



AN OVERVIEW OF THE INTERNATIONAL ECONOMY

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AN OVERVIEW OF THE INTERNATIONAL ECONOMY

LEARNING OBJECTIVES (LO 1-4)

- **Evolution of the Modern International Monetary System** (LO 1)
- **The Balance of Payments Approach to Measuring International Economic Activity** (LO 2)
- **How Inflation and Interest Rates Are Related to Balance of Payments and Exchange Rates** (LO 3)
- **The Current State of Capital Mobility** (LO 4)



AN OVERVIEW OF THE INTERNATIONAL ECONOMY

LEARNING OBJECTIVES (SLO 4-8)

- **How Labor Costs and Personal Income Vary Across Countries** (LO 5)
- **Current Trends in Labor Movement** (LO 6)
- **How Current Tariff and Tax Policies Are Affecting International Business Activity** (LO 7)
- **How Current Monetary Policies Are Affecting International Business Activity** (LO 8)



THE MODERN INTERNATIONAL MONETARY SYSTEM

(LO 1.0)

- ***Brief Evolutionary History***
- ***Current Events***
- ***Recent Trends***
- ***Current Arrangements***

THE MODERN INTERNATIONAL MONETARY SYSTEM (LO 1.0)

BRIEF EVOLUTIONARY HISTORY

- Money = Store of value, Unit of Account, Medium of Exchange
- Ancient powers produced and debased commodity money
- Gresham's Law was and is still in effect
- Inflation plagued the Old World during Sixteenth Century
- Little inflation existed in Colonial America
- Revolutionary fiat money became “not worth a Continental”
- Alexander Hamilton promoted monetary and tax reforms that stifled inflation until the Civil War

THE MODERN INTERNATIONAL MONETARY SYSTEM (LO 1.0)

BRIEF EVOLUTIONARY HISTORY

- War Options for raising capital = (1) tax, (2) borrow, (3) print
- Greenbacks and Confederates circulated during the Civil War
- First income tax in the U.S. came in 1862



THE MODERN INTERNATIONAL MONETARY SYSTEM (LO 1.0)

BRIEF EVOLUTIONARY HISTORY

- The gold standard was first introduced in Germany in 1871, and by 1900 most developed nations, including the US, were using it.
- Greenbacks were made convertible to Gold in 1879
- The Gold Standard reigned during 1879-1913 with 1 oz = \$20.67



THE MODERN INTERNATIONAL MONETARY SYSTEM (LO 1.0)

BRIEF EVOLUTIONARY HISTORY

- The Federal Reserve Act of 1913 brought about the modern era of central banking.



- With outbreak of WWI, trade flows and the free movement of gold was interrupted. Major trading nations suspended the gold standard.

THE MODERN INTERNATIONAL MONETARY SYSTEM (LO 1.0)

BRIEF EVOLUTIONARY HISTORY

- During WWI currencies fluctuated with respect to gold and each other. Main trading nations temporarily suspended the gold standard.
- Currency speculators moved in during 1920s.
- Great Britain went off gold in 1931, but the Federal Reserve defended the gold standard with high interest rates until 1933.
- The Fed thus restricted the money supply in the U.S. by a third and aggravated the Great Depression early on.
- More than 5,000 U.S. banks failed and deflation set in.

THE MODERN INTERNATIONAL MONETARY SYSTEM (LO 1.0)

BRIEF EVOLUTIONARY HISTORY

- In 1934 the U.S. adopted a Gold Exchange Standard with 1 oz = \$35
- As WWII drew to an end, major Allied Powers sought to establish a new postwar international monetary system.
- Bretton Woods → Gold Exchange Standard that reigned through 1944-1973 and established the IMF and World Bank
- The International Monetary Fund (IMF) aids countries with balance of payments and exchange rate problems.
- The International Bank for Reconstruction and Development (World Bank) helped fund postwar reconstruction and since has supported general economic development.

THE MODERN INTERNATIONAL MONETARY SYSTEM (LO 1.0)

BRIEF EVOLUTIONARY HISTORY

- After brief post WWII period saw much inflation with non-governmental spending rising by 40% due to pent-up consumer demand, unprecedented savings rates during the war, and increasing corporate profits generating wage hikes.
- By late 1940s the U.S. federal government ran modest budget surpluses.
- Mild inflation and government budgetary surpluses continued in the U.S. until President Johnson's attempt to fight 2 wars (Vietnam War, and War on Poverty).
- Nixon "nixed the fixed" (ended Bretton) in 1971 and the current floating (mostly) exchange rate arrangement followed

THE MODERN INTERNATIONAL MONETARY SYSTEM (LO 1.0)

CURRENT EVENTS

- **“Saudi Arabia considers accepting Yuan Instead of Dollars for Chinese Oil Sales.”** – See WSJ of March 15, 2022
(<https://www.wsj.com/articles/saudi-arabia-considers-accepting-yuan-instead-of-dollars-for-chinese-oil-sales-11647351541>)
- Expect a continuing devaluation of the dollar.

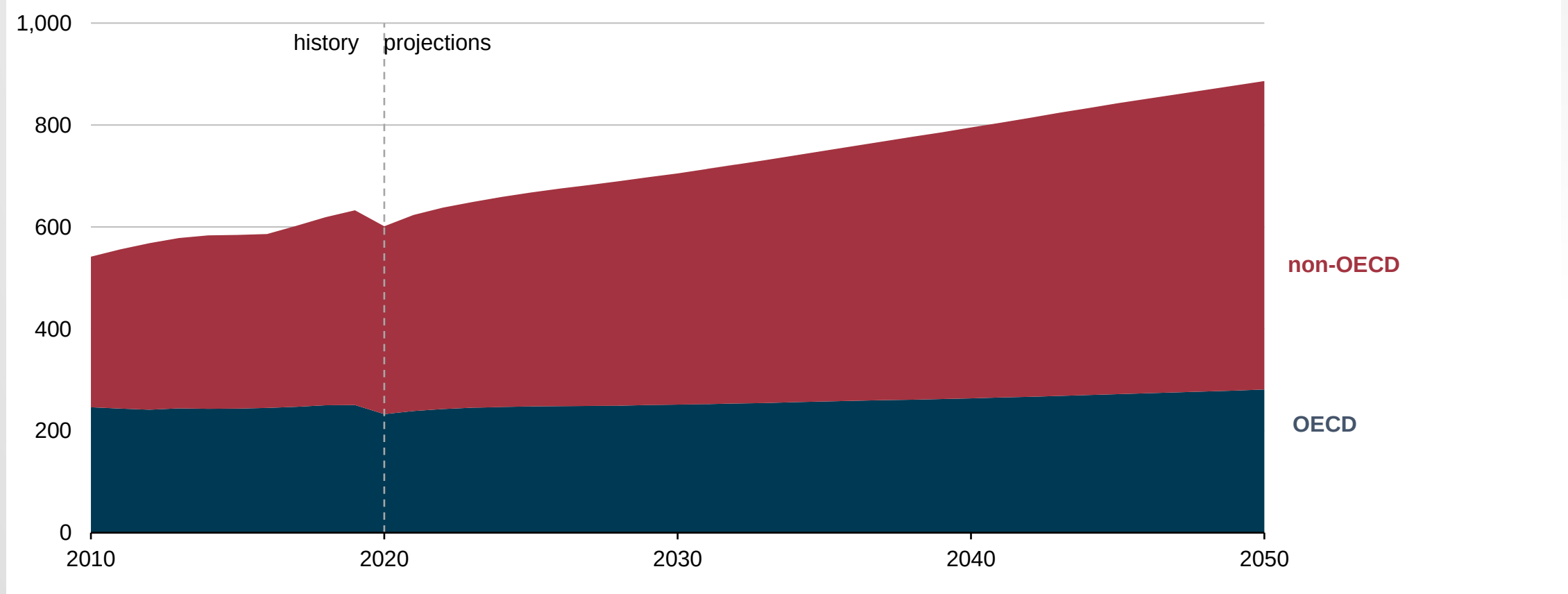




WORLD ENERGY CONSUMPTION

World energy consumption

quadrillion British thermal units



Source: U.S. Energy Information Administration, [eia.gov](https://www.eia.gov)

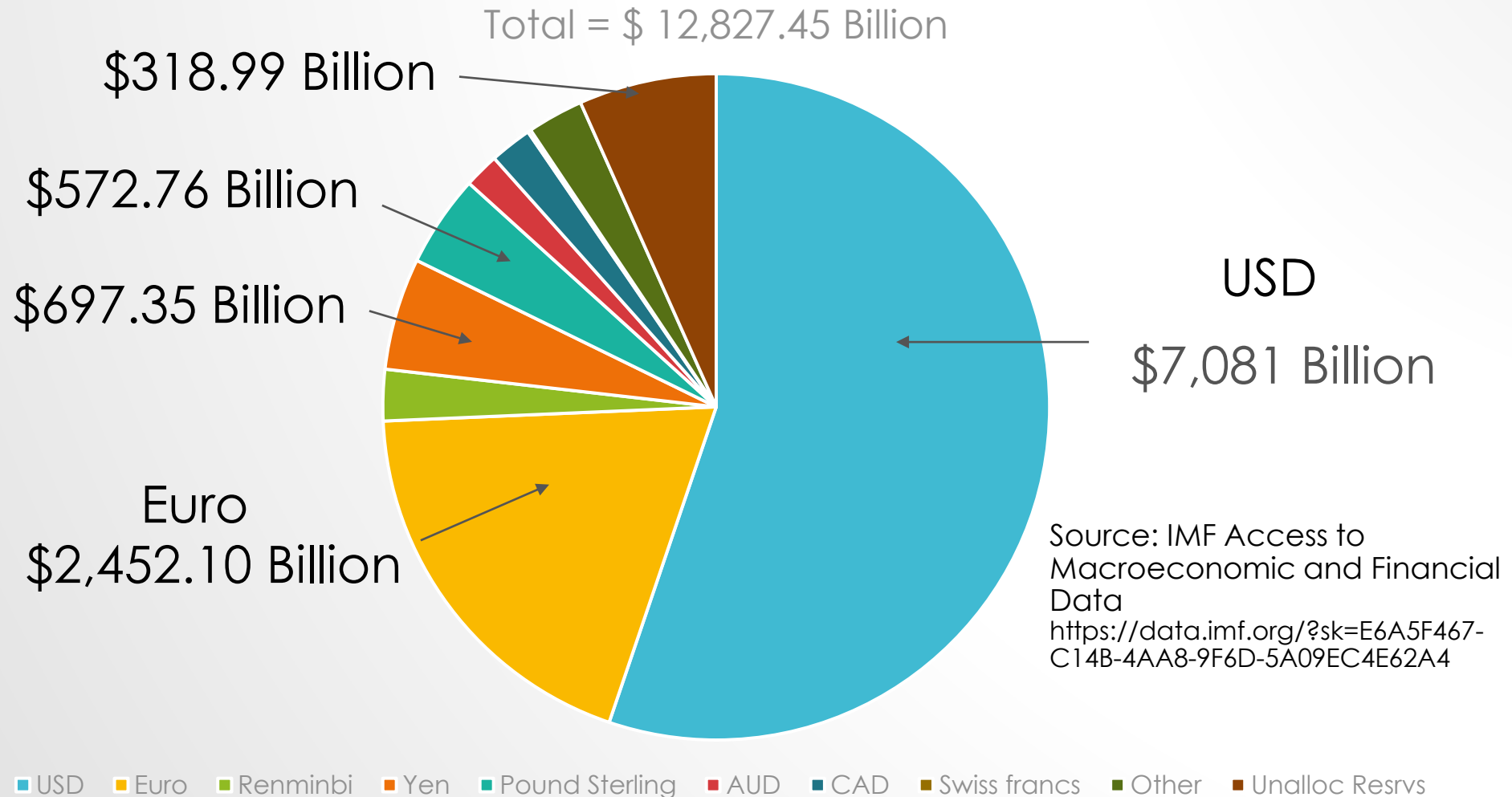
THE MODERN INTERNATIONAL MONETARY SYSTEM (LO 1.0)

