THE RISE AND FALL OF THE EURODOLLAR SYSTEM
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† The Clinton-Gore campaign slogan in 1992 was “it is the economy stupid”. We believe the slogan in the aftermath of the debt cycle peaking in a world of ZIRP and NIRP should be “it is the quantum of money stupid”. The reason being, in the current low-growth world, central bankers are failing to lift the velocity of money and collateral, and ever increasing new regulations are slowing down the financial system’s ability to generate enough money/credit.

† In this report we have a closer look at the rise and fall of the Eurodollar system and its link to dollar liquidity, as well as the value of the dollar and the effect thereof on the SA markets.

† In 2011, the mechanisms and size of the shadow banking system became known, now it is the turn of the Eurodollar system. The Eurodollar system originated in the 1950s as a dollar payment system outside of the US. This system started to take off in the 1980s as the Financialization process began, and then gained further traction amid a regulatory arbitrage in 1990. In the late 1990s, the system evolved from a payment system to a source of funding - especially for the shadow banking system and the carry-trade. We believe investors still underestimate the importance of the dollar in the global financial system as well as the effects changing regulations have on the dollar creation process. When the Fed hikes, the damage will not just be local to the US, but will be global in our opinion.

† The shortage in the total pool of dollars in the world (post Basel) has been evident in the widening FX basis swap since October 2014 when the Fed stopped adding to its balance sheet. A hike in the Fed funds rate is likely to trigger a period of dollar strength similar to 2014, which would then act as a rate hiking cycle on all the non-US dollar debt (which is now in excess of $10 trillion). The South African economy and markets would then not just be affected by the changing $-rand exchange rate, but also by the consequences of the shrinking pool of dollars on the global carry-trade.

† In December 2015 our view was not to extrapolate the weakness of 2014/15 into 2016, and we expected a major corrective rally in risk assets. Apart from the local political storm around the firing of minister Nene, the risk-on phase we expected materialised and rather textbook ABC-patterns played out in most risk markets. The targets of this risk-on phase have been met and we are now calling an end to this risk-on phase. The major driver of this is our expectation of a rally in the US dollar.

† Our fair value models for the local currency and local bonds have been on a rollercoaster ride amid the volatility in the residual item (which we assume to be politics and other factors that our model might not be capturing). Currently our FV on the USD/ZAR is 15.05 (next three months). Given our assumptions on global dollar-liquidity and our highly correlated relationship with the US 10-yr government bond and corporate spreads, we expect SA bond yields to rise to 9.5% in the next three months.

† The next dollar bull phase is about to start in our opinion, and if the euro-$ breaks below 1.10, we would strongly advise that portfolios de-risk and investors hold more cash. Stocks globally that generate dollars will do much better than companies with a dollar cost base (including dollar debt).
Eurodollars are unsecured deposits which are held outside of the US. They are therefore not under the jurisdiction of the US and consequently lack the regulation of the Federal funds market. The Eurodollar market has evolved throughout the decades and has become the heartbeat of the world’s dollar based financial system. It originally developed after World War II as a payment system as a result of both the Marshall Plan and also the expansion in international trade.

However the Eurodollar market exploded after 1990, triggered by an amendment to Regulation D which meant that net Eurodollar deposits had a zero reserve requirement. The Eurodollar market also became an important source of funding for US banks, having grown in this role from half of (in the 1980s) to nearly equivalent the size of the Federal funds market currently. This led to the rapid rise in the Eurodollar market as a source of funding for US and global banks, rather than required reserve balancing for international trade.

Since cross-border transactions in US dollar can take place in many forms (i.e. pure offshore transactions, and round-trip transactions) and also for many reasons (i.e. international trade or to source funding for a carry-trade), it is very difficult to estimate the exact size of the Eurodollar market. Making the issue more complicated is the boom in the derivatives market which started in the late 1990s.

However with the help of the BIS we can estimate the size of the market from bank claims (in USD) of foreign banks, US interbank transactions and net foreign banking offices in US. We find that the Eurodollar market is substantial and peaked at 0.87 times the size of the total US banking system. It is very noticeable that when the growth in the Eurodollar market slows, there is a financial crisis somewhere in the world.

This shrinking pool of money has been, and will remain, the driver of the dollar bull trend since the GFC.
The US trade deficit supplied the world with an adequate amount of US dollars but in the late 1990s, in the new age of financial innovation, the growth in the Eurodollar market exploded. At the peak in late 2008 US branches of foreign banks were raising $600bn in US wholesale money markets and transferred these dollars to fund the shadow banking system and other carry-trade transactions.

However, post the 2008/09 financial crisis, with the introduction of new banking regulations and the Fed’s facility to pay IOER (interest on excess reserves), a flood of Eurodollars has been flowing back into the US - leaving the global financial system with a shortage of dollar liquidity.

Evidence of the global dollar liquidity shortage is evident across financial markets: the FX USD basis swap rallying, US securities failing to deliver, the shrinking overnight repo market and of course the stronger US dollar.

