MyStratWeekly

Market views and strategy

Ostrum ASSET MANAGEMENT

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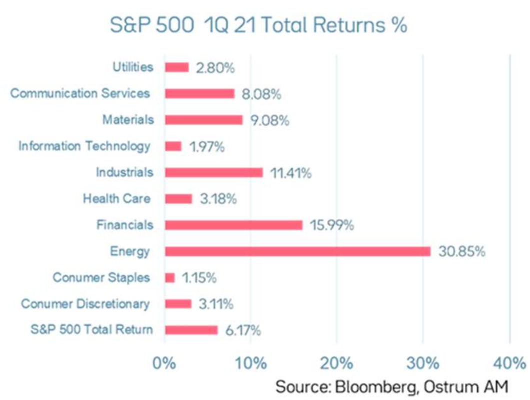
Topic of the week: Electronic currencies

- **Is Bitcoin a new currency? It does not seem to pass the test in particular because its volatility is not compatible with the basic functions of a currency;**
- **It should also be noted that Bitcoin is extremely energy-intensive and has a catastrophic carbon footprint;**
- **On the other hand, the introduction of “central bank digital currency” could have a major impact because of the areas where it would bring disruption: monetary policy, established banks’ business model, geopolitics, etc.**

Market review: For a few (trillion) dollars more

- **Biden unveils $2.25T infrastructure bill**
- **Strong US job gains in March, global survey data upbeat**
- **Short covering on bonds ahead of Easter break**
- **Stock indices hit fresh all-time highs**

Chart of the week



In the three months up to March, the S&P 500 posted a 6.12% total return. All sectors made gains in the first quarter but there were some distinctive changes in sector performances.

The Information technology sector lagged along with other pandemic winners. The increase in yields hit growth sectors disproportionately. On the contrary, cyclical value sectors benefitted from the reflation trade evident in higher commodity prices and strong manufacturing activity.

The underperformance of Tech stocks also reflect rotation into small-cap as mega-caps took a breather in the first quarter.

Figure of the week

90%

Source : Ostrum AM

According to the market, that’s the probability of a Fed funds hike next year. The payroll publication Friday has boosted the probability.
There’s a 72% probability of a double rate hike by 2023.

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Topic of the week

Electronic currencies

Is Bitcoin a new currency? It does not seem to pass the test in particular because its volatility is not compatible with the basic functions of a currency, unit of account and storage of value. Moreover, transaction costs remain high. Finally, it should be noted that Bitcoin is extremely energy consuming and has a catastrophic carbon footprint. On the other hand, the issue of electronic currencies by central banks is a real possibility, the PBOC being close to completing its project. This poses a number of important problems: private data management, the role of banks, but also geopolitical impacts.

The existence of competing currencies is not new, there is a profusion of unregulated local monetary communities that existed long before the digital era[1]. These schemes can have positive aspects if they contribute to financial innovation and provide additional payment alternatives to consumers. However, it is clear that they may also pose risks to their users, especially given the current lack of regulation.

The ECB proposed the following typology in one of its research papers[2]. So what the ECB calls "virtual currencies" includes Bitcoin, Etherum, Litecoin and other crypto-currencies. It is estimated that there are more than 4,000 of them right now.

		Money format	
		Physical	Digital
Legal status	Unregulated	- Certain types of local currencies	- Virtual currency
	Regulated	- Banknotes and coins	- E-money - Commercial bank money (deposits)

Source : BCE

Is Bitcoin a new currency?

Bitcoin has settled into the landscape. The idea was first presented in November 2008 and the source code and implementation dates back from 2009. More than ten years of life. And Bitcoin is now accepted more broadly, by Paypal for example. Finally, the market capitalization of bitcoin is in the order of $1,000 billion and is now approaching 10% of the total value of existing gold stocks. In addition, a growing number of investors, including institutional investors, are using Bitcoin as part of their assets.

Back to the basics, money has three functions:

- **Unit of account,**
- **Store of value and**
- **Medium of exchanges.**

For the anecdote, this view is nothing new since we find it for the first time in Aristotle's works!

