EC 380: Lecture 14

Global Finance: Balance of Payments

Philip Economides
Fall 2022

Prologue

Recap

Previously

- With globalization has come greater economic interdependence and larger risks of **contagion effects** once crises crop up.

Recap

Previously

- With globalization has come greater economic interdependence and larger risks of **contagion effects** once crises crop up.

Today

- Explore **system** used to track country's international transactions

Recap

Previously

- With globalization has come greater economic interdependence and larger risks of **contagion effects** once crises crop up.

Today

- Explore **system** used to track country's international transactions

- Establish relationship between domestic investment, domestic savings and international flows of goods, services, and financial assets

Recap

Previously

- With globalization has come greater economic interdependence and larger risks of **contagion effects** once crises crop up.

Today

- Explore **system** used to track country's international transactions
- Establish relationship between domestic investment, domestic savings and international flows of goods, services, and financial assets
- Examine consequences of **international indebtedness**

Layout

Three separate accounts for the **Balance of Payments**:

Layout

Three separate accounts for the **Balance of Payments**:

- Current account

Layout

Three separate accounts for the **Balance of Payments**:

- Current account
- Capital account

Layout

Three separate accounts for the **Balance of Payments**:

- Current account
- Capital account
- Financial account

Current Account

Current account: Records the transactions of goods, services, investment income and unilateral transfers between residents of a country and the rest of the world.

Current Account

Current account: Records the transactions of goods, services, investment income and unilateral transfers between residents of a country and the rest of the world.

- Exports & imports
- Income on equities
- Income on debt-related assets
- Repatriated income by MNE firms

Current Account

Current Account

Current account inflows are **monetary inflows**, exchanged for **goods/services outflows**.

Current Account

Current account inflows are **monetary inflows**, exchanged for **goods/services outflows**.

Country **current account surplus** implies CA inflows greater than CA outflows

Current Account

Current account inflows are **monetary inflows**, exchanged for **goods/services outflows**.

Country **current account surplus** implies CA inflows greater than CA outflows

$\implies$ Outflow of goods, services, investment income etc of country are greater than inflows

Capital & Financial Accounts

Capital account: Records transactions of highly specialized financial assets and liabilities

Capital & Financial Accounts

Capital account: Records transactions of highly specialized financial assets and liabilities

- Gifts of an embassy
- Acquisition of land for embassy use

Capital & Financial Accounts

Capital account: Records transactions of highly specialized financial assets and liabilities

- Gifts of an embassy
- Acquisition of land for embassy use

Financial account: Tracks capital flows between economies, usually long-lasting items relative to goods or services

Capital & Financial Accounts

Capital account: Records transactions of highly specialized financial assets and liabilities

- Gifts of an embassy
- Acquisition of land for embassy use

Financial account: Tracks capital flows between economies, usually long-lasting items relative to goods or services

- Foreign investment
- Purchase or sales of foreign stock & bonds
- International bank lending

CA: Trade Balance

The **trade balance** is total exports minus total imports.

CA: Trade Balance

The **trade balance** is total exports minus total imports.

- A trade balance deficit is a case in which total imports of goods and services outweights total exports

CA: Trade Balance

The **trade balance** is total exports minus total imports.

- A trade balance deficit is a case in which total imports of goods and services outweights total exports
- It is possible to maintain a deficit in goods and surplus in services, but normally the net amount of both is considered

CA: Trade Balance

The **trade balance** is total exports minus total imports.

- A trade balance deficit is a case in which total imports of goods and services outweights total exports
- It is possible to maintain a deficit in goods and surplus in services, but normally the net amount of both is considered

For the United States, the 2019 USD trade balance was $2,498$bn minus $3,114$ bn, or -616bn. Because the number is negative, the United States had a **trade deficit**.

CA: Breakdown

Current account measures all current, non-financial transactions between a nation and the rest of the world.

CA: Breakdown

Current account measures all current, non-financial transactions between a nation and the rest of the world.

1. goods and services trade (trade balance)

CA: Breakdown

Current account measures all current, non-financial transactions between a nation and the rest of the world.

1. goods and services trade (trade balance)

2. earned income paid abroad and received from abroad (primary income)

CA: Breakdown

Current account measures all current, non-financial transactions between a nation and the rest of the world.

1. goods and services trade (trade balance)
2. earned income paid abroad and received from abroad (primary income)
3. international transfer payments (secondary income)

CA: Breakdown

Current account measures all current, non-financial transactions between a nation and the rest of the world.

