



Topic of the Month:

Debt and How Its Conception Has Changed Since the Financial Crisis

The Great Financial Crisis has marked its 10th anniversary. Probably you still remember what you were doing when Lehman Brothers failed on 15 September 2008. It was a historic moment. The years have passed but nonetheless the impact of the actions taken still has a tremendous influence on financial markets. Regulations and quantitative easing are two essential keywords in this aspect. Have they achieved their target? The opinions diverge: Anat Admati, Professor of Finance and Economics at the Graduate School of Business, Stanford University, has dedicated a lot of resources to researching levels of debt. She shares the opinion that regulations have not gone far enough in the banking sector. Ms. Anat Admati, who co-authored the book “The Bankers’ New Clothes” with Martin Hellwig, will elaborate on this topic at the Ayaltis’ Annual Investor Event taking place on 8 November 2017 in Zurich

Chart 1: Bank Fines After the Financial Crisis



Source: Financial Times

Reality Check by Andrea Luzzi, Risk Manager at Ayaltis:

We would like to pick up the subject with Andrea Luzzi. As Chief Risk Officer at Ayaltis, he keeps a close eye on the development of debt levels and the stability of the banking system.

Let's start off by looking at the concept of debt. What is wrong or good with it?

In physics, the relativity theory has changed the way space and time are modelled. In the economic systems, the large use of debt has moved cashflows along the timeline of economic subjects, changing the economic reality and making it “relative”. For the overall system, the large

use of debt, public but mainly private, injects more fuel in the system, making it work at full steam. When debt grows, the beast (the economic engine) can be fed by moving money from the future to now. Economic subjects can anticipate their future incomes at a cost (quite low today) and doing so they modify the reality they live upon. Nothing new or particularly worrying about it, as long as leverage of the whole system stays under control. It all works nicely when debt keeps growing and money velocity keeps moving. But when debt growth declines, following more restrictive credit rules or just physiologically as a consequence of the large stock of debt already reached, the engine starts sputtering.

We have clearly reached that point in mature economies while emerging markets are still pursuing pro-cyclical policies with a high rate of debt growth. So far, debt has partially reduced the deflationary impact of the reversed demographic pyramid. But for how long?

Ms. Admati, keynote speaker at this year's Ayaltis' Annual Investor Event, has extensively analysed the debt in our current economy since 2008. How did the perception of debt change after the Great Financial Crisis?

The Great Financial Crisis (GFC) had made clear that debt growth cannot go to infinite. However, investors tend to forget. The dead calm that sprinkles across all asset classes is bringing back a dangerous complacency. The banking system has been strengthened by new rules (Basel III) and a more defensive political path. Political decisions are the golden path to hell. The roots of the GFC go back to the decision made by George W. Bush's administration. His pro-debt policy was the epicentre of the financial crisis. The "laissez-faire" philosophy, supported by strong incentives to the real estate market, unleashed the recklessness of the financial system. The massive growth of securitized products was facilitated by the conviction that risk could be shared globally and unloaded from the banks' balance sheets.

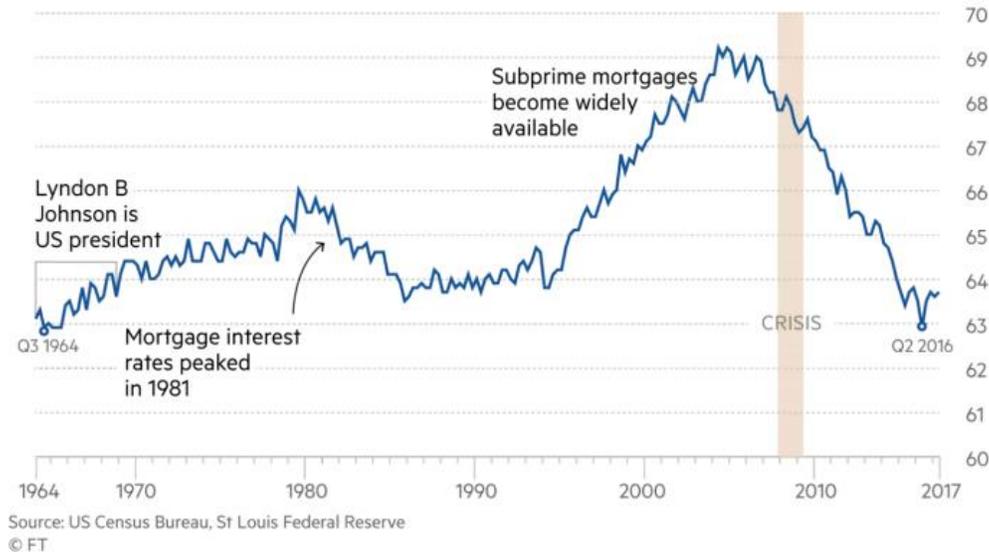
The financial crisis made market participants more aware of the hidden risks fuelled by a pro-debt political agenda. There is no doubt that the banking system, in the developed countries, is less exposed to a financial crisis thanks to the moral suasion of the authorities that pushed the largest banks to increase their CET1 ratios (roughly common equity and AT1).

