



CFA Institute[®]
Investment Foundations

It's Free!

Do it!

Module 3: INPUTS AND TOOLS

Chapter 6: Economics of International Trade

Ted Stephenson, CFA, CPA, CMA, CFP, MBA
Professor, George Brown College
St. James Campus
290 Adelaide St. E.,
Toronto, Ontario, M5T 2T9

[Faculty Bio](#)



Module	Topic	Weight	LOS	Exam Qs	Hours to Study	Module Practice Qs	Chapter Practice Qs
Module 1	Industry overview	5%	7	6	5	28	28
Chapter 1	The Investment Industry: A Top-Down View						
Module 2	Ethics and regulation	10%	14	12	10	91	
Chapter 2	Ethics and Investment Professionalism						49
Chapter 3	Regulation						42
Module 3	Inputs and tools	20%	50	24	20	291	
Chapter 4	Microeconomics						53
Chapter 5	Macroeconomics						57
Chapter 6	Economics of International Trade						47
Chapter 7	Financial Statements						70
Chapter 8	Quantitative Concepts						64
Module 4	Investment instruments	20%	29	24	20	213	
Chapter 9	Debt Securities						69
Chapter 10	Equity Securities						72
Chapter 11	Derivatives						42
Chapter 12	Alternative Investments						30
Module 5	Industry structure	20%	27	24	20	96	
Chapter 13	Structure of the Investment Industry						28
Chapter 14	Investment Vehicles						29
Chapter 15	The Functioning of Financial Markets						39
Module 6	Serving client needs	5%	12	6	5	76	
Chapter 16	Investors and Their Needs						35
Chapter 17	Investment Management						41
Module 7	Industry controls	20%	24	24	20	154	
Chapter 18	Risk Management						51
Chapter 19	Performance Evaluation						53
Chapter 20	Investment Industry Documentation						50
	Total	100%	163	120	100	949	949

AFTER COMPLETING THIS CHAPTER, YOU SHOULD BE ABLE TO DO THE FOLLOWING:

- a) Define imports and exports and describe the need for and trends in imports and exports;
- b) Describe comparative advantages among countries;
- c) Describe the balance of payments and explain the relationship between the current account and the capital and financial account;
- d) Describe why a country runs a current account deficit and describe the effect of a current account deficit on the country's currency;
- e) Describe types of foreign exchange rate systems;
- f) Describe factors affecting the value of a currency;
- g) Describe how to assess the relative strength of currencies;
- h) Describe foreign exchange rate quotes;
- i) Compare spot and forward markets.