1. goods and services trade (trade balance)
2. earned income paid abroad and received from abroad (primary income)
3. international transfer payments (secondary income)

All three of these items have credit and debit components in BoP and construction of CA balance.

CA: Breakdown

Components of Current Account

Type	**Credit**	**Debit**
1. Goods and Services	Exports	Imports
2. Primary Income	Investment earnings income received from foreigners and compensation of employees	Investment earnings income paid to foreigners and compensation of employess
3. Secondary Income	Transfers received from abroad	Transfers made to foreigners

CA: Breakdown

Components of Current Account

Type	**Credit**	**Debit**
1. Goods and Services	Exports	Imports
2. Primary Income	Investment earnings income received from foreigners and compensation of employees	Investment earnings income paid to foreigners and compensation of employess
3. Secondary Income	Transfers received from abroad	Transfers made to foreigners

Investment income items not to be confused with the flow of **investment capital** used to buy a business or company shares.

Investment income is the income received or paid on the existing investments.

CA: Primary Income

Useful to think of **primary income** as payments or receipts for use of financial capital.

> If a US company invests in Mexico's stock market, the initial investment will not show up in the current account but will be included in the financial account. Subsequent flow of dividends back to the U.S. company will be counted in the United States as income received and in Mexico as income paid. If US company operating in Mexico pays wages from its home in the U.S., the wages are included in the primary income category of the current account and are recorded as a receipt by Mexico and payment by the US.

CA: Secondary Income

Secondary income includes payments made that are not in exchange for a good or service.

Foreign aid, or the remittances (the transfer of wages earned in one country to residents of another country) of immigrants temporarily residing in another country.

CA: Secondary Income

Secondary income includes payments made that are not in exchange for a good or service.

Foreign aid, or the remittances (the transfer of wages earned in one country to residents of another country) of immigrants temporarily residing in another country.

In US, payments are small relative to the overall current account.

Transfers are sometimes *very important* to developing countries receiving large volumes of either foreign aid or remittances from their citizens working abroad.

CA: Calculate Balance

CA: Calculate Balance

ID	Description	Credit	Debit
1.	Goods and Services exports	2498	-
1a.	Goods Exports	1653	-
1b.	Service Exports	845	-
2.	Primary income receipts	1123	-
2a.	Investment income received	1116	-
2b.	Compensation of employees received	7	-
3.	Secondary income receipts	143	-
4.	Goods and Services imports	-	3114
4a.	Goods Imports	-	2519
4b.	Service Imports	-	595
5	Primary income payments	-	866
5a.	Investment income paid	-	846
5b.	Compensation of employees paid	-	20
6	Secondary income payments	-	282
7	Total Debit	3764	-
8	Total Credit	-	4262
9	Current Account Balance	-	498

CA: US Case

US **current account deficit** has been trending downwards for the past 50 years.

CA: US Case

US **current account deficit** has been trending downwards for the past 50 years.

We will explore the causes and consequences of large current account deficits later, but here it should be noted that a current account deficit is not simply a sign of weakness.

CA: US Case

US **current account deficit** has been trending downwards for the past 50 years.

We will explore the causes and consequences of large current account deficits later, but here it should be noted that a current account deficit is not simply a sign of weakness.

Rapid economic growth in US **raised income**, increased spending power means greater imports.

CA: US Case

Foreign incomes did not rise as rapidly.

CA: US Case

Foreign incomes did not rise as rapidly.

Current account deficit in 1990s was sign of **relative US economic strength**.

CA: US Case

Foreign incomes did not rise as rapidly.

Current account deficit in 1990s was sign of **relative US economic strength**.

Deficit is not sustainable in the long run and could create **serious future problems**.

Financial Account

Main record of financial flows between countries.

Financial Account

Main record of financial flows between countries.

Covers all types of financial assets that can be bought and sold internationally.

Financial Account

Main record of financial flows between countries.

Covers all types of financial assets that can be bought and sold internationally.

Divided into **three main categories**, each with many subcomponents. The three main categories are:

1. the net acquisition of financial asset
2. the net incurrence of liabilities
3. changes in financial derivatives

Financial Account

Assets include bank accounts, stocks and bonds, real property such as factories, businesses, real estate, and monetary gold and foreign currencies.

Financial Account

Assets include bank accounts, stocks and bonds, real property such as factories, businesses, real estate, and monetary gold and foreign currencies.

Positive net acquisition of financial assets implies residents buying *more* foreign assets than they are selling.

Financial Account

Assets include bank accounts, stocks and bonds, real property such as factories, businesses, real estate, and monetary gold and foreign currencies.