On these three dimensions, one can only be extremely dubious about the contribution of Bitcoin. On the first two functions, it is critical that the currency used is stable. A unit of measure that changes too frequently is not useful. Similarly, a reserve value whose valuation is highly volatile is counterproductive.

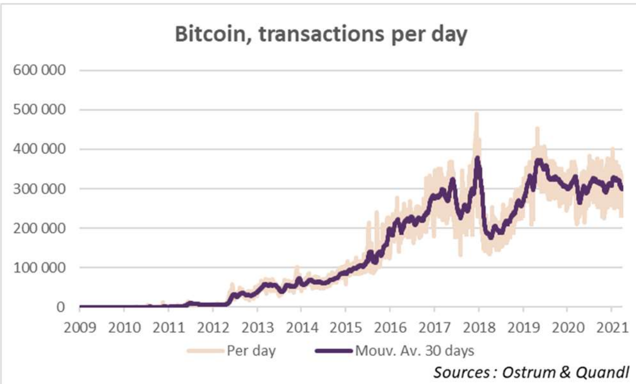
Unfortunately, the valuation of Bitcoin is extremely volatile and would not make it a currency worthy of the name. On the following chart we calculated what European inflation would have been if Bitcoin were our currency. At present we would be at -90% inflation, which would make Japanese deflation look very pale in comparison. It should also be noted that last year inflation would have exceeded 35% in the middle of the year. It goes without saying that the figure is higher than the ECB's objective and would give any central banker a cold sweat.

Sources : Ostrum & Bloomberg

Can this volatility calm down? It is possible with a wider use. To be watched then. Meanwhile, bitcoin is undisputedly a speculative medium but certainly not a storage or unit of account.

[1] See for instance: http://en.wikipedia.org/wiki/Local_currency
[2] https://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemes201210en.pdf

The last function of currency is exchange value. Here too, we must not underestimate Bitcoin, which has generated about 300,000 transactions a day over the past two or three years. Oddly, despite the enthusiasm created by its valuation, its use as a means of payment did not benefit from it. While the number of transactions is far from negligible, it remains completely marginal worldwide. To give you an idea, the number of daily transactions carried out by Visa is in the order of 150 million, that is 500 times more.



The other problem is that the cost of cryptocurrency transactions is high and varies greatly with network congestion. At the time of writing it is estimated that a transaction with Bitcoin costs between 15 and 20 dollars, a transaction with Ethereum costs a little more than 20 dollars. Don't pay for your pizza in Bitcoin, it will double the price!

In return the transaction is much faster than the few days necessary to process a payment by credit card or a bank transfer. Payment by Bitcoin is normally processed and completed in one hour, that in Ethereum is usually even faster and may only take a few minutes.

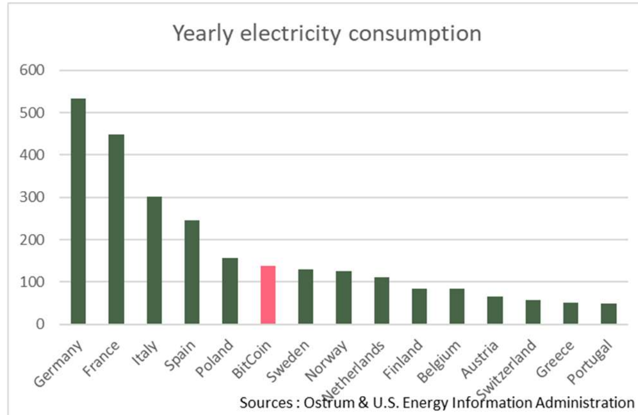
In total, it does not seem that the technology used, the «blockchain» can allow to set up a system of payments of sufficient magnitude. On the other hand, this same technology, the blockchain, is a real wonder, which in other areas could take us very far. We strongly advise readers interested in its potential to read the excellent Harvard Business Review article on the topic "The Truth About Blockchain"[3].

