WOCU

Exchange is no longer foreign

Wocu: A businessman's tool to simplify cross-border transactions

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1 Introduction

Trade has always been the life blood of society. In ancient times the Phoenicians spread their civilisation (and their coins) from a home base in the Middle East to the whole of the Mediterranean and beyond. Nowadays traditional and new trading routes crisscross the world; ships, planes and lorries carry goods from one country to another and services are provided across borders.

International trade makes up a very large slice of the world GDP, estimated to be around 60 trillion US dollars. Cross-border business relationships usually involve different currencies. Foreign exchange issues complicate world trade. They make it more difficult to estimate costs and revenues because that involves forecasting the volatility of a currency, and even Foreign Exchange experts get it wrong sometimes. Now a tool has been developed that helps a company executive to:

- create a more stable environment, allowing more reliable estimates of future cash flow,
- remove a large part of the uncertainties associated with currency risk,
- reduce the time, efforts and energies a company executive has to spend managing foreign exchange, and last but not least,
- making it less risky to enter new markets by removing some of the uncertainties associated with making a cost/benefit assessment of any cross-border strategy.

This tool is a unit of value for cross-border activities, based on several currencies instead of a single currency, in other words a currency basket. A currency basket provides a more stable environment[1]; the Wocu is a specific currency basket that makes life even easier than other similar alternatives currently available[2]. It is a market-led basket of the currencies that are legal tender in the countries with the 20 largest GDP in the world, according to a classification updated twice a year by the IMF[3].

[1] The currencies included in the basket may not necessarily be strong (or weak) at the same time; therefore the movements in different directions creates a more stable environment. For a more in depth analysis of the stabilising effect of the Wocu, please read "Wocu: The currency shock absorber", a white paper that can be downloaded from the www.wocu.com website.

[2] The Wocu is market driven without any political interference, the IMF SDR is an artificial currency basket driven by political consideration. For a more in depth analysis of the advantages of the Wocu over the SDR please refer to "Retooling global development: A matter of TrUSt", a white paper that can be downloaded from the www.wocu.com website.

[3] For more information about the Wocu see section 4 About the Wocu, WDX the WDXI, on page 8 of this document. In 2009, the top 20 global economies (ranked by the IMF according to their GDP) contributed between 80% and 90% of the total world GDP.

It is a benchmark that does not require board approval each time a contract is negotiated and does not have the risk of political interference. In this white paper we show how using the Wocu rather than a reference currency of any kind[4] reduces currency volatility and therefore makes for more stable prices across any time span. More stable prices mean easier and more reliable estimates of costs and revenues and therefore the risk of large errors in budgeting or financial projections is considerably lower. This lower risk environment makes it easier for any corporate entity to manage long projects or long trading contracts and therefore makes life easier. We shall also show how a 'hub and spoke' approach to foreign exchange splits the risk of mistakes in 'guessing currency movements' evenly between parties to any cross-border transactions because each party only has to think of its own section (in other words how their currency will behave against the Wocu).

This whitepaper looks at cross-border trade (We shall show how using the Wocu helps promote more cross-border trade) and we shall also discuss the advantages of a 'hub and spoke' model for cross-border transactions. There are also other case studies that show how using a currency basket can help in managing a multi-currency environment[5].

[4] The most widely used reference currency is the US Dollar, therefore this white paper uses the US Dollar in its examples. However, the same can be said for any currency used to exchange goods or services between two parties for whom that currency is not a legal tender in the countries where they are based (or operate).

[5] For more whitepapers and case studies concerning the wocu go to http://www.wocu.com/wocu/whitepapers.php.

2 Wocu and international trade

Let us consider the situation of a group that imports products from Taiwan to somewhere in the Eurozone for distribution in Europe. They currently sell to the whole of the Eurozone, Switzerland and Great Britain.

This case study looks at a seven-month period between January 1st, 2010 and July 31st, 2010.

In the current foreign exchange environment (no Wocu) five different currencies are used: the Taiwanese Dollar, the Euro, the British Pound, the Swiss Franc and the US Dollar:

- They receive weekly shipment of the products; the quantity supplied and the price (in Taiwanese Dollars – TWD) does not change in that period.
- Shipping charges are (in US Dollars – USD) 10% of the value of each weekly shipment.
- The cost in Euro (EUR) to the importer does not include custom duties.
- The British and Swiss distributors receive a fixed amount each week, shipped directly to them at a cost (in Euro) that includes a 30% margin for the importer.
- The British and Swiss distributors pay for the products in Pounds (GBP) and Swiss Francs (CHF) respectively.

In a projected Wocu environment the products and shipping are priced in Wocu:

- The weekly price in Wocu (XCU) does not change, the Taiwanese manufacturer will receive a varying amount each week depending on the XCU/TWD exchange rate.
- Shipping charges are in Wocu and they are calculated at 10% of the value.
- The cost to the importer does not include custom duties and is calculated in Wocu but paid in Euro depending on the XCU/EUR exchange rate.
- The price paid by the British and Swiss distributors is calculated in Wocu (including the 30% margin) but paid in Pounds and Swiss Francs depending on the XCU/GBP and XCU/CHF exchange rates.

