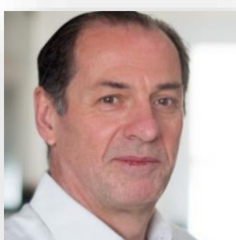
Zombies Compagnies

Paris, 6 novembre 2019

SEVEN UNIVERSITY

HOW I LEARNED TO STOP WORRYING AND LOVE THE DEBT!

HOW TO AVOID A « ZOMBIE APOCALYPSE » ?



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SUMMARY

DEFINITION OF ZOMBIES COMPANIES

- The expression «Zombie Company» was popularised by Ricardo Cabarello, Takeo Hoschi and Anil K. Kashya in a 2008 article (American Economic Review) on Japan « Lost Decade », the great stagnation 1990-2000.

- Zombies companies are defined as : "Firms that are unable to cover Debt servicing costs from current profits over an extended period". The period of time can vary, the BIS used 3 years in its large definition for example.

- And it's quite possible to narrow the samples by using stricter criteria like the firm must be more than 10 years old for instance. This allows us to exclude start-ups (like We Work or Uber for instance).

- It is this BIS large definition that we shall mainly use.

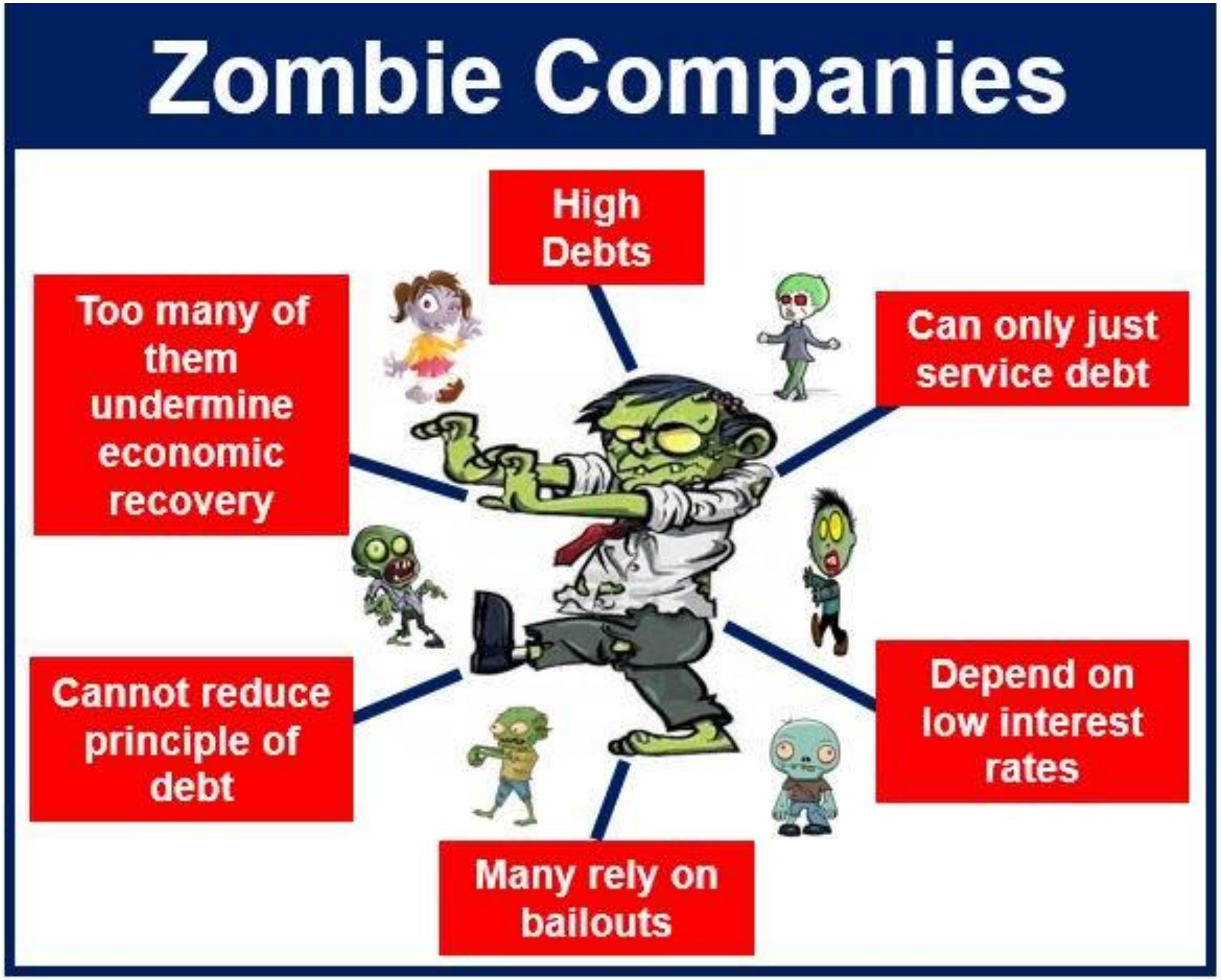
A narrower definition (valid for listed companies only).

