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Discussion of "A Theory of the Currency Denomination of International Trade" by P. Bacchetta and E. van Wincoop
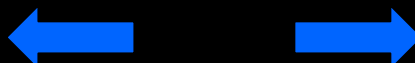
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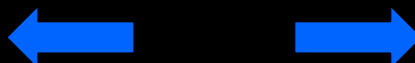International Research Forum on Monetary Policy

Outline

- 1. Summary of Main Results

- 2. Issues related to the New Open Economy Macroeconomics Model
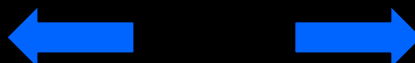
- 3. Alternative Explanations?

1. Main Results

- There is a higher likelihood of exports being priced in the exporter's own currency...

- a) the higher the exporter's market share in an industry.

- b) the more differentiated the export products relative to competing foreign firms' products (the lower price elasticity of demand).

- I-pricing: revenue uncertainty; profits are linear in S.

- E-pricing: demand and cost uncertainty; when demand function more convex than cost function (with respect to S) E-pricing will be preferred to I-pricing.

- Price elasticity of demand (μ) versus reciprocal of labour share in production (η) times μ.

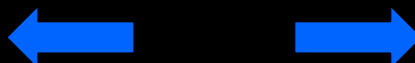- When (η-1) μ < 1   profit function convex in S

Strategic Complementarities

- *Nash equilibrium* leads to similar results, except when market share (n) large and (η-1) μ > 1, multiple equilibria including E-pricing.

- E-pricing results when sufficient home country export firms choose their own currency since demand uncertainty will be decreased (and demand uncertainty reduces expected profits in (η-1) μ > 1 case) . [slope line A, Fig. 4 positive?]

- With *co-ordination*, higher risk aversion leads to E-pricing (no demand uncertainty when all firms have same strategy, €but price uncertainty with I-pricing increases variance of profits)

Multiple Exporting Currencies

- E-pricing more likely as demand uncertainty is much less reduced by I-pricing if other countries' firms price in their own currency.

- E-pricing in monetary union will be more frequent than the sum for the legacy currencies, as the relevant market share is the one for the whole union.

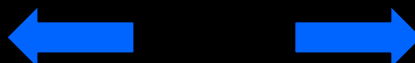- But possibly co-ordination necessary as other (dominated) Nash equilibria exist.

General Equilibrium

- S endogenous; Money supply shocks affect aggregate demand and wages; three sectors.

- Same demand functions except that real foreign spending depends on foreign monetary shock.

- Rigid nominal wages: E-pricing more likely as demand effect of M shock reduces demand uncertainty. [M* up (D* up), S down (D* down)]

- Rigid real wages: small country firms more likely to use I-pricing (in case where demand uncertainty dominates costs) as depreciation raises demand (thus costs) and wages (via effect on domestic price level).

- Stochastic real wages: pro-cyclical wages can lead to I-pricing equilibrium for all firms, for reason given above = unrealistic.

- Complete asset markets: I-pricing more likely, as M and M* affect demand, which delivers less offsetting effects.
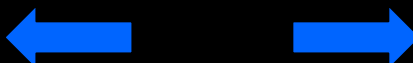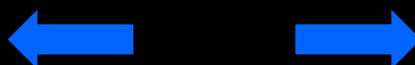
- Model tractable only close to S=E(S).

- Corsetti/Pesenti model?

- Richer market structure? (large importer might dominate despite high market share of exporting country)

- Richer financial structure? Hedging?

- Robustness to parameter and specification choices: policy relevance? E.g. Devereux/Engel (2001), $\eta=1$ and n and μ are irrelevant.

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2. Issues for NOEM-model continued

- Transparency with regard to robustness: only advantage?

- Authors consider additional insights from NOEM-model (country size and real wage volatility are important) as "empirically not very relevant".

- Relevant for recent euro area developments? Smaller than expected reaction of exports to depreciation due to increase in I-pricing? (Loss in market   share?)
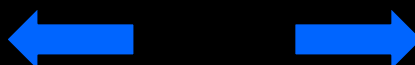
3. Alternative Explanations ?

- Volatility of inflation rates? (Devereux and Engel, 2001)

- Bilateral bargaining; importers usually outnumber exporters. (Viaene and De Vries, 1992).

