

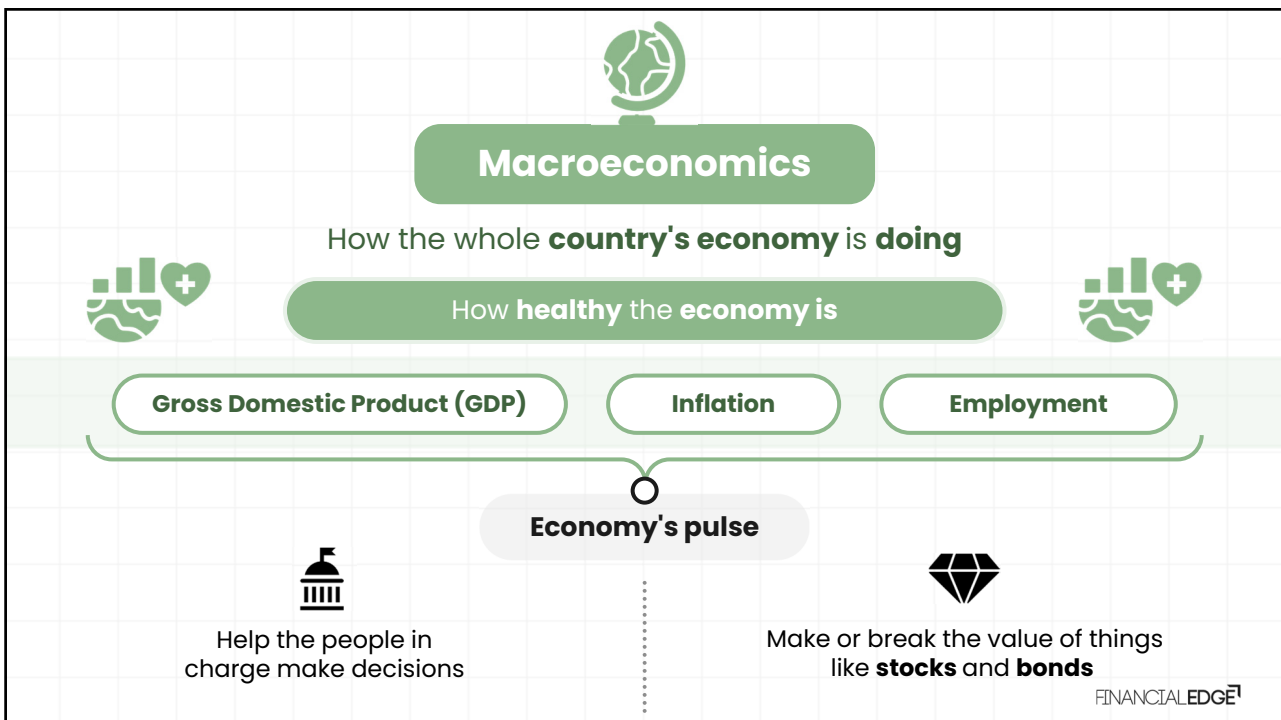
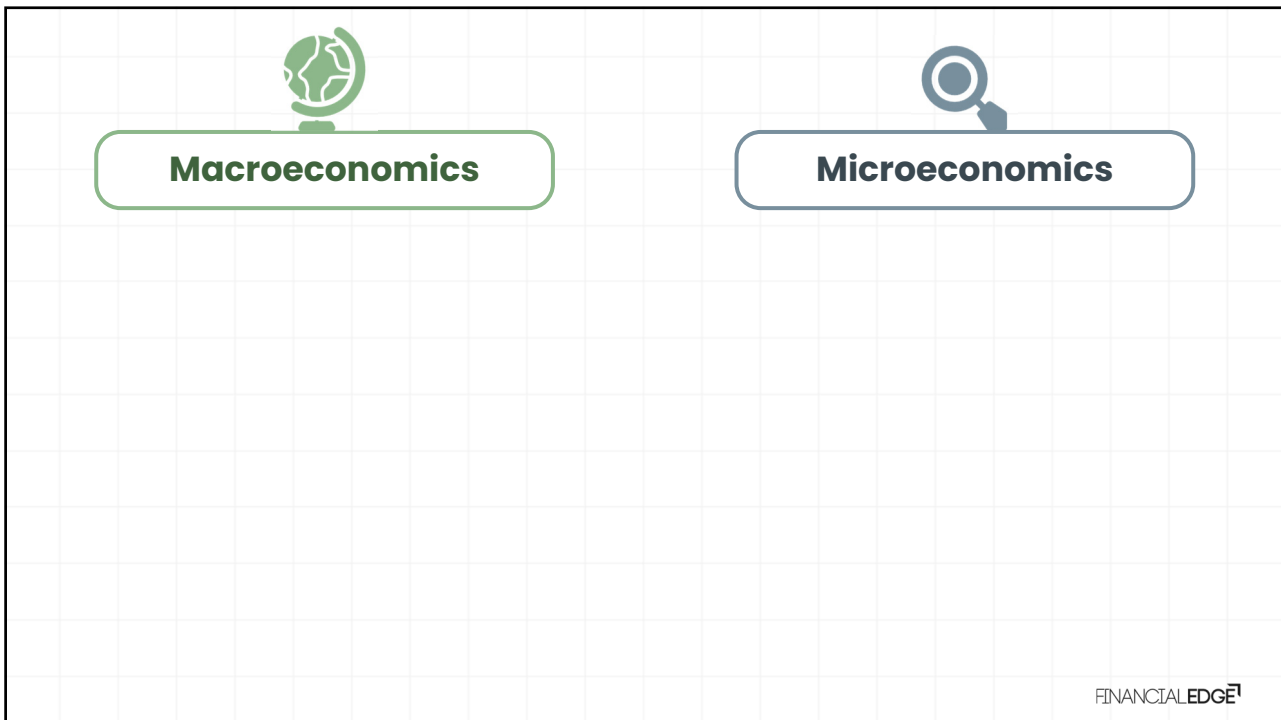


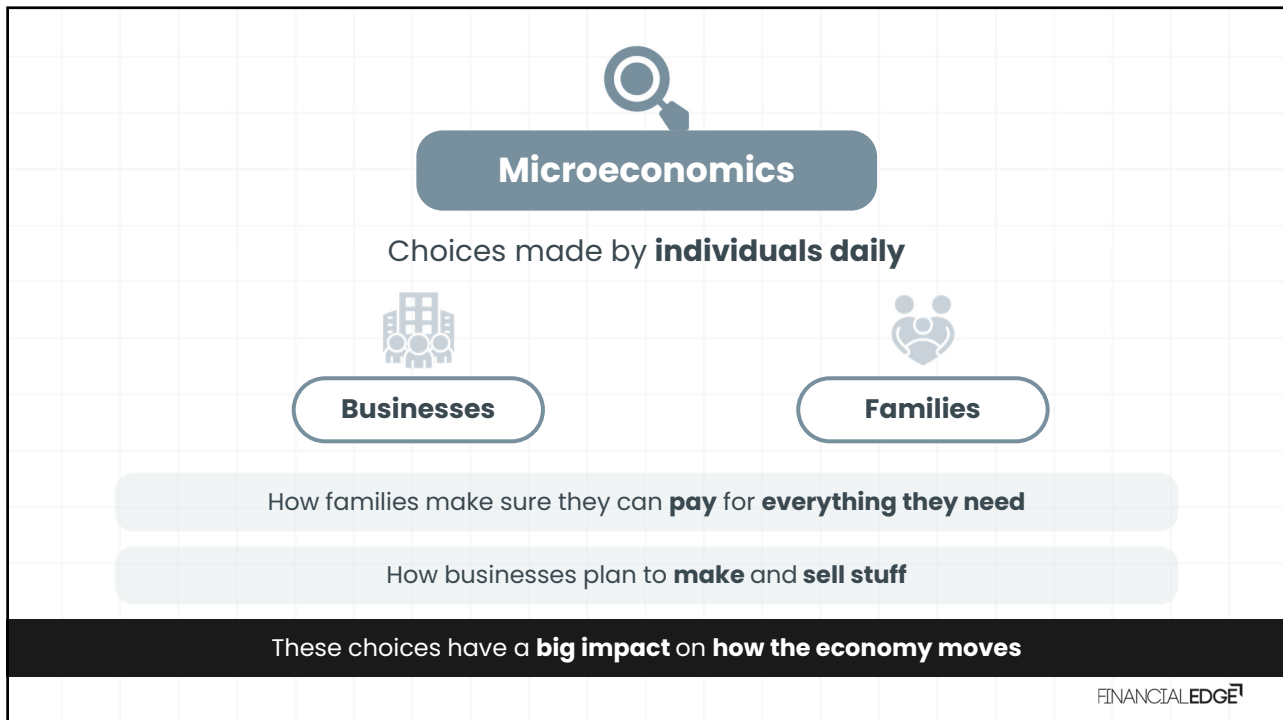
Macroeconomics – Fundamentals and Gross Domestic Product (GDP)

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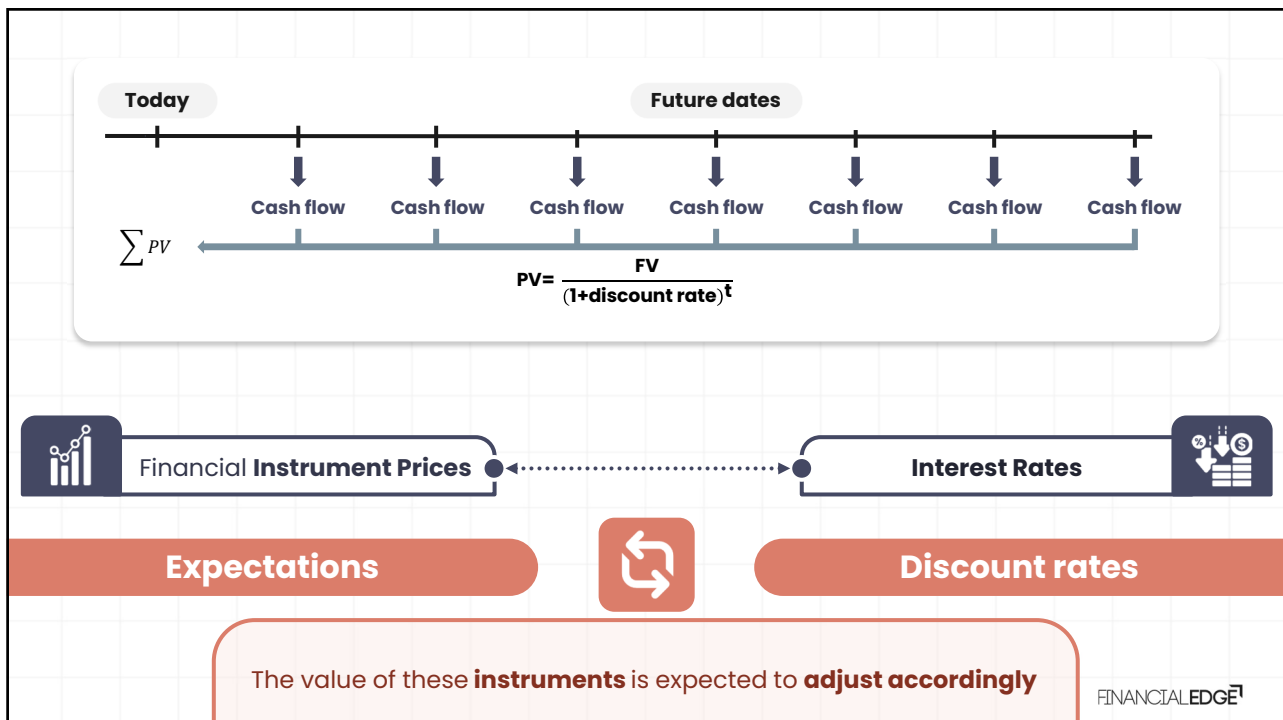
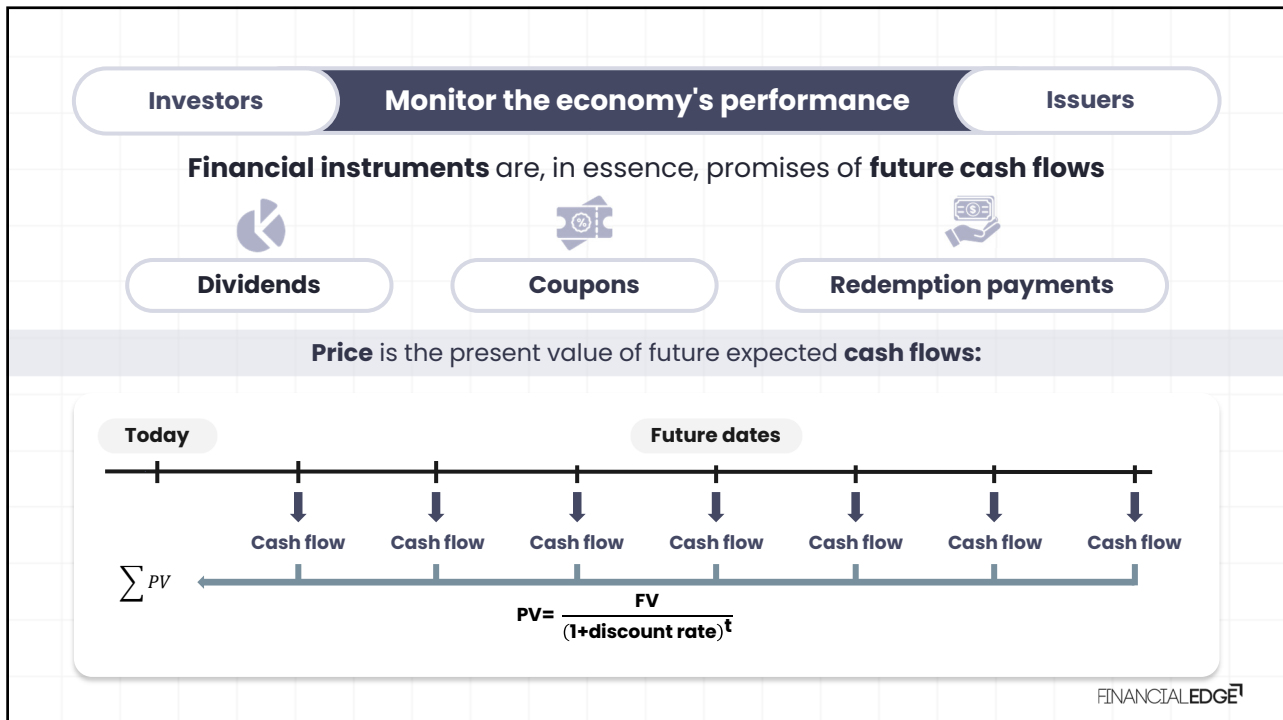
Macro vs. Microeconomics

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Link Between Financial Markets & the Economy



Why Do Expectations Change?

Microeconomics



Profitability, cash flows and leverage

Breakthroughs in product development



Macroeconomics

Economic growth

Inflation

Unemployment

Global trade

Interest rates are significantly influenced
by macroeconomic factors

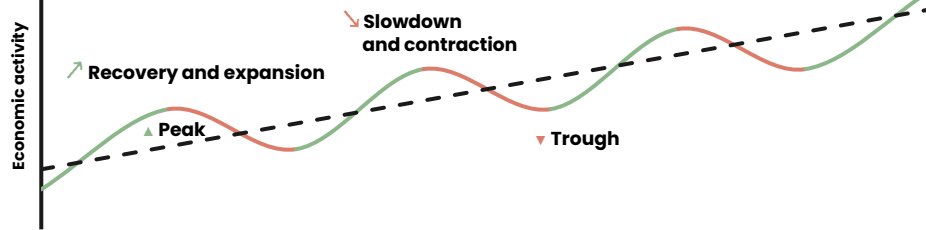
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The Economic Cycle

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The Economic Cycle

Economic activity is **not steady** - its fluctuations are referred to as the **economic cycle**.



Growth



Decline

Economic cycle

Business cycle

Employment

Consumer behavior

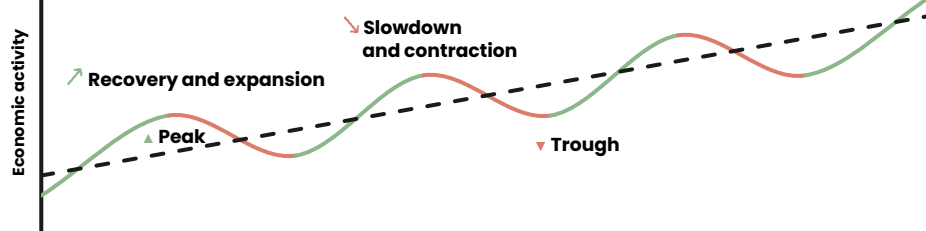
Business investment

Government policy decisions

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The Economic Cycle

Economic activity is **not steady** - its fluctuations are referred to as the **economic cycle**.



Recovery and Expansion

Peak

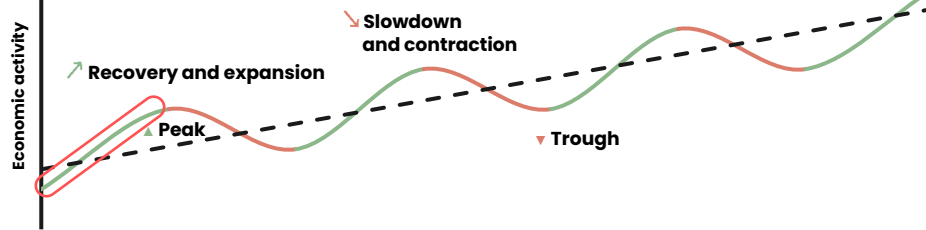
Slowdown and contraction

Trough

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The Economic Cycle

Economic activity is **not steady** - its fluctuations are referred to as the **economic cycle**.



Recovery and Expansion



Improvements in employment

Increased production

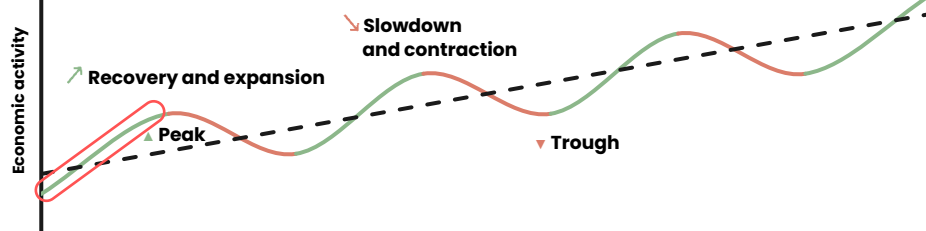
Rising sales

Leads to **greater spending and investment**

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The Economic Cycle

Economic activity is **not steady** - its fluctuations are referred to as the **economic cycle**.



Recovery and Expansion



Growth accelerates

Gross Domestic Product (GDP)

Employment

Income

Substantial increases



Inflation can rise

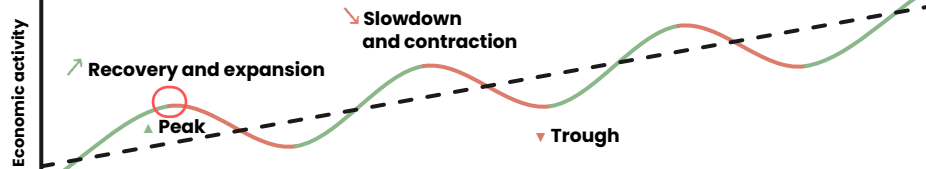


Demand outpaces supply

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The Economic Cycle

Economic activity is **not steady** - its fluctuations are referred to as the **economic cycle**.



Peak



Employment is robust

Consumer confidence is high

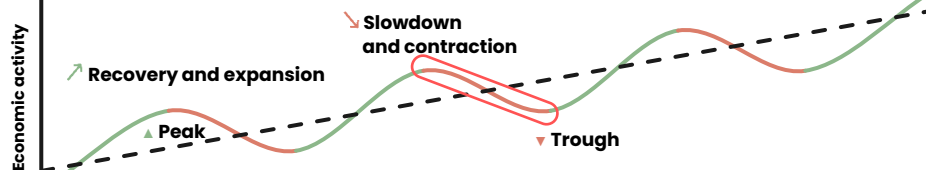
Business profits are strong

Inflation can intensify

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The Economic Cycle

Economic activity is **not steady** - its fluctuations are referred to as the **economic cycle**.



Slowdown and Contraction



Economy starts to retreat

Falling consumer confidence

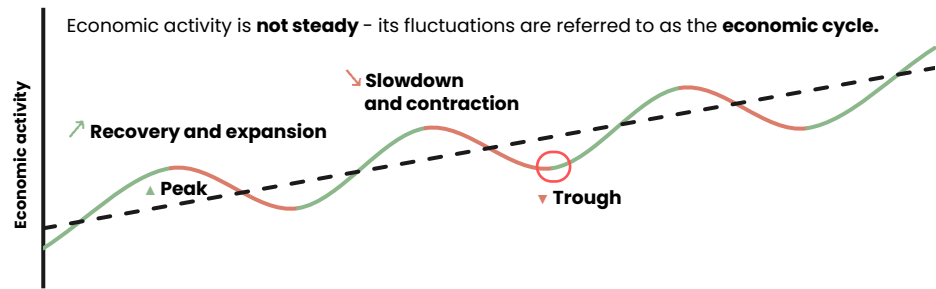
Dwindling business profits

Possible job cuts

Central banks might reduce interest rates to spur growth

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The Economic Cycle



Trough



Bottom point of the **cycle**, where **economic activity** is at its **lowest**

Production

Fall to minimal levels

Income

End of the **contraction**

Start of a **new cycle** of **recovery** and **expansion**

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Economic events



**Technological
advancements**



Geopolitical shifts



Peak often **identified in hindsight**

Cycles



Escalating prices

Possible signs



Rising interest rates

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What exactly is a Recession?

Significant and prolonged downturn in **economic activity**



GDP



Income



Employment



Industrial production



Wholesale-retail sales

Common shorthand: 2 successive quarters of falling GDP

National Bureau of Economic Research (NBER)

Severity

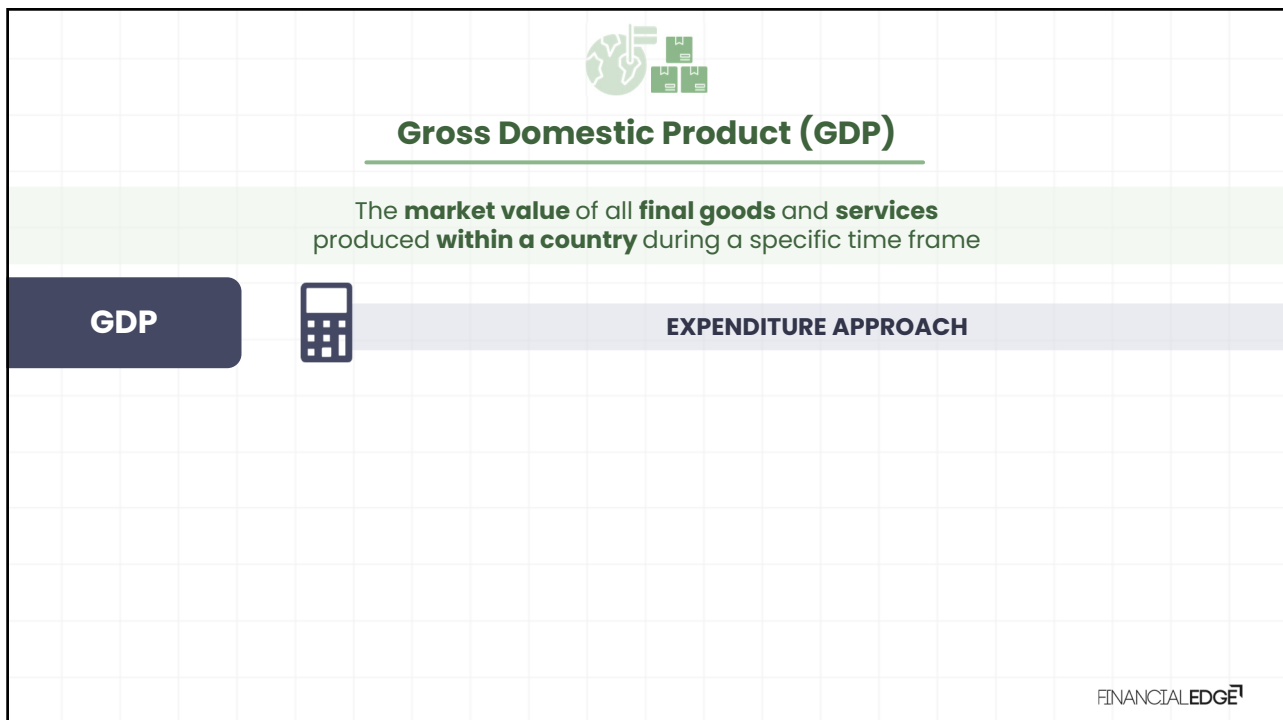
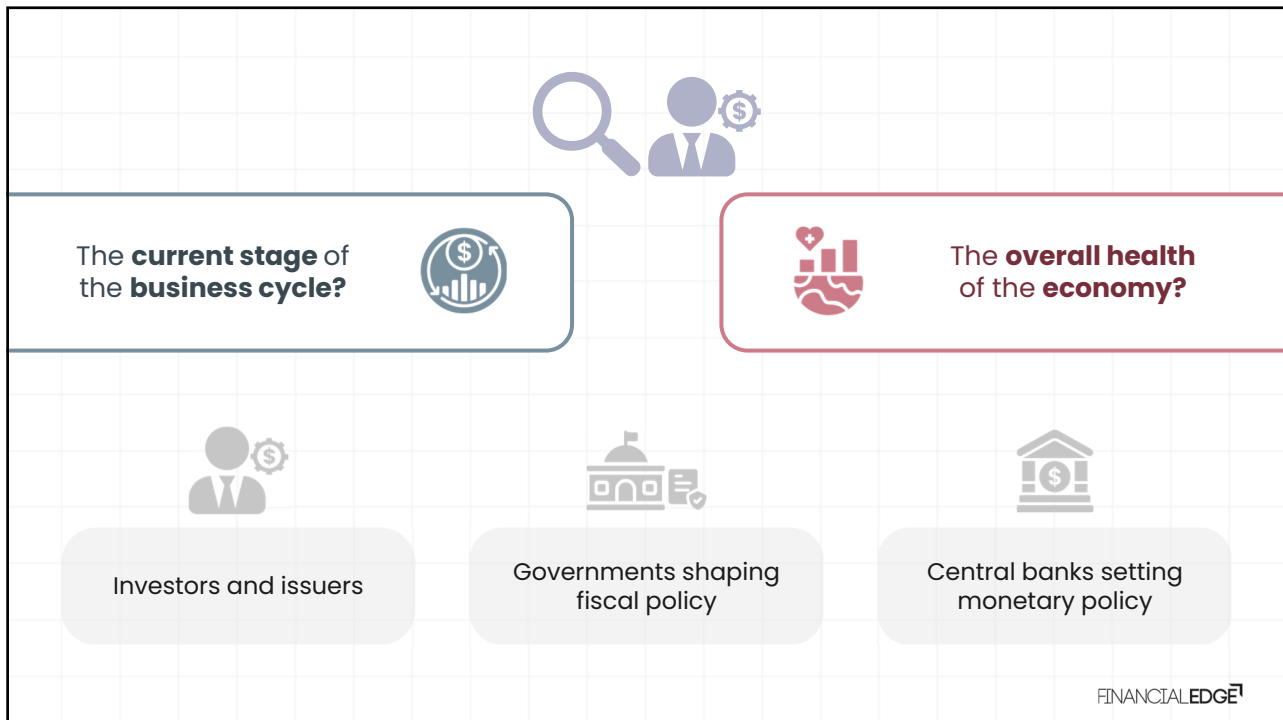
Duration

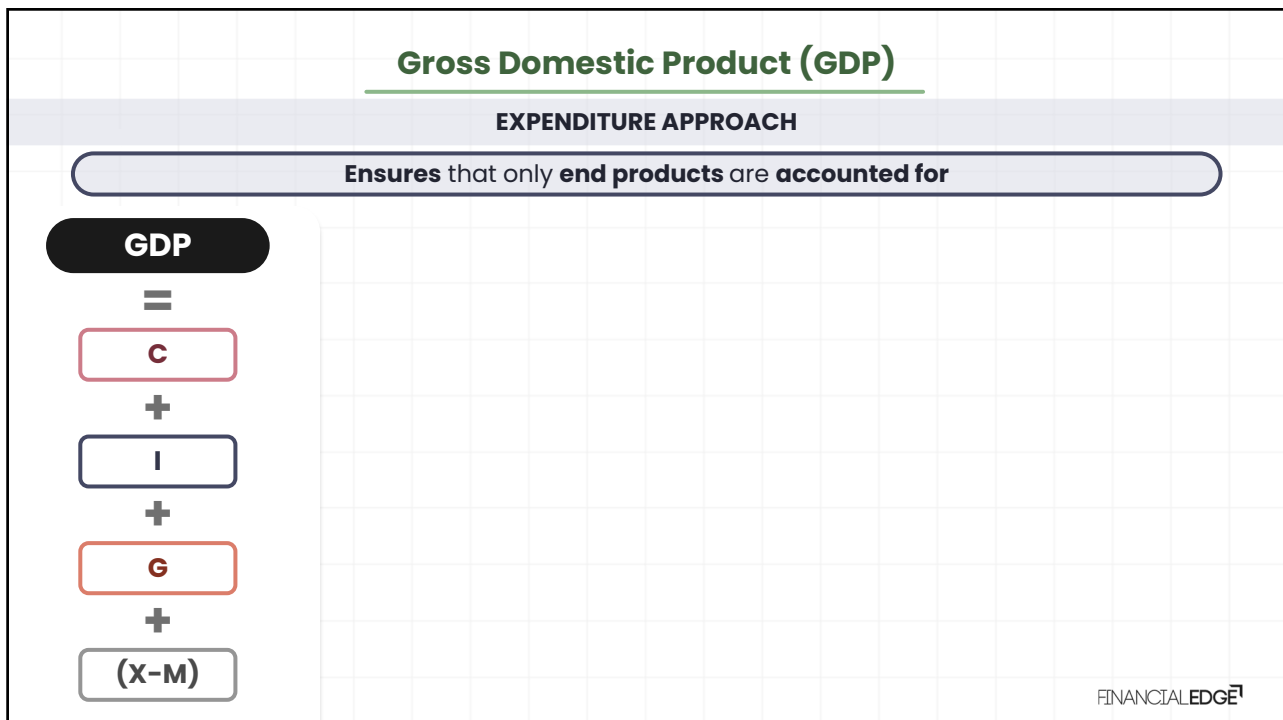
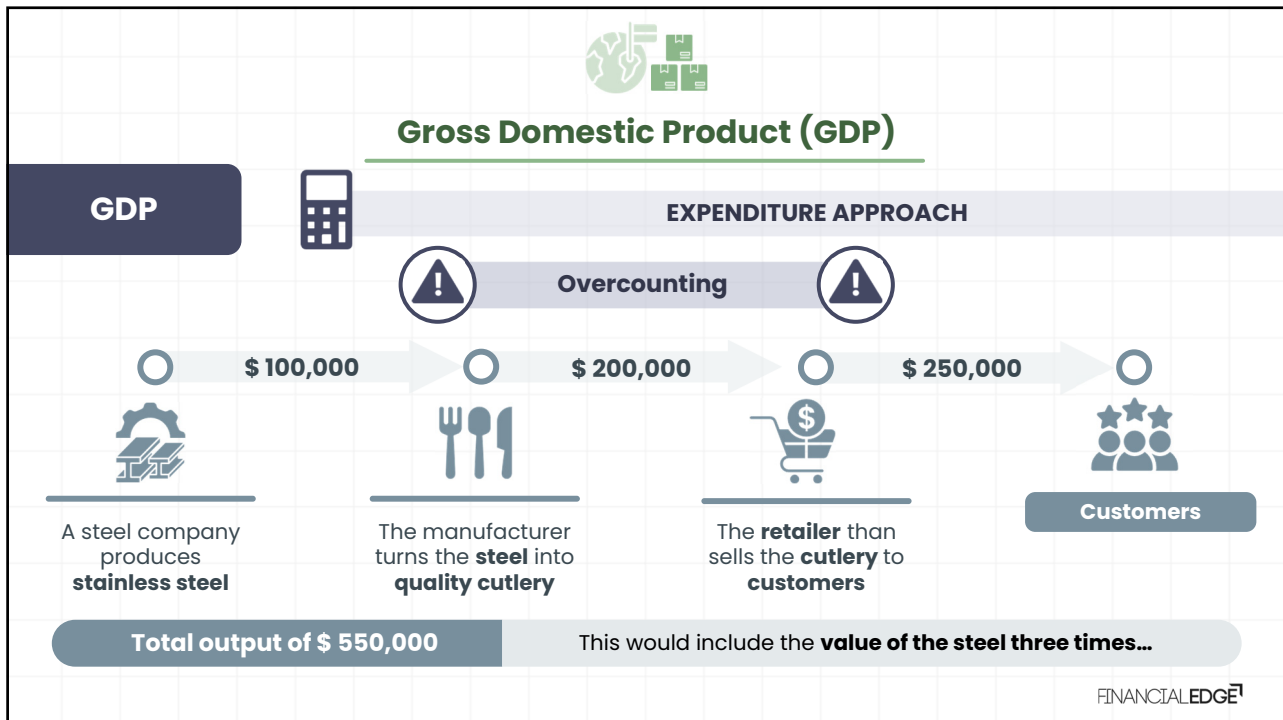
Diffusion

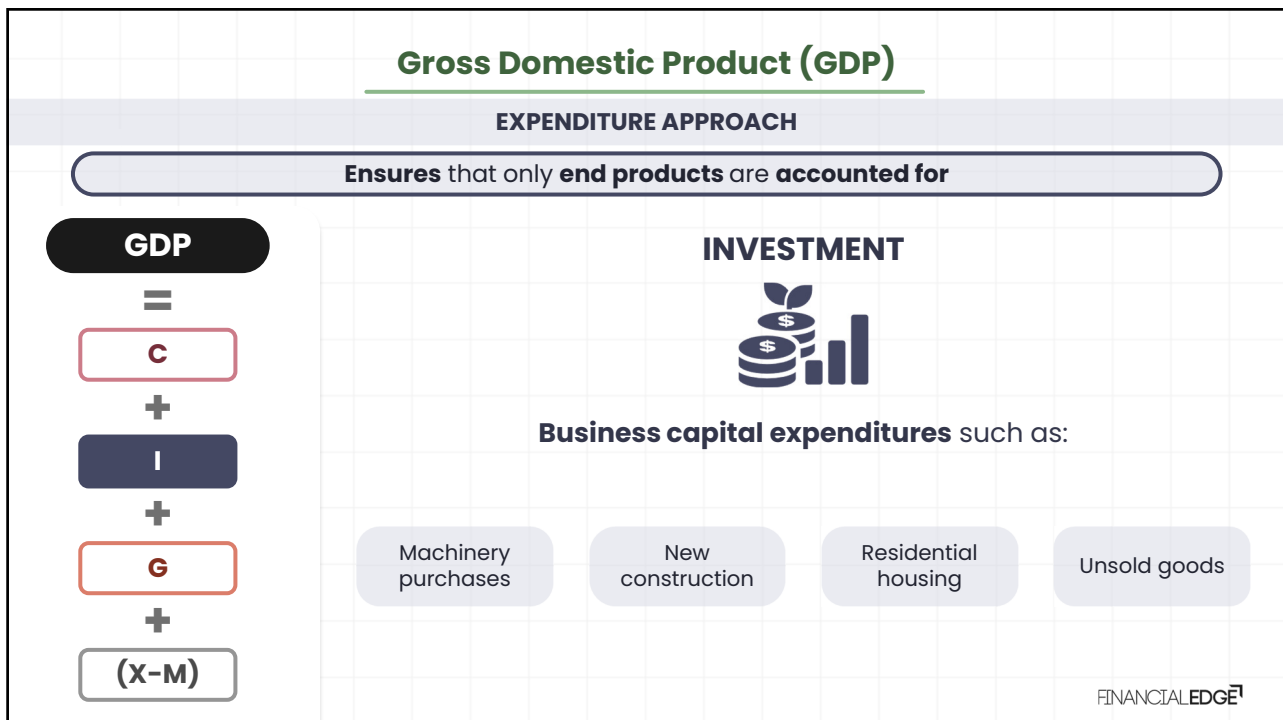
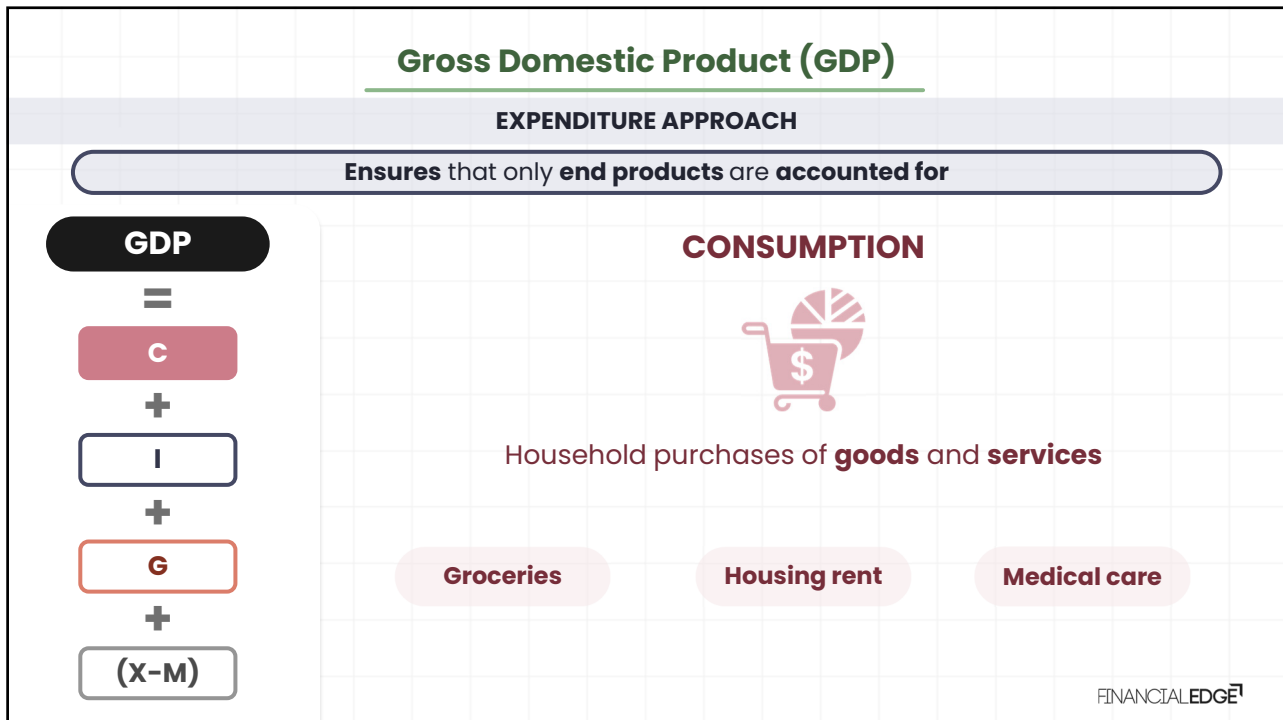
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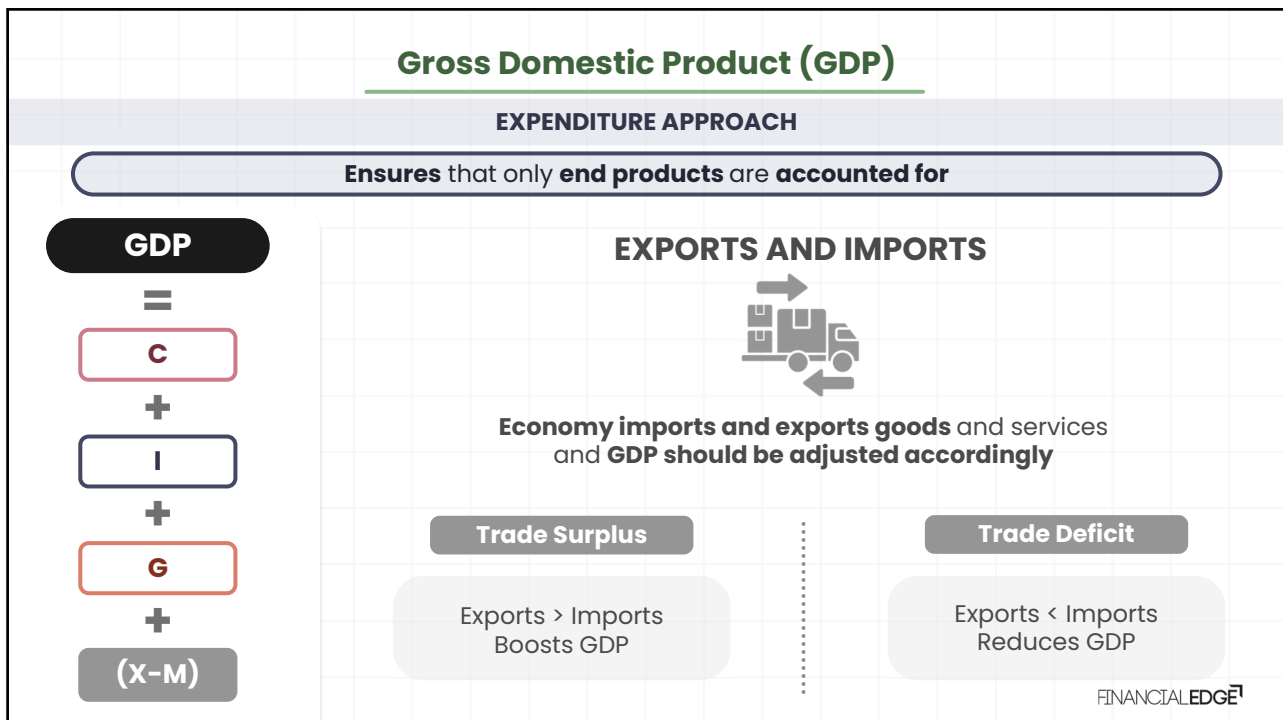
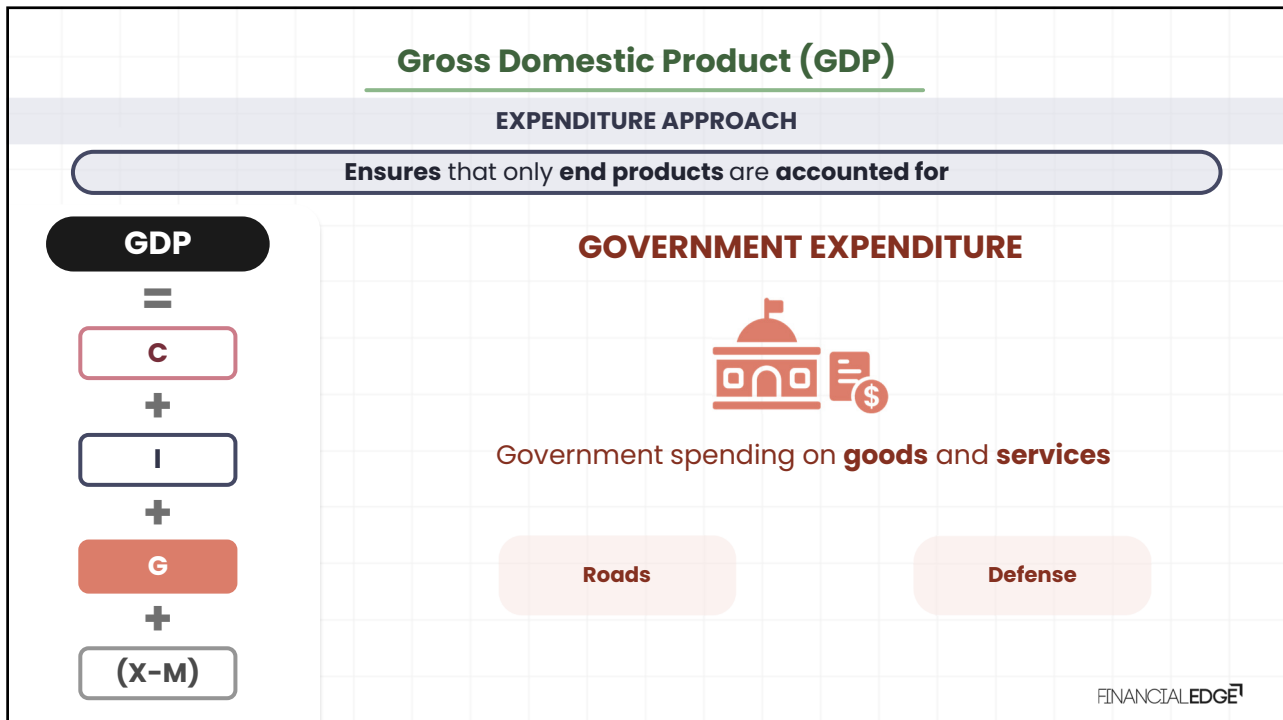
Gross Domestic Product (GDP)

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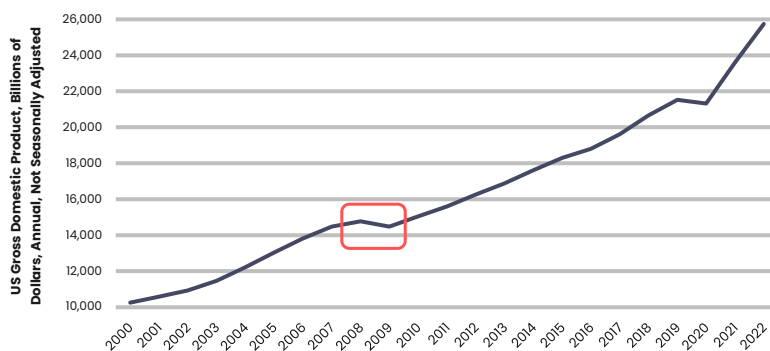








Gross Domestic Product (GDP) Over Time

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Nominal US GDP in 2022:

C	\$17,511.7 bn
I	\$4,756.6 bn
G	\$4,446.9 bn
(X-M)	-\$971.1 bn
Total GDP	\$25,744.1 bn

Source: U.S. Bureau of Economic Analysis, Gross Domestic Product [GDP], retrieved from FRED, Federal Reserve Bank of St. Louis



The Global Financial Crisis



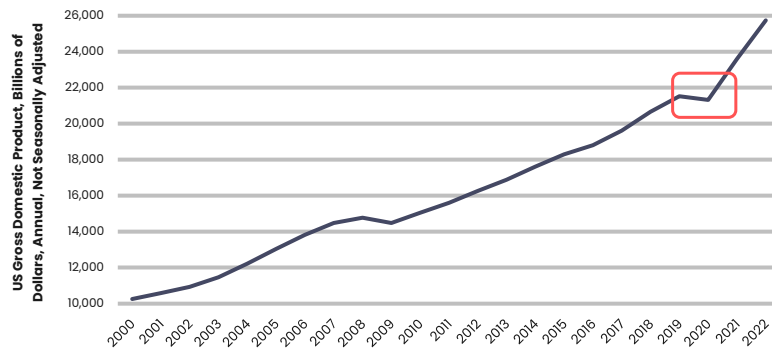
Burst of the **housing bubble**

High-risk **lending practices**

Collapse of **financial institutions**

Negative growth

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**Nominal US GDP in 2022:**

C	\$17,511.7 bn
I	\$4,756.6 bn
G	\$4,446.9 bn
(X-M)	-\$971.1 bn
Total GDP	\$25,744.1 bn

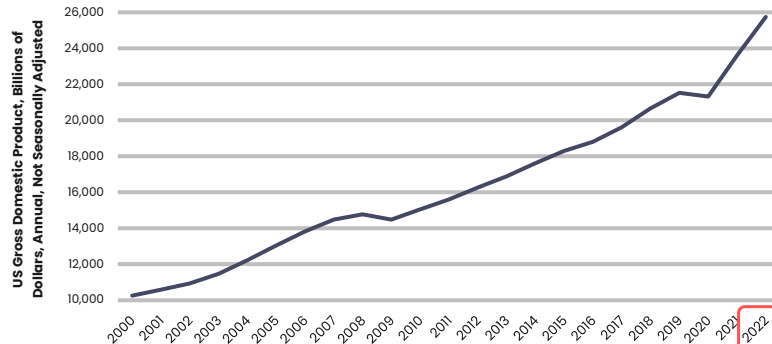
Source: U.S. Bureau of Economic Analysis, Gross Domestic Product [GDP], retrieved from FRED, Federal Reserve Bank of St. Louis

**The COVID-19 Pandemic****Economic disruptions on a global scale**

Lockdowns

Business closures

Supply chain interruptions

Caused economy to shrink for a **limited period of time**FINANCIALEDGE⁷**Nominal US GDP in 2022:**

C	\$17,511.7 bn
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G	\$4,446.9 bn
(X-M)	-\$971.1 bn
Total GDP	\$25,744.1 bn

Source: U.S. Bureau of Economic Analysis, Gross Domestic Product [GDP], retrieved from FRED, Federal Reserve Bank of St. Louis

U.S. GDP 2022**Breakdown** underscores the dominance of **consumption in the US economy**

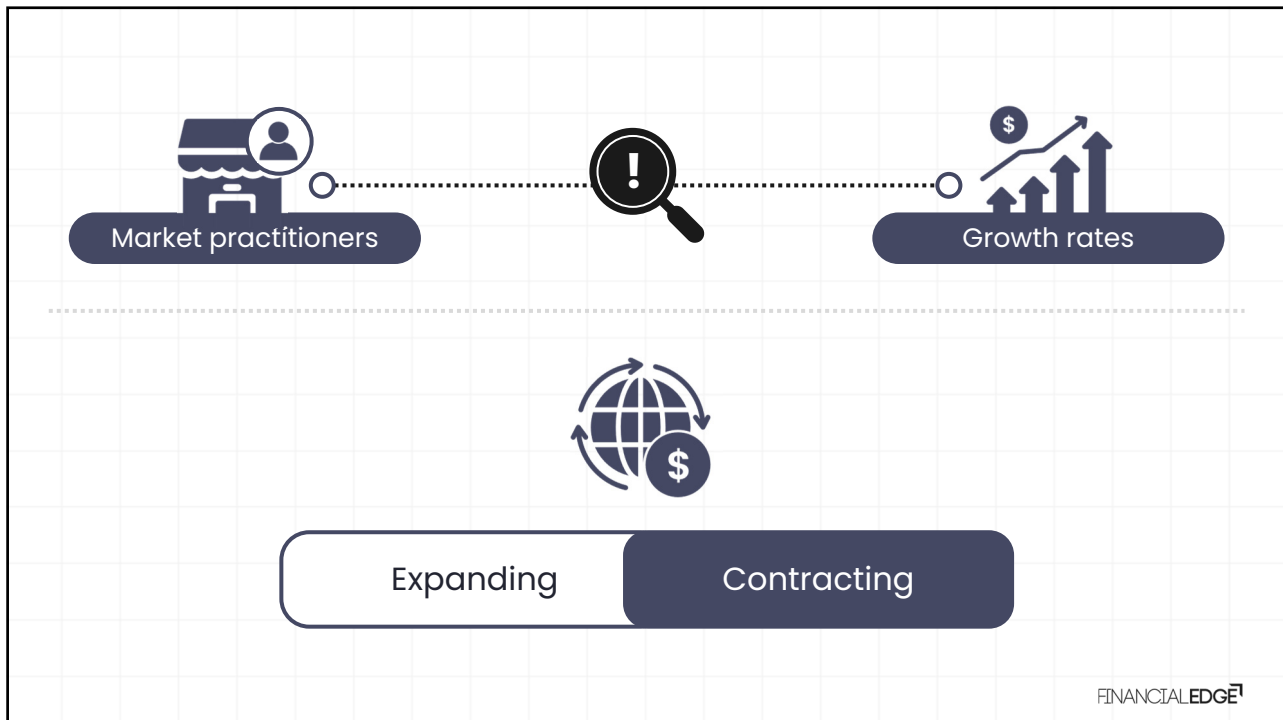
Value of imports

Value of exports

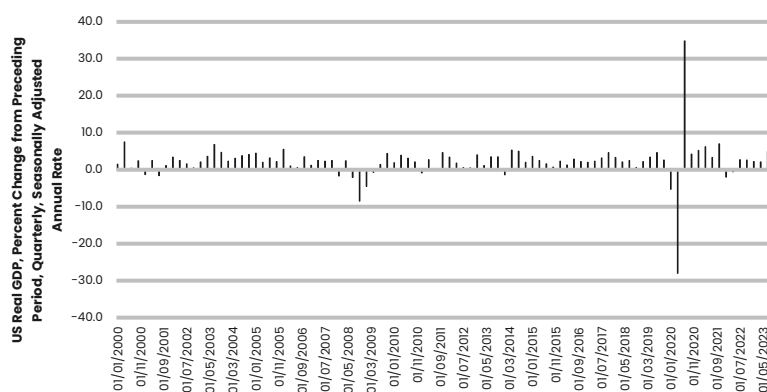
U.S. as a net importer
Leading to a **trade deficit**

Expenditure-based GDP
is adjusted **downward**
for the **United States**

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GDP Growth Rates



Source: U.S. Bureau of Economic Analysis, Real Gross Domestic Product [A191RL1Q225SBEA], retrieved from FRED, Federal Reserve Bank of St. Louis

Absolute Real GDP Q3 2023:

22,490.7 bn USD

Absolute Real GDP Q4 2023:

22,672.9 bn USD

QoQ growth:

0.8%

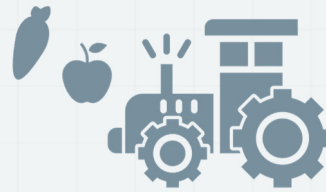
Annualized:

3.3%

Predictable **seasonal fluctuations** in **economic activities**



Retail sales over the holidays



Planting and **harvesting** seasons



Truer reflection of **economic growth**

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Analyzing data



More accurate comparison of growth rates **between quarters**

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Year over year
growth rates



Seasonal adjustments



Quarter over quarter
growth rates



Seasonal adjustments

Nominal vs. Real Gross Domestic Product (GDP)

Nominal GDP**VS.****Real GDP**FINANCIALEDGE⁷**Nominal GDP****VS.****Real GDP**

The **total market value** of all **goods** and **services produced** in an **economy**



Economy's size at
present-day prices



**Susceptible to
price shifts**

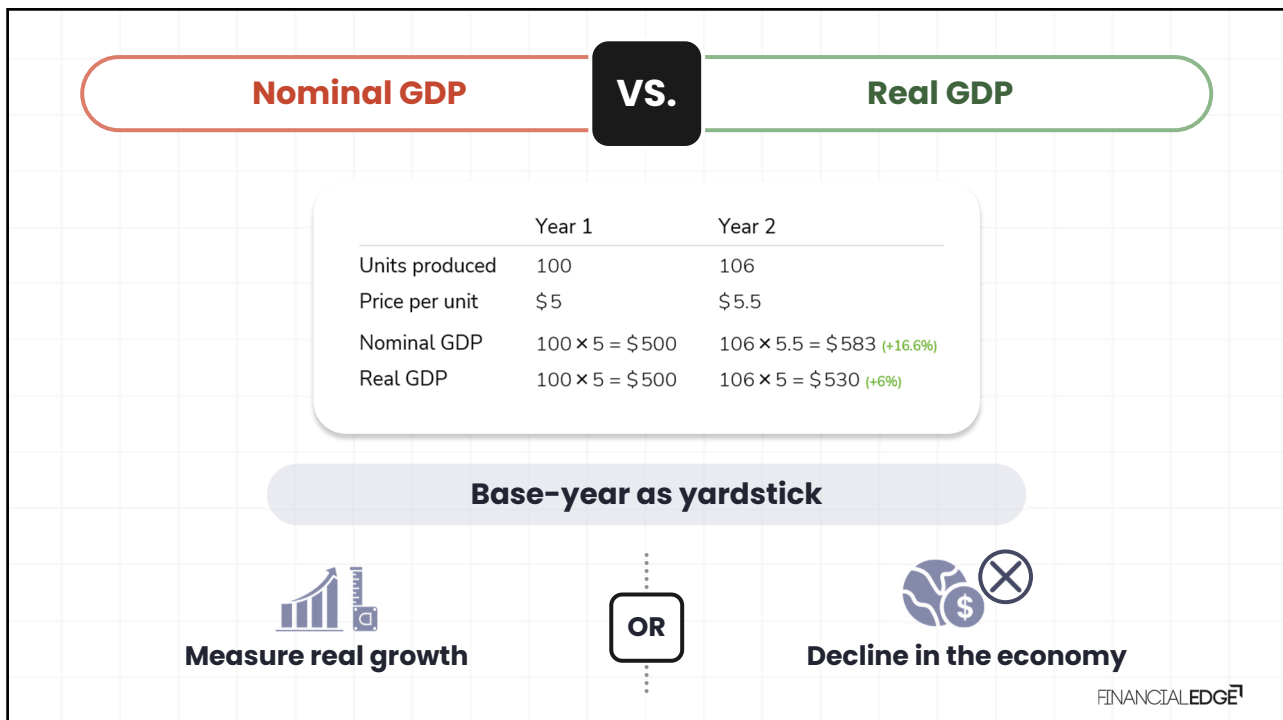
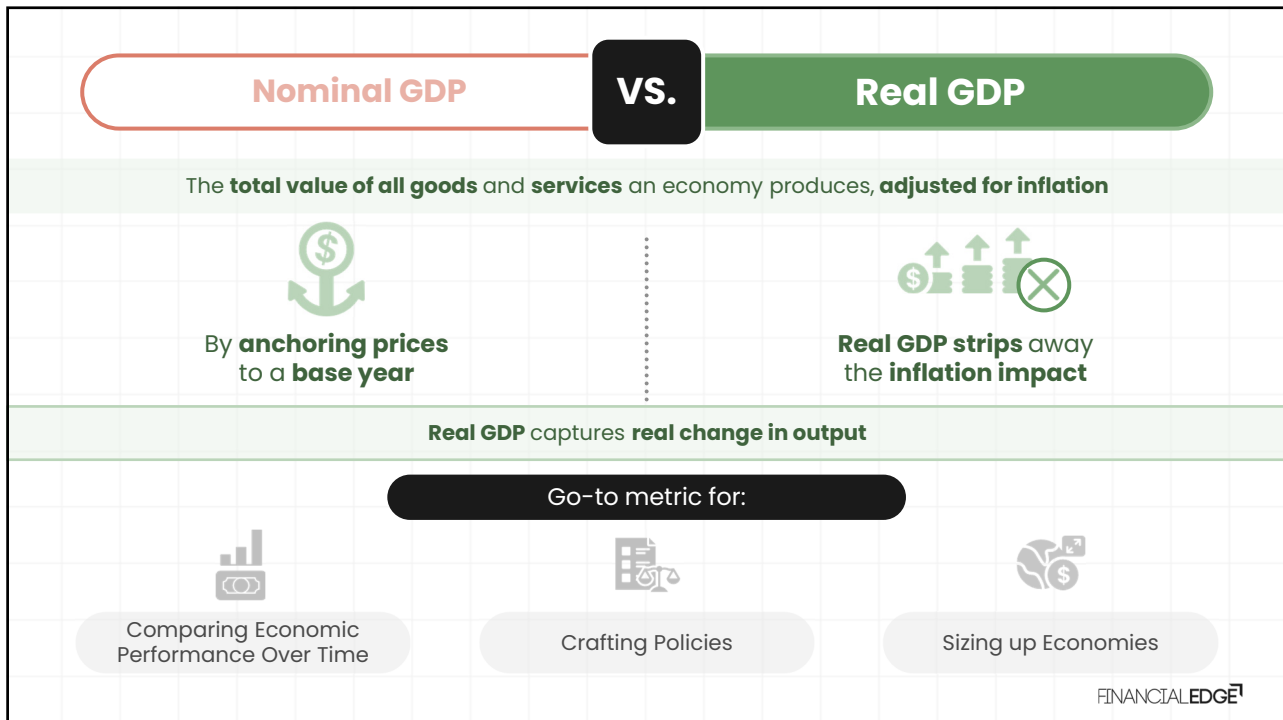
**Inflation**

Higher prices lead to **higher
nominal GDP** figures

**Deflation**

As **falling prices** can cause
nominal GDP to shrink

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	Year 1	Year 2
Units produced	100	106
Price per unit	\$5	\$5.5
Nominal GDP	$100 \times 5 = \$500$	$106 \times 5.5 = \$583$ (+16.6%)
Real GDP	$100 \times 5 = \$500$	$106 \times 5 = \$530$ (+6%)

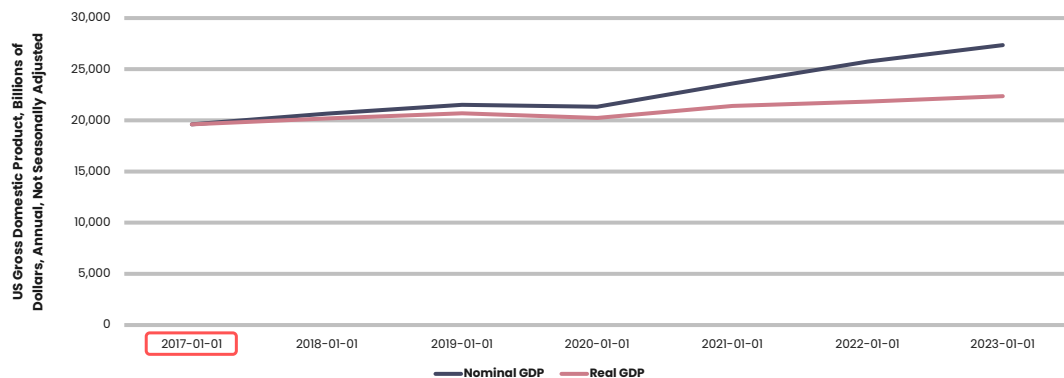


Calculate the Real GDP

Current year's output at base year prices



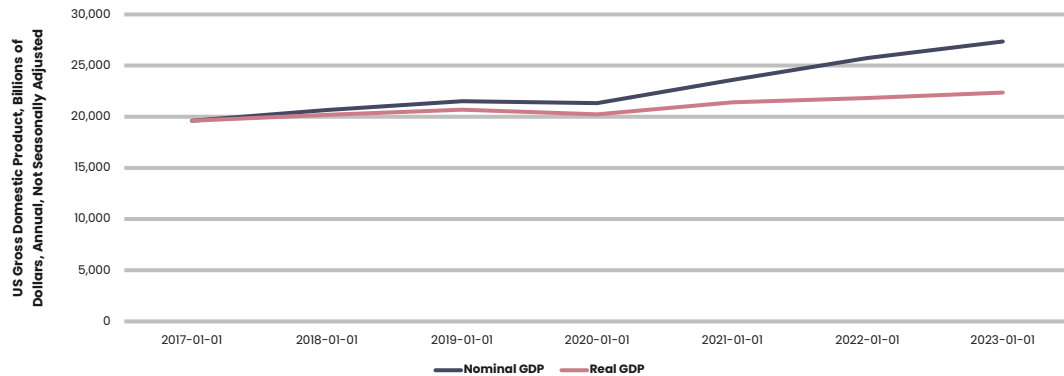
**Increase in
economic activity**



Source: U.S. Bureau of Economic Analysis, Gross Domestic Product [GDP], retrieved from FRED, Federal Reserve Bank of St. Louis

2017

Economic conditions provide us with a
stable comparison platform



Source: U.S. Bureau of Economic Analysis, Gross Domestic Product [GDP], retrieved from FRED, Federal Reserve Bank of St. Louis

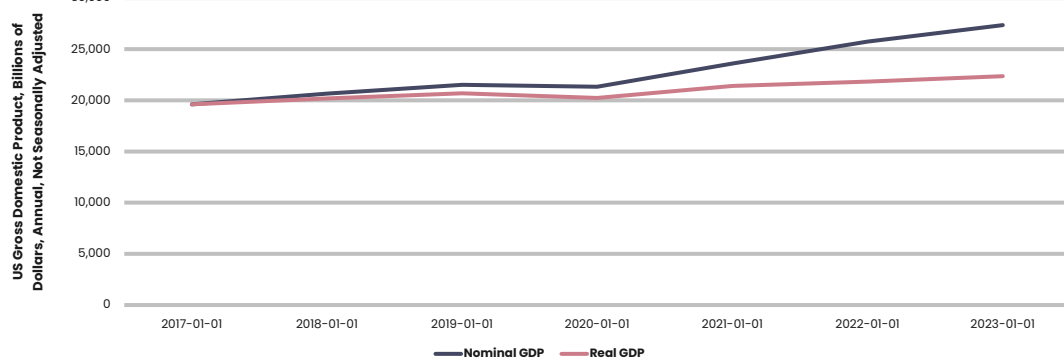


Heightened inflation



Global COVID-19 pandemic

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Source: U.S. Bureau of Economic Analysis, Gross Domestic Product [GDP], retrieved from FRED, Federal Reserve Bank of St. Louis

Significant impact of inflation

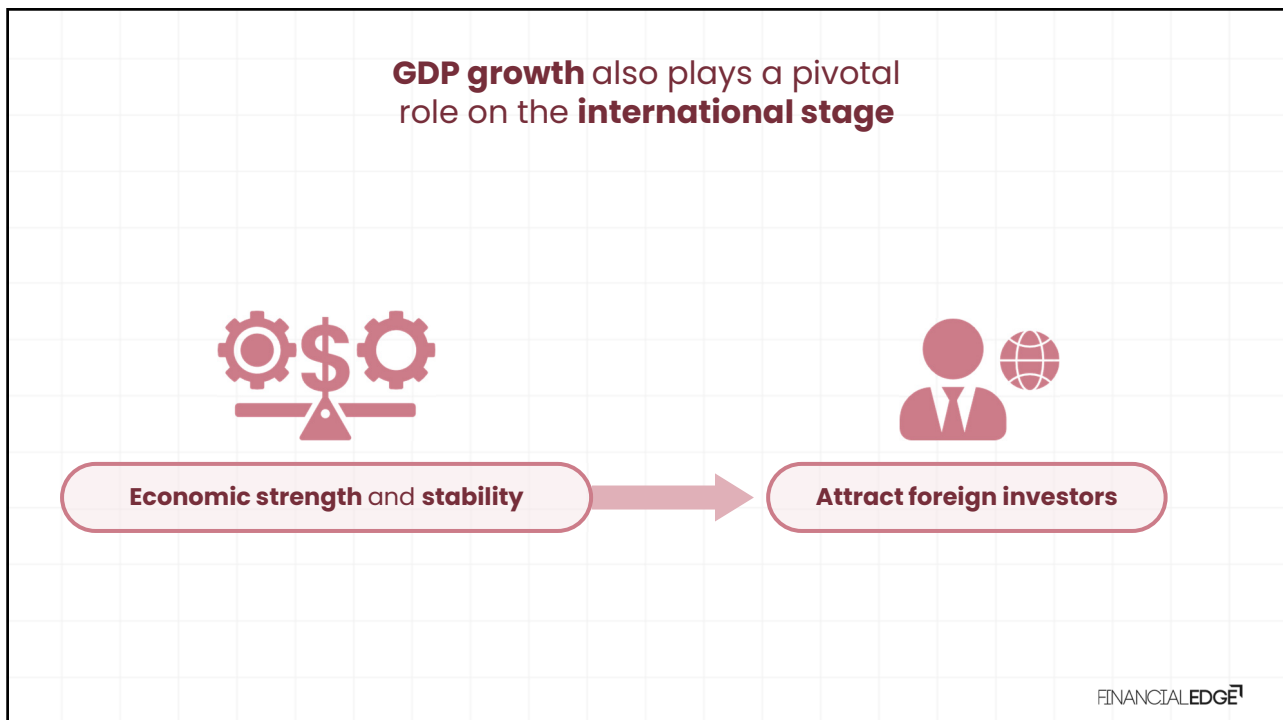
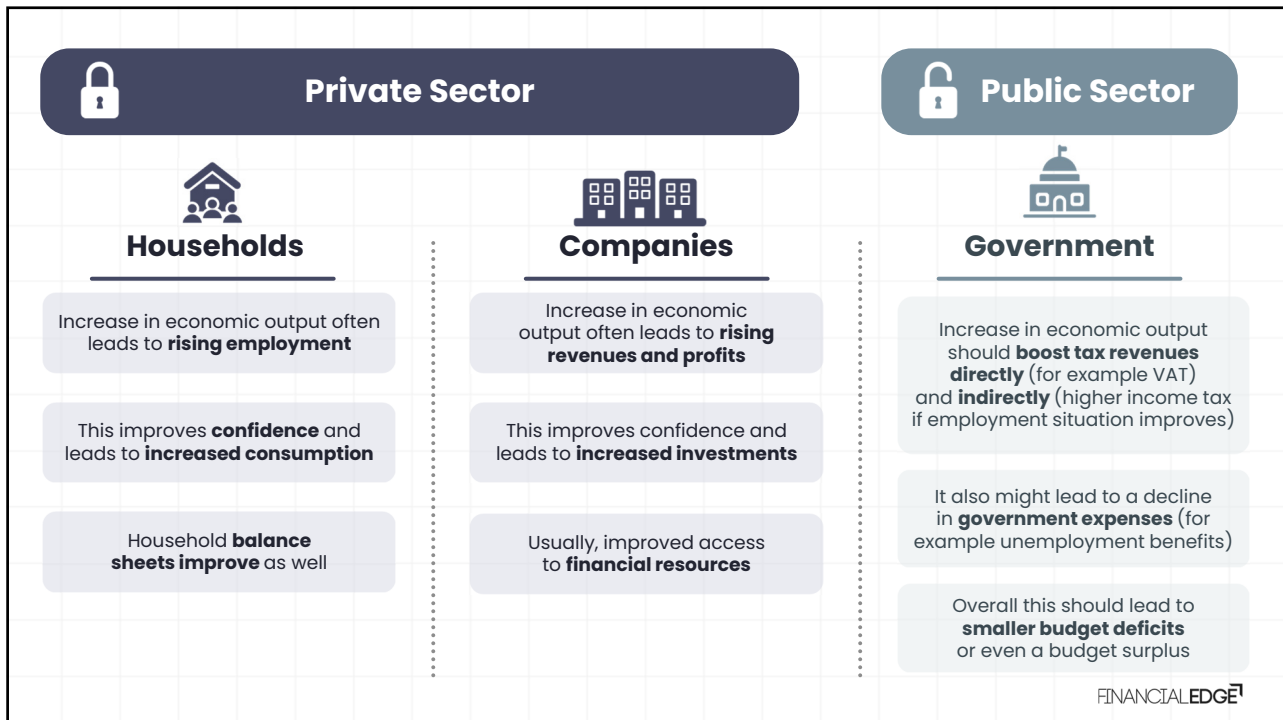
Nominal GDP
suggests growth

Real GDP – different tale
about the **economy's**
actual expansion

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Benefits of Gross Domestic Product (GDP) Growth

FINANCIALEDGE⁷**Private Sector****Public Sector**FINANCIALEDGE⁷



GDP growth also plays a pivotal role on the **international stage**



A **country** with
robust GDP

Trade agreements from a **position of strength**



Influence **global economic policies**



Compete **effectively** in the **international market**

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GDP growth also plays a pivotal role on the **international stage**



A **country** with
robust GDP

Improved **standards of living**



Increased **economic clout**



More significant impact **on global affairs**

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What does the future hold?

Forecast is optimistic

Drive the **economic growth** further



Companies and individuals are more inclined to **spend and invest**

If they can recover their **expenditures**

Replenish their **savings** in the **future**

Expectations start to wane

Brake on economic vitality

Tighten purse strings

Stifle investments

Slow down hiring



Self-fulfilling prophecy of **economic downturn**

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GDP growth are **not always** evenly distributed among a **country's citizens**



GDP growth can result in **increased income inequality**



Wealthier segments of society reap disproportionately **larger benefits**



Inclusive growth strategies that address these disparities



Less wealthy segments reap **smaller benefits**

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