IMPORTS AND EXPORTS

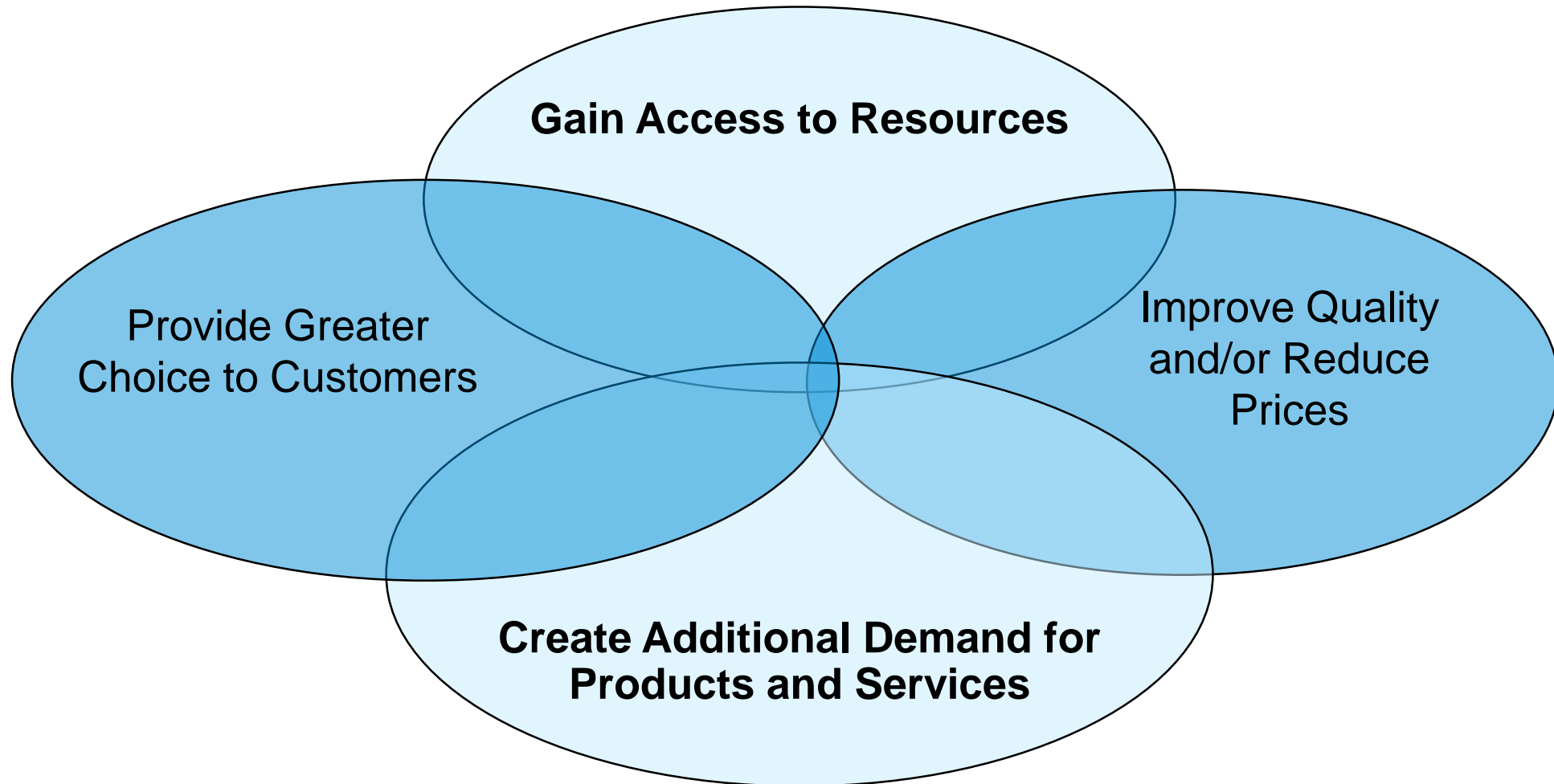


Products and services that are produced outside a country's borders and then brought into the country.

Products and services that are produced within a country's borders and then transported to another country.

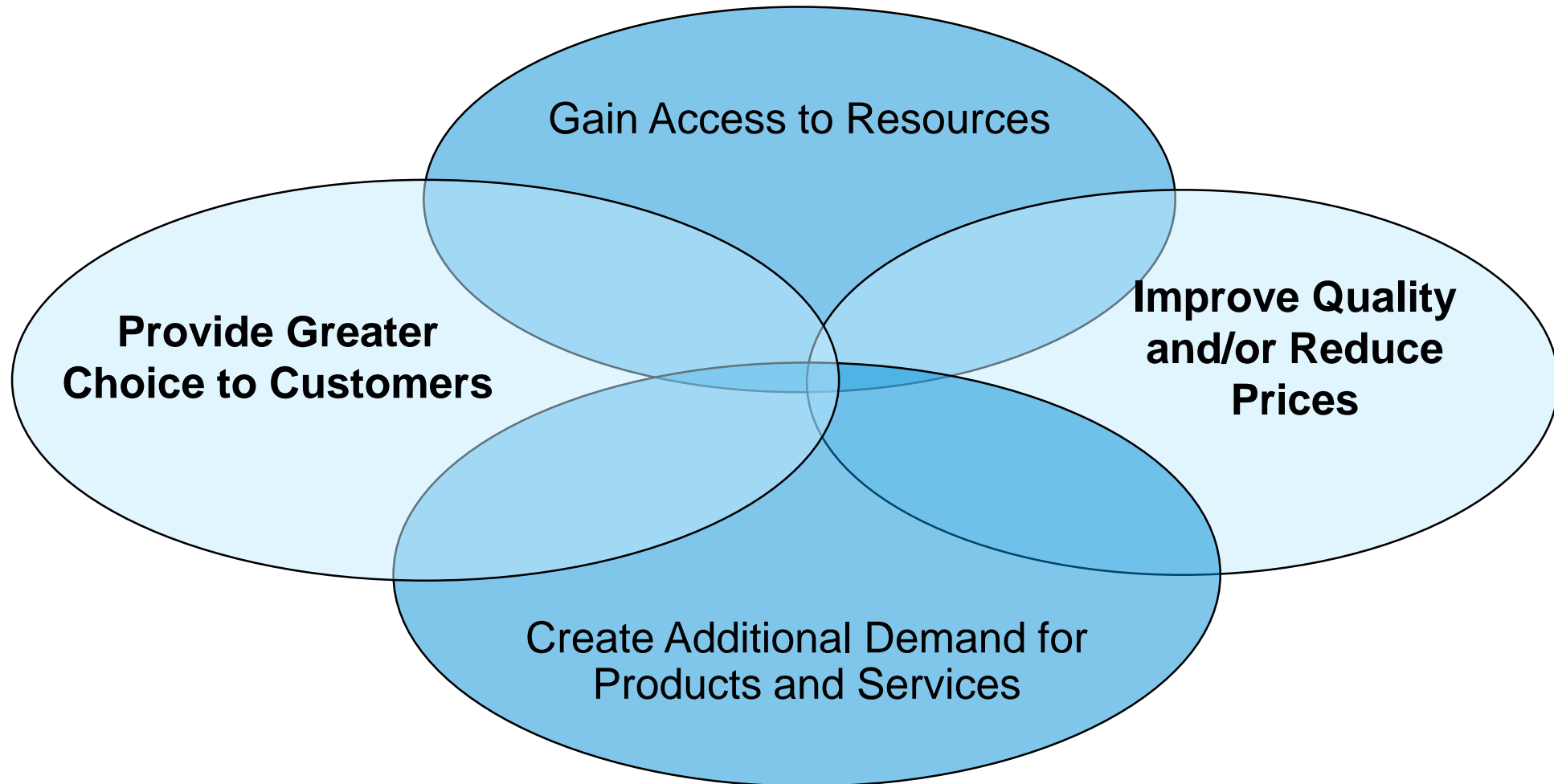
LOS a: Define imports and exports and describe the need for and trends in imports and exports.