Does that mean that risks are under control?

Not at all. Global debt continues to grow, although at a slower pace in mature economies than in emerging markets. The overall emerging market debt burden is a growing source of concern. In China, the second largest economy of the world, corporate credit debt has climbed to 166% of GDP if we were to believe the official data. The development of local currency bond markets is the main driver of the debt growth and non-financial corporates are leading the trends.

The excessive loose monetary policy in the developed markets (necessary but with side-effects) moved capital from countries with a saving glut to countries eager to support their growth. The mid-term effects are positive for the global economy but the exit from the QE programs is going to be a challenging test of this "new normal".

Chart 2: US Homeownership Rate in %



The banking system is undoubtedly more robust but, as recently highlighted by the Britain's Independent Banking Commission and by Prof. Admati, the level of leverage is still around 25 or 30 times a bank's core capital. Many academics ask for a level around 10 times their key funds. It is probably too late to go that far and, I dare say, too dramatic for the Western economies.

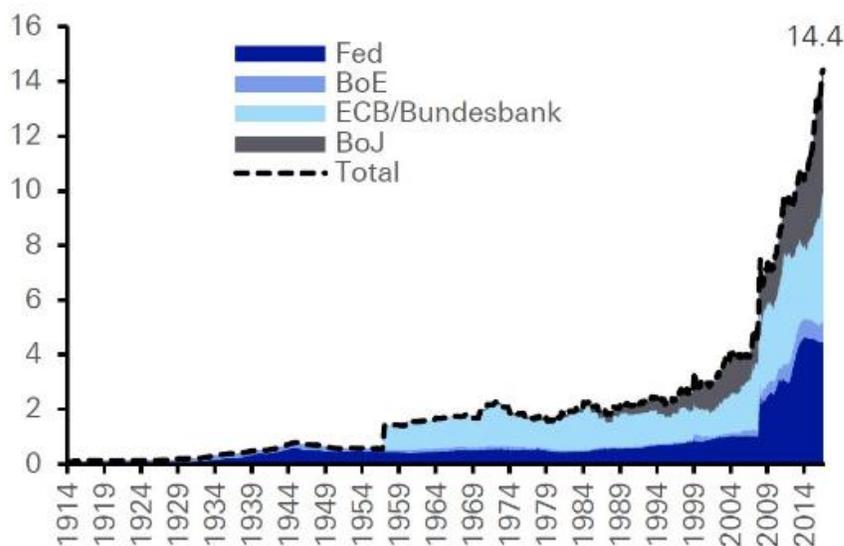
Another critical point is related to the internal risk models. According to many, the internal risk assessment largely underestimates the risks in the banks' portfolios. In a world where central banks worked hard for a decade to keep credit spreads and interest rates low, by pointing the finger on the risk models, economists keep watching the finger forgetting the moon. The ECB intervention on ABS, for instance, had a much larger impact on the perception of risks than a thousand supposedly wrong risk models. Central banks, in few words, are not willing to drastically reduce the leverage and they work to minimize the impact of draconian rules on the real economy. It is a tug of war that has reached a stale point.

With the heavy intervention of central banks in capital markets, can we still rely on the assumptions at the basis of the traditional asset allocation?

Keeping everything, we said about debt in mind, it is important to reconsider the assumptions that lead to the current asset allocation. Two fundamental forces are modifying the game's rules.

