Discussion of: Can a Financial Transaction Tax Prevent Stock Price Booms? Adam, Beutel, Marcet and Merkel

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NYU Stern

Barcelona GSE Summer Forum
June 15 2015

Summary

- **This paper:** Quantitative stock market model

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    - Effect of FTT on learning dynamics
    - Quantitative modeling with FTT

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- Promising paper

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  1. Evidence (disciplines calibration)
     - Prices
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- One comment on the evidence: aren't $\frac{P}{D}$ ratios too high?
  - Paper: Average is 139.7
  - Model: > 250 (!)

The model

- Finite number of investors $i = 1, \ldots, I$. Solve:

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  4. Computationally hard problem (important contribution)

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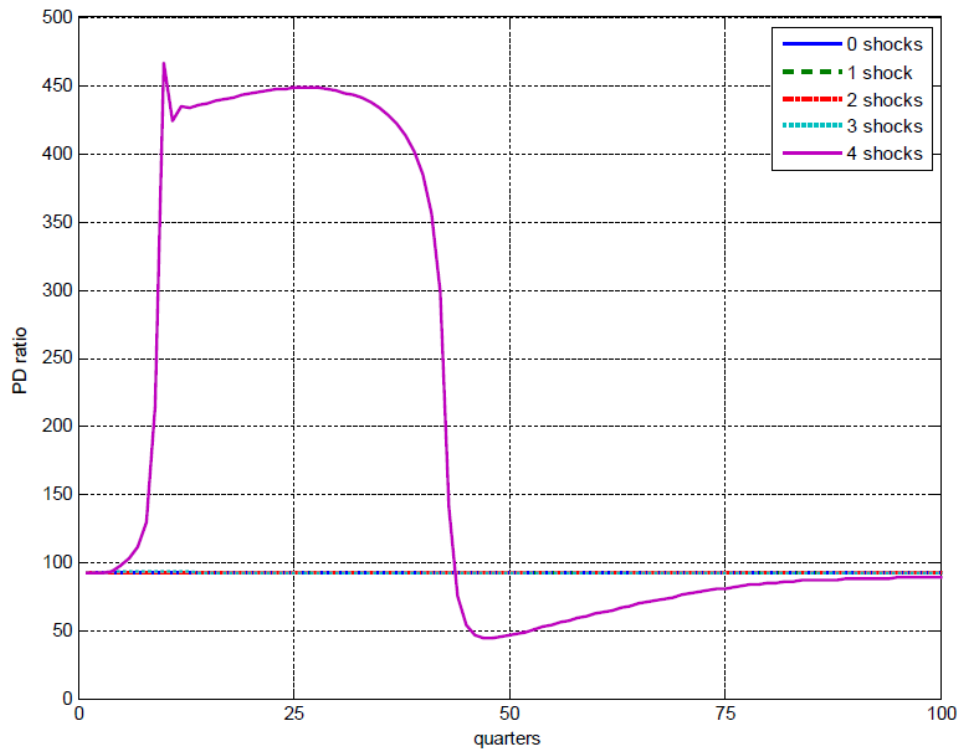

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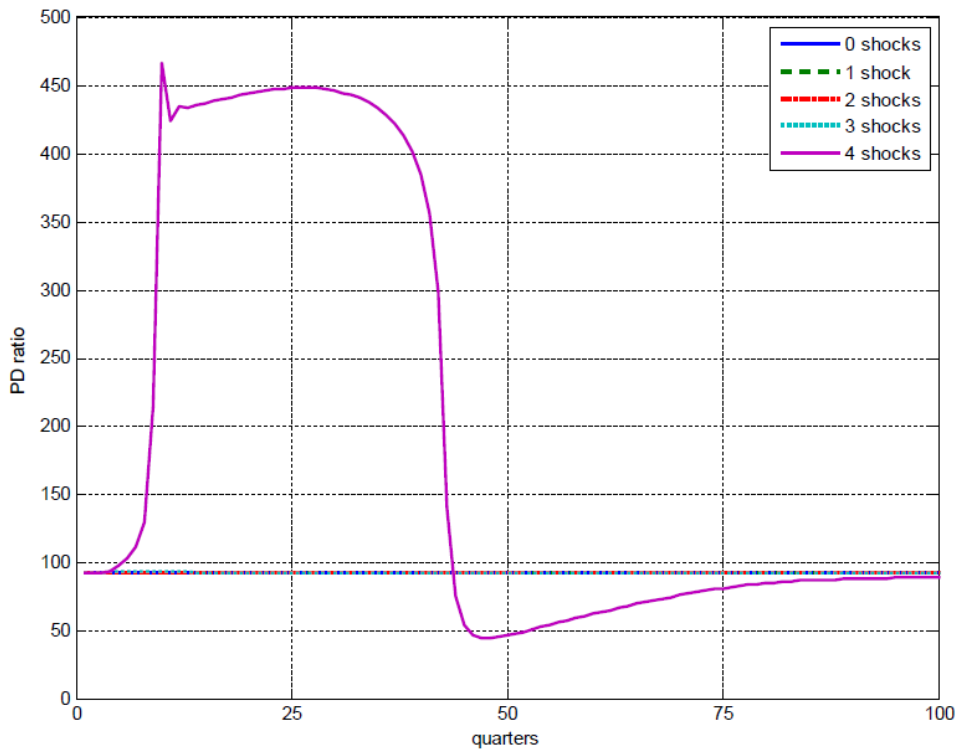

- **Comment**: very strong nonlinearities
  - Uniqueness? Stationary wealth distribution?