THE NEED FOR AND BENEFIT OF INTERNATIONAL TRADE



LOS a: Define imports and exports and describe the need for and trends in imports and exports.

THE NEED AND BENEFIT FOR INTERNATIONAL TRADE



LOS a: Define imports and exports and describe the need for and trends in imports and exports.

TRENDS IN IMPORTS AND EXPORTS

Two major trends have promoted international trade:	
Fewer Trade Barriers	Better Transportation and Communications
<p>Tariffs: Taxes levied on imported products or services that allow governments not only to establish trade barriers, often to protect domestic suppliers, but also to raise revenue.</p>	<p>Large shipping containers allow manufacturers to transport non-perishable products more easily on ships, trains, and trucks, while jumbo jets transport perishable products quickly.</p>
<p>Quotas: Limits placed on the quantity of products that can be imported.</p>	
<p>Non-tariff barriers: Range of barriers, such as certification, licensing, sanctions, or embargoes, that make it more difficult and expensive for foreign producers to compete.</p>	<p>The ability to communicate digitally has also contributed to the increase in the trade of services.</p>

LOS a: Define imports and exports and describe the need for and trends in imports and exports.

EXAMPLE 1. COMPARATIVE ADVANTAGE

ABSOLUTE AND COMPARATIVE ADVANTAGE

UNITS OF LABOUR REQUIRED TO PRODUCE EACH PRODUCT

	Shoes	Kettles	Cost Ratio
Country A	10 units	10 units	1:1
Country B	20 units	40 units	1:2

Country A has an ***absolute advantage*** in terms of cost over Country B in the production of both shoes and kettles.

Country A can produce both shoes and kettles for just 10 units of labour, whereas shoes take 20 units and kettles take 40 units in Country B.

LOS b: Describe comparative advantages among countries.

ABSOLUTE AND COMPARATIVE ADVANTAGE

UNITS OF LABOUR REQUIRED TO PRODUCE EACH PRODUCT

	Shoes	Kettles	Cost Ratio
Country A	10 units	10 units	1:1
Country B	20 units	40 units	1:2

Because Country B is relatively less efficient at making kettles than shoes compared with Country A, it would be best if Country A made kettles and Country B made shoes.

Country A has a ***comparative advantage*** in the production of kettles. Kettles are relatively more costly to manufacture in Country B, so it should make shoes and trade for kettles with Country A.

LOS b: Describe comparative advantages among countries.

ABSOLUTE AND COMPARATIVE ADVANTAGE

UNITS OF LABOUR REQUIRED TO PRODUCE EACH PRODUCT

	Shoes	Kettles	Cost Ratio
Country A	10 units	10 units	1:1
Country B	20 units	40 units	1:2