But this is another story.

An ecological abomination

We also have to come back to the energy cost of Bitcoin, an aspect that is not sufficiently emphasized while it is a dimension that must not be forgotten.

The current electricity consumption of Bitcoin is 137.21 TWh per year, according to estimates from the University of Cambridge[4]. This ranks bitcoin, still according to the same sources, just ahead of Sweden. The same university, being English, specifies moreover that the energy consumption of Bitcoin could feed all tea kettles of the United Kingdom for 31 years.



The counterargument is that an important part of this energy is produced with renewable energies, and therefore the carbon footprint is limited. Certainly. But on the one hand there are no reliable sources to support this view. On the other hand, if Bitcoin absorbs a significant amount of green energy, it will have to be compensated with other forms of energies elsewhere. So, the total effect is the same.

To this debauch of energy, it is necessary to bring back the carbon footprint. As the number of transactions is limited, the carbon footprint of a single transaction is estimated at approximately 400 $KgCO_2$[5]. According to the same sources, this is "equivalent to the carbon footprint of 885,579 VISA transactions or 66,594 hours of viewing on YouTube".

To top it all off, there is a particularly devastating vicious circle. Normal currency transactions are recorded and verified by a trusted entity such as a bank. For Bitcoin, transactions are recorded and verified by a decentralized network of people called "miners". Miners compete to be the one to check each block of transactions using computers to guess a number. The lucky miner who guesses the number first is rewarded with a certain amount of new bitcoins. The more bitcoin gains in value, the more rational it is to allocate resources to this activity.

This exponential consumption of resources shows a fundamental flaw in the technology. For most financial assets, the cost of storage does not increase significantly with the price of the asset: it is about as easy to keep gold at $2,000 an ounce as it is at $200 an ounce. For Bitcoin, on the other hand, the transaction cost increases with the price of the asset. As economist Herbert Stein aptly put it, "if something cannot last forever, it will stop."

In short, it is an ecological abomination for a utility in terms of means of payment, as we have seen, which is very limited.

3 https://hbr.org/2017/01/the-truth-about-blockchain
4 https://cbeci.org/cbeci/comparisons
5 https://digiconomist.net/bitcoin-energy-consumption/

The central banks revolution

There is another application of electronic currencies, less fashionable than Bitcoin, it is the “Central bank digital currency” (CBDC). A CBDC would be a digital asset issued and destroyed by the central bank alone, trading at par with notes and reserves, permanently available and in peer-to-peer transactions on electronic supports at least partly different from those used today.

The Bank for International Settlements did a survey in January 2020 on 88 Central Banks worldwide, it found that 80% had a CBDC project or at least a form of technology watch on the topic or a think tank on the topic. The Banque de France has published a very comprehensive study on the subject[6], the ECB is also working on it and of course the PBOC is very advanced on the introduction of a digital currency. It is worth noting as an aside, that the PBOC’s project is to have a system that can process up to 300,000 transactions per second, which is the daily transaction volume of Bitcoin. We are not in the same dimension! Several pilot programs are underway in the cities of Shenzhen, Suzhou, Xiongan and Chengdu. The cities of Beijing, Shanghai and the Guangdong Province have also committed to testing the digital central bank currency starting this year.

Beyond the PRC, the central banks of Canada, Sweden, the Bahamas, Japan and many other countries are at different stages of research and development of the central bank’s digital currencies.

It should be noted that the vast majority of these projects are not based on blockchain like cryptocurrencies, but on an electronic clearing system. The most successful project, the PBOC project, is a good example.

Facilitation of payments

The main purpose of these CBDCs is to facilitate trade. The issue of an CBDC should lead to a reduction in transaction costs, both through the use of more efficient technology but also through stronger competition in the payments market.

A 2012 ECB study showed that half of the total cost of cash payments, or about 1% of GDP, was borne by traders. The same study, however, estimated the average unit cost of cash payments at 42 cents, making it the cheapest method of payment.

