"Default correlation: An empirical investigation of Brazilian retail loans" (Silva, Correa, Marins, Neves)

"Choque de liquidez e risco de crédito no Brasil: uma abordagem de equilíbrio geral dinâmico estocástico" (Silva & Divino)

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V Seminário sobre Riscos, Estabilidade Financeira e Economia Bancária

- What authors do: use data from the Central Bank Credit Information System to calculate default correlations for two categories of retail loans (consumer credit (?) and car acquisition finance):
 - a) By borrowers' risk ratings;
 - b) By borrowers' type of occupation.

Why restrict to individuals? Why not corporate loans?

Data:

- Best one available.
- Cutoff of R\$ 5K can be too restrictive for individuals.
 Any possible implications for the analysis?
- Type of occupation: what 'others' category mean? They account for 40% of car finance borrowers.
- Results should be more discussed.
- Implications/relevance for supervisors should be analyzed.

- Authors find "weak" default correlations when sample is split by risk ratings and "more reasonable" correlations when sample is split by type of occupation.
 - Should make clear what "weak", "more reasonable" mean: authors' priors, international evidence.
 - E.g., default correlations in the range of 45% (for consumer credit) seems too high.

Probit model:

- Difficult to interpret: why group default should affect individual default?
- Could perhaps try more disaggregated macro variables like regional activity, regional unemployment.
- Result for public sector workers: 3 out of 5 (consumer credit) coefficients are negative. Any intuition?
- Could calculate marginal effects.

Probit model (cont.):

It's not integrated with the rest of the paper. One possibility is to look at banks' portfolios (rather than individual transactions), try multinomial/ordered probit, calculate default probabilities from the model [Toni Eugênio dos Santos USP master dissertation].

- What authors do:
 - Include a bank sector in an otherwise standard RBC model;
 - Estimate parameters for Brazil using Bayesian methods;
 - Evaluate/generate correlations, impulse responses;
 - Study two regulatory issues: deposit insurance and liquidity injection.

- Bulk of the model: why RBC rather than (now) standard New Keynesian model with nominal and real rigidities?
 - Lack of other frictions may exaggerate role of financial frictions.
 - Competitive framework does not call for any clear intervention.
- Need to better justify the role of banking sector.
 - Link to literature: financial accelerator (Bernanke & Gertler), inside money (Lawrence Christiano), liquidity (Kiyotaki & Moore).

- Friction highlighted by the model: liquidity shock makes households to withdraw deposits causing shortage of funding to the banks leading them to reduce credit.
 - Not clear how much loss this friction creates: compare with benchmark of no friction.
 - It is not a distortion: welfare theorems still hold in this economy (so, why intervention is needed?)
 - In real life: market solution is an interbank market.
 - If there is shortage at the aggregate, in real life, there are standard tools like discount window, open market.

- Two instruments are studied to deal with such shocks: deposit insurance and liquidity injection
- Deposit insurance:
 - Looks more like standard reserve requirements rather than proper deposit insurance.
 - Missing equation in the model: how revenues collected through deposit insurance feeds back into the economy? Lump sum transfers? If so, shouldn't they be in the budget constraints?
 - Clarification: steady state with deposit insurance (table 5) shows just the deadweight loss or does it also include the workings of the liquidity fund?
 - Results suggest that optimal policy is set it to zero.

- Deposit insurance (cont.):
 - Could compute impulse response with deposit insurance.
- Liquidity injection:
 - Looks more like standard open market operations: feedback rule on interest rates.
 - Missing equation in the model: how money is transferred to/from agents.
 - Authors mention competitive solution is not affected by such injections. Maybe just because deposit rate is equal to target in steady state.
 - Results show that optimal policy is to set feedback coefficient the highest possible.