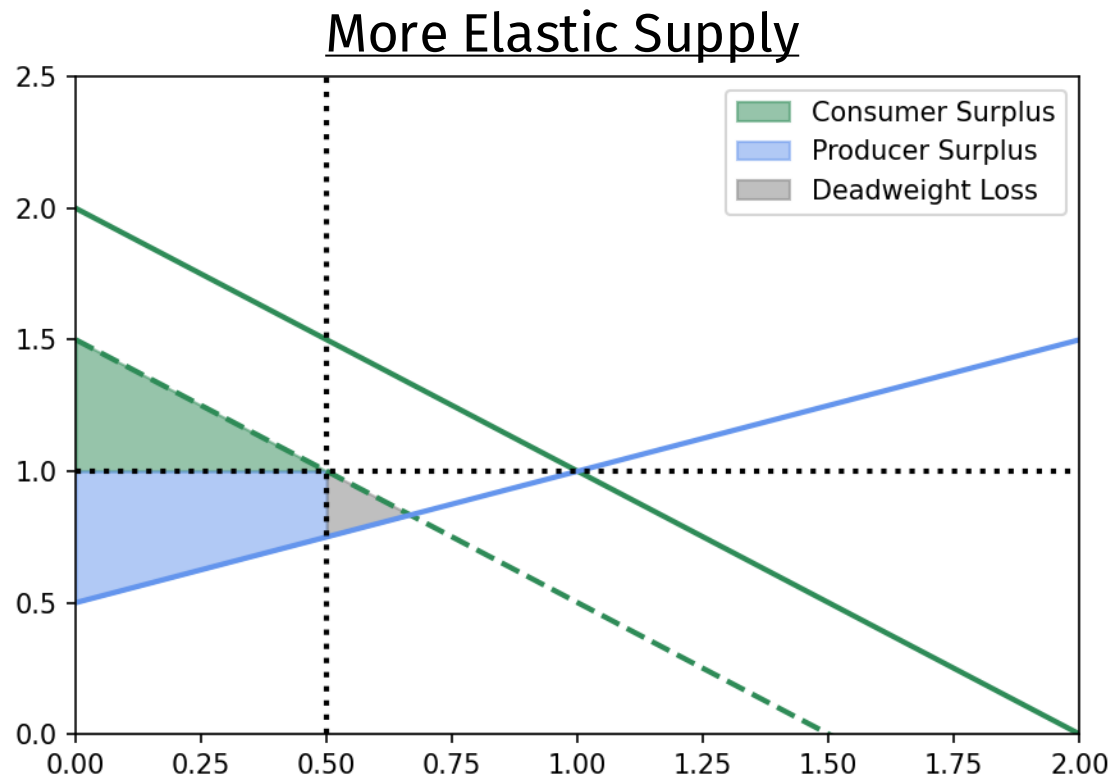
# Comment #2: sign of the shock

- Perfectly inelastic goods (here, housing) exhibit the largest losses of all
- Extremely inefficient to have housing go unused when the marginal cost of providing it is zero.



# Comment #2: sign of the shock

- Does optimal policy depend on the shock direction?
  - Seems important to react strongly to falling rents
  - More general case for reacting more to contractions under rationing?



# Comment #3: distributional implications

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- Logic for ignoring housing (rent) overheating clear at aggregate level
  - Quantity of housing consumed is essentially fixed no matter what you do
  - But quantity of nondurables consumed depends on monetary policy
- At the individual level, this is not as straightforward
  - Only a minority of households rent, and share of income spent on rent varies
  - High rental inflation disproportionately harms renters, esp. in high-rent areas
  - May have different MPCs than homeowners (Cloyne et al, 2020)
- Leaning against house price volatility may be useful for limiting **dispersion** of consumption, even if it is not relevant for **aggregate efficiency**



# Comment #4: house prices and supply

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- In reality, supply of housing (and rental housing) is not fully inelastic
  - Residential investment is large and volatile
  - Leamer (2007): key (perhaps central) component of the business cycle
  - Bernanke + Gertler (1995): major part of monetary policy response
- Housing starts likely more driven by house prices than rents
  - Linked through present value relationship
  - But may have substantially lower nominal rigidities
  - Barsky et al (2007): flexibly priced durable may dominate overall response
- Does this paper have lessons for how monetary policy should optimally react to **house price inflation**?

# Conclusion

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- Interesting and well-crafted paper with a compelling message
  - Increases in demand do not drive large inefficiencies in a market with inelastic supply and demand rationing
- Paper seems to have broader implications than just the housing market
  - Seems like demand rationing, short-side rule could change optimal policy in many markets, include more supply-elastic ones
- I am curious whether the results depend on the sign of the shock
  - Demand contractions in an inelastic market seem very damaging in this setting
- Opens interesting questions about distributional impacts and the optimal response to house price inflation