The **NY Fed’s foreign reverse repo program** has grown to $250bn in a short space of time, reflecting the demand for USD in overseas funding markets. With this, the Fed has become both the supplier of dollars and a user of them. The Fed is trying its best to alleviate the pressure on the dollar shortage, while also trying to regain control of the dollar which it lost post the start of the banking deregulation.
The standard response by the Fed has been that it is their intention to shrink their balance sheet. The Fed’s own projection is, however, that it will be years before the unwinding starts. We do not believe that they will have the opportunity to do so soon, as the latest research from the Fed indicates the natural rate will remain lower than originally anticipated. It is evident that the Fed is trying to keep the annual change in total credit (including their own balance sheet lately) more or less the same as the change in the GDP. The Fed’s balance sheet is here to stay for quite a while - until the global economy has reached escape velocity. Bernanke in his latest blog also suggest it is a good idea for the Fed to have a big balance sheet to control money market rates, seeing as the Fed funds rate is not effective anymore.

 Regulations are destroying dollars; if the Fed shrinks its balance sheet and changes the price of dollars, a strong dollar and a recession will likely be the consequence.

 The BoJ statement on 29 July 2016 included two noticeable points: a) Increasing the size of the Bank’s lending program to support growth in US dollars and b) Establishing a new facility for lending securities to the financial industry (to be pledged as collateral for the US Dollar Funds - Supplying Operations). These statements and activities confirm the shortage of dollars in Japan. But it is not just Japan that is short of dollars, Europe and especially the rest of Asia are also very short.
The dollar has now remained too long above the 30-yr trendline to be a false break.

- The dollar has now spent 18 months above the trendline from the Plaza Accord top in 1985. Technically this pattern has now become a continuation pattern.

- We believe the pressures on the dollar will not dissipate post the 14 October 2016 money market rule changes. We cannot see where a higher velocity will come from, with funds moving from prime to government bond funds, cutting off the funding of the Eurodollar system.

- There is some good news though, the dollar is now less overvalued after the consolidation phase of the last 18 months.
Pre-1998, the era before shadow banking and when the world had a rising velocity of money, there was only one rate to monitor - the Fed funds rate. Post the GFC, in a world of extraordinary monetary policy and a changing regulatory environment, the interest rate market has become more complex. The shadow rate, which was a gauge of the QE process, is back at zero and there is no need for it anymore as rates are back above zero again. But it does point out that the entire stimulus effect of the QE process reversed post the taper statement (in an effective 3% rate hike). Furthermore, the Fed is trying to peg money market rates between IOER and the RRP rate.

The US LIBOR rate has, however, been diverging away from the Fed Funds rate since 2014 (when a dollar shortage started developing). As already mentioned, we expect another major dollar bull phase, based on money market regulatory changes.

The US10yr/12m Libor (1.53%) spread is about to go inverse and traditionally this precedes a recession. The 10yr/1yr rate spread is still positive. These yield curves are highly correlated with dollar liquidity. Usually by now the Fed would either be cutting rates or adding stimulus – but now the threat is higher policy rates.

Many believe the pressures in the Eurodollar market will dissipate post 14 October 2016 (when the new money market rules are implemented). Forward rates are, however, not coming down - indicating that the market still expects dollar funding pressures post this date.
We are well aware that the study of monetary plumbing is not exciting. The question quickly arises: so what is the importance of all of this?

Money makes the world go round and if the world’s reserve currency shrinks, it will have a myriad of consequences. **One of our bigger concerns right now is the amount of dollar debt held by non-US corporates and banks.** We calculate that the world is short in excess of $12 trillion.

We just cannot stress enough the consequences of a rising dollar. It is evident on the bottom chart that every time the dollar enters a bull market, corporate defaults accelerate.

**The big difference between the post-2009 era and pre-2009 is that in the past dollar creation was a consequence of the Fed changing policy rates. Post 2009, dollar creation was driven mostly by regulatory changes.**
Dollar funding has become very expensive since the beginning of the year. Neither a Japanese nor a European investor (for the first time since 2009) can make any money (on a hedged basis) from buying US bonds. The US bond market has lost some of its foreign buyers, but fortunately the changing banking and money market regulations will help fund the fiscal deficit.

The best collateral in the system, sovereign bonds, is now trapped on balance sheets for regulatory purposes. This causes the re-hypothecation process (repo volumes) to slow down, shrinking the pool of dollars. We believe the changing regulations are major drivers of slowing down the velocity of money and collateral. We feel that this will lead to a continuing shortage of dollars in the system.

The implicit potential for negative spillbacks if the Fed is too hawkish is very high (given the importance of the dollar to the global financial system and especially the carry-trade).

On a risk (volatility) adjusted basis the EM carry-trade has been in a bear market since 2014. The carry-trade consolidated since the start of the year, but we believe it is over now and expect the carry performance to turn down again.
Since February 2016 a consensus view developed that central banks would be very accommodative – this triggered a major bond bull rally. This rally completed the Elliott-wave pattern of the bond bull market that started in the 1980s. Any further weakness in US bonds from current levels would confirm a bottom formation. **We expect the 10yr yield to find its first major support just above 2.00%**.

It is hard to grasp higher bond yields in an environment of low growth and in a disinflationary to deflationary world. **Bond yields will go up for the same reason - there is pressure on the USD LIBOR rate and the dollar swap markets, the pool of money is shrinking and money will become expensive.**

Since 1987, whenever the US bond bull market corrected within the bull trend, it triggered the next crisis. **We have a strong view that the weakest link in the chain right now is corporate credit, especially the dollar debt issued by non-US non-financial corporates.**

It is becoming more evident that monetary policy is not working and interest in fiscal policy is spiking. The term ‘fiscal stimulus’ is now mentioned frequently in news articles.
World stock markets peaked (along with many other asset classes) in 2H14 when the Fed’s balance sheet stopped growing. The MSCI World (ex-US) is currently struggling to break above an important neckline. If we are right that the US dollar is about to start the next phase of its bull trend, then this resistance neckline will remain intact.

Global equities underperformed bonds from early 2015 until the start of 2016. During 2016’s risk-on phase, the equities over bonds relative has been range bound. We also expect the (red) neckline on the relative to remain intact. The SP500 (not shown here) is likely to rally further in our opinion, but we think it is in the latter stages of a bull trend that started in 2009.

Central banks are trying to suppress volatility, but unfortunately all asset classes are now highly correlated and this concentration risk can lead to exactly the opposite result the central bankers had in mind.

The SA equities over bonds relative has broken out of the wedge that has been forming since early 2015 but has not broken out of the bull trend that has been in place since 2009. It is just a matter of time before this relative breaks down.
As mentioned on the previous page, markets are highly correlated - especially to the changes in the Fed’s balance sheet. All the EM asset classes peaked in late 2014 and then fell in a 5-wave structure, indicating a bear trend.

In December 2015 we warned not to extrapolate this trend into 2016 as the wave count was complete.

We now believe the ABC corrective phase is near completion. The EM bonds has actually already broken the bull support line.

We believe that, as the dollar index starts to rally, the next phase of the bear trend in the EMs will set in.
The ABC corrective rally since the start of the year is also visible in SA bonds, the rand and the carry-trade. The JSE (in dollar terms) has a similar pattern to other EMs.

The technical picture of the JSE in ZAR terms is one of the more (if not most) complex patterns we have encountered in nearly 30-years of staring at charts. This pattern is too big to be a top formation. We do expect a new high out of this pattern, but we expect this to come from rand weakness. We are still holding out for 37,000 on the Resources index.

The bonds sold off within the ABC channel. But we reiterate what we have been saying the whole year, the move from 10% to 8.40% was a correction phase and bond yields will eventually go higher. No, it is not just political uncertainty and inflationary pressure (not that we expect good news on that front), the global pool of money is shrinking – thereby shrinking the carry-trade with it.
Our fair values on our currency and bond models were breached in the past month, at R13.80 and 8.50% respectively. However, this did not last long amid the volatile residual item and the risk-on environment losing momentum.

The evolution of the residual item, which we assume to be politics and other variables not captured by our model, has been volatile. In January 2016 the residual was at 28%, it halved in July 2016, and is currently back at 24%.

Based on our view (where we expect the risk-on phase to reverse its trend), our new fair value for the local currency vs the USD is 15.05 (next three months). Both our local and international fair value models indicate higher yields for SA bonds.

We believe that the driver of our higher fair value is more than likely going to be international factors i.e. dollar-liquidity. The local unstable ‘political premium’ is most likely already in the price in our view.
**MACRO INVESTMENT THEMES & ASSET ALLOCATION**

**Tactical Trades:** This summarizes our short-term recommendations which can diverge from our long-term recommendations. Next 3 months.

1. **Equities, global and locally have further upside.** We still favour US equities over the rest. SA equities in rand terms has further upside but we expect a major top sometime late this year. We favour resources over industrials over financials on a short and long-term basis.

2. **The bull run in the rand and SA bonds is over.** A correction phase is playing out after the new political developments but the trend is higher for the next 6-months.

3. **MSCI World/Global bonds** should out-perform during this final phase of the equity bull, but the equity out-performance since 2009 is at the most a few months from being complete.

4. We are very big dollar bulls.

**Strategic Trades:** This summarizes our long-term strategic recommendations. These views are based on our combination of global macro-economic views.

1. **Overweight USD** on back of global deflationary environment and shrinking global $-liquidity.

2. **Underweight global corporate credit.** In particular HY and USD denominated debt.

3. **Underweight EM currencies and bonds** as returns in global carry-trade deteriorate.

4. **Overweight Gold.** As central banks try to avoid deflation, gold should act as the alternative currency.

5. **Local equities:** Resources over financials over industrials. Life offices over banks within the financials. Property has limited upside and we are negative over the long-term.

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**Recommended weight (%)**

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**Top40 (J400) recommended weight(%)**

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