- Monetary network externalities: Incumbent has advantage due to low transaction costs. Leads to concentration and inertia. (Hartmann, 1998)
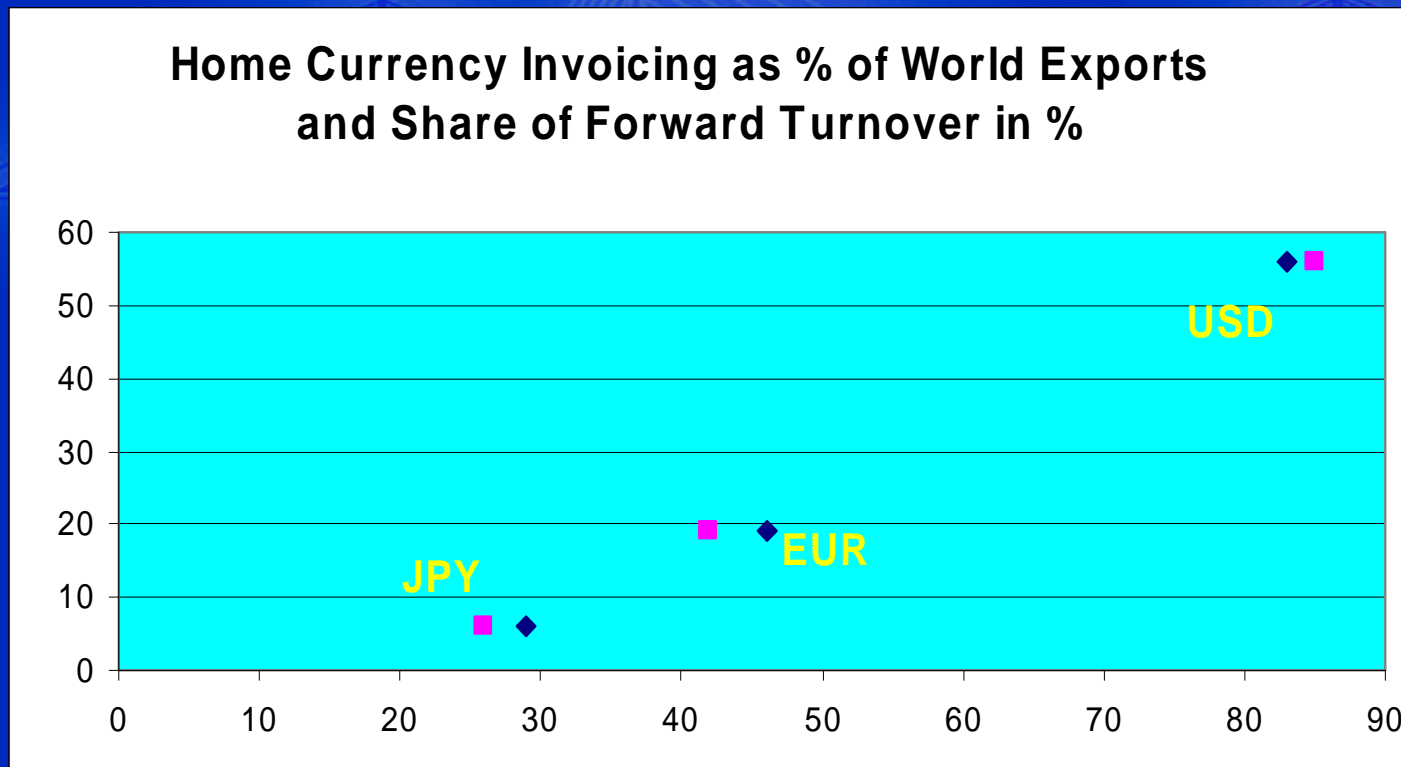
Alternative Explanations?
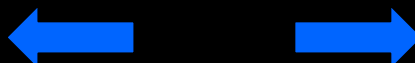
- ## Thick Market Externalities (1)