- To the large definition, we add the following criteria: firms which have got a ratio Market Value/Assets relacement costs (Tobin's Q ratio) always lower than the median ratio of their sector.

- Another definition (simplistic) : a company which needs frequent bail-outs in order to continue its operations.

- And the last one: an heavily indebted company which can only pay the interests of its debt but NOT the principle.

A visual summary



ZOMBIES COMPANIES CHARACTERISTICS

- Whatever the criteria, almost all the zombies companies loose money.

- Consequence : their Interest Coverage Ratio (ICR) is very negative !
  Below -7 for the median ICR compared to a median ICR above 4 times earnings for non zombies companies !

- So a typical zombie firm loose money, is heavily indebted and is racking up more debts as it promises its shareholders that prosperity is just around the corner!

- So although it's still moving, a typical zombie firm is :
  - Either already dead
  - Or dying slowly but surely.

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RECENT EXAMPLES OF ZOMBIES COMPANIES

- **Sept. 2019 : Thomas Cook, new symbol of a world infused with debt.**

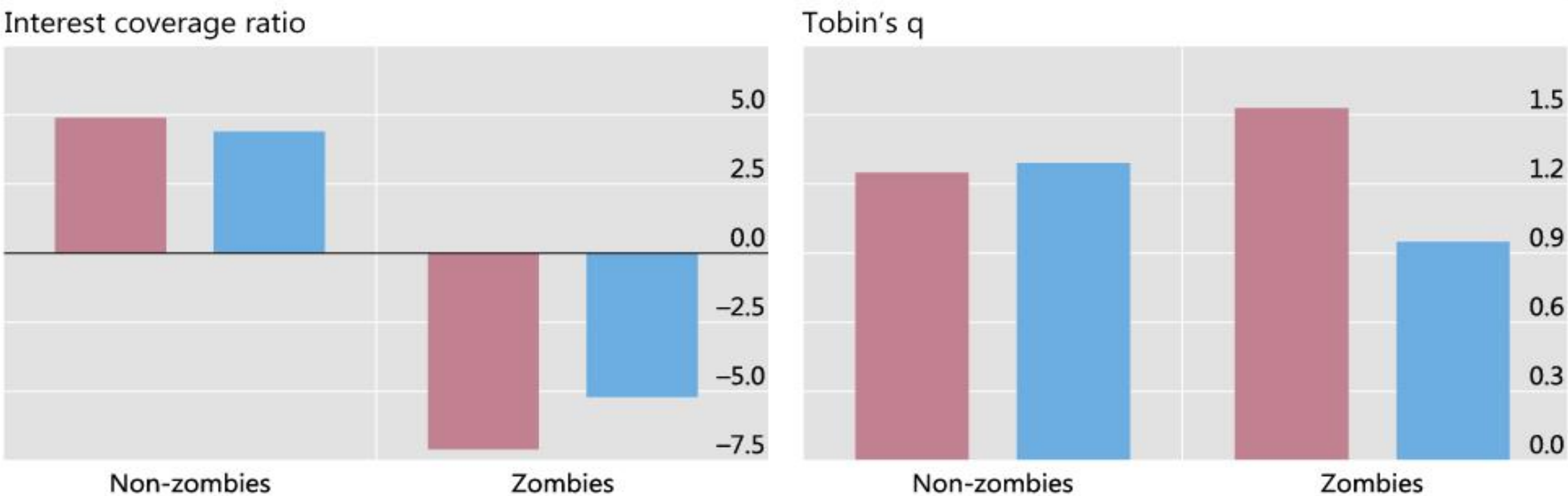
RECENT EXAMPLES OF ZOMBIES COMPANIES

- **FITCH downgrade WEWORK in the « Junk » depth.**
