

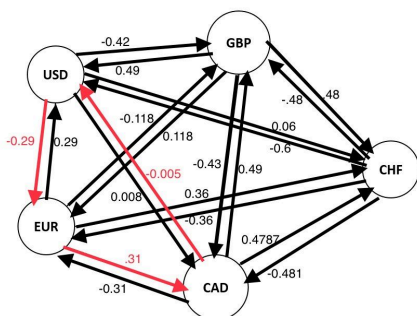
Aquarius Peer-to-Peer (P2P) Wallet - A Global Payment Solution.

The problem with exchanging foreign currencies directly between individuals and/or companies (peers) without using expensive middlemen lies in the difficulty in matching a peer's desired currency swap "want" with an identical opposite "want" from another peer (P2P swap) on a global scale in a timely fashion. Middlemen, which include banks, market makers and/or global payment providers all charge a fee for matching these 'wants' either directly as a percentage of the transfer amount, and/or indirectly by adding a spread over any given foreign exchange rate.

If one wished to facilitate P2P matching for two currency regions only, for example the USA and Europe, it would be a rather straightforward exercise lining up these 'wants'. Especially if we were to create a 'rule' that peers from both regions swapped their respective currencies at the "fair market value" cross-rate price in a first-in-first-out (FIFO) matching methodology (defined as the mid-price between an existing bid/offer EUR/USD FX rate). In this scenario, we would have created a currency bridge between the 'wants' of two respective regions.

In principle, one could create tens of thousands of individual 1v1 currency bridges to facilitate the p2p swapping of 'wants', but this methodology would only cement and validate the need for middlemen, as 'wants' in "long-tail" currency pairs (less traded currency pairs) would rarely align with the opposite 'want'. A true global payment P2P solution, therefore, will require an algorithm that considers every 'want' across every currency bridge and combines them all into one unified picture in order to optimize the matching of these 'wants' in a timely manner.

Today, market makers already perform a well documented optimization algorithm through triangular arbitrage, but as the name suggests, is only deployed for the benefit of market makers and not for the "market at large". Triangular algorithms certainly perform the role of increasing the range of paths in aligning and matching 'wants', but remain incomplete as these algorithms are limited to only 3 bridges. By overlapping triangular algorithms as illustrated below, one can connect 5 bridges at a time and further bridging overlaps are possible but will always remain incomplete and computationally demanding. In summary, although these algorithms combine several bridges at a time and are profitable for market makers this algorithm is an incomplete solution.



In order to solve the problem of matching all 'wants' regardless of which currency bridge they reside, one needs an algorithm that can solve matching where 'wants' can exist in an unlimited currency bridge scenario. With regards to the previous illustration, the picture below begins to comparatively illustrate the scale and magnitude of the problem. In over 40 years of algorithmic electronic matching, this algorithm has never been solved let alone deployed. Today, this elusive algorithm resides at the heart of Aquarius - A Global Payment Solution

