

“Matching and credit frictions in the housing market” by Essi Eerola and Niku Määttä

Discussion by Marlène Isoré

(University of Helsinki, HECER)

BoF-CEPR conference, Helsinki, October 22-23, 2015

Summary

- A model of the housing market, with matching frictions, borrowing constraints and i.i.d shocks à Bewley-Huggett-Aiyagari (BHA).

Summary

- A model of the housing market, with matching frictions, borrowing constraints and i.i.d shocks à Bewley-Huggett-Aiyagari (BHA).
- Households can be in two states: renting or owning their house.

Summary

- A model of the housing market, with matching frictions, borrowing constraints and i.i.d shocks à Bewley-Huggett-Aiyagari (BHA).
- Households can be in two states: renting or owning their house.
- Exogenous preference over the housing type (only some suffer a utility cost from renting), with exogenous transition probabilities.

Summary

- A model of the housing market, with matching frictions, borrowing constraints and i.i.d shocks à Bewley-Huggett-Aiyagari (BHA).
- Households can be in two states: renting or owning their house.
- Exogenous preference over the housing type (only some suffer a utility cost from renting), with exogenous transition probabilities.
- They are risk averse and face uninsurable income shocks, making a borrowing constraint occasionally binding.

Summary

- A model of the housing market, with matching frictions, borrowing constraints and i.i.d shocks à Bewley-Huggett-Aiyagari (BHA).
- Households can be in two states: renting or owning their house.
- Exogenous preference over the housing type (only some suffer a utility cost from renting), with exogenous transition probabilities.
- They are risk averse and face uninsurable income shocks, making a borrowing constraint occasionally binding.
- This defines 4 types of households: own and want to rent (sellers), rent and want to own (buyers), own and want to own, rent and want to rent (outside option).

Summary

- A model of the housing market, with matching frictions, borrowing constraints and i.i.d shocks à Bewley-Huggett-Aiyagari (BHA).
- Households can be in two states: renting or owning their house.
- Exogenous preference over the housing type (only some suffer a utility cost from renting), with exogenous transition probabilities.
- They are risk averse and face uninsurable income shocks, making a borrowing constraint occasionally binding.
- This defines 4 types of households: own and want to rent (sellers), rent and want to own (buyers), own and want to own, rent and want to rent (outside option).
- Buyers and sellers meet randomly and Nash bargain over the transaction price.

Contribution

- This paper has a very nice idea, simple and intuitive mechanisms!

Contribution

- This paper has a very nice idea, simple and intuitive mechanisms!
- Housing market participants indeed search for counterparts.

Contribution

- This paper has a very nice idea, simple and intuitive mechanisms!
- Housing market participants indeed search for counterparts.
 - Not all matches result in a transaction, and there is price dispersion, at all points in time (non walrasian market).

Contribution

- This paper has a very nice idea, simple and intuitive mechanisms!
- Housing market participants indeed search for counterparts.
 - Not all matches result in a transaction, and there is price dispersion, at all points in time (non walrasian market).
- Borrowing constraints potentially matter, on *both* sides:

Contribution

- This paper has a very nice idea, simple and intuitive mechanisms!
- Housing market participants indeed search for counterparts.
 - Not all matches result in a transaction, and there is price dispersion, at all points in time (non walrasian market).
- Borrowing constraints potentially matter, on *both* sides:
 - for prospective buyers to get a mortgage

Contribution

- This paper has a very nice idea, simple and intuitive mechanisms!
- Housing market participants indeed search for counterparts.
 - Not all matches result in a transaction, and there is price dispersion, at all points in time (non walrasian market).
- Borrowing constraints potentially matter, on *both* sides:
 - for prospective buyers to get a mortgage
 - for sellers to increase their consumption in case of bad shocks

Contribution

- This paper has a very nice idea, simple and intuitive mechanisms!
- Housing market participants indeed search for counterparts.
 - Not all matches result in a transaction, and there is price dispersion, at all points in time (non walrasian market).
- Borrowing constraints potentially matter, on *both* sides:
 - for prospective buyers to get a mortgage
 - for sellers to increase their consumption in case of bad shocks
- The interaction is important: borrowing constraints affect the bargaining process by modifying the outside options of both parties.

General comments

- However, this contribution is not much exploited, and the main message of the paper remains quite unclear at this stage.

General comments

- However, this contribution is not much exploited, and the main message of the paper remains quite unclear at this stage.
- Partly due to the quantitative exercise on a Finnish dataset, quite poor in this case.

