About VRI

What's VRI?

VRI is short for Volatility Relative Index. It is designed from price data,mainly focusing on Volatility.

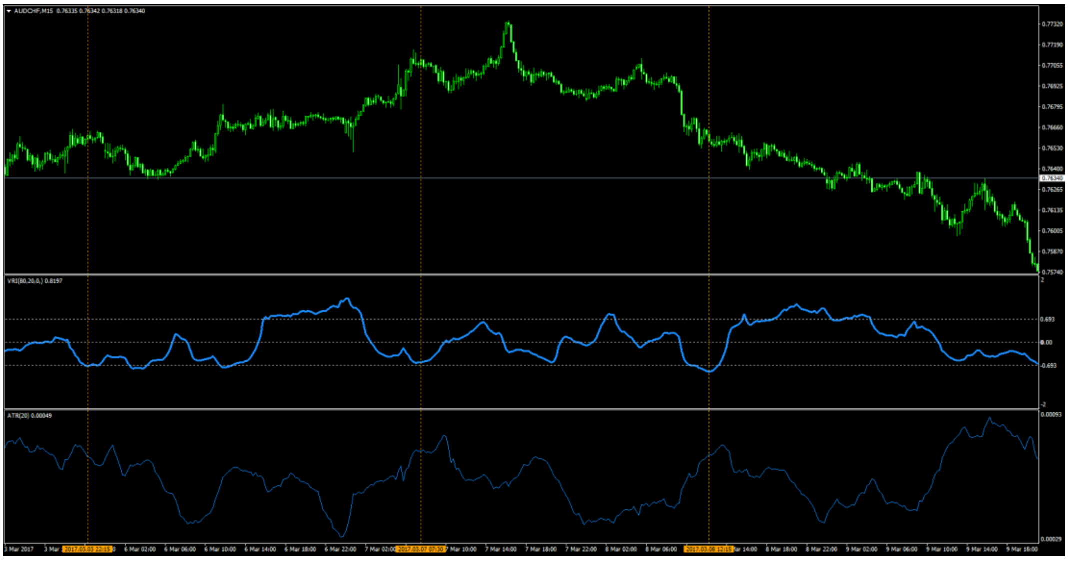
Indicators can be divided into a few types,including indicators of trend,indicators of momentum,indicators of Volatility and etc.

Indicators of trend include Moving Average,Bolling Bands,Envelope and others.Momentum indicators include MACD,RSI,OsMA,Momentum and other.Indicators of momentum show the dynamic changes of Momentum of price.

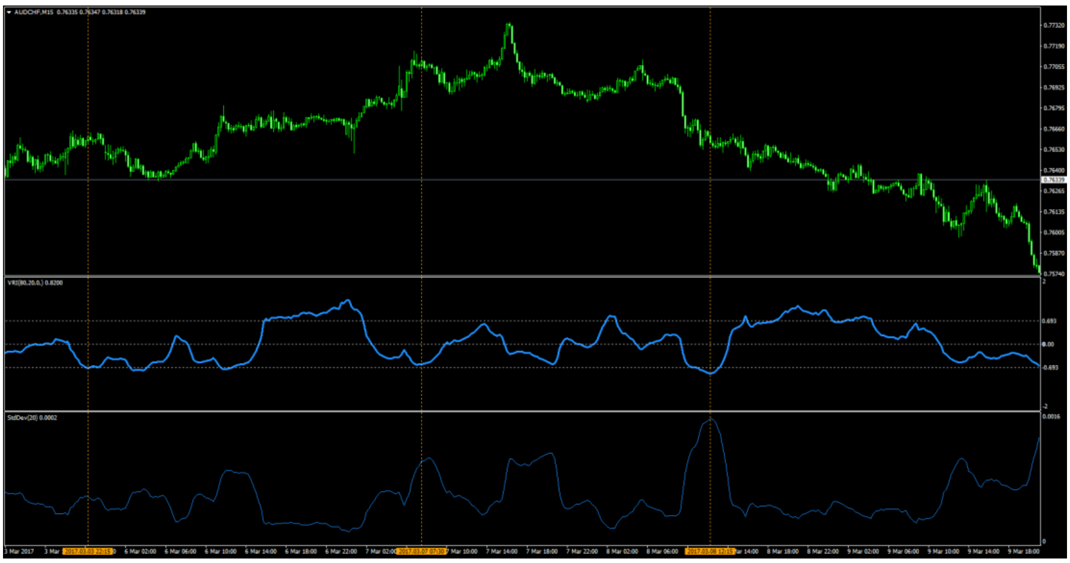
There should be another type of indicator,which is always not separately listing for one of the types.The indicators of Volatility refer to the indicators that can show the range of price movement.For example,ATR can show the the spread from High to Low of price in some period.And Standard Deviation can show how the price deviates from the average level.Others,like Relative Vigor Index,indicators of Bands,can do something similar.