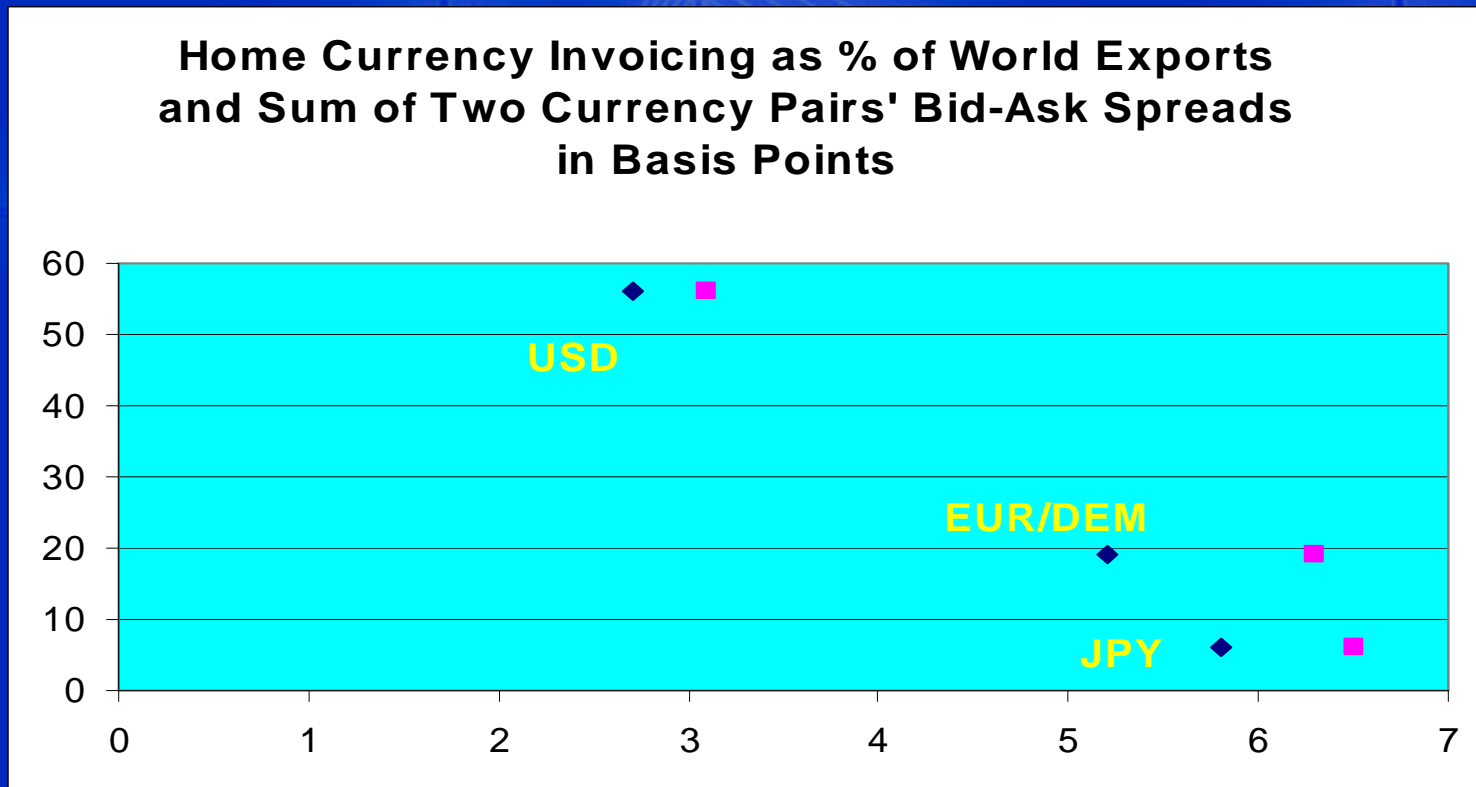### Home Currency Invoicing as % of World Exports and Share of Forward Turnover in %

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Alternative Explanations?

- ## Thick Market Externalities (2)

Home Currency Invoicing as % of World Exports and Sum of Two Currency Pairs' Bid-Ask Spreads in Basis Points

USD

EUR/DEM

JPY

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Alternative Explanations?

