



5-Step-Trading® FX

online course

WORKBOOK

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5-STEP-TRADING® FX WORKBOOK

Introduction

This workbook is not designed as a book in itself but is intended to accompany the five modules of the online 5-Step-Trading® FX course.

In this course we will use my trademarked 5-Step method to teach you everything you need to know about trading currencies. When you buy a currency you back a country and its economy and when you sell a currency you are doing the opposite. Clearly it is essential to try and understand what it is that makes countries and economies successful.

1. The first Step is idea generation. The main goal here is to find good trading ideas. To be able to do this we look at the history of money and the workings of the FX market and its participants. Understanding the rules of the game and its players is the key to making money.
2. In the second Step we will look at investigating trading ideas from a fundamental perspective. Does the idea still make sense when you look at the economic reality? Or is it an idea that is not supported by the actual economic data?
3. In Step 3 we will look at FX price charts. The main reasons for doing this are to get the timing of your trade right and to set a reasonable level to exit your trade in case you are wrong.
4. Step 4 will focus on trading psychology and gaining a deeper understanding of yourself as well as broader market psychology. Some people say that trading is all in the mind. This is not too far from the truth and that is why you need to ensure you are mentally ready to trade.
5. Finally, in Step 5 we will look at how to build a portfolio of different currency positions. This includes diversification and controlling the risks within your portfolio so that when things go wrong, you don't lose too much money, and live to trade another day.

Please check the academy on www.lexvandam.com and follow me on Twitter @lexvandam, where you can see some of my latest thoughts and ideas.

Let me give you the usual disclaimer. This course is in no way a recommendation for you to start or continue trading currencies or to follow my methods. Most people who trade FX will lose all their money very quickly, so if you can't afford to do that please do not start trading. In this course I will be using quite a few case studies: please don't use them as investment advice. Be aware that the data I use will be out of date by the time you see it; it is used for illustrative purposes only, and will not be a reliable basis for your decisions. This course is purely educational, and of course I cannot be held responsible for your trading results.

WORKBOOK EXERCISE: *Briefly explain the five steps of 5-Step-Trading® FX that will be discussed in this course.*

Step 1:

Step 2:

Step 3:

Step 4:

Step 5:

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Step 1: Idea Generation

In this section:

FX opening hours and turnover
A quick history of money
Main market participants & the interbank market
Price quotation
Terminology
Pips

Idea generation: Chinese growth and the Australian dollar
Idea generation: The Indian rupee
Idea generation: Oil & the Norwegian krone
Idea generation: Quantitative easing & gold
Idea generation: Flight to safety
Idea generation: The carry trade
Idea generation: The law of one price & the Big Mac index

FX opening hours and turnover

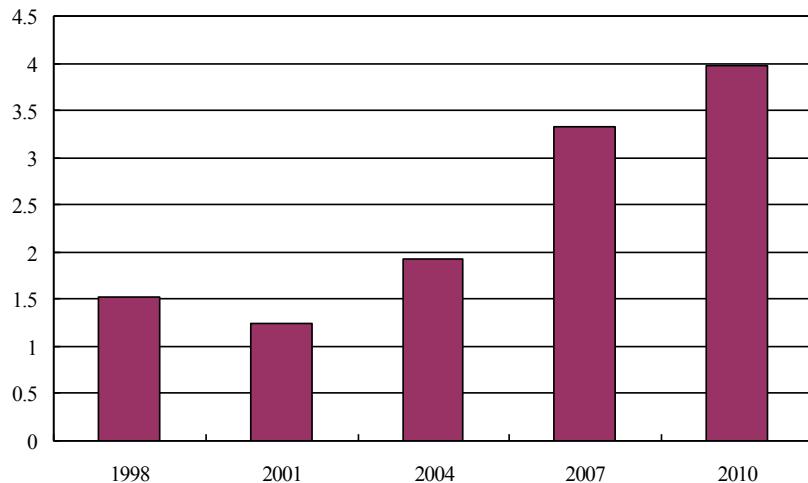
- The FX market opens from 10:00 pm GMT (5:00 pm EST) Sunday night to 10:00 pm GMT (5:00pm EST Friday night).

GMT time	Wellington	Sydney	Tokyo	Hong Kong	Frankfurt	London	New York
Open	10:00 pm	10:00 am	Midnight	1:00 am	7:00 am	8:00 am	1:00 pm
Close	6:00 am	7:00 am	9:00 am	10:00 am	4:00 pm	5:00 pm	10:00 pm

EST time	Wellington	Sydney	Tokyo	Hong Kong	Frankfurt	London	New York
Open	5:00 pm	5:00 pm	7:00 pm	8:00 pm	2:00 am	3:00 am	8:00 am
Close	1:00 am	2:00 am	4:00 am	5:00 am	11:00 am	12:00 noon	5:00 pm

- The Bank for International Settlements (BIS) releases a triennial study on the FX market which can reveal interesting information. The report released in 2010 showed a turnover of almost 4 trillion dollars in the FX market.

Daily FX turnover in trillions of US dollars



FX opening hours and turnover

WORKBOOK EXERCISE: Find out your country's annual GDP and compare this to the US\$4 trillion traded on a daily basis in the FX market.

WORKBOOK EXERCISE: Go to the following website (<http://www.bis.org/publ/rpfxf10t.htm>) and look at the published reports. Find out which city has the most FX traded and what explains the growth in daily turnover from 2007 to 2010 despite the financial crisis.

WORKBOOK QUESTION: Why do you think the FX market is open 24 hours a day during the week?

A quick history of money

- A currency is a system of money that serves as a medium of payment and is generally accepted by everyone.
- Before bank notes were used, people used precious metal coins as money.
- These coins carried value in themselves because of the scarcity of these precious metals.
- The first bank notes were backed by gold and the amount of money in the system could only grow at the same rate as the amount of gold.



- Today's notes are no longer exchangeable to gold partially because governments abused the printing machines especially during economic depressions and wars.
- The money we use now, instead of being backed by gold, is backed by our faith that other people will accept it. To ensure this, governments have made their currencies legal tender meaning that it is unlawful not to accept it as payment.

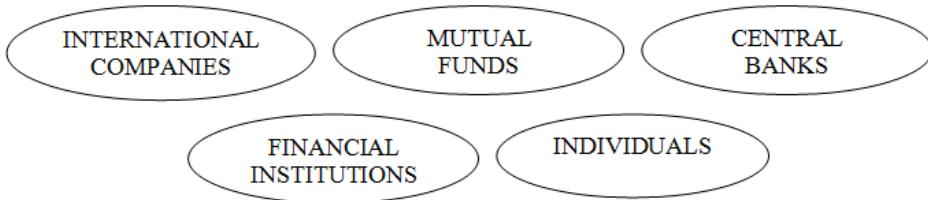
A quick history of money

WORKBOOK QUESTION: When money was backed by gold, did governments print additional money without having new inflows of gold?

WORKBOOK QUESTION: Given the possibility to exchange money for gold: what are people likely to do when they suspect that there is not enough gold to justify the amount of money in circulation?

WORKBOOK QUESTION: What was Bretton Woods? Which currency was pegged to gold? Why did it fail?

Main market participants & the interbank market



- **International companies** trade goods and services across borders and in different currencies. They use the FX market to protect themselves against adverse movements in exchange rates. This is called hedging.
- **Mutual funds** are active in the FX market when buying foreign equities. If a US based company wants to invest in a company that is listed in Sweden, it will need Swedish kronor.
- **Central banks** have official and sometimes unofficial economic targets which affect the FX markets.
- **Financial institutions** use the FX markets on behalf of their clients or on their own behalf.
- **Individuals** use the FX market whilst on holiday but also to try and profit from changes in the value of different currencies. This is called speculation.

Main market participants & the interbank market

WORKBOOK QUESTION: *What does the term “proprietary trading” refer to?*

WORKBOOK QUESTION: *What is the interbank market?*

WORKBOOK QUESTION: *How can individuals trade FX?*

WORKBOOK QUESTION: *How do FX brokers make their profits?*

Price quotation

- An FX rate is simply a price. It tells the value of one unit of the left currency in terms of the other currency on the right.

$$\begin{aligned} \text{GBPUSD} &= 1.60 \\ &= \\ \text{£1} &= \$1.60 \\ &= \\ 1 \text{ Great Britain pound} &= 1.60 \text{ US dollars} \end{aligned}$$

WORKBOOK QUESTION: If $\text{EURUSD}=1.30$, how many US Dollars is 1€ worth?

WORKBOOK EXERCISE: Complete the following table with the nicknames given to each currency pair.

$\text{GBPUSD} = 1.62$	Pound sterling / US dollar	$1 \text{ GBP} = 1.62 \text{ USD}$	“Cable”
$\text{EURUSD} = 1.32$	Euro / US dollar	$1 \text{ EUR} = 1.32 \text{ USD}$	
$\text{USDJPY} = 80$	US dollar / Japanese yen	$1 \text{ USD} = 80 \text{ JPY}$	
$\text{EURGBP} = 0.80$	Euro / Pound sterling	$1 \text{ EUR} = 0.80 \text{ GBP}$	
$\text{USDCAD} = 0.99$	US dollar / Canadian dollar	$1 \text{ USD} = 0.99 \text{ CAD}$	
$\text{AUDUSD} = 1.01$	Australian dollar / US dollar	$1 \text{ AUD} = 1.01 \text{ USD}$	
$\text{NZDUSD} = 0.80$	New Zealand dollar / US dollar	$1 \text{ NZD} = 0.80 \text{ USD}$	
$\text{USDCHF} = 0.95$	US dollar / Swiss franc	$1 \text{ USD} = 0.95 \text{ USD}$	

Price quotation

WORKBOOK EXERCISE: Answer the following questions using the table below:

- Write the value of the following exchange rates:

GBPUSD =

EURUSD=

AUDUSD=

USDJPY =

USDCAD=

EURGBP=

- Which currency is worth the most Japanese yen?

	USD \$	JPY ¥	EUR €	CAD \$	GBP £	AUD \$
1 USD \$	-	79.43	0.7947	1.0258	0.6418	0.9833
1 JPY ¥	0.0126	-	0.01	0.0129	0.0081	0.0124
1 EUR €	1.2583	99.95	-	1.2908	0.8076	1.2373
1 CAD \$	0.9748	77.43	0.7747	-	0.6256	9.9585
1 GBP £	1.5582	123.76	1.2383	1.5984	-	1.5321
1 AUD \$	1.0170	80.78	0.8082	1.0433	0.6527	-

WORKBOOK QUESTION: What is a cross rate?

Terminology

Trader 1:	Buys 10,000 EURUSD @ 1.30	→	Long EURUSD (long EUR short USD)
Trader 2:	Sells 10,000 EURUSD @ 1.30	→	Short EURUSD (short EUR long USD)
Trader 3:	Buys 10,000 USDCHF @ 0.95	→	Long USDCHF (long USD short CHF)

WORKBOOK EXERCISE: Complete the following table using either “cheaper” or “more expensive” in each cell.

Pair = GBP USD	The first currency (GBP) becomes...	The second currency (USD) becomes...
Price of Pair moves up		
Price of pair goes down		

WORKBOOK QUESTION: If you are long GBPUSD do you want the US dollar to rise or to fall in value? What about the actual quote of the pair, would you want it to go up or down?

WORKBOOK QUESTION: If EURUSD moves from 1.30 to 1.35, which currency has become cheaper?

Pips

- Generally speaking 1 pip equals a movement of 0.0001.
- The only exception to this rule amongst the major pairs is the Japanese Yen, where 1 pip equals a movement of 0.01.

$$\begin{array}{lll} \text{Major pairs (except JPY)} & \rightarrow & 1 \text{ pip} = 0.0001 \\ __ / \text{JPY} & \rightarrow & 1 \text{ pip} = 0.01 \end{array}$$

WORKBOOK EXERCISE: Calculate how many pips the following pairs have moved.

	<u>Start of day</u>	<u>End of day</u>	<u>Difference (pips)</u>
GBPUSD	1.6000	1.6100	
EURUSD	1.2450	1.2560	
AUDUSD	1.0250	1.0100	
USDJPY	80.70	81.30	

WORKBOOK EXERCISE: Calculate how many pips the following pairs have moved using the information provided in the following two tables:

GBPUSD =

EURUSD=

AUDUSD=

USDJPY =

USDCAD=

EURJPY=

Yesterday's Exchange Rates

Currency	USD \$	JPY ¥	EUR €	CAD \$	GBP £	AUD \$
1 USD \$	-	79.43	0.7947	1.0258	0.6418	0.9833
1 JPY ¥	0.0126	-	0.01	0.0129	0.0081	0.0124
1 EUR €	1.2583	99.95	-	1.2908	0.8076	1.2373
1 CAD \$	0.9748	77.43	0.7747	-	0.6256	9.9585
1 GBP £	1.5582	123.76	1.2383	1.5984	-	1.5321
1 AUD \$	1.0170	80.78	0.8082	1.0433	0.6527	-

Today's Exchange Rates

Currency	USD \$	JPY ¥	EUR €	CAD \$	GBP £	AUD \$
1 USD \$	-	79.62	0.7887	1.0187	0.6373	0.9766
1 JPY ¥	0.0126	-	0.0099	0.0128	0.0080	0.0123
1 EUR €	1.2679	100.95	-	1.2916	0.8081	1.2382
1 CAD \$	0.9816	78.16	0.7742	-	0.6256	0.9586
1 GBP £	1.5690	124.93	1.2375	1.5984	-	1.5322
1 AUD \$	1.0240	81.53	0.8076	1.0432	0.6526	-

Idea generation: Chinese growth and the Australian dollar

- The Australian dollar is highly correlated to Chinese growth. China needs a lot of commodities such as iron ore and copper which Australia is a large producer of.
- The Australian dollar doubled in value against the US dollar between 2002 and 2012.



IDEA 1 – Sell Australian dollars

WORKBOOK EXERCISE: Explain trading idea 1.

WORKBOOK QUESTION: The Australian dollar is considered a commodity currency, are there any other currencies which are considered commodity currencies?

Idea generation: The Indian rupee

IDEA 2 – Buy Indian rupees

WORKBOOK EXERCISE: Explain trading idea 2.

WORKBOOK QUESTION: In order to go long the Indian rupee: should you buy or sell USDINR?

Idea generation: Oil & the Norwegian krone

- Norway is a large producer and exporter of oil and as a result its economy and currency are highly correlated to the price of oil.

Correlation of crude oil and the Norwegian krone (2009 – 2012)



IDEA 3– Sell Norwegian kroner

WORKBOOK EXERCISE: Explain trading idea 3:

WORKBOOK QUESTION: In order to go short the Norwegian krone, should you buy or sell USDNOK?