This type is important for Price Analysis. That is what I design VRI for.

You can see here VRI has some similarity with ATR.

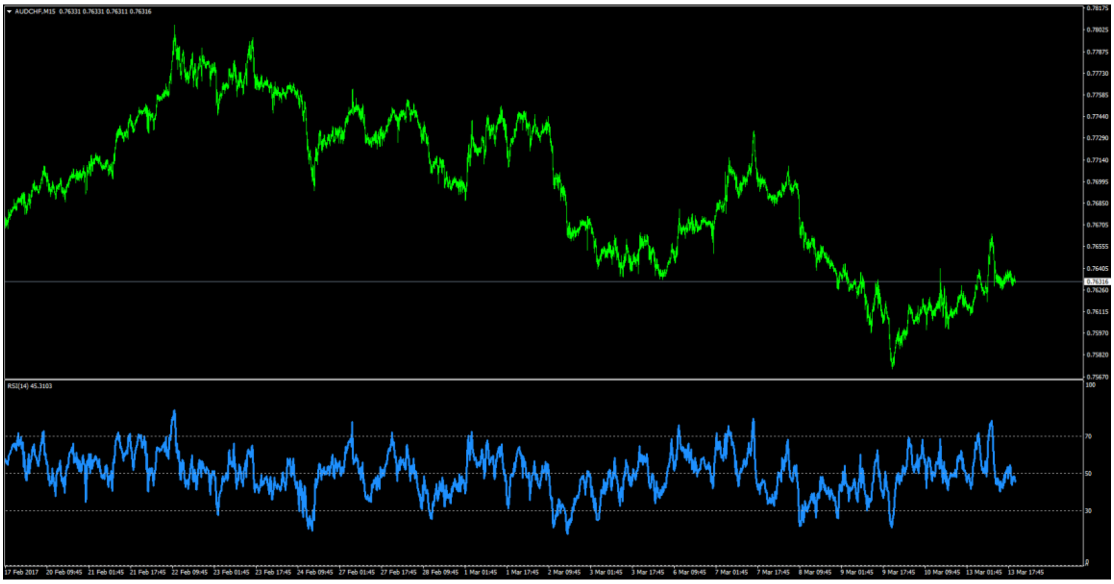


It also highly correlates with Standard Deviation.

