

Economics for Capital Markets



Course Objectives



Know how economics impacts financial markets



Understand Central Banks and their role in the economy



Classify and interpret economic releases



Understand how specific economic news impacts specific markets



Know how market practitioners use this information to trade or invest





Economics for the Real World – Economic Indicators Vs. Economic Releases

Assume: perfect information





Some sort of numerical representation and objective

Example: GDP, inflation, policy rate decision



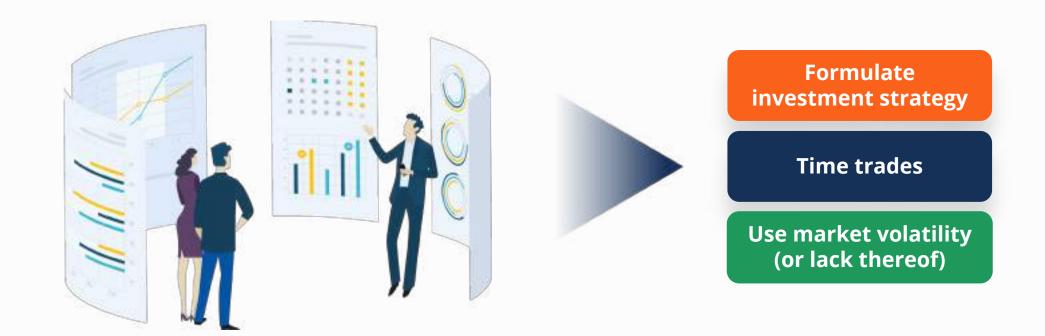
 Tend to be news-based and more subjective

Example: Chair of the Fed or President of the ECB speaking



Economic Events

Traders, investors, speculators need "real-time" information to quickly:



"In the long run, we're all dead" John Maynard Keynes



Economic Events

They aren't always accurate, but in a perfect world with:



The Foreign Exchange (FX) and Fixed Income markets tend to react more directly to economic news than the Equity and Commodity markets.



Types of Economic Events







Official Agencies

Quasi-official Agencies

Private Sources



Things to Consider When Looking at Figures

Indicators measure one of three things:



Volume

Quantity

Example: Barrels of oil



Price

Market price of the object

Example: Price of a barrel of oil



Value

Market value of object

Example: Production of oil over a year

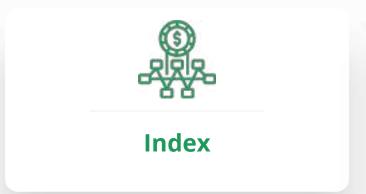
Volume × **Price** = **Value**



Some Other Things to Keep in Mind

Indicators can be:

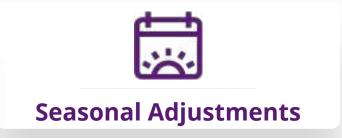






To smooth out the data, many figures use:







Three Broad Classes of Economic Indicators



Leading Indicators

Expectations of what's to come

Any economic factor that changes **before** the rest of the economic begins to go in a particular direction.

Examples: Confidence surveys, housing starts, durable good orders



Coincident Indicators

Indications of what's happening now

An indicator that measures the **current** state of the economy.

Examples: Unemployment figures, earnings, auto sales



Lagging Indicators

Confirmation of what's already happened

Any indicator that only moves **after** some large change in economic policy.

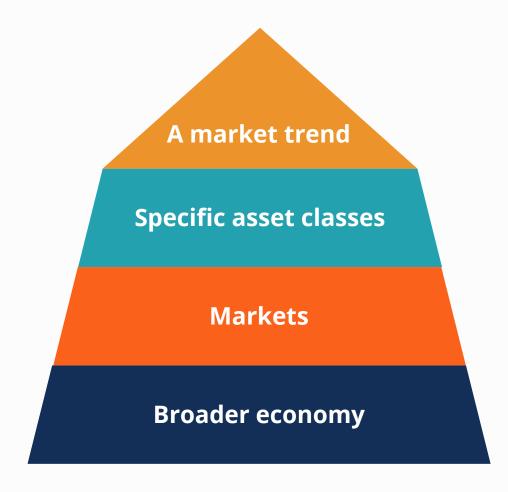
Examples: Gross Domestic Product, Consumer Price Index



Get to Know Your Market Animals

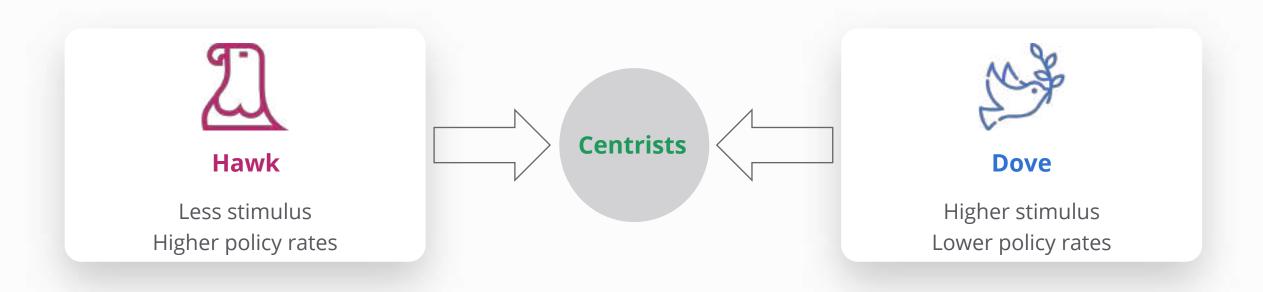








Get to Know Your Market Animals





Removing the Wheat from the Chuff

Top-tier News

Niche News

Some examples of important economic events, not just noise:



Central Bank announcements



Payroll/unemployment reports



GDP releases



Inflation



Retail & wholesale sales



Industrial sector



Consumer/business confidence



Housing





Central Banks - A Quick Refresher

Independent government authority that manages the macroeconomic objectives (growth, employment, inflation, consumption) of a country or group of countries by:



Conducting monetary policy



Coordinating and cooperating with other Central Banks



Regulating the bank sector



Providing research and economic indicators



Acting as "lender of last resort" to the banks



Managing the country's reserves



Some Examples of Central Banks

Abbreviation	Name
FED	The Federal Reserve (US)
ECB	European Central Bank
BoE	The Bank of England
BoJ	The Bank of Japan
PBOC	The People's Bank of China
RBI	Reserve Bank of India
SNB	Swiss National Bank
ВоС	Bank of Canada
RBA	Reserve Bank of Australia
IMF	International Monetary Fund



Foreign Currency Reserves

With countries that have a fixed exchange rate, large natural reserves, and/or large surplus capital accounts, they may accumulate large amounts of foreign currency reserves. They're used for:



Foreign Exchange (FX) Intervention

Help maintain a stable foreign exchange rate in to and out of the domestic currency.



Maintain Liquidity & Confidence

Provide the citizens with confidence in local financial markets and banks.



Fund External Obligations and **Domestic Infrastructure**

Used as an investment vehicle to bolster local economies.



Foreign Currency Reserves

Amongst the most important client groups for global financial institutions to service in fixed income, equities, FX, commodities and alternative investments, like hedge funds. When investing, they look for:



Liquidity

Investing/divesting reserves can lead to markets distortions, so managers look for investment products that have ample liquidity.



Capital Preservation

Since they are public funds, managers look to take very little unnecessary risk.



Capital Gain

Managers have pressure to produce gains that beat their benchmarks, due to award mandates.



Central Banks Vs. Sovereign Wealth Funds

A Sovereign Wealth Fund (SWF) is a state-owned investment fund or entity that is commonly established from foreign currency reserves. SWFs were created to diversify investments in non-traditional assets:











Central Banks

100% government owned.

Have regulatory & monetary policy responsibilities.



SWFs

100% government owned.

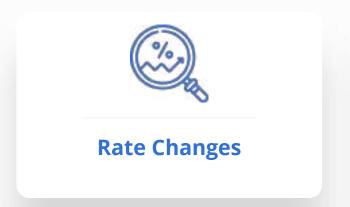
Do not have

regulatory & monetary policy responsibilities.

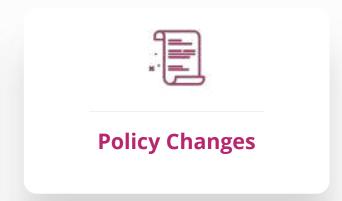


Central Bank Actions

Central Bank decisions determine the economic path of the country, or group of countries, by:







Central Banks provide additional information to the market via:

Testimonies, press conferences, speeches, meeting minutes

Sentiment surveys

Economic research papers



What is Monetary Policy

It is one of the three levers that the government can use to control the macroeconomy, the other two being:



Spending and taxes



Fixed exchange rate regimes

Monetary Policy: The action a Central Bank takes to influence the amount of money in the economy, and how much it costs to borrow.



What is Monetary Policy

Monetary policy generally is administered via three mechanisms:



Policy/Lending Rates

Overnight borrowing rate for financial institutions from the Central Bank.



Open Market Operations (OMO)

Governments buying/selling securities in the markets.



Reserve Requirements

Funds that financial institutions are required to hold at the Central Bank as a percentage of their total deposit liabilities.



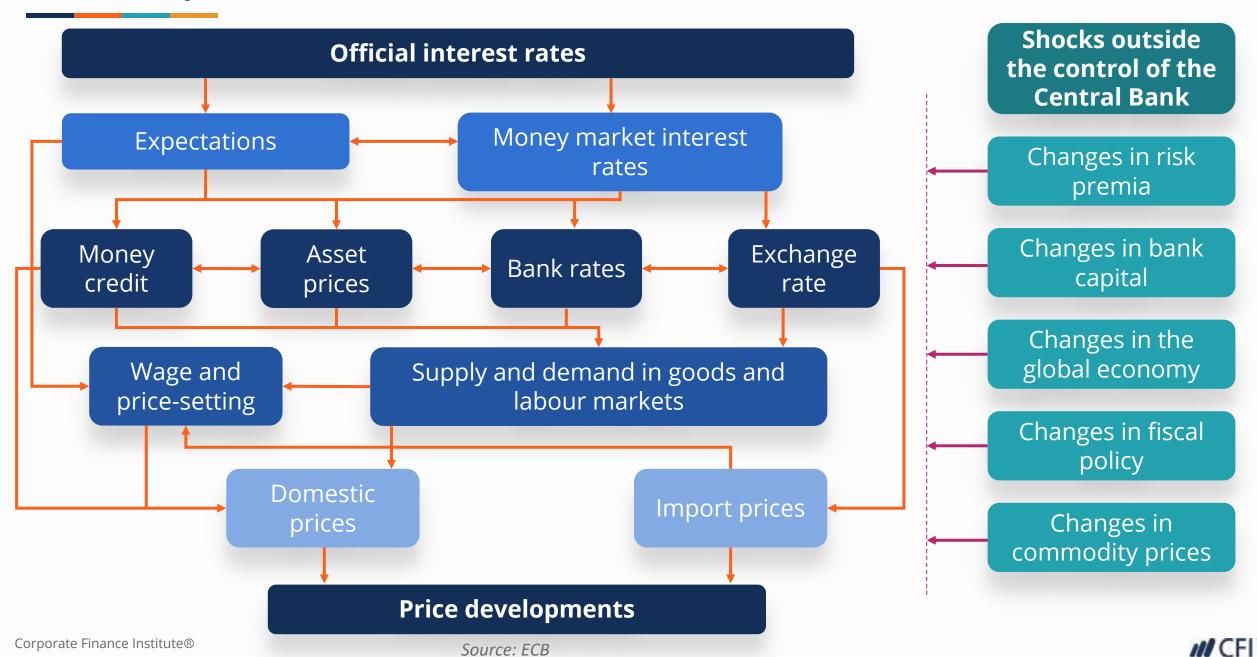
How Policy Rates Affect the Real World

Changes in the federal funds rate trigger a chain of events that affect other short-term interest rates, foreign exchange rates, long-term interest rates, the amount of money and credit, and, ultimately, a range of economic variables, including employment, output, and prices of goods and services. Source: Federal Reserve





How Policy Rates Affect the Real World



How Policy Rates Affect the Real World



Tight Monetary Policy

Slows down growth and inflation.

Higher policy rates.





Loose Monetary Policy

Promotes employment and growth.

Lower policy rates.













- ERM precursor to the EMU and eventually, the Euro.
- It set an upper and lower boundary in which exchange rates could vary for member countries.











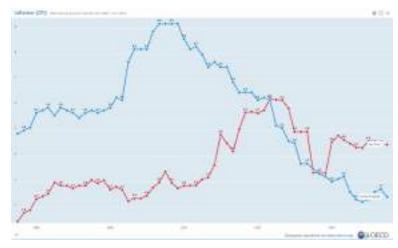


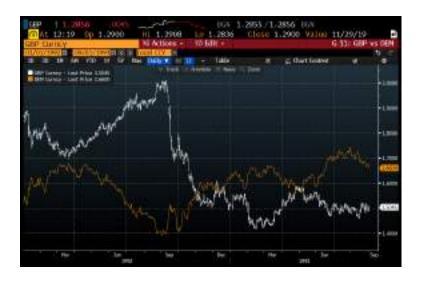
- The UK originally declined to join the ERM when it was first established in 1979.
- Under John Major and Margaret Thatcher, the UK joined the ERM in October 1990 where the GBP was "semi-pegged" to the DM within a range.
- Many viewed the joining as politically motivated.
- Problem: underlying economics of Germany and the UK were very different.



Britain and the ERM



















- Currency traders actively shorted the GBP.
- George Soros, a hedge fund manager, had accumulated \$10BN worth of shorts against the GBP for months under his flagship Quantum Fund by September 1992.













- Even as more speculators piled into the trade, the UK refused to raise interest rates or "depeg".
- Bank of England continued using its foreign currency reserves to defend the GBP.
- By 10:30am on September 16, 1992, the Bank of England announced increases in the base rate from 10% to 15% to try and entice investors to buy GBP.
- By 7pm, the UK had given up and pulled out of the ERM.













- The UK lost £3.3bn Soros made a profit of over £1bn on his shorts.
- UK was thrown into a recession.
- The Conservative Party would go on to lose three consecutive elections.
- Bank of England moved to inflation targeting as its main mandate.
- Marked the beginnings of Euroscepticism in the UK.







The Federal Reserve System





Federal Reserve Board of Governors



12 Federal Reserve Banks



Federal Open Market Committee

Source: The Federal Reserve

Key Functions

Conducting the nation's monetary policy Helping maintain the stability of the financial system Supervising and regulating financial institutions Fostering payment and settlement system safety and efficiency

Promoting consumer protection and community development









All national banks
must subscribe 3% of
their own capital as
stock in their
respective Federal
Reserve Bank.



Regardless of membership, all depository institutions in the US are subject to the Fed's regulations.

Kev Function





The "stock ownership" requirement remains today.



These stocks pay a small dividend out the Reserve Bank's earnings but are very different from normal common stock.



- No voting rights.
- Can't be bought/sold.
- Member banks don't decide on the Directors of the Reserve Banks.
- Members don't have ownership on surpluses.







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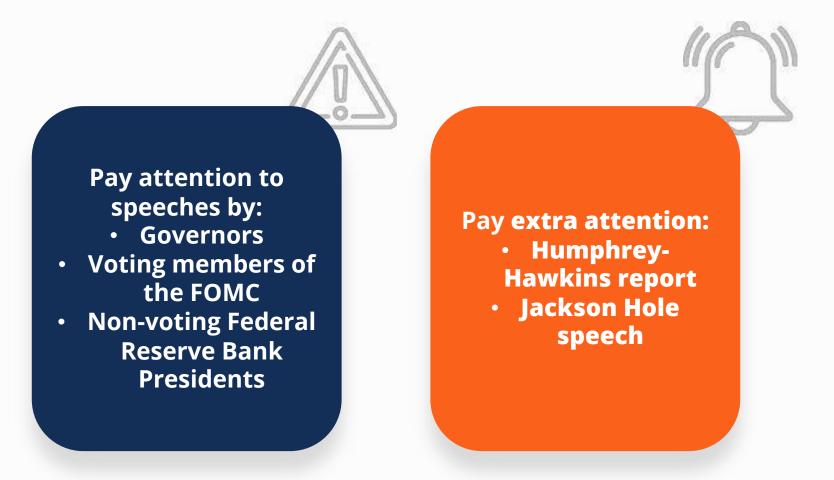
Conducting the nation's monetary policy Helping maintain the stability of the financial system Supervising and regulating financial institutions Fostering payment and settlement system safety and efficiency

Promoting consumer protection and community development



Federal Reserve Board of Governors

The Board is comprised of seven "governors," who are nominated by the President of the United States and confirmed in their positions by the U.S. Senate.





Federal Open Market Committee (FOMC)



FOMC

12 voting members:

7 members of the Board of Governors of the Federal Reserve System

The President of the Federal Reserve Board of New York

4 of the remaining 11 Reserve Bank presidents

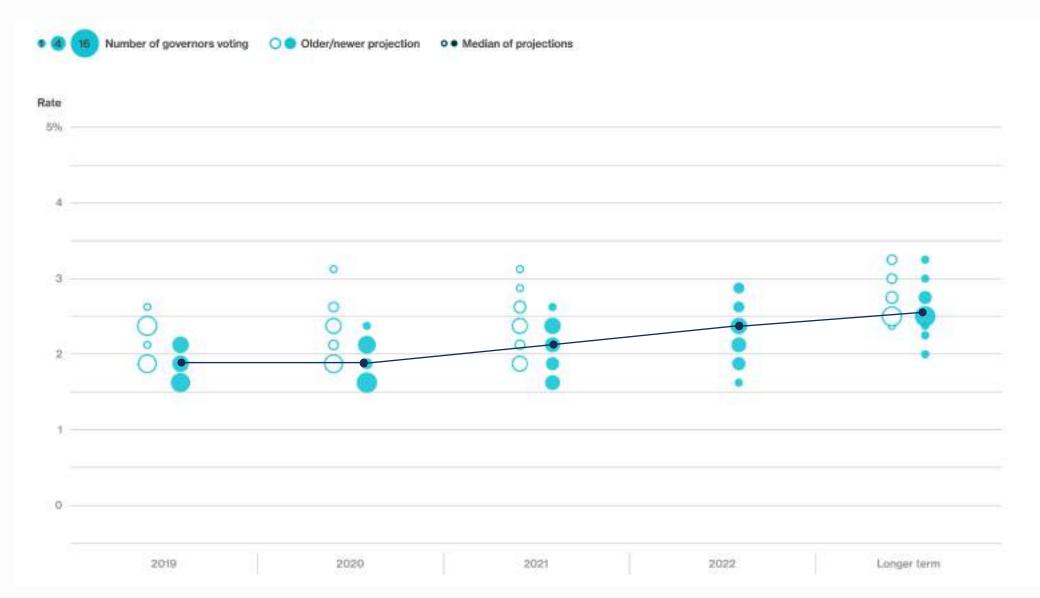
Meets 8 times in a year

Decides the Committee's target for the Fed Funds rate

Voting method: majority rules



Federal Open Market Committee (FOMC)







Target Federal Funds Rate "Fed Funds"

Rate at which banks lend/borrow amongst themselves on an unsecured basis.



Discount Rate

Rate charged by the Fed when lending funds to members to deal with short-term shortages of liquidity on a collateralized basis.



Interest on Required Reserve Balances and Excess Balances (IORR and IOER)

Rate the Fed pays to member institutions for their reserve deposits.





Target Federal Funds Rate "Fed Funds"

Rate at which banks lend/borrow amongst themselves on an unsecured basis.

Money still held at the Fed to maintain reserve requirements.

FOMC sets a range for this rate but the actual rate is calculated from data.



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Discount rate is **higher** than the Fed Funds target rate.

Both primary and secondary credit are for very short terms.



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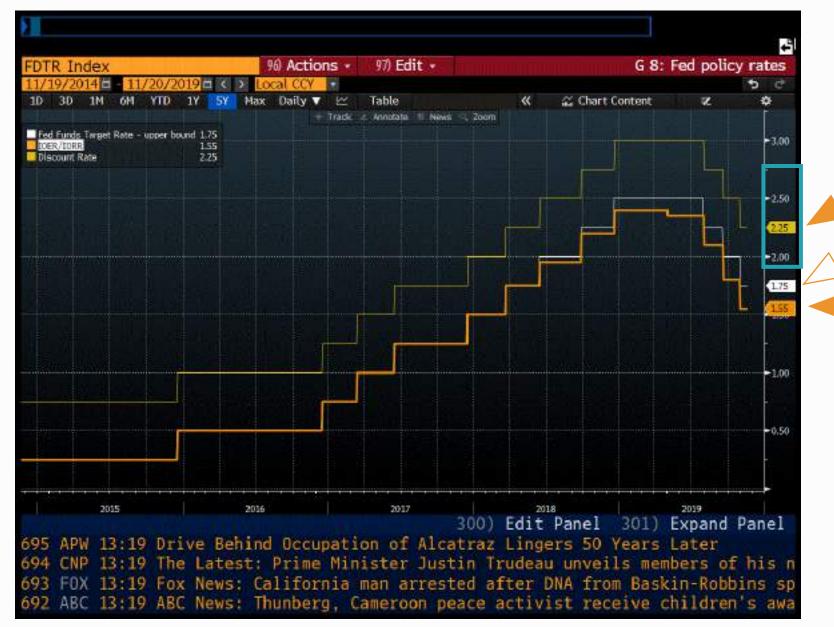
Interest on Required Reserve Balances and Excess Balances (IORR and IOER)

Rate the Fed pays to member institutions for their reserve deposits.

Introduced after the GFC, help stabilize other monetary instruments.

The rates have different functions but are equal.





Ped funds
IORR/IOER



FOMC Statement Tone by the Experts





FOMC Minutes

FOMC minutes come out 3 weeks after the meeting. The minutes are laid out as follows:



Section One

List of attendees



Section Two

Overview of economic and financial conditions



Section Three

The perspectives of meeting participants



Section Four

The policy decision



European Central Bank (ECB)



Eurozone

Austria

Latvia

Belgium

Lithuania

Cyprus

Luxembourg

Estonia

Malta

Finland

Netherlands

France

Portugal

Germany

Slovakia

Greece

Slovenia

Ireland

Spain

Italy



Governing Council

12 voting members:

6 members of the Executive Board

Governors of the Central Banks of the 19 Euro area countries



The Governing Council of the ECB sets three key interest rates:



Rate on the Main Refinancing Operations

Banks can borrow liquidity from the Eurosystem against collateral on a weekly basis, at a pre-determined interest rate.



Rate on the Deposit Facility

Banks make overnight deposits with the Eurosystem at a (pre-set) rate lower than the main refinancing operations rate.



Rate on the Marginal Lending Facility

Overnight credit to banks from the Eurosystem at an interest rate (also pre-set) **above the main refinancing operations rate**.









Bank of England (BoE)

The Central Bank for the UK with an explicit inflation ceiling of 2%.



Monetary Policy Committee (MPC)

9 members:

The Governor

3 Deputy Governors

Chief Economist

4 External Members

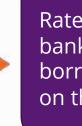
Meets 8 times in a year

Voting method: majority rules, Governor breaks tie when necessary



Bank Rate

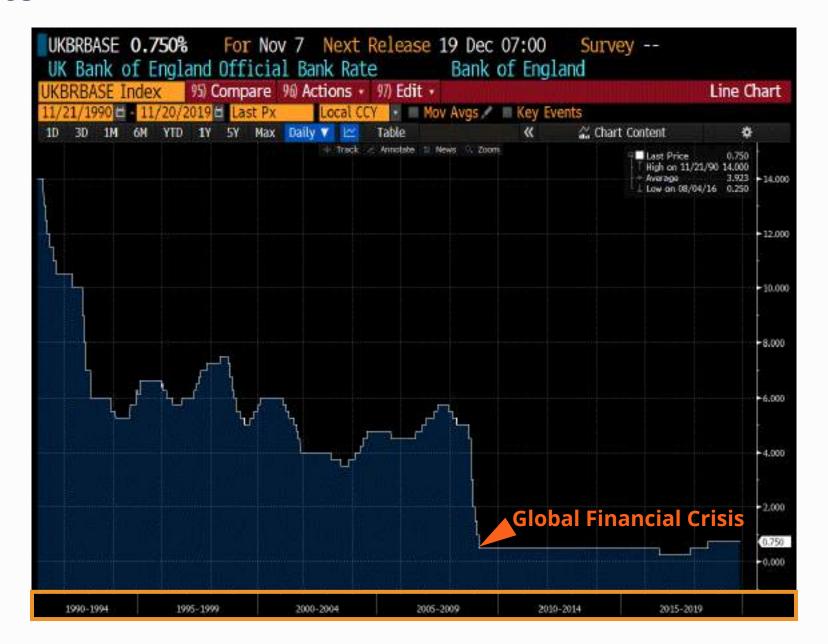
Interest rate charged by the BoE for institutions to borrow money.



Rate charged by the bank to clients to borrow money/pay on their savings.



BoE Bank Rate





Bank of Japan (BoJ)

The Bank of Japan, as the Central Bank of Japan, decides and implements monetary policy with the aim of maintaining price stability (to achieve inflation of 2%). They have been battling with:







Quantitative Easing (QE)







Quantitative Easing

Central banks also can "create money digitally to buy corporate and government bonds – this is known as asset purchase or quantitative easing (QE)".

Source: Bank of England



Yield Curve Control (YCC)



Bank of Japan

QE

QQE

Negative Interest Rates







Bank of Japan Monetary Policy Meetings (MPMs)



Policy Board

9 voting members:

The Governor

2 Deputy Governors

6 other members

Meets 8 times in a year

Voting method: majority rules





Short-term Policy Interest Rate

Rate applied to Policy-Rate Balances in current accounts held by financial institutions at the Bank.



Long-term Interest Rate

The Bank purchases Japanese Government Bonds (JGBs) so that 10-year JGB yields remain at the targeted level.

BoJ is still conducting **Quantitative and Qualitative Monetary Easing (QQE) with Yield Curve Control (YCC)** to achieve the policy goal of 2% inflation.





Economic Indicators



Labor Market (Employment, Unemployment, Productivity)

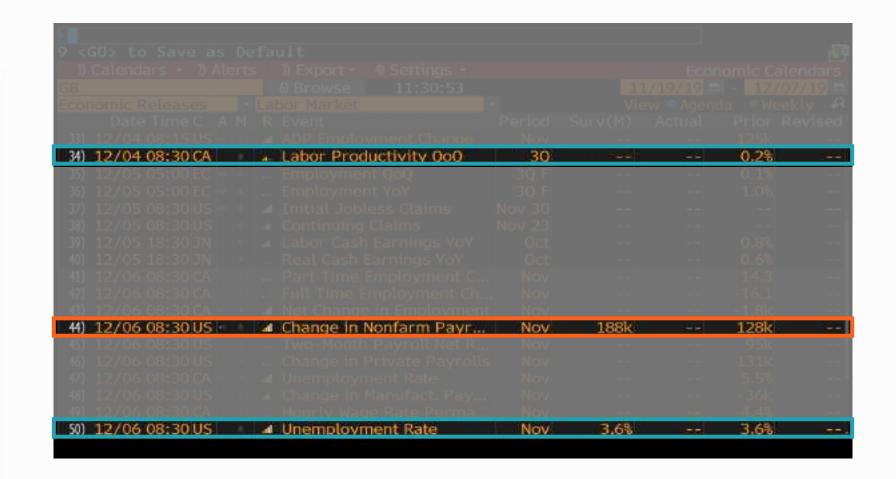


Labor Market

Leading & Coincident

Job growth (and loss) contributes directly to output, consumption and investment.

Central Banks watch this closely as full employment is one of their mandates.





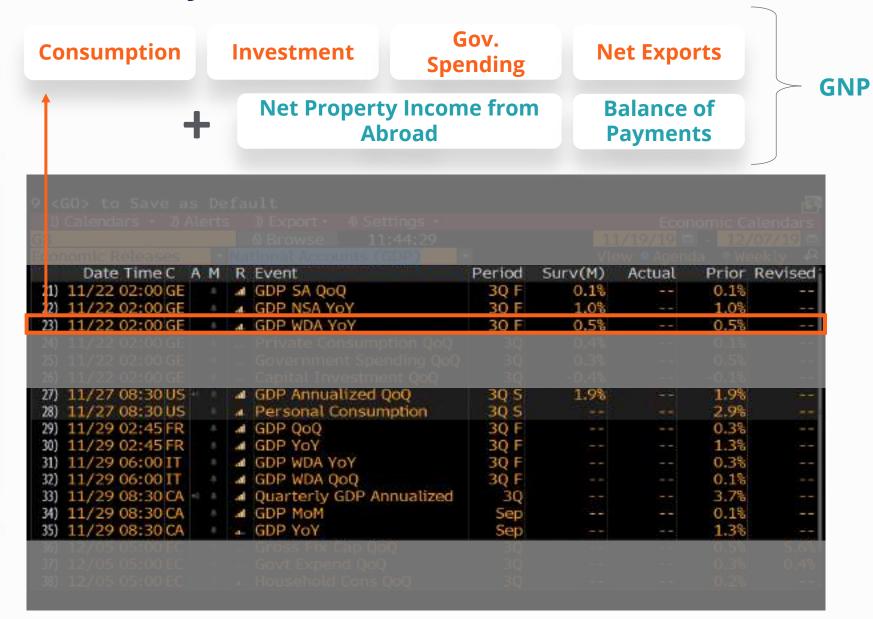
Output (GDP, GNP, Balance of Payments)



Output

Coincident & Lagging

Measures economic activity of a region or nation – used as yardstick to measure economic achievement.





Prices and Wages (Inflation, CPI, PPI)



Prices and Wages

Lagging

Inflation measures the change in prices for goods or services and is one of most closely-watched figures by Central Banks to determine when to tighten/loosen monetary policy.

21) 11/19 08:00 RU		PP	I YoY	Oct	-3.9%	-4.9%	-1.2%	_
22) 11/19 08:00 RU			I MoM	Oct	0.3%	-0.2%	-0.3%	
23) 11/20 02:00 GE			I MoM	Oct	0.0%	0.28	0.1%	
24) 11/20 02:00 GE			TYOY	Oct	-0.4%		-0.1%	
25) 11/20 08:30 CA			I NSA MoM	Oct	0.3%	177	-0.4%	- 1
26) 11/20 08:30 CA			I YoY	Oct	1.9%		1.9%	
27) 11/20 08:30 CA			I Core- Median YoY%	Oct	2.2%		2.2%	
28) 11/20 08:30 CA			I Core- Common YoY%	Oct	1.9%		1.9%	
29) 11/20 08:30 CA			I Core- Trim YoY%	Oct	2.1%		2.1%	
30) 11/21 18:30 JN			tl CPI YoY	Oct	0.3%		0.2%	
31) 11/21 18:30 JN		a Na	tl CPI Ex Fresh Food YoY	Oct	0.4%		0.3%	
32) 11/21 18:30 JN	4		tl CPI Ex Fresh Food, E	Oct	0.6%		0.5%	
33) 11/25 18:50 JN	237	+ PF	I Services YoY	Oct	2.5	-	0.5%	- 6
34) 11/27 08:30 US	8.	.a. GD	P Price Index	3Q S	1.7%	22	1.7%	
35) 11/27 10:00 US		_ PC	E Deflator MoM	Oct	0.3%		0.0%	
36) 11/27 10:00 US		- PC	E Deflator YoY	Oct			1.3%	
37) 11/27 10:00 US		+ PC	E Core Deflator MoM	Oct	0.1%		0.0%	
38) 11/27 10:00 US		a PC	E Core Deflator YoY	Oct	1.7%		1.7%	



Consumption (Retail and Wholesale Sales, Consumer Spending)



Retail and Wholesale Sales

Leading & Coincident

Consumption accounts for most economic activity.

24) 11/25 08:30 CA	Wholesale Trade Sales MoM	Sép	122		-1.2%		
25) 11/26 08:30 US	Retail Inventories MoM	Oct			0.3%	0.29	
26) 11/26 08:30 US	Wholesale Inventories MoM	Oct P			-0.4%		
27) 11/27 18:50 JN	▲ Retail Sales MoM	Oct			7.1%	7.29	
28) 11/27 18:50 JN	Retail Sales YoY	Oct			9.1%	9.29	
29) 11/27-12/03 GE	■ Retail Sales MoM	Oct			0.1%	0.03	
30) 11/27-12/03 GE	Retail Sales NSA YoY	Oct.			3.4%		
31) 12/02 00:00 JN	■ Vehicle Sales YoY	Nov			-26.4%		
32) 12/02 12:00 IT	New Car Registrations YoY	Nov	(print	3.5	6.67%		
33) 12/03 US	 Wards Total Vehicle Sales 	Nov	16.80m	.5.5	16.55m	100	
34) 12/05 04:00 UK	 New Car Registrations YoY 	Nov	744		-6.7%		
35) 12/05 05:00 EC	Retail Sales MoM	Oct.			0.1%		
36) 12/05 05:00 EC	Retail Sales YoY	0ct	66	36	3.1%		
37) 12/05 RU	Light Vehicle Car Sales YoY	Nov		44	-5.2%		
38) 12/06 04:00 IT	Retail Sales MoM	Oct			0.7%		



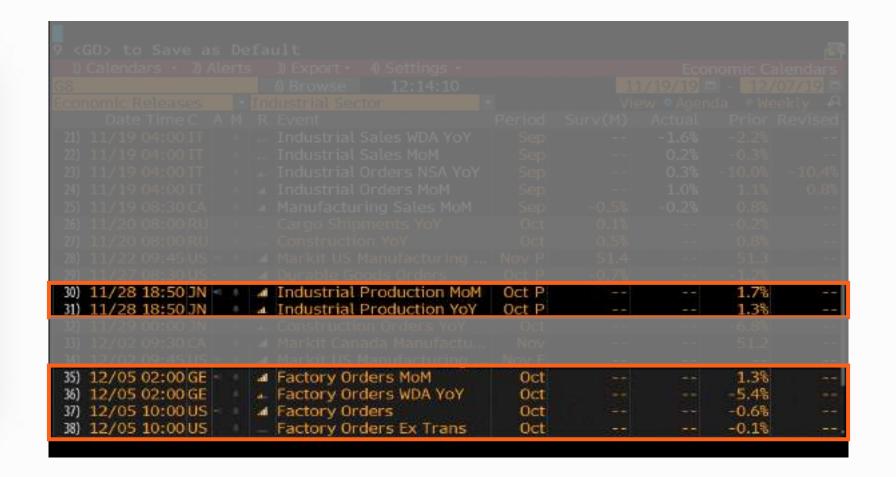
Industrial Sector (Industrial Production, Capacity Utilization, Manufacturing Orders)



Industrial Sector

Leading & Coincident

As industrial orders have a longer lead time, they are a good forecaster of future output.





Purchasing Managers' Index (PMI, ISM)



Purchasing Managers' Index

Leading & Coincident

The PMI is a survey of purchasing managers in service and manufacturing companies about their views on prevailing economic conditions.





Surveys (Consumer/Business Confidence/Sentiment)



Consumer/Business Confidence/Sentiment Surveys

Leading

Consumer and company attitude surveys about the degree of optimism (or pessimism) that reflect into factors such as individual savings or company expenditures.





Housing Sector (Permits/Housing Starts/Prices)



Housing Sector

Leading & Coincident

Measures both new housing starts, existing home sales, and median prices. As housing forms one of the largest portions of an individual's assets, the outlook for this sector is important.

1)	Calendars • 2) Ale	erts	3) Export • 4) Settings •			Eco	nomic C	alendars
38		-1/2	6) Browse 12:17:34	11/19/19 - 12/07/3			/07/19 =	
cor	nomic Releases	* E	lousing and Real Estate		Vie	ew • Ager	da We	eekly 4
	Date Time C A	M	R Event	Period	Surv(M)	Actual	Prior	Revised
21)	11/19 08:30 CA		Teranet/National Bank H	Oct.		-0.1%	0.1%	
22)	11/19 08:30 CA	4	Teranet/National Bank H	Oct.		1.0%	0.7%	
23)	11/19 08:30 US	8 3	Housing Starts	Oct	1320k	1314k	1256k	1266
24)	11/19 08:30 US	A	Building Permits	Oct	1385k	1461k	1387k	1391k
25)	11/19 08:30 US	.0.	Housing Starts MoM	Oct	5.1%	3.8%	-9.4%	-7.98
26)	11/19 08:30 US		Building Permits MoM	Oct	-0.4%	5.0%	-2.7%	-2.49
27)	11/20 07:00 US		 MBA Mortgage Applications 	Nov 15			9.6%	
28)	11/21 10:00 US		 Existing Home Sales 	Oct	5.49m		5.38m	
29)	11/21 10:00 US		 Existing Home Sales MoM 	Oct	2.0%		-2.2%	
30)	11/26 04:30 UK		UK Finance Loans for Ho	Oct			42310	
31)	11/26 09:00 US		 House Price Purchase In 	30			1.0%	
32)	11/26 09:00 US		FHFA House Price Index	Sep	199	1 245	0.2%	
33)	11/26 09:00 US		S&P CoreLogic CS 20-Cit	Sep			-0.16%	
	11/26 09:00 US		S&P CoreLogic CS 20-Cit	Sep			2.03%	-
35)	11/26 09:00 US		S&P CoreLogic CS 20-Cit	Sep			218.14	
36)	11/26 09:00 US		 S&P CoreLogic CS US HPI 	Sep			3.17%	
37)	11/26 09:00 US		S&P CoreLogic CS US HPI	Sep			212.06	
38)	11/26 10:00 US		New Home Sales	Oct	705k		701k	-





Trading Around Economic Releases



How Economic Releases Move Markets

Different Economic Releases impact different markets and in different ways.

Some examples:

Corporate Finance Institute®



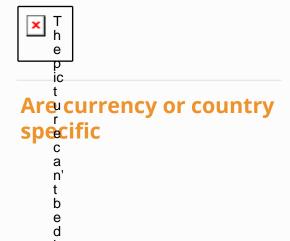
Affect markets generally



Affect specific asset classes more than others



Affect different duration products





Affect specific companies more than broader markets



How Do We Get These Forecasts

"An Economist is an expert who will know tomorrow why the things he predicted yesterday didn't happen today" Laurence J. Peter



Economists

Banks hire teams of economists to build models to come up with their predictions (forecasts).



Research Firms

Research firms provide figures to their paid subscribers.



Clients/Market-makers

Clients/market-makers have their own models and sources for information.



How Do We Get These Forecasts





Rough Guide to How Markets Should React

		Stronger/La Expected	rger than	Weaker/Lower than Expected		
		Business Conditions	Inflation	Business Conditions	Inflation	
Fixed Income	Rates	Down	Down	Up	Up	
(Prices)	Credit	Up	Down	Down	Up	
Equity (Prices)		Up	Down	Down	Up	
Foreign Exchange		Up	Up	Down	Down	
Commodities		Up	Up	Down	Down	



How the Market Reacts (in the Real World)



Releases may be overshadowed by other more important information or micro data.



Can also be less impactful due to market conditions.



How Market Practitioners Trade Releases



Sell-Side

Companies that sell financial instruments to the "buy-side".



Buy-Side

Institutions that directly invests in the financial instruments offered by the "sell-side".



Market-makers

Entities that provide bids and offers to the market and look to profit from that spread.



Prop Desks

Individuals that trade financial instruments with company funds (not depositor funds) whose main goal is to generate profit for the firm.



How Market Practitioners Trade Releases



Cash

Buy/sell physical assets using cash.



Futures

Allow for counterparties to offload risks via a central exchange.



Forwards

Market participants do have to take on counterparty risk for the duration of the contract since forwards don't trade on exchanges.



Other Derivatives

More counterparty risk to be taken on by market participants as the counterparty to the option must still be around to collect profits.

Direction Outright

Hedged (Cap/Floor)

Volatility





Conclusion

