Crypto Challenge

98 – 5 July 2021

Key points

- Key data releases last week did not move the bond market: there is still too much "noise", particularly in the US because of the magnitude of the fiscal push.
  "Policy thinking" on crypto currencies is accelerating, highlighting the deep ramifications even their most "prudent" forms – such as digital currencies issued by central banks – would have on the entire financial system.

Despite the release of some key economic variables last week – job creation and wage growth in the US, inflation in the Euro area – the bond market was non-plussed. The acceleration in American wages still needs to be tested for the absorption of the fiscal push, and the Euro area is at least for now escaping much of the impact of the "reopening catch-up" and "microchip shortage" with are behind the current price spike in the US. While we continue to wait for more conclusive data, we can devote more energy to exploring long-term issues.

We have noticed an acceleration in "policy thinking" around crypto currencies lately, epitomized by the Bank for International Settlements (BIS) annual economic report. The discussion on digital currencies is often obscured by political considerations around the "control of money". We think the arguments in favour of substituting private digital currencies to the current monetary system dominated by independent central banks in order to better protect the "value of money" are weak and vastly offset by the threats to financial stability. Still, the BIS makes the point quite eloquently that the current payment system is expensive. The "status quo" is probably not tenable and this explains why central banks are eager to develop their own digital offer.

Digital currencies are first and foremost a technological innovation which can be harnessed to promote inclusiveness and make the financial system more efficient without the most glaring financial stability risks if central banks get involved. However, even if those Central Bank Digital Currencies (CBDCs) win against private ones, their development could profoundly change the structure of the financial system. Under certain forms, fully-fledged CBDCs could "devitalize" banking, accelerating the trend towards the disintermediation of investment.

European inflation is hard to move

June inflation numbers for the Euro area came out last week with very little fanfare, which is quite understandable: with the core consumer price index rising by 0.9% year-on-year, there is nothing to write home about, or at the very least nothing to seriously challenge the European Central Bank's (ECB) accommodative stance. Still, **the contrast with the US data should draw some attention.** The spike in the US is driven by two exogenous shocks which should be found in Europe as well: the global shortage in microchips and a recovery in the pricing power of the sectors which had been badly hit by the pandemic as the economy reopens.

To assess this (see Exhibit 1) we break down Euro area core consumer prices the way we did for the US index two weeks ago, around a "microchip bucket" – cars, both old and new, car insurance, household appliances – and a "catch-up bucket" (airline fares and hospitality). On the "way down", the catch-up bucket played a fairly similar role across the Atlantic, albeit from a higher starting point and in a much slower fashion in Europe. In January 2020 these items were contributing +0.35%yoy to core inflation in the Euro area. This contribution hit a trough in October 2020 to -0.17%, an overall change in line with what was seen in the US (from 0% to -0.55%) but which took only 5 months there (trough in May 2020). **If it took longer on the way down, it may also take longer on the way up,** especially in a context of a European reopening which was initially more hesitant. The fact that there is no sign of a "spike" in the recent European data yet would simply tell us that we should brace ourselves for more upward pressure in the second half of the year – pandemic developments permitting, of course.

The lack of movement of the European "microchip bucket" is more puzzling, especially since manufacturers on this side of the Atlantic report similar supply issues as their American counterparts. **A possibility is that there is still not enough pressure from demand in Europe to push prices higher as a result of product scarcity**. Beyond the difference in the timing of the reopening, household income has been less stimulated than in the US. In the absence of fiscally induced overheating, the transmission to consumer prices of the global microchip shortage may be much lower in Europe even after taking the reopening lag into consideration.