2.1 Stability, ease of estimate

The finance director has to monitor the volatility of four currencies against the Euro, and of the Euro and Taiwanese Dollar against the US Dollar. They usually hedge and need to 'get it right' on all currencies. We have looked at the volatility of the exchange rate of the four currencies against the Euro in the period between January 1st, 2010 and July 31st 2010[6]

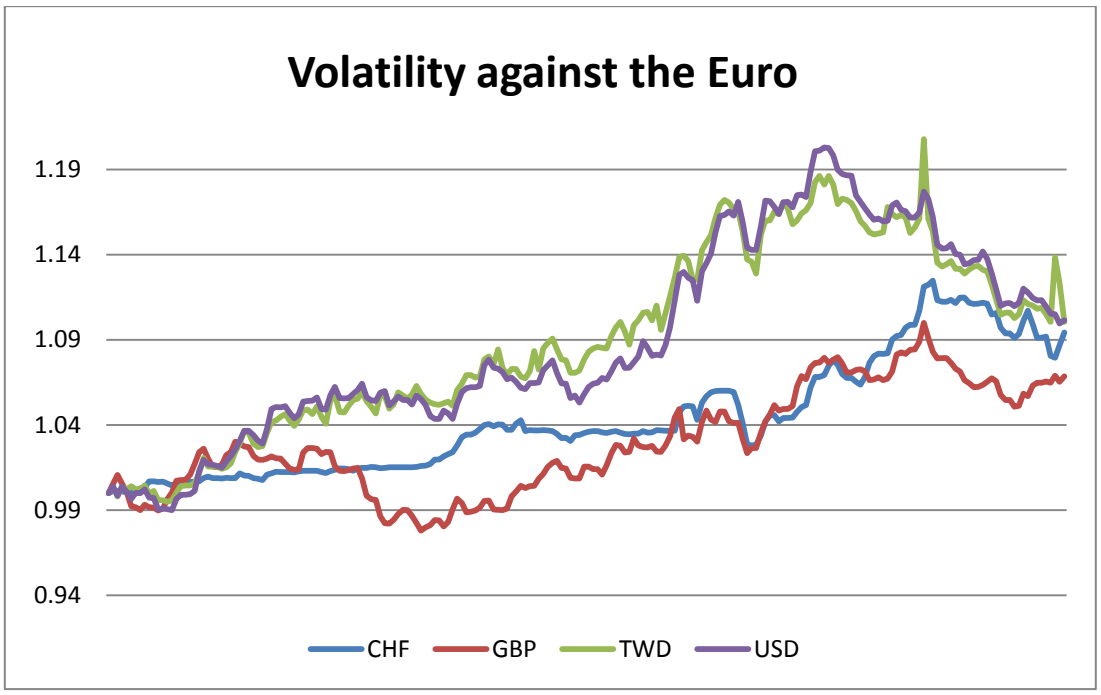