General comments

- However, this contribution is not much exploited, and the main message of the paper remains quite unclear at this stage.
- Partly due to the quantitative exercise on a Finnish dataset, quite poor in this case.
- A survey on 600 households in the Helsinki Metropolitan area, at a single point in time (2004).

General comments

- However, this contribution is not much exploited, and the main message of the paper remains quite unclear at this stage.
- Partly due to the quantitative exercise on a Finnish dataset, quite poor in this case.
- A survey on 600 households in the Helsinki Metropolitan area, at a single point in time (2004).
 - How many hh of each type and transactions over 3 months?

General comments

- However, this contribution is not much exploited, and the main message of the paper remains quite unclear at this stage.
- Partly due to the quantitative exercise on a Finnish dataset, quite poor in this case.
- A survey on 600 households in the Helsinki Metropolitan area, at a single point in time (2004).
 - How many hh of each type and transactions over 3 months?
 - How much reliable are survey data on estimated market prices?

General comments

- However, this contribution is not much exploited, and the main message of the paper remains quite unclear at this stage.
- Partly due to the quantitative exercise on a Finnish dataset, quite poor in this case.
- A survey on 600 households in the Helsinki Metropolitan area, at a single point in time (2004).
 - How many hh of each type and transactions over 3 months?
 - How much reliable are survey data on estimated market prices?
 - (Unknown) preferences for ownership are crucial for calibration.

General comments

- However, this contribution is not much exploited, and the main message of the paper remains quite unclear at this stage.
- Partly due to the quantitative exercise on a Finnish dataset, quite poor in this case.
- A survey on 600 households in the Helsinki Metropolitan area, at a single point in time (2004).
 - How many hh of each type and transactions over 3 months?
 - How much reliable are survey data on estimated market prices?
 - (Unknown) preferences for ownership are crucial for calibration.
 - The average length in current house (7 years on average) doesn't mean they got a shock (pref or income).

General comments

- However, this contribution is not much exploited, and the main message of the paper remains quite unclear at this stage.
- Partly due to the quantitative exercise on a Finnish dataset, quite poor in this case.
- A survey on 600 households in the Helsinki Metropolitan area, at a single point in time (2004).
 - How many hh of each type and transactions over 3 months?
 - How much reliable are survey data on estimated market prices?
 - (Unknown) preferences for ownership are crucial for calibration.
 - The average length in current house (7 years on average) doesn't mean they got a shock (pref or income).
 - No house features: is price dispersion conditional on quality?

General comments

- However, this contribution is not much exploited, and the main message of the paper remains quite unclear at this stage.
- Partly due to the quantitative exercise on a Finnish dataset, quite poor in this case.
- A survey on 600 households in the Helsinki Metropolitan area, at a single point in time (2004).
 - How many hh of each type and transactions over 3 months?
 - How much reliable are survey data on estimated market prices?
 - (Unknown) preferences for ownership are crucial for calibration.
 - The average length in current house (7 years on average) doesn't mean they got a shock (pref or income).
 - No house features: is price dispersion conditional on quality?
- A toy model which can be a starting point for 3 alternative stories, but require either another database or some practical assumptions.

Story 1: à la Michaillat (AER 2012)

- Borrowing constraints reinforce the effects of matching frictions.

Story 1: à la Michaillat (AER 2012)

- Borrowing constraints reinforce the effects of matching frictions.
- But both borrowing constraints and market outcomes (price level and dispersion, waiting times, ...) depend a lot (mostly?) on the business cycles.

Story 1: à la Michaillat (AER 2012)

- Borrowing constraints reinforce the effects of matching frictions.
- But both borrowing constraints and market outcomes (price level and dispersion, waiting times, ...) depend a lot (mostly?) on the business cycles.
- Michaillat (AER 2012) evaluates the relative role of the matching friction vs a cyclical component, for the labor market.

Story 1: à la Michaillat (AER 2012)

- Borrowing constraints reinforce the effects of matching frictions.
- But both borrowing constraints and market outcomes (price level and dispersion, waiting times, ...) depend a lot (mostly?) on the business cycles.
- Michaillat (AER 2012) evaluates the relative role of the matching friction vs a cyclical component, for the labor market.
 - Finds that involuntary unemployment is relatively high in recessions, matching frictions relatively high in booms.