  - FITCH has downgraded WEWORK creddit rating 2 notches to CCC+, following the failed IPO : "In the absence of an IPO and associated senior secured debt raise, WeWork does not have sufficient funding to meet its growth plan." (FITCH note).
  - WEWORK parent company, WE COMPANY, has lost $1.9 Bn in 2018.
  - $3 Bn had to be raised during the IPO before borrowing another $6Bn from the banks (contingent to the listing).

- **Rallye bankruptcy: end of May 2019**
  - €3,3 Bn debt at the end of 2018.
  - Virtually all the Casino shares were used as collateral, and the share price was plummeting: -23% in 5 months after -28% in 2018 ► an untenable situation, so the banks cut the credit lines…
  - Financial burden (cash outflow) greater than inflows (dividends).
  - Total assets value < total amount of debt.
  - Bankruptcy unavoidable, at the latest in 2021…

ZOMBIES COMPANIES ON THE RISE

Interest coverage and Tobin's q of zombies and non-zombies[1] Graph 1



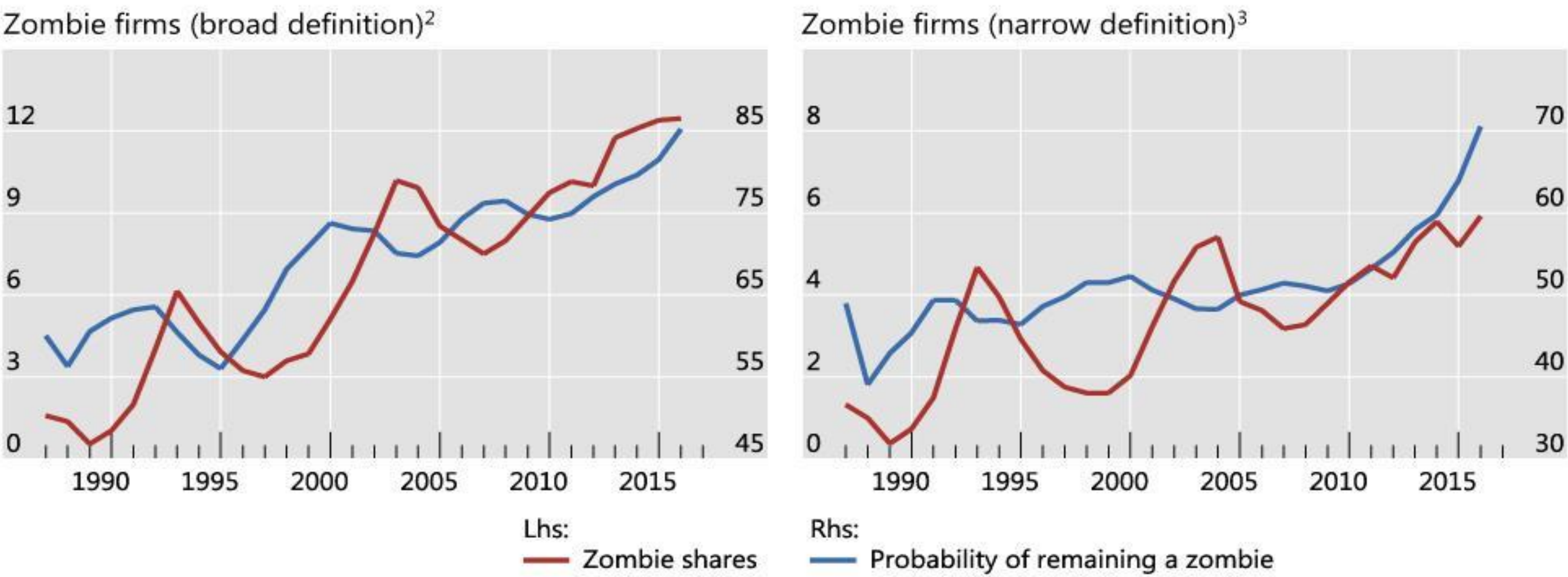
[1] Sample medians based on data for 14 advanced economies over the period 1987–2016. Interest coverage ratio = ratio of earnings before interest and taxation to interest paid; Tobin's q = the sum of the market value of equity and liabilities divided by the sum of the book value of equity and debt. [2] Firms with an interest coverage ratio less than one for three consecutive years and over 10 years old. [3] Broad zombies with a Tobin's q below the median firm in the sector in a given year.

