Topic 1: Globalisation and the MNC

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- Globalisation refers to increasing connectivity and integration of countries, corporations and the people within them
 - Involves countries becoming closer in **social, political** and **economic interaction**

International trade growth

- An important product/determinant of globalisation is the **rise of the multinational corporation**, i.e. company that produces/sells goods and services in more than one country
 - The BRIC countries especially have offered a huge opportunity in expansion and demand for goods and services
- Trade liberalisation is the movement towards 'free trade' between countries. Benefits include:
 - Specialisation based on comparative advantage
 - Outsourcing parts of the production process
- In the 1960s, only 20% of countries were considered 'open', and by the 2000s the figure was 70%
- Trade liberalisation is developed through trade agreements:
 - Free Trade Agreements, e.g. GATT from 1947-1985, or WTO signed by 123 nations in
 - o Regional trade agreements, e.g. EU, NAFTA, ASEAN, ChAFTA

Globalisation of financial markets

- Securitisation is the repackaging of pools of loans or receivables to create a new financial instrument
 - History dates back to 1800s, became more widespread in 1980s
- Globalisation and securitisation occurred at around the same time
 - Advantage: banks and companies could hedge against risk (since only a small percentage of loans would default)
 - Disadvantage: complex instruments led to opaqueness in the financial system
 - GFC: started in the US, was the longest and deepest recession in the post-war era
 - Raised issues with how well the global financial system worked
- There were ~37,000 MNCs in 1990, with now 80,000+ today
 - o Due to the **globalisation of financial markets**, brought on by
 - Trends in financial openness
 - Deregulation of financial systems in the 1980s, allowed more foreigners to invest in domestic markets
 - Creation of a new asset class the emerging markets
 - Rise of derivatives trading
 - A derivative is a security which has a payoff dependent on the performance of an underlying asset or security
- The GFC:
 - Growth in sub-prime mortgages from 2000-06 was fuelled by securitisation and the US government's quest to allow everyone to own a home
 - People bought houses they couldn't afford, banks securitised the loans and sold them to investors
 - As house prices fell, many defaulted on mortgages and banks holding assets backed by these mortgages got shafted

- A bank in the UK faced a bank run (everyone tries to take their money out at once) in 2007
- JPM bought Bear Stearns in 2008 because it couldn't fund itself in the money markets
- Fannie Mae and Freddie Mac were taken over by the government
- Lehman Brothers declared bankruptcy in 2008 and money markets froze
- Ramifications:
 - Debates over who was responsible
 - Correction of global imbalances, e.g. US trade deficit and China's trade surplus
 - Regulatory issues:
 - Central banks pumped money into major banks
 - Effectiveness of expansionary monetary and fiscal policies (Japan's quantitative easing)
 - Policy implications of a bank being too big to fail

Multinational corporations

- A parent company exists in the firm's originating country, with operating subsidiaries and affiliates abroad (aka **transnational corporations**)
- How do they enter foreign markets?
 - Exporting/importing
 - Licensing gives local firms the right to manufacture their products in exchange for a fee
 - Franchising where the firm provides sales or services strategies in exchange for a fee
 - Joint venture where two or more firms form a new legal entity owned by all the parent firms
 - **Greenfield** involves starting a company from scratch
- Primary goal of a multinational corporation:
 - In Australia, Canada, UK and US it is to maximise shareholder wealth over a long-term time horizon
 - However in Europe and Asia there is debate over the merits of aiming to maximise stakeholder wealth instead
 - Stakeholders referring to shareholders but also employees, creditors, management, customers; anyone who depends on the company
- How do owners make sure shareholder/stakeholder wealth is maximised?
 - Agency theory studies problems that arise from the separation of ownership and control, i.e. corporate governance issues
- Methods of overcoming the agency problem:
 - Independent board of directors
 - Advantage: protection of minority shareholders' interests and increased risk sharing
 - **Disadvantage**: not usually sufficiently independent of management
 - Partial concentration of ownership and control with a large shareholder
 - Advantage: shareholder has the self-interest to monitor management's activities
 - **Disadvantage**: shareholder can collude with management against minority shareholders
 - Executive compensation with performance incentives
 - Advantage: direct incentive to maximise share price
 - **Disadvantage**: rewards management for good luck and is subject to manipulation and short-term focus
 - Clearly defined fiduciary duties for CEOs with class-action lawsuits
 - Advantage: complementary disciplining device
 - Disadvantage: increases legal costs at the expense of shareholders

- Hostile takeovers and proxy contests
 - Advantage: incentive for management to not screw up because they get fired
 - **Disadvantage**: provides incentive for raiders to expropriate wealth from creditors and employees