RECENT TRENDS

- More than \$5 Trillion is traded in currency markets around the world daily.
- Eurocurrency Markets continue to increase in size
- Petrodollars remain the dominant currency for most oil exchanges
- The Dollar remains the international reserve currency of choice
- However, Special Drawing Rights (SDR) is becoming a larger portion of central bank reserve assets
- The PRC (China) seeks to replace the dollar with the yuan as world's reserve currency but has a long, long ways to go.

THE MODERN INTERNATIONAL MONETARY SYSTEM (LO 1.0)

WORLD –ALLOCATED RESERVES 2021Q3



THE MODERN INTERNATIONAL MONETARY SYSTEM (LO 1.0)

CURRENT ARRANGEMENTS

- A broad array of currency arrangements has persisted since 1973 with the more developed countries tending more toward flexible exchange rates than less developed.
- The United Kingdom's pound sterling was the primary reserve currency of much of the world in the 19th century and first half of the 20th century.
- By the middle of the 20th century, the USD had become the world's dominant reserve currency.
- The world's need for dollars has allowed the United States government to borrow at lower costs, giving the United States an advantage in excess of \$100 billion per year

THE MODERN INTERNATIONAL MONETARY SYSTEM (LO 1.0)

CURRENT ARRANGEMENTS - EXAMPLES

No Separate legal Tender - Ecuador (Uses \$) - El Salvador (Uses \$) Currency Board - Hong Kong - Bulgaria	Conventional Peg (to USD) - Bahrain - Jordan - Panama - Saudi Arabia - UAE Conventional Peg (to Euro) - Chad - Denmark - Niger Crawling Peg - China (PRC) - Guatemala	Floating - Targeted - Argentina - Ukraine - Brazil - Israel - South Korea Floating – Free - Australia - Canada - Japan - Mexico - United Kingdom - Euro Zone Countries - Egypt - Russia - United States
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THE BALANCE OF PAYMENTS APPROACH TO MEASURING INTERNATIONAL ECONOMIC ACTIVITY

(LO 2.0)

- *Background*
- *The BoP and GDP*
- *The BoP Equation*
- *BoP Adjustments*
- *The BoP and Exchange Rates*
- *The BoP and Interest Rates*
- *The BoP and Inflation Rates*

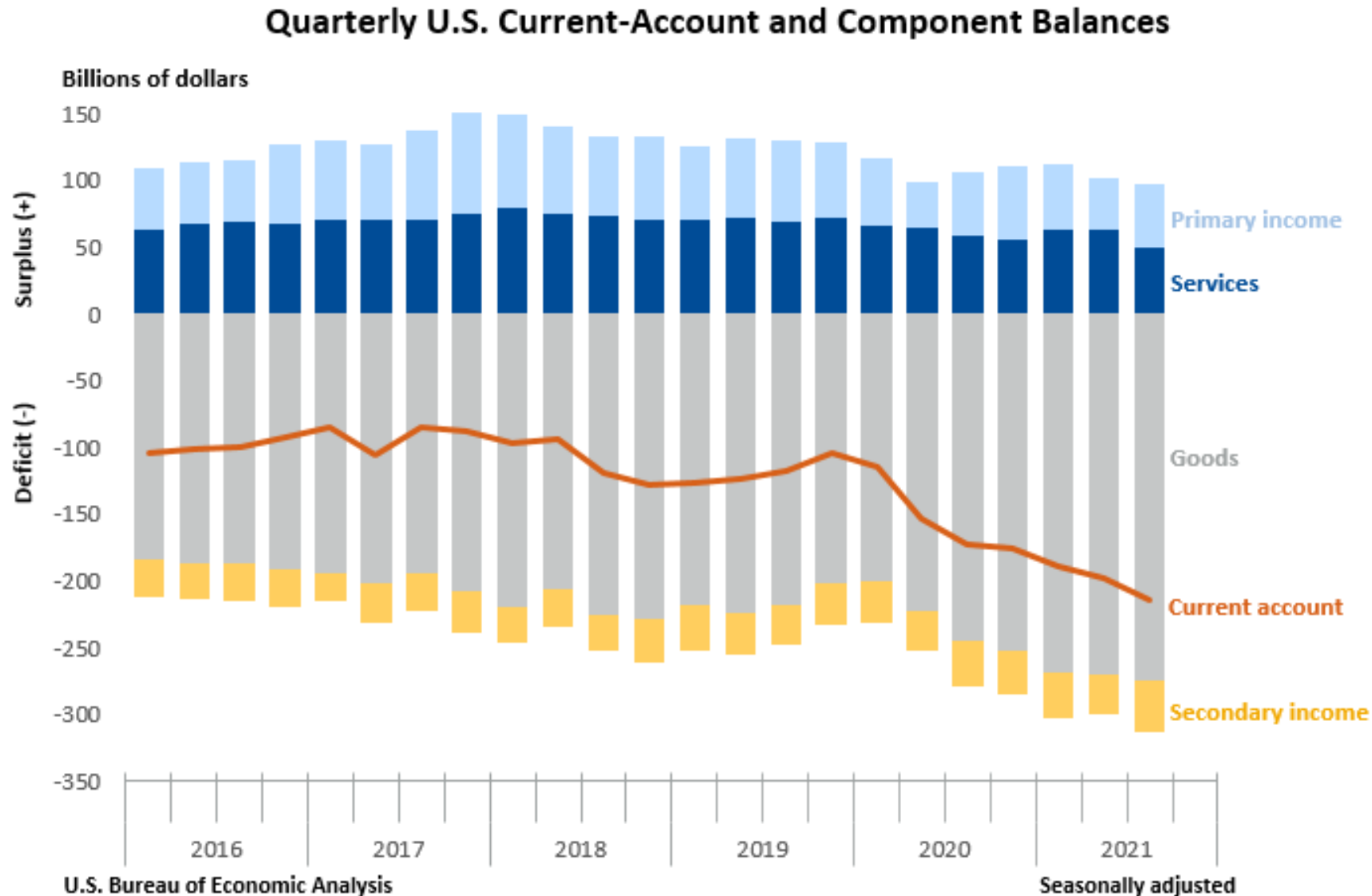
THE BALANCE OF PAYMENTS APPROACH TO MEASURING INTERNATIONAL ECONOMIC ACTIVITY (LO 2.0)

BACKGROUND

- The Balance of Payments is more of a cash flow statement than a “balance” sheet
- The Balance of Payments includes a **Current Account** and a **Financial Account**
- The Current Account records a country’s net trade in goods and services, its net earnings in cross-border investments, and its net transfer payments
- The Financial Account records a country’s transactions in financial instruments and central bank reserves
- BoP Identity: The sum of all transactions in the Balance of Payments should equal zero; however, exchange rate fluctuations may throw this off a bit.

THE BALANCE OF PAYMENTS APPROACH TO MEASURING INTERNATIONAL ECONOMIC ACTIVITY (LO 2.0)

Source:
U.S. Bureau
of Economic
Analysis
“U.S.
International
Transactions,
Third Quarter
2021”
<https://www.bea.gov/news/2021/us-international-transactions-third-quarter-2021>