Idea generation: Quantitative easing & gold

IDEA 4– Buy South African rands

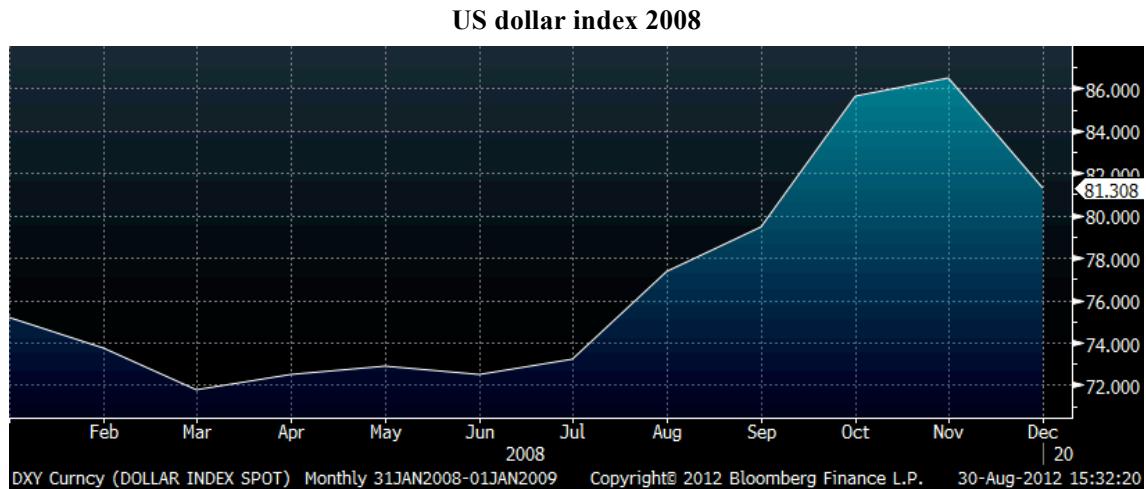
WORKBOOK EXERCISE: Explain trading idea 4.

WORKBOOK QUESTION: In order to go long the South African rand, should you buy or sell USDZAR?

WORKBOOK QUESTION: What happened in Germany in the 1920's when money was being printed in unlimited quantities? Can you name a more recent example?

Idea generation: Flight to safety

- There are a couple of currencies which are considered safe haven currencies such as the US dollar, the Swiss franc, the Japanese yen and the Singapore dollar. These tend to perform well against other (non-safe haven) currencies when there is economic uncertainty and a run to safety.



WORKBOOK QUESTION: Which currency do you think is considered the main safe haven?

WORKBOOK QUESTION: Why has the Swiss franc performed well historically in times of trouble?

WORKBOOK QUESTION: Why is the Japanese yen a safe haven currency?

Idea generation: Flight to safety

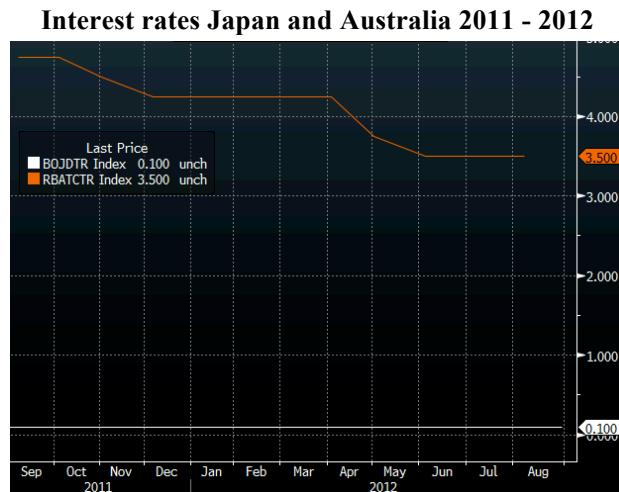
WORKBOOK QUESTION: *Why is the Singapore dollar a safe haven currency?*

IDEA 5– Buy a safe haven currency

WORKBOOK QUESTION: *Would you rather go short EURSGD (euro-Singapore dollar) or USDSGD in an uncertain world? Why?*

Idea generation: The carry trade

- Normally a speculative FX transaction on a retail brokerage platform involves borrowing (selling) one currency and using the proceeds of this loan to buy another currency.
- Interest is paid on the currencies borrowed (sold) and earned on the currencies bought.
- The carry trade aims to borrow (sell) low yielding currencies on which little interest is paid and buy high yielding currencies which pay relative high interest.



Interest rates Australia: 3.50%

Interest rates Japan: 0.10 %

Long Australian dollar – Japanese yen (AUDJPY) = positive carry of 3.40%

WORKBOOK EXERCISE: Assuming the above rates, how much would the carry be when you go short AUDJPY?

WORKBOOK QUESTION: If AUDJPY falls a lot in value, would that offset or add to the gains made on a positive carry?

Idea generation: The carry trade

IDEA 6 – Buy the AUDJPY

WORKBOOK EXERCISE: *Explain trading idea 6.*

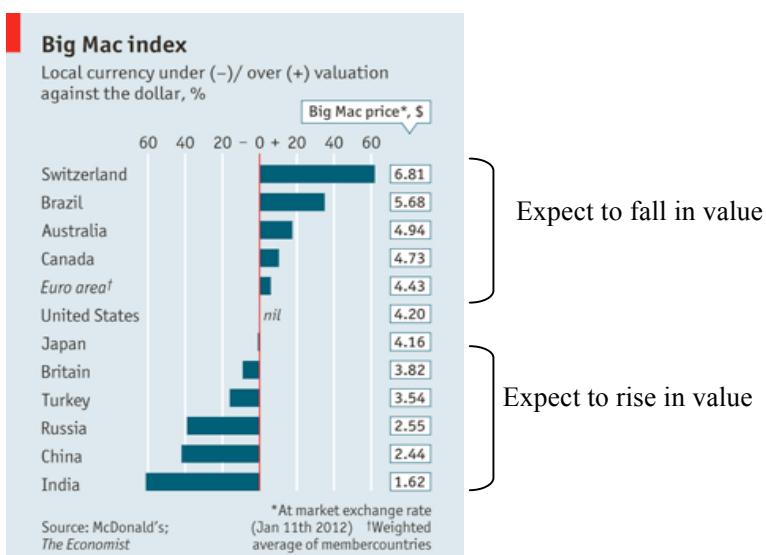
Idea generation: The law of one price & the Big Mac index

- The law of one price states that a good should cost the same in different countries. So if a mobile phone costs £100 in the UK and \$200 in the US, the implied exchange rate would be \$2 per £ so that both phones would be worth the same amount of money.
- This is a very theoretical concept and of course it does not account for different tax regimes, production costs and transportation costs.

UK Mobile phone:	£100
US Mobile phone:	\$200
Implied exchange rate:	£1 = \$2

WORKBOOK QUESTION: Using the information from above, what would you do to make a profit if the real exchange rate is £1=1.30?

- The Economist* publishes each year the price of Big Macs in US dollars from a large number of different countries.



Idea generation: The law of one price & the Big Mac index

WORKBOOK EXERCISE: If a Big Mac costs \$4.00 in the US and £2.00 in the UK, calculate the implied GBPUSD exchange rate. Would you want to buy or sell GBPUSD if it is trading at 1.53?

WORKBOOK QUESTION: According to this Big Mac index on the previous page, would you have wanted to buy or sell USDINR (US dollar – Indian rupee)?

Idea generation: The law of one price & the Big Mac index

IDEA 7 – Buy the Mexican peso

WORKBOOK EXERCISE: Explain trading idea 7.

Working time (in minutes) to buy 1 Big Mac

	2006	2009	2012
Mexico	82	129	48
New York	13	14	10

For a complete list of the wage adjusted Big Mac index please refer to appendix A.

WORKBOOK QUESTION: Is cheaper labour costs good or bad for the currency of a certain country?

Step 2: Fundamental Analysis

- As an FX trader you need to understand the fundamentals affecting different currencies. The main areas we look at in 5-Step-Trading® FX are shown in the following diagram:

Inflation and deflation

Central Banks

Governments

Fundamental checklist: Introduction

Fundamental checklist: Government (I)

Fundamental checklist: Industry (II)

Fundamental checklist: Consumer (III)

Fundamental checklist: Country (IV)

Fundamental checklist: Potential issues

Fundamental analysis: China & Australia

Fundamental analysis: India

Fundamental analysis: Oil & Norway

Fundamental analysis: Money printing (gold & South Africa rand)

Fundamental analysis: Money printing (gold & Peruvian new sol)

Fundamental analysis: Flight to safety (JPY)

Fundamental analysis: Flight to safety (CHF)

Fundamental analysis: Flight to safety (SGD, USD)

Fundamental analysis: The carry trade (Australia & Japan)

Fundamental analysis: The Big Mac index and the Mexican peso – South African rand

Inflation and deflation

- Prices are largely dependent on the supply and demand of goods and services in an economy.
- Falling prices (deflation) are often caused by a lack of demand and an oversupply of goods.
- Rising prices (inflation) are often caused by a lack of supply and a high demand for goods.

Demand too low → Oversupply of goods →	Falling prices → Deflation
Demand too high → Shortage of goods →	Rising prices → Inflation

WORKBOOK EXERCISE: Select the correct option in each cell and answer the last question in the following table.

	Implications of Inflation	Implications of Deflation
General Price levels are	high / low	high / low
This usually occurs when demand is	higher / lower than supply	higher / lower than supply
People consume	more / less	more /less
People save	more / less	more / less
Why do you think it would be dangerous if it is too high?		

Hyperinflation in Germany (prices in Deutsche marks)

Item	1913	Summer 1923	November 1923
1 egg	0.08	5,000	80,000,000,000
1 kg butter	2.70	26,000	6,000,000,000,000
1 kg beef	1.75	18,800	5,600,000,000,000
Pair shoes	12.00	1,000,000	32,000,000,000,000

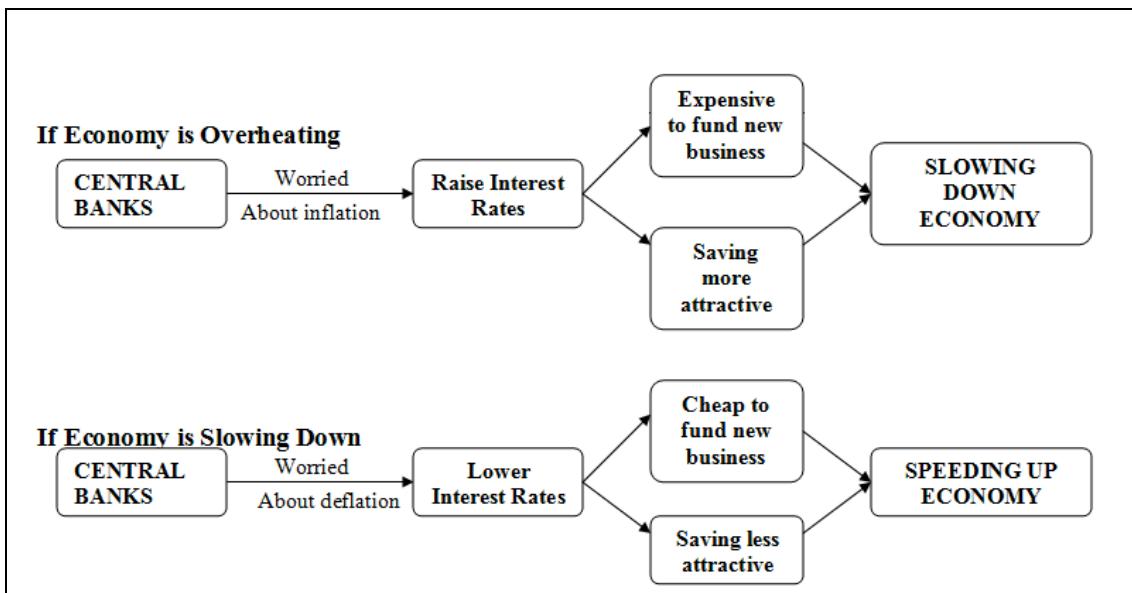
Inflation and deflation

WORKBOOK QUESTION: *What is considered a desirable level of inflation?*

WORKBOOK QUESTION: *Which institution is mainly responsible for guaranteeing price stability?*

Central Banks

- Central banks set interest rates which determine how expensive it is to borrow money and how much return you can get on a savings deposit.
- The higher interest rates are, the more expensive it becomes to borrow money and the more attractive it becomes to save money.



WORKBOOK EXERCISE: Select the correct option in each cell in the following table.

	Implications of an interest rate hike	Implications of an interest rate cut
Consumption should	rise / fall	rise / fall
Savings should	rise / fall	rise / fall
Inflation should	rise / fall	rise / fall
Economic growth should	accelerate / slowdown	accelerate / slowdown
Currency should	go up / down in value if interest rate hike was unexpected.	go up / down in value if interest rate cut was unexpected.

Central Banks

WORKBOOK QUESTION: *Can central banks set interest rates below zero?*

WORKBOOK QUESTION: *What should banks do when there is deflation? Do banks have a lot of gunpowder to fight deflation if interest rates are close to zero?*

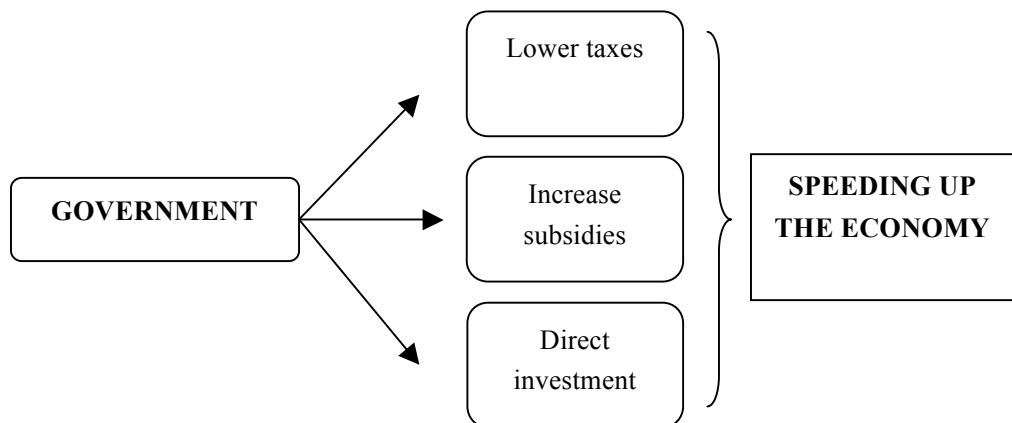
Governments

- Governments also have a big impact on the economy and the level of their currency.

WORKBOOK QUESTION: Should taxes be increased or decreased to help economic growth?

WORKBOOK QUESTION: Should government expenditure be increased or decreased to help economic growth?

- When more money is spent than collected by the government it means more money is being pumped into the system which usually translates into higher prices (inflation).



Governments

WORKBOOK QUESTION: *Are governments more concerned with inflation than central banks?*

WORKBOOK QUESTION: *Are tax increases and reduced government expenditure popular measures? Do governments always act in the best interest of the national economy?*

Fundamental checklist: Introduction

- As an FX trader you need to understand the fundamentals affecting different currencies. The main areas we look at in 5-Step-Trading® FX are shown in the following diagram:

1. Government	2. Industry	3. Consumer	4. Country
- Debt-to-GDP - Budget balance - Political stability	- Industrial Production - Current account	- Unemployment - Retail sales	- Real GDP - Interest rates - Inflation

WORKBOOK QUESTION: Do you think these fundamental areas are more important for short term traders or for longer term traders?

Fundamental checklist: Government (I)

1. Government

GOVERNMENT				
USA	2010	2011	2012 (E)	2013 (E)
Debt (% of GDP)	98.5	102.9 (E)	106.6	110.2
Budget balance (% of GDP)	-10.5	-9.6 (E)	-8.1	-6.3
Political stability	76	77	76	

- Debt-to-GDP =
$$\frac{\text{Total amount of government debt}}{\text{GDP}}$$

GDP: Gross Domestic Product → Total value of all goods and services produced by an economy in a given period.

WORKBOOK QUESTION: *Is it possible for a country to see its debt-to-GDP ratio deteriorate even if the total amount of outstanding debt has reduced?*

WORKBOOK QUESTION: *Which percentage of debt-to-GDP is considered the level from which the government debt becomes unsustainable for an economy?*

- Budget Balance: The budget balance shows the difference between the revenues (taxes) and the expenditure of the government as a percentage of GDP. The primary deficit is defined as the budget balance minus interest payments on debt.