Positive net acquisition of financial assets implies residents buying *more* foreign assets than they are selling.

Positive net incurrence of liabilities means foreigners purchasing *more* of home country's assets than they are selling.

Financial Account

Assets include bank accounts, stocks and bonds, real property such as factories, businesses, real estate, and monetary gold and foreign currencies.

Positive net acquisition of financial assets implies residents buying *more* foreign assets than they are selling.

Positive net incurrence of liabilities means foreigners purchasing *more* of home country's assets than they are selling.

Financial derivatives are assets with a value that is derived from the value of some other asset, such as commodity prices or exchange rates, or one of many other possibilities.

Financial Account: Derivatives

Essentially packages as **financial options** (puts/calls) that allow for hedging against risk.

For example, farmers used them to protect against fluctuations in agricultural prices.

> Wheat farmer might sign a contract in March to sell her crop in September at a price agreed when the contract is signed. The value of the contract depends on the fluctuation in wheat prices. If prices go above the agreed price, the contract becomes more valuable to the buyer because they have a guaranteed lower price, and vice versa if prices fall over the summer.

The contract is a derivative since its value depends on the price of wheat.

Financial Account

Presents the flow of assets during the year and not the stock of assets that have accumulated over time.

All flows are **“net” changes** rather than “gross” changes.

Financial Account

Presents the flow of assets during the year and not the stock of assets that have accumulated over time.

All flows are **“net” changes** rather than “gross” changes.

Net changes are the differences between assets sold and assets bought, as when U.S. residents purchase shares in the Mexican stock market while simultaneously selling Mexican bonds.

Net change in US-owned assets is difference between the value of the shares purchased and the bonds sold.

Financial Account

Presents the flow of assets during the year and not the stock of assets that have accumulated over time.

All flows are **“net” changes** rather than “gross” changes.

Net changes are the differences between assets sold and assets bought, as when U.S. residents purchase shares in the Mexican stock market while simultaneously selling Mexican bonds.

Net change in US-owned assets is difference between the value of the shares purchased and the bonds sold.

If the stocks and bonds are equal in value, then the net change is zero.

Financial Account

The US Balance of Payments, 2019

ID	Description	Billions, USD
1.	Current Account Balance	-498
2.	Capital Account Balance	0
3.	Financial Account	-
3a.	Net U.S. acquisition of financial assets, excluding financial derivatives (increase/outflow (+))	427
3b.	Net U.S. incurrence of liabilities, excluding financial derivatives (increase/inflow (+))	784
3c.	Net change in financial derivatives	-38
4.	Statistical Discrepancy	102
5.	Memoranda	-
5a.	Balance on current and capital accounts (lines 1 + 2)	-498
5b.	Balance on financial account (lines 3a – 3b + 3c)	-396

Financial Account

Payments abroad to buy financial assets are a credit, while payments received from abroad for selling home country assets **(net incurrence of liabilities)** are a debit

Financial Account

Payments abroad to buy financial assets are a credit, while payments received from abroad for selling home country assets **(net incurrence of liabilities)** are a debit

Debits viewed as the **inflow received when assets are sold to foreigners** and credit are the **payment outflow when financial assets are purchased by home country residents**.

Financial Account

Payments abroad to buy financial assets are a credit, while payments received from abroad for selling home country assets **(net incurrence of liabilities)** are a debit

Debits viewed as the **inflow received when assets are sold to foreigners** and credit are the **payment outflow when financial assets are purchased by home country residents**.

Conceptually similar to the credits and debits of exports and imports.

Interdependence

The current, capital, and financial accounts are **interdependent**.

Interdependence

The current, capital, and financial accounts are **interdependent**.

The current and capital accounts measure the flows of goods, services, and transfers between a country and the rest of the world.

Interdependence

The current, capital, and financial accounts are **interdependent**.

The current and capital accounts measure the flows of goods, services, and transfers between a country and the rest of the world.

The financial account measures the net flows of asset purchases and sales.

Interdependence

The current, capital, and financial accounts are **interdependent**.

The current and capital accounts measure the flows of goods, services, and transfers between a country and the rest of the world.

The financial account measures the net flows of asset purchases and sales.

Since each element in the current account must include a financial transaction, *current plus capital account must equal the financial account*.

Interdependence

A negative current plus capital account $\implies$ **net borrowing** by the home country.

Interdependence

A negative current plus capital account $\implies$ **net borrowing** by the home country.

Must show up in the financial account as net borrowing as well.

