Discussion of

“International Recessions"

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Main arguments of the paper

- Credit shocks are an important source of business cycle fluctuations (variant of J&Q 2009):
  - The credit shock is modelled as a shock to the access of firms to (cheap) external finance
  - Firms react to the shock by reducing their output and employment

- In the context of internationally integrated financial markets, these credit shocks can generate a powerful transmission mechanism across countries:
  - A credit shock in the home country reduces credit access in the foreign economy as well and generates strong international comovement
  - The real impact of a credit shock is smaller in an integrated economy
  - The credit constraint does not generate comovement for other shocks
Remarks

- consider the mechanism of the credit shock in a closed economy:
  - credit shock works like a markup shock
  - implications for identification
- consider the transmission mechanism of the credit shock in the internationally integrated economy:
  - specific assumptions on integration / segmentation of the capital market
- empirical evidence and exogenous nature of the shock
  - surprising similar results on the identification and the magnitude of credit shock compared to other DSGE models
credit shock in the closed economy version

- building blocks:
  - two agents: workers-bondholders (δ) and shareholders (β)
  - complete segmentation of bond and stock market: R < 1/m
  - firms prefer cheap external debt financing but default risk implies an enforcement constraint on debt: \( \phi \ E m' \ V' \geq y + \xi \)
  - the value of the firm must be sufficient so that firm owners have no incentive to default and run with the liquid assets
  - in order to satisfy this constraint, firms apply a markup on wage and capital cost: \( (1 - \mu)F_h = w \) and \( (1 - \mu)F'_k = (R + \tau - 1) \)
  - a shock to the credit constraint (\( \xi \)), or a reduction in the supply of credit, increases this markup, and reduces employment, investment and output
  - the markup is determined by \( (1 + \phi \mu)R = \frac{1}{E m'} \)
credit shock in the closed economy version

- credit shock does not operate as an intertemporal wedge, but as an intratemporal wedge

=> IR is very similar to a markup shock!
credit shock in the closed economy version

- credit shock does not operate as an intertemporal wedge, but as an intratemporal wedge
  => IR is very similar to a markup shock!

- identification of the credit shock, relative to markup shock, might be problematic,
  but this equivalence between credit and markup shocks does not hold in the open economy version!
credit shock in the open economy version

- as the debt and the equity markets are internationally integrated, the returns are equalized across countries, and as a result a credit shock in one country also introduces a wedge between the bond return and the stock return in the ROW

\[
Em' = Em'\
R = R^*\
\mu = \mu^*
\]

\[
(1 + \phi \mu)R = \frac{1}{Em'}
\]

\[
(1 + \phi \mu^*)R^* = \frac{1}{Em'^*}
\]

- a reduction in the supply of credit in one country, reduces the available credit in the world market, and all firms react to the scarce credit by increasing markups and reducing activity
credit shock in the open economy version

- this result assumes that there is international risk sharing among bondholders, through the bond market, and among shareholders, through the equity market, but not among bondholders and shareholders!

- how realistic is this assumption?
  - international bond and equity returns are highly correlated, but bond-equity correlation is variable and sometimes very low;
  - evidence that liquidity of the marginal investor in a specific market is important for asset pricing;
  - separation of bond and capital markets via limited participation can also help to explain large risk premiums as it increases the volatility of equity returns and shareholders consumption.
empirical validation

The empirical results indicate an important effect of credit shocks on employment during recession periods:

- This is in line with standard DSGE estimation results: important role for risk premiums, investment shocks or external finance premium shocks in recessions (SW, Primiceri et al., CRM, Gilchrist et al.)
- Surprising result: different dataset, different transmission mechanism!
- Are DSGE models missing this mechanism or misinterpreting other shocks?

- how does the model perform for financial variables (credit, returns, external premiums)?
empirical validation

- How does the model perform for explaining other variables:
  - the selection of the variables in the empirical application is strange to identify a credit shock?
  - financial variables: credit, dividends, returns, external premiums?
  - can these variables help to identify the credit shock relative to other markup shocks?
empirical validation

- The credit constraint does not really increase the propagation mechanism of the productivity shock.
- The role of the credit friction for the business cycle is reduced to the impact of shocks originating in the credit-financial sector.
- This result also applies for other DSGE models with a financial accelerator: CMR, Gilchrist, etc.