WEEK 2

FX transactions*:* Exchange of one currency for another currency. There are three general types of FX transactions:

1. *Spot* FX transactions: A single outright transaction involving the exchange of two currencies at a rate agreed to today (*spot bilateral exchange rate*) with settlement (actual delivery) usually within two business days.
   - *Deal date:* Day on which transaction is made (t).
   - *Value date:* Day of cash settlement of transaction (t+2).
     - Exceptions (to two business days): US and Mexico/Canada; and holidays in the US.
     - Note: Fridays are NOT business days in the Middle East (but Saturdays and Sundays are). Thus, non-Middle Eastern (Middle Eastern) countries settle on Friday (Saturday).
2. *Forward* FX transactions, consisting of:
   a. *Outright* forwards: A single outright transaction involving the exchange of two currencies at a rate agreed to today (*forward exchange rate*) with settlement more than two business days in the future.
      - Example: Agree today to buy USD 1m in 90 days at forward rate of 0.9500 USD per AUD.
      - Forward contracts come in standard maturities of 1-month, 2-months etc.

   b. *FX swap* transactions: A transaction involving the simultaneous purchase and sale of a given amount of FX for two different value dates. Both the purchase and sale are with the same counterparty.
      - Spot against forward FX swap: sale/purchase of a currency today (spot) combined with an offsetting purchase/sale of the same currency at some future point in time (outright forward).
        - Day 1: Sell AUD 10m today @ spot exchange rate of $0.9500 USD.
        - Day 90: Agree to buy back AUD 10m @ forward exchange rate of $0.9500 USD.
        - Spot-against-forward transactions account for 48% of FX market volume.
      - Forward-forward FX swap: exchange of two forward contracts with different maturity dates.

Triennial Central Bank Survey*:* Most comprehensive source of information on the size and structure of global FX markets. It's conducted every three years (since 1989). Data is collected from over 1,300 banks in 53 jurisdictions.

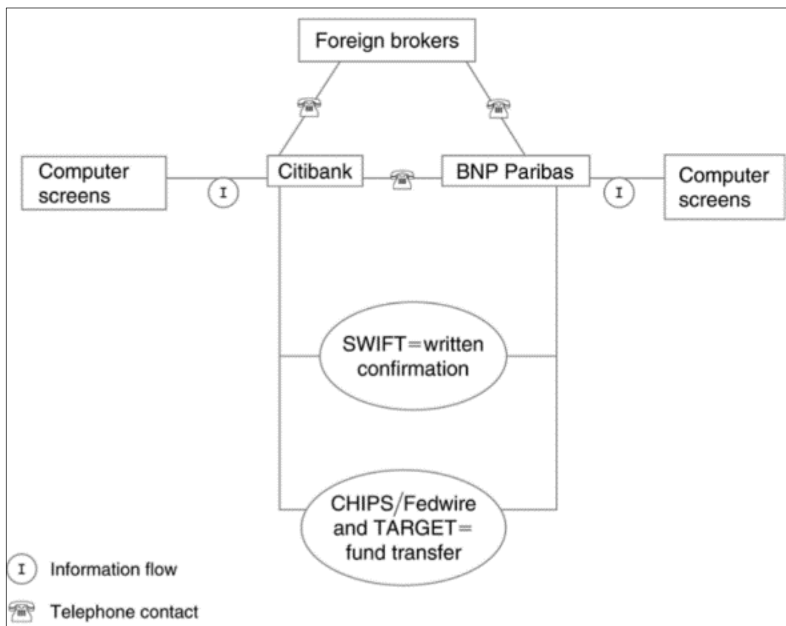
- 2016 (10th survey) results:
  - Daily turnover in global FX markets averaged US$5.1 trillion (declined from $5.4 trillion in 2013).
  - FX swaps were the most actively traded instrument (US$2.4 trillion or 47%), followed by spot trading (US$1.7 trillion or 33%) and outright forwards (US$0.7 trillion or 14%).
  - Turnover is dominated by four major currencies: USD 88%; EUR 31%; Yen 23%; GBP 13%.
    - Australia is the fifth most traded currency (7%). Surprising given size of the economy.
  - UK remained the largest market by location, followed by the US, Singapore, HK and Japan.
  - Turnover by counterparty: Other financial institutions (51%) [incl. non-reporting banks 22%, institutional investors 16%, and HFs 8%]; reporting dealers (42%); non-financial customers (7%).