Exhibit 1 –It takes a microscope in Europe…

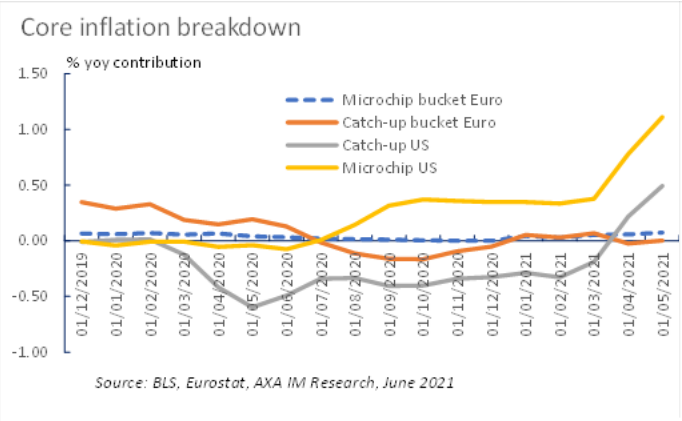
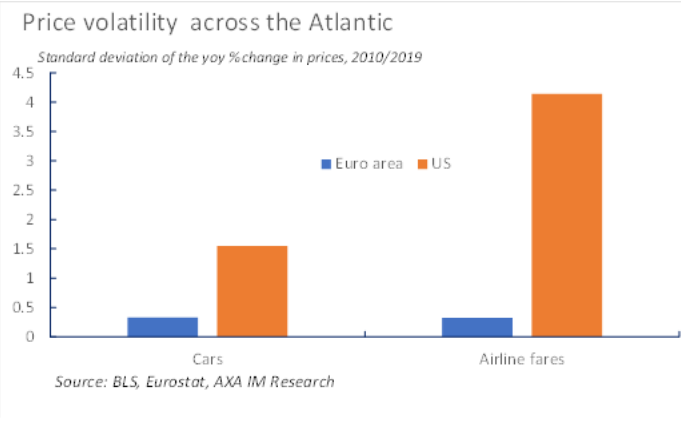


Exhibit 2 – Much more "price inertia" in Europe structurally



Another factor to take into consideration is that for some of key items behind the current inflation spike, "price inertia" seems to be structurally lower in the US than in the Euro area. In Exhibit 2, we computed the standard deviation of the year-on-change in prices for key representatives of the two buckets in the 10 years before the pandemic started. The difference is striking. Price gyrations are much wider in the US. This does not extend to aggregate core inflation, with a very similar pre-pandemic standard deviation. Still, this would suggest that even if there were no difference capacity utilization across the Atlantic, nor lag in the reopening, the potential for the steep acceleration of core inflation for "sectoral reasons" would in any case be lower in Europe.

US employment, again

US Payrolls were last week's highlight of the data flow. The strong monthly gain, after two disappointing releases, is of course reassuring about the robustness of the recovery, but once again, at least from the angle of monetary

policy and long-term yields, our view is that "we are none the wiser". Indeed, there continues to be more than enough in the data to support both the hawks and doves. The former will point to the speed of job creation (662K in the private sector) and the robust wage gains (3.6% year on year after 1.9% in May) to argue in favour of a relatively swift normalization of monetary policy. The doves will point at the 4.3% gap in private employment relative to the pre-pandemic level, as well as to the stubbornly low participation rate and the rise in the unemployment rate to argue that "slack" remains plentiful despite the magnitude of the policy push.

Our view is that **this new batch is still not providing us with more information on the underlying strength of the labour market and the potential to see persistent inflation**. Just like last month, unskilled workers benefitted from relatively strong wage increases, continuing to close the gap with their more-skilled colleagues, even though the number of unskilled jobs of this nature remains very depressed relative to January 2020 (see Exhibit 3). Yet, we won't know more about the nature of this wage upgrade contrasting with a muted recovery in job numbers before we can see how labour market dynamics react to the termination of the federal top-up to the unemployment benefits which has only started in some states in June and will not be generalized before September. **The absence of significant reaction of the bond market to the release thus makes sense.**

Exhibit 3 – Scarce unskilled workers drive wages up

Cryptic developments

So much for "immediate" macro developments for now. Focus on the macro-management of the pandemic should not distract us too much from thinking about structural forces. Lately, we have been struck by an acceleration in "policy thinking" about crypto currencies, with in particular a very precise and stimulative chapter of the latest economic annual report by the Bank for International Settlements (BIS), which with Benoit Coeuré is investing heavily in this research field, and an intriguing and forceful speech by Mark Carney at a BIS event. What we found particularly interesting in these two contributions was their capacity to link the – sometimes arid – technological aspects of digital currencies, to profound questions about the shifting nature of the financial system and monetary policy.

When making the case for private digital currencies (PDC), their supporters often put forward "liberal" arguments – PDCs would be more inclusive than traditional currencies, especially in developing economies, by democratizing access to monetary services – **and "libertarian" ones** – PDCs would "free" money from the control of governments and central banks, thus protecting their bearers from arbitrary financial manipulation. Historically, it is in our view straightforward that modern central banking has in effect been very good at protecting individual monetary holdings, and that an unfettered development of PDCs would be profoundly detrimental to financial stability (i). PDCs are first and foremost a *technological* innovation which can be harnessed to promote inclusiveness and make the financial system more efficient as long as central banks supervise them (ii). However, even if those CBDCs win

against private ones, their development will profoundly change the structure of the financial system, by "devitalizing" banking, accelerating the trend towards the disintermediation of investment (iii).

Let's start with financial stability. Stable money requires trust. As Mark Carney summarized in his speech, there are two ways to establish trust, either *"backing the currency by a commodity, principally gold, or backing by institutions led by independent and accountable central banks".* The idea behind the gold standard is that the quantity of money in the economy is ultimately dependent on a force – availability of physical gold – which is completely beyond the control of political authorities. Interestingly, the Commodity Futures Trading Commission (CFTC) in the US treats bitcoins as a commodity, and indeed this emblematic digital currency shares one key characteristic with gold: there exists a finite quantity of the product. Indeed, bitcoins operate under pre-programmed scarcity, requiring more and more computer capacity – which is extremely costly in terms of energy and hence contributes to global warming. Bitcoins and its predictable supply curve would even be superior to gold, since variations in availability – e.g., after various "gold rushes" – could undermine the stability of the gold standard.

At a time of growing suspicion about monetary policy - particularly after the massive resort to quantitative easing – and the strong rise in the quantity of money, the appeal of a currency such as bitcoin is easily understandable. But the demise of the gold standard between the two wars and the painful advent of independent central banking as the norm in the 1980s takes its origin from its tendency to become a source of global instability itself. The gold standard failed between the two wars because there was no in-built system which ensured that gold-rich countries, with large current account surpluses (the UK and France at the time) would provide liquidity to gold-poor countries in central Europe in the aftermath of the 1929 financial crisis. Providing unlimited liquidity in times of crisis – as they did again, to an unprecedented scale, in March 2020 - is a key role of central banks, something which by design this type of digital currencies cannot do.

Beyond the liquidity issue, PDCs can be a source of instability by exacerbating international banking crises. During the recent European sovereign crisis many US commentators were surprised that citizens in peripheral nations did not massively move their monetary holdings out of their country even as the local banking system seemed to be close to crashing. One of the reasons is that for most people it is extraordinarily difficult to set up a bank account in another country, even within the European Union. By nature, PDCs are much more "portable" than traditional deposits. Mass conversion of those deposits into PDCs – if this had been widely available at the time - could have precipitated the demise of the Greek, Irish or Spanish banking sectors. Digital bank runs are logistically easier than the usual storing of banknotes under the mattress.

PDCs are very imperfect "stores of value". The recent gyrations in the price of bitcoin provide an easy illustration of that fact. Some supporters of PDCs often concede that "bitcoin is a caricatural example" with poor technical qualities (more on this in the next section) which should not taint all PDCs. But precisely, it is the constant emergence of new PDCs which is another reason not to treat them as good stores of value. Indeed, just like gold, and other commodities, PDCs have a non-speculative value. Gold has industrial and aesthetic end uses. PDCs "intrinsic" value resides in their capacity to execute transactions differently from traditional payment systems (for some unsavoury reasons, anonymity for example, and perfectly legit ones as well, for instance low cost and speed). As new – and potentially better – PDCs appear, the appeal of the old ones can diminish dramatically. We find it quite ironic that the libertarian supporters of private DCs express their concern for the potential manipulation of the value of fiat currencies by governments and central banks – despite inflation having been kept at or below 2% in most developed nations for the past 30 years or more – while advocating solutions which have resulted in massive value fluctuations.

Potential "contagion" from the PDCs to the traditional segments of financial markets is an area of concern, if for instance large derivative contracts became dependent on the value of PDCs. There is no sign of materialization of such risk at this stage, despite the large changes in the value of PDCs in the recent months, but as more and more traditional stakeholders "dip a toe into crypto", this needs to be monitored. A "societal" side-issue raised by the gyrations in the price of PDCs – completely disconnected from economic fundamentals – is that speculating on these commodities is easily accessible and is gaining popularity with the younger generations. This can have a lasting effect on their approach to financial investment in general.

Well supervised, digital currencies could raise financial efficiency

This is thus a fairly long list of reasons for which to be quite sceptical about the benefits of digital currency, were it not for a "little problem": the traditional payment system is very expensive, which is often unappreciated since the cost is not directly itemized. This is strikingly highlighted by the latest economic annual report of the BIS: in Europe the marginal cost of a 25 euros retail payment stands at 35 cents with a credit card. In their estimate, payment costs (all sources, including cross-border transfers) stand at a bit more than 0.5% of GDP in Europe and up to 3% of GDP in Latin America. The development of less expensive payment options, especially if they onboard "ancillary services" would be welfare enhancing.

Indeed, beyond the ease and speed of execution, Digital Currencies (DCs) appeal comes from their programmable nature. For instance, the transaction can be made conditional of the delivery of another payment, or the delivery of an asset. Some advanced forms of DCs could operate as de facto "Trust" (payment could be deferred for any number of years, dependent on any characteristics of the recipient etc.…). This programmable nature would help improve the current large settlements systems on the financial markets, which imply complex validation processes. Central banks are moving fast on supplying their own DCs. Already, some private DCs don't pretend to fully compete with traditional currencies and "simply" offer a swift payment capacity (it can be a nice addendum to large technology companies in their data harvesting battle) while being backed by reserves in traditional currencies (some forms of "stable coins" operate this way). CBDCs would go one step further.

Any bearer of these CBDCs would hold a direct claim on the central bank's balance sheet, which would be in effect the same as holding a banknote. Access to CBDCs can be restricted to the financial institutions (wholesale CBDCs) or extended to the rest of the economy (retail CBDCs). In the latter case, this would create a much more direct relationship with the central bank than with bank deposits, which are a form of "private money", being claims on a bank's balance sheet, backed by the bank' assets, of which only a fraction are reserves at the central bank (which are a central bank liability). The security of transactions made with CBDCs would be maximal: instead of involving the two banks of the two parties settling the payment with central bank money – which in stressed situations they may or may not have, depending on the state of their reserves - the transaction would directly be implemented in central bank money.

CBDCs could completely re-shape the financial system

In essence, CBDCs could offer the possibility to break the current two-tier monetary system in which only banks have access to the central bank, and hence to the lender of last resort. In extreme scenarios, this could offer central banks more capacity to stimulate the economy when interest rates are close to zero in a much more direct way (e.g., by issuing negative interest bearing CBDCs which holders would want to spend as fast as possible). Beyond monetary policy per se, CBDCs would offer a direct "safe haven" to non-banks when financial stress is high and holding large balances in banks is seen as too risky. Central banks could also "by-pass" banks in times of financial stress by directly crediting the "digital vault" of non-banks to rebuild liquidity, avoiding adverse situations seen in the past – e.g., during the Great Financial Crisis of 2008-2009 or in March 2020 – when banks hoard the emergency liquidity issued by the central bank and do not pass it to the non-bank financial institutions.

Ultimately, under a fully-developed CBDC system, there would be a fairly clear distinction between money held for transaction purposes – held in CBDC for the most part – and money held as a reserve – probably in "normal times" mostly held in remunerated bank deposits at a bank. This could mean that a significant share of the banks' deposit base would be gone. This in turn would reduce the capacity of banks to fund the economy by transforming near-free, short-term deposits into longer-term loans. This vacuum would have to be filled by non-bank financial institutions.

Central banks could of course control the speed of this structural change, for instance by maintaining a lower interest rate on CBDCs than on bank's refinancing. We note however that this would be extremely difficult to do at the moment: given where policy rates are, appetite for CBDCs could be quite limited if the interest rate was very negative. Another approach would consist in a quantitative cap on the amount of money stored on a CBDC (but this

would probably spur stronger competition from PDCs). In his speech, Mark Carney took the view that the existence of banks was not an objective per se. Delivering efficient and trustworthy monetary services is. This suggests that in the central banking community, some are ready to “make the leap” towards a new monetary structure, although Carney might be at an extreme of the distribution in that camp.

Country/Region	What we focused on last week	What we will focus on in next weeks
	• June payrolls rose by 850k, above consensus and boosted by government employment. Unemployment rose to 5.9% (from 5.8%), participation unchanged • Fed speakers discuss rates lift-off and taper outlook • Fed's rev repo $992bn end-Q2, most users since 2016 • ISM idx (Jun) dips to 60.6 lowest since Feb, but still firm • House prices rise 14.9% y/y (Apr), but mortgage approvals continue to decline • Vehicle sales (Jun) down to 15.59m on supply pressure	• FOMC minutes to June meeting. With a hawkish press conference, we will look for detail on split of those looking for earlier taper and duration of taper • ISM services (Jun) exp'd to stay around current high • JOLTS survey measuring labour turnover to gauge supply and demand side of labour market post-payrolls • Consumer credit (May) expected to show continued momentum in consumption
	• EA Flash inflation eased to 1.9%yoy in June, with core down to 0.9%yoy on weaker services • German unemployment rate dropped to 5.9% in June, while Italy extended its firing ban but only for the textile and fashion industries	• ECB Governing Council meet again: watch out for headlines from the ECB strategy review • May industrial production should post some minor gains (Germany, Spain, Italy) although supply shortages might bite • EC to publish its Summer forecasts
	• GDP Q1 revised lower to -1.6%qoq, consumption drops to -4.6% (from -3.9%) • UK-EU agree to extend NI protocol date by 3m • Post-Brexit state subsidy scheme announced • BoE's Haldane steps down, highlights price risk • Labour hold Batley and Spen by-election • Mortg apps rise in May, HPI reaches 13.4%yoy	• GDP (May), we expect 1%mom rise, following strong Mar and Apr, delivering 5% Q2 increase • Broader sector output for May • RICS house price survey, likely to signal ongoing strength in housing outlook • Services PMI (Jun, final), 61.7 (prelim) • BoE Credit Conditions Survey (Q3)
	• May retail sales fell again by 2%mom • May IP substantially declined by 5.9%mom due to shortages in auto production • Q2 Tankan surveys have rebounded strongly and stand at a two-year high	• June Service PMI should cross the 50 level and expands for the first time since Jan 2020 • June bank lending is likely to normalise and stay closed to May level (+2.9%yoy) • June Economy watchers poll
	• Moderation in the PMIs suggests an easing of growth momentum in the manufacturing sector	• June PPI inflation may have eased somewhat due to less favourable base effect, while CPI should tick up further
	• Mixed June manufacturing PMI survey: ASEAN slowing down, better in CEEMEA and Latam • June CPI in Brazil, Indonesia, Peru, Korea • Indian, Malaysian and Korean government all announced support packages at 2.7%, 0.7% and 1.6% GDP respectively • Korea's June export growth printed another strong reading at 39.7%yoy	• Central banks expected on hold in Malaysia, Israel, Poland, Romania • Inflation reports across LatAm; Turkey CPI • Banxico's minutes (ie surprise hike at last meeting) will be important to analyse

Upcoming events	
	US : Tue: ISM Services Index (Jun); Wed: MBA Mortgage Applications (Jul); Thu: initial Jobless claims; Fri: Wholesale Inventories (May)
	Euro Area: Mon: Eurozone Markit PMIs (Jun);Tue: Factory orders (May), ZEW Survey (Jul); Wed: Eurozone CPI (Jun), Retail sales (May); Industrial production (May); Thu: Trade balance (Jun); Fri: German retail
	UK: Mon: Markit Services PMI (Jun); Thu: RICS House Price Balance (Jun), Credit conditions surveys Fri: Industrial production (May)
	Japan: Mon: Jibun Bank Japan PMI Services (Jun); Thu: BoP current account (May) ; Fri: Money stock (Jun)
	China: Mon: Caixin PMI Composite (June), Fri: CPI (June), PPI (June)

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