

Discussion of

# Securities transaction tax: macroeconomic implications in a GE model

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**Fiscal Policies in the Aftermath of  
the Financial Crisis**

**EC, Brussels 2-3 March 2012**

 **NationalBank**  
OF BELGIUM  
Eurosystem

# Short review of the paper

- ▶ elegant RBC model
- ▶ The goal is to introduce a FTT on the secondary market of firms equities
- ▶ For this the authors adopt a modelisation fairly close to GK (JEM, 2011) => equities & FI
- ▶ Introduce an ex-post heterogeneity among financial intermediaries via an iid noise shock
- ▶ Noise traders organise a trade with RE traders



# Short review of the paper

- ▶ Noise traders organise a trade with RE traders :
  - results in a price for the firms shares
  - also creates a fiscal basis for an ETT
  
- ▶ Use a fairly conventional calibration to analyse the effects of the ETT and compare it with a capital income taxation yielding the same revenue.
  
- ▶ Compare :
  - stochastic steady state
  - standard deviation
  - relative standard deviation (??)



# The model

- ▶ **Goods firms** produce using **capital** and labor
- ▶ They buy capital goods from **capital producers** and at the end of the period they resell them the remaining of it  $(1-\delta)K$
- ▶ Capital producers  $K_t = K_{t-1} + I_t$ . No capital or investment adjustment cost  $\Rightarrow$  price of capital is constant to 1.
- ▶ Firms pay capital goods by issuing equities (and borrowing) they sell to **FI**. For short

$$K_t = P_t^S S_t$$



# The model

▶ Short-lived (2-periods) but we do not really understand from the text what these 2 periods are:

- do they actually live for one period and what you call the second period is this “intra-period” where they trade on the secondary market?? If yes, we are in troubles. The GK incentive constraint

$$\chi \cdot P_t^S S_t \leq E_t \left[ \Lambda_{t,t+1} \Pi_{t+1}^{FI} \right]$$

boils down to

$$P_t^S S_t \leq \phi_t NW_t = \phi_t \rho P_t^S S_t$$

- birth in 1 with  $NW = \rho P^S S$  and make NW evolve for period 2, then die and gives back NW to households ?? If yes, the dynamics of the NW is missing. At the end of the period we should have  $NW^{RE} \neq NW^N$ , right? We can assume it is close to GK but it is important to show to understand the pricing behavior and dynamics.



# The model

- ▶ Discrepancy between expression for  $\phi_t$  (page 8) where the risk-free rate is constant, and the various tables of results where the risk-free rate is shown to have a non-zero std. What drives the risk-free rate ?
- ▶ In GK,  $K = S$  and  $P^K = P^S$ .
- ▶ Here, how are  $P^S$  and  $S$  actually computed ?
  - So far only  $P^S S$  is known
  - need to put the noise shock in action
  - then  $\phi^{RE} \neq \phi^N$  and  $(1-s_n)P^S S^N + s_n P^S S^{RE} = P^S S$
  - RE FI are tied by the  $P^S S^{RE} = \phi^{RE} NW = P^S S$  constraint : they can only sell/buy equities to noisy FI if the movement in price compensates.
  - As this is at the core of the paper, more analytical insight about the way this price is formed would be welcome.



# The model

- ▶ How are  $P^s$  and  $S$  actually computed ?
  - Not obvious why a RE FI should enter into “noise trade” since not directly affected by the noise shock. Only indirectly affected through variations on the demand for shares that can affect the price.
  - Will only accept to trade if it leaves its leverage unaffected, i.e. that the price of the transaction covers
    - for the risk position taken w.r.t. next period iid noise shock
    - for the transaction cost, i.e. the ETT
  
- ▶ Noise shock is a tale for something more fundamental as risk-aversion (and/or wealth) distribution.
  
- ▶ As such, not sure that financial transactions have to be interpreted narrowly as “inefficient trade”



## Discussion

- ▶ Effect of the tax: lowers the demand for trade by noisy FI that end up in a decrease of  $PS$  (table 1).
- ▶ But what happens concerning the leverage ratio of the FI ? As it is also lowered, this could be viewed as a decrease in the systemic risk (even though a notion absent here), which potentially is a source of welfare gain.
- ▶ Can we compare the effect of such a tax
  - ▶ not only to those of a tax on capital
  - ▶ but also to those of a FI leverage ratio regulation: just compare the leverage without the tax to the leverage obtained after the tax. What is better for the economy: to impose this leverage or to let it to be fixed by the market via an ETT ???





# Discussion

- ▶ The tax decreases the noisy-inefficient trade, but at the cost of a decrease of the economic activity by raising the cost of capital.
- ▶ What does happens in your model if you increase artificially noise trade (by increasing the variance of the noise shock) ?
- ▶ My feeling is that more noise trade, increasing the FI activity will lead to more investment and more output, as computed by the stochastic steady state. If this is the case, we would have that an inefficient shock leads to something “efficient”. Policy conclusion of the paper could then be : encourage inefficient trading. Policy relevant question is : what is the optimal size of the financial sector.



# Conclusion

- ▶ Very nice framework with a relatively simple trick to introduce a secondary market for equities and the possibility to tax trade on this market
- ▶ As this market is at the core of the paper, need to think more deeply to what such a modelisation implies
- ▶ Results very robust to calibration and showing that ETT will be economically costly.
- ▶ However, as admitted by the authors, the cost of inefficient trading is may be under evaluated. This cost is however not only the resources affected to this “inefficient” activity, but also the (hidden) systemic risk linked with this activity.



# Conclusion

- ▶ Autors have already written a long “to do” list (costly FI, welfare analysis, endogenous loans/equities mix...
- ▶ One of the main point could be to assess the distortive effects of the ETT compared to other distortive taxes.
- ▶ Already did it for a capital income tax. Seems that ETT, for the same level of revenue, is a perfect substitute for a capital income tax ?
- ▶ Should then compare it with the other distortive tax in the model: labour income tax. Is it worth to substitute the latter by some ETT ?