Communication and fund transfers*:* Important communication systems include:

- Society of Worldwide Interbank Financial Telecommunications (SWIFT): Links 7,500 banks in 200 countries.
- Clearing House Interbank Payments System (CHIPS): Clearing house (settler) in the US for dollars.
- Fedwire: Links the computers of more than 7,500 institutions that have deposits with the US Federal Reserve.
- Trans-European Automated Real-time Gross Settlement Express Transfer (TARGET): European Fedwire.

Example: Citibank is seeking to purchase a large number of euros. It has three alternatives to acquire them (below):

1. Contact traders at *other banks* (e.g. BNP Paribas) and request a buy/sell quote for the euro.
    - Written confirmation provided by SWIFT. The transaction is settled via TARGET (fund transfer).
2. Contact *foreign brokers* to place a limit order for euros at a predetermined price (commission is earned).
3. Utilise an *electronic trading platform* to acquire the euros.

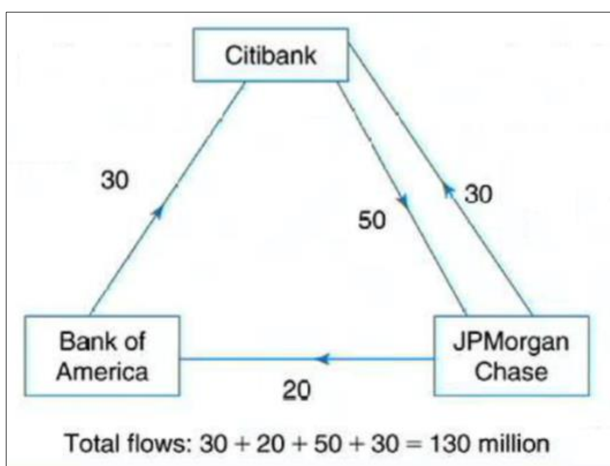


Notes:

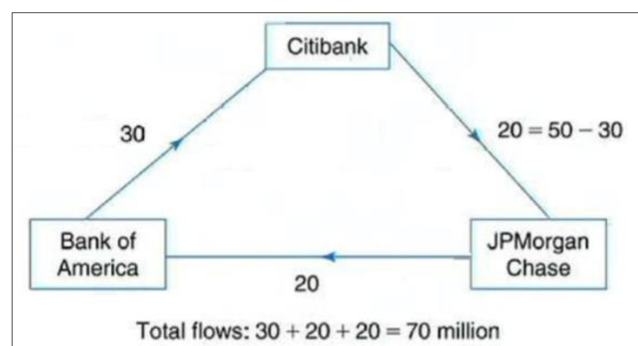
Settlement risk (cross-currency): The risk that a financial institution may not deliver the currency on one side of a completed transaction. This risk is addressed in numerous ways:

- Bank of International Settlements (BIS) encourages the voluntary restriction of transaction amounts.
- Continuous Linked Settlement (CLS): Ensures both sides of the transaction are completed simultaneously.
- *Netting arrangements:* Only *net* traded amounts are wired at the end of each trading day (less exposure).
    - Example: Of flows with and without netting arrangements.
        - Citibank owes JP Morgan $50 million.
        - JP Morgan owes Citibank $30 million.
        - Bank of America owes Citibank $30 million.
        - JP Morgan owes Bank of America $20 million.

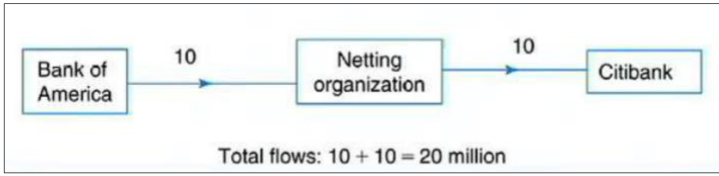
No netting:



Bilateral netting: Single cash flows on a party-to-party basis.



Multilateral netting: Cash flows are netted across multiple parties (not on a one-on-one basis).


Bank of America
10
Netting organization
10
Citibank
Total flows: 10 + 10 = 20 million