Interdependence

A negative current plus capital account $\implies$ **net borrowing** by the home country.

Must show up in the financial account as net borrowing as well.

In 2019, US lent abroad through the net acquisition of financial assets worth 427 bn.

Interdependence

A negative current plus capital account $\implies$ **net borrowing** by the home country.

Must show up in the financial account as net borrowing as well.

In 2019, US lent abroad through the net acquisition of financial assets worth 427 bn.

Also incurred liabilities or borrowed 784 bn from foreigners.

Interdependence

A negative current plus capital account $\implies$ **net borrowing** by the home country.

Must show up in the financial account as net borrowing as well.

In 2019, US lent abroad through the net acquisition of financial assets worth 427 bn.

Also incurred liabilities or borrowed 784 bn from foreigners.

Balance on financial account is the **amount lent** minus the **amount borrowed** plus the **net change in derivatives**, -396 bn.

Statistical Discrepancy

Why is Current + Capital $(\neq)$ Financial?

Statistical Discrepancy

Why is Current + Capital $(\neq)$ Financial?

Impossible to record all transactions and to ensure they are accurately measured.

Statistical Discrepancy

Why is Current + Capital $(\neq)$ Financial?

Impossible to record all transactions and to ensure they are accurately measured.

Amount of net lending or borrowing on the current and capital accounts rarely matches the amount implied by the financial account balance.

Statistical Discrepancy

Why is Current + Capital $(\neq)$ Financial?

Impossible to record all transactions and to ensure they are accurately measured.

Amount of net lending or borrowing on the current and capital accounts rarely matches the amount implied by the financial account balance.

The **statistical discrepancy** is size of the measurement error.

Statistical Discrepancy

Why is Current + Capital ($\neq$) Financial?

Impossible to record all transactions and to ensure they are accurately measured.

Amount of net lending or borrowing on the current and capital accounts rarely matches the amount implied by the financial account balance.

The **statistical discrepancy** is size of the measurement error.

While the current and financial accounts are mirror images of each other, *a large share of a nation's gross financial account transactions is not in response to the current account flows of goods, services, or income.*

Discrepancy Example

Suppose London-based company buys stock in Chilean firm, lends money to the government of Thailand.

Discrepancy Example

Suppose London-based company buys stock in Chilean firm, lends money to the government of Thailand.

Nothing to do with the movements of goods and services. These purely financial transactions must have a net value of zero.

Discrepancy Example

Suppose London-based company buys stock in Chilean firm, lends money to the government of Thailand.

Nothing to do with the movements of goods and services. These purely financial transactions must have a net value of zero.

The reason is that **the purchase of an asset is simultaneously the sale of an asset of equal value**.

Discrepancy Example

Suppose London-based company buys stock in Chilean firm, lends money to the government of Thailand.

Nothing to do with the movements of goods and services. These purely financial transactions must have a net value of zero.

The reason is that **the purchase of an asset is simultaneously the sale of an asset of equal value**.

If Canadian citizen buys shares in the Mexican stock market (capital outflow), he or she must sell Canadian dollars or some other asset (capital inflow).

Discrepancy Example

Suppose London-based company buys stock in Chilean firm, lends money to the government of Thailand.

Nothing to do with the movements of goods and services. These purely financial transactions must have a net value of zero.

The reason is that **the purchase of an asset is simultaneously the sale of an asset of equal value**.

If Canadian citizen buys shares in the Mexican stock market (capital outflow), he or she must sell Canadian dollars or some other asset (capital inflow).

As a result, the financial account is a complete picture of **net flows** of financial assets during the year.

Financial Risks

Certain types of financial flows introduce instability/risk

Some financial flows very mobile, represent short-run tendencies.

Financial Risks

Certain types of financial flows introduce instability/risk

Some financial flows very mobile, represent short-run tendencies.

Often vehicles for transmitting a financial crisis from one country to another.

Financial Risks

Certain types of financial flows introduce instability/risk

Some financial flows very mobile, represent short-run tendencies.

Often vehicles for transmitting a financial crisis from one country to another.

The degree of mobility of financial flows and the potential of some flows to introduce a large element of volatility into an economy have turned the type of flows that a country receives into a major issue.