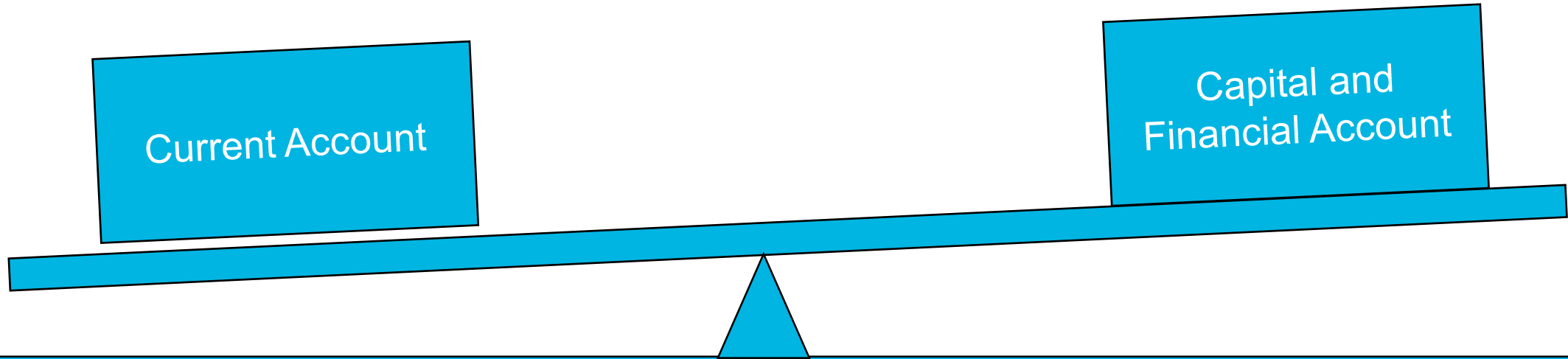
If Country A shifts its 10 units of labour to producing kettles instead of shoes, it will make one less pair of shoes but one more kettle.

If Country B shifts its 40 units of labour to making shoes instead of kettles, it will produce two more pairs of shoes and one less kettle.

The net effect is that the total kettle production by Countries A and B is unchanged, but there is now one additional pair of shoes produced.

LOS b: Describe comparative advantages among countries.

BALANCE OF PAYMENTS



The balance of payments shows the flow of money in and out of a country as a result of exports and imports of products and services. It also reflects financial transactions and financial transfers between resident and non-resident economic entities.

LOS c: Describe the balance of payments and explain the relationship between the current account and the capital and financial account.

BALANCE OF PAYMENTS

Current Account Balance

1. Current Account Balance
= Goods and services + Income
+ Current transfers

Goods and Services:
Net exports or balance of trade
= Exports – Imports

2. Income:
Salaries and income on financial investments

3. Current Transfers:
Unilateral transfers, such as gifts or workers' remittance

LOS c: Describe the balance of payments and explain the relationship between the current account and the capital and financial account.

COUNTRIES WITH THE LARGEST CURRENT ACCOUNT SURPLUS OR DEFICIT IN 2013

Country	Rank (out of 193)	Current Account Balance Surplus (+) or Deficit (-) (\$US billions)
Largest estimated current account surpluses		
Germany	1	257.1
China	2	176.6
Saudi Arabia	3	132.2
Netherlands	4	82.9
Russia	5	74.8
Largest estimated current account deficits		
Canada	189	-59.5
India	190	-74.8
Brazil	191	-77.6
United Kingdom	192	-93.6
United States	193	-360.7

LOS c: Describe the balance of payments and explain the relationship between the current account and the capital and financial account.

BALANCE OF PAYMENTS

Capital and Financial Account

Capital and Financial Account
= Capital account + Financial account

Capital Account:

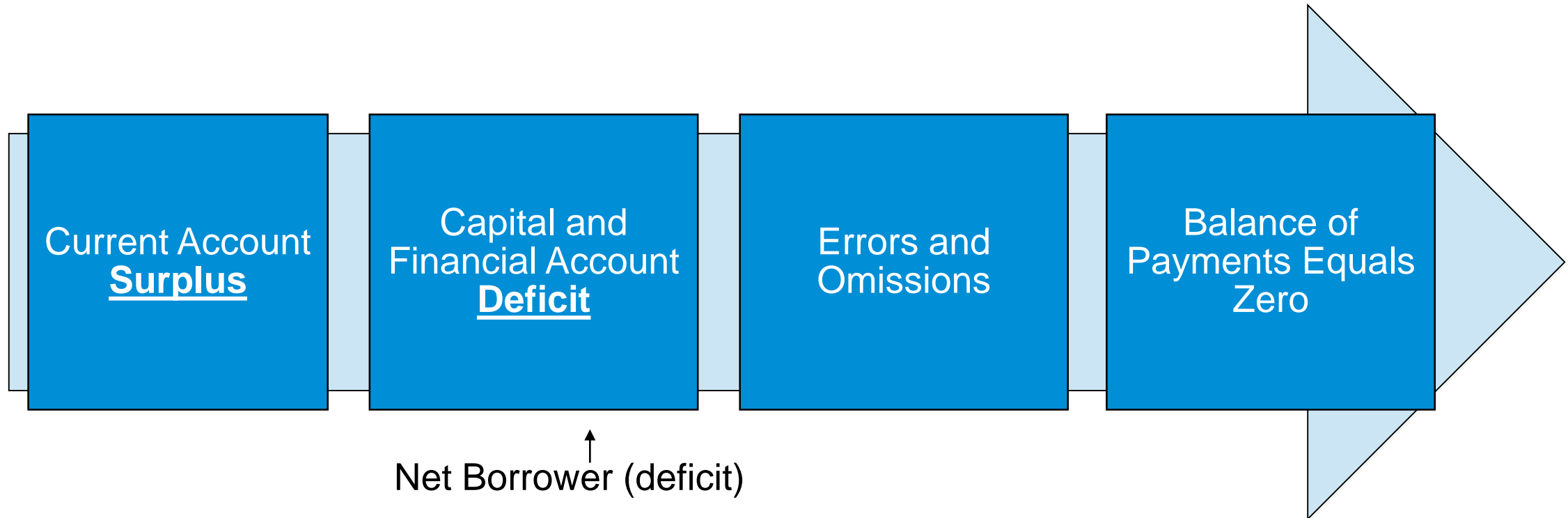
Capital transfers

Financial Account:

Direct investments,
portfolio investments,
other investments, and
the reserve account

LOS c: Describe the balance of payments and explain the relationship between the current account and the capital and financial account.

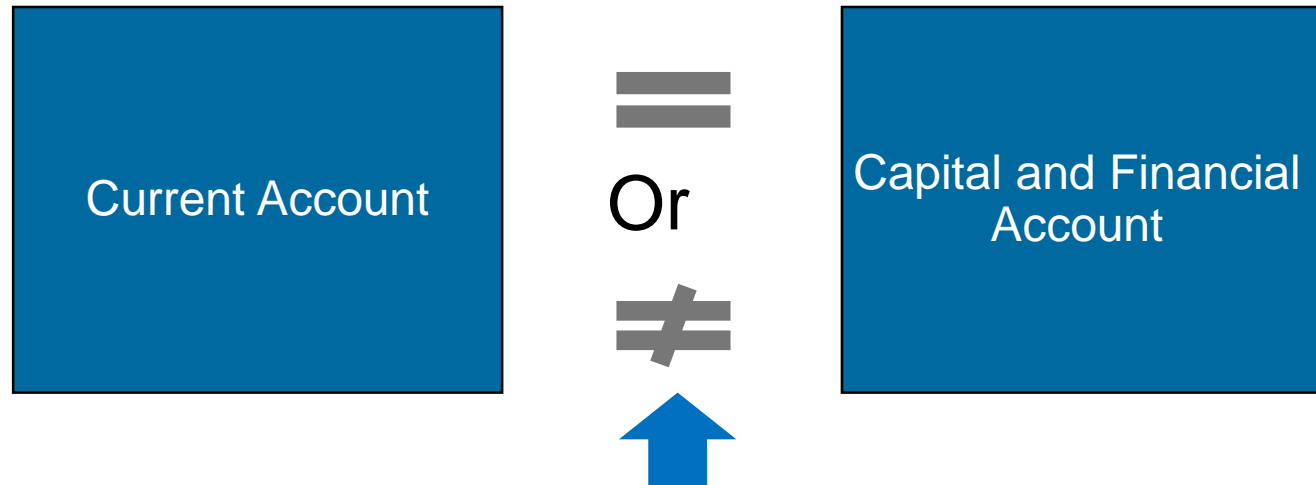
RELATIONSHIP BETWEEN CURRENT ACCOUNT AND CAPITAL AND FINANCIAL ACCOUNT



The capital and financial flows move in the opposite direction of the goods and services flows that give rise to them.

LOS c: Describe the balance of payments and explain the relationship between the current account and the capital and financial account.

ERRORS AND OMISSIONS



ERRORS AND OMISSIONS

In practice, the current account balance will not be exactly offset by the capital and financial account balance because of measurement errors. Thus, there is a need for a “plug” figure called **errors and omissions.**

LOS c: Describe the balance of payments and explain the relationship between the current account and the capital and financial account.

PRACTICE Q: EXPERT

Q. In the following situation, which country would report an export?

- I. Pat, an auto retailer in Ireland, purchased a car stereo from its manufacturer in Japan.
- II. A US toothpaste manufacturer allows its product to be manufactured by a Kenyan firm, under licence.
The Kenyan firm is restricted to selling the product domestically.

- A. Japan only
- B. United States only
- C. Both Japan and the United States

PRACTICE Q: EXPERT

Q. In the following situation, which country would report an export?

- I. Pat, an auto retailer in Ireland, purchased a car stereo from its manufacturer in Japan.
- II. A US toothpaste manufacturer allows its product to be manufactured by a Kenyan firm, under licence.
The Kenyan firm is restricted to selling the product domestically.