From the bottom-up, the massive injection of liquidity changed the perception of risk and moved resources to more risky projects than what a free market would allow. Undoubtedly, this is the main goal of the QE programs around the world, but it has a non-negligible implication that resources will then be misallocated.

Chart 3: Central Banks Assets Inflation Adjusted



Source: Deutsche Bank

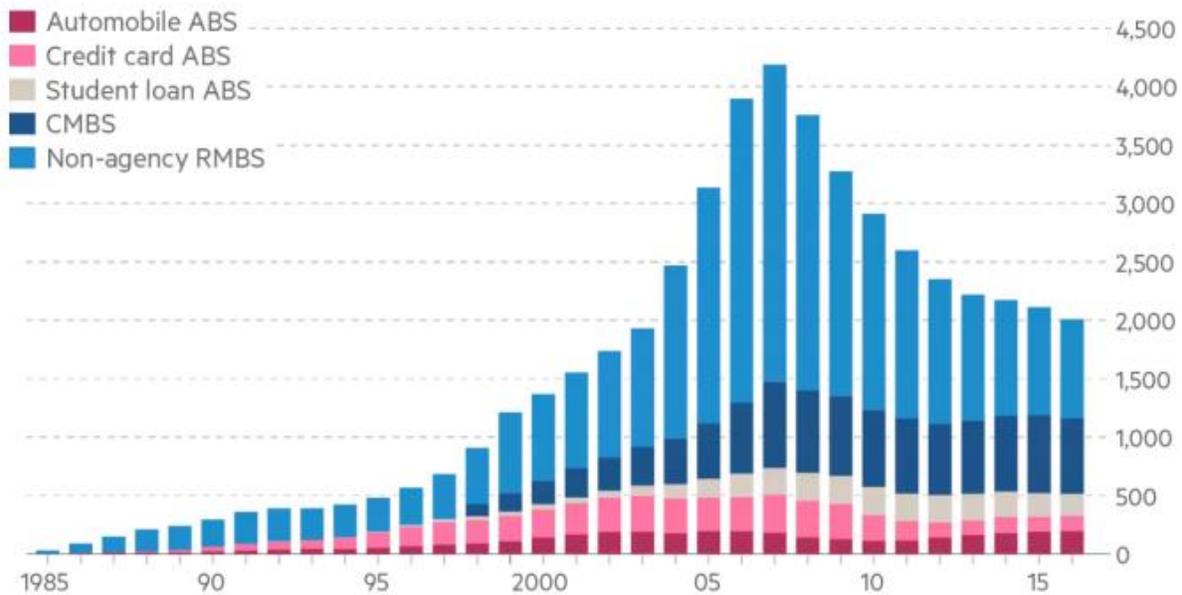
From the top-down view, traditional asset allocation must be reshaped to include in the analysis the risks implied by a secular bullish bond market and an overstretched ultra-long business cycle. Furthermore, the large use of traditional asset allocation, through passive investing instruments, risk premia, smart beta and risk-parity based portfolio construction, is compressing the degrees of freedom of the trading environment, in a self-fulfilling bullish process.

In this scenario, the risk management function and the investment process cannot rely on standardized formulas based on recent observations. It is important to weigh the expected returns of a portfolio with the additional risks required to achieve it. A blind implementation of models based on complacent covariance matrices and a full reliance on central bank puts can have unpleasant outcomes if some unexpected scenarios (inflation, economic slow-down, bubble bursts) come out of the woods.

What happened to securitized products in the meantime? Where do you see the advantages and disadvantages of securitization these days?

Ayaltis has been very positive on securitized securities after the GFC. And we reiterated our view, for European assets, when Draghi took the reins of the monetary policy. As of today, we continue to be particularly constructive on specific securitized loans. The market is picking up, risks of default are contained and the new political stance seems to be more in favor of relaxing underwriting standards. Thanks to the Dodd-Frank Act of 2010, the non-prime loan market bears little relation to the jungle of easy-money that was at the centre of the storm a decade ago. Outrageous practices like zero down-payment, low teaser rates that go high after few years and negative amortizations, that increase the level of the loan balance, are gone. The famous lap-dancers who owned seven houses in Miami Beach with no down-payments and ridiculously false declarations are also buried.