Monetary policy

The second motivation for a central bank is information gathering. A digital currency, centralized by the Central Bank, could allow it to have, in real time, an extremely precise and detailed view of payments made in its area. This would allow a richer diagnosis of the economy, but we can also imagine monetary and regulatory policies more adjusted in response to the problems.

Going back to the PBOC project, the technology put in place to analyze the data is an integral part of the development. The organization, with a great deal of artificial intelligence, could give the PBOC access to very fine indicators.

In monetary policy terms, the same PBOC is supposed to have tested expiration dates to encourage holders to spend money quickly, in cases where the economy needs a quick start.

This poses another problem. That is the protection of individual data. While in Europe individuals are well protected by regulation, there remains a question about the level of information a central bank can have access to. In the case of China, on the other hand, the notion of “anti-terrorist financing” and the porosity between the PBOC and the government, can lead to electronic money becoming an instrument of repression.

What about the banks?

For commercial banks, the introduction of electronic money has a potentially gigantic effect. The aggregate balance sheet of the Eurozone banks was 35,750 billion euros at the end of February, which included more than 14,000 billion deposits from European residents[7]. Deposits therefore constitute, de facto, almost half of the banks' balance sheets and thus an important part of their source of financing. The introduction of an CBDC could make these deposits unnecessary since the currency would be provided directly by the Central Bank without the intermediary of the banks.

The Chinese project also avoids this problem since the currency issued by the Central Bank will be deposited in bank accounts. Nevertheless, one of the stated goals of this reform is to facilitate the means of payment and increase competition in this area, which can be disruptive for established banks.

A major geopolitical issue

SWIFT (Society for Worldwide Interbank Financial Telecommunication) is the international payment system, operating an international electronic communication network

[6] https://publications.banque-france.fr/sites/default/files/media/2020/01/14/la_monnaie_digitale_de_banque_centrale.pdf
[7] https://sdw.ecb.europa.eu/reports.do?node=1000003154

between market players. The service connects more than 11,000 banking organizations, market infrastructures and corporate customers in more than 200 countries.

An CBDC could provide an alternative or at least significantly reduce dependency on SWIFT.

SWIFT acts as an intermediary for most global banks' transactions, and the US has the ability to access these transactions for national security reasons. For example, in 2006, the U.S. Department of the Treasury went through SWIFT's database to identify al-Qaeda-related transactions, ordering SWIFT to block terrorism-related transactions.
In November 2018, SWIFT announced its decision to "suspend" access by some Iranian banks to its network following the US decision to re-impose sanctions on Iran. SWIFT gave in to US pressure while the Europeans were against these measures.

The Europeans also launched an alternative project to SWIFT: INSTEX (Instrument in Support of Trade Exchanges), created in January 2019 by Germany, France and the United Kingdom. It is intended to promote trade with Iran without using the U.S. dollar.

In 2019, Huang Qifan, Deputy Director of the China Center for International Economic Exchange, said that SWIFT is "gradually becoming a financial instrument for the United States to exercise global hegemony and exercise long-arm jurisdiction", citing examples from the United States using the SWIFT database to blacklist and freeze Iranian banks' over terrorism transactions allegations, as well as the 2014 threats from the United States to completely exclude Russia from the system.

CBDCs could therefore be an alternative to the dollar in world trade with, as we can see, wide geopolitical repercussions.

Conclusion

"Virtual currencies" should not be underestimated: they have been around for more than 10 years, have reached a significant market capitalization and are becoming part of the financial landscape. However, they are very unlikely to be a credible alternative to existing currencies. Rather, they should be included in the long list of unregulated currencies that have existed for a long time, mainly in physical form, such as some local currencies.

On the other hand, this movement could be the tree that hides the forest. The introduction of a "digital central bank currency" could have a much greater impact simply because of the sheer size of the project, but also because of the areas where it would bring disruption: monetary policy, established banks business model, geopolitics, etc.

Stéphane Déo

Market review

For a few (trillion) dollars more

Biden $2.5T plan and job gains outdo European woes.