Sources: Datastream Worldscope; authors' calculations.

Source : BIS quarterly review

Zombie firms are on the rise and survive for longer[1]

In per cent Graph 2



[1] Simple averages of zombies as a share of all listed non-financial firms in the Worldscope database from Australia, Belgium, Canada, Denmark, France, Germany, Italy, Japan, the Netherlands, Spain, Sweden, Switzerland, the United Kingdom and the United States. [2] Firms with an interest coverage ratio less than one for three consecutive years and over 10 years old. [3] Broad zombies with a Tobin's q below the median firm in the sector in a given year.

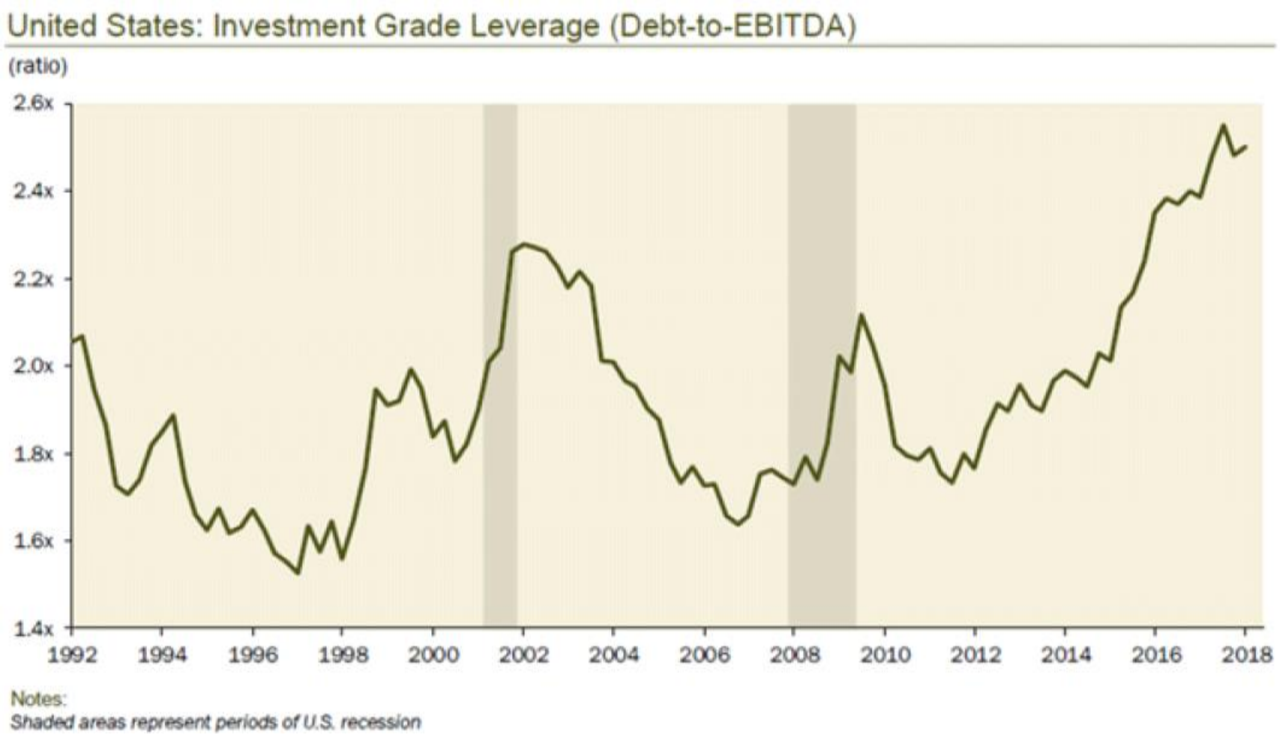
Sources: Banerjee and Hofmann (2018); Datastream Worldscope; authors' calculations.