Chart 4: US Securitized Loans Outstanding (in USD bn)



Source: Financial Times

Standards in non-prime are generally looser than those that apply to mortgages eligible to be bought by government agencies but every mortgage has to conform to an overarching standard known as ATR, or "ability to repay". Unless a lender can be convinced in eight separate ways that the borrower has the means to pay the thing back, it can be sued down the track if the loan goes bad. The new regulatory framework seems to be much more stringent than in the past. The golden rush and escape that qualified the subprime crisis is no longer allowed by a more rational legislation.

Another important change, introduced by Dodd-Frank reform and replicated in Europe as well, forces the originators to retain an interest in the assets that are part of the securities. Before the crisis, originators had no "skin in the game" and risks were simply handed out to the next buyer, like hot potatoes. This rule brings accountability in the industry and its implementation had no negative impacts, on the contrary.

Let's take a look at current investment choices in this space: The low price of hedging is providing us the opportunity to benefit from the healthy stance of the residential mortgage market while extracting performance on the short book. It is quite a rare situation. The whole "large shopping mall" sector, a segment of the commercial real estate market, is in difficult situation but the risks of bankruptcy are not fully priced in. Let's take the most recent example of Toys 'R' Us, which filed for Chapter 11 few weeks ago. With \$5 billion in debt, it represents the third-largest retail industry bankruptcy of all time. The company was overleveraged, with approximately 1'690 stores worldwide. But while the difficulties of the retailer were well known and the filing did not catch anyone by surprise, the parent company's unsecured notes plunged about 80%, to 20 cents-on-the-dollar only.

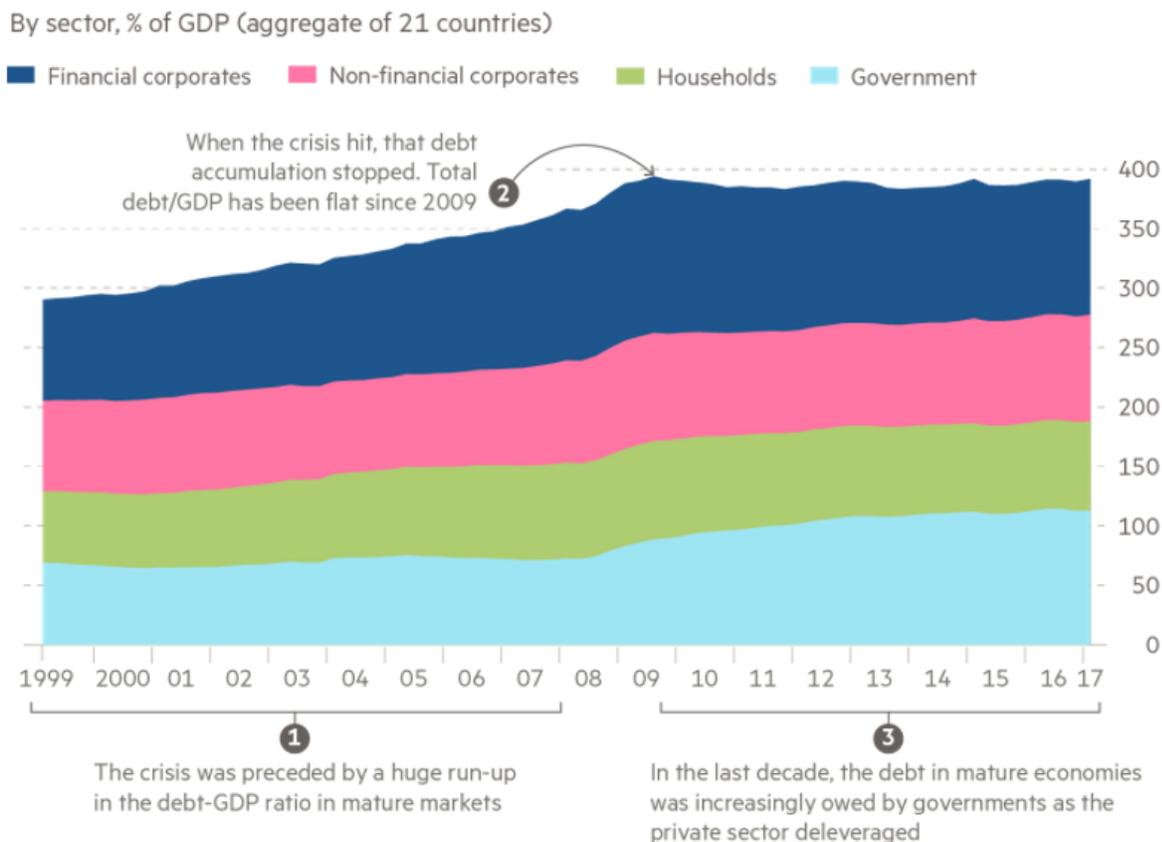
The complacency and the yield hunt that moved investors into highly risky assets are brewing new event opportunities. An attractive book of residential securitized products can be hedged at very attractive prices, taking advantage of the situation.