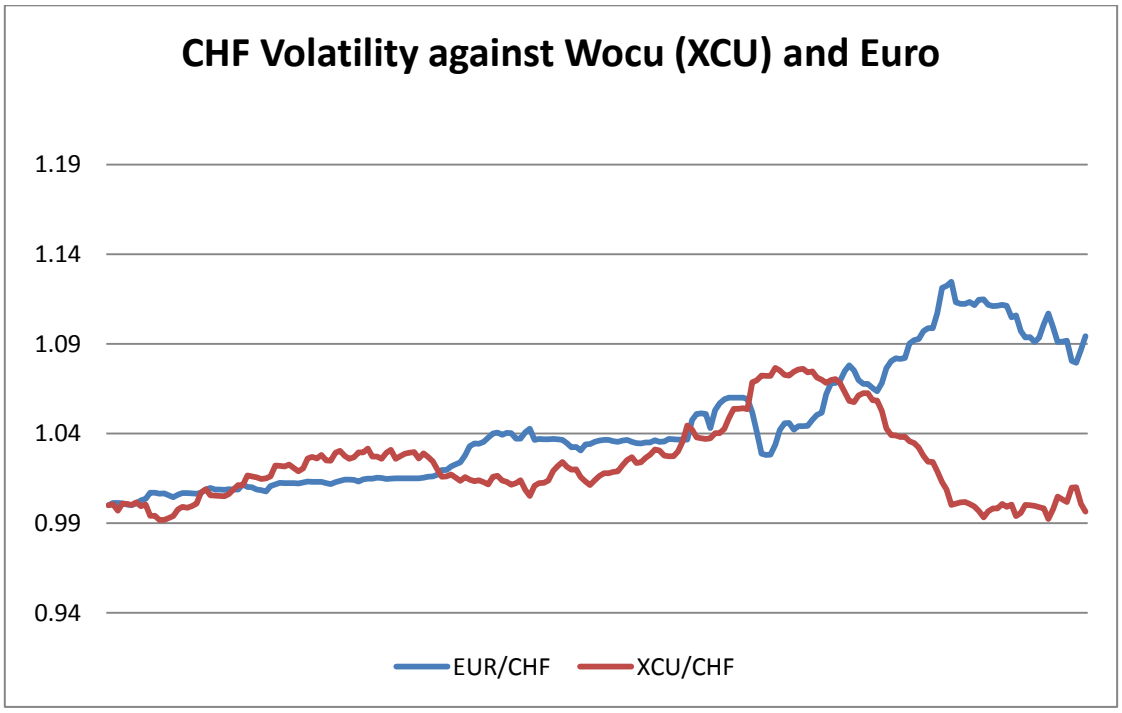
Figure 1 - Volatility against the Euro

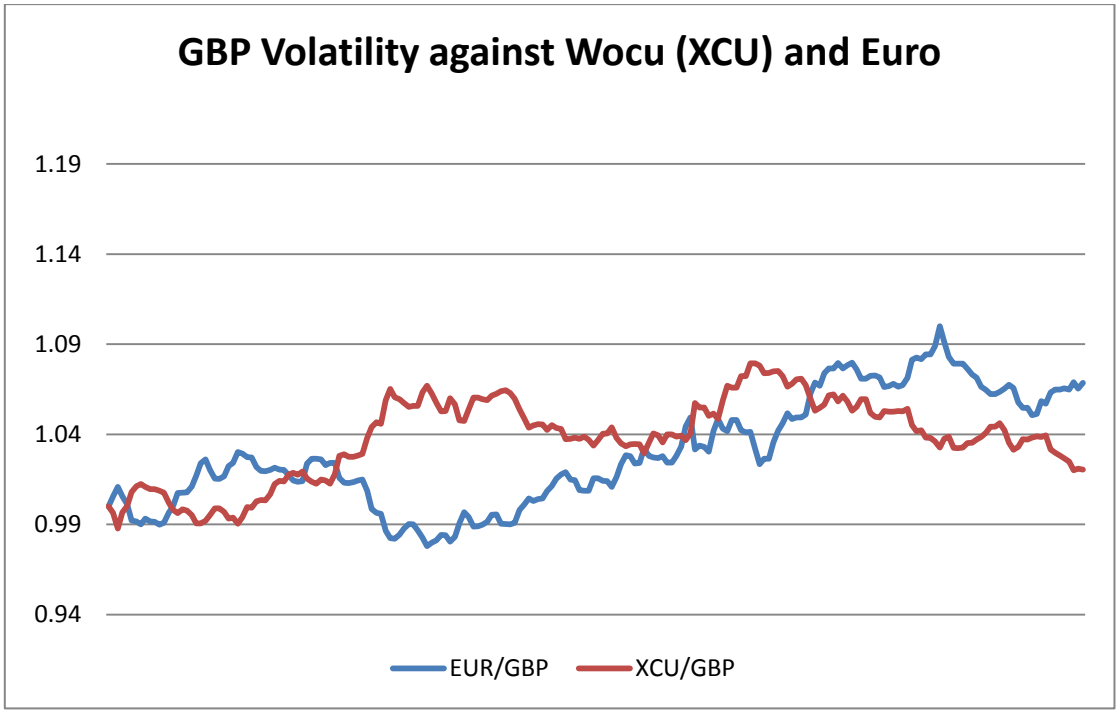
It is a complex currency strategy, since the value of the product in US Dollars may affect the costs of shipping the products to Europe and a sudden change in the exchange rate of the pound (or the Swiss Franc) may change the value proposition of selling it in the United Kingdom (or Switzerland).

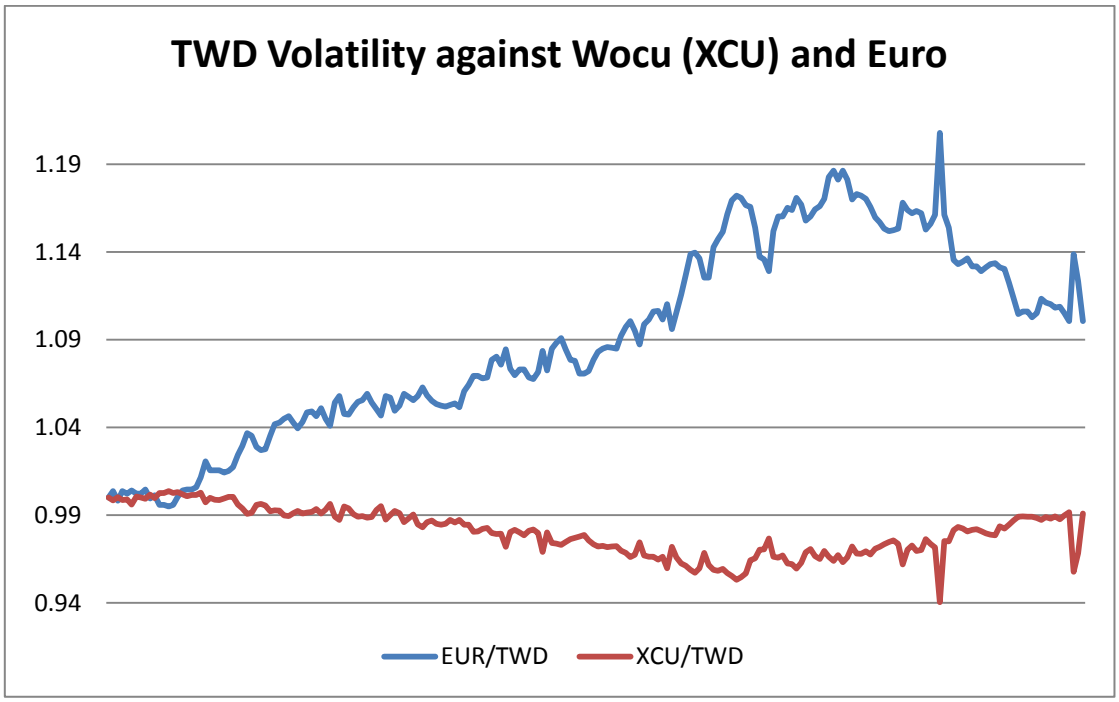
Let us now introduce the Wocu in this scenario. The product is imported from Taiwan priced in Wocu, the shipment costs are charged in Wocu and it is sold outside the Eurozone in Wocu. All the parties agree to pay/receive the amount of their own currency that has the equivalent value of the amount in Wocu that need to be transferred that day. The only thing each party needs to worry about is the volatility of its currency against the Wocu. As we can see from the charts below the Wocu – a currency basket – means stability. More stability implies less risk of errors in forecasting the value of a currency in the medium to long term.

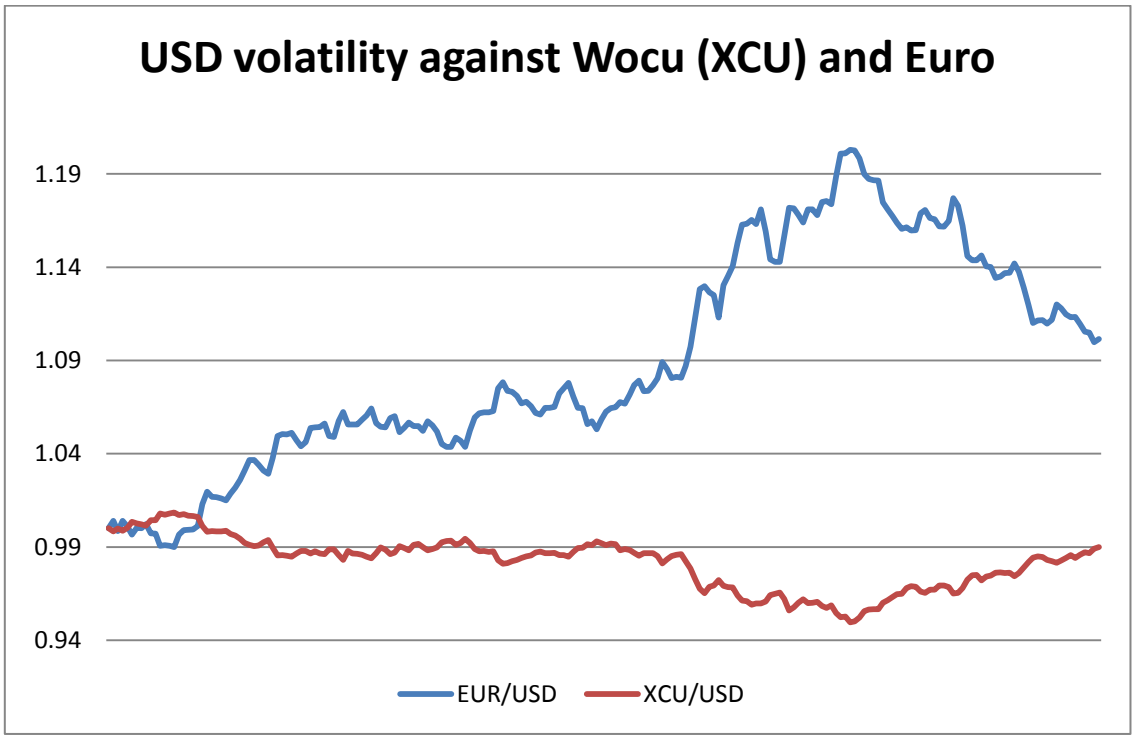
[6] To compare currencies with different units of value and different exchange rate, we have taken the variations from day 1 (i.e. Jan 1st) expressed as baseline to day 1.

Using the Wocu also simplifies foreign exchange management and reduces currency risk. If we look at payments from the British importer to the distributor in the Eurozone and we compare the two scenarios we shall see how the currency risk is split between the two, rather than being all on one side depending on the contractual arrangements.









2.2 Reduced currency risk

In this section we show how a 'Wocu' environment reduces overall volatility and therefore reduces currency risk. We assume regular weekly delivery from Jan 4th, 2010 to July 27th, 2010. So let us assume a non Wocu scenario where:

- Prices for the products imported from Taiwan and distributed in Europe are in Taiwanese Dollars.
- Shipping costs are in US Dollars and are calculated on the basis of 10% of the value.
- The importer (in the Eurozone) sells to distributors in the United Kingdom and in Switzerland with a 30% margin, the price being fixed by the distributor in Euro.

And a Wocu environment where:

- Prices for the products imported from Taiwan and distributed in Europe are in Wocu.
- Shipping costs, 10% of the value in Wocu.
- The importer sells to distributors in Wocu with the same margin.

The final price is calculated in the relevant currency (Euro for the importer, Pound and Swiss Francs for the distributors) and then base lined against the first price. The charts below represent the base lined values.

In a 'non-Wocu' world, the amounts paid by the European distributor during the seven months considered vary depending on fluctuations in the exchange rates between the Taiwanese Dollar and the Euro (products), the Taiwanese Dollar and the US Dollar (setting shipping charges) and the US Dollar and the Euro (paying shipping charges). In a Wocu world, the amounts paid by the European distributor simply follow the fluctuations in the Wocu/Euro exchange rate.

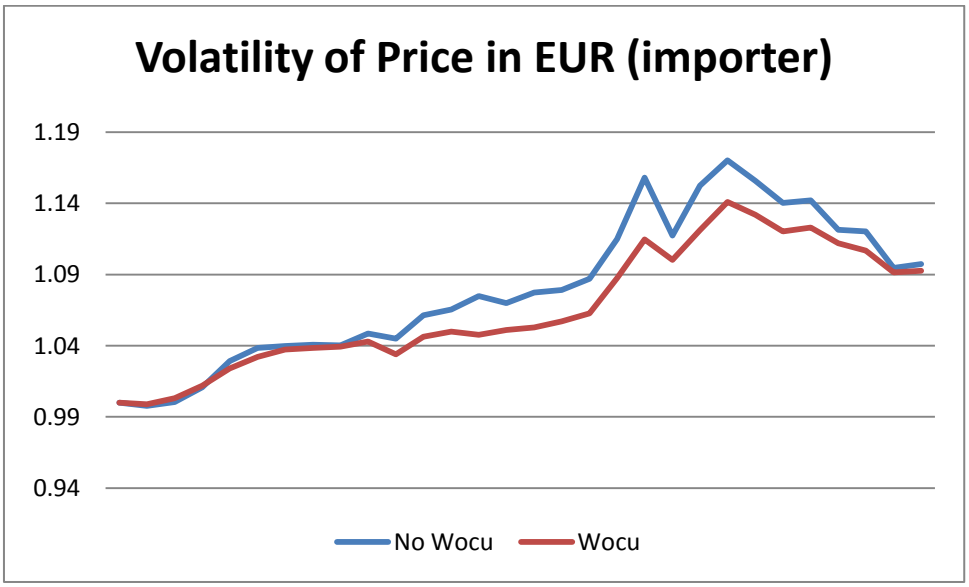


Figure 2 - Volatility of prices in Euro

Figure 1, on page 6 above, clearly indicates that the Euro has the largest volatility against the Wocu of the four currencies in this example. However, using the Wocu as the reference currency decreases the volatility of the amounts paid each week.

Pricing in Wocu introduces a currency risk for the Taiwanese manufacturer. However, in the period considered, the drop in volatility in the Euro (17%) is larger than the increase in volatility in the Taiwanese Dollar (1.24%).[7]

One of the greatest stabilising factor of the Wocu is that it 'isolates' a currency from the others. In our case study the British and Swiss distributor are isolated from the volatility of the Euro. In the non Wocu scenario described above, a distributor outside the Eurozone will have to worry about the volatility of the Taiwanese Dollar and the US Dollar against the Euro (because it will ultimately affect the prices in Euro) and the volatility of their currency against the Euro. In a Wocu scenario, they only have to worry about is the volatility of their currency against the Euro. The two charts below show a how volatility changes between the two scenarios.