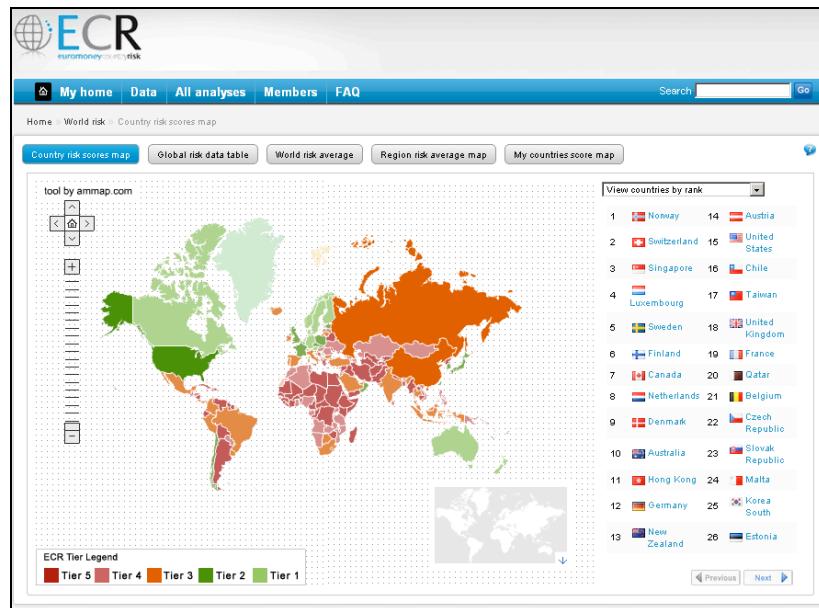
Fundamental checklist: Government (I)

WORKBOOK QUESTION: What is it called when government expenditures are larger than government revenues?

WORKBOOK QUESTION: Is it good for the currency if less money needs to be borrowed?

- Political stability: The more stable a country is, the better for its currency. In 5-Step-Trading® FX we used data from Alliant's. It is unlikely you can access this data easily. So instead you might want to use the Euromoney Country Risk (ECR) index.

ECR: <http://www.euromoneycountryrisk.com/>



WORKBOOK QUESTION: Which factors impact the Political stability of a country?

Fundamental checklist: Industry (II)

2. **Industry:** The industrial sector is one of the main engines of an economy. It is very important to find out which the biggest industrial sectors are before making any investment decision because these will ultimately have an impact on the value of the currency. A website that can help you with this fact-finding is the CIA World Factbook: <https://www.cia.gov/library/publications/the-world-factbook/>

INDUSTRY				
USA	2010	2011	2012 (E)	2013 (E)
Industrial production (% growth)	5.4	3.7	4.7	
Current Account (% of GDP)	-3.2	-3.1	-3.3	-3.1

- Industrial production: This number shows the real growth in the industrial sector of an economy.
- The current account essentially shows the net amount of money flowing into a country within a given period as a percentage of GDP. For a complete list of the components within the current account please refer to appendix B.

CURRENT ACCOUNT: Money flowing into a country - money flowing out of the

WORKBOOK QUESTION: If a country has a positive current account, what does that actually mean? Are more products sold or bought? And is its currency being sold or bought?

A concept related to the current account and the balance of trade is what is called the net international investment position, for more information on this please refer to appendix C.

Fundamental checklist: Consumer (III)

3. Consumer

CONSUMER				
USA	2010	2011	2012 (E)	2013 (E)
Unemployment rate (%)	9.6	9	8.2	7.9
Retail sales (% growth)	7.5	7	2.6	

- Unemployment rate: Unemployed people feel less secure about their future and will consume fewer products. Aside from this, the government might have to pay more benefits and might collect fewer taxes.

- Retail sales is another indicator that shows us the state of the consumer. If retail sales are high it means consumers are buying a lot of products helping the economy to grow. In the US this number is released at current prices, which means that it does include inflation.

WORKBOOK EXERCISE: Underline the correct option(s) in each of the following four sentences:

- Confident consumers spend *more / less* money.
- Unconfident consumers save *more / less* money.
- Confident consumers are *good / bad* for the overall economy.
- Less consumption leads to *less / more* demand for goods and services and businesses will *cut / increase* their production and *hire / fire* more people.

WORKBOOK QUESTION: Are high unemployment ratios bad for the currency? Why?

WORKBOOK QUESTION: Are high retail sales bad for the currency? Why?

Fundamental checklist: Country (IV)

4. Country:

COUNTRY				
USA	2010	2011	2012 (E)	2013 (E)
Real GDP (% growth)	3	1.7	2.1	2.4
Interest rates (%)	0.2	0.2	0.2	
Inflation (%)	1.6	3.1	2.1	1.9

- Real GDP: This is a direct measure of the size of an economy and economic growth. The higher this growth is the stronger the currency.

WORKBOOK QUESTION: *What does the term “real” in real GDP refer to? Does inflation “inflate” real GDP figures?*

WORKBOOK QUESTION: *How would a contraction of GDP growth affect the value of the currency?*

- Interest Rates are set by central banks and as we have seen before, higher interest rates translate into higher returns on bank deposits which usually attract foreign capital.

In the US interest rates are set by the Federal Open Market Committee (FOMC). It is useful to read their statements as well: <http://www.federalreserve.gov/monetarypolicy/fomccalendars.htm>

OFFICIAL INTEREST RATES:

US = Federal Funds Rate

UK = Bank of England Official Bank Rate

Europe = ECB Refinancing Rate

Japan = Overnight Target Rate

China = Deposit & Lending Rate

Fundamental checklist: Country (IV)

- Inflation: The level of inflation is of course also very important as we have seen before. Inflation is often measured through the CPI (Consumer Price Index) and a number of 2-3% is ideal.

WORKBOOK QUESTION: *Generally speaking, is inflation good or bad for a currency? What about deflation?*

WORKBOOK QUESTION: *If you want to get a 10% return offered on a savings account in Brazil would you need to buy Brazilian reals? Would you still be interested in opening this savings account if inflation is 12%?*

(For a list which shows you where to find the fundamental data of our fundamental checklist please refer to appendix D)

Fundamental checklist: Potential issues

Unfortunately trading is not an exact science and there are some potential issues even while using such a clear and organised checklist. Here are some of them:

- Political stability can change very quickly.
- Data may not always be correct.
- Today's fundamental numbers are often already "priced in".
- Not every country calculates their data in the same way.
- A country might have a budget deficit and a current account surplus.
- A country might have high interest rates and high inflation.
- There are hundreds of other indicators to look at.
- Some economic data may be affected by seasonalities

WORKBOOK EXECERCISE: Assume that the first column of the following table shows the released figure of GDP growth for three different countries and that the second column indicates the estimates of analysts before the figure actually was released. Which figures came as a surprise to the market and were better than expected? Which figure was a disappointment to the market and came out worse than expected?

Actual	Forecast	Worse / better than expected?
1.5%	2%	
2.5%	2%	
-0.5%	-1%	

WORKBOOK QUESTION: Given a longer term trading approach, should you still check the economic calendar for important upcoming economic releases?

Fundamental analysis: China & Australia

Chinese real GDP growth (1998 – 2012)



Chinese industrial production (2006 – 2012)



Chinese retail sales (2006 – 2012)



WORKBOOK QUESTION: What was the lowest growth rate for real GDP in China between 1998 and 2012?

WORKBOOK QUESTION: Do these charts confirm a Chinese slowdown?

Fundamental analysis: China & Australia

- About 27% of Australian exports are to China.

GOVERNMENT				
AUSTRALIA	2010	2011	2012 (E)	2013 (E)
Debt (% of GDP)	20.4	22.9	24	23.3
Budget balance (% of GDP)	-4.8	-4.3	-2.5	-0.6
Political stability	88	87	88	

GOVERNMENT				
CHINA	2010	2011	2012 (E)	2013 (E)
Debt (% of GDP)	33.5	25.8	22	19.4
Budget balance (% of GDP)	-2.3	-1.2	-1.3	-1
Political stability	51	50	49	

INDUSTRY				
AUSTRALIA	2010	2011	2012 (E)	2013 (E)
Industrial production (% growth)	4.8	-0.8	3.9	
Current account (% of GDP)	-2.8	-2.2	-4.6	-5.1

INDUSTRY				
CHINA	2010	2011	2012 (E)	2013 (E)
Industrial production (% growth)	13.3	12.4	9.5	
Current account (% of GDP)	5.1	2.8 (E)	2.3	2.6

CONSUMER				
AUSTRALIA	2010	2011	2012 (E)	2013 (E)
Unemployment rate (%)	5.2	5.1	5.2	5.2
Retail sales (% growth)	1	3.1	4.1	

CONSUMER				
CHINA	2010	2011	2012 (E)	2013 (E)
Unemployment rate (%)	4.1	4	4	4
Retail sales (% growth)	18.7	17.3	13.7	

COUNTRY				
AUSTRALIA	2010	2011	2012 (E)	2013 (E)
Real GDP (% growth)	2.5	2	3	3.5
Interest rates (%)	4.7	4.2	3.2	
Inflation (%)	2.8	3.4	2.7	3

COUNTRY				
CHINA	2010	2011	2012 (E)	2013 (E)
Real GDP (% growth)	10.4	9.2	8.2	8.8
Interest rates (%)	5.6	6.6	6	
Inflation (%)	3.3	5.4	3.3	3

Fundamental analysis: China & Australia

Price of iron ore (2009 – 2012)



WORKBOOK QUESTION: What does a fall in the price of iron ore suggest about Chinese growth?

WORKBOOK QUESTION: Why do we look at Australia when this trading idea is based on a slowdown of Chinese economic growth? Is it easy to trade the Chinese Renminbi?

Fundamental analysis: India

- India has lower labour costs than China.

GOVERNMENT				
INDIA	2010	2011	2012 (E)	2013 (E)
Debt (% of GDP)	69.4	68.1 (E)	67.6	66.8
Budget balance (% of GDP)	-9.2	-8.7 (E)	-8.3	-8.2
Political stability	46	45	44	

INDUSTRY				
INDIA	2010	2011	2012 (E)	2013 (E)
Industrial production (% growth)	6.4	5.9	-1.8	
Current account (% of GDP)	-3.3	-2.8 (E)	-3.2	-2.9

CONSUMER				
INDIA	2010	2011	2012 (E)	2013 (E)
Unemployment rate (%)	10.8	9.8		
Retail sales (% growth)	5.9	7.8	6.3	

COUNTRY				
INDIA	2010	2011	2012 (E)	2013 (E)
Real GDP (% growth)	10.6	7.2	6.9	7.3
Interest rates (%)	6.3	8.5	8	
Inflation (%)	12	8.6	8.2	7.3

WORKBOOK QUESTION: What does it mean when inflation is higher than interest rates?

Fundamental analysis: India

US dollar – Indian rupee, USDINR (2007 – 2012)

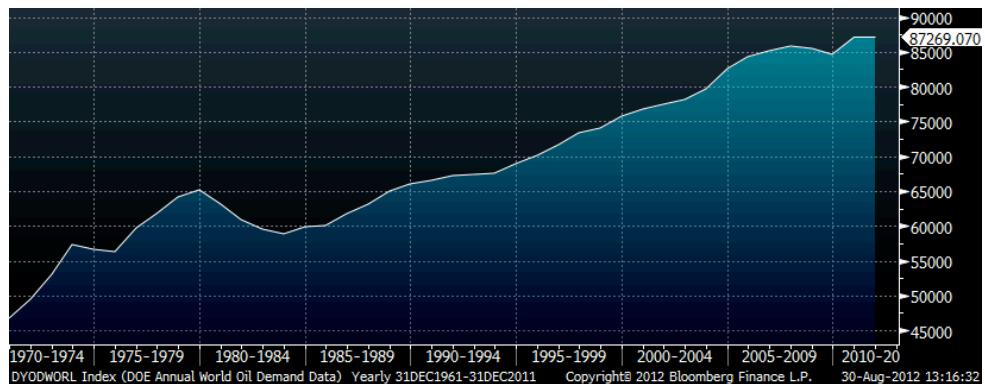


WORKBOOK QUESTION: Has the Indian rupee been strengthening or weakening between 2007 and 2012?

Fundamental analysis: Oil & Norway

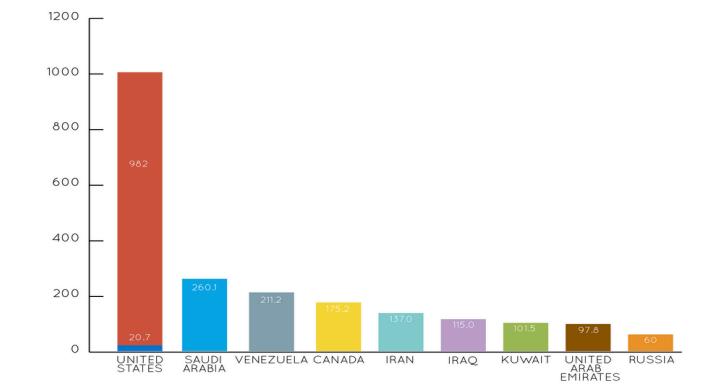
- Norway is the 6th largest exporter of oil (CIA factbook).
- Oil and gas represent 50% of Norwegian exports and 20% of the total Norwegian economy.

World oil demand in barrels per day (1970-2012)



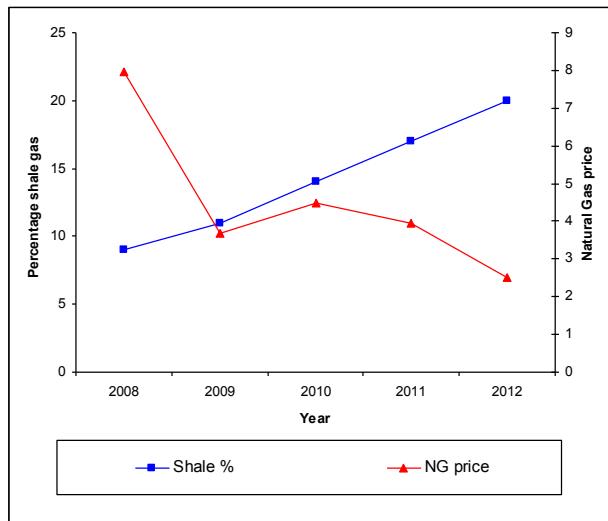
- Technology to extract oil out of deep waters has improved.
- Technology to recover oil and gas from shale rocks is a game changer.

Oil Shale
US Oil Shale Technically Recoverable Resources



IER INSTITUTE FOR ENERGY RESEARCH Source: Energy Information Administration, International Oil Outlook 2011

Fundamental analysis: Oil & Norway



WORKBOOK QUESTION: What happened to natural gas prices (NG) when shale gas started to come on-line in the US?

GOVERNMENT				
NORWAY	2010	2011	2012 (E)	2013 (E)
Debt (% of GDP)	49.6	49.6 (E)	49.6	49.6
Budget balance (% of GDP)	10.5	13.1 (E)	14.2	12.9
Political stability	89	88	88	

WORKBOOK QUESTION: Should we take this trading idea next to step 3? Should we be worried if we cannot?

INDUSTRY				
NORWAY	2010	2011	2012 (E)	2013 (E)
Industrial production (% growth)	-4.7	-1.2	7.7	
Current account (% of GDP)	12.4	14.6	14.8	13.7

CONSUMER				
NORWAY	2010	2011	2012 (E)	2013 (E)
Unemployment rate (%)	3.6	3.3	3.6	3.5
Retail Sales (% of GDP)	4.6	0.6	6.2	

WORKBOOK QUESTION: Can you think of any other economies with exposure to oil?

