Special

Currency and wars

Financial Markets Research

Rabobank

23 February 2015 | Marketing Communication | www.rabotransact.com

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- *We are in a currency war – but why?*
- *Arguably it's all a question of what money is and isn't*
- *History shows we are heading for treacherous waters...*
- *...and there is no safe port without major global reforms*

Long run/big picture/broad brush, etc.

We have repeatedly made the argument that we are currently in a global 'currency war'. But what do we mean by a currency war? Why do we have them? And what are the implications going forward for markets? This special is a brief attempt to answer those questions. As will be seen, it relies on the ideas that were put forward in several specials last year on the explanatory power of debt dynamics; given that implied cyclicality (or at least 'wave' pattern), this approach also leans towards one of Mark Twain's greatest quotes: "*history doesn't repeat itself, but it rhymes.*"

First, let's examine what we mean by a currency war. In contemporary parlance, we take the term to mean '**competitive devaluation**': that is allowing one's currency to depreciate relative to a rival currency in order to gain export competitiveness. The mechanisms to achieve that are various but include "jaw-boning" (i.e., central banks and/or governments stating that they would like to see a lower currency); active intervention in FX markets by monetary authorities to sell their own currency and buy another; reducing interest rates; and, sometimes, pegging a currency to another at an artificially low level.

Now we come to a more complex issue: why do we have currency wars? As just stated, allowing one's currency to depreciate means that one is relatively poorer, but also *cheaper*: as such one gains in relative export competitiveness. (For a perfect recent example look at USD/JPY since the election of Prime Minister Abe and the introduction of so-called "Abenomics": in early December 2012 USD/JPY 78 and today stands at 119.) So, if you need to boost exports, the imperative for a weaker 'more competitive' currency is clear.

However, this does not tell us *why* some countries get to the stage of needing to devalue when others don't, and so provides no pointers as to what we can expect going forward for markets. In short, it is describing the symptom and not the underlying cause.

Arguably, explaining the root of currency wars requires a more conceptual, and much longer run historical approach: we need to *understand the changing role of currencies as money over time rather than simply looking at movements in any particular exchange rates*. We hope to show that holds the key.

This then necessarily involves taking a very broad brush to extremely complex developments, as well as a 'fast forward' approach to human civilization(!): however, if one is prepared to accept those terms, arguably there is a rewarding – if worrying – conclusion that we can draw about the logical outlook for financial markets ahead. On that basis, let us begin looking at the conceptual role of money, what it meant for how we interact and transact with each-other domestically and internationally, and the concurrent emergence of different waves and forms of currency wars over time.

The Greeks again

Trying to avoiding numismatics, the earliest currency wars were arguably in the Classical world. We know that specie (i.e., gold, but much more commonly, silver) coins were used as money from around 600BC onwards. Notably, the Classical period saw two dueling interpretations of what money was. Plato championed the view that money should be a *symbol* rather than holding value in itself as an object. Today we call that view **endogenous money** theory. Crucially, under a Platonic view credit could expand beyond the limits of actual coinage, facilitating trade and growth (and inflation, contemporary economists might add).

	Domestic	International	Credit	Trade	FX regime	Outcome
Platonic	Endogenous	Endogenous	Easy	Limited	Floating	Growth

However, Artistotle argued that there is inherent value in precious metals and that money should be a *commodity itself* rather than a token (known as "metallism"). Today that is referred to as **exogenous money** theory. By contrast with Plato's symbolic money, under an Aristotelian view ***unless one was lucky enough to possess a gold or silver mine there was no way to increase the stock of money in an economy except by invading other cities/countries and stealing their coins (or mines)***. Aristotle prevailed intellectually in the end, and so one can argue that the earliest incarnation of currency wars were literally zero-sum battles to gain access to the limited stock of precious metal: my gain is your loss. The expansion of the Roman empire, which required constant inflows of gold and silver to pay its soldiers (yet also saw an outflow of specie to pay for most the luxuries it could not produce) is a perfect example of this trend.

	Domestic	International	Credit	Trade	FX regime	Outcome
Aristotelian	Exogenous	Exogenous	Easy	Limited	Fixed silver	War

Other Europeans

Nothing changed much in that regard for hundreds of years in the Western world. Indeed, the next key phase of currency wars we need to examine is the experience of **European mercantilism** from c. 1400 to 1850. This period's nationalist economic policies were aimed at *accumulating gold and silver through a positive balance of trade*, especially of finished goods. What this meant in practice was the introduction of tariff barriers, rather than using lower exchange rates, to keep out foreign manufactured goods; barter wherever possible, and mainly for raw materials not manufactured goods; and the prioritization of local industry over imports at all times. Mercantilism evolved under the influence of many factors. However, it was essentially a response to money still being exogenous, and that those who did not have the coin to pay for the development of local industry could end up being invaded by those who did. In short, trade was still a zero-sum game with serious consequences for the 'loser'.

Of course, it was not possible for everyone in Europe to run a surplus. However, the expansion of European empires allowed the capture of significant new sources of gold and silver. In particular from 1545 onwards Spain saw huge quantities of bullion flow to it from the New World (though much of it then flowed on to Asia). These new territories were also markets to run forced surpluses against.

	Domestic	International	Credit	Trade	FX regime	Outcome
Mercantilism	Exogenous	Exogenous	Limited	Not free	Fixed silver	War/Empire

Industrial revolution to post-WW1

From the 18th century onwards industrialization (starting in the UK) required vast sums of money while there was little gold and silver available (and the quality of the coins in circulation was often extremely low). Those dual constraints led to the development of what we would today recognize as a modern credit economy despite the ostensible British 'gold standard' in operation since 1821 that tied Sterling to a fixed value of gold: credit notes, and the paper promises "To Pay the Bearer" that are still found on bank notes today, began to filter into the economy, expanding the money supply. As such, although currencies were conceptually tied to a value in actual gold, money was now partly endogenous domestically, though it remained exogenous for most international clearing, creating obvious tensions.

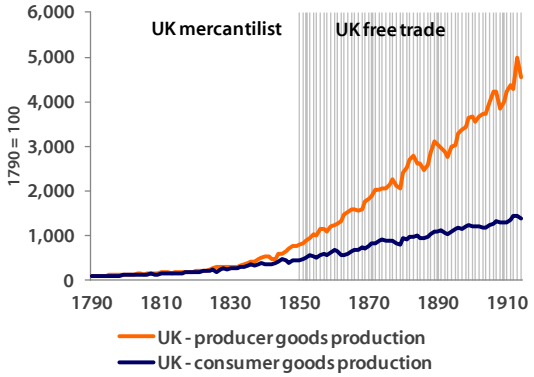
Meanwhile, from the mid 19th century onwards, the UK – which had a huge manufactured goods surplus to sell to the world thanks to industrialization (see Chart 1 below) – began to preach the benefits of free trade under the umbrella of a *Pax Britannica*. How else could it sell these products? Seeing the apparent link between free trade and British industrial (and military) prowess, many countries (though not the protectionist US) also lowered tariff barriers and embraced free trade.

	Domestic	International	Credit	Trade	FX regime	Outcome
Pax Britannica	Endogenous	Exogenous	Easy	Free	Fixed gold	Growth

However, this proved fleeting. Europe found out free trade meant the UK still dominated world markets given its head start, and also maintained its military muscle. Challenging that status quo meant developing rival (military!) industries in a race for national development led by a domestic credit economy. In simple terms, *other countries tried to emulate the British model* and swathes of territory were added to expanding French, German, Belgian, Russian (and also British) empires in a 'Great Game'. Moreover, by 1913 the average tariff rate had risen back to its early 19th century level (see Chart 2 below). ***In short, this was a proto currency war, but again with tariffs not exchange rates as the key variable***.

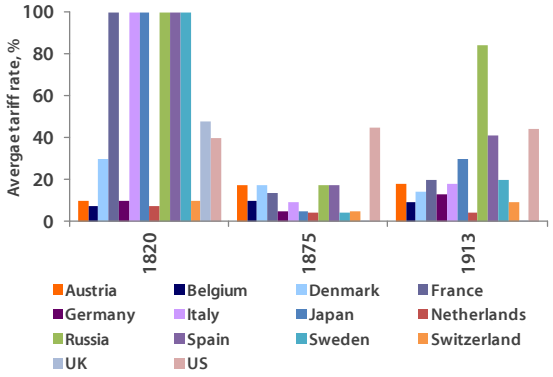
Regrettably, those tensions over how to 'carve up' the world were one of the key drivers of the tensions that eventually erupted into WW1 in the Balkans.

Chart 1 – Wonder why UK was pro-free trade?



Source: NBER

Chart 2 – Tariffs go down, and come back up



Source: Bairoch (1993)

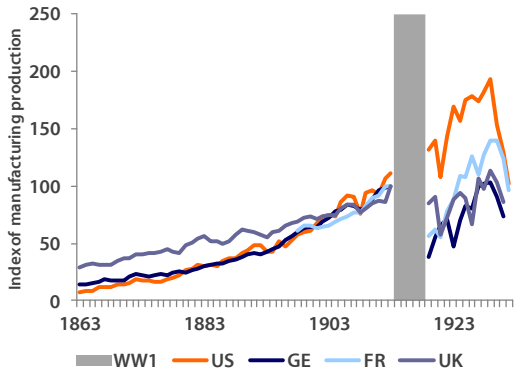
NB Tariffs of 100% are indicative and show no free trade in goods

	Domestic	International	Credit	Trade	FX regime	Outcome
Great Game	Endogenous	Exogenous	Easy	Not free	Fixed gold	War

Crash, Bang

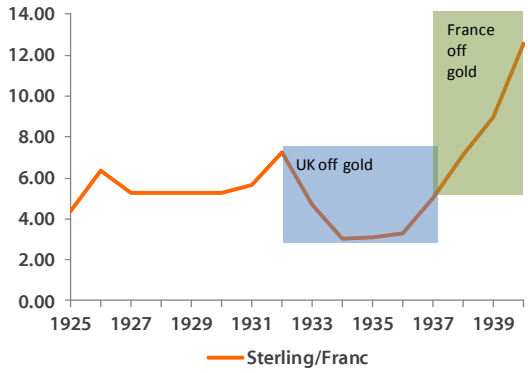
Following WW1, Europe could not return to macroeconomic stability due to the punitive reparations placed on Germany by the victors, France and the UK, amounting to around 300% of GDP. Ultimately Berlin opted to print money as a form of passive resistance: that policy spiraled out of control into an infamous hyperinflation. Only when the US extended huge credit to Weimar Germany to repay France and the UK, who in turn repaid the war loans they owed the US, did Europe return to rapid growth and flourishing trade relations (though based on covering up Weimar's huge debts with further borrowing rather than addressing those underlying imbalances). *There were no FX wars in this period, but only due to the underpinning of a continuous expansion of credit.*

Chart 3 – The post-WW1 boom and bust



Source: NBER

Chart 4 – UK goes off gold, France delays

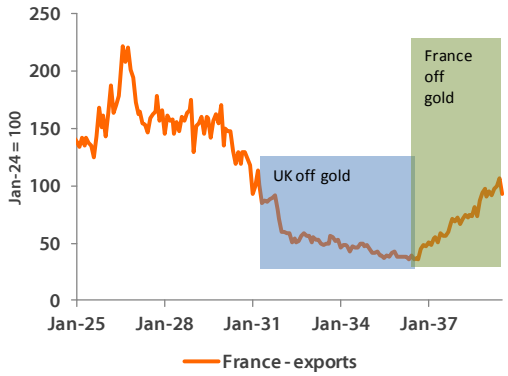


Source: NBER

	Domestic	International	Credit	Trade	FX regime	Outcome
Post-WW1	Endogenous	Exogenous	Very easy	Free	Fixed	Boom

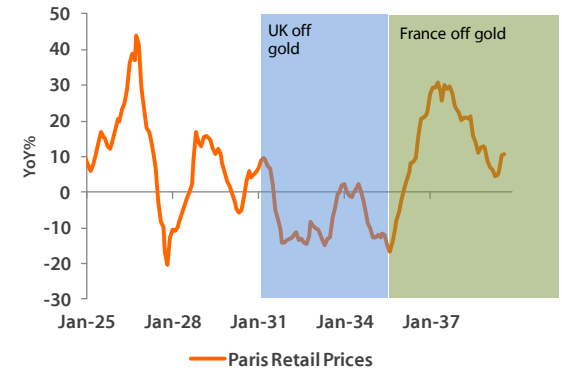
The 1929 the Great Crash brought this boom to an end, ushering in the Great Depression (see Chart 3). Crucially, with domestic demand collapsing, **the first modern currency wars began** in response. The US introduced protectionist tariffs, while *the UK left the gold standard*. Sterling was now fiat (i.e., paper only), so could be created in unlimited quantities, and weakened against the currencies that remained 'on gold', most notably the French Franc (see Chart 4). French exports suffered, and deflation deepened until it eventually responded in kind (see Charts 5 and 6). In short, ***going 'off gold' (or moving from Aristotle back to Plato) was the key to a successful reflation strategy***.

Chart 5 – Export revival when off gold...



Source: NBER

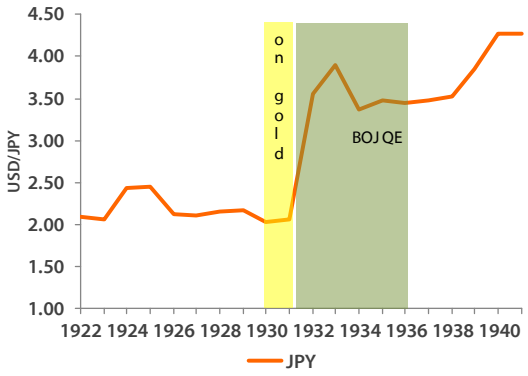
Chart 6 – ...and reflation not deflation



Source: NBER

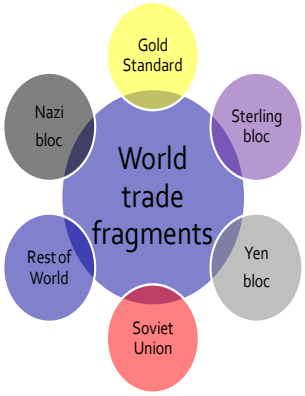
Meanwhile, Japan also went 'off gold' and introduced Quantitative Easing (QE -see Chart 7) to weaken JPY. Germany also opted for QE after 1933, though it opted for strict controls on imports (exporters to Germany received hypothecated Reichsmark credits that could only be used to buy goods from Germany exported back to that same country) and then autarchy rather than adopting a weaker currency – yet the effect was the same. Those policies provided a huge reflationary impulse for both countries. However, global trade fragmented into ideological blocks with their own clearing systems and tariff barriers (see Chart 8). Sadly, from there the march to the start of WW2 was not a long one.

Chart 7 – QE in effect 80 years ago



Source: NBER

Chart 8 – The global trade breakdown



Source:

	Domestic	International	Credit	Trade	FX regime	Outcome
1929-31	Endogenous	Exogenous	Not wanted	Not free	Fixed gold	Depression
1932-1939	Endogenous	Endogenous	Not wanted	Not free	Floating	War

Into and out of the Woods

The **Bretton Woods system** set up in 1945 was designed to prevent a repeat of the 'beggar-thy-neighbour' policies of the 1930s. All currencies were pegged to the USD, and the USD was pegged to gold. Money remained endogenous domestically, although international clearing required USD (or gold), capital flows were limited, and markets were highly regulated. Initially, there was a major problem: everyone needed USD to settle trade but the US was running trade surpluses, so there was a dollar shortage. However, as the US shifted to running trade deficits, global GDP rebounded: from 1953 to 1975 trade grew more rapidly than in any period since.

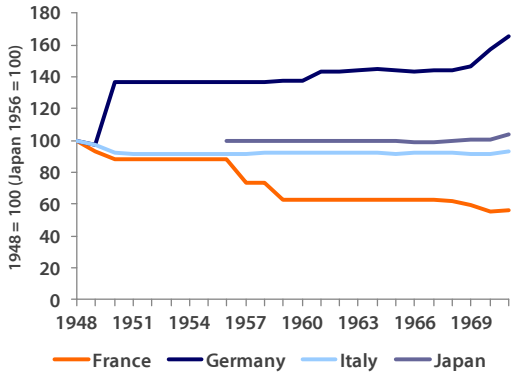
Regrettably, however, this paradigm could not last. The US expanded spending on social welfare and the Vietnam War, while global trade increased rapidly. That necessitated a huge expansion in USD supply – yet there was no corresponding increase in gold holdings. As such USD became overvalued against gold (not helped by the fact that, Germany aside, most developed countries refused to allow their currencies to appreciate vs. USD despite vigorous economic recoveries – see Chart 9). In 1973 the US was forced 'off gold'. Other currencies also broke their peg to USD, and we entered the modern world of floating fiat currencies where money is truly endogenous (especially for the US). In short, efforts to combine rapid economic growth with a fixed anchor (gold in this case) were initially very successful but were always doomed to failure, and also ended in major FX volatility.

	Domestic	International	Credit	Trade	FX regime	Outcome
BW	Endogenous	Exogenous	Regulated	Free	Fixed gold	Boom > Crisis

Fiat Fi Fo Fum – Japan loses a currency war

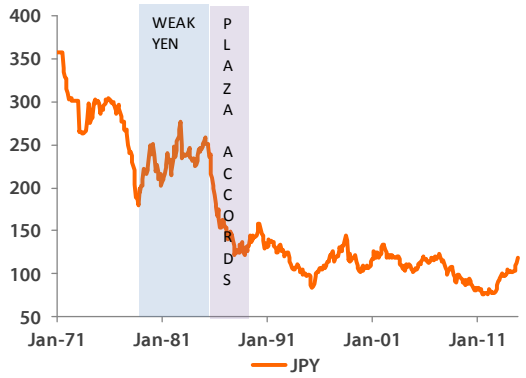
There were immediate tensions with trade partners unhappy at USD suddenly becoming more competitive. Since 1945 Japan had grown rapidly using basically mercantilist techniques, and responded to a weaker USD by trying to depress JPY again. The US refused to allow this to continue as its current-account deficit grew, and with the 1985 Plaza Accords forced Japan to allow JPY to appreciate (see Chart 10). In response the BOJ shifted policy towards domestic demand: the consequent property and equity bubble - and crash - has still not been recovered from several decades later; ironically, Japan then became a source of sometimes destabilizing global liquidity (and again reliant on a weak JPY).

Chart 9 – Pegs to USD held for decades



Source: NBER

Chart 10 – Japan starts, loses, a currency war

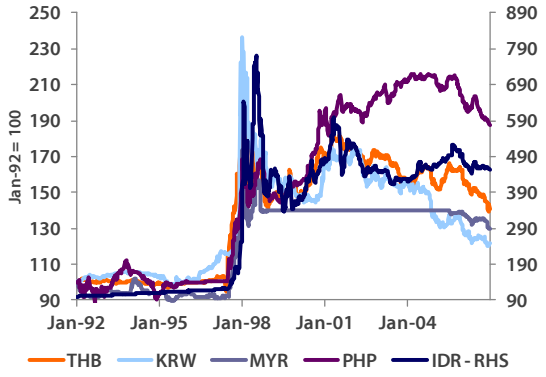


Source:

Indeed, Japanese capital then flooded into Southeast Asia, driving rapid GDP growth and large current account deficits, while local currencies were pegged to USD, as under Bretton Woods. However, as Asia's USD debt soared, foreign investors became nervous. In 1997 capital began to exit, leading to the devastating Asian Crisis (see Chart 11). Crucially, this was not a currency war in that Asia did not choose to devalue (very much the opposite!). That huge economic downturn then prompted a sea-change in thinking in the region. *In short, after 1998 emerging Asia - including the embryonic Chinese giant - embraced neo-mercantilism, prioritizing trade surpluses and buying USD to keep their currencies competitive.*

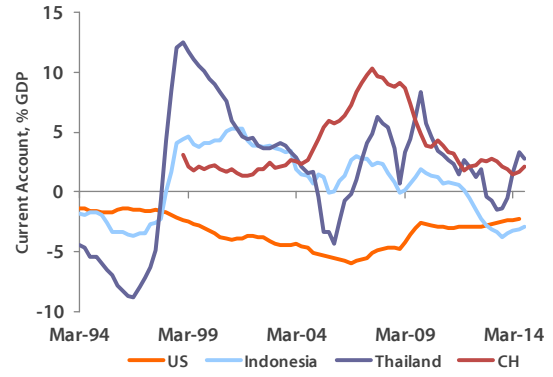
	Domestic	International	Credit	Trade	FX regime	Outcome
Post-BW	Endogenous	Endogenous	Deregulated	Free	Floating	FX war
Asia to 1997	Endogenous	Endogenous	Very easy	Free	Fixed USD	Boom > Crisis

Chart 11 – The Asian crisis was deep...



Source: Bloomberg

Chart 12 – ...leading to this in response



Source: Bloomberg

Into the Woods again...

This new paradigm was known as Bretton Woods 2. In effect, Asian currencies were kept undervalued to both create, and then fund, a growing US current account deficit in a form of vendor financing. This was not widely recognised at the time in the US; however, as is now painfully obvious, this was yet another example of a currency/exchange-rate framework that offered attractive (if artificial) stability, and prosperity - but then a very damaging crisis.

Indeed, in 2008 the US experienced an economic downturn similar in severity to the one that Asia had undergone a decade earlier – although, fortunately for the US, the negative effects of this were ameliorated by the rapid policy response from government and the Federal Reserve. (Recall, however, that the IMF insisted on higher interest rates, government austerity, and fire-sale privatisations in Asia, not QE, fiscal stimulus and the suspension of mark-to-market accounting: having seen that double standard one can perhaps understand why Asia wanted to be a lender to the West and not a borrower from it.) In short, after brief stability we ended up with another FX war – and this time USD, as well as GBP, depreciated massively against many crosses.

	Domestic	International	Credit	Trade	FX regime	Outcome
BW2	Endogenous	Endogenous	Very easy	Free	Semi-fixed	Boom > Crisis

...and not out of them yet

So why today, seven years after the crisis ended, do we still find ourselves locked into currency wars in an echo of the 1930s? Are seven years not enough time for an economy to heal, as Asia did after 1997-98? After all, we are no longer on the gold standard, and central banks can both slash interest rates and increase the supply of currency as needed to try to reflate their economies.

The answer is to do with **debt**. (Again, please refer back to recent specials to see our detailed estimates of aggregate global public and private sector debt, which we will not repeat in full here. Suffice to say, however, that total US debt to GDP is estimated at around 355%, EU-27 at 577%, Japan at 635%, and China 258%. In 2007 the respective figures were 439%, 482%, 468%, and 158%, so only the US has seen any deleveraging, and that arguably thanks to shale gas and a weaker USD.)

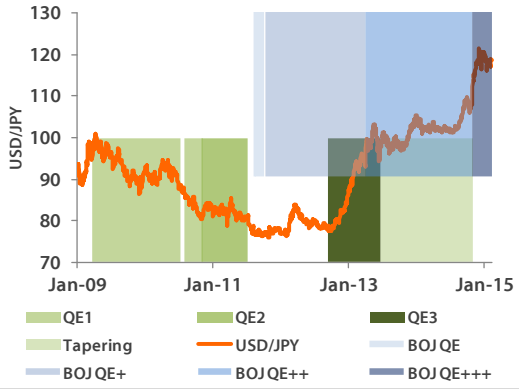
In short, *when total debt levels become too high there is simply no demand for credit* ***regardless of the level that the interest rate is set at***. Even when QE is injected into the economy there is no private-sector demand for the new liquidity (with the arguable exception of for housing/mortgages). As such, QE generates no real domestic growth impulse aside from an increase in asset prices, which only benefits a minority of the population (generally the wealthiest). Indeed, a more general rise in demand is therefore reliant on the government utilising central bank financing to increase deficit spending – yet that is no longer politically acceptable in most countries, who are instead opting for austerity.

Under such circumstances **we are effectively back under a form of exogenous, rather than endogenous, money.** In turn, that means that new demand can only come from abroad, as was the case in the past. In other words, we are again in a zero-sum Aristotelian, rather than a positive-sum Platonic, paradigm regarding trade, and the necessity to run a surplus (or at least a smaller deficit).

In that environment QE is arguably still a necessary policy tool, but it is primarily used to push down the value of one's currency in order to gain export market share, and to price out imports, i.e., currency wars.

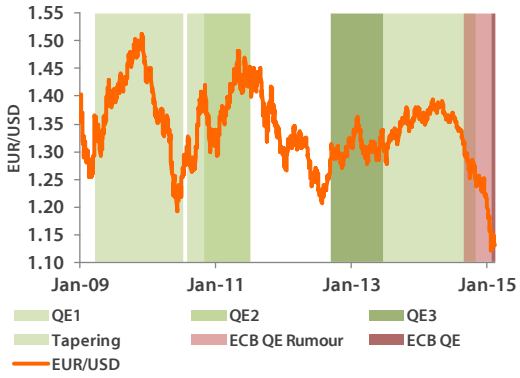
	Domestic	International	Credit	Trade	FX regime	Outcome
2008 - Today	Endogenous	Endogenous	Not wanted	Free	Floating	FX wars

Chart 13 – US and Japan QE to and fro



Source: Bloomberg

Chart 14 – ECB now joins the game



Source: Bloomberg

To underline just how this QE dynamic has played out in recent years one only needs to look at two key crosses, EUR/USD and USD/JPY, against the timing of Federal Reserve, ECB, and BOJ QE activity (see Charts 13 and 14). We can clearly see the relative shifts in both currency pairs as QE has been 'turned on' and 'turned off' in each of the three respective economies.

Currency wars or class wars?

Notably, unlike the case of Asia in 1998, *there is no longer a vast consumer market for the US, Europe, Japan, and China to all export into*: we live in a world short of aggregate demand relative to supply. Therefore, given that QE presents an 'easy way out' for both governments and central banks, it would appear that we are stuck with currency wars.

Indeed, one could argue that it is *either currency wars or class wars* given that the only logical alternative is deep-rooted structural reforms encompassing the supply-side, but also addressing income inequality, which is increasingly recognised as one of the drivers of the surpluses/assets (and corresponding deficits/liabilities) being run both *between* nations, and *within* them.

Yet worryingly, even if an individual country introduced such ambitious political reforms alone, the extra demand that it would create would then be available for all other countries that have opted not to reform to exploit via their exports. The precious inflation that would be injected would therefore 'leak' out to other economies. ***In that environment it is arguably logical for a reflating country to continue to act in a mercantilist fashion*** to 'seal in' the benefits of reflation.

In short, logic suggests that either:

(i) We see a 'Bretton Woods 3' as part of a global 'New Deal', where every major economy acts on socio-economic reforms and debt reduction in unison; or

(ii) We will eventually see an increase in the volatility of currency wars, and a concurrent step up in policy moves back towards protectionism.

Which of those two scenarios seems more likely? The last G-20 summit in Istanbul sent the message that the recent swings we have seen in currency markets are not part of a currency 'war', but instead reflect economic fundamentals, while making only fleeting mention of income inequality, and no recommendations to fight it: that suggests the latter of the two potential scenarios.

For now, therefore, perhaps the 'best' market outcome we can hope for is an extended period of informal rotating devaluations, as at present. That would mean that each indebted country would take it in turn to see competitive currency devaluation for 9-12 months to experience a brief, weak export-led economic recovery to try to cap domestic social and political pressures: then the 'torch' would be passed on to the next lucky recipient. That is hardly an appetising view of the future in any number of regards, but is not the worst scenario that one can paint either.

The lessons of history are that we don't learn the lessons of history

However, let's try to project what we can expect for financial markets ahead by looking back at history and drawing together possible patterns/rhymes, like Mark Twain. In the detailed table below one can see the accumulated historical periods discussed earlier and their relative stances towards the status of domestic money, international money, credit availability, trade, the FX regime, and the initial and final outcomes experienced under each paradigm. It is simply colour coded: green is considered good/free/unrestricted, and red indicates the opposite. What does it show us?

	Domestic	International	Credit	Trade	FX regime	Early outcome	Final outcome
Platonic	Endogenous	Endogenous	Easy	Limited	Floating	Boom	Inflation
Aristotelian	Exogenous	Exogenous	Easy	Limited	Fixed	War	War
Mercantilism	Exogenous	Exogenous	Limited	Not free	Fixed	War	Empire
Pax Britannica	Endogenous	Exogenous	Easy	Free	Fixed	Growth	Empire
Great Game	Endogenous	Exogenous	Easy	Not free	Fixed	Empire	War
Post-WW1	Endogenous	Exogenous	Very easy	Free	Fixed	Boom	Crash
1929-31	Endogenous	Exogenous	Not wanted	Not free	Fixed	Depression	Depression
1932-39	Endogenous	Endogenous	Not wanted	Not free	Floating	Depression	Recovery/war
BW 1945-73	Endogenous	Exogenous	Regulated	Free	Fixed	Boom	Volatility
Post-BW	Endogenous	Endogenous	Deregulated	Free	Floating	Volatility	Volatility
Asia to 1997	Endogenous	Endogenous	Very easy	Free	Fixed	Boom	Crash
BW2 1998 - 2008	Endogenous	Endogenous	Very easy	Free	Semi-fixed	Boom	Crash
2009 - Today	Endogenous	Endogenous	Not wanted	Free	Floating?	FX wars	???

- Firstly, the depressing conclusion is that all monetary/currency paradigms end badly. The happiest potential outcome is under our ideal Platonic monetary system, and that still sees inflation in the long run. However, the record for all the others is even worse;
- All the early Aristotelian/exogenous paradigms end in either war or empire. That is perhaps no surprise given that everyone is essentially fighting over limited resources;
- Later Aristotelian paradigms, where we get easy credit and partly endogenous domestic money, see bursts of rapid growth – but then painful crashes. So no solution there either;
- Under Bretton Woods and a gold anchor and a *de facto* fiat USD, and controls on capital flows, we get rapid growth. However, given we can't match gold supply to money supply, we still end up with a crisis and an end to that paradigm too;
- In the post-Bretton Woods period we saw continuous volatility rather than much-desired stability;
- Attempting to peg back to the USD with an open capital account and easy credit ended in disaster for emerging Asia in 1997-98 (and, switching USD for EUR, for the Eurozone periphery from 2000-08, one could also argue);
- Reversing back to unofficial soft currency pegs vs. USD and vendor financing for the US under Bretton Woods 2 was once again a crashing failure for the US; and
- We currently risk sinking into an economic/currency paradigm that ended extremely badly twice in the last century.

Overall, against this gloomy backdrop we can ascertain the key messages seem to be that:

- 'Soft' money is preferable to 'hard' money, in that it is not zero-sum, so carries less need for violence;
- That credit flows are a necessary part of such expansion, but need to be watched closely given they are also the drivers of the debts that can then stifle growth later; and
- That fixed exchange rates can be as effective as floating if there are limited global capital flows (though fixed to what is the key question - and are we really going to see capital markets being regulated ahead?).

That might be of some use as we think ahead to exactly how we will exit from these currency wars: at the least, let's hope that history will not rhyme too closely this time round.

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