Story 1: à la Michaillat (AER 2012)

- Borrowing constraints reinforce the effects of matching frictions.
- But both borrowing constraints and market outcomes (price level and dispersion, waiting times, ...) depend a lot (mostly?) on the business cycles.
- Michaillat (AER 2012) evaluates the relative role of the matching friction vs a cyclical component, for the labor market.
 - Finds that involuntary unemployment is relatively high in recessions, matching frictions relatively high in booms.
- Here, borrowing constraints may be weakly binding in booms and thus matching frictions explain the most part of the (low) waiting times and price dispersion, and vice versa in recessions.

Story 1: à la Michaillat (AER 2012)

- Borrowing constraints reinforce the effects of matching frictions.
- But both borrowing constraints and market outcomes (price level and dispersion, waiting times, ...) depend a lot (mostly?) on the business cycles.
- Michaillat (AER 2012) evaluates the relative role of the matching friction vs a cyclical component, for the labor market.
 - Finds that involuntary unemployment is relatively high in recessions, matching frictions relatively high in booms.
- Here, borrowing constraints may be weakly binding in booms and thus matching frictions explain the most part of the (low) waiting times and price dispersion, and vice versa in recessions.
- Does the borrowing constraint moderate a Shimer effect?

Story 1: à la Michaillat (AER 2012)

- Borrowing constraints reinforce the effects of matching frictions.
- But both borrowing constraints and market outcomes (price level and dispersion, waiting times, ...) depend a lot (mostly?) on the business cycles.
- Michaillat (AER 2012) evaluates the relative role of the matching friction vs a cyclical component, for the labor market.
 - Finds that involuntary unemployment is relatively high in recessions, matching frictions relatively high in booms.
- Here, borrowing constraints may be weakly binding in booms and thus matching frictions explain the most part of the (low) waiting times and price dispersion, and vice versa in recessions.
- Does the borrowing constraint moderate a Shimer effect?
- Adapting the model is quite easy, but more data required.

Story 2: à la Afonso-Lagos (Econometrica, 2015)

- Model with no long-term value of a match, but just successive bilateral negotiations.

Story 2: à la Afonso-Lagos (Econometrica, 2015)

- Model with no long-term value of a match, but just successive bilateral negotiations.
- Exactly like for... money or over-the-counter financial markets! (Lagos-Wright ('05), Trejos-Wright ('15), Afonso-Lagos ('15)).

Story 2: à la Afonso-Lagos (Econometrica, 2015)

- Model with no long-term value of a match, but just successive bilateral negotiations.
- Exactly like for... money or over-the-counter financial markets! (Lagos-Wright ('05), Trejos-Wright ('15), Afonso-Lagos ('15)).
- The model actually has a lot in common with Afonso-Lagos (2015):
 - All agents (banks for them, households here) are identical but turns to be in different states at different points in time.

Story 2: à la Afonso-Lagos (Econometrica, 2015)

- Model with no long-term value of a match, but just successive bilateral negotiations.
- Exactly like for... money or over-the-counter financial markets! (Lagos-Wright ('05), Trejos-Wright ('15), Afonso-Lagos ('15)).
- The model actually has a lot in common with Afonso-Lagos (2015):
 - All agents (banks for them, households here) are identical but turns to be in different states at different points in time.
 - A capital constraint (borrowing here, minimal requirements) drives market participation (housing here, interbank for them).
 - An indicator variable whether the individual matches are mutually beneficial, and thus the transaction is realized, or not.

Story 2: à la Afonso-Lagos (Econometrica, 2015)

- Model with no long-term value of a match, but just successive bilateral negotiations.
- Exactly like for... money or over-the-counter financial markets! (Lagos-Wright ('05), Trejos-Wright ('15), Afonso-Lagos ('15)).
- The model actually has a lot in common with Afonso-Lagos (2015):
 - All agents (banks for them, households here) are identical but turns to be in different states at different points in time.
 - A capital constraint (borrowing here, minimal requirements) drives market participation (housing here, interbank for them).
 - An indicator variable whether the individual matches are mutually beneficial, and thus the transaction is realized, or not.
- A theoretical concern: does the (illiquid) housing market really function the same as a (purely liquid) money market??

Story 2: à la Afonso-Lagos (Econometrica, 2015)

- Model with no long-term value of a match, but just successive bilateral negotiations.
- Exactly like for... money or over-the-counter financial markets! (Lagos-Wright ('05), Trejos-Wright ('15), Afonso-Lagos ('15)).
- The model actually has a lot in common with Afonso-Lagos (2015):
 - All agents (banks for them, households here) are identical but turns to be in different states at different points in time.
 - A capital constraint (borrowing here, minimal requirements) drives market participation (housing here, interbank for them).
 - An indicator variable whether the individual matches are mutually beneficial, and thus the transaction is realized, or not.
- A theoretical concern: does the (illiquid) housing market really function the same as a (purely liquid) money market??
- High-frequency data and a homogeneous good, by definition (unlike housing where hedonistic characteristics matter).