COUNTRY				
NORWAY	2010	2011	2012 (E)	2013 (E)
Real GDP (% growth)	0.7	1.7	1.8	2
Interest rates (%)	2	1.7	1.5	
Inflation (%)	2.4	1.3	1.5	2

Fundamental analysis: Money printing (gold & South Africa rand)

- Trading idea four is based on money printing and the price of gold.

GOVERNMENT				
SOUTH AFRICA	2010	2011	2012 (E)	2013 (E)
Debt (% of GDP)	35.3	38.8 (E)	40	40.8
Budget balance (% of GDP)	-4.9	-4.6 (E)	-4.3	-3.7
Political stability	40	42	40	

INDUSTRY				
SOUTH AFRICA	2010	2011	2012 (E)	2013 (E)
Industrial production (% growth)	4.6	2.6	0.9	
Current account (% of GDP)	-2.8	-3.3 (E)	-4.8	-5.5

CONSUMER				
SOUTH AFRICA	2010	2011	2012 (E)	2013 (E)
Unemployment rate (%)	24.9	24.5 (E)	23.8	23.6
Retail sales (% growth)	8.3	6.8	8.6	

COUNTRY				
SOUTH AFRICA	2010	2011	2012 (E)	2013 (E)
Real GDP (% growth)	2.9	3.1 (E)	2.7	3.4
Interest rates (%)	5.5	5.5	5	
Inflation (%)	4.3 (E)	5 (E)	5.7	5.3

WORKBOOK EXERCISE: Underline the correct option in each of the following sentences:

- Positive / negative budget balance.
- High / low Political stability.
- Positive / negative current account.
- High / low unemployment rate.
- Retail sales growth greater / lower / identical to inflation.

WORKBOOK QUESTION: Is the trading idea of buying the South African rand supported by its fundamental checklist?

Fundamental analysis: Money printing (gold & Peruvian new sol)

- Another country with exposure to gold might be Peru. 20% of its total exports are gold-related.

GOVERNMENT				
PERU	2010	2011	2012 (E)	2013 (E)
Debt (% of GDP)	24.6	21.6	20.7	19.8
Budget balance (% of GDP)	-0.3	1.9	1.1	1
Political stability	52	52	49	

INDUSTRY				
PERU	2010	2011	2012 (E)	2013 (E)
Industrial production (% growth)	14.0	4.8	7.1	
Current account (% of GDP)	-1.7	-1.3	-2	-1.9

CONSUMER				
PERU	2010	2011	2012 (E)	2013 (E)
Unemployment rate (%)	7.9	7.5	7.5	7.5
Retail sales (% growth)	4.6	0.6	6	

COUNTRY				
PERU	2010	2011	2012 (E)	2013 (E)
Real GDP (% growth)	8.8	6.9	5.5	6
Interest rates (%)	3	4.2	4.2	
Inflation (%)	1.5	3.4	3.3	2.6

US dollar – Peruvian new sol, USDPEN (2007-2012)



WORKBOOK QUESTION: Has the Peruvian new sol been falling or rising between 2009 and 2012?

Fundamental analysis: Flight to safety (JPY)

- Japan

US dollar – Japanese yen, USDJPY (2007 - 2012)



JAPAN	2010	2011	2012 (E)	2013 (E)
Debt(% of GDP)	215.3	229.8 (E)	235.8	241.1
Budget balance (% of GDP)	-9.4	-10.1 (E)	-10	-8.7
Interest rates (%)	0	0	0	0

WORKBOOK QUESTION: Is the figure of budget deficit worrying? If interest rates go up, will interest payments on government debt rise or fall?

Fundamental analysis: Flight to safety (CHF)

- Switzerland

Euro – Swiss franc, EURCHF (2011 - 2012)



WORKBOOK QUESTION: What did the Swiss National Bank do in September 2011? Why did the SNB do that? Does this mean its currency is considered more or less of a safe haven currency?

Fundamental analysis: Flight to safety (SGD, USD)

- The other two safe haven currencies that remain are the Singapore dollar and the US dollar. For more information on Singapore's debt to GDP ratio, refer to appendix E.

GOVERNMENT				
SINGAPORE	2010	2011	2012 (E)	2013 (E)
Debt (% of GDP)	101.2	100.8	98	95.7
Budget balance (% of GDP)	7.3	7.3	5.5	5.4
Political stability	87	86	86	

GOVERNMENT				
USA	2010	2011	2012 (E)	2013 (E)
Debt (% of GDP)	98.5	102.9 (E)	106.6	110.2
Budget balance (% of GDP)	-10.5	-9.6 (E)	-8.1	-6.3
Political stability	76	77	76	

INDUSTRY				
SINGAPORE	2010	2011	2012 (E)	2013 (E)
Industrial production (% growth)	41.2	-2.3	8.2	
Current account (% of GDP)	24.4	21.9	21.8	21.3

INDUSTRY				
USA	2010	2011	2012 (E)	2013 (E)
Industrial production (% growth)	5.4	3.7	4.7	
Current account (% of GDP)	-3.2	-3.1	-3.3	-3.1

CONSUMER				
SINGAPORE	2010	2011	2012 (E)	2013 (E)
Unemployment rate (%)	2.2	2	2.1	2.1
Retail sales (% growth)	1.9	6.2	-0.9	

CONSUMER				
USA	2010	2011	2012 (E)	2013 (E)
Unemployment rate (%)	9.6	9	8.2	7.9
Retail sales (% growth)	7.5	7	2.6	

COUNTRY				
SINGAPORE	2010	2011	2012 (E)	2013 (E)
Real GDP (% growth)	14.8	4.9	2.7	3.9
Interest rates (%)	0.1	0	0	
Inflation (%)	2.8	5.2	3.5	2.3

COUNTRY				
USA	2010	2011	2012 (E)	2013 (E)
Real GDP (% growth)	3	1.7	2.1	2.4
Interest rates (%)	0.2	0.2	0.2	
Inflation (%)	1.6	3.1	2.1	1.9

WORKBOOK QUESTION: Which economy does fundamentally look better?

Fundamental analysis: Flight to safety (SGD, USD)

US dollar – Singapore dollar, USDSGD (2001 - 2012)



WORKBOOK QUESTION: Which currency of this pair was being bought at the start of the 2008 financial crisis? Which currency outperforms during a flight to safety?

Fundamental analysis: The carry trade (Australia & Japan)

GOVERNMENT				
AUSTRALIA	2010	2011	2012 (E)	2013 (E)
Debt (% of GDP)	20.4	22.9	24	23.3
Budget balance (% of GDP)	-4.8	-4.3	-2.5	-0.6
Political stability	88	87	88	

GOVERNMENT				
JAPAN	2010	2011	2012 (E)	2013 (E)
Debt (% of GDP)	215.3	229.8 (E)	235.8	241.1
Budget balance (% of GDP)	-9.4	-10.1 (E)	-10	-8.7
Political stability	83	84	82.5	

INDUSTRY				
AUSTRALIA	2010	2011	2012 (E)	2013 (E)
Industrial production (% growth)	4.8	-0.8	3.9	
Current account (% of GDP)	-2.8	-2.2	-4.6	-5.1

INDUSTRY				
JAPAN	2010	2011	2012 (E)	2013 (E)
Industrial production (% growth)	7	-4.2	-1.5	
Current account (% of GDP)	3.6	2	2.2	2.7

CONSUMER				
AUSTRALIA	2010	2011	2012 (E)	2013 (E)
Unemployment rate (%)	5.2	5.1	5.2	5.2
Retail sales (% growth)	1	3.1	4.1	

CONSUMER				
JAPAN	2010	2011	2012 (E)	2013 (E)
Unemployment rate (%)	5.1	4.5	4.5	4.4
Retail sales (% growth)	1.5	-2.2	0.2	

COUNTRY				
AUSTRALIA	2010	2011	2012 (E)	2013 (E)
Real GDP (% growth)	2.5	2	3	3.5
Interest rates (%)	4.7	4.2	3.2	
Inflation (%)	2.8	3.4	2.7	3

COUNTRY				
JAPAN	2010	2011	2012 (E)	2013 (E)
Real GDP (% growth)	4.4	-0.7	2	1.7
Interest rates (%)	0	0	0	0
Inflation (%)	-0.7	-0.3	0	0

WORKBOOK QUESTION: In which of the two countries interest rates are higher? Which currency should you borrow and which currency should you buy if you want to do the carry trade?

WORKBOOK QUESTION: What would happen to this carry trade if interest rates in Japan go up by one percent and interest rates in Australia go down by one percent?

WORKBOOK QUESTION: What would happen to the carry trade if there is a global economic slowdown?

Fundamental analysis: The Big Mac index and the Mexican peso – South African rand

- The final trading idea from step 1 was to buy the Mexican peso based on labour in Mexico.

Mexican stock market (Bolsa IPC Index), 2003 - 2012



GOVERNMENT				
MEXICO	2010	2011	2012 (E)	2013 (E)
Debt (% of GDP)	42.9	43.8 (E)	42.9	42.9
Budget balance (% of GDP)	-4.3	-3.4 (E)	-2.4	-2.2
Political stability	63.7	65.6	63.6	

INDUSTRY				
MEXICO	2010	2011	2012 (E)	2013 (E)
Industrial production (% growth)	5.9	3.2	3.7	
Current account (% of GDP)	-0.3(E)	-0.8 (E)	-0.8	-0.9

CONSUMER				
MEXICO	2010	2011	2012 (E)	2013 (E)
Unemployment rate (%)	5.4	5.2 (E)	4.8	4.6
Retail sales (% growth)	2.4	3.5	5.6	

COUNTRY				
MEXICO	2010	2011	2012 (E)	2013 (E)
Real GDP (% growth)	5.5	4 (E)	3.6	3.7
Interest rates (%)	4.5	4.5	4.5	
Inflation (%)	4.2	3.4 (E)	3.9	3

Fundamental analysis: The Big Mac index and the Mexican peso – South African rand

Working time (in minutes) to buy 1 Big Mac

	2012
Mexico City	48
Johannesburg	26

WORKBOOK QUESTION: Are labour costs lower in Mexico City or Johannesburg?

WORKBOOK EXERCISE: Determine which country has a better figure for each economic data in the following table.

	MEXICO 2012 (E)	SOUTH AFRICA 2012 (E)	Which is better?
GOVERNMENT			
Debt (% of GDP)	42.9	40	
Budget balance (% of GDP)	-2.4	-4.3	
Political stability	63.6	40	

INDUSTRY			
Industrial production (% growth)	3.7	0.9	
Current account (% of GDP)	-0.8	-4.8	

CONSUMER			
Unemployment rate (%)	4.8	23.8	
Retail sales (% growth)	5.6	8.6	

COUNTRY			
Real GDP (% growth)	3.6	2.7	
Interest rates (%)	4.5	5	
Inflation (%)	3.9	5.7	

WORKBOOK QUESTION: Does this fundamental list suggest going long or short MXNZAR (Mexican peso – South Africa rand)?

Fundamental analysis: The Big Mac index and the Mexican peso – South African rand

WORKBOOK QUESTION: If you cannot trade MXNZAR but you can trade USDMXN and USDZAR how could you construct a MXNZAR trade?

Step 3: Chart Analysis

In this section:

Basic concepts and terminology

Chart analysis: China & Australia (Short AUDUSD)

Chart analysis: India (Short USDINR)

Chart analysis: Money printing – Peruvian new sol & gold (short USDPEN)

Chart analysis: Flight to safety – Singapore dollar (Short USDSGD)

Chart analysis: The carry trade (Long AUDJPY)

Chart analysis: The Big Mac 8ndex (Long MXNZAR)

The Commitment of Traders report

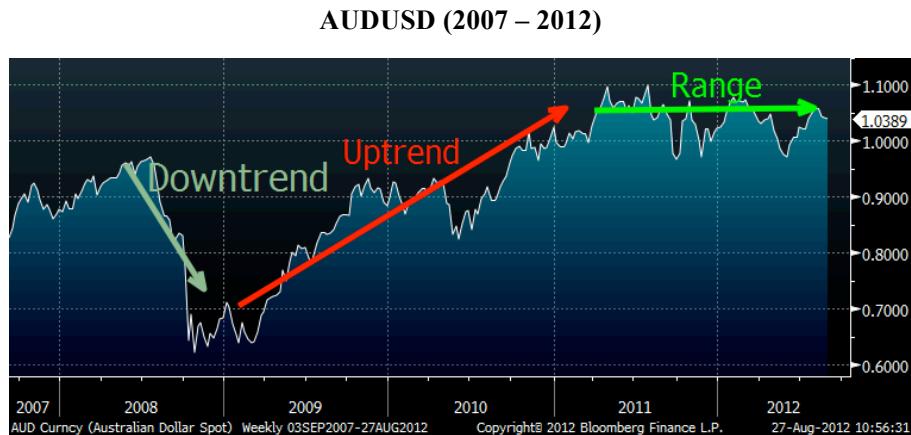
Sentiment surveys

Technical terms seen in 5-Step-Trading® Stocks

WORKBOOK QUESTION: For what purposes is chart analysis used in 5-Step-Trading® FX?

Basic concepts and terminology

- A downtrend is characterised by the price making lower lows and lower highs.
- An uptrend is characterised by the price making higher highs and higher lows.
- A ranging market is characterised by the price not moving towards any particular direction.



- Trading channels:



WORKBOOK QUESTION: Has the Australian dollar gone up or down in value against the US dollar over the 5 year period shown on the previous two charts?

WORKBOOK QUESTION: Do trends last forever?

Basic concepts and terminology

- At a support level buyers step in and prevent the price from falling further. A resistance level is the exact opposite, it is a level where sellers appear and prevent the price from rising any further.

AUDUSD (2007 – 2012)



EURCHF (2011 – 2012)



WORKBOOK QUESTION: Is it a good idea to sell support in a ranging market? What about selling resistance?

WORKBOOK QUESTION: Does buying support always work out?

Basic concepts and terminology

WORKBOOK QUESTION: When support is broken, what does this level become?

WORKBOOK QUESTION: Are significant support and resistance levels that were made years ago still relevant? Why?

Chart analysis: China & Australia (Short AUDUSD)

- It is as important to identify a level where you unwind your position and take a loss as it is to come up with a level to enter a trade.



WORKBOOK EXERCISE: Complete the following table:

	Entry	Stop-loss	Target
Short AUDUSD			

WORKBOOK QUESTION: Do you think the distance between your entry level and target has to be larger than the distance between your entry level and stop-loss? Why?

Chart analysis: India (Short USDINR)



WORKBOOK QUESTION: Has the US dollar gone up or down against the Indian rupee between 2007 and 2012?

Chart analysis: Money printing – Peruvian new sol & gold (short USDPEN)



WORKBOOK EXERCISE: Underline the correct option:

Between 1992 and 2000, the US dollar / Peruvian new sol strengthened against the US dollar / Peruvian new sol.

Between 2004 and 2012, the US dollar / Peruvian new sol strengthened against the US dollar / Peruvian new sol

Chart analysis: Money printing – Peruvian new sol & gold (short USDPEN)

USDPEN (2007– 2012)



WORKBOOK QUESTION: Which conclusions can be drawn from the previous chart?

USDPEN (1992 – 2012)



WORKBOOK EXERCISE: Complete the following table.

	Entry	Stop-loss	Target
<i>Short USDPEN</i>			

Chart analysis: Flight to safety – Singapore dollar (Short USDSGD)

WORKBOOK QUESTION: Which currency weakened between 2002 and 2013 in the following chart?



WORKBOOK QUESTION: Which are significant support and resistance levels in the following chart?



Chart analysis: Flight to safety – Singapore dollar (Short USDSGD)

WORKBOOK QUESTION: Why is it dangerous to sell near a support level?

Chart analysis: The carry trade (Long AUDJPY)

AUDJPY (2009 – 2012)



- Long half a position now at 81 and add the other half to it either at the bottom of the range or the top of the range (77, 90).

AUDJPY (2010 – 2012)



	Entry	Stop-loss	Target
Long 1/2 AUDJPY	81	73	-

Chart analysis: The carry trade (Long AUDJPY)

WORKBOOK QUESTION: Why is half a position of AUDJPY taken whilst the price is trading in the middle of the range?

WORKBOOK QUESTION: What is the main aim of this trade?

WORKBOOK QUESTION: Why is not having a profit target a main concern in this case?

Chart analysis: The Big Mac index (Long MXNZAR)



Chart analysis: The Big Mac index (Long MXNZAR)



WORKBOOK EXERCISE: Complete the following table.

	Entry	Stop-loss	Target
Long MXNZAR			

WORKBOOK EXERCISE: Go to the following two websites and explain what caused the spike in the exchange rate of MXNZAR between 2000 and 2002. Was this due to Mexican peso strength or South African rand weakness?

<http://news.bbc.co.uk/1/hi/business/1717001.stm>

[http://myfundi.co.za/e/Myburgh Commission of Inquiry into the Rapid Depreciation of the Rand and Related Matters in 2001](http://myfundi.co.za/e/Myburgh_Commission_of_Inquiry_into_the_Rapid_Depreciation_of_the_Rand_and_Related_Matters_in_2001)

The Commitment of Traders report

- Every Friday, the Commodities Futures Trading Commission releases the Commitment of Traders (COT) report which shows the total long and short positions in the futures market as of the previous Tuesday. We can use this data to calculate the net position (long – short positions) of different currency futures contracts.
- We are mainly interested in “non-commercial” positioning as these are from large speculators. Commercial positions are those from hedgers and non-reportable positions from small speculators.
 - <http://www.barchart.com/futures/cot.php>
 - <http://www.cftc.gov/dea/futures/deacmesf.htm>

WORKBOOK QUESTIONS: Who are commercial hedgers and why are they active in the FX market?

WORKBOOK EXERCISE: Calculate the non-commercials net position using the following table.

EURO FX - CHICAGO MERCANTILE EXCHANGE (CONTRACTS OF EUR 125,000)										Code-099741	
Commitments of Traders - Futures Only, June 5, 2012											
:		Total		Reportable Positions				Nonreportable Positions			
:	-	:	:	Non-Commercial	:	Commercial	:	Total	:	Long	Short
:	Open	:	Long	Short	Spreading:	Long	Short	Long	Short	Long	Short
All	401,812	:	36,651	251,069	5,152	328,987	69,903	370,790	326,124	31,022	75,688

WORKBOOK QUESTION: What is the risk when there is a large net long position?

The Commitment of Traders report

Euro FX net non-commercial positioning (2007 – 2012)



WORKBOOK QUESTION: What is a “short squeeze”?

Japanese yen net non-commercial positioning (2007 – 2012)



Euro FX net non-commercial positioning (white) & EURUSD price (yellow)



The Commitment of Traders report

Australian dollar net non-commercial positioning (2007 – 2012)



WORKBOOK QUESTION: Is the COT positioning indicator a contrarian indicator?

Sentiment surveys

- These surveys are based on sentiments and questionnaires as opposed to actual transactions.
- CONSENSUS Inc. from Missouri draws from an extensive mix of both brokerage house analysts and independent advisory services to compile the following sentiment survey which shows the total number of bulls for a number of different currencies.

	Week Ending 08-24-12	Week Ending 08-17-12	Week Ending 08/10/2012
Swiss Franc	36%	33%	31%
British Pound	46%	43%	40%
Euro FX	44%	39%	39%
Canadian Dollar	77%	79%	77%
U.S. Dollar Index	58%	63%	61%

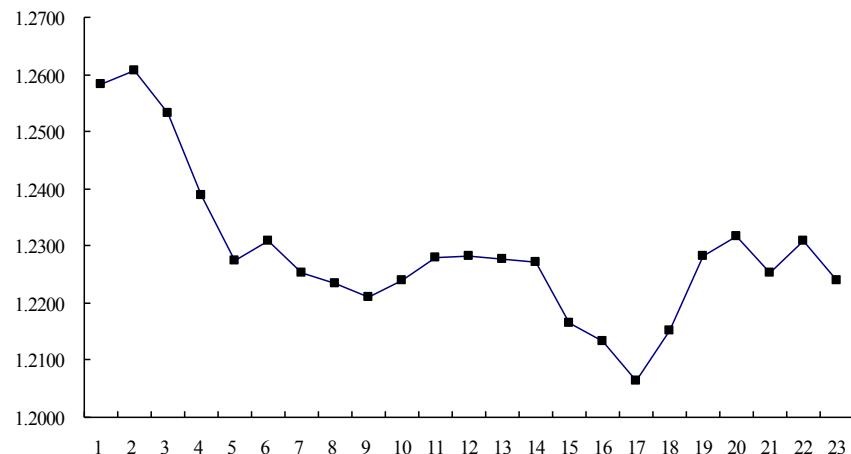
WORKBOOK QUESTION: Should traders have been cautious about going long the Canadian dollar when this data was released?

Technical terms seen in 5-Step-Trading® Stocks

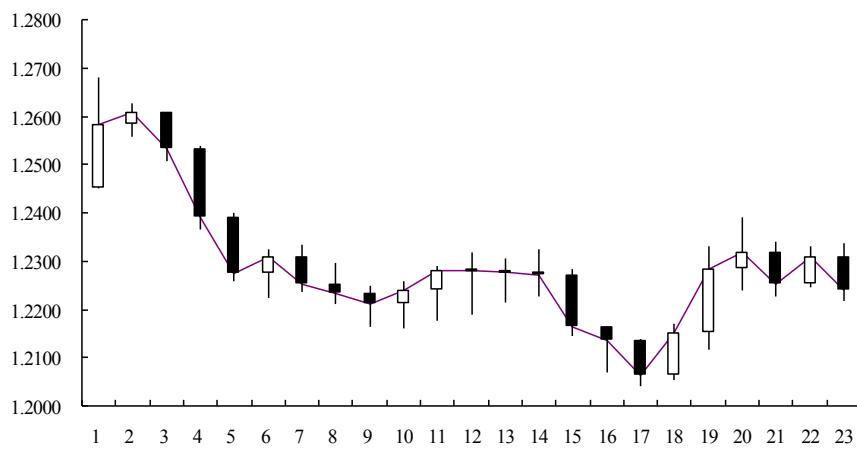
- Daily line charts only plot the closing price of each day without showing where the price has been trading during the day.
- Candlesticks do plot this additional information by showing the highest and lowest level where the price has traded at and as well as the opening and closing prices.



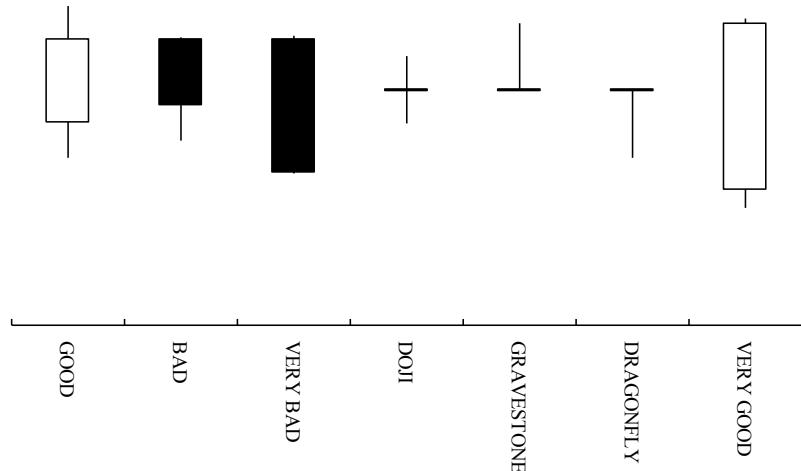
EURUSD - Line Chart



EURUSD - Candlestick & Line chart



Technical terms seen in 5-Step-Trading® Stocks

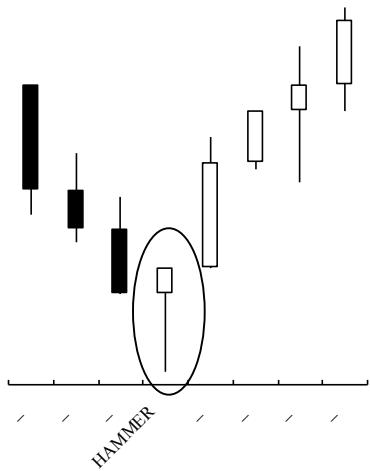


- Candle 1, good: the price closed higher than where it opened.
- Candle 2, bad: the price closed lower than where it opened.
- Candle 3, very bad: the price barely traded above the opening price and closed pretty much at the low.
- Candle 4, doji: the price opened and closed at the same level but traded above and below it. This normally indicates indecisions as neither the sellers or buyers have been able to dominate the price action.
- Candle 5, gravestone doji: this is a negative candle because the price traded above the open but sellers stepped in and pushed the price back down.
- Candle 6, dragonfly doji: this is a positive candle because the price traded below the open but buyers stepped in pushing the price back up.
- Candle 7, very good: the price barely traded below the open and closed pretty much at the high.

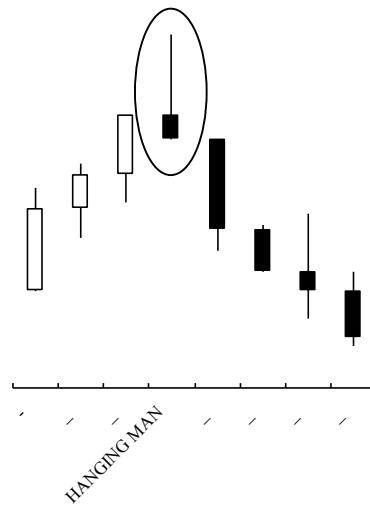
Technical terms seen in 5-Step-Trading® Stocks

- Most of the candlestick patterns seen in 5-Step-Trading® Stocks are not really applicable to the FX markets. This is because in FX, the open of a candle is almost always the same as the close of the previous candle because the market only closes over the weekend.
- These two patterns from 5-Step-Trading® Stocks are probably the only ones worth mentioning here:

The Hammer (bullish)

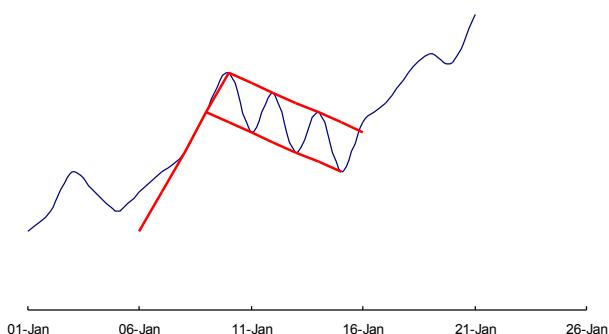


The Hanging Man (bearish)

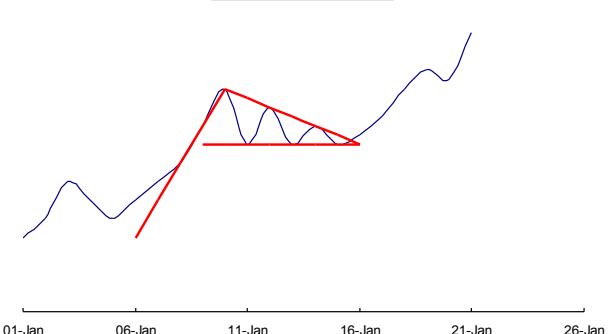


- Continuation price patterns: These patterns are usually followed by a break-out into the direction of the previous trend.
 - The flag resembles a downward sloping rectangle marked by two parallel trend lines.
 - The pennant is a downward sloping pattern but instead of a rectangle it looks like a vertical triangle.

FX Price — Flag



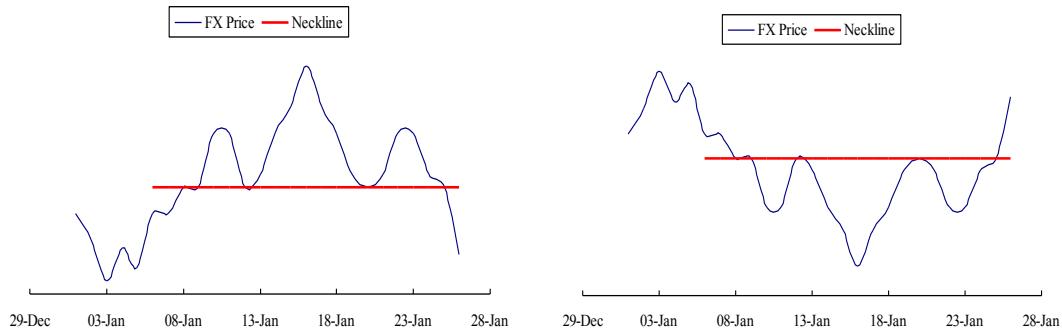
FX Price — Pennant



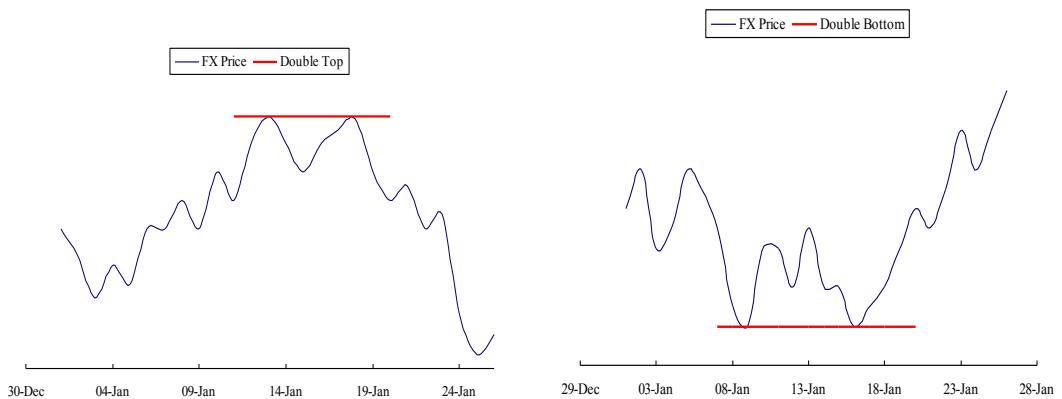
Technical terms seen in 5-Step-Trading® Stocks

- Reversal price patterns: These patterns often indicate the end of a trend and signal to a potential reversal.

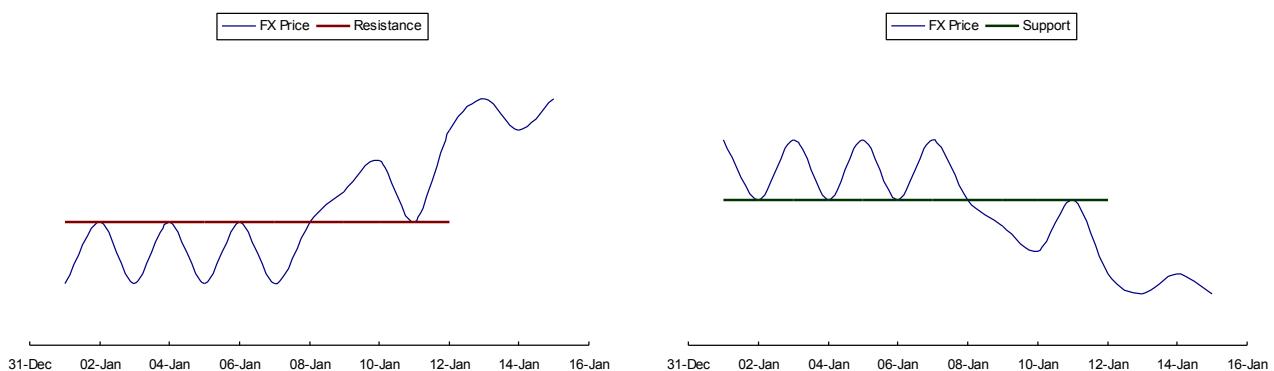
- Head and shoulders / inverted head and shoulders



- Double top /double bottom



- When a resistance level is broken, buyers overwhelm sellers and normally an explosive move is observed. If the price retraces back to this level, traders who have missed the initial break-out might step in as it constitutes a good buying opportunity thus establishing a support level from what was initially a resistance level. The exact same opposite would apply for a broken support level that becomes resistance as sellers dominate buyers at the broken support level.



Step 4: Self check

- In 5-Step-Trading® FX we look at your personality and at the markets' psychology.

You: Personality
You: Beliefs & Experiences
You: Situation
You: Trading plan
You: Dynamics

Market technicalities
Market psychology
Market wisdom
The trading zone

WORKBOOK EXERCISE: Explain what each of the key traits discussed in 5-Step-Trading® refer to.

Mental toughness	
Ability to listen	
Ability to analyse	
Ability to realise when things don't add up	
Ability to be sometimes flexible and sometime stubborn	
Numerical skills	
Desire to keep learning	
Ability to be decisive	

You: Personality

WORKBOOK EXERCISE: Explain the following weaknesses and their implications on trading.

➤ Weakness 1 overconfidence:

➤ Weakness 2 lack of discipline:

➤ Weakness 3 lack of patience:

➤ Weakness 4 easily bored:

WORKBOOK QUESTION: Is there anything in your weaknesses that you need to overcome to become a better trader?

WORKBOOK QUESTION: How can the 5-Step-Trading® FX methodology help you overcome some of these issues?

You: Beliefs & Experiences

- Think for yourself and do not let others influence you by what they are saying or doing.
- A lot of people who teach how to trade do not trade themselves and you should be able to think for yourself as opposed to following someone else's rules blindly.
- There are many factors affecting the FX market and there is no such thing as a holy grail.
- Bad trading decisions might make money purely out of luck. Do not fall into the temptation of repeating your errors. It is more important to focus on the process rather than on the outcome.
- Traders live in a world of uncertainty. Inevitably traders will have losing trades, learn to accept them.

WORKBOOK QUESTION: *What is the disadvantage of listening to other people's trading advice? Do they always give you a complete trading plan?*

WORKBOOK QUESTION: *Is there anything in your beliefs and experiences that you need to overcome to become a better trader?*

You: Situation

- When going through difficult times learn to stay away from the markets. You need to have a clear mind when you trade.
- Only trade with money you can afford to lose. If you *need* to make a certain amount of money each month from the FX market you will end up chasing trades and probably taking excessive risk.
- Trading takes time and commitment: be sure to adapt your trading style and horizon to your available time.

WORKBOOK QUESTION: *Is there anything in your personal situation that you need to overcome to become a better trader?*

You: Trading plan

- To overcome potential issues from your own personality, beliefs, experiences and situation it is very helpful to follow a trading plan.
- Accept that you cannot be right all the time and that when you stick to a trading plan your emotions will be more balanced and under control. Do not take trades personally.
- Keep a trading diary. For a template refer to appendix F.
- Common pitfalls of not being able to stick to a trading plan:
 - Falling in love with a certain trade.
 - Lack of belief of needing a trading plan.
 - Lack of patience.
 - Fear of losing money
- You need to develop confidence in your trading plan:
 - Use a simulation account first.
 - Trade a smaller amount of currencies when you feel less confident or unsure about a trade.

WORKBOOK QUESTION: *Why would trading a smaller amount of currencies help you avoid some of the common pitfalls and develop more confidence?*

WORKBOOK QUESTION: *What kind of mistakes do you think someone can make in a trading plan?*

You: Dynamics

- Trading is a never ending learning experience.
- Markets keep changing and so do the technologies. Be flexible and be aware of what is happening.

WORKBOOK QUESTION: *Where do you see yourself on the learning curve?*

WORKBOOK QUESTION: *Which areas do you need to focus on to further develop yourself?*

Market technicalities

- You need to understand the rules of the game. How does the market operate? Which are the mechanics that impact the market? How does your broker make money? What do other the market participants do?

Market psychology

- For every buyer there is a seller.
- When prices move up, it indicates that more people are buying than selling.
- If the overall sentiment is very bullish chances are you will be as well. But when everyone is bullish a lot of the good news is already priced in and further upside might be limited.
- Markets can overreact.

WORKBOOK QUESTION: *If the price of a currency pair has been moving sideways and volatility is low, will traders get more or less involved? Will traders get more involved if the price breaks out of this sideways moving range?*

Market wisdom

WORKBOOK EXERCISE: Explain the following wisdom quotes.

- Do not catch a falling knife:
 - There are old traders and there bold traders but no old bold traders:
 - The trend is your friend:
 - There is a time to be long, a time to be short, and a time to go fishing:
 - The market can remain irrational longer than you can remain solvent:
 - Take care of your losses and the profits will take care of themselves:
 - It is better to wish you were in a trade than to wish you were out of a trade:
 - The only way to earn money quickly is to never be in a hurry:

The trading zone

- You will be physically and mentally relaxed.
- You will feel in control.
- You will be calm.
- You will be energized.
- You will be positive.
- You will be focused.
- You will be confident.
- It will all feel effortless.

WORKBOOK QUESTION: *How do you get into this trading zone?*

Step 5: Risk management.

- In this section additional concepts that impact the FX market are explained and potential portfolio and risk management issues are discussed.

Bid and ask price

Trading sizes

Profit and losses (P&L)

Pip values

The roll-over

Margin requirements and leverage

Portfolio & risk management: Position size

Portfolio & risk management: Net exposures

Portfolio & risk management: Rules

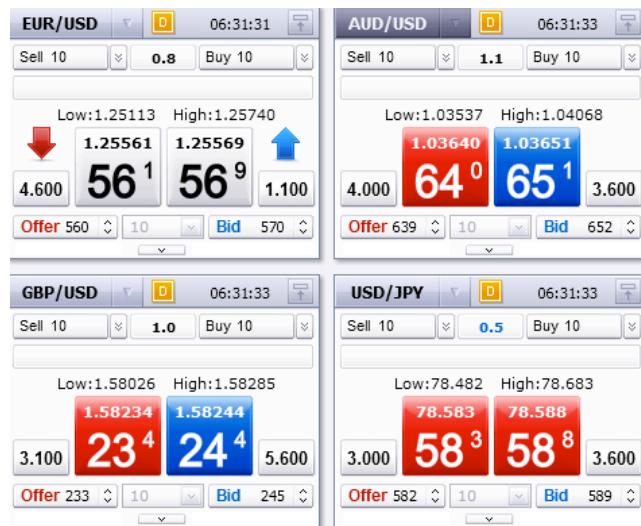
- “One poorly managed position can drown your whole portfolio”.
- “A trader is in the business of risk”.

Bid and ask prices

- The bid price is the price at which you can sell a currency-pair right now.
- The ask (offer) price is the price at which you can buy a currency-pair right now.

	BID	ASK
GBPUSD	1.6005	1.6007
Sell GBPUSD (Short GBP) (Long USD)		Buy GBPUSD (Long GBP) (Short USD)
Exit Long Position Open Short Position		Exit Short Position Open Long Position
Spread = ASK PRICE – BID PRICE		
Spread GBPUSD = 1.6007 – 1.6005 = 0.0002 = 2 pips		

- This is what a typical trading platform could look like:



WORKBOOK EXERCISE: Calculate the spread in EURUSD in the previous picture.

Bid and ask prices

WORKBOOK QUESTION: Why is the bid price always lower than the ask price?

Trading sizes

WORKBOOK EXERCISE: Complete the following table.

Terminology	Amount of currency pairs
1 lot	
1 mini lot	
1 micro lot	

- When you buy/sell an amount of currency pairs you always buy/sell the same amount of first currency in the pair (base currency).
- Going long 50,000 GBPUSD at 1.60 equals to going long 0.5 lots, 5 mini-lots or 50 micro-lots. But it also equals to going long £50,000 and going short \$80,000 because each pound sterling is worth \$1.60.

WORKBOOK QUESTION: If a trader goes long 3 lots EURUSD at 1.20 how many US dollars has the trader sold (borrowed)?

WORKBOOK QUESTION: If a trader goes long 1 lot USDJPY at 80 how many US dollars has the trader bought and how many Japanese yen has been sold (borrowed)?

Profit and losses (P&L)

- $P\&L = (\text{sell price} - \text{buy price}) \times \text{trading size}$

Sell price: price at which short position was opened or a long position was exited.

Buy price: price at which a short position was exited or a long position was opened.

Trading size: amount of currency pairs traded.

Example

Entry: long 1 lot GBPUSD @ 1.58

Exit: sell 1 lot GBPUSD @ 1.60

$$P\&L = (1.60 - 1.58) \times 100,000 = 0.02 \times 100,000 = \$2,000$$

- If you use this formula, bear in mind that P&L is always expressed in terms of the second currency of the pair (quote currency). If your account's currency is different you need to convert this result into your account's currency. This process is explained in appendix G.

WORKBOOK EXERCISE: A trader has gone short one lot EURUSD at 1.35 and was stopped out at 1.36. Calculate the P&L in US dollars and in euros.

WORKBOOK EXERCISE: Calculate the P&L in US dollars and Japanese yen for a trader who went long one mini-lot of USDJPY at 79 and took profits at 80.

Pip values

- Generally speaking 1 pip equals a movement of 0.0001 but there are a few exceptions such as the Japanese yen and the Indian rupee.

Pair	Entry	Exit	Amount of pips	
EURUSD	1.2500	1.2600	100 pips	1 pip = 0.0001
EURGBP	0.7900	0.8000	100 pips	1 pip = 0.0001
USDJPY	78.00	79.00	100 pips	1 pip = 0.01
USDINR	54.00	55.00	100 pips	1 pip = 0.01

- Pip value = 1 pip x trading size,

Just like with the P&L, this value is always expressed in terms of the second currency of the pair (quote currency).

Example

Entry: long 1 lot GBPUSD @ 1.58

Exit: sell 1 lot GBPUSD @ 1.60

Pip value = 0.0001 x 100,000 = 10 USD

P&L = 200 pips x 10 USD = \$2,000

- A few more examples:

Pip values

(expressed in the quote currency)

	GBPUSD	USDCNH	USDJPY	EURGBP	EURCHF
1 lot (100,000)	\$10	SFr 10	¥1000 (100,000x0.01)	£10	Sfr 10
1 mini-lot (10,000)	\$1	SFr 1	¥100 (10,000x0.01)	£1	Sfr 1
1 micro-lot (1,000)	\$0.1	SFr 0.1	¥10	£0.1	Sfr 0.1

WORKBOOK QUESTION: Why is the dollar-yen's pip value such a high amount of yen? If the exchange rate of USDJPY is 80 (80 Japanese yen equal \$1) how much would the pip value of this pair be in US dollars?

The roll-over

- The roll-over which normally happens at 5 PM EST is a process during which interest is being charged on all the currencies borrowed (sold) and interest is paid out on all currencies deposited (bought).
- The interest rates used will not only depend on the official overnight lending and deposit rates of each currency's country but also on the broker. Some brokers show their roll-over rates but others do not.
- Here you can see an example of how a broker might show roll-over rates. This particular platform shows in the last two columns the amount of money that will be paid out or has to be paid if one lot is traded. Other platforms might show it for a mini-lot or a different trading size, so always check very carefully before you trade!
- In this particular platform, if a trader owns 1 lot AUDUSD, he would look at the "Roll B" column in the "AUDUSD" row and see that he would receive \$2.52 per lot owned for every day of roll-over.

Symbols Information				
Symbol	High	Low	Roll S	Roll B
EUR/USD	1.25740	1.25113	0.24	-0.48
USD/JPY	78.683	78.482	-0.28	0.12
GBP/USD	1.58285	1.58026	-0.40	0.20
USD/CHF	0.95980	0.95520	-0.60	0.24
EUR/JPY	98.792	98.376	0.16	-0.36
EUR/GBP	0.79509	0.79126	0.44	-0.92
GBP/JPY	124.427	124.064	-0.60	0.28
USD/CAD	0.99262	0.98753	0.56	-1.16
AUD/USD	1.04068	1.03537	-5.24	2.52
NZD/USD	0.81185	0.80144	-2.72	1.28
GBP/CHF	1.51770	1.51122	-1.48	0.60
EUR/CHF	1.20185	1.19999	-0.28	0.08

- The roll-over rates on a currency pair bought (roll B) and currency pair sold (roll S) differ from each other because lending rates are usually higher than deposit rates.
- For more information about the roll-over, please refer to appendix H.

WORKBOOK QUESTION: *What would the amount debited or credited be for a trader that goes long 1 lot of EURUSD?*

The roll-over

WORKBOOK QUESTION: What would the amount debited or credited be for a trader that goes short 5 mini-lot of EURUSD?

WORKBOOK QUESTION: If interest rates in the US are 0.25% and in the UK are 1.50% and you'd buy GBPUSD, would you receive or pay a net interest?

Margin requirements and leverage

- Margin is the amount of money that is required by a broker before entering into a position and is normally only a small percentage of the total value of that position.
- For US based brokers, at least 2% margin is required for positions on major currency pairs. A major currency pair is any combination of the following currencies:

Major currencies: Australian Dollar (AUD), Canadian Dollar (CAD), Swiss Franc (CHF), Euro (EUR), Great British Pound (GBP), Japanese Yen (JPY), US Dollar (USD), New Zealand Dollar (NZD), Norwegian Krone (NOK), Swedish Krona (SEK), Danish Kroner (DKK)

- This means that you can trade for example 10,000 US dollar-Swiss francs (USDCHF) with as little as 200 US dollars on your account.
- For more exotic pairs the margin requirements are normally higher. US based brokers have to require at least 5% by law.

WORKBOOK QUESTION: What is leverage?

Margin requirements and leverage

WORKBOOK QUESTION: What percentage margin would a US broker require for a position in the US dollar versus the Mexican peso?

WORKBOOK QUESTION: What percentage margin would a US broker require for a position in the Australian dollar versus the Swedish krona?

WORKBOOK QUESTION: How many times are you leveraged with a margin requirement of 2%? How would you answer change if the margin requirement is 0.5%?

Margin requirements and leverage

WORKBOOK EXERCISE: Complete the following table (Sunday and Monday have been done for you).

Initial balance	\$4,000
Position:	Long 100,000 GPBUSD @ 1.60 initiated on Monday

	Sunday	Monday	Tuesday	Wednesday
GBPUSD	1.60	1.60	1.62	1.59
Position	-	£100,000	£100,000	£100,000
Unrealised P&L	-	-		
Account Value (available margin)	\$4,000	\$4,000		
Margin Requirement	-	\$3,200		
Excess Margin	\$4,000	\$800		

- Sunday: No position is taken or held. Initial balance, account value and margin excess are all the same.
- Monday: A long position of 100,000 GBPUSD @ 1.60 is opened. This means that 100,000 pound sterling are bought and 160,000 US dollars are sold (borrowed). A 2% margin on £100,000 equals £2,000 which converted at the current market price (1.60) equals \$3,200. The value of the account is \$4,000 which means there is \$800 of excess margin.
- Tuesday:
- Wednesday:

WORKBOOK QUESTION: What is a margin call?

Margin requirements and leverage

WORKBOOK QUESTION: *Why did margin requirements increase on Tuesday and decrease on Wednesday?*

WORKBOOK QUESTION: *Why is leverage a double-edged sword?*

Portfolio & risk management: Position size

- There are several ways to go about sizing a position:

Possibilities to size a position:	Example	Issues
Same amount of money	\$10,000 / position	Not all currency pairs move alike.
Same amount of margin	\$1000 margin / position	Not all currency pairs move alike. Not all currency pairs require same amount of margin.
Same amount of trading size	1 lot / position	Not all currency pairs move alike. The value of a lot is not the same for all currency pairs.
Same amount of maximum loss	2% of equity / position	Does not take the amount of conviction into account.

- In 5-Step-Trading® FX we recommend to use the last approach because it allows you to control your risk and limit your losses given the entry and stop-loss levels.
- Summary of our trading ideas:

Idea no.	Bias	Pair	Triggered?	Entry	Stop	Position size
1	Short	AUDUSD	Yes	1.04	1.11	2% capital
2	Short	USDINR	No	---	---	---
3	Short	USDPEN	Yes	2.61	2.71	2% capital
4	Short	USDSGD	No	---	---	---
5	Long	AUDJPY	Yes	81	73	1% capital
6	Long	MXNZAR	Yes	0.63	0.59	2% capital

Portfolio & risk management: Position size

- Assuming a \$10,000 portfolio and a maximum risk parameter of 2% per position we calculate the following trading sizes.

	Entry	Stop	Number of pips between entry and stop	Pip value in	Value of 2% of a \$10,000 account in the quote currency	Pip value	Trading size: Micro- lots
AUDUSD	1.0400	1.1100	700 pips	USD	200 USD	$\frac{200}{700} = 0.29 \text{ USD}$	2.9
USDINR	50	57	700 pips (1 pip = 0.01)	INR	$200 \times 57 = 11,400 \text{ INR}$	$\frac{11,400}{700} = 16.29 \text{ INR}$	1.6
USDPEN	2.61	2.71	1,000 pips	PEN	$200 \times 2.71 = 542 \text{ PEN}$	$\frac{542}{1000} = 0.54 \text{ PEN}$	5.4
USDSGD	1.2900	1.3200					
AUDJPY	81.00	73.00	800 pips (1 pip = 0.01)	JPY	$100 \times \text{USDJPY} = 100 \times 80 = 8000 \text{ JPY}$	$\frac{8000}{800} = 10 \text{ JPY}$	1
MXNZAR	0.6300	0.5900					

- AUDUSD: the quote currency is the US dollar so no adjustment needs to be made to the \$200 that is being risked.
- USDINR: the quote currency is the INR so the \$200 needs to be converted into Indian rupees. Also note that for the Indian rupee 1 pip equals 0.01 so the pip value for a micro-lot is 10 Indian rupees.
- USDPEN: the quote currency is the PEN so the \$200 needs to be converted into Peruvian new soles.
- AUDJPY: half a position is taken so \$100 is risked instead of \$200. The JPY is the quote currency so this \$100 needs to be converted into Japanese yen. Also note that 1 pip equals 0.01 so the pip value for a micro-lot is 10 Japanese yen. Finally, in this case, the loss could be slightly bigger or smaller if the stop-loss would be hit because USDJPY most likely will be trading at another level in the future than the level used to calculate the trading size today.
- For an alternative method of calculating trading sizes please refer to appendix I.

WORKBOOK EXERCISE: Calculate the trading size for the trading setup in USDSGD and MXNZAR in the previous table. Assume the following exchange rates:

USDSGD: 1.2280

EURSGD: 1.5855

USDMEX: 12.88

USDZAR: 8.4052

Portfolio & risk management: Net exposures

- This is what the triggered portfolio would look like:

Idea no.	Direction	Size	Pair	Entry	Stop	Position size
1	Short	2,900 (2.9 micro lots)	AUDUSD	1.04	1.11	2% capital
3	Short	5,400 (5.4 micro-lots)	USDPEN	2.61	2.71	2% capital
5	Long	1,000 (1 micro-lot)	AUDJPY	81	73	1% capital
6	Long	42,000 (42 micro-lots)	MXNZAR	0.63	0.59	2% capital

- Two initial observations can be made.

- Idea 1 is long the USD but idea 2 is short the USD: this does not necessarily mean that they cancel each other out though.

$$\begin{array}{lll}
 \text{Short 2,900 AUDUSD @ 1.04} & \rightarrow & +1.04 \times 2,900 = 3,016 \text{ USD} \\
 \text{Short 5,400 USDPEN} & \rightarrow & - 5,400 \text{ USD} \\
 & & \text{Net exposure: } - 2,384 \text{ USD}
 \end{array}$$

- Idea 1 is short the AUD but idea 5 is long the AUD: this does not necessarily mean that they cancel each other out either.

WORKBOOK EXERCISE: Calculate the net exposure to the Australian dollar.

WORKBOOK QUESTION: If the Japanese economy weakens more than the Australian economy, is it possible that idea 1 and 5 both will make money?

Portfolio & risk management: Net exposures

- Aside from looking at the net exposure of multiple positions in the same currency it is also important to investigate if the portfolio has a certain thematic or economic bias (i.e. economic growth / slowdown)

WORKBOOK EXERCISE: Complete the following table:

Position	P&L in flight to safety
Short AUDUSD	
Short USDPEN	
Long AUDJPY	
Long MXNZAR	

WORKBOOK QUESTION: Explain why USDPEN and AUDJPY positions are likely to result in a loss in the event of a flight to safety scenario? Why is a loss on MXNZAR unclear?

WORKBOOK QUESTION: Why is it important to have different and uncorrelated trading ideas?

Portfolio & risk management: Net exposures

- These are trades that were not triggered and are on the watch-list. Let's analyse the impact of these ideas on the portfolio.

Idea no.	Bias	Size	Pair	Entry	Stop	Position size
2	Short	1,600 (1.6 micro lots)	USDINR	50	57	2% capital
4	Short	8,800 (8.8 micro-lots)	USDSGD	1.29	1.32	2% capital
4	Short	8,333 (8.3 micro-lots)	USDSGD	1.22	1.25	2% capital
5	Long	471 (0.47 micro-lots)	AUDJPY	90	73	1% capital
5	Long	2,000 (2 micro-lots)	AUDJPY	77	73	1% capital

- Short USDINR: If this trade would be triggered, the portfolio would be too exposed towards a pro-economic growth bias. Therefore we should look into selling another currency against the Indian rupee and go back to step 2 and 3.

Because the Indian rupee is quite an exotic currency some brokers are unlikely to offer any other cross involving the Indian rupee than USDINR. If this were the case you would need to construct what is called a synthetic position meaning that you would sell USDINR and at the same time buy US dollars against the currency you wanted to sell in first place against the Indian rupee.

So for instance if you want to trade EURINR, you would need to sell 1,600 USDINR but then you would need to buy 1,600 US dollars and sell correspondent amount of euro.

WORKBOOK EXERCISE: Explain the impact on the overall portfolio if the USDSGD trade would be triggered.

- Long AUDJPY: This is only half a position and could be added to the portfolio without creating any concerns.

Remember that this analysis is approximate. These trigger points are on the watch list because the price has not approached the trigger points yet (as of the moment this list was constructed). Most likely by the time any of these points got triggered, a better and more informed decision can be made and the portfolio will have most likely changed as well.

Portfolio & risk management: Net exposures

WORKBOOK QUESTION: *Why is there such a difference between the trading sizes of the two AUDJPY trade set-ups in the watch-list? Is the one with larger trading size liable to a greater loss?*

Portfolio & risk management: Rules

WORKBOOK EXERCISE: *Explain why the following rules are so important.*

- Rule 1: Never lose more than 2% of your money in a single trade.

- Rule 2: When you lose 10% of your capital, close down your whole portfolio and don't trade for a month.

- Rule 3: Stick to the process.

- Rule 4: Run a diversified FX portfolio.

- Rule 5: Run your portfolio at such a level that you can still sleep at night.

Portfolio & risk management: Rules

WORKBOOK QUESTION: *Can you risk less than 2% on a trade?*

WORKBOOK QUESTION: *On a \$5,000 account what is the maximum amount of money you should risk on a given trade opportunity?*

WORKBOOK QUESTION: *What is the “sleeping point”?*

Appendix A: Wage adjusted Big Mac Index

Swiss investment bank UBS publishes a report comparing the living cost of different cities and the average earnings in different sectors amongst other things. The following website has the latest released report:

http://www.ubs.com/global/en/wealth_management/wealth_management_research/prices_earnings.html

The report also includes statistics based on the Big Mac index. It tells the average amount of working time necessary to buy a Big Mac which is a great indicator of labour costs. The more minutes that are necessary to buy 1 Big Mac, the cheaper the labour.

Working time (in minutes) to buy 1 Big Mac			
	2006	2009	2012
Amsterdam	19	19	16
Athens	26	30	30
Auckland	14	19	16
Bangkok	67	45	36
Barcelona	21	21	19
Beijing	44	44	34
Berlin	17	19	16
Bogotá	97	58	52
Bratislava	55	62	32
Brussels	20	19	20
Bucharest	69	42	57
Budapest	48	59	49
Buenos Aires	56	57	45
Cairo	NA	82	67
Caracas	85	126	81
Chicago	12	12	11
Copenhagen	18	17	16
Delhi	59	49	65
Doha	NA	34	21
Dubai	25	18	12
Dublin	15	15	14
Frankfurt	16	15	15
Geneva	16	17	14
Helsinki	19	27	16
Hong Kong	17	14	10
Istanbul	48	48	42
Jakarta	86	136	62
Johannesburg	30	26	26
Kiev	55	45	46
Kuala Lumpur	33	41	26
Lima	86	58	21
Lisbon	32	23	22
Ljubljana	35	34	25
London	16	13	16
Los Angeles	11	13	11
Luxembourg	17	15	11
Lyon	24	20	17

Working time (in minutes) to buy 1 Big Mac			
	2006	2009	2012
Madrid	19	27	18
Manama	24	25	20
Manila	81	88	73
Mexico City	82	129	48
Miami	12	13	12
Milan	20	27	18
Montreal	17	15	19
Moscow	25	21	18
Mumbai	70	61	56
Munich	17	20	15
Nairobi	91	158	84
New York	13	14	10
Nicosia	19	18	12
Oslo	18	21	18
Paris	21	20	16
Prague	39	38	34
Riga	28	42	33
Rio Janeiro	53	51	45
Rome	25	27	23
Santiago de Chile	56	69	56
Sao Paulo	38	40	39
Seoul	29	27	17
Shanghai	38	30	29
Singapore	22	36	NA
Sofia	69	56	36
Stockholm	21	20	17
Sydney	14	14	12
Taipei	20	20	15
Tallinn	39	30	28
Tel Aviv	NA	24	17
Tokyo	10	12	9
Toronto	14	12	11
Vienna	16	17	14
Vilnius	43	41	33
Warsaw	43	31	36
Zurich	15	15	13

Appendix B: Current Account

In the main text we give a short explanation of the current account, however it is a little more complicated.

The **Current Account** is in fact composed of:

- The **Balance of Trade**, which is the difference between the value of all exports and imports of goods and services plus
- The **Net Factor Income**, which are the net amount of payments received on the ownership of foreign assets (i.e. dividends received on foreign equities) and the net amount of salaries received from people working abroad plus
- **Unilateral Transfers**, which show the amount of money sent or received as gifts such as donations, aids and remittances.

US current account 2012 Q1	Millions of \$
Exports of goods and services and income receipts	728,724
Exports of goods and services	544,016
Goods, balance of payments basis	388,523
Services	155,493
Transfers under U.S. military agency sales contracts	4,406
Travel	30,900
Passenger fares	9,734
Other transportation	10,863
Royalties and license fees	30,429
Other private services	68,833
U.S. government miscellaneous services	327
Income receipts	184,708
Income receipts on U.S.-owned assets abroad	183,230
Direct investment receipts	116,321
Other private receipts	66,146
U.S. government receipts	763
Compensation of employees	1,479
Imports of goods and services and income payments	-829,657
Imports of goods and services	-692,380
Goods, balance of payments basis	-582,821
Services	-109,559
Direct defense expenditures	-6,838
Travel	-21,228
Passenger fares	-8,936
Other transportation	-13,716
Royalties and license fees	-9,859
Other private services	-47,866
U.S. government miscellaneous services	-1,115
Income payments	-137,277
Income payments on foreign-owned assets in the United States	-133,885
Direct investment payments	-45,585
Other private payments	-55,396
U.S. government payments	-32,904
Compensation of employees	-3,392
Unilateral current transfers, net	-32,692
U.S. government grants	-11,910
U.S. government pensions and other transfers	-2,541
Private remittances and other transfers	-18,241

Source: US Bureau of Economic Analysis

Appendix C: Net International Investment Position

Studies suggest that currencies perform better in countries with a positive net **International Investment Position (IIP)**. IIP is defined as the difference between a country's external assets and its liabilities, ie between what it owns and what it owes. Basically a positive number means that a country owes more assets abroad than foreigners own of that country. This normally is the case when a country is doing well and producing a surplus of funds. Aside from this, it also implies a future demand for the currency because at some point these claims will mature and converted back.

In this 5 year period you can see that currency performance has been structurally superior in the top five developed non euro-area countries compared to the bottom five countries.

Asset performance from end-2007 to end 2011

Top 5	Net IIP end 2007 (% of GDP)	Currency appreciation versus USD	Bottom 5	Net IIP end 2007 (% of GDP)	Currency appreciation versus USD
New Zealand	-92%	1%	Japan	50%	45%
Australia	-63%	17%	Norway	59%	-9%
Iceland	-105%	-50%	Switzerland	141%	21%
United Kingdom	-21%	-20%	Singapore	163%	11%
US	-18%	Not applicable	Hong Kong	234%	0%
Average:	-59. 8%	-13%	Average:	129. 4%	13. 6%

Source: Bloomberg, SG Cross Asset Research

An important consideration regarding the US is that the US dollar is still the reserve currency of the world and every central bank holds US dollars in their FX reserves. Given this structural demand, a certain tolerance is given towards the negative net IIP figure for the US. This relation might deteriorate in the future as it is unlikely to hold. Some countries such as China already expressed its concerns and is trying to raise the profile of their currency as a reserve currency in the Southeast Asian countries.

You can obtain the net IIP from different websites such as Eurostat or the IMF but calculations might slightly differ:

<http://imfstatext.imf.org/WBOS-query/Index.aspx?QueryId=6325>

<http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tipsii10>

Appendix D: Data sources for the fundamental checklist

Unfortunately constructing the fundamental checklist can be quite a laborious process and not all data is easy to obtain.

The majority of economic indicators from the checklist are obtainable from the International Monetary Fund statistical database.

1) Go to the International Monetary Fund website and click on the “Data and Statistics” tab. Then click on the “World Economic Outlook Databases (WEO).

The IMF publishes a range of time series data on IMF lending, exchange rates and other economic and financial indicators. Manuals, guides, and other material on statistical practices at the IMF, in member countries, and of the statistical community at large are also available.

- » [Data](#)
- » [Standards and Codes](#)
- » [Manuals and Guides](#)
- » [Meetings and Related Statistical Materials](#)
- » [Additional Data Sources](#)

Data

» [Global Data](#)

World Economic Outlook Databases (WEO) Provides comprehensive trial and subscription access to IFS, BOPs, DOTS, inflation, unemployment, payments

2) Click on the latest World Economic Outlook Database.

The World Economic Outlook (WEO) database is created during the biannual WEO exercise, which begins in January and June of each year and results in the April and September WEO publication. Selected series from the publication are available in a database format. See also, the [World Economic Outlook Reports](#).

Select latest report

World Economic Outlook Database April 2012 Date: April 17, 2012

World Economic Outlook Database September 2011 Date: September 20, 2011

World Economic Outlook Database April 2011 Date: April 11, 2011

World Economic Outlook in Maps – October 2010 Database Date: October 21, 2010

World Economic Outlook Database October 2010 Date: October 06, 2010

World Economic Outlook Database April 2010 Date: April 21, 2010

World Economic Outlook in Maps – April 2010 Database Date: April 21, 2010

World Economic Outlook Database October 2009 Date: October 01, 2009

3) Click on “All countries”.

4) Click on “Clear All” and then select the countries you want to obtain data from by clicking on the tick-box next to each country. Then click

1. Select Country Group

Country Group	Notes
All countries	
Advanced economies	
Euro area	
Major advanced economies (G2)	
Newly industrialized Asian economies	
Emerging and developing economies	
Central and eastern Europe	
Commonwealth of Independent States	
Developing Asia	
Latin America and the Caribbean	
Middle East and North Africa	
Sub-Saharan Africa	

2. Select Countries

Select All	Clear All	Continue >	
All countries (184 countries)			
Countries	Notes	Countries	Notes
<input type="checkbox"/> Islamic Republic of Afghanistan		<input type="checkbox"/> Latvia	
<input type="checkbox"/> Albania		<input type="checkbox"/> Lebanon	
<input type="checkbox"/> Algeria		<input type="checkbox"/> Lesotho	
<input type="checkbox"/> Angola		<input type="checkbox"/> Liberia	
<input type="checkbox"/> Antigua and Barbuda		<input type="checkbox"/> Libya	
<input type="checkbox"/> Argentina		<input type="checkbox"/> Lithuania	
<input type="checkbox"/> Armenia		<input type="checkbox"/> Luxembourg	
<input checked="" type="checkbox"/> Australia		<input type="checkbox"/> Former Yugoslav Republic of Macedonia	

5) Now you can select 6 of the 10 economic indicators from our checklist. Once all six are selected, click “Continue”.

Subjects	Notes	Availability
<input type="checkbox"/> Gross domestic product, constant prices National currency	[2/2]	
<input checked="" type="checkbox"/> Gross domestic product, constant prices Percent change	[2/2]	
<input type="checkbox"/> Gross domestic product, current prices National currency	[2/2]	
<input type="checkbox"/> Gross domestic product, current prices U.S. dollars	[2/2]	

- For debt (% of GDP) select “General government gross debt (Percent of GDP)”.
- For budget balance (% of GDP) select “General government net lending/borrowing (Percent of GDP)”.
- For current account (% of GDP) select “Current account balance (Percent of GDP)”.
- For unemployment rate (%) select “Unemployment rate (Percent of total labor force)”.
- For real GDP (% growth) select “Gross domestic product, constant prices (Percent change).”
- For inflation (%) select “Inflation, average consumer prices (Percent change)”.

6) Select the “Start year” and the “End year” and change the sort order to “by Subject then Country”. Finally, click on “Prepare Report”.

Example of a report prepared on Australia and United States:

Step 5 of 5	1	>	2	>	3	>	4	>	5	New Query
-------------	---	---	---	---	---	---	---	---	---	--

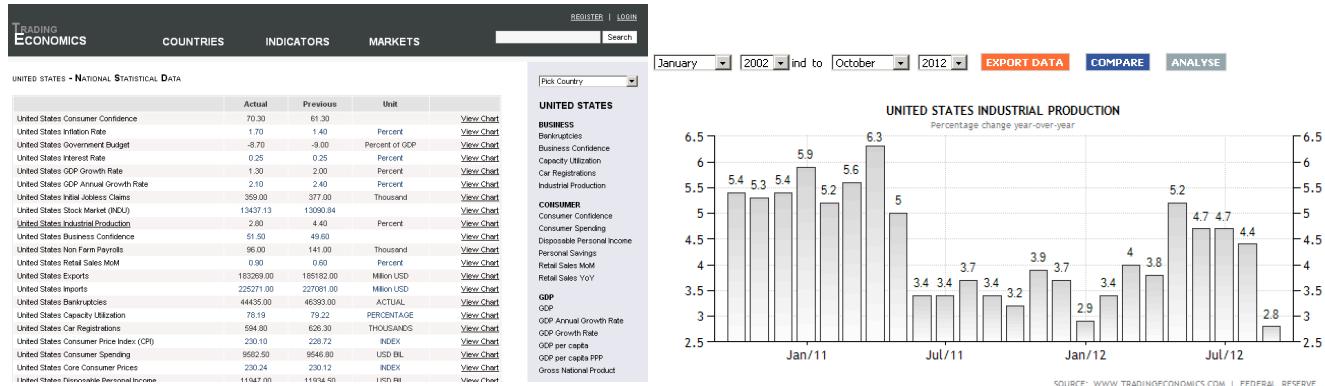
5. Report for Selected Countries and Subjects

You will find notes on the data and options to download the table below your results.

Country	Subject Descriptor	Units	Scale	Country/Series-specific Notes	Shaded cells indicate IMF staff estimates			
					2010	2011	2012	2013
Australia	Gross domestic product, constant prices	Percent change			2.544	2.035	3.034	3.502
United States	Gross domestic product, constant prices	Percent change			3.030	1.735	2.108	2.372
Australia	Inflation, average consumer prices	Percent change			2.845	3.389	2.690	3.045
United States	Inflation, average consumer prices	Percent change			1.640	3.142	2.099	1.869
Australia	Unemployment rate	Percent of total labor force			5.225	5.100	5.188	5.200
United States	Unemployment rate	Percent of total labor force			9.625	8.950	8.156	7.875
Australia	General government net lending/borrowing	Percent of GDP			-4.771	-4.269	-2.475	-0.645
United States	General government net lending/borrowing	Percent of GDP			-10.492	-9.562	-8.081	-6.316
Australia	General government net debt	Percent of GDP			4.385	7.805	9.542	9.622
United States	General government net debt	Percent of GDP			73.101	80.275	83.676	86.727
Australia	Current account balance	Percent of GDP			-2.844	-2.217	-4.614	-5.080
United States	Current account balance	Percent of GDP			-3.242	-3.137	-3.267	-3.076

The four remaining indicators from the checklist are obtainable from the following websites:

- Political stability: <http://www.euromoneycountryrisk.com>.
- Industrial production (% growth): go to <http://www.tradingeconomics.com/data-all-countries.aspx> and select the country you are interested in. Then you will see a whole list of indicators. Click on “Industrial Production”. Here you can see monthly data. If you want to compare yearly data we recommend you taking the data set from each December.



- Retail Sales (% growth): is obtained in the exactly same fashion as industrial production. Go to <http://www.tradingeconomics.com/data-all-countries.aspx>, select the country and then “Retail Sales (YoY)”.
- Interest rates: <http://www.tradingeconomics.com/interest-rates-list-by-country>.

Appendix E: Singapore's debt-to-GDP

Singapore's debt to GDP ratio does not provide an accurate representation of the country's fiscal strength. This is because the proceeds from the debt that the Singaporean government issues are not used to finance a gap in the budget balance but are actually used for very different reasons.

Singapore issues debt to:

- Help developing the domestic debt market; and to
- Meet investment needs of the **Central Provident Fund** which is Singapore's national pension fund.

The money received from these issues is then professionally managed by the following institutions:

- **The Monetary Authority of Singapore** which uses the money to control the Foreign Exchange reserves.
- **The Government of Singapore Corporation** which invests the money in a very conservative and globally diversified portfolio of different asset classes. Most of these assets are from the public market but a portion is also allocated to alternative investments such as private equity and real estate.
- **Temasek Holdings** which is a value orientated equity investment fund fully owned by the Singaporean government.

In a very simplified way we can say that the Singaporean government issues debt to create a domestic debt market and to provide a stable and safe return for the national pension fund. The money raised is then invested in different assets. And the returns of these assets help paying off the originally issued debt whilst contributing to economic growth as well. Aside from this growth, it benefits Singaporeans because the surplus of these investments is added to the annual budget meaning that the government can spend more money in areas such as education, R&D, healthcare, defence and infrastructures.

So given this situation in Singapore, you cannot compare its debt-to-GDP ratio to that same ratio of other countries.

For more information refer to: http://app.mof.gov.sg/sg_borrowings.aspx

Appendix F: Trading plan template

Step 1: Idea generation:

Reasons for the trade:

Step 2: Fundamental checklist:

GOVERNMENT			
Debt (% of GDP)			
Budget balance (% of GDP)			
Political stability			

GOVERNMENT			
Debt (% of GDP)			
Budget balance (% of GDP)			
Political stability			

INDUSTRY			
Industrial production (% growth)			
Current account (% of GDP)			

INDUSTRY			
Industrial production (% growth)			
Current account (% of GDP)			

CONSUMER			
Unemployment rate (%)			
Retail Sales (%)			

CONSUMER			
Unemployment rate (%)			
Retail Sales (%)			

COUNTRY			
Real GDP (% growth)			
Interest rates (%)			
Inflation (%)			

COUNTRY			
Real GDP (% growth)			
Interest rates (%)			
Inflation (%)			

Step3: Chart analysis:

Currency pair:	Entry price level	Stop-loss	Target

Insert picture of chart

	daily	weekly		daily	weekly		daily	weekly		daily	weekly
Uptrend	Y/N	Y/N	Downtrend	Y/N	Y/N	Ranging	Y/N	Y/N	Reversing	Y/N	Y/N

Nearest support levels:			
Nearest resistance levels:			

Step 4: Self check:

How confident do I feel about this trade? What ranking would I give this trade opportunity (0-10)?

Am I in the right mindset?

Step 5: Risk management:

Amount of risk taken (% of equity)	Entry price	Stop-loss	Trading size

- Is this trade correlated to any particular economic theme?
 - How will this trade impact my other positions in my portfolio?

Additional comments:

P&L

Pair traded	Date of entry	Entry price	Date of exit	Exit price	P&L

Appendix G: Converting currencies

Sometimes you might need to convert one amount of a certain currency into another currency. Say for instance you want to convert 1,000€ and SFr. 1,800 into US dollars.

- EUR 1,000 → USD ???
- CHF 1,800 → USD ???

Then first of all, you need to find the exchange rate involving the euro and the US dollar and the exchange rate involving the Swiss franc and the US dollar. .

- The exchange rate involving the EUR & USD is normally quoted as **EURUSD**, say it is 1.35
- The exchange rate involving the CHF & USD is normally quoted as **USDCHF**, say it is 0.90

As you might realise, the US dollar is quoted on the right in the euro-dollar cross but on the left in the dollar-swiss cross. This leads to two different scenarios on how to convert one amount of a currency into the other:

- In the first case where the US dollar is **quoted on the right (EURUSD)** we know that €1 equals \$1.35. So logically €1000 equals \$1350. We have **multiplied** the amount we wanted to convert by the exchange rate.
- In the second case where the US dollar is **quoted on the left (USDCHF)** we know that \$1 equals SFr. 0.90. So in this case we need to **divide** the amount we want to convert by this exchange rate: 1,800 divided by 0.90 equals \$2,000.

Additional & important note: If you need to convert an amount of currencies to calculate P&L's, pip values or trading sizes you need to do it at the exchange rate that applies when you exit your trade.

WORKBOOK EXERCISE: convert £1000 and ¥80,000 into US dollars and convert \$5,000 into pound sterling and Japanese yen using the following exchange rates.

GBPUSD = 1.62
USDJPY = 80

Appendix H: The roll-over

- When we talk about trading FX we always imply as if this means dealing in the spot market. Spot means trading for “immediate delivery” which means that you should immediately receive the currencies you buy and deliver the currencies you use to pay for them.
- However, in reality the word “immediate” usually means two business days so that enough time is given to both parties to do the necessary paper work and wire the money. So the real **settlement date** is two business days after a position is opened.
- Since speculators do not want to deal with the currencies physically, brokers automatically “roll-over” the contractual obligation of physical delivery by closing the position and re-opening it instantaneously at the end of each day. This process postpones the settlement date one **business day** into the future and is called the roll-over. The roll-over is normally done at 5PM EST.

A position opened on Monday settles on Wednesday. However, if the broker closes this position at the end of Monday and immediately reopens it at what is now the beginning of Tuesday, the settlement date will change from Wednesday to Thursday. If the broker does this again at the end of Tuesday, the settlement date changes to Friday. Again one business day further in the future. On Wednesday when the broker does the roll-over, the settlement date will change from Friday to the next business day which is Monday. Note that three natural days are involved in this roll-over. On Thursday, the trade that should settle on Monday will be rolled over to Tuesday and on Friday the roll-over will postpone the settlement date to Wednesday.

	At 5PM EST	Settlement date changes from to	Days Rollover
Monday + 2 business days = Wednesday	Monday	Wednesday → Thursday	1 day
Tuesday + 2 business days = Thursday	Tuesday	Thursday → Friday	1 day
Wednesday + 2 business days = Friday	Wednesday	Friday → Monday	3 day
Thursday + 2 business days = Monday	Thursday	Monday → Tuesday	1 day
Friday + 2 business days = Tuesday	Friday	Tuesday → Wednesday	1 day

- The interest debited and credited on your account depends on the number of days that are involved in the roll-over. Normally this is one day, but the weekend roll-over which normally happens on Wednesday is worth three days of interest.

Appendix I: Calculating position size

- Remember that $P\&L = (\text{sell price} - \text{buy price}) \times \text{trading size}$
- This can be rearranged as $\frac{P\&L}{(\text{sell price} - \text{buy price})} = \text{trading size}$
- P&L has always to be expressed in the quote currency.
- So if we assume that the P&L would be -200 (2% of a 10,000 account), you can also calculate the trading size in the following way.

	Entry	Stop	Quote currency	Value of 2% of a \$10,000 account in the quote currency	Trading size*	Micro-lots
Short AUDUSD	1.0400	1.1100	USD	200	$\frac{200}{0.07} = 2,857$	2.9
Short USDINR	50	57	INR	$200 \times 57 = 11,400$ INR	$\frac{11,400}{7} = 1,629$	1.6
Short USD PEN	2.61	2.71	PEN	$200 \times 2.71 = 542$ PEN	$\frac{542}{0.10} = 5,420$	5.4
Short USDSGD	1.2900	1.3200	SGD	$200 \times 1.32 = 264$ SGD	$\frac{264}{0.03} = 8,800$	8.8
Long AUDJPY	81.00	73.00	JPY	$100 \times \text{USDJPY} = 100 \times 80 = 8000$ JPY	$\frac{8000}{8} = 1,000$	1
Long MXNZAR	0.6300	0.5900	ZAR	$200 \times \text{USDZAR} = 200 \times 8.4052 = 1,681$ ZAR	$\frac{1,681}{0.04} = 42,025$	42

* Strictly speaking every calculation should be done as in the following two examples:

$$(\text{Short}) \text{AUDUSD} = \frac{\text{P & L}}{\text{sell price} - \text{buy price}} = \frac{-200}{1.04 - 1.11} = \frac{-200}{-0.07} = 2,857$$

$$(\text{Long}) \text{AUDJPY} = \frac{\text{P & L}}{\text{sell price} - \text{buy price}} = \frac{-100 \times 80}{73 - 81} = \frac{-8,000}{-8} = 1,000$$

We used a positive sign for the P&L and looked at the absolute difference between the entry and exit price so that you do not need to think if the entry level is the sell or buy price in the formula.