FDI and other international players

- **Foreign direct investment** refers to when a company buys a 10% or greater stake in a company in a different country
 - Has increased 30x since 1980, to \$18 trillion
 - But has decreased as a % of GDP since 2000
- Other international players
 - International banks (see topic #)
 - International Monetary Fund (IMF)
 - Ensures stability of the international monetary and financial system through surveillance and assistance
 - The World Bank
 - Focuses on development, advisory duties and alleviation of poverty in mainly developing/emerging countries
 - Multilateral development banks
 - Regional development banks (like small versions of the World Bank) providing financing and grants
 - World Trade Organisation (WTO)
 - Mediates trade disputes and has the ability to place sanctions on countries
 - Organisation for Economic Cooperation and Development (OECD)
 - Examines, devises and coordinates policies across 34 relatively wealthy nations
 - Goal is to foster sustainable economic growth and employment and higher quality of life and financial stability
 - Bank for International Settlements (BIS)
 - Fosters international monetary and financial cooperation, e.g. the central bank for central banks
 - European Union (EU)
 - Economic and monetary union to foster cross-border cooperation in Europe
 - Others:
 - Governments
 - Investors (individual and institutional)
 - Sovereign wealth funds (run by the government)
 - Hedge funds and private equity funds

Globalisation: pros and cons

- Recently, especially in the era of Trump's presidency, globalisation and trade liberalisation is slowing down giving way to a rise in protectionism
 - e.g. increasing tariffs and trade litigation barriers for political sway since globalisation can be seen as a threat to domestic employment
- There are the arguments of countries which opened their markets to foreigners and subsequently got dragged into the GFC
- Benefits:
 - Specialisation increases gross world product
 - Sharing of risk beyond domestic possibility
 - Buffering of domestic recessions with international borrowing

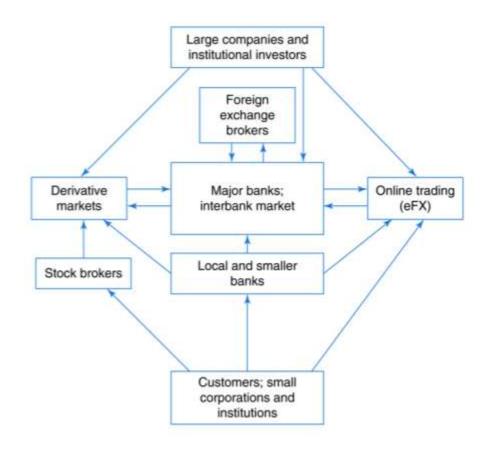
- Lower cost of capital
- Costs:
 - o Capital is not always used wisely, e.g. sub-prime mortgages
 - Foreign capital can dry up very quickly causing financial volatility
 - o Harder for governments to tax profits of MNCs
 - o Difficult to control capital flows

Topic 2: Foreign Exchange Markets

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Structure of the foreign exchange market

- Most important cities are London, New York and Tokyo
- Operates 24 hours a day, with the interbank market making up 50% of trading volume
- Most trades are greater than US\$1.0m
- Largest financial market in the world, \$5.5 trillion a day



- Contracts traded on the forex market:
 - Spot contracts for trades made today
 - Future transactions including swaps and forwards (see Topic 3)
 - Derivatives including futures and options (see Topic #)
- Dealers and brokers
 - **Foreign exchange dealers** are commercial banks and investment banks, and they are market makers (i.e. bring buyers and sellers together)
 - Brokerage firms are intermediaries who facilitate trades
 - Other forex participants include central banks and MNCs
- Liquidity refers to the ease with which one can sell an asset at its fair value
 - Highly liquid assets have low transaction costs
- Forex is a competitive market because **there is no product differentiation**, i.e. my 100 AUD is exactly the same as the 100 AUD Goldman Sachs is trying to sell
- The top 4 players in the exchange market account for 40% of trades, and the top 20 account for over 90% (CHECK THIS WTF)

Exchange rates

- The exchange rate is the price of one currency in terms of another
- Quoting exchange rates:
 - Direct involves expressing in terms of the domestic currency (i.e. it's the numerator)
 - AUD/GBP = 1.6136, i.e. 1 pound is worth that many A\$
 - o **Indirect** involves expressing in terms of the foreign currency
 - GBP/AUD = 1/1.6136 = 0.6197
 - American if expressed in USD, European if expressed in pounds (check with textbook that it's not euro)
- For the rest of the course, we have to express in the stupid textbook method which is \$1.24/£1

Cross-rates

- A vehicle currency is a currency used in many international financial transactions
 - Usually due to transaction costs of making markets in certain currencies
 - USD makes up ~89% of all transactions
- Cross-rates are where both currencies are not expressed in the domestic currency
 - there is currently seeing a trend towards cross-rate transactions globally
 - Cross rate table example:

	USD	EUR	GBP	CHF	MXN	JPY	CAD
Canada CAD	1.0207	1.3367	1.5798	1.0502	0.08217	0.01213	**********
Japan JPY	84.118	110.16	130.19	86.5495	6.7715	***********	82.411
Mexico MXN	12.422	16.268	19.226	12.781		0.14768	12.170
Switzerland CHF	0.97191	1.2728	1.5042		0.07824	0.01155	0.95218
United Kingdom GBP	0.64612	0.84616		0.66479	0.05201	0.00768	0.63300
Euro	0.76359	*********	1.1818	0.78566	0.06147	0.00908	0.74809
United States USD	*********	1.3096	1.5477	1.0289	0.08050	0.01189	0.97970

- Theoretically, if you knew the AUD/USD exchange rate and the GBP/AUD exchange rate, then you know what the implied USD/GBP rate is
- Cross exchange rate equilibrium:
 - AUD/JPY = AUD/USD * USD/JPY, or
 - Y/A\$ * A\$/US\$ * US\$/¥ = 1
- Triangular arbitrage involves arbitrage where cross-rates are not in equilibrium
 - If Y/A * A\$/US\$ * US\$/Y < 1, this means one of the three **cross-rates must rise**
 - Whichever cross-rate is too low, the denominator currency is valued too low relative to the numerator currency (e.g. 1.24 A\$/\$ compared to 1.5 A\$/\$ << USD is valued higher in the second one)
 - Since one of the rates should rise, you should buy each denominator currency with the respective numerator currency
 - o If $\frac{1}{4}$ A\$ * A\$/US\$ * US\$/ $\frac{1}{4}$ > 1, one of the three **must fall** as the denominator currency is valued too high
 - Since one of the rates should fall, you should buy each numerator currency with the respective denominator currency
 - Example:
 - ZAR11.5/\$, ¥9/ZAR, \$0.01/¥
 - 11.5*9*0.01 = 1.035, meaning one of the rates should fall and you will make a 3.5% profit (excluding transaction costs)
 - If you had \$1, you would buy ZAR11.5, then use that to buy 103.5¥, then use that to buy \$1.035, for 3.5c profit

Bid-ask spreads and bank profits

- Bid is the rate at which the bank will buy the base (denominator) currency;
 - Ask is the rate at which the bank will sell the base currency
 - Obviously the ask rate is going to be higher than the bid for the banks to profit from a forex transaction
 - The difference is measured with the **bid-ask spread** which is (as a percentage)

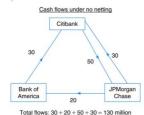
•
$$100\% * \frac{ask - bid}{ask}$$

- The bid-ask spread is also effectively what you would lose if you were to immediately buy and sell with this bank
- Magnitude of bid-ask spreads:
 - In the **interbank market**, it is within 5 'pips' (fourth decimal point in a currency quote)
 - Usually about 0.05% to 0.07% for major currencies, and lower for more liquid, higher for less liquid
 - On a physical exchange, e.g. using a credit card to pay for something in another country, bid-ask spread can be higher than 3%
 - This is because banks have to transact with brokers, and they need to have the currency in their inventory hence it is not interest bearing

Communication systems and risk

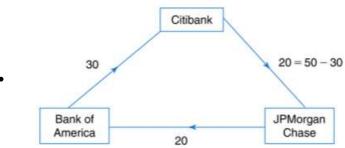
- The Society of Worldwide Interbank Financial Telecommunications (SWIFT) links 7500+ banks in 200 countries
 - Others include:
 - CHIPS clearing house in US for USD
 - Fedwire, links computers of 7500+ institutions that have deposits with the US Federal Reserve
 - TARGET European version of Fedwire
- Cross-currency settlement risk (aka Herstatt risk) is the risk that a financial institution may not deliver the currency on one side of the transaction
 - Addressing the risk:
 - The Bank of International Settlements (BIS) encourages the voluntary restriction of transaction amounts to limit the risk
 - Simultaneity of both transactions continuous linked settlement acts as a global clearing house
 - **Netting arrangements**
- Netting arrangements work as a sort of bundling together of cash flows between different banks:
 - Citibank owes JPMorgan Chase \$50 million from a foreign exchange deal
 - JPMorgan Chase owes Citibank \$30 million from another foreign exchange deal.
 Bank of America owes Citibank \$30 million from a foreign exchange deal.

 - JPMorgan Chase owes Bank of America \$20 million from another foreign



- The above is with no netting; all amounts are fully paid
- Below we see **bilateral netting**, where foreign exchange amounts to be paid are summed up between two banks

Cash flows under bilateral netting



Total flows: 30 + 20 + 20 = 70 million

- Below we see **multilateral netting**, where a netting organisation is used to bundle all cash flows together for a group of banks:
 - Citibank owes 20 and is owed 30 = net 10
 - JPM owes 20 and is owed 20 = net 0
 - Bank of America owes 30 and is owed 20 = net -10
 - Hence BAML will pay 10 and Citi will receive 10

Cash flows under multilateral netting



Total flows: 10 + 10 = 20 million