Story 3: a life-cycle model for Finnish data

- Estimate households' housing preferences and transition probabilities in that specific case.

Story 3: a life-cycle model for Finnish data

- Estimate households' housing preferences and transition probabilities in that specific case.
- Consider an OLG version, where different age groups have distinct average wages, savings, shocks...

Story 3: a life-cycle model for Finnish data

- Estimate households' housing preferences and transition probabilities in that specific case.
- Consider an OLG version, where different age groups have distinct average wages, savings, shocks...
- Would allow more than 600 households, and improve the motivation for the categories you distinguish (unhappy owners...).

Story 3: a life-cycle model for Finnish data

- Estimate households' housing preferences and transition probabilities in that specific case.
- Consider an OLG version, where different age groups have distinct average wages, savings, shocks...
- Would allow more than 600 households, and improve the motivation for the categories you distinguish (unhappy owners...).
- The demographics structure would become key in explaining the market outcomes.

Story 3: a life-cycle model for Finnish data

- Estimate households' housing preferences and transition probabilities in that specific case.
- Consider an OLG version, where different age groups have distinct average wages, savings, shocks...
- Would allow more than 600 households, and improve the motivation for the categories you distinguish (unhappy owners...).
- The demographics structure would become key in explaining the market outcomes.
- Consider the possibility for multiple ownerships as well.

Story 3: a life-cycle model for Finnish data

- Estimate households' housing preferences and transition probabilities in that specific case.
- Consider an OLG version, where different age groups have distinct average wages, savings, shocks...
- Would allow more than 600 households, and improve the motivation for the categories you distinguish (unhappy owners...).
- The demographics structure would become key in explaining the market outcomes.
- Consider the possibility for multiple ownerships as well.
- The intro mentions a macroprudential policy, but not in the model.

Minor comments

- Does having the interest rate and rent exogenous drive the results somehow?

Minor comments

- Does having the interest rate and rent exogenous drive the results somehow?
- The borrowing constraint: level and being binding or not are two different things.

Minor comments

- Does having the interest rate and rent exogenous drive the results somehow?
- The borrowing constraint: level and being binding or not are two different things.
- Why is the 'maintaining cost' higher than the rent in the model?
 - If this is just the running cost, isn't it counterfactual?
 - Or including renovations, but then increase the value also?

Minor comments

- Does having the interest rate and rent exogenous drive the results somehow?
- The borrowing constraint: level and being binding or not are two different things.
- Why is the 'maintaining cost' higher than the rent in the model?
 - If this is just the running cost, isn't it counterfactual?
 - Or including renovations, but then increase the value also?
- Why is the housing utility cost linear and not within CRRA?

Minor comments

- Does having the interest rate and rent exogenous drive the results somehow?
- The borrowing constraint: level and being binding or not are two different things.
- Why is the 'maintaining cost' higher than the rent in the model?
 - If this is just the running cost, isn't it counterfactual?
 - Or including renovations, but then increase the value also?
- Why is the housing utility cost linear and not within CRRA?
- The sensitivity analysis does not discuss the critical parameters of the model: transition probabilities, asymmetric utility costs...

Minor comments

- Does having the interest rate and rent exogenous drive the results somehow?
- The borrowing constraint: level and being binding or not are two different things.
- Why is the 'maintaining cost' higher than the rent in the model?
 - If this is just the running cost, isn't it counterfactual?
 - Or including renovations, but then increase the value also?
- Why is the housing utility cost linear and not within CRRA?
- The sensitivity analysis does not discuss the critical parameters of the model: transition probabilities, asymmetric utility costs...
- Figure 1 does not depict the credit constraint effect, unlike the comment suggests, making it quite unclear.

Minor comments

- Does having the interest rate and rent exogenous drive the results somehow?
- The borrowing constraint: level and being binding or not are two different things.
- Why is the 'maintaining cost' higher than the rent in the model?
 - If this is just the running cost, isn't it counterfactual?
 - Or including renovations, but then increase the value also?
- Why is the housing utility cost linear and not within CRRA?
- The sensitivity analysis does not discuss the critical parameters of the model: transition probabilities, asymmetric utility costs...
- Figure 1 does not depict the credit constraint effect, unlike the comment suggests, making it quite unclear.
- Figure 3: How do the regions move according to the parameters of the model? this is what makes the story interesting theoretically.