- A. Japan only
- B. United States only
- C. Both Japan and the United States

Solution

C is correct. C is correct. An export is a good or service that is produced within a country's borders and then transported to another country. The Japanese manufacturer is exporting a good, and the US toothpaste manufacturer is exporting a service (manufacturing license). A is incorrect. Both are examples of exports: one a good, the other a service. B is incorrect. Both are examples of exports: one a good, the other a service.

Economics of International Trade Learning Outcome

- a. Define imports and exports and describe the need for and trends in imports and exports

CURRENT ACCOUNT DEFICITS

Is running a current account deficit a bad sign, and should all countries aim at maximising their current account balance?

The answer to both questions is, not necessarily.

First, the sum of the current account balances of all countries is, by definition, equal to zero. So, it is impossible for all countries to have a current account surplus.

Second, a current account deficit must be put in context before drawing conclusions.

- A developing country may run a current account deficit because it needs to import many products and services.
- Alternatively, a mature economy may run a current account deficit because its consumption far exceeds its production and its ability to export.

LOS d: Describe why a country runs a current account deficit and describe the effect of a current account deficit on the country's currency.

CURRENT ACCOUNT DEFICITS

There is a long-running debate about the risk for a country of running a persistent current account deficit

Some economists argue that as long as foreign entities are willing to continue holding the assets and the currency of a country with a current account deficit, then running a current account deficit does not matter.

But if foreign entities become unwilling to hold these assets, they may start selling them, which will have a negative effect on the price of the assets and the value of the country's currency (depreciation).

Foreign currencies will get stronger relative to the other currency (appreciate).

LOS d: Describe why a country runs a current account deficit and describe the effect of a current account deficit on the country's currency.

CURRENT ACCOUNT DEFICITS

In response to countries selling US assets, the Federal Reserve Board (the Fed), which is the US central bank, may increase interest rates to encourage entities in other countries to invest in the United States.

An increase in interest rates would increase the cost of financing for individuals, companies, and the government in the United States.

The combination of lower asset prices, a weaker US dollar, and higher interest rates would likely hurt the US economy, potentially leading to a lower GDP, maybe even a recession, and higher unemployment.

LOS d: Describe why a country runs a current account deficit and describe the effect of a current account deficit on the country's currency.

PRACTICE Q: EXPERT

Q. A German company purchases a production facility in Canada financed by a loan from a Canadian bank. The production facility transports all of its output to Ireland. Which of the following statements regarding the balance of payments accounts for the two countries is most appropriate?

- A. The payment of interest is recorded as an outflow in Germany's capital account.
- B. The purchase of the facility is recorded as an inflow in Canada's capital account.
- C. The goods transported to Ireland are recorded as exports in Germany's current account.

PRACTICE Q: EXPERT

Q. A German company purchases a production facility in Canada financed by a loan from a Canadian bank. The production facility transports all of its output to Ireland. Which of the following statements regarding the balance of payments accounts for the two countries is most appropriate?

- A. The payment of interest is recorded as an outflow in Germany's capital account.
- B. The purchase of the facility is recorded as an inflow in Canada's capital account.
- C. The goods transported to Ireland are recorded as exports in Germany's current account.

Solution

B is correct. The purchase of the production facilities is recorded as an inflow in Canada's capital account and an outflow in Germany's capital account. Payment of interest is an outflow in Germany's current account, not its capital account. The goods transported to Ireland are Canadian exports and Irish imports; Germany's current account is unaffected. A is incorrect. Payment of interest is an outflow in Germany's current account. C is incorrect. The goods transported to Ireland is a Canadian export and an Irish import – Germany's current account is unaffected.

Economics of International Trade Learning Outcome

- c. Describe the balance of payments and explain the relationship between the current account and the capital and financial account

FOREIGN EXCHANGE RATE SYSTEMS

Fixed Exchange Rate System

The Western world agreed to an exchange rate system in which the value of the US dollar was defined as \$35 per ounce of gold. All other currencies were defined or “pegged” in terms of the US dollar.

Advantage

Eliminates **currency risk** (or **foreign exchange risk**).

Disadvantage

As the competitiveness of economies changes over time, an economy may have to devalue its currency to stay competitive.

Floating Exchange Rate System

Managed Floating Exchange Rate System

LOS e: Describe types of foreign exchange rate systems.

FOREIGN EXCHANGE RATE SYSTEMS

Fixed Exchange Rate System

Floating Exchange Rate System

To overcome the disadvantages of a fixed exchange rate regime, the Bretton Woods system was abandoned in 1973 and currency values were left to market forces.

In a pure floating exchange rate system, the central bank does not intervene and lets the market determine the value of its currency.

The exchange rate between the domestic currency and foreign currencies is only driven by supply and demand for each currency.

