Comments on: Financial Frictions and The Wealth Distribution (Fernandez-Villaverde, Hurtado, Nuño, 2019), by Santiago Bazdresch (Banco de México)

CEMLA’s XXIV Meeting of the Central Bank Researchers Network, Banco de España, Madrid, October 30-31st, 2019
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1. Highlights

- Totally amazing, impressive paper:
  - Attacks a well known questions: The effects of idiosyncratic risk on aggregate behavior
  - Has within and across-agent heterogeneity: Bernanke-Gertler, 89 or Kiyotaki Moore’97 but with idiosyncratic risk, a wealth distribution, etc.
  - Neural networks for solution: Krusell Smith meets Artificial Intelligence.

- Very careful analysis:
  - Policy functions with their ergodic states
  - Stochastic Steady States/Basins of Attraction/Wealth Distributions
  - They even perform some estimation on the shock volatility.

- Fantasically well written, it is mostly clear, thorough, careful:
  - Go read it!!

2. Comments

- There are some concerns worth expressing:
  - “High leverage”, “Low leverage” might not be a good name, in a closed economy for some agents to be more leveraged others must be less leveraged...
    - And incidentally then the explanations are not very clear:
      - “high leverage regime is more risky”, but consumers are self-insuring, holding lots of assets, should be able to safely continue consuming, rescue the financial expert etc. Not clear to me.
      - Paper makes a (weak) link to the 2007 financial crisis, as if that was a “high leverage regime”, but median households were highly levered as well... Not clear to me. (Global Savings Glut, subprime, etc)

- Value of neural network estimation not completely clear to me:
  - How does it compare to a quadratic K-S setup?
  - Does it need to be trained on thousands of samples? What is the empirical counterpart of that?

3. Suggestions

- **Standard suggestions:**
  - *Probably useful to have a “financial shock”, to r, or to collateral restrictions.*
  - *Probably useful to allow consumers to borrow.*

- **Powerful technology: what else to use it for?**
  - *Study inequality?*
    - The effect of a foreign lender lowering r (GSG/reserve accumulation)
  - *Study financial stability?*
    - Impose a system of Banks instead of the financial expert, subject to capitalization rules, etc. (Redo BGG but with a distribution of bank size/capitalization).

- **The paper can do better on estimation/calibration:**
  - *You can try to match the observed policies of consumers or of the financial sector (“Empirical Policy Functions”)*
  - *You can try to calibrate to labor income uncertainty.*

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