Financial Subcomponents

The US Financial Account 2019, by Subcomponent

ID	Description	Billions, USD
3a.	Net U.S. acquisition of financial assets, excluding financial derivatives (increase/outflow (+))	427
3a.i.	Direct investment assets	198
3a.ii	Portfolio investment assets	39
3a.iii	Other investment assets	189
3a.iv	Reserve assets	5
3b.	Net U.S. incurrence of liabilities, excluding financial derivatives (increase/inflow (+))	784
3b.i.	Direct investment liabilities	311
3b.ii	Portfolio investment liabilities	232
3b.iii	Other investment liabilities	242
3c.	Net change in financial derivatives	-38

Financial Subcomponents

The US Financial Account 2019, by Subcomponent

ID	Description	Billions, USD
3a.	Net U.S. acquisition of financial assets, excluding financial derivatives (increase/outflow (+))	427
3a.i.	Direct investment assets	198
3a.ii	Portfolio investment assets	39
3a.iii	Other investment assets	189
3a.iv	Reserve assets	5
3b.	Net U.S. incurrence of liabilities, excluding financial derivatives (increase/inflow (+))	784
3b.i.	Direct investment liabilities	311
3b.ii	Portfolio investment liabilities	232
3b.iii	Other investment liabilities	242
3c.	Net change in financial derivatives	-38

The 2019 financial account for the United States, divided into seven subcategories representing the main components of outflows and inflows, or net assets acquired (outflow) and net liabilities incurred (inflow).

Financial Subcomponents

The US Financial Account 2019, by Subcomponent

ID	Description	Billions, USD
3a.	Net U.S. acquisition of financial assets, excluding financial derivatives (increase/outflow (+))	427
3a.i.	Direct investment assets	198
3a.ii	Portfolio investment assets	39
3a.iii	Other investment assets	189
3a.iv	Reserve assets	5
3b.	Net U.S. incurrence of liabilities, excluding financial derivatives (increase/inflow (+))	784
3b.i.	Direct investment liabilities	311
3b.ii	Portfolio investment liabilities	232
3b.iii	Other investment liabilities	242
3c.	Net change in financial derivatives	-38

Financial Subcomponents

The US Financial Account 2019, by Subcomponent

ID	Description	Billions, USD
3a.	Net U.S. acquisition of financial assets, excluding financial derivatives (increase/outflow (+))	427
3a.i.	Direct investment assets	198
3a.ii	Portfolio investment assets	39
3a.iii	Other investment assets	189
3a.iv	Reserve assets	5
3b.	Net U.S. incurrence of liabilities, excluding financial derivatives (increase/inflow (+))	784
3b.i.	Direct investment liabilities	311
3b.ii	Portfolio investment liabilities	232
3b.iii	Other investment liabilities	242
3c.	Net change in financial derivatives	-38

(3a.i) represents the purchase of real property **outside the United States** by U.S. residents and businesses.

(3b.i) represents asset purchases **in the United States** by foreign residents and businesses.

Financial Subcomponents

The US Financial Account 2019, by Subcomponent

ID	Description	Billions, USD
3a.	Net U.S. acquisition of financial assets, excluding financial derivatives (increase/outflow (+))	427
3a.i.	Direct investment assets	198
3a.ii	Portfolio investment assets	39
3a.iii	Other investment assets	189
3a.iv	Reserve assets	5
3b.	Net U.S. incurrence of liabilities, excluding financial derivatives (increase/inflow (+))	784
3b.i.	Direct investment liabilities	311
3b.ii	Portfolio investment liabilities	232
3b.iii	Other investment liabilities	242
3c.	Net change in financial derivatives	-38

Financial Subcomponents

The US Financial Account 2019, by Subcomponent

ID	Description	Billions, USD
3a.	Net U.S. acquisition of financial assets, excluding financial derivatives (increase/outflow (+))	427
3a.i.	Direct investment assets	198
3a.ii	Portfolio investment assets	39
3a.iii	Other investment assets	189
3a.iv	Reserve assets	5
3b.	Net U.S. incurrence of liabilities, excluding financial derivatives (increase/inflow (+))	784
3b.i.	Direct investment liabilities	311
3b.ii	Portfolio investment liabilities	232
3b.iii	Other investment liabilities	242
3c.	Net change in financial derivatives	-38

In general, FDI varies considerably and is often linked to mergers.

Once made, however, FDI is probably less likely to leave a country, particularly when compared to the next category of items in lines **3a.ii** & **3a.iii** and **3b.ii** & **3b.iii**.

Summary

Recapping

- Contents of Balance of Payments indicate net flows
- Financial Accounts should balance with Current + Capital

Summary

Recapping

- Contents of Balance of Payments indicate net flows
- Financial Accounts should balance with Current + Capital

Next time

- Macroeconomy implications of BoP state
- International Debt considerations
- Investment Position, maybe some Brexit
- Introducing exchange rates