Quantitative Results with FTT **(main results)**

	No Tax	1% Tax	2% Tax	4% Tax	10% Tax
$E[PD]$	136.79	138.55	141.15	144.55	147.87
$std(PD)$	124.44	126.06	128.65	131.38	129.14
$corr(PD_t, PD_{t-1})$	0.98	0.98	0.98	0.98	0.98
$std(r^s)$	11.77%	12.01%	12.34%	12.87%	14.28%
$E[r^s]$	2.12%	2.15%	2.19%	2.27%	2.51%
$corr(PD_t, \overline{E}_t R_{t+1})$	0.84	0.85	0.86	0.87	0.89
$corr(TV_t, TV_{t-1})$	0.97	0.97	0.97	0.97	0.94
$corr(TV_t, PD_t)$	0.37	0.35	0.33	0.29	0.17
$corr(TV_t, \lvert P_t/P_{t-1} - 1\rvert)$	0.25	0.24	0.24	0.21	0.05
$corr(TV_t, std(\widetilde{E}^i_t R_{t+1}))$	0.95	0.94	0.94	0.92	0.88
# of booms per 100 yrs	1.81	1.94	2.11	2.39	3.02
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Results

- High tax $\uparrow \tau \Rightarrow$ More boom-bust cycles **(why?)**
  - Increases price level (asymmetry of boom-bust cycle)
  - Increases price volatility
  - Increases trading volume

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   - 20% increase in volume with 10% tax? Frequency?

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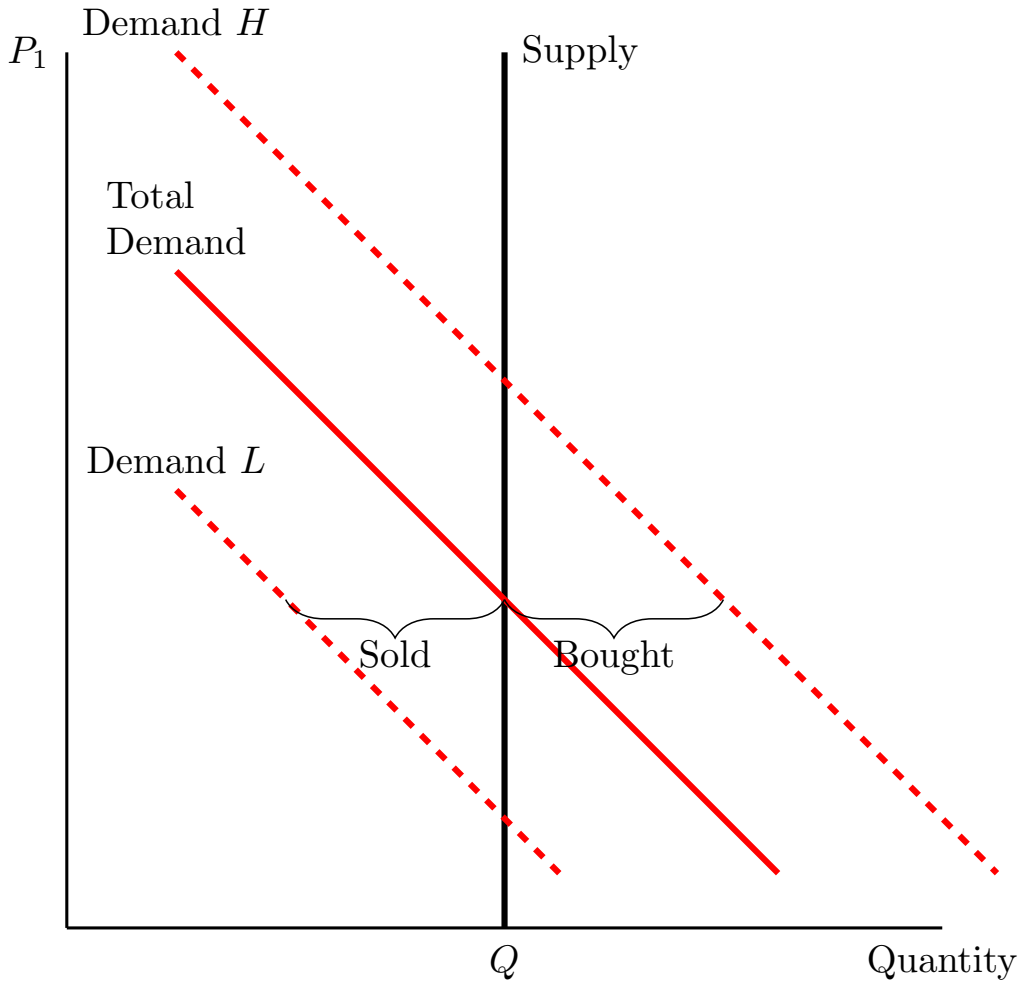
     - I've shown in a model without learning (Davila 2014) that $\frac{dP}{d\tau}$ depends on difference between buyers and sellers elasticity
     - Buyers buy less, sellers sell less, indeterminate effect on price
     - Asymmetric shocks to effective excess demand needed to generate price changes

Example



- Fixed supply (different from classic diagram!)
- All effects go through excess demand

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   - I believe it is even harder to solve (with some idiosyncratic reasons for trading)
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   - Single role of financial markets in this paper: risk sharing/betting
   - Why not focus on positive statements? Or understand frictions separately?

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