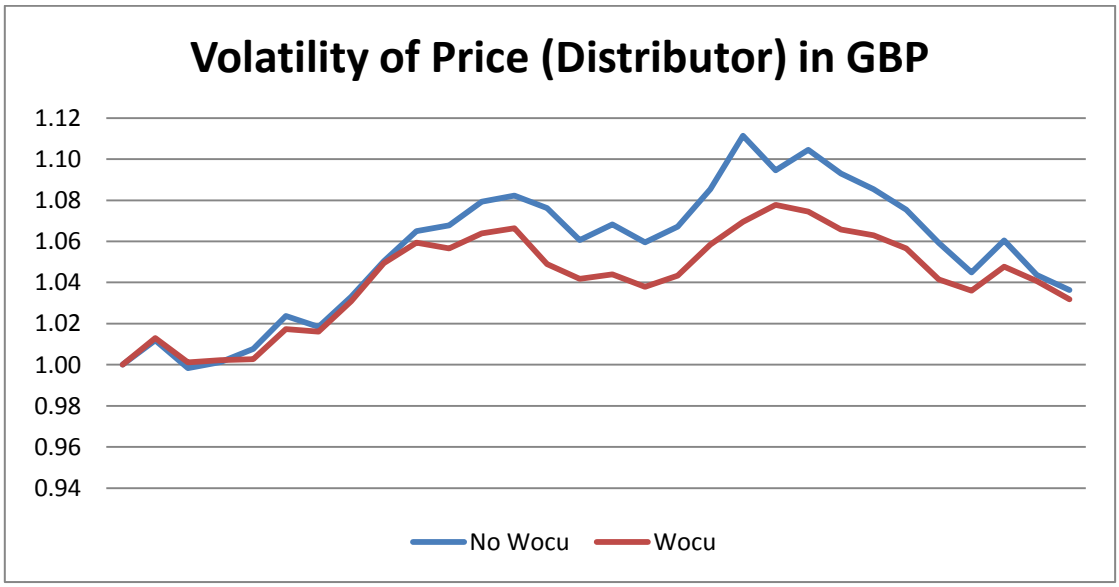


Figure 3 – Volatility of prices to the British distributor

[7] Variations in volatility are discussed in greater detail at the end of this section.

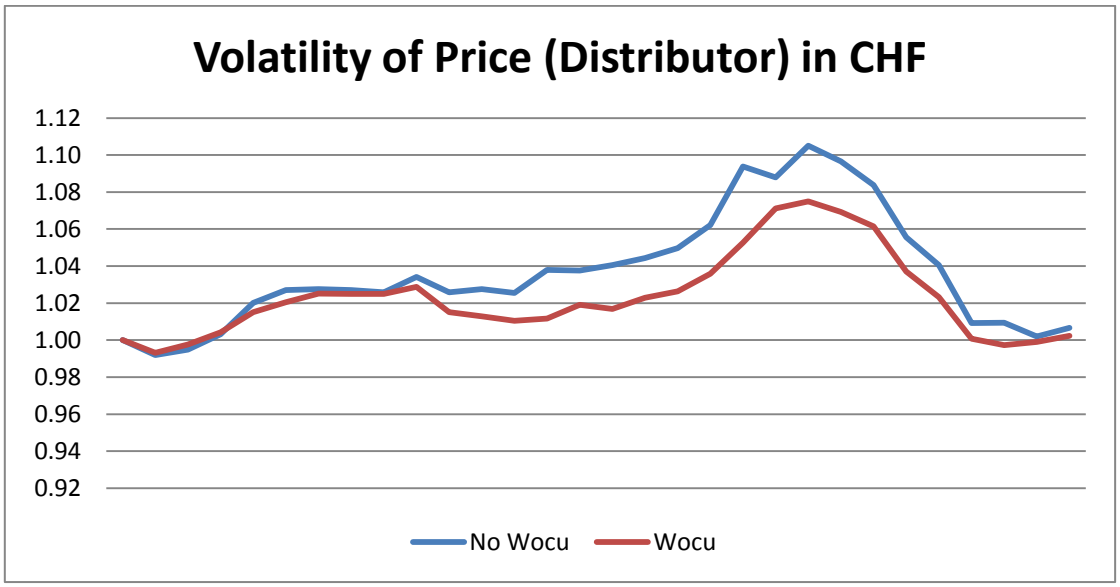


Figure 4 – Volatility of prices to the Swiss distributor

Overall, using Wocu means less volatile prices. Since currency risk is a form of risk that arises from the change in price of one currency against another, both the importer and the distributor have a lower risk in a Wocu environment simply because they only have one currency to worry about rather than two (or more)[8].

In a 'Wocu' world the risk is shared by all parties and, in the period analysed in this white paper, the extra risk for the manufacturer is considerably less than the reduction in risk for the importers and distributors.

As you can see from Figure 5 below, the increase in volatility for the Taiwanese manufacturer is significantly smaller than the drop in volatility for the Euro, the situation for the importer in the Eurozone is more stable costs overall. The Swiss and British distributor benefit from a 'double dip' in volatility since they have 'bypassed' the volatility of their currency against the Euro and the only volatility that matters is the one against the Wocu, The currency risk is therefore simplified by two main factors: drop in volatility and 'absorbing' part of the volatility deriving from the strength and weakness of the other currency. After all, as we are discussing later, 1 Wocu stays one Wocu.

A simpler currency risk implies a simpler hedging policy. It could be argued that since using the Wocu spreads the currency risk between the two sides of a transaction the Wocu is a partial hedge in itself.

