ANDBANK RESEARCH

Global Economics & Markets

Alex Fusté
Chief Economist

alex.fuste@andbank.com

+376 881 248

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€/$ – Why, Where, how much?

Consensus continue pointing towards further USD gains. Here you have four reasons to think that this should not happen.

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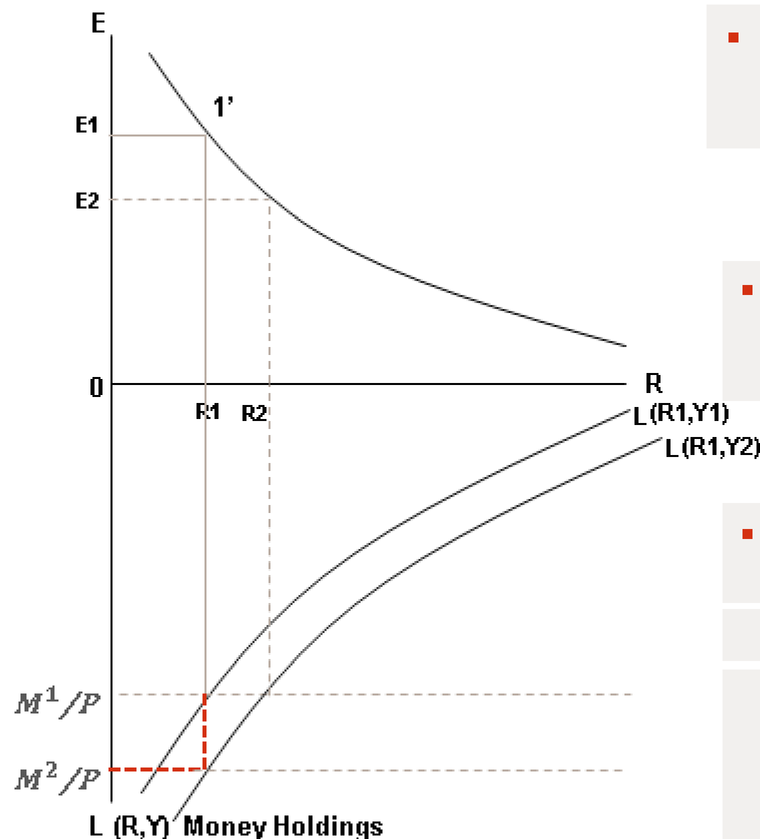
1. Equilibrium in domestic rate, level of output, quantity of money, demand of money and the exchange rate suggests that "Draghi's QE" should not imply a depreciation.



- 1st Principle: "For a given E (Exchange rate) to become E_{eq} (Exchange rate of equilibrium), the Interest Rate (R) parity condition must hold"

$$R_{dc} = R_{fc} + [(E\^{}-E)/E)]$$

Relationship E,R.
- Given R_{fc} and E^, the lower the E, the higher R

- 2nd Principle: "For a given R_{dc} (Domestic Rate) to become R_{eq} (Rate of equilibrium), then the equality between real quantity of money and demand of money must also hold:

$$[M^i/P] = L_{(R1,Y1)}$$

Relationship R,L
- For higher R, more attractive are the interest bearing assets

- 3rd Principle:
  1. For a level of Y ($Y1$) and P, when $R = R_{eq}$, then $[M^i/P] = L_{(R1,Y1)}$
  2. When $\Delta Y > 0$ and $Y1$ raises to $Y2$; then L raises at every level of R
  3. If a Central Bank takes NO action (and keeps $[M^1/P]$), then the new equilibrium is that combining **$R2$, $E2$, $L_{(R2,Y2)}$ and $[M^1/P]$**
  4. If a Central Bank **takes action, and raises $[M^1/P]$ to $[M^i/P]$,** then $R2$ comes back to $R1$, and $E2$ comes back to $E1$. The new equilibrium is the one combining **$R1$, $E1$, $L_{(R1,Y2)}$** for a new $[M^i/P]$

For any increase in the Quantity of Money $[M^i/P]$, when accompanied by an increase in output (Y), that should not imply a depreciation of the Exchange Rate *(E)*. If Mr. Draghi's QE program is "Targeted" to boost Credit (via new loans through TLTRO or new ABS's via an Asset purchase program) responding to a new real demand, then this program is aimed at boosting Real Investment, and thus GDP. **Such a QE should not imply a depreciation in the Exchange Rate.**

2. Once we have defined the equilibrium relations and some of the principles by which one currency is governed, historical and projected inflation points towards 1.40 as a fair value for the $/€

- 4th Principle: $Real_{exchange\ rate}$ = E $[(P_{fc} / P_{dc})]$ = Number of domestic baskets for each foreign basket

t Dec13

E=$1.37/€

$P_{€\ basket} = 141$

$P_{\$\ basket} = 193$

Circa 30% difference. Why?