- ## Thick Market Externalities (3)

**Home Currency Invoicing as % of World Exports
and Share of International Debt Securities (stocks)
in %**
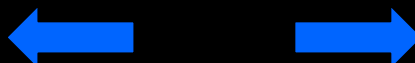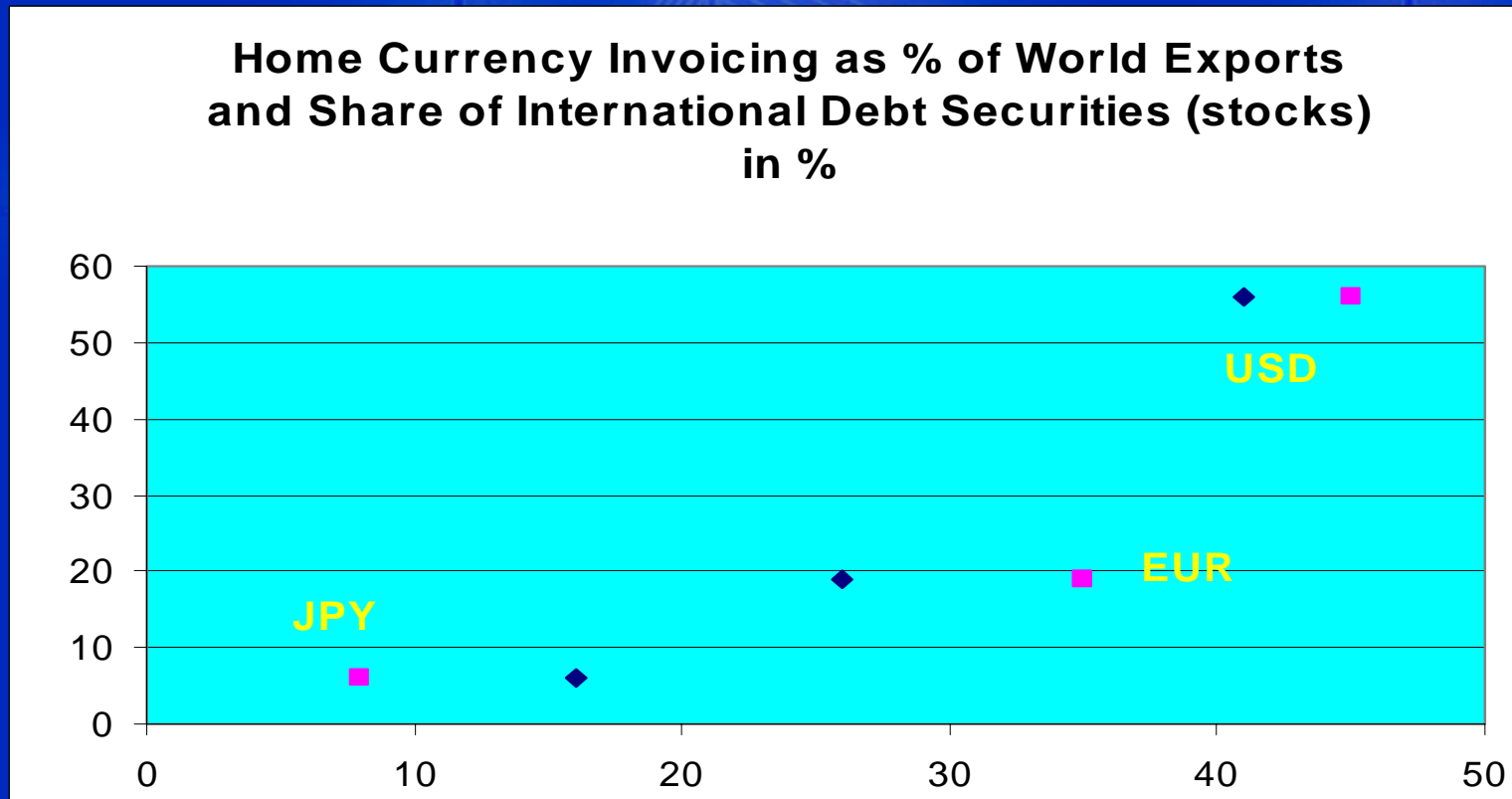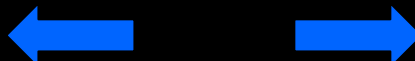
Thus…

- Currency used as medium of exchange when easy to buy, sell, borrow, hedge...

- when importers and exporters do not agree, bargaining power will decide.

- These are aspects difficult to address in present framework.