[8] In the 'non Wocu' world, the importer in the Eurozone will pay different amounts in Euro depending on the EUR/TWD and EUR/USD exchange rate and the distributor will pay a different amount each week depending on those two exchange rate and the exchange rate of its currency against the Euro.

The only need is to hedge one leg of this two-leg transaction (your currency – Wocu); therefore you only consider what happens to your currency (after all 1 Wocu stays 1 Wocu). This results in a hedging policy that is considerably cheaper in the Wocu world than in the non-Wocu world.

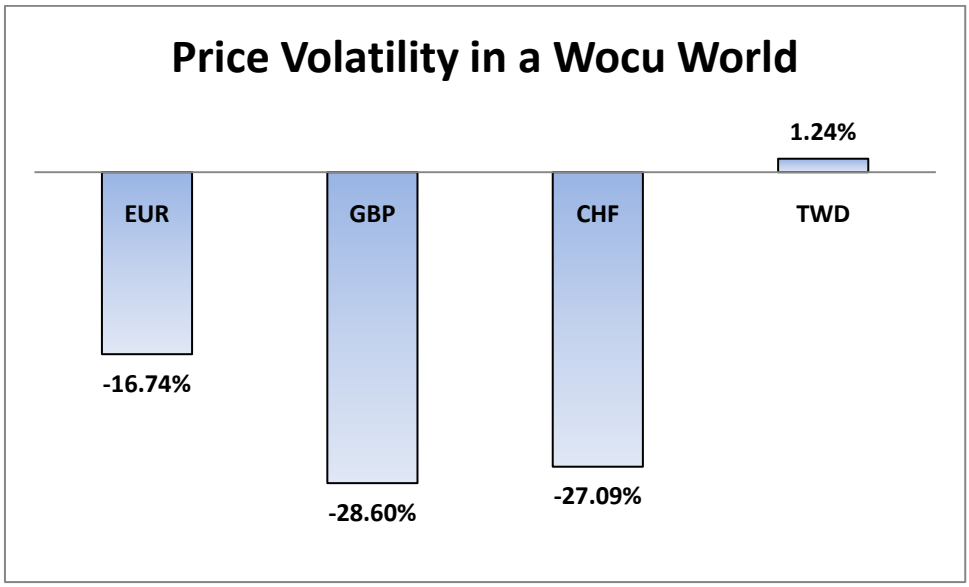


Figure 5 - Changes in price volatility when introducing pricing in Wocu for cross border trade

2.3 "Exchange is no longer foreign"

We can describe the current situation (a 'non Wocu' world) as a set of one to one relationships between currencies. The price paid by the importer will depend on the variations in the EUR/TWD exchange rate (actual cost of the products), EUR/USD (shipment), shipping charges are assessed at 10% of the value and therefore will vary depending on the USD/TWD exchange rate. The price for British and Swiss distributors will vary depending on the exchange rate between their currency and the Euro and indirectly between the Euro and the USD and TWD. In other words, each of the three European companies will have to consider a strategy to manage the currency risk considering up to four different exchange rates. This takes time and energy and requires staying up to date with the political and financial state of affairs in other part of the word, hence the name 'foreign exchange management'.

In a Wocu world the relationship changes, with the price of the Wocu and the cost of shipping all set in Wocu, the only relationship each party has to consider is the one between their currency and the Wocu. We move from a 'network' model to a 'hub and spoke' model; since the amount in Wocu does not change, the exchange rate between each currency and the Wocu depends on the strength/weakness of that currency against a basket of currencies and therefore it is entirely based on the financial and political conditions of the area where that currency is legal tender. The only 'Wocu-led' variations will happen when the basket is re-balanced and again the change in the weight of each currency depends on the GDP of the country where that currency is legal tender. Therefore, the only foreign exchange risk is due to the variation of the exchange rate between each currency

and the Wocu and it is entirely due to the political and financial environment of each area, that's why 'exchange is no longer foreign'.

'Repatriating' currency risk means spending less time and energies trying to manage that risk or trying to cope with the consequences of not managing it. When we add to that the increased stability of prices we have a much simpler environment that requires less time and energy.

2.4 Easier cost/benefit assessment of new markets.

Assessing the opportunities of a new market always comes with a margin of error. This margin can be minimised through market research, analysis and an increased accuracy in the estimates. Let us assume that the importer in the Eurozone is exploring the opportunities in the Turkish market.

In a non Wocu world, they would have to consider (a) the volatility of the Turkish lira against the Euro, which depends on the strength and weakness of both currencies; (b) the volatility of their own costs, which depends on the volatility of the Euro against the US Dollar and the Taiwanese Dollar (c) the competitiveness of the product as a value for money proposition in the Turkish Market, which depends on the pricing strategy, which – in turns – depends on the volatility Euro against Turkish Lira.