ZOMBIES COMPANIES ON THE RISE

- The 2 different measures show that, out of 32000 firms in 14 developped countries, the number of zombies companies has increased significantly during the last 30 years.
- Their share went up from about 2 % on average at the end of the 80's to more than 12% in 2016 (using the large definition).
- The rythm of increase has strenghtened since 2008, supported by the fact that theses companies stay zombie for longer rather than recover or hit the wall (see blue curves of the previous chart).
- The probability to remain a zombie from one year to another has gone up from 60 % at the end of 1980 to 85 % in 2016 (large definition) and from 40 % to 70 % (with the narrow definition).
- More recent estimates show an even stronger increase: up to 18 % of the US companies were zombies at the end of 2018 according to ARBOR…
- And even close to 20 % according to BoA-ML !

THE CAUSES OF THIS INCREASE

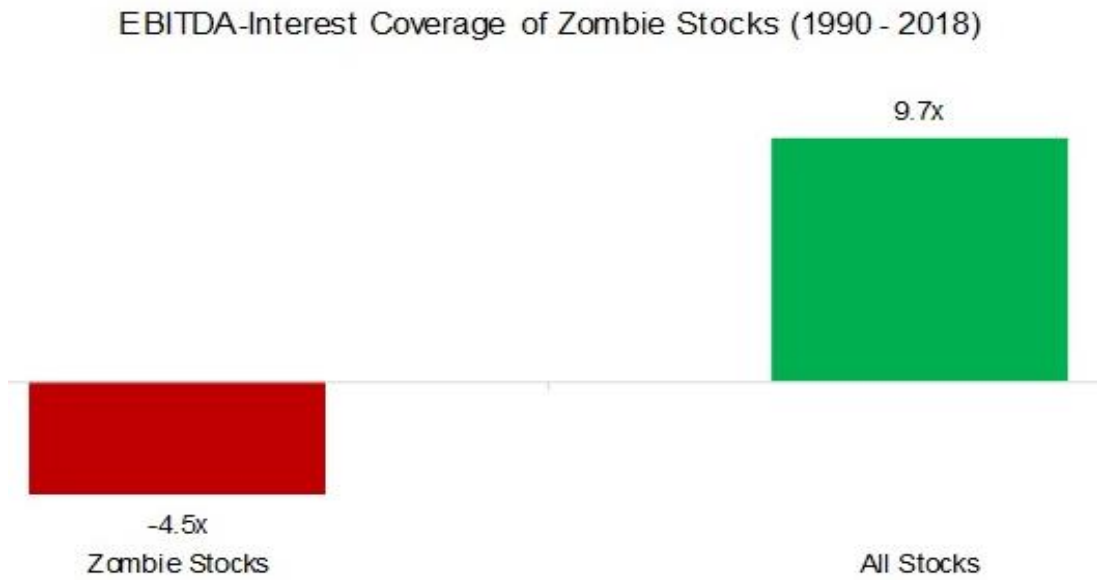
- There is about 50 % more leverage in US IG bonds in 2019 than in 2007.
- **Therefore debt has grown up faster than earnings… And even faster for zombies !**



- In Europe the ratio DEBT/EBITDA has exploded up to 5,8 (Sub-grade): a new record.
- Virtually all the leveraged loans are issued with very weak covenant lite.

THE CAUSES OF THIS INCREASE

- The zombies firms speed of deleveraging started to substantially slow down in 2001 ! Their rythm of assets disposal has decreased more than for the other firms. Still there was no significant increase in zombies' earnings before interest payments and taxes (EBIT) relative to total assets compared with non-zombies, either since 2000 or since 2009.



- **But they succeeded to get the financial resources necessary for their survival…**

Source : Factor Research

… HOW ?

- Thanks to weakened banks which are tempted by a debt roll-over rather than take a loss after a write-off, which means they renew loans to non viable companies (rather than write them off) :
  - By resorting to parallel financings (shadow banking in China for instance)
  - Because of ill conceived bankruptcy regimes or specific tax advantages (deductible interests...)

- Thanks to current monetary policies and to the permanent interest rates cuts:
  - Historically and artificially low rates, virtually everywhere in the world, have reduced pressure on lenders to clean their balance sheet (Non Performing Loans will stay there longer because the expected recovery rate increases) ;
  - More generally, low rates create incentives for risk-taking. Since zombie compagnies are risky debtors and investments, they got a much larger and easier access to more financial resources !

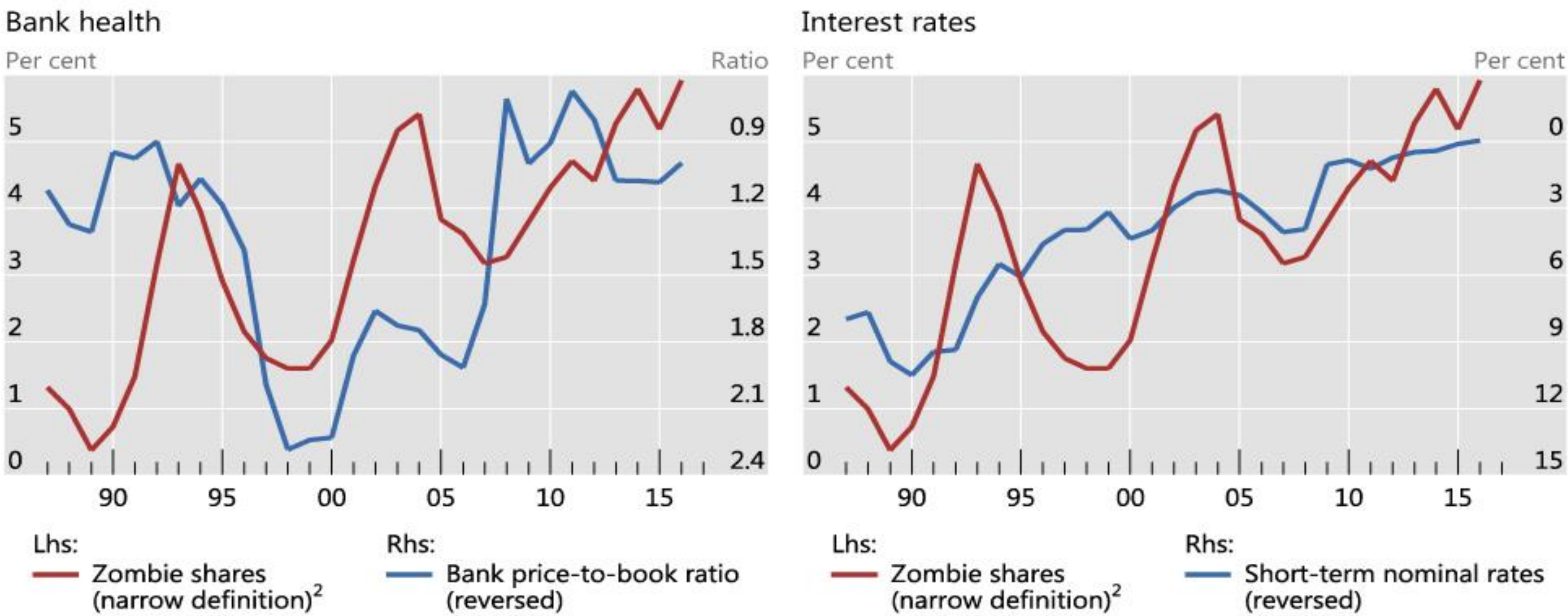
LESS PRESSURE TO REDUCE THEIR DEBT…

The share of zombies firms is correlated to the health of the banking system and mostly is negatively correlated with short term interest rates as the 2 following charts will show you.

LOW INTEREST RATES SUPPORT THE RISE OF ZOMBIES COMPANIES SHARE !

Potential drivers of rising zombie shares[1]

Graph 4

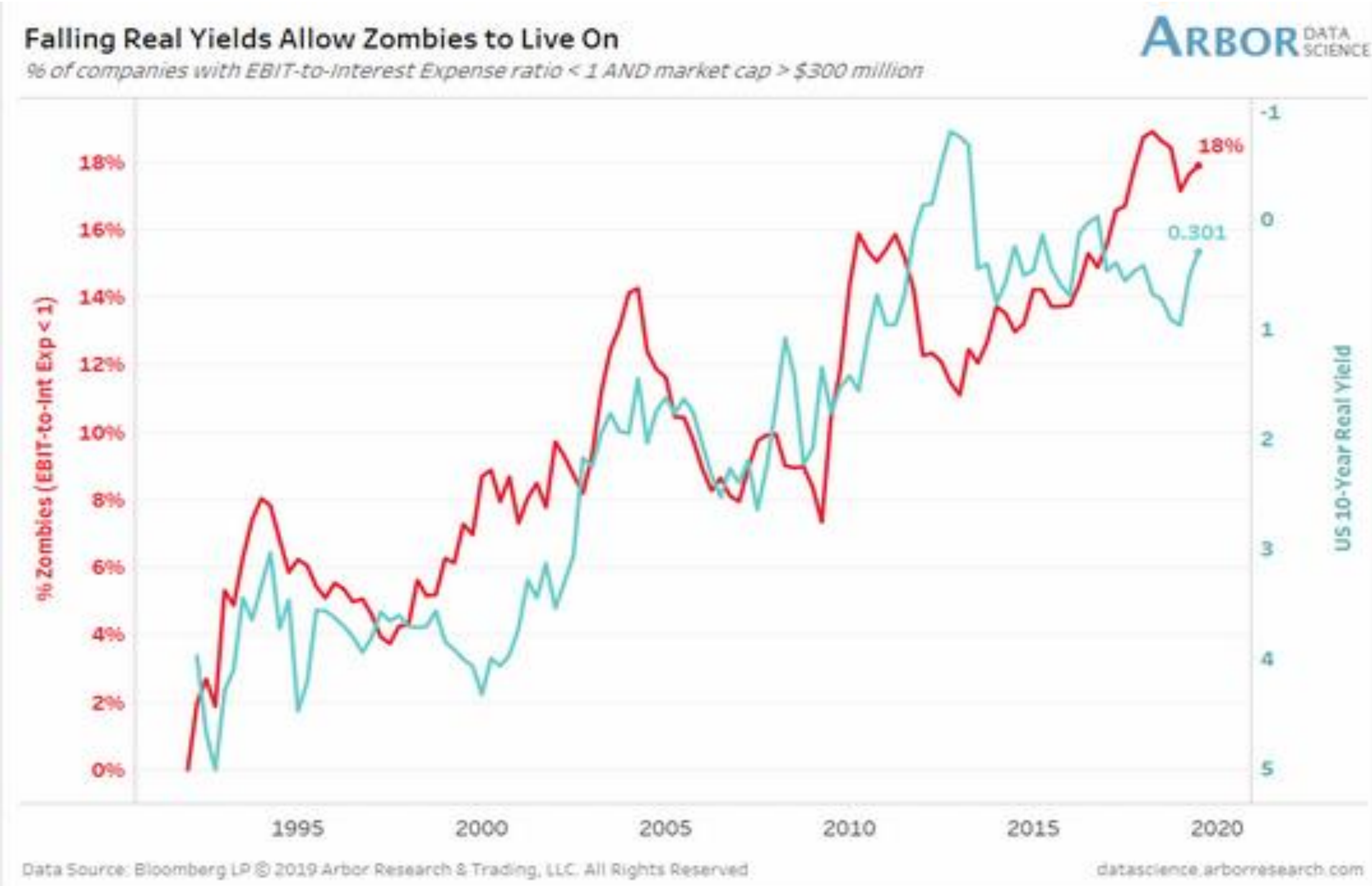


[1] Price-to-book ratios, policy rates and zombie shares are simple averages from Australia, Belgium, Canada, Denmark, France, Germany, Italy, Japