IronFX™
SOLID TRADING

Fundamental Analysis
eBook

What is Fundamental Analysis?

FUNDAMENTAL ANALYSIS is the study of the economic and political forces that determine currency exchange rates. An exchange rate is the price of one currency in terms of another currency. Like any other price, it's set by supply and demand. By forecasting how these forces will change and develop over the medium term, we hope to forecast how exchange rates will move.

Supply & Demand

Typically, more demand for a good or service causes its price to increase. Less demand causes the price to decline. Greater supply for something usually leads to a lower price. Less supply leads to a higher price.

EXAMPLE 1: **Imagine we all want the new BMW model, but it's a limited edition. Only 500 have been made globally.**

- Is the price of that car likely to be high or low?

- The price of that car is likely to be very high, because lots of people will be chasing after a limited amount of cars.

- But what happens to the price if BMW suddenly announces they will produce another 50,000 of the specific model?

- Its price will probably decline, as more cars are available to people.

EXAMPLE 2: **A farmer in a small village produces potatoes. He is the only one producing potatoes there and the village is relatively isolated from civilization. In 2016, the weather was excellent. He managed to produce 1000kg, more than enough to feed the whole village. He sold every kilo of potatoes for 1 euro in that year. However, in 2017 the weather was rather bad.He only produced 200kg.**

- What is likely to happen to the price of every kilo?

- Prices will probably go up. Everyone will want potatoes to eat, but there may not be enough of them to go around. So each person would be willing to pay a higher price for potatoes.

Supply & Demand

EXAMPLE 3: Apple has just released its brand new iPhone 7.

What will probably happen to the price of the iPhone 6?

- Most likely, it will go down.

- Is that price change going to be due to supply or demand factors?

- Demand factors. Apple's cost of making an iPhone 6 did not change dramatically overnight. But the fact that people now want the iPhone 7 suggests there is less demand for the previous version.

Factors that affect exchange rates

GROWTH RATES

- Countries that grow faster are often good places to invest.
  - More opportunities for expansion
  - Rising incomes create demand
- Overseas companies want to set up operations in these countries.
- Buying companies, building factories, setting up stores.
- Foreign investors want to buy stocks of companies operating in these countries.
- These factors (normally) boost demand for the currency and cause it to appreciate.

TRADE BALANCE

Trade balance = Exports – Imports.

It is the amount a country receives for the export of goods and services minus the amount it pays for its import of goods and services.

Broadly speaking, countries that run persistent trade surpluses tend to have strong currencies.

Conversely, nations with consistent trade deficits tend to have weaker currencies.

Why? If Japan exports more goods to the US, than the US exports to Japan, then the demand for Japanese yens from the US increases, and therefore the yen may strengthen against the dollar (USD/JPY down).

Factors that affect exchange rates

NATURAL RESOURCES

Countries with natural resources earn foreign exchange by exporting them.

When the price of the natural resource that they export goes up, the value of their exports goes up and their currency may appreciate.

When the price of the resource they export goes down, the currency depreciates.

EXAMPLES: Canadian dollar & oil, Australian dollar & iron ore, New Zealand dollar & dairy products.

Monetary & Fiscal Policies

Besides all the aforementioned factors, changes in a nation's monetary and fiscal policies can have a significant impact on the economy and thereby, exchange rates.

✔ MONETARY POLICY

Actions taken by a country's monetary authority (usually central bank).

✔ FISCAL POLICY

Actions taken by a country's government to affect the economy (usually to improve unemployment rates and boost economic growth).

CENTRAL BANKS AND INFLATION

Central banks control short-term interest rates in order to support the economy and particularly to control inflation.

What is inflation, and why is it important? To understand why it's so important, it's useful to examine its extreme forms, very high inflation (hyperinflation) or negative inflation (deflation).

WHAT IS INFLATION?

INFLATION is the rate at which the general level of prices for goods and services is rising.

It is typically measured as an annual percentage change, e.g. 5%yoy (year over year).

Another way to think of it is as a measurement of the loss in the purchasing power of every unit of currency per year.

For example, if inflation is 5% annually, then theoretically a pen that costs 1 euro in 2017 will cost 1.05 euros in 2018. That means that your one euro will buy you less things in 2018 compared to 2017.

This is why you may have heard your parents or grandparents say: things were so much cheaper in our time!

It's true, things were a lot cheaper. That pen may have only cost 5 cents in 1950 for example. However, salaries were much lower as well.

COSTS OF HIGH INFLATION

Inflation affects different groups of people in vastly different ways.

In general, high inflation hurts savers. If you have 100,000 euros in the bank and inflation unexpectedly spikes to 10%, your money now buys roughly 10% fewer things. But it helps borrowers.

Imagine you just got a loan of 100,000 euros to buy a house worth as much. If next year inflation spikes to 10%, the same house will be worth 110,000, but you will still have to pay only 100,000.

The biggest threat to the economy, however, may be when inflation moves sharply and unpredictably from year to year, for example 1% in 2017 and then 10% in 2018. The uncertainty over what happens next makes consumers less likely to spend as their real income may fall, corporations more hesitant to invest, and so on.

Monetary & Fiscal Policies

HYPERINFLATION

This brings us to hyperinflation, i.e. prices rising so rapidly that money becomes practically worthless.

One of the worst instances of hyperinflation was recorded in Zimbabwe. In 2008 inflation was estimated at 231,000,000% yoy. That means that a loaf of bread that cost 1 Zimbabwean dollar in 2007 was worth 231 million just one year later.

Imagine trying to plan your personal expenses, business investment, or savings, in such an environment.

INTEREST RATES

As a result, central banks tend to focus on controlling inflation. Most central banks have a mandate, which is usually to keep inflation low and steady (close to 2% per year).

SCENARIO 1

When inflation falls below the 2% target, CB's usually lower interest rates in order to boost inflation.

SCENARIO 2

When inflation is above 2%, CB's tend to raise rates in order to bring inflation backdown.
Why?

DEFLATION & UNDESIRABLE OUTCOMES

The opposite to inflation is called deflation.

DEFLATION

A decrease in average prices.

If prices are falling constantly, people have an incentive to wait before they buy things. Why buy the car you want today, when you can buy it next year for 1% less? But if everyone thinks like that, demand in the economy collapses and we enter a recession (companies close down, people lose jobs, etc).

INTEREST RATES & INFLATION

It's all related to demand.

IN SCENARIO 1 (inflation below target) The central bank lowers rates to stimulate borrowing. Higher borrowing means more economic activity, which usually leads to higher demand and thus, higher prices overall.

Lower rates > higher borrowing > increase in economic activity > higher demand > higher prices

IN SCENARIO 2 (inflation above target) The central bank raises rates to curb high inflation.

Higher rates > lower borrowing > slowdown in economic activity > lower demand > slowing prices

INTEREST RATES & EXCHANGE RATES

Raising interest rates usually causes a currency to strengthen.

Reducing rates usually leads to a weakening of the currency.

You can think of these reactions in the context of how much you get to save your money at the bank.

If Australia suddenly raises interest rates, it becomes a more attractive place for international investors to save their money in. But to save your money in Australia, you have to exchange your local currency (EUR) for Australian dollars (AUD). This leads to more demand for the AUD and thus, the currency strengthens.

Conversely, if Australia cuts rates, it becomes less attractive. This leads to less demand for AUD and thus, the currency weakens.

WHY SOME CENTRAL BANKS LOOK AT EXCHANGE RATES

How strong or weak a currency is, has implications for inflation.

As such, central banks tend to pay attention to the exchange rate.

A weaker currency means that your exports become more competitive abroad (they are cheaper for foreigners). It also means that imports to your country become more expensive (higher prices = higher inflation). Thus, if you are a central bank trying to raise inflation from, say 1% to your 2% target, a weaker currency can help you.

On the other hand, a stronger currency brings the price of imports down, which may hold overall inflation in your economy down as well.

Monetary & Fiscal Policies

INTERVENTION

In some extreme cases, the central bank has to step in to the market in order to balance the supply & demand for its currency.

In case the currency is weaker than desired, it will buy its own currency = sell its foreign reserves

There's a limit to how much they can sell, because eventually they run out of reserves.

If the currency is stronger than desired, they just print money and use it to buy foreign currencies.

Examples: People's Bank of China, Swiss National Bank

Fiscal policy

Fiscal policy is the means by which a government adjusts its spending levels and tax rates to influence a nation's economy.

They spend money and/or cut taxes when the economy slows. They cut back their spending and increase taxes when growth gets back to normal. Government borrowing, tax and spending plans affect growth and interest rates and thereby affect the exchange rate.

It can also affect the country's credit rating and thereby its attractiveness as an investment destination.

	EXPANSIONARY MONETARY POLICY	RESTRICTIVE MONETARY POLICY
EXPANSIONARY FISCAL POLICY	Ambiguous	Domestic Currency Appreciates
RESTRICTIVE FISCAL POLICY	Domestic Currency Depreciates	Ambiguous

Expectations Theory

Expectations of future changes in central bank policy are one of the main factors moving the currency market. Assume that you have $100000 you want to save. In Australia, the interest rate on deposits is 2%, while in Eurozone its 0.5%. Where do you save your money? In Australia obviously. But if you expect that interest rates in Australia will be cut to 0% by the end of the year, Eurozone suddenly seems attractive.

EXAMPLE 1:

-If investors are convinced that Australia will cut interest rates, will they wait until after the cut happens in order to move their money out?

- Probably not.

If they are convinced it will happen, they are likely to move their money out beforehand and avoid any losses. That would likely result in the Australian dollar weakening, without anything having happened yet (hence expectations matter!).

EXPECTATIONS THEORY AND STOCKS

EXAMPLE 2:

You own a Netflix stock, which is currently worth $140. But you think that the company could go bankrupt next month. Do you wait until it closes down, or do you get rid of your stock right now?

(Hint: your stock could be worthless by next month).

So you sell your stock now.

But if enough people think like this and sell their Netflix stocks at the same time, the price of the stock collapses and the company probably closes down even faster (self-fulfilling prophecy).

Expectations Theory

EXPECTATIONS THEORY AND ECONOMIC DATA

EXAMPLE 3:

Eurozone's GDP growth for Q4 is due to be released. In Q3, growth was +0.5%. The Q4 forecast is for an acceleration to +0.7%.

- What should happen to EUR/USD if growth comes +0.9%?

- The pair will probably move higher, as investors adjust their expectations and price-in the fact that the Eurozone grew by more than they expected.

- What should happen to EUR/USD if it comes +0.4%?

- It could decline, as investors realize the economy did not perform as well as they expected.

- What should happen to EUR/USD if it comes +0.5%?

- Again, it's likely to fall. Even though the bloc grew at the same pace as previously, the market expected more.

- What should happen to EUR/USD if it comes +0.7%?

- In theory, nothing much. This is what was already anticipated, so it's unlikely to be a shocker.

EXPECTATIONS THEORY AND EXCHANGE RATES

Generally speaking, sharp moves in forex markets occur on big surprises (Brexit, Trump's election, etc).

If everyone expects something to happen, they position before the event (i.e. move your money out of Australia before a cut). Thus, if the event actually plays out as expected, very little may happen during and afterwards, in terms of market action.

But if very few expect something to happen, and it does, we usually see sharp moves in the following minutes/hours/days, as investors reevaluate their views and reposition accordingly.

Indicators to watch

OUTPUT & GROWTH

GROSS DOMESTIC PRODUCT (GDP)

Market value of all final goods and services produced within a country in a given period of time.

PURCHASING MANAGERS' INDICES (PMIS)

An economic indicator that surveys purchasing managers at businesses of a given sector (eg. Manufacturing). Investors use the PMI surveys as leading indicators of economic health, as these surveys are usually released ahead of official data.

INDUSTRIAL PRODUCTION

Industrial production is a measure of output of the industrial sector of the economy. The industrial sector includes manufacturing, mining, and utilities.

DURABLE GOODS ORDERS

Durable goods orders reflect the new orders placed with domestic manufacturers for immediate and future delivery of factory hard goods.

Indicators to watch

INFLATION

CONSUMER PRICE INDEX (CPI)

A measure of the average change over time in the prices paid by consumers for a basket of consumer goods and services. The annual rate of change in the CPI is usually referred to as “the inflation rate”.

CORE CPI

Same as the CPI, but it excludes energy and fresh foods. Because food and energy prices are relatively volatile, they can distort CPI readings. Thus, some people want to focus on what they perceive to be the “core”, or "underlying" rate of inflation.

HARMONIZED INDEX OF CONSUMER PRICES (HICP) (EUROZONE)

In the euro area, consumer price inflation is measured by the HICP. The term “harmonised” denotes the fact that all the countries in the European Union follow the same methodology.

CORE PERSONAL CONSUMPTION EXPENDITURE (CORE PCE) (US)

The core PCE price index measures the prices paid by consumers for goods and services without the volatility caused by movements in food and energy prices to reveal underlying inflation trends.

PRODUCER PRICE INDEX (PPI)

Measures the average change over time in the selling prices received by domestic producers of goods and services. PPIs measure price change from the perspective of the seller, as opposed to the CPI, which measures price changes from the consumer’s point of view.

EMPLOYMENT

UNEMPLOYMENT RATE

Possibly the most widely known labour market indicator, it measures the number of unemployed people as a percentage of the labour force.

NON-FARM PAYROLLS (US)

Key indicator (because of the Fed’s dual mandate to control both inflation and employment). It measures the change in the number of people employed during the surveyed month, excluding the farming industry. It’s released on the first Friday of every month and it is very closely watched by investors as well as policymakers.

Indicators to watch

ADP EMPLOYMENT REPORT (US)

A private-sector measure of the monthly change in non-farm, private employment. It's usually released two days ahead of the official employment data, and is considered a gauge of the NFP number. Even though the correlation between the two has fallen recently, it is still considered a decent tracker of the NFP.

JOBLESS CLAIMS = INITIAL AND CONTINUING (US)

The number of people who are filing or have filed to receive unemployment insurance benefits in the previous week. There are two categories of jobless claims - initial, which comprises people filing for the first time, and continuing, which consists of people who have been receiving unemployment benefits for a while.

CONSUPTION | CONFIDENCE

RETAIL SALES

Purchases of finished goods and services by consumers and businesses. By measuring consumer demand for finished goods, retail sales help gauge the pulse of an economy.

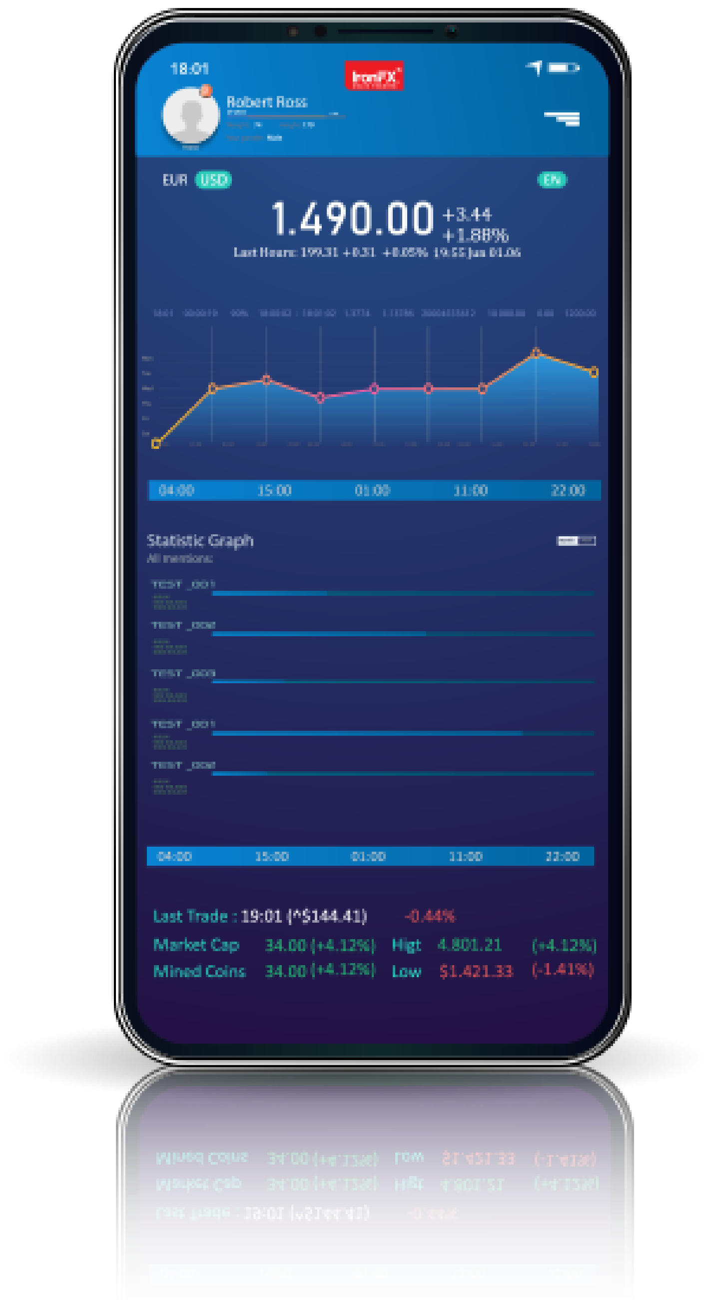
CONSUMER CONFIDENCE INDICES

Surveys used to measure the degree of optimism of consumers on the state of the economy.

Indicators to watch

OTHER INDICATORS TO WATCH

- Communications from central banks
- Statements following their meetings
- Minutes of their meetings = A detailed account of a policy meeting. The minutes offer insights into the different views among central bank policymakers, which may not be reflected in the statement. They are closely watched for clues regarding the outcome of future rate decisions.
- Speeches by their members
- Speeches by other policymakers (besides central bankers), such as finance ministers, e.t.c.
- Gold and oil price movements
- Release of earning reports
- Political factors
- Stock prices



Useful definitions & currency nicknames

HAWK | A central bank official who is worried about high inflation and thus, favours higher interest rates.

DOVE | A central bank official who is worried about low growth and thus, favours lower interest rates.

BEAR MARKET | A bear market is one which is distinguished by declining values. It's named after the movement a bear makes when it strikes with its claws.

BULL MARKET | A bull market is one which is distinguished by ascending values. It's named after the movement a bull makes when it strikes with its horns.

HAVEN | An asset investors turn to during times of market turbulence, also known as a safe haven (JPY, gold, bonds).

QUANTITATIVE EASING | An unconventional monetary policy used by central banks to increase the money supply by purchasing assets when interest rates are already at low levels and can't be cut further.

COMMON CURRENCY NICKNAMES

- ✔ US dollar = Greenback
- ✔ Euro = Common currency
- ✔ British pound = Sterling
- ✔ Canadian dollar = Loonie
- ✔ Australian dollar= Aussie
- ✔ New Zealand dollar = Kiwi

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