Price distortions, caused by risk aversion, complacency or deficient risk assessments, are a good source of returns. The securitization remains attractive on both sides of the investment spectrum. Although we see the improvements in fundamentals, we still prefer the securitized loans issued before and during the GFC. It is a rare opportunity that many large houses were keen to pursue recently. Too late for them. Very few players have accumulated the right bonds during the post-crisis years and they are now on a train that may run at good speed for the next few years. The train will not stop for late-comers.

Why is inflation not picking up? Is there a connection with the debt growth?

Economic growth can be represented by the speed of a car, while inflation is the heat produced by the fuel combustion. The more the engine is efficient, the less energy is transformed into heat. When central banks fix their inflation targets, they resemble carmakers that measure the quality of a car by controlling heat emissions. It can be misleading, to say the least.

Chart 5: Mature Market Debt 1999 to 2017



Source: Institute of International Finance, Financial Times

When debt grows beyond a certain threshold, the car slightly changes its pace but the engine overheats. This is what happened along the 20th century, also defined, for good reasons, as the “inflation century”. When debt is already at very high levels, like today, the long-term debt growth is expected to be contained and inflation expectations keep staying low. Furthermore, worldwide demography pushed up inflation for years and it is now pulling back, multiplying the impact of lower debt growth.

We should not be surprised if central banks in developed countries are still not hitting their target of a 2% annual inflation rate. Instead of questioning the target, they explain the low-inflation “new normal” with temporary supply shocks. But if, on the contrary, the supply shocks are permanent, then trying to achieve 2% inflation rate would lead to excessively easy monetary policies, which put upward pressure on prices of risk assets and ultimately inflate dangerous bubbles.

Beware, this is not simply a financial gimmick. Central banks run the risk of killing real salaries and increasing inequality. British workers are paying a high price and other countries are following the same fate. Paradoxically, inflation is not too low, but too high when compared to the lackluster recovery.

Janet Yellen recently said: “My colleagues and I may have misjudged the strength of the labor market, the degree to which longer-run inflation expectations are consistent with our inflation objective, or even the fundamental forces driving inflation.” It is a strong statement, but true. Growth and inflation targets must be reconsidered on the premises of an over-indebted and old world.

The massive central bank intervention has helped the world, so far, withstand the almost unavoidable car’s slow down. A painful unwind of last century’s excess has been postponed, by replacing credit velocity with more money supply. The expected reversing QE will push us back in a stagnant world, characterized by very low growth and quasi-deflation. Low growth and no inflation have been the standards in mankind history. The last century should be perceived as an anomaly more than a rule: high population growth rate, high debt growth rate and unprecedented technological developments moved the gauge of inflation in red zone. A more typical economic scenario is in front of us.

How can people make money from this scenario?

Firstly, not betting against it.

A number of Global Macro managers failed to predict inflation after the GFC and the way they traded the reflationary Trump’s promises has made them lose money when inflation expectations increased, immediately after the election, and when the trade faded away leaving on a battleground a flattish yield curve. Be long inflation is definitely a widow-maker trade. To be right is not sufficient, you must be right at the very right time. The type of trade you should always avoid.

