

Currency Strength Bars

Introduction

The key thing about currency pairs is that they just indicate the strength of one currency relative to another. If we see the EUR/USD going up, is it because the EUR is strengthening or the USD is weakening? It isn't possible to tell this by just looking at the EUR/USD in isolation.

A quick way to find out might be to check other currency pairs involving one or both of these currencies, e.g. check EUR/GBP and AUD/USD, etc. So, if both EUR/USD and AUD/USD were going up, it would really tend to indicate USD weakness was the common factor.

However, a more objective way is to work out the *average strength* of the currency relative to a "basket" of other currencies. This is what the US Dollar Index (USDIX) and FXCM's USDOLLAR do for the dollar.

To find the average of a basket of currencies we have to use the *geometric mean* rather than the *arithmetic mean*. We have to do this, because you can't simply add up numbers in different units of measure - it just doesn't make sense.

The US Dollar Index (USDIX) uses a weighted geometric mean of 6 currencies. The USDOLLAR from FXCM, is an un-weighted geometric mean of 4 currencies.

The Currency Strength Bar indicator uses the un-weighted geometric mean technique. However, it does this, not just for the USD, but for 7 other currencies too. That's 8 major currencies in total: USD, EUR, GBP, CHF, JPY, AUD, CAD and NZD.

The indicator uses 28 currency pairs to compute this "raw" average strength value.

Interpreting the "raw" values is somewhat subjective, so the raw data is further processed using the popular RSI (Relative Strength Index) indicator. The RSI does a great job of "normalizing" the strength values for all 8 currencies into a range between 0 (very weak) and 100 (very strong). However, note that very strong (or weak) values might also be regarded as "over-bought" (or "over-sold").

The indicator ranks all 8 currencies according to their strengths and displays them as a bar (either horizontal or vertical) on your chart. Figure 1 shows a typical currency strength bar for H1 time-frame. Here you can see that the Euro (EUR) is currently the strongest currency on this time-frame, and the Swiss Franc (CHF) is currently the weakest.

H1	 EUR	 GBP	 AUD	 NZD	 CAD	 USD	 JPY	 CHF
	61.9 	58.7 	58.3 	53.9 	47.0 	41.8 	40.0 	35.7 

Figure 1 : Currency strength bar for H1 time-frame

Figure 2 shows the "cell" for USD in more detail. The numerical value displayed is the RSI value. The green up arrow indicates that the RSI value has increased since the

last period in this time-frame. Similarly, a red arrow would indicate that the RSI value had decreased since the last period in this time-frame.



Figure 2 : Anatomy of currency strength "cell"

In order to assess the full picture, it is really important to look at multiple time-frames. The Currency Strength Bar indicator does just that. Up to 4 time-frames can be assessed with a single instance of the indicator (see Figure 3).

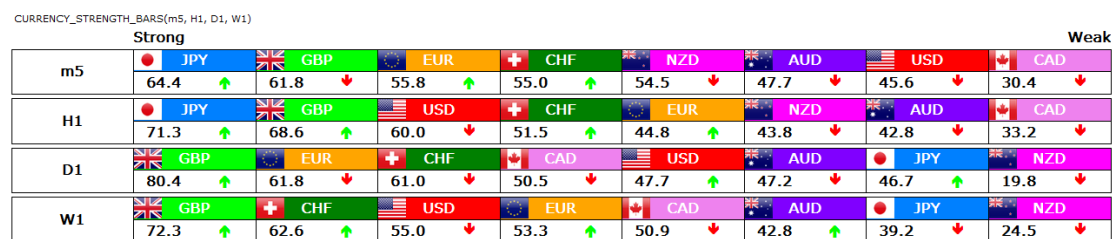


Figure 3 : Currency strength bars for multiple time-frames

Of course, it is also possible to add multiple instances of the indicator to provide more time-frame possibilities (see Figure 7).

Installation

Please use the provided installer.

This software is for MarketScope 2.0 charting/trading application. There are no special hardware or software requirements. If your PC will run the MarketScope 2.0 software then you should be good to go. A good performance internet connection is recommended.

NOTE: The installer also installs an indicator called “CSM CALC”. This indicator is used internally by the Currency Strength Bars indicator, and it is not intended to be used on its own.

VERY IMPORTANT NOTE:

The “Full” version of the Currency Strength Bars indicator computes the strengths for 8 base currencies. This requires 28 specific currency pairs in order to perform the calculations. To use the “Full” version of the indicator you must subscribe your Trading Station platform to all of the required currency pairs.

However, some FXCM account types have a limit on the maximum number of symbols that can be subscribed. Currently a Demo account is limited to 20 symbols and a Mini account is limited to 18 currency pairs.