- Avg π_{GE-25y} = 1.40%
- Avg π_{US-25y} = 2.68%

$\Delta P_{€}$: 100 → 141

$\Delta P_{\$}$: 100 → 193

$$\text{Real E} = \text{E}\ [(P_{fc} / P_{dc})] = 1.37\ [(141/193)] = 1\ US\ basket/_{€.basket}$$

t Dec14^

E=$1.37/€

$P_{€\ basket}$= 141.6

$P_{\$\ basket}$= 197

$E[\Delta\pi_{GE}] = 0.4\%;\ E[\Delta P_{€}]:\ 141_{t0} \rightarrow 141.6_{t25}$

$E[\Delta\pi_{US}] = 2.1\%;\ E[\Delta P_{\$}]:\ 193_{t0} \rightarrow 197_{t25}$

$$\text{Real E} = \text{E}\ [(P_{fc} / P_{dc})] = 1.37\ [(141.6/197)] = 0.98\ US\ basket/_{€.basket}$$

At 0.98 Real Exchange Rate, with the same amount of money, US consumers will receive only 0.98 baskets in the US, while receive 1 entire basket in the Euro Area. **Accordingly, the US consumers will shift demand for EUR denominated goods.**

UNTIL????

t Dec14^

$$\text{Real E} = E_{14}\ [(P_{fc\ 14} / P_{dc\ 14})] = 1\ US\ basket/_{€.basket}$$

$$\text{Real E} = E_{14}\ [(141.6 / 197)] = 1\ US\ basket/_{€.basket}$$

$$E[E_{14}] = 1.39$$

3. The other argument used for those betting on a $1.20/€ is the projection for an earlier and significant FED tightening due to mounting inflation. This need not be so.

- **The Fed will start a tightening process as a result of a combination of a consistent & healthy GDP growth and persistent inflationary pressures.**
- **In that regard,** our projection for prices is for "disinflation". Here are the reasons.

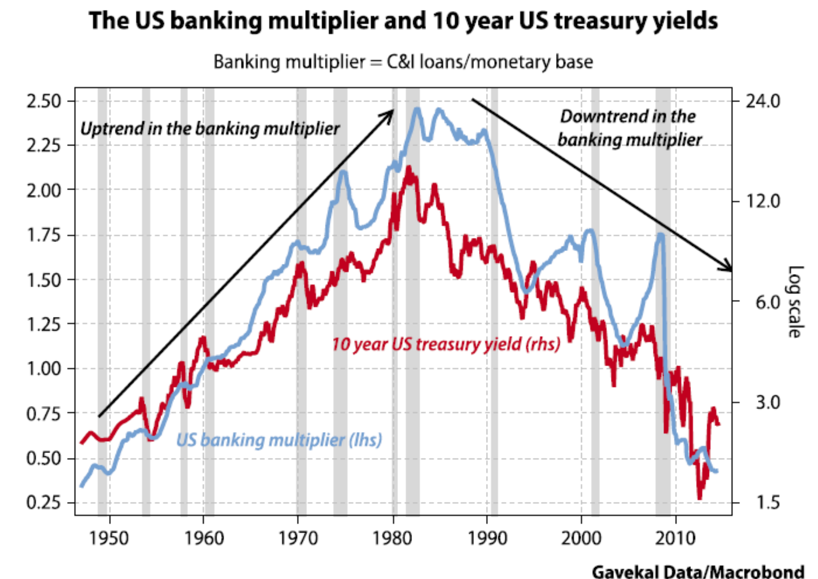
i. Inflation can not exist in a country with a broken credit distribution mechanism (when the banking multiplier is falling). See the chart.

ii. By nature, capitalism is expansionary but also deflationary (this is what we saw in the nineteenth century with the industrial revolution and what we have been seeing in the last 25 years).

iii. The ability of companies to incorporate robotics into their processes is unprecedented.

iv. Capitalism has led investments in mining, resources and energy also to unprecedented levels. This means excess capacity, and thus, an excess of stocks. Definitely a deflationary aspect.