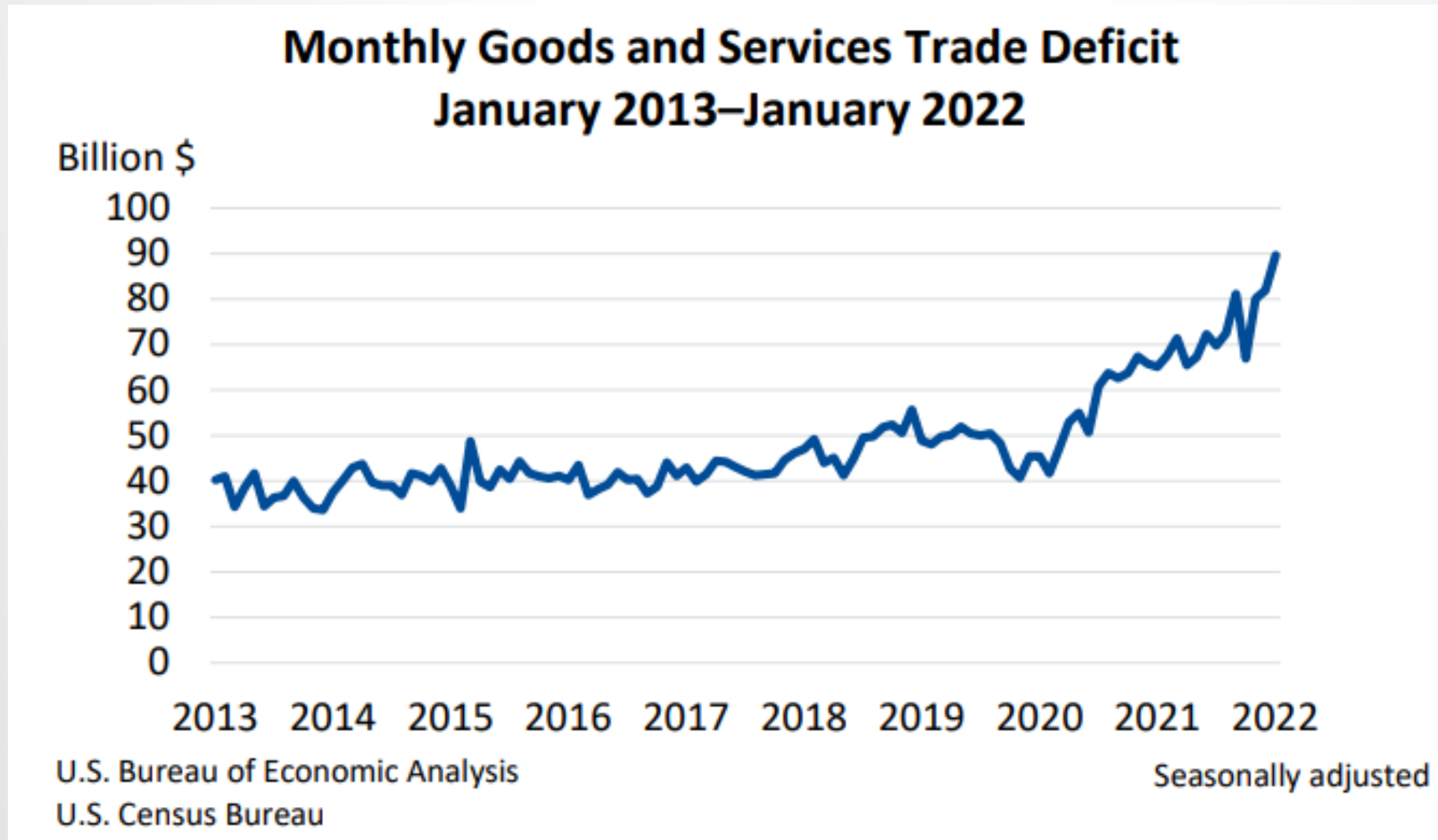


THE BALANCE OF PAYMENTS APPROACH TO MEASURING INTERNATIONAL ECONOMIC ACTIVITY (LO 2.0)

WHAT IS THE TRADE BALANCE?

- The trade balance is part of the balance of payments. Specifically, it is under the current account section.
- Meanwhile, as the name suggests, the balance of payments summarizes all payment transactions between a country and the world.
- The current account of the BoP consists mainly of the trade balance and factor income payments.
- Since 2016 both the U.S. Current Account Deficit and the U.S. Trade Balance have grown. (Compare the foregoing and following charts)

THE BALANCE OF PAYMENTS APPROACH TO MEASURING INTERNATIONAL ECONOMIC ACTIVITY (LO 2.0)



Source: U.S. Bureau of Economic Analysis, www.bea.gov

**THE BALANCE OF PAYMENTS APPROACH
TO MEASURING INTERNATIONAL ECONOMIC ACTIVITY (LO 2.0)
EXPLAINING BOP BY STARTING WITH GDP**

$$\text{GDP} = C + I + G + X - M$$

where:

C = consumption spending

I = capital investment spending

G = government spending

X = exports of goods and services

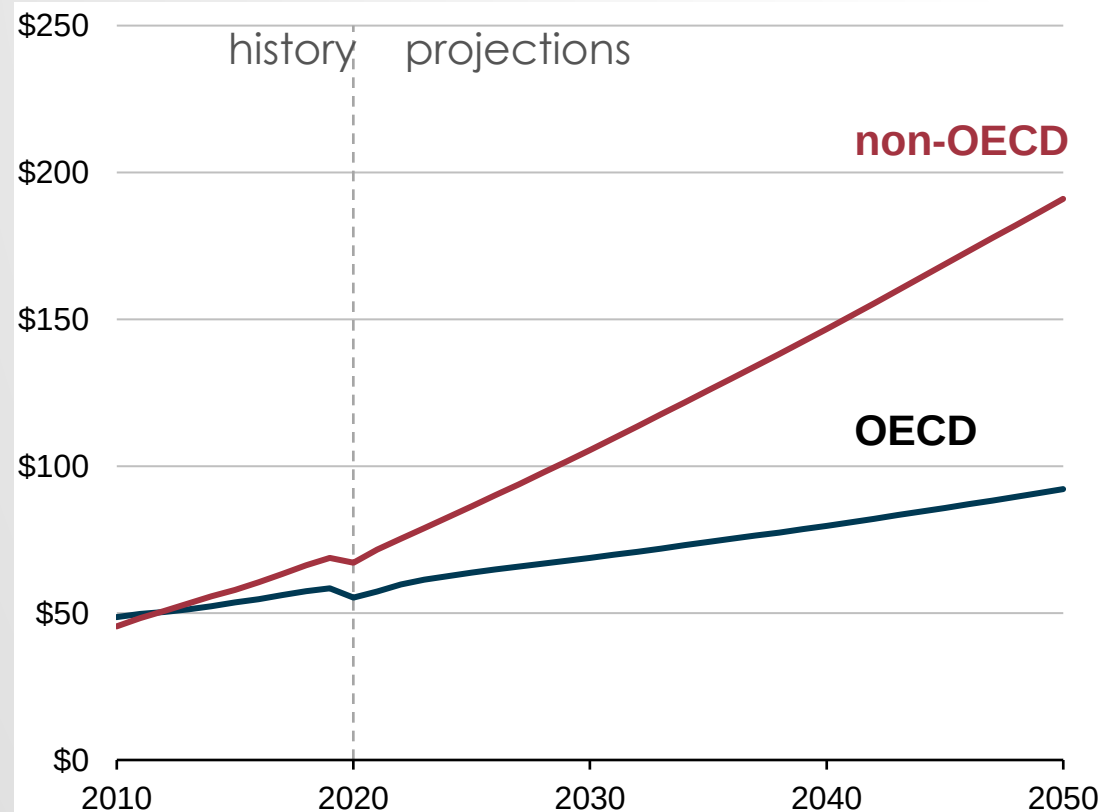
M = imports of goods and services



ECONOMIC GROWTH AND PURCHASING POWER

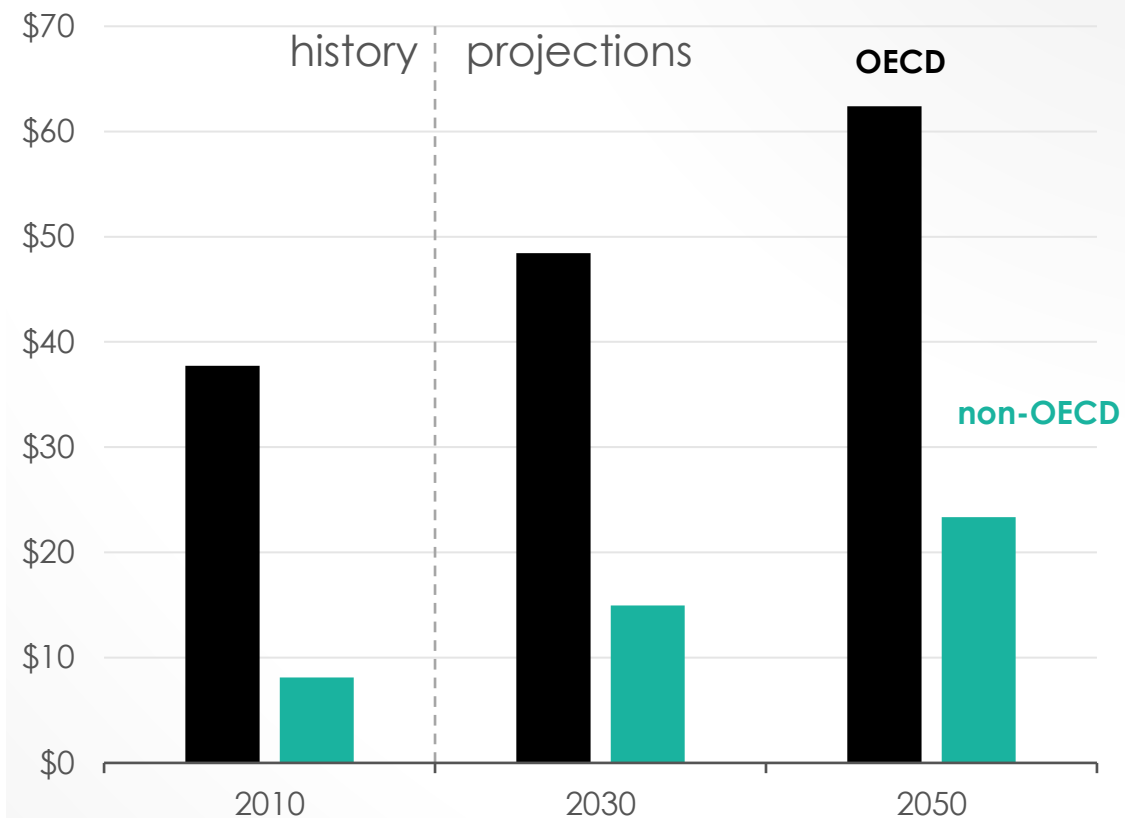
World GDP

trillion 2015 dollars, purchasing power parity (PPP)



World per capita GDP

thousand 2015 dollars PPP

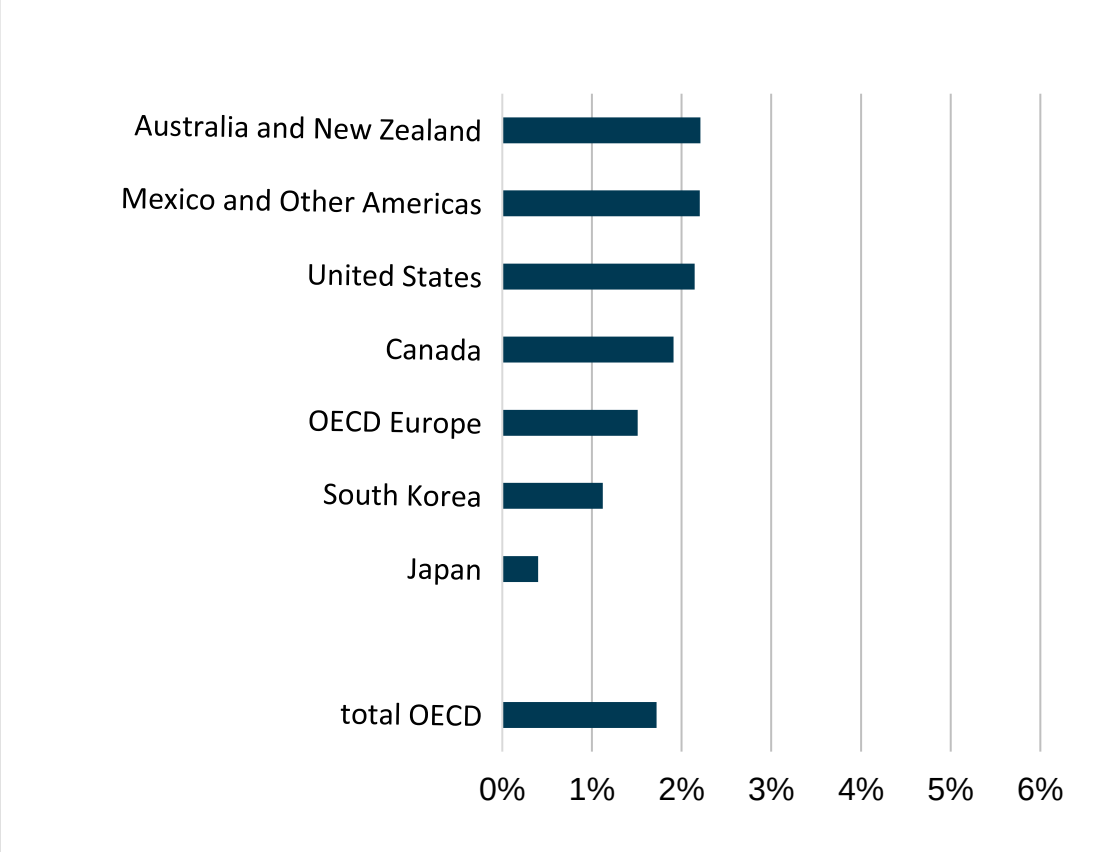


Source: U.S. Energy Information Administration, [eia.gov](https://www.eia.gov)

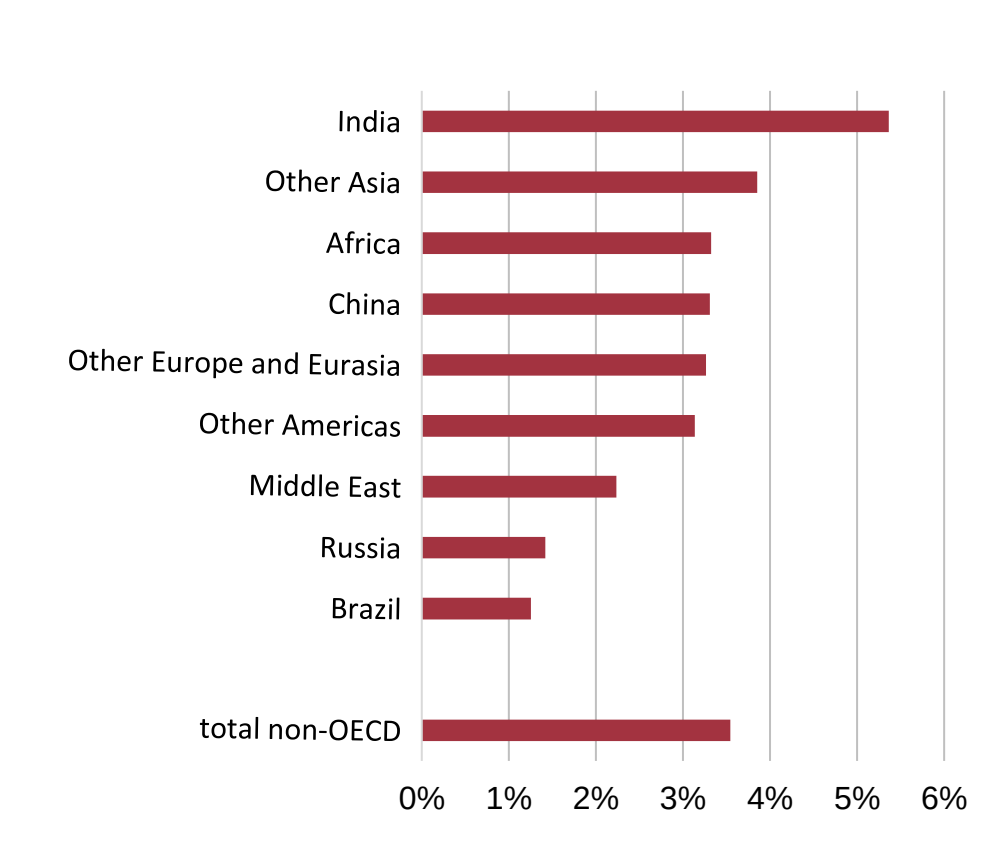


CHANGE IN GDP

Average annual percentage change in GDP, OECD
2020–2050



Average annual percentage change in GDP, non-OECD
2020–2050



Source: U.S. Energy Information Administration, [eia.gov](https://www.eia.gov)

THE BALANCE OF PAYMENTS APPROACH TO MEASURING INTERNATIONAL ECONOMIC ACTIVITY (LO 2.0)

THE BOP EQUATION

Current + Capital + Financial + Reserve = Balance of
Account Account Account Balance Payments

$$(X - M) + (CI - CO) + (FI - FO) + \text{FXB} = \text{BOP}$$

where:

X = exports of goods and services

M = imports of goods and services

CI = capital inflows

CO = capital outflows

FI = financial inflows

FO = financial outflows

FXB = official monetary reserves (gold and foreign exchange)

THE BALANCE OF PAYMENTS APPROACH TO MEASURING INTERNATIONAL ECONOMIC ACTIVITY (LO 2.0)

THE BOP EQUATION

Current + Capital + Financial + Reserve = Balance of
Account Account Account Balance Payments

$(X - M) + (CI - CO) + (FI - FO) + FXB = BOP$

The term "Capital Account" is used with a narrow meaning by the International Monetary Fund (IMF) and OECD. This is our approach.

The IMF (and OECD) splits what the rest of the world calls the capital account into two top-level divisions: *financial account* and *capital account*, with by far the bulk of the transactions being recorded in its financial account.

The Capital Account (IMF definition) is comprised of transfers of financial assets and the acquisition and disposal of nonproduced/nonfinancial assets. It is therefore relatively very small.

THE BALANCE OF PAYMENTS APPROACH (LO 2.0) **USING ACCOUNTING TERMS**

Current + Capital + Financial + Reserve = Balance of
Account Account Account Balance Payments

$$(X - M) + (CI - CO) + (FI - FO) + FXB = BOP$$

Credit (+) is an outflow of value for which a payment is due this country

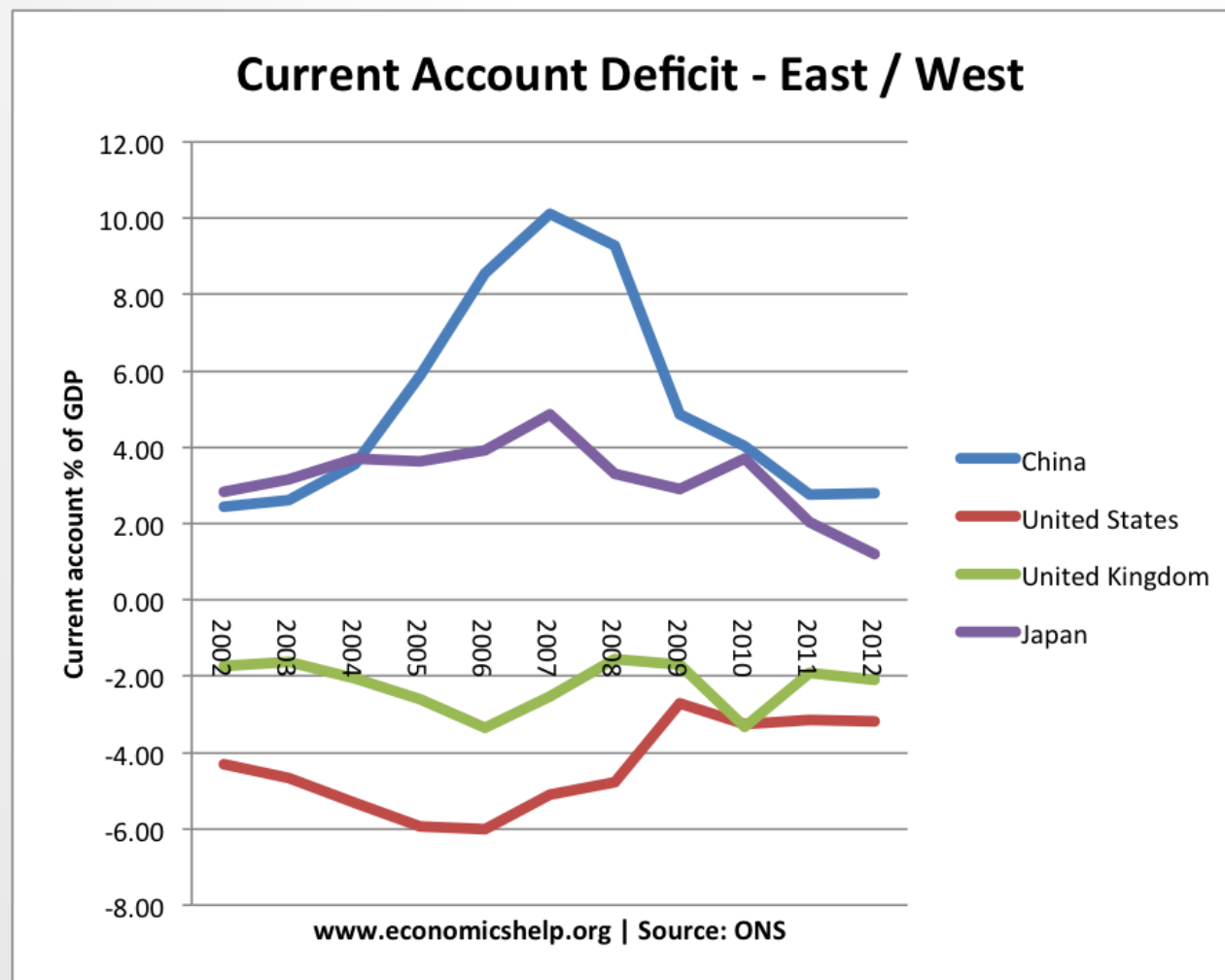
- Increase in liabilities
- decrease in goods and real assets

Debit (-) is an inflow of value for which a payment is due from this country

- decrease in liabilities
- increase in goods and real assets

THE BALANCE OF PAYMENTS APPROACH TO MEASURING INTERNATIONAL ECONOMIC ACTIVITY (LO 2.0)

U.S. CURRENT ACCOUNT (MILLIONS OF USD)



THE BALANCE OF PAYMENTS APPROACH TO MEASURING INTERNATIONAL ECONOMIC ACTIVITY (LO 2.0)

THE BOP AND EXCHANGE RATES

- $(X - M) + (CI - CO) + (FI - FO) + \text{FXB} = \text{BOP}$
- If the sum of the Current and Financial accounts is much greater than zero, an excess demand for the domestic currency exists in the world.
 - To preserve a **fixed rate**, Government must sell domestic currency for foreign currencies or gold to bring BoP back to zero.
 - Under a **floating exchange rate**, the government has no responsibility for maintaining $\text{BoP}=0$. Instead, the exchange rate will change in the direction to obtain a BoP near zero.
- If the sum of the Current and Financial accounts is much less than zero, an excess supply of the domestic currency exists in the world.
 - To preserve a **fixed rate**, Government must buy domestic currency with foreign currencies or gold to bring BoP back to zero.

THE BALANCE OF PAYMENTS APPROACH TO MEASURING INTERNATIONAL ECONOMIC ACTIVITY (LO 2.0)

THE BOP AND EXCHANGE RATES

- $(X - M) + (CI - CO) + (FI - FO) + \text{FXB} = \text{BOP}$
- Example: A country running a sizable current account deficit ($X - M < 0$), with a capital and financial accounts balance of zero will have a net BOP deficit ($\text{BOP} < 0$). An excess supply of the domestic currency will appear on world markets.
 - ➔ The price of the domestic currency will fall
 - ➔ The BOP will move back to zero
 - ➔ Sometimes a delay, known as the J-curve, occurs where the deficit gets worse in the short run but moves back towards equilibrium in the long term.

INFLATION RATES AND THE BALANCE OF PAYMENTS_(LO 3.1)

- Much could be said, especially regarding source of inflation.
- Imports of lower-priced goods and services limit domestic inflation

Cheap Imports  ***Lower Inflation***

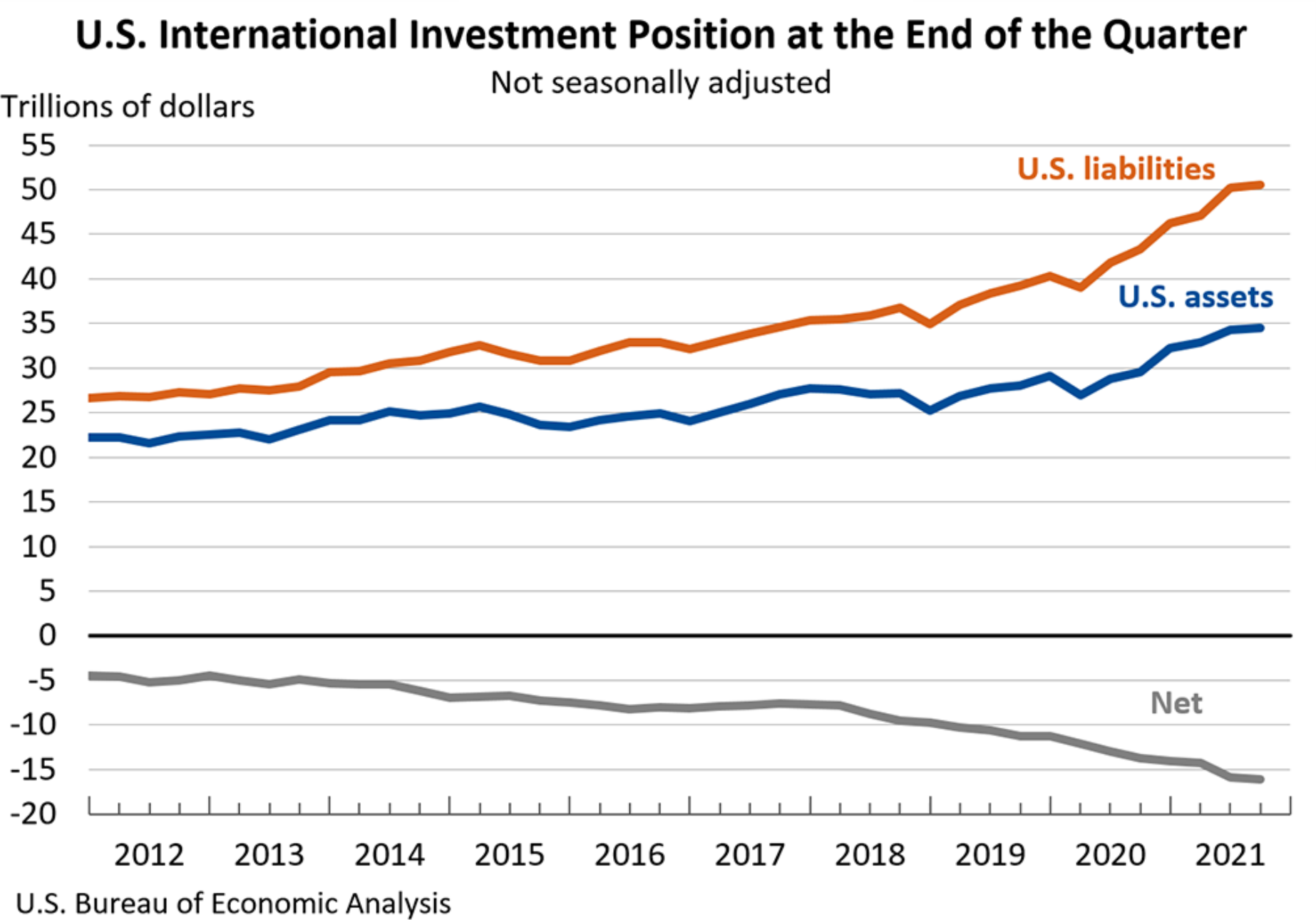
- With lower-priced imports substituting for domestic production and employment
 - → GDP will fall
 - → Balance on Current Account will become more negative

More Imports  ***Lower Output &
Current Account Balance***

USA = THE WORLD'S LARGEST DEBTOR NATION

- A debtor nation is one that invests less in the rest of the world than the rest of the world invests in it, and in aggregate imports more than it exports.
- A debtor nation is the opposite of a creditor nation.
- Debtor nations run current account deficits and experience a negative balance of trade against other nations.
- Countries experiencing large current account deficits “finance” these purchases through equally large surpluses in the financial account.
- The United States is currently the world's largest debtor nation with a net negative international investment position of over \$16 trillion.
- The U.S. status as the world's largest debtor nation is due to status of the U.S. dollar as the world's primary reserve currency and medium of exchange for settling international trade.

Source:
U.S. Bureau
of Economic
Analysis
“U.S.
International
Investment
Position,
Third
Quarter
2021”
[https://www
.bea.gov/d
ata/intl-
trade-
investment/i
nternational-
investment-
position](https://www.bea.gov/data/intl-trade-investment/international-investment-position)



INTEREST RATES AND THE BALANCE OF PAYMENTS (LO 3.2)

- Relatively low domestic real interest rates normally stimulate an outflow of capital seeking higher interest rates in other countries.
- The resulting force will tend to depreciate the domestic currency with respect to foreign currencies.
- However, despite that the U.S. has relatively low real interest rates and large Current Account deficits, it often experiences offsetting financial inflows due to relatively attractive growth rate prospects, innovation, and political safety.
- But in recent years, that favorable inflow on the financial account is diminishing while the U.S. maintains a current account deficit.

THE CURRENT STATE OF CAPITAL MOBILITY (LO 4)

- Generally, since the end of WWII international capital mobility has increased, and more so over Post Bretton-Woods Era.
- Until the 2008 global credit crisis, a positive U.S. Financial Account balance supported a strong U.S. dollar. This due to attractive growth prospects, productive innovation, and political security.
- Floating exchange rates allow currency markets to reflect underlying economic fundamentals. Capital movements increase in response to this openness.
- Since 2000, capital flows have driven economic development especially as certain emerging nations (e.g. China and India) became open to capital markets.

THE CURRENT STATE OF CAPITAL MOBILITY (LO 4)

Country-specific interest rates and international exchange rates are connected by a covered interest parity condition that facilitates capital mobility between bond and related capital markets.

Example: For an American investor

$$\frac{e^{forward}}{e^{spot}} (1 + i^{UK}) = 1 + i^{US}$$

where e is the exchange rate, say, \$1.45 per £1.

- A central authority cannot adjust interest rates without affecting exchange rates, and by extension net exports and GDP.
- Of course, other linkages between interest rates and output (monetary transmission mechanisms) exist.

LABOR INCOME DISTRIBUTION ACROSS COUNTRIES (LO 5.1) **FROM CLASSICAL TRADE THEORY**

- **Ricardian Trade Theory:** Trade patterns are based upon comparative advantage.
- A nation will tend to export the good or service to another nation for which it can produce at a lower opportunity cost.
- However, the theory of comparative advantage assumes a rather restrictive assignments of each factor (labor and capital) of production to specific outputs.
- **Heckscher-Ohlin (H-O):** Trade patterns should result solely from differences in the relative abundance of factor endowments (i.e. labor and capital) between countries.
- A country with a relative abundance of capital would export capital-intensive products and import labor-intensive products.

LABOR INCOME DISTRIBUTION ACROSS COUNTRIES (LO 5.1)

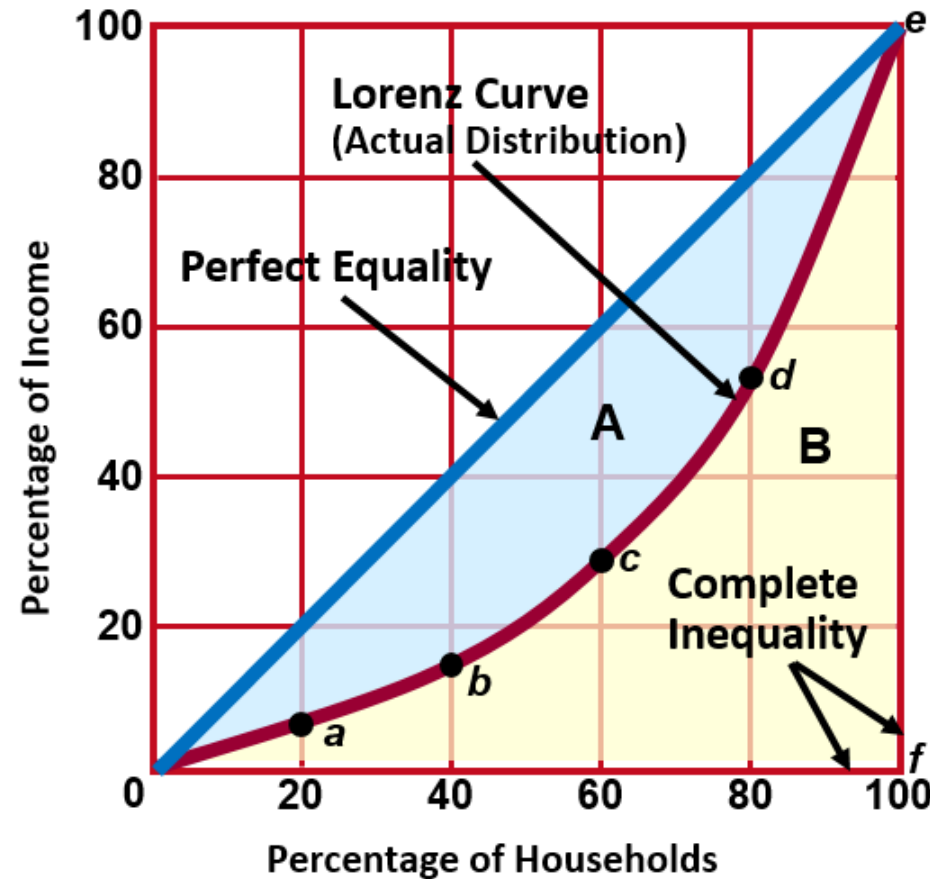
FROM CLASSICAL TRADE THEORY

- **Stolper-Samuelson Theorem:** If the price of a good rises (falls) then price of the factor used intensively in that industry will also rise (fall) while the price of the other factor will fall (rise).
 - The relative wages and also the real wages of skilled workers throughout the economy should rise when the prices of skilled worker-intensive industries increase, and the real wages of the opposite factor, unskilled workers, should drop.
- **Samuelson's Factor Price Equalization Theorem:** As trade between countries tends to equalize their product prices, it tends also to equalize the prices paid to their factors of production.
- H-O and Stolper-Samuelson indicate that trade between an industrialized country and a developing country would lower the wages of the unskilled in the industrialized country.

PERSONAL INCOME DISTRIBUTION ACROSS COUNTRIES (LO 5.2)

LORENZ CURVE AND GINI RATIO

Source:
Microeconomics
by McConnell,
Brue, Flynn, 21e,
McGraw-Hill

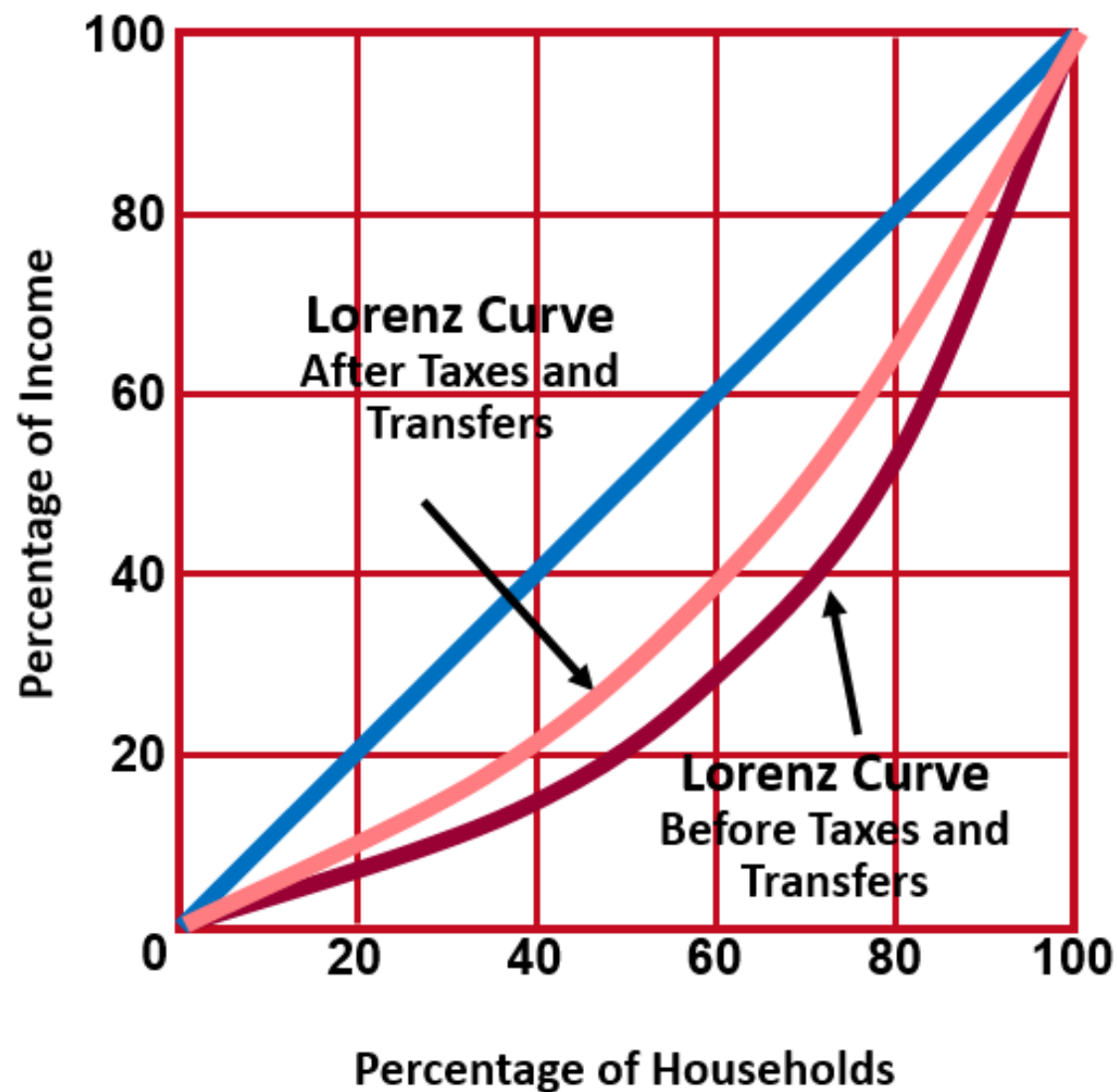


$$\text{Gini Ratio} = \frac{\text{Area A}}{\text{Area A} + \text{Area B}}$$

PERSONAL INCOME DISTRIBUTION ACROSS COUNTRIES (LO 5.2)

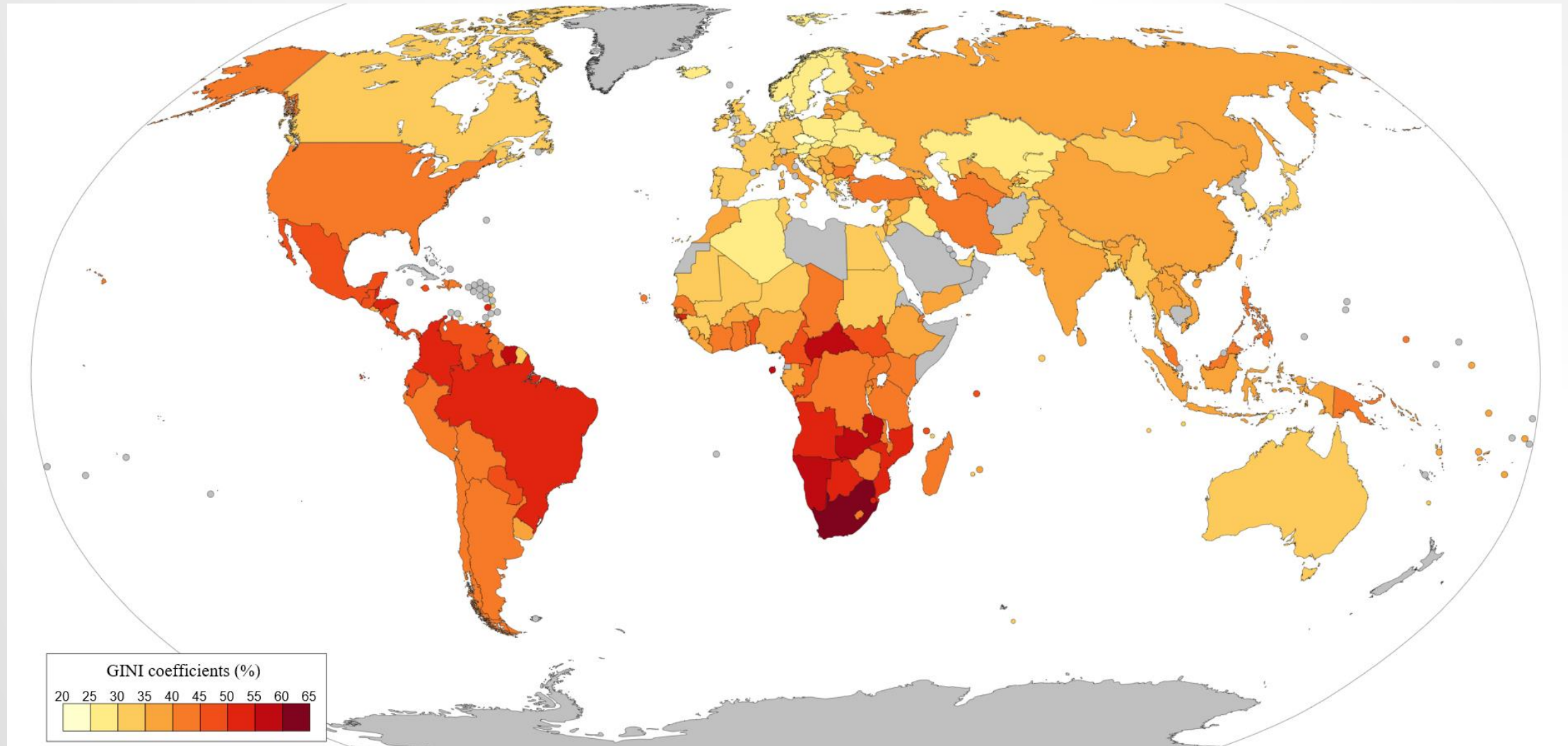
TAXES AND TRANSFERS IMPACT ON GINI RATIO

Source:
Microeconomics
by McConnell,
Brue, Flynn, 21e,
McGraw Hill



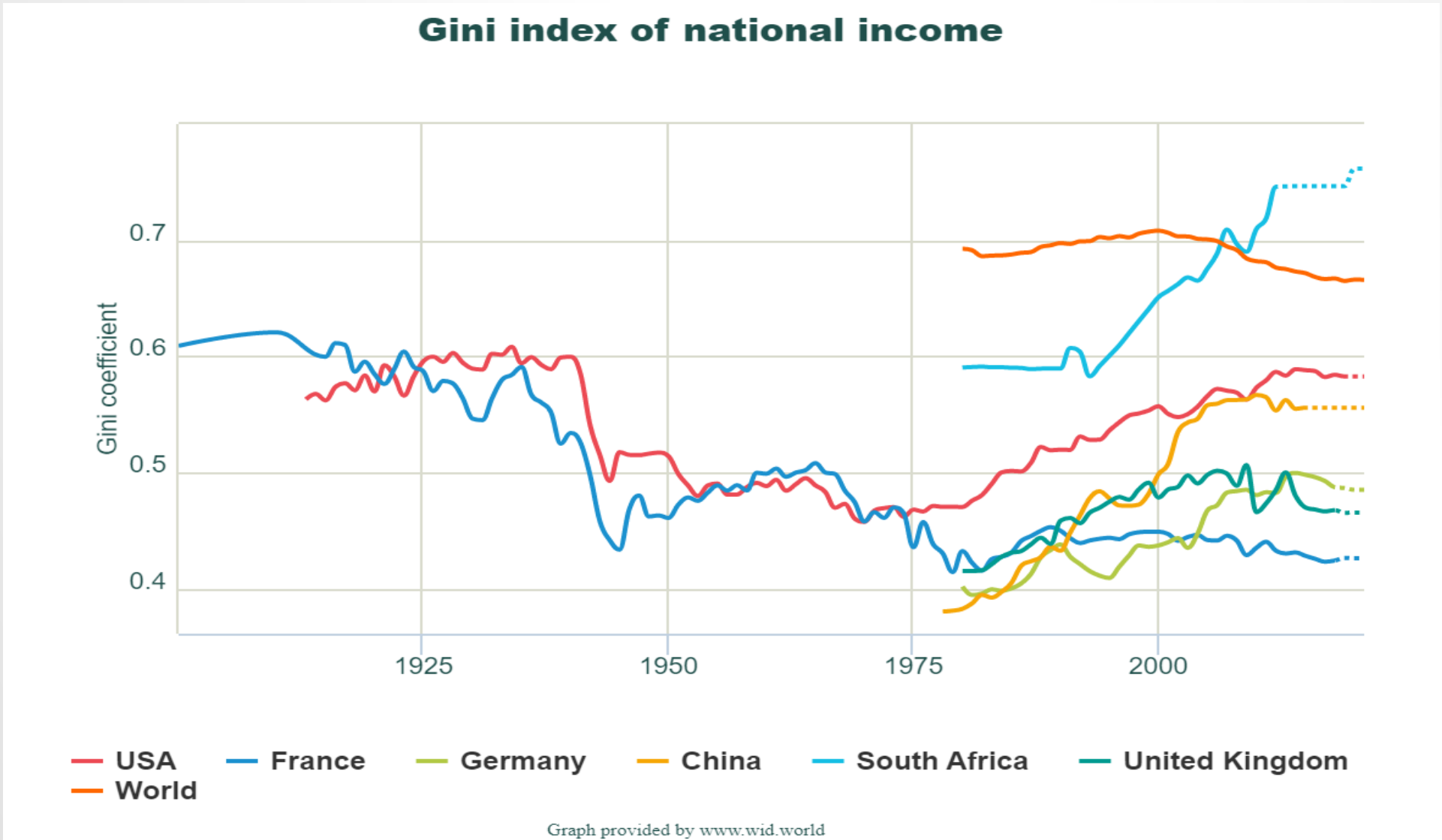
PERSONAL INCOME DISTRIBUTION ACROSS COUNTRIES (LO 5.2)

GINI RATIOS ACROSS COUNTRIES



Source: World bank, www.worldbank.org

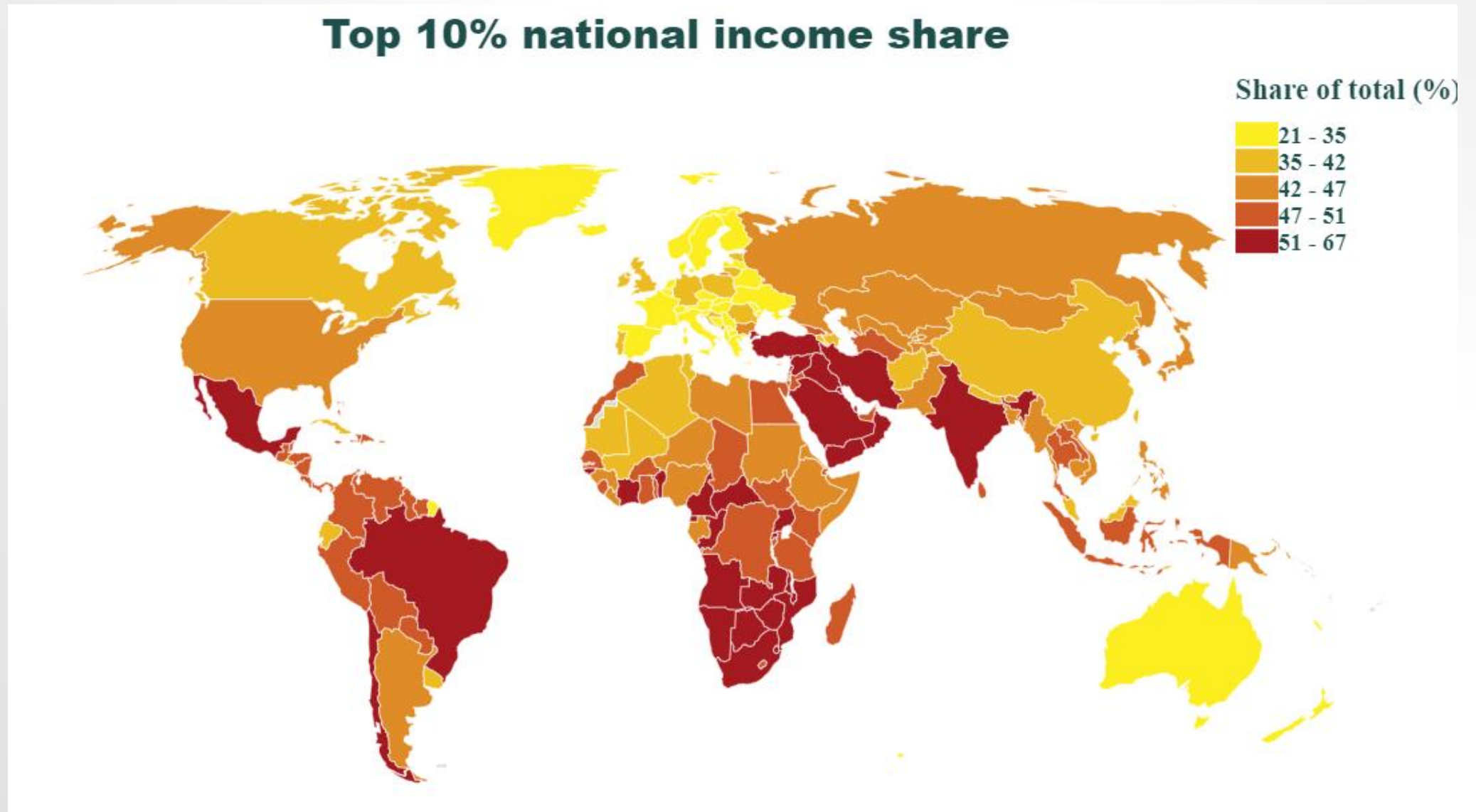
PERSONAL INCOME DISTRIBUTION ACROSS COUNTRIES (LO 5.2)



Source: World Inequality Database, www.wid.world

PERSONAL INCOME DISTRIBUTION ACROSS COUNTRIES (LO 5.2)

Source:
World
Inequality
Database,
www.wid.world



PERSONAL INCOME DISTRIBUTION ACROSS COUNTRIES (LO 5.2)

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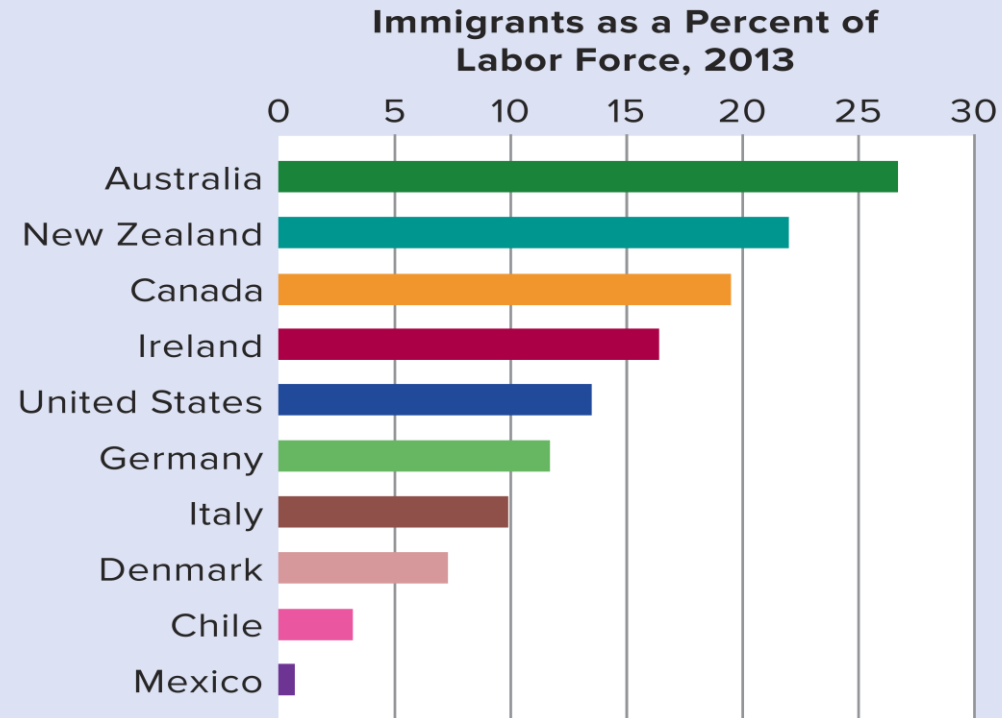


CURRENT TRENDS IN LABOR MOVEMENTS (LO 6)

Source: (OECD Data) in
Microeconomics
by McConnell,
Brue, Flynn, 21e,
McGraw-Hill

Immigrants as a Percent of the Labor Force, Selected Advanced Industrial Countries

Immigrants make up relatively large percentages of the labor forces in several advanced industrial countries, including Australia, Austria, and the United States, but not in other countries such as Finland.

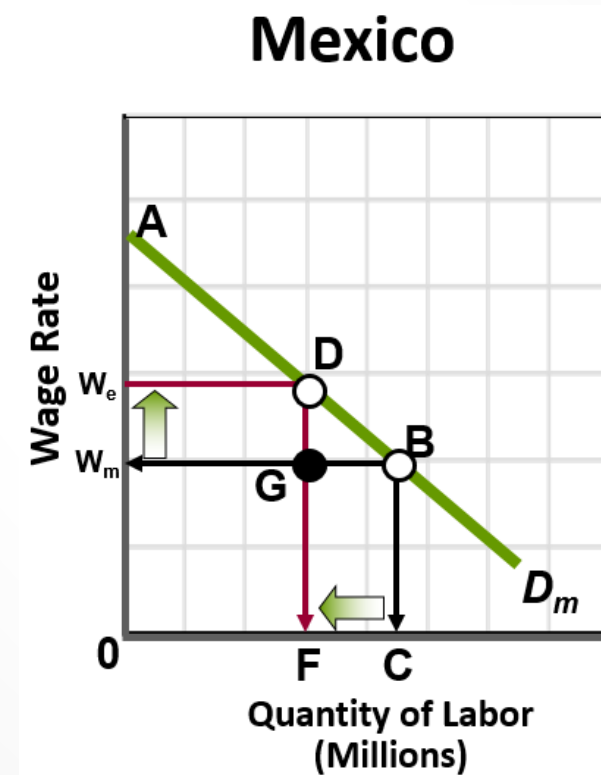
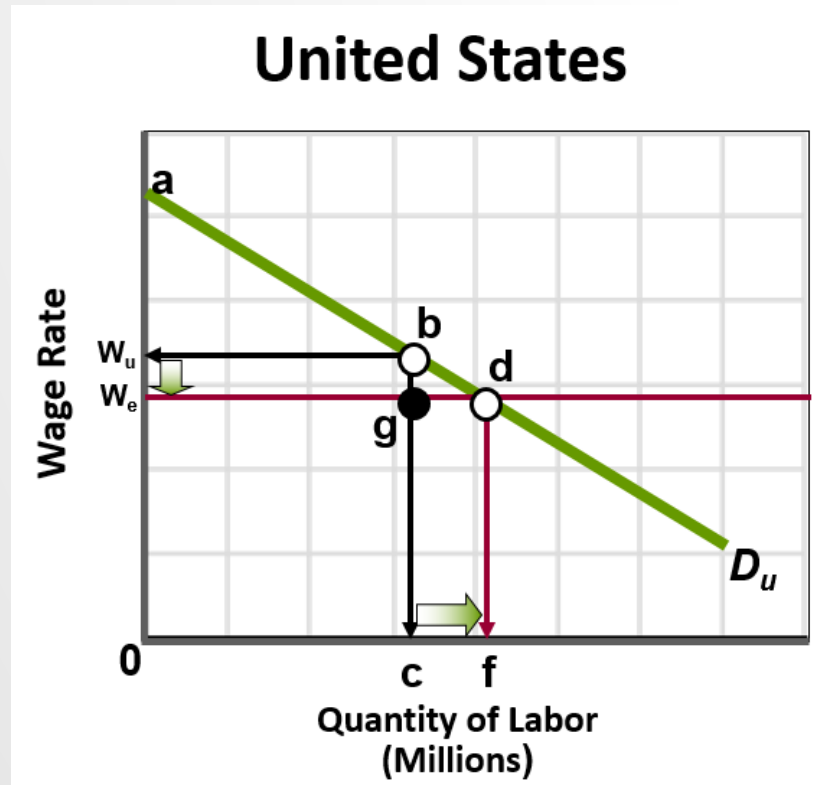


Source: Organization for Economic Cooperation and Development,
www.oecd.org.

CURRENT TRENDS IN LABOR MOVEMENTS (LO 6)

Immigration impacts wages, employment, and output

Source:
Microeconomics
by McConnell,
Brue, Flynn, 21e,
McGraw-Hill



CURRENT TRENDS IN LABOR MOVEMENTS (LO 6)

- ***Wage rates will equalize***
- ***In the U.S.***
 - ***Wage rate falls***
 - ***Employment and output rise***
- ***In Mexico***
 - ***Wage rate rises***
 - ***Employment and output fall***

CURRENT TRENDS IN LABOR MOVEMENTS (LO 6)

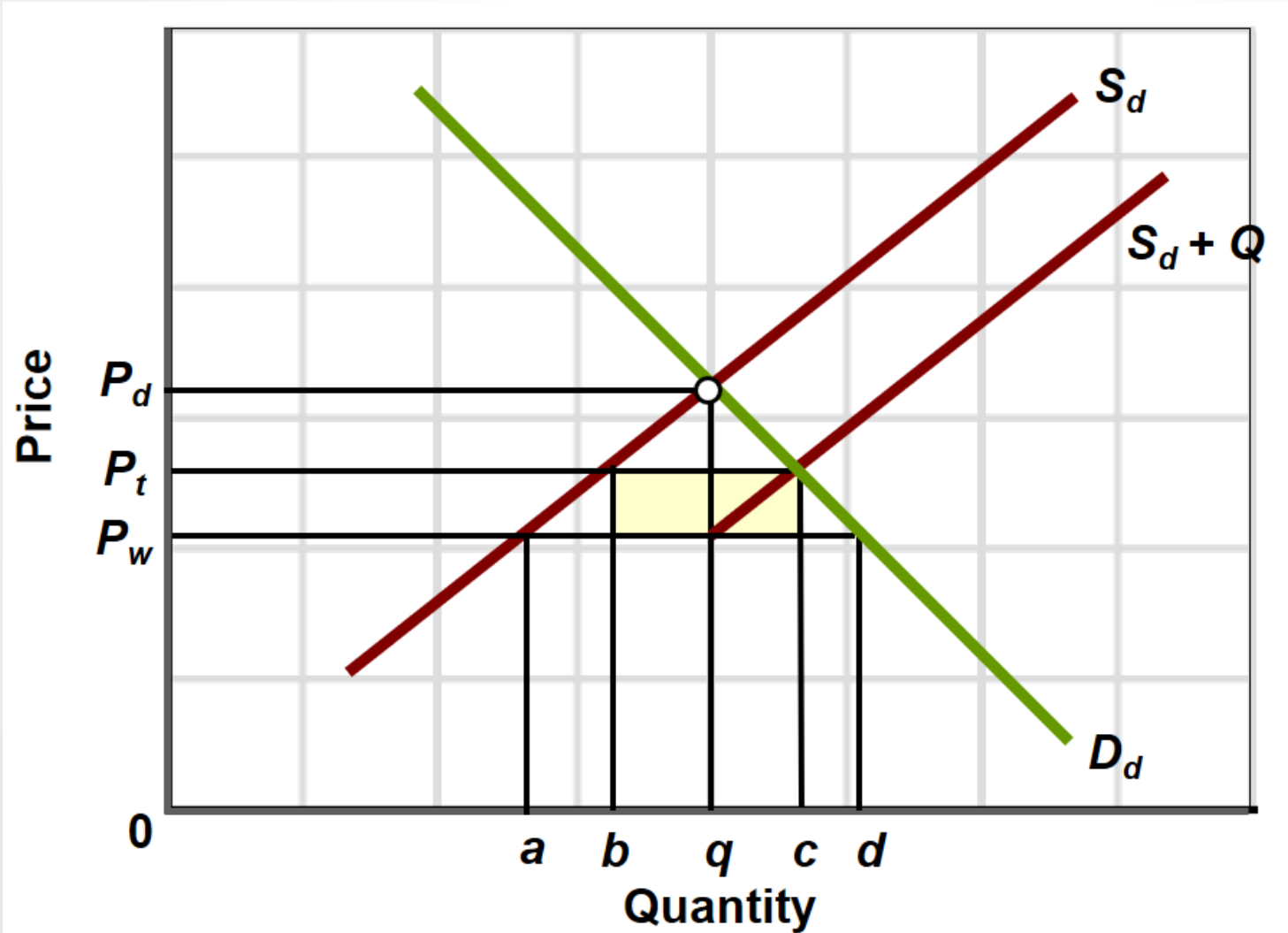
- *Overall effects of immigration*
- *World output rises*
- *Efficiency gains from migration*
- *Other effects*
- *Brain drains*
- *U.S. natives lose wage income*
- *U.S. businesses gain income*

Source: Microeconomics by McConnell, Brue, Flynn, 21e, McGraw-Hill

TARIFFS & OTHER BARRIERS AND THEIR EFFECTS ON TRADE (LO 7)

- *Tariffs and Related Taxes*
- *Nontariff Barriers (NTB)*
- *Voluntary Export Restrictions (VER)*
- *Export subsidies*

TARRIFS (AND QUOTAS) AND THEIR EFFECTS (LO 7)



Source: Microeconomics by McConnell, Brue, Flynn, 21e, McGraw-Hill

TARRIFS AND OTHER BARRIERS AND THEIR EFFECTS ON TRADE (LO 7)

NET COSTS OF TARIFFS AND QUOTAS

- *The price of the imported good goes up.*
- *The higher price of imports causes some consumers to shift their purchases to higher-priced domestically produced goods.*
- *The prices of domestically produced goods rise because import competition has declined.*

CURRENT MONETARY POLICIES AND EFFECTS ON BUSINESS ACTIVITY (LO 8)

- **GATT**
- **WTO**
- **EU**
 - *Began in 1958 as the Common Market*
 - *Abolished tariffs and import quotas between member nations*
 - *Established common tariffs with nations outside the EU*
 - *Created Euro Zone with a single currency*

CURRENT MONETARY POLICIES AND EFFECTS ON BUSINESS ACTIVITY (LO 8)

- **NAFTA**
 - *Agreement between US, Canada, and Mexico in 1994*
 - *Established a free trade zone*
 - *Issues*
 - *Replacement with USMCA*
- **Trans-Pacific Partnership**
- **Overall Global Climate**

THE MONETARY LAW

- ***“Inflation is always and everywhere a monetary Phenomenon.”*** – Milton Friedman, 1970



Source: Britannica.com