Secondly, being neutral. Not jumping on the beta wagon comes at a cost. Beta signals are like siren’s voices and it requires discipline and cold blood to resist the temptation of jumping into the water and kiss them. In many of our conversations with portfolio managers, we analysed the risks brought upon by a wild use of leverage in real estate, private equity and public markets. The wide

use of leveraged risk parity strategies (half-trillion dollars), for instance, is benefitting from the low volatility scenario but algorithms have automatically increased their exposures to financial assets. Paradoxically, due to the old misconception that volatility means risk, improperly used by risk parity algorithms, the world is much more exposed to large drawdowns when volatility is low. The advantage of being neutral will become clear when (not if) market's volatility comes back.

Mr Luzzi, many thanks for this interesting conversation. We are very much looking forward to picking up this discussion at our Annual Investor Event with our keynote speaker Prof. Anat Admati and hedge fund representatives from the structured credit space.

Thoughts and News:

Hedge Funds in Q3

Hedge Funds have registered another three months of back-to-back positive performance in Q3 2017.

Chart 6: HFRI Indices Overview

Jul-17	HFRI Macro 0.67%	HFRI Relative Value 0.68%	HFRI Event-Driven 0.84%	HFRI FoF Comp. 1.03%	HFRI Fund Weighted Comp. 1.06%	HFRI Equity Hedge 1.46%	HFRI Emerging Markets 2.32%
Aug-17	HFRI Event-Driven 0.03%	HFRI Relative Value 0.23%	HFRI Fund Weighted Comp. 0.66%	HFRI Equity Hedge 0.81%	HFRI Macro 0.88%	HFRI FoF Comp. 0.96%	HFRI Emerging Markets 2.00%
Sep-17	HFRI Macro -1.21%	HFRI FoF Comp. 0.36%	HFRI Fund Weighted Comp. 0.46%	HFRI Relative Value 0.52%	HFRI Emerging Markets 0.54%	HFRI Event-Driven 0.94%	HFRI Equity Hedge 1.37%

Source: Ayaltis Proprietary Database

Overall, July, August and September were good months for hedge funds. Most strategies posted positive numbers throughout the quarter, except for Macro strategies which were negative in September. Emerging Markets strategies performed best in both July and August, whereas developed equity markets gained most in September.

Electronic Vehicles Will Impact Commodities Market

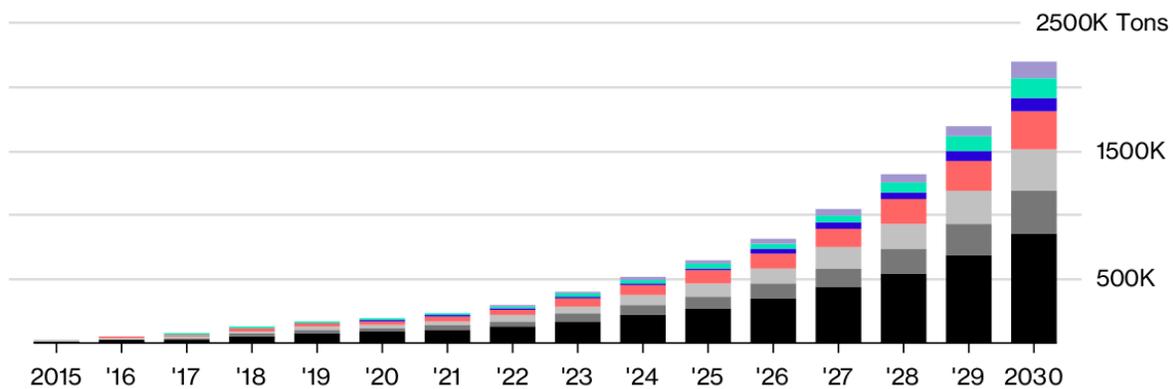
Did you know? Lithium is the lightest metal. According to latest research, it was one of the element involved in the Big Bang creating mother Earth. These days, lithium is in the headlines as it is the most important component for the battery of electronic vehicles - the lithium-ion battery. However, lithium is not the only metal whose price is likely to rise thanks to the surge in electronic vehicles. In fact, lithium is just one of the smaller components in terms of percentage of weight. Nickel as well as graphite are the most used components.