A Standard account also has a default limit of 20 symbols, however this limit is arbitrary and if you contact your FXCM support desk they should be able to remove it, allowing you to subscribe to all symbols offered by FXCM.

The indicator supports different “versions” in order to accommodate the limitations of account types:

- The “Full” version computes the strengths for 8 base currencies (USD, EUR, GBP, CHF, JPY, AUD, CAD and NZD). It requires 28 currency pairs.
- The “Mini” version also computes the strengths for 8 base currencies (USD, EUR, GBP, CHF, JPY, AUD, CAD and NZD). However, it only requires 18 currency pairs.
- The “Lite” version only computes the strengths for 5 base currencies (USD, EUR, GBP, JPY and AUD). It requires only 10 currency pairs.
- The “Lite+” versions (e.g. “Lite + CHF”) compute the strengths for 6 base currencies (as “Lite” but with 1 additional currency). It only requires 15 currency pairs.

The “Full” version is recommended if you are able to subscribe to the required currency pairs. Otherwise the “Mini” and “Lite” versions are good alternatives.

The required (28) currency pairs for the “Full” version are...

EUR/USD, GBP/USD, USD/CHF, USD/JPY, AUD/USD, USD/CAD, EUR/GBP, EUR/CHF, EUR/JPY, EUR/AUD, EUR/CAD, GBP/CHF, GBP/JPY, GBP/AUD, GBP/CAD, CHF/JPY, AUD/CHF, CAD/CHF, AUD/JPY, CAD/JPY, AUD/CAD, NZD/USD, EUR/NZD, GBP/NZD, NZD/CHF, NZD/JPY, AUD/NZD and NZD/CAD.

The required (18) currency pairs for the “Mini” version are...

EUR/USD, USD/JPY, AUD/USD, EUR/AUD, EUR/CAD, EUR/CHF, EUR/GBP, EUR/JPY, EUR/NZD, AUD/JPY, GBP/CHF, GBP/JPY, GBP/USD, NZD/JPY, NZD/USD, USD/CAD, USD/CHF and AUD/NZD.

The required (10) currency pairs for the “Lite” version are...

EUR/USD, GBP/USD, USD/JPY, AUD/USD, EUR/GBP, EUR/JPY, EUR/AUD, GBP/JPY, GBP/AUD and AUD/JPY.

If you are not subscribed to all of the required currency pairs, then you will get an error message when adding the Currency Strength Bars indicator to a chart. If you see the error message (e.g. see Figure 4), then re-check that you have all the required currency pairs subscribed to your TradingStation platform, and try again.



Figure 4 : Example error message for missing instruments

User Guide

Add the Currency Strength Bars indicator to a chart. The instrument and time-frame of the underlying chart is not particularly important since the indicator loads all of its own data. However, it is important that the instrument trades 24 hours (e.g. EUR/USD is fine).

The indicator loads up to 28 pairs for each time-frame. This is a lot of data and it can take some time (e.g. several 10s of seconds) to complete its data loading cycle, before displaying the results.

The Currency Strength Bars indicator is useful for finding good candidate currency pairs for trading. For example, one should look to trade a strong vs weak pair, since these pairs will likely have the best trends. Trading a currency pair composing 2 strong currencies (or 2 weak currencies) will often result in a choppy trade.

However, possibly the most important consideration is the multiple time-frame aspect. In general one should try to trade in the direction of the longer time-frame, so for example if a currency is strong in D1 and H1 time-frames, but weak in m5 time-frame, then buying into this short-term weakness could lead to a good trade. This assumes that the longer time-frame prevails.

Once candidate currency pairs are found, then traditional trading techniques such as indicators, support / resistance, etc. may be used to find an entry.

Input Parameters

Calculation Parameters

CURRENCY_STRENGTH_BARS Properties

Parameters | Data Source | Location

Name:

☒ **Calculation parameters**

Period 1	m5
Length 1	14
Period 2	H1
Length 2	14
Period 3	D1
Length 3	14
Period 4	W1
Length 4	14
Price type	Close
Version	Full

☒ Display options
☒ Colours and effects
☒ Appearance

Calculation parameters

Period 1/2/3/4: The time-frame / period to be used. The indicator supports up to 4 configurable time-frames.

Length 1/2/3/4: The length / period of the RSI indicator which is used process the “raw” strength data. The length value relates to the associated period, i.e. “Length 1” is the length associated with the “Period 1” time-frame, etc.

Price type: This can be Close, Median or Typical. This configures which price data is to be used for the computation. The default is to use “close” prices, however “median” or “typical” might also give useful results.

Version: This can be Full, Mini or Lite. Also “Lite + CHF”, “Lite + CAD” and, “Lite + NZD” are now supported.