Managed Floating Exchange Rate System

LOS e: Describe types of foreign exchange rate systems.

FOREIGN EXCHANGE RATE SYSTEMS

Fixed Exchange Rate System

Floating Exchange Rate System

Managed Floating Exchange Rate System

A central bank intervenes to stabilise its currency.

It buys its domestic currency using its foreign currency reserves to strengthen its domestic currency or buys foreign currency using its domestic currency to weaken its domestic currency.

Central banks typically intervene infrequently, so generally, such a system operates as a floating exchange rate system.

LOS e: Describe types of foreign exchange rate systems.

FACTORS AFFECTING EXCHANGE RATES

Factor	Effect on the Value of the Currency
Balance of payments	A current account deficit tends to lead to a depreciation of the domestic currency.
Level of inflation	High inflation tends to lead to a depreciation of the domestic currency.
Level of interest rates	Higher interest rates tend to lead to an appreciation of the domestic currency.
Level of government debt	High government debt tends to lead to a depreciation of the domestic currency.
Political and economic environment	Political instability and poor economic prospects tend to lead to a depreciation of the domestic currency.

RELATIVE STRENGTH OF CURRENCIES

Purchasing Power Parity

Purchasing power parity is an economic theory based on the principle that a basket of goods in two different countries should cost the same after taking into account the exchange rate between the two countries' currencies.

The concept of purchasing power parity has long been used to explain relative currency valuations—that is, whether currencies are fairly valued relative to each other.

LOS g: Describe how to assess the relative strength of currencies.

RELATIVE STRENGTH OF CURRENCIES

Limits on the Ability to Take Advantage of Different Prices in Different Countries	
Import and export restrictions	Restrictions, such as tariffs, quotas, and non-tariff barriers, may make it difficult to buy products in one market and bring them into another.
Transportation costs	The gains from arbitrage are limited if it is expensive to transport products from one market to another.
Perishable products	It may be impractical or difficult to transfer products from one market to another.

LOS g: Describe how to assess the relative strength of currencies.

FOREIGN EXCHANGE RATE QUOTES

The **offer exchange rate** (or offer rate), also called the ask exchange rate (or ask rate), is the exchange rate at which the bank or dealer will sell the foreign currency. It is the “high” value.



The difference between the bid and offer (ask) rates is known as the **bid-offer spread** (bid-ask spread).

The **bid exchange rate** (or bid rate) is the exchange rate at which the bank or currency dealer will buy the foreign currency. It is the “low” value.

LOS h: Describe foreign exchange rate quotes.

PRACTICE Q: EXPERT

Q. A Swiss tourist is returning home after visiting Mexico and finds herself with 25,000 Mexican pesos remaining. Her local bank quotes her the following exchange rates:

Bid	Offer
CHF0.0728/MXN	CHF0.0732/MXN

In converting her Mexican pesos (MXN) to Swiss francs (CHF), the bank will apply the:

- A. bid rate.
- B. offer rate.
- C. rate that is halfway between the bid and offer rates.

PRACTICE Q: EXPERT

Q. A Swiss tourist is returning home after visiting Mexico and finds herself with 25,000 Mexican pesos remaining. Her local bank quotes her the following exchange rates:

Bid	Offer
CHF0.0728/MXN	CHF0.0732/MXN

In converting her Mexican pesos (MXN) to Swiss francs (CHF), the bank will apply the:

- A. bid rate.
- B. offer rate.
- C. rate that is halfway between the bid and offer rates.