In a Wocu world, they have to consider the volatility of the Turkish Lira against the Wocu. The Euro does not concern them anymore since 1 Wocu stays 1 Wocu; as we have seen in the examples above, using the Wocu means a more stable environment and therefore looking at the consideration required in a non Wocu world the volatility of the Turkish Lira against the Euro is reduced; the volatility of their own costs disappears and the competitiveness of the product as a value for money proposition in the Turkish market stays the same. This brings down the margin of error and therefore makes it easier to enter new markets.

3 Conclusions

The Wocu makes life easier for a company. What we have discussed in this document clearly shows that:

- Simple and more reliable estimates of costs and revenues make it easier to open new markets.
- Stability does not reduce costs itself, but ultimately saves on efforts and energies by making it easier to manage foreign exchange risks and ultimately cut the costs of currency hedging and the consequences of getting it wrong.
- Moving from a 'point to point' model for foreign exchange transactions to a 'hub and spoke' model simplify life and takes a lot of the 'foreign' away from 'foreign exchange'.

Is it possible to put a value on transitioning to a 'Wocu world'? That can be translated into the value we put on a more stable environment, less time and effort spent in managing currencies and a reduced margin of error between forecast and actual. In other words, what is the value of a de-cluttered environment?

If we consider that a 'simpler life' is worth 1% of a company turnover, when we aggregate everything, the value of a 'Wocu world' to the global economy is 1% of the global GDP, based on the World Bank estimate for 2009 that amounts to approximately 6 billion US Dollar. Once we have 'cleaned all the cobwebs' we may find that it is even more.

How can this simplified environment be achieved? There is no need to create a new infrastructure; the Wocu operates like a currency. In this case study the non-Wocu world involves a GBP to EUR payment, in a Wocu world that transaction would be split in two GBP/XCU and XCU/EUR where the GBP paid is the equivalent of the Wocu amount at the GBP/XCU of the day and the EUR received is the equivalent of the Wocu amount according to the XCU/EUR exchange rate of the day. This can be achieved because there is a financial institution managing this two 'one leg' transactions[9] or because the two parties have entered a contractual obligation to transact in Wocu and they both subscribe to the exchange rate feed[10].

[9] Financial institutions managing transactions in Wocu might lead to future contracts in Wocu, similar to current future contracts for currencies. In this way the reduced currency risk introduced by the Wocu could itself be managed.

[10] For information on how to subscribe to the Wocu exchange rate feed, please contact WDX ltd (www.wocu.com)

4 About the Wocu, WDX the WDXI

The Wocu™ (**Wo**rld **C**urrency **U**nit) is a standardised, apolitical basket currency derivative quotation based on the real time exchange rates of the currency pairs of the world's top 20 nations, as determined by IMF measures of GDP. The Wocu naturally takes into account changing economic power and commercial perception of currency values as an elegant, market driven solution to the need for a global reference currency.

Wocu quotations are delivered across financial networks and the Internet in real time from the unique Wocu algorithm, which inputs trading prices of currency pairs from a broad spread of global sources to output the Wocu. The Wocu, its constituent currency pairs weighted in line with GDPs, is a generally less volatile currency unit than traditional currency pairs.

The Wocu balances and stabilizes currency risk, offering commercial advantage compared to the traditional use of the US Dollar to denominate international trade, acting as a natural currency shock absorber. It is applicable to most cross-currency transactions and particularly international commodity trading. US Dollar agnostic (the US Dollar simply forms a weighted component of the Wocu) the Wocu offers sovereign nations an alternative to the US Dollar to price commodity exports and a standardised reference for holding currency reserves.

The Wocu's integrity, non-manipulation and standardisation is ensured by the WDX Institute, a wholly independent not-for-profit research body established by WDX. The WDXI independently monitors the Wocu and its constituent revisions, as determined by IMF GDP figures, every six months. The WDXI is also mandated to further research into the application of the Wocu and World currency baskets in general.

The Wocu is developed, owned and distributed by the WDX Organisation Ltd, a private company formed in 2009 and based in the heart of the City of London financial district, England. The Wocu was made available for commercial use on January 1, 2010. WDX wholly owns the Wocu algorithm including a pending U.S. patent application for the calculation method and technology behind the Wocu.

Wocu currency pair prices, information about WDX, the WDXI and other data can be found at www.wocu.com or www.wdxinstitute.org

5 About the Author

After a long career as Change Director and Strategist for major financial institutions Silvano Stagni decided it was time to achieve a better work/life balance and switched to writing. His experience in 'bridging communication gaps' between stakeholders is the basis of his style of writing and the choice of subjects he writes on. He has written extensively on disruptive concepts with an emphasis on practical examples and pragmatic implementation scenarios (in other words, what does it mean? and how does it work?). He has also written extensively on the impact of new banking regulations, cross-border banking, banking in the developing world and risk strategies. He contributed white papers for regulatory and monetary issues behind electronic currency and other non-monetary type of payments to regulators in Asia and Europe. He has published several articles (both online and printed magazines) and contributed to many white papers and books.

Further information can be found on www.stagni.net

For any question about this white paper (and for other things), please contact wocu@stagni.net