Chart 7: Demand for Metals from Lithium-ion Batteries

Demand Surge

Global metals and materials demand from EV lithium-ion batteries

■ Graphite ■ Nickel ■ Aluminum ■ Copper ■ Lithium ■ Cobalt ■ Manganese



Source: Bloomberg New Energy Finance

Read on at

<https://www.bloomberg.com/news/articles/2017-08-02/electric-car-revolution-is-shaking-up-the-biggest-metals-markets>

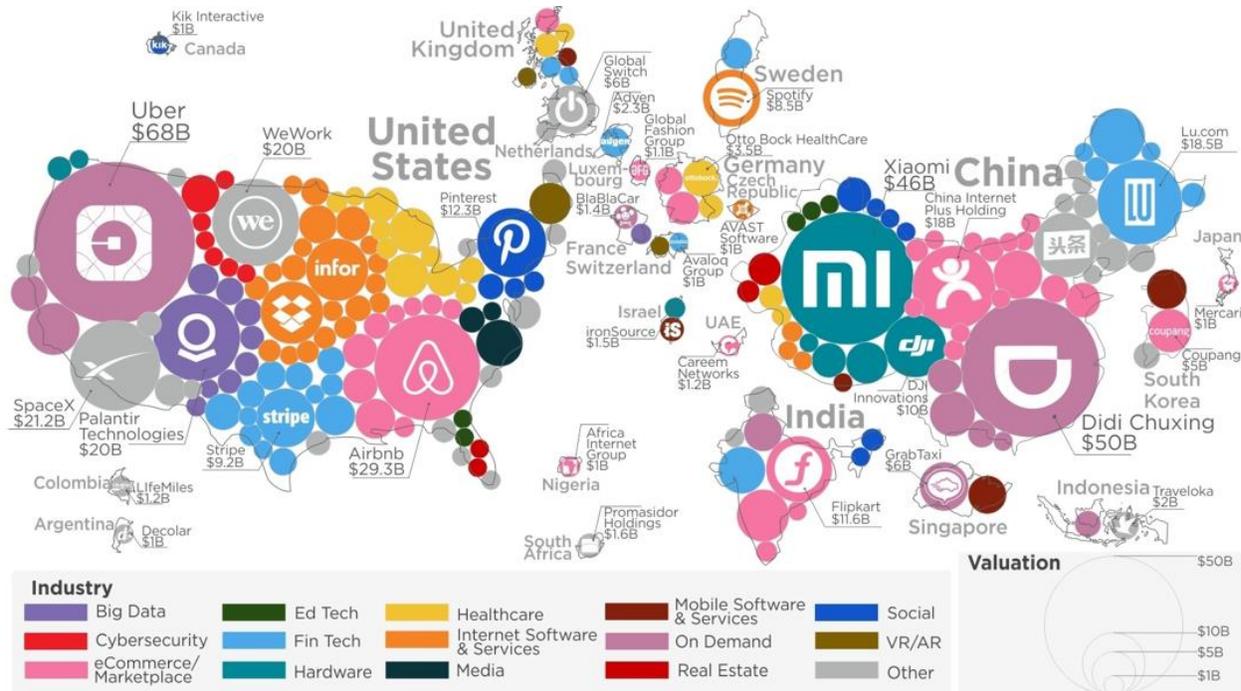
<https://www.exponentialinvestor.com/energy/trading-commodities-behind-electric-car-revolution/>

The Biggest “Unicorns” on Earth

“Unicorns” are privately held startup companies with a current valuation above the \$1 billion threshold. The following chart shows the biggest ones, plotted basing on sector, size and country of origin. Uber leads the pack, with a current valuation of \$68 billion. Other notable names are Dropbox and Airbnb in the US and Spotify in Sweden. The latter should represent the biggest IPO of 2018, with a valuation that could reach nearly \$20 billion according to several analysts (although the option of a direct listing is not off the table). Unsurprisingly, the biggest unicorns were founded

in the US and in China. While unicorns in the US are mostly well-known names, China shows several hidden diamonds.