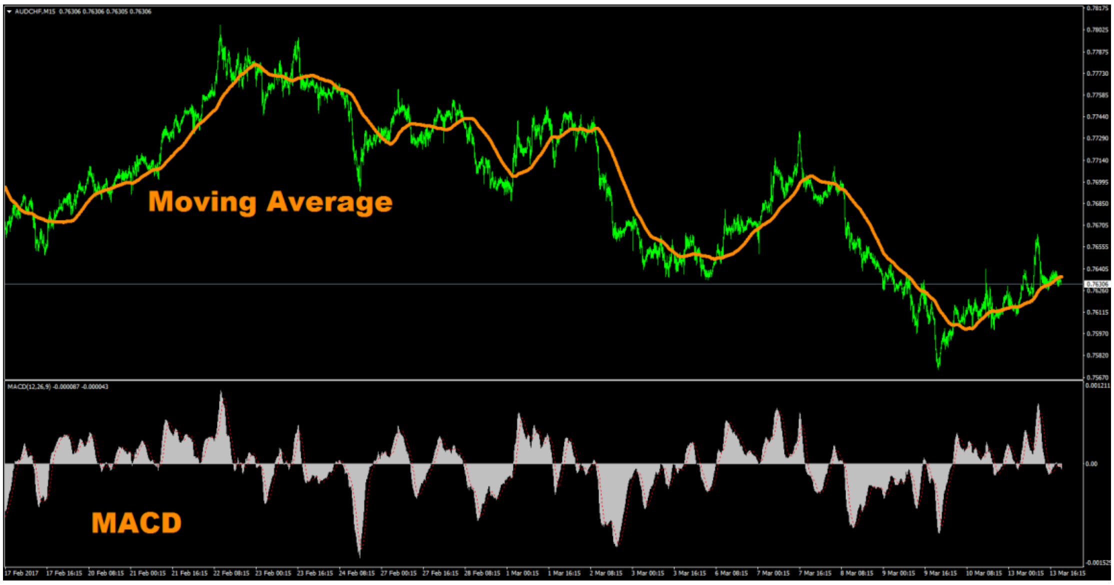


Relative Indicators with Over-Bought or Over-Sold

Indicators also can be divided into two types,including relative indicators and obsolute indicators.The difference is whether to have a range or not.Usually,Relative Indicators have an Over-Bought and Over-Sold ZONE.Just like RSI,its range is between 0 and 100.So you can say which figure is too high,referring to the Over-Bought,usually.



But The Obsolute Indicators don’t have any floor or Ceiling of range.For Example,you can not tell a figure of Moving Average is too high. Maybe you can call MACD an obsolute indicator because we can’t easily figure out its ceiling of range.If you designed an EA of MACD,it is not strange to hear your complain about difficulty of threshold value.

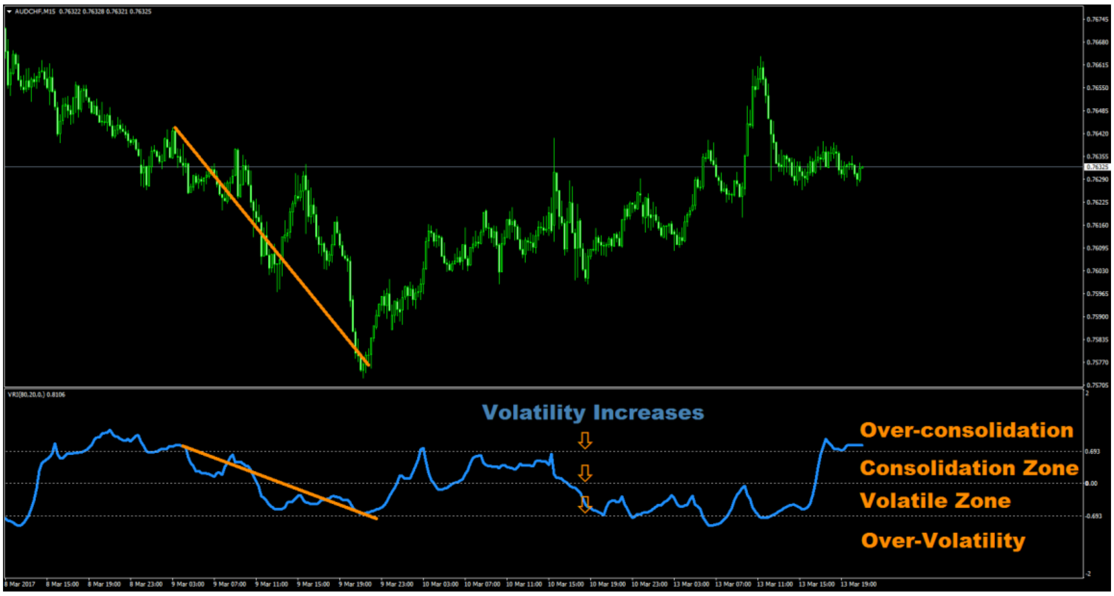


Threshold Values of VRI

So I designed the VRI into a relative Indicator,whose range is mostly in the range of [-2,2].Sometimes it will exceed this range.But it is not usual.So you can see the range of VRI window with ceiling of 2 and floor of -2.So it is easy to read and compare with the past.

In VRI window,there are three key levels,referring to three threshold values.

- Above 0.693.Over-Consolidation ZONE.There price is always in a narrow range of shock.
- Below -0.693. Over-Volatility ZONE.There price is always in sharply volatile mode.
- Between -0.693 and 0.Volatile ZONE.There price is in proper volatility or always in trend.
- Between 0 and 0.693.Consolidation Zone.There price is always in consolidation.


Volatility Increases
Over-consolidation
Consolidation Zone
Volatile Zone
Over-Volatility