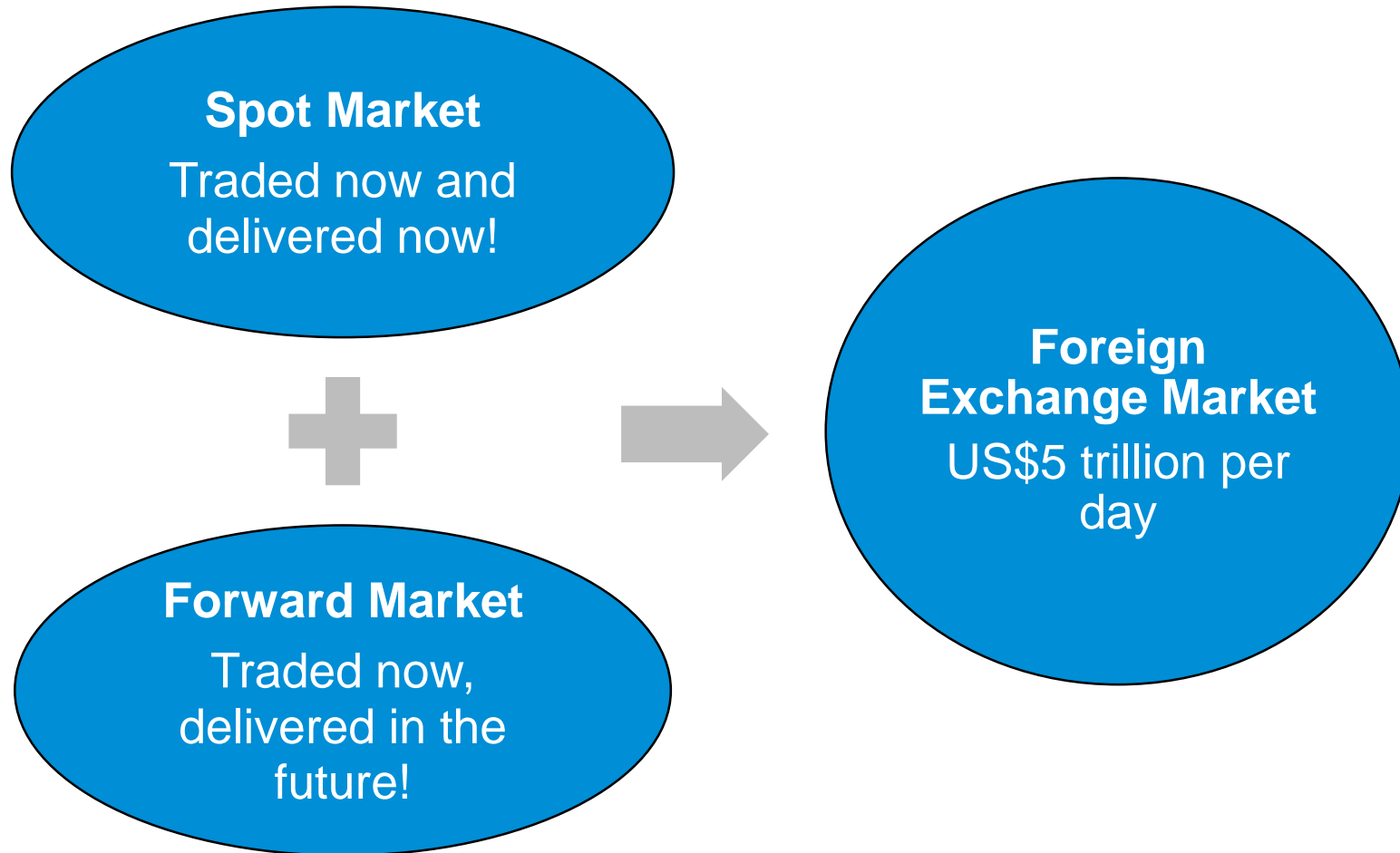
Solution

A is correct. Because the bank will be buying Mexican pesos (MXN), it will apply the bid rate. B is incorrect. Because the bank will be buying Mexican pesos (MXN), it will apply the bid rate. C is incorrect. Because the bank will be buying Mexican pesos (MXN), it will apply the bid rate.

Economics of International Trade Learning Outcome

- h.** Describe foreign exchange rate quotes

FOREIGN



LOS i: Compare spot and forward markets.

PRACTICE Q: DIFFICULT

Q. On 1 May, a Swedish automaker purchases electronic equipment from a manufacturer in the United Kingdom. The invoice is denominated in British pounds, with payment due in 90 days (29 July). On 1 May, the automaker enters into a three-month forward contract with a currency dealer. In three months, the currency dealer will sell the automaker British pounds at the:

- A. spot rate in effect on 1 May.
- B. spot rate in effect on 29 July.
- C. three-month forward rate in effect on 1 May.

PRACTICE Q: DIFFICULT

Q. On 1 May, a Swedish automaker purchases electronic equipment from a manufacturer in the United Kingdom. The invoice is denominated in British pounds, with payment due in 90 days (29 July). On 1 May, the automaker enters into a three-month forward contract with a currency dealer. In three months, the currency dealer will sell the automaker British pounds at the:

- A. spot rate in effect on 1 May.
- B. spot rate in effect on 29 July.
- C. three-month forward rate in effect on 1 May.

Solution

C is correct. A forward currency contract is an agreement to exchange currency at a predetermined rate on a future date, but no actual transaction takes place on the day the forward contract is initiated. In three months, the currency dealer will provide the Swedish company with pounds at the previously agreed-on rate (i.e., the forward rate in effect on 1 May), and the Swedish company will pay the invoiced amount to the UK manufacturer. A is incorrect. Forward contracts are completed with the dealer selling pounds at the agreed upon forward rate. B is incorrect. Forward contracts are completed with the dealer selling pounds at the agreed upon forward rate.

Economics of International Trade Learning Outcome

- i. Compare spot and forward markets