Chart 8: The World's Unicorns



Source: Visual Capitalist

Read on at

<http://www.visualcapitalist.com/worlds-200-unicorns-map/>

<http://fortune.com/unicorns/>

Hedge Funds Going “Crypto”

If there is a trend, you would expect hedge funds to pay attention to it. It is not then too surprising to see hedge funds pouring into the crypto-currencies space. According to the Financial Times the universe counts 68 crypto funds and it is consistently increasing. Investment strategies range from participating in initial coin offerings (ICOs) to arbitrage strategies. Directional bets with fat tail risk are not in the scope of Ayaltis, that is for sure. But we always like to investigate of what is moving markets.

Read on at

<https://www.ft.com/content/98031696-9e67-11e7-8cd4-932067fbf946>

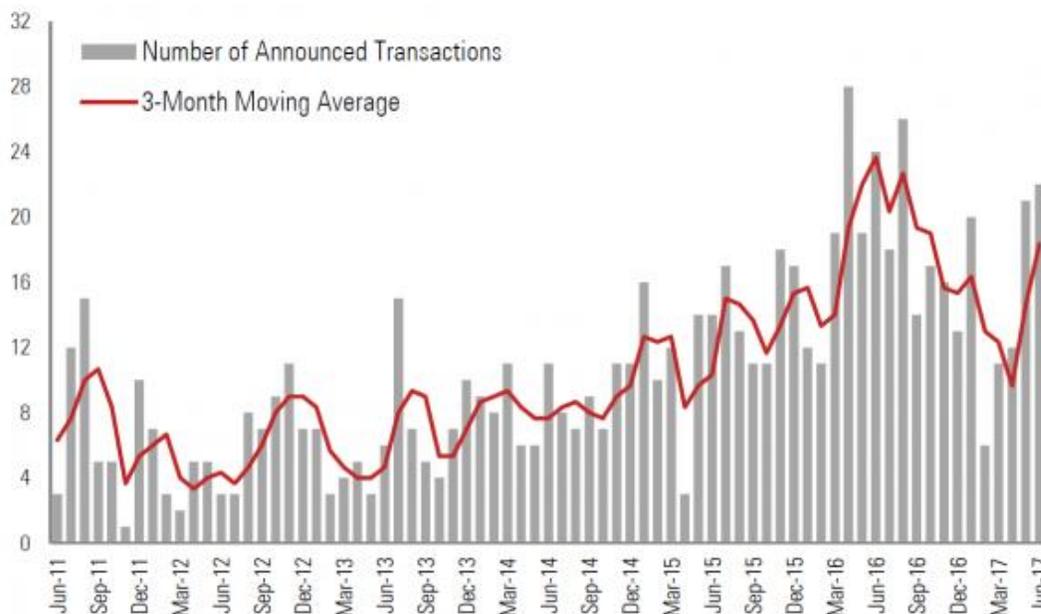
Digging Deeper:

M&A Space and the Chinese Buyers

From a worldwide perspective, M&A volume increased by 3% in 2017 compared to the same period last year. The number of mega-deals has also been on the rise. Outbound deals are the name of the game and the targets are more and more European companies. And who are the buyers? The largest appetite for companies is coming out of China, although capital controls had a strong impact and drastically reduced the activity in the first half of the year.

Chart 9: Number of Announced Chinese Overseas M&A Transactions

Monthly Number of Announced Transactions, 3-Month Moving Average



Source: Bloomberg, Rhodium Group. *Includes formally announced cross-border M&A deals of at least \$5 million with a Chinese-owned corporation seeking at least 10% of a target outside of the Cayman and Virgin Islands.

However, it is not just China who is making the life of Chinese acquirers more difficult but also the targets, who are picking up the arms. Siemens and Alstom decided to join forces in order to be able to face Chinese headwinds from CRRC, the Chinese state-backed operator. Moreover, the SEC recently delayed the approval of Chinese-led takeover of the Chicago Stock exchange. As China sees more capital inflows again, maybe Chinese authorities take a step back? At least state-owned companies seem to be able to move across the border again: China CEFC, a company with links to the Chinese military, was able to buy a stake in Russia's Rosneft.

Read more about current M&A trends at

<http://www.hitc.com/en-gb/2017/10/05/global-ma-review-3q-2017-thomson-reuters/>

<https://www.bcg.com/en-ch/publications/2017/corporate-development-finance-technology-digital-2017-m-and-a-report-technology-takeover.aspx>

We are looking forward to your feedback. Please feel free to share your ideas with us and continue the dialogue.

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