The International Roles of the Dollar and Euro in Trade

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The views expressed in this paper are those of the authors and do not necessarily represent those of the Federal Reserve Bank of New York or the Federal Reserve System.

Main take-aways

- The dollar continues to be the dominant currency of choice in international trade
- The euro's role has grown, mainly in transactions of countries in geographical proximity
- Currency use driven by: Issuing "country" size, exchange rate regimes, composition of goods traded, transaction costs, macro co-movement. "Herding" and "Hedging" motives. "Inertia" exists, tipping possible
- The currency used in invoicing matters for country susceptibility to shocks and for country monetary policy effectiveness

Exporters decide the currency for invoicing trade transactions

1. Stay close to the invoicing strategies of competitors
   - With prices contracted in advance, exporters want to keep ex post demand for their goods predictable.
   - Choose an invoicing currency that keeps ex post prices of goods similar to the prices of competitors
   - "Herding" or "coalescing" in invoice currency choice.
     - This motive is strongest with goods that are close substitutes, where shifting among suppliers easiest (commodities, exchange traded or reference-priced goods, highly substitutable goods)

Linda Goldberg and Cedric Tille "Vehicle Currency Use in International Trade" *Journal of International Economics*, forthcoming.

Exporters decide the currency for invoicing trade transactions, considering

2. Use currencies that provide hedging benefits
   - Some modelers argue that the invoice currency should be from countries with low macro volatility.
   - Instead choose a currency that provides a hedging benefit on the producer balance sheet
   - Logic: maximize comovements between marginal costs and revenues. When unit revenues are lower, want to simultaneously achieve lower marginal costs.

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Exporters decide the currency for invoicing trade transactions, considering

3. Use currencies with low transaction costs
   - Bid-ask spreads still often favor the dollar; some exceptions are in countries on the euro-area periphery.
   - Costs are contingent on volumes traded
   - Inertial force at work, but equilibrium could be upset

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The use of currencies in trade invoicing can be viewed along two dimensions

- First dimension: trade flows with the issuing country (trade with United States predominantly in dollars.)
- Second dimension: trade flows between other countries (trade between non-U.S. countries invoiced in dollars to a sizable extent.)

- The euro is still more limited in both roles. Expansion of role is largely to countries in geographic proximity.
- See ECB July 2008. “The International Role of the Euro”

Linda Goldberg and Cedric Tille “Macroeconomic Interdependence and the International Role of the Dollar”, NBER working paper 13820.

Table 1: International Role of the Dollar				
	Exports Invoiced in Dollars	Share of Country Exports		
		To the US	To "Dollar Bloc" Countries	
	(1)	(2)	(3)	(1)-(2+3)
Asia				
Korea	84.9	20.8	28.2	35.9
Thailand	83.9	17.8	17.5	48.6
European Union				
France	34.2	15.4	11.8	7
Germany	31.6	17.9	10.8	2.9
EU-Accession				
Hungary	12.2	3.5	2.7	6
Poland	29.9	2.7	4.9	22.3

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Table 2: International Role of the Euro				
	Exports Invoiced in Euros	Share of Country Exports		
		To the Euro Area	To "Euro Bloc" Countries	
	(1)	(2)	(3)	(1)-(2+3)
Asia				
Korea	1.3	10.4	1.8	-10.9
Thailand	0.5	10.5	1.6	-11.6
European Union				
France	55.8	n/a	n/a	42.6
Germany	49	n/a	n/a	27.4
EU-Accession				
Hungary	83.1	65.5	13.1	4.5
Poland	60.2	57.6	16.5	-13.9

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Consequences for policy

First dimension of international role of “center” currency is fairly well understood

- If the center country currency is used for invoicing, there are stable local currency prices in the center, but ex post flexibility in the prices of bilateral trading partners.
- These partners will have high exchange rate pass through into traded goods prices, and likely engage in greater expenditure switching in response to shocks.
- For example, a dollar-euro exchange rate change leads to stronger U.S. export response than import response.

Consequences for policy

Second dimension of international role of center currency

- Main Result 1: Periphery becomes more sensitive to center's monetary policy, and less to its own policy.
- Intuition: Center monetary policy affects intra-periphery import prices through center-periphery exchange rate.
  - Interdependence doesn't require center-periphery trade.
  - Dollar depreciation makes imports from Thailand cheaper in Korea (and vice-versa), boosting all intra-periphery trade.
  - Periphery policies influence a smaller share of prices in international trade

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Consequences for policy

Second dimension of international role of center currency

- Main Result 2: Externalities arise from center's monetary policy
- Intuition:
  - Center-Periphery exchange rates affect intra-periphery trade.
  - Level of trade can be inefficient and lead to sizable welfare losses in periphery.
  - Opportunity for gains from coordinating monetary policy between center and periphery, but involve welfare declines for the center.

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Would an exchange rate peg help?

- Under the second dimension, movements in center-periphery exchange rate lead to inefficient fluctuations in intra-periphery import prices.
  - Can be alleviated through cooperation, but possibly hard to implement.
  - Simpler policy: a monetary union (periphery pegs to the center, the center targets world welfare taking the peg into account).
- Peg can worsen welfare compared to the decentralized policy allocation.
  - Even though exchange rate movements entail inefficiencies, in stylized model they are not worth foregoing the possibility of stabilizing domestic shocks.

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