Display Options

CURRENCY_STRENGTH_BARS Properties

Parameters | Data Source | Location

Name:

☒ Calculation parameters

☒ Display options

Orientation	Horizontal
Show period 1	Yes
Show period 2	Yes
Show period 3	Yes
Show period 4	Yes
Show legend	Yes
Show flags	Yes

☒ Colours and effects

☒ Appearance

Display options

Orientation: This can be Horizontal or Vertical. It controls how the currency strength bars are laid-out. See Figure 5 and Figure 6 for examples.

Show period 1/2/3/4: Set to Yes if you want to use / show the period's strength bar.

Show legend: Set to Yes if you want to show the "Strong / Weak" legend text.

Show flags: Set to Yes if you want to show the country flag graphics. NOTE: if the flag graphics are not visible, please check that they were installed correctly in the FXCM directory (e.g. "C:\Program Files (x86)\Candleworks\FXTS2\graphics").

Colours and Effects

The screenshot shows a Windows-style dialog box titled "CURRENCY_STRENGTH_BARS Properties". It has three tabs: "Parameters", "Data Source", and "Location". The "Parameters" tab is active. Inside, there's a "Name:" field with the text "CURRENCY_STRENGTH_BARS(m5, H1, D1, W1)" and a "Reset" button. To the right are "Set as Default" and "Reset" buttons. Below the name field are three expandable sections: "Calculation parameters", "Display options", and "Colours and effects". The "Colours and effects" section is expanded, showing a list of currencies and their corresponding RGB color values. Below this list are settings for "Background colour", "Line / text colour", "Currency text colour", "Font" (Verdana), and "Font size" (10). At the bottom right are "Apply", "OK", and "Cancel" buttons.

Currency	Color	RGB Values
USD	Red	255; 0; 0
EUR	Orange	255; 165; 0
GBP	Green	0; 255; 0
CHF	Dark Green	0; 128; 0
JPY	Blue	0; 128; 255
AUD	Purple	128; 0; 255
CAD	Pink	238; 130; 238
NZD	Magenta	255; 0; 255
Background colour	White	255; 255; 255
Line / text colour	Black	0; 0; 0
Currency text colour	White	255; 255; 255

Font: Verdana
Font size: 10

USD/EUR/GBP/etc.: Specify the colours for the USD, EUR, GBP, etc.

Background colour: This is the background colour.

Line / text colour: This is the colour used for the lines and text.

Currency text colour: This is the colour used for the currency text.

Font: This is the font name.

Font size: This is the font size.

Screenshots



Figure 5 : Currency Strength Bars (horizontal orientation)



Figure 6 : Currency Strength Bars (vertical orientation)

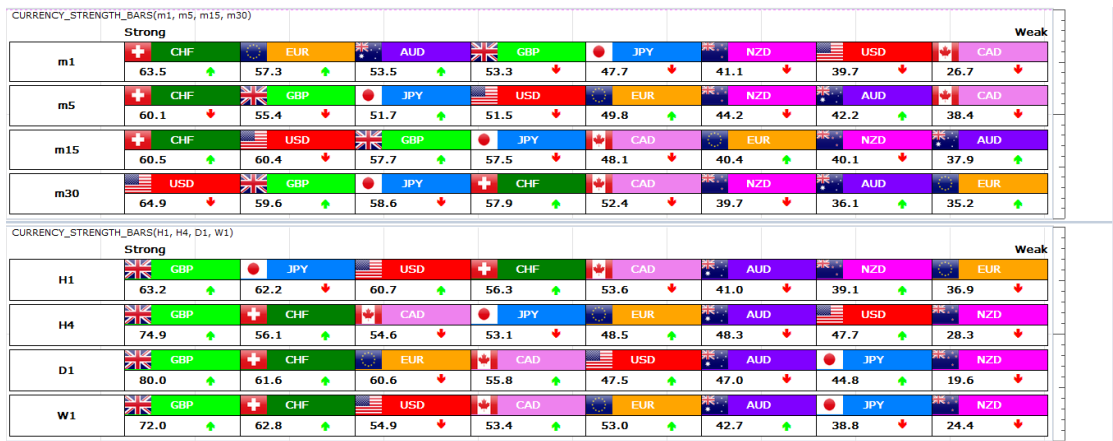


Figure 7 : Multiple instances used to provide more time-frames

Educational Links

The following links provide some good background information on currency indices and the formulae behind them:

- [http://en.wikipedia.org/wiki/U.S. Dollar Index](http://en.wikipedia.org/wiki/U.S._Dollar_Index)
- <http://www.fxcm.co.uk/usdollar-dow-jones-fxcm-dollar-index-basket.jsp>
- [http://en.wikipedia.org/wiki/Geometric mean](http://en.wikipedia.org/wiki/Geometric_mean)

Support

Should you have any problems with installation or use of this indicator, then please email sjdcknsn@gmail.com with a description of your problem or query.

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