The markets are entering the second quarter with a bang. Profit-taking and quarter-end balance sheet window dressing swiftly gave way to the implementation of new risky exposures. The pause in the greenback's rebound signals a further reduction in risk aversion. Light traded volumes before the Easter weekend accentuated the bullish movement. The S&P 500 gained 2.8% in four sessions breaking the 4,000 point threshold. Lee rate cut (T-note under 1.70%) before the weekend reflects the buyback of short positions beneficial to Nasdaq and growth stocks. American credit is erasing its lag in performance vis-à-vis the European markets. However, the compression trend resumes on CDS indices as volatility decreases. High yield remains well oriented.

The risk recovery is fueled by encouraging economic indicators. The global recovery fully justifies an increase in OPEC+ production by 2 million barrels per day between May and July. Saudi Arabia will increase production again by 1mn. American capacities are recovering (>11mn barrels) in response to higher prices (WTI at $ 62). In addition, the ISM manufacturing index is at its highest since 1983. Most sectors report a high level of demand and tensions along the supply chains. The lead times, the price of raw materials and recruitment difficulties are symptoms of an overheating that are not traceable in price indices. Job creations in March amount to 916k and followed revisions in January and February (+156k). The unemployment rate decreases to 6% and underemployment (U6) decreases to 10.7% (-0.4pp). Hours worked increase significantly in accordance with the message of the surveys. However, this should hold the attention of monetary and fiscal authorities as Joe Biden announces his first infrastructure spending program. The $ 2.25 trillion plan has four components. The transport ($ 650 billion) includes credits for the urgent reconstruction of economically sensitive bridges and $ 174 billion dedicated to the electrification of the automobile fleet. The inclusion of communities penalized by the lack of past public investment is a priority. The improvement in quality of life ($ 650 billion) will target water distribution and better connectivity to telecommunications networks. The manufacturing sector will receive $ 580 billion, including $ 180 billion earmarked for research and development. Finally, the last section concerns support for the elderly and disabled for $ 400 billion. Note that by mid-April, a second program on access to health care and education will be unveiled by the US government. The strike force of the Biden Administration is unprecedented and contrasts with the lack of fiscal action that prevails in Europe. The health situation requires restrictive lockdown measures as the vaccination effort remains insufficient to anticipate a full-fledged recovery. Manufacturing surveys are nevertheless very well oriented in the euro area. The composite PMI gauge stood at 62.5 in March even if GDP contraction in the second quarter now seems inevitable in France. What is worse, the European recovery plan has only been ratified in 13 of the 27 member states. The German constitutional court is examining the text and blocking situations have appeared in Slovakia, Poland, Hungary, and even the Netherlands. In short, the familiar European folklore is preventing action. These delays will cause postponements of the first installments of aid initially planned for the third quarter. It also complicates the EU's funding schedule.

US rates hit new highs for 2021 at 1.77%. Buybacks of short positions brought the T-note down to around 1.67% at close on Thursday. In addition to position squaring ahead of the Easter break, the end of the exemption of Treasury holdings from the bank SLR on March 31, 2021 will not necessarily have the dreaded consequences, as the Fed has opened consultations on this subject. The improving economic outlook favors curve flattening as markets challenge current US monetary policy. Buying interests emerged as 30-year neared 2.50% a week ago (2.33% now). The rise in mortgage rates is now weighing on refinancing demand, reducing receiving demand on long-dated swaps which contributed to swap spread widening (-15bp at 30 years). In the euro area, the weekly pace of PEPP purchases now hover around € 20 billion. The ECB is actively seeking to immunize Bunds from tensions on T-note markets. Sovereign spreads are relatively stable even if we were able to observe some profit taking on Iberian debts at the end of the quarter. Spain's Bonos are trading at a 65bp spread. Net sovereign bond issuance will be very negative in April and the acceleration of the PEPP may put further downward pressure on yields.

As regards credit, spreads on US IG have shrunk to their underperformance vis-à-vis European credit. The increase in euro-denominated issuance by US names contributed to this rebalancing of performance. Euro and US markets are trading at equivalent spread levels (90bp). Globally, IG credit quality improves with 1.32 rating upgrades for each downgrade in the first quarter. High yield spreads continue to narrow as CDS indices reflect the reach for yield.

On equities, the decline of the T-note propelled the Nasdaq and the S&P to record levels. European bank performances suffer from ECB QE policies, but the cyclical theme and the rebound in technology despite rich valuations pushed the Euro Stoxx 50 past 3,900 points.

Axel Botte
Global strategist

Main market indicators

G4 Government Bonds	06-Apr-21	-1wk (bp)	-1m (bp)	YTD (bp)
EUR Bunds 2y	-0.7 %	-1	-1	0
EUR Bunds 10y	-0.32%	-3	-1	+25
EUR Bunds 2s10s	39 bp	-2	0	+25
USD Treasuries 2y	0.16 %	+1	+2	+4
USD Treasuries 10y	1.66 %	-4	+10	+75
USD Treasuries 2s10s	150 bp	-5	+7	+71
GBP Gilt 10y	0.8 %	-3	+4	+60
JPY JGB 10y	0.11 %	+2	+2	+9
€ Sovereign Spreads (10y)	**06-Apr-21**	**-1wk (bp)**	**-1m (bp)**	**YTD (bp)**
France	25 bp	+1	0	+2
Italy	101 bp	+4	-5	-11
Spain	66 bp	+3	-3	+5
Inflation Break-evens (10y)	**06-Apr-21**	**-1wk (bp)**	**-1m (bp)**	**YTD (bp)**
EUR OATi (9y)	128 bp	+5	+17	-
USD TIPS	234 bp	-1	+10	+35
GBP Gilt Index-Linked	357 bp	+3	+17	+57
EUR Credit Indices	**06-Apr-21**	**-1wk (bp)**	**-1m (bp)**	**YTD (bp)**
EUR Corporate Credit OAS	89 bp	-3	+0	-3
EUR Agencies OAS	40 bp	+0	+1	-1
EUR Securitized - Covered OAS	33 bp	0	+3	+0
EUR Pan-European High Yield OAS	313 bp	-9	-6	-45
EUR/USD CDS Indices 5y	**06-Apr-21**	**-1wk (bp)**	**-1m (bp)**	**YTD (bp)**
iTraxx IG	50 bp	-3	+1	+3
iTraxx Crossover	245 bp	-17	-12	+4
CDX IG	52 bp	-5	-3	+1
CDX High Yield	295 bp	-22	-11	+1
Emerging Markets	**06-Apr-21**	**-1wk (bp)**	**-1m (bp)**	**YTD (bp)**
JPM EMBI Global Div. Spread	351 bp	0	-11	0
Currencies	**06-Apr-21**	**-1wk (%)**	**-1m (%)**	**YTD (%)**
EUR/USD	$1.185	+1.14	+0.03	-2.99
GBP/USD	$1.384	+0.75	+0.14	+1.27
USD/JPY	¥109.84	+0.47	-0.86	-6
Commodity Futures	**06-Apr-21**	**-1wk ($)**	**-1m ($)**	**YTD ($)**
Crude Brent	$63.3	-$1.7	-$5.4	$11.6
Gold	$1 744.1	$58.9	$60.5	-$154.3
Equity Market Indices	**06-Apr-21**	**-1wk (%)**	**-1m (%)**	**YTD (%)**
S&P 500	4 086	2.89	6.35	8.78
EuroStoxx 50	3 970	2.68	7.09	11.76
CAC 40	6 131	2.38	5.54	10.45
Nikkei 225	29 697	0.90	2.88	8.21
Shanghai Composite	3 483	1.39	-0.54	0.28
VIX - Implied Volatility Index	17.93	-13.55	-27.29	-21.19

Source: Bloomberg, Ostrum Asset Management

Additional notes

Ostrum Asset Management

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