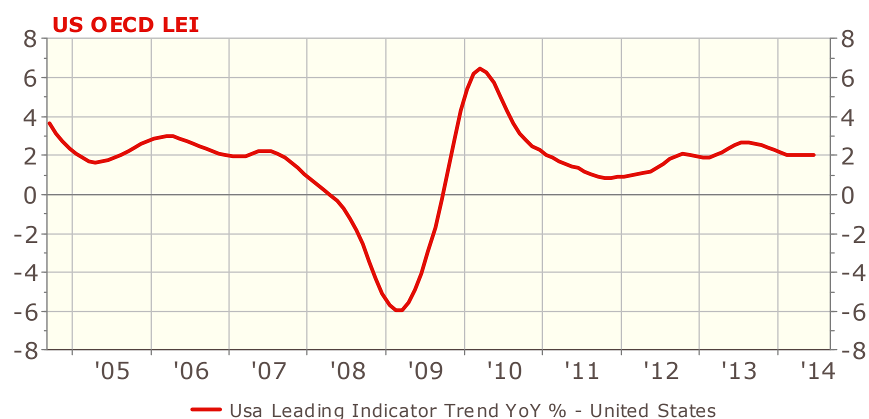
v. The progressive internationalization of the Renminbi, enabling the industrialization of countries such as Vietnam, Bangladesh and Cambodia (thanks to cheap Chinese credit). This means more production made in cheaper centers, and that is also calls for global disinflation.



4. Thus ..., Tightening. When? It could be later than sooner (contrary to the general opinion)

- **Our position ("later than sooner")** is based on three arguments:

1. **Everybody knows that the post-2008 "new normal" will be much weaker and more unstable than the previous era.** As such, our projections for growth in the West (and also the US) are for a mild pace of expansion (clearly below the long term average). Thus, although the cyclical improvement does continue, this will be slow, unstable and could (should) not trigger a sharp monetary tightening in the US (at least with the intensity that many think).
2. **Since January this year, the US OECD LEI* -Leading Economic Indicators- has shown a declining pace** (see the chart below) suggesting that the US economy could be entering a period of softer growth.
3. **What really matters is Mrs. Yellen's view**, and it is worth mentioning that she has abandoned the idea of a threshold in the unemployment rate (as the trigger for the first rate hike) in favor of a set of measures. This simply means that she can always find one indicator to delay a rate hike.
4. **Inflation expectations are not unanchored:** The spike in CPI has been fueled by a recent increase in items such as commodity prices or rents. Aspects we feel that might not have continuity, especially in the first case. Although rate hikes are needed (to set a more appropriate cost for capital), Mrs. Yellen is unlikely to raise rates quickly unless CPI expectations become unanchored.



* The survey that best tracks the factors that directly influence future economic activity, since it overcomes the survivorship bias that typically can be seen in the other surveys.

Euro Area – Conclusions about the currency

1. **For any increase in the Quantity of Money [M^i/P], when accompanied by an increase in Product –or GDP- (Y), that should not imply a depreciation of the Exchange Rate (E).**

2. **Thus, Draghi's QE does not mean automatic EUR depreciation:** If Mr. Draghi's QE program is "Targeted" to boost Credit (via new loans through TLTRO or new ABS's via an Asset purchase program) responding to a new real demand, then this program is aimed at boosting Real Investment, and thus GDP. Such a QE should not imply a depreciation in the Exchange Rate according to our "Equilibrium Model".

3. Given historical average inflations (in Germany and the US); **1.37 seemed a fair value for the $/€ exchange rate at Dec 2013.**

4. Given our own projections for 2014 inflation rates in the Euro Area and the US (+0.4% and +2.1% respectively), **1.39 is the level in the $/€ exchange rate that brings the Real exchange rate close to 1, being thus, what could be considered a fair value for the $/€ exchange rate in Dec 2014.**

5. **We are fully aware that the real exchange rate can be far from 1,** but as the EU and the US seem close to seal the TTIP (Transatlantic Trade and Investment Partnership) in the foreseeable future, it has little sense to bet for a Real Exchange rate significantly far from 1. Instead, The logic leads you to think in real convergence of the exchange rate.

6. These projections are **based on our assumptions for the main refinancing rates in both areas:** Stable in the Euro Area (near the 0% floor) and only moderate increases in the US Fed Funds Rates during the 2H15 (of around 50 bps).

7. **Admittedly, the market forces can bring this exchange rate far below of what we consider a fair value for the pair** (under our rates, inflation and economic assumptions). In such a case, and while our assumptions remain stable, we consider that any significant variation in the pair (from our fundamental target at $1.39/€) represents an opportunity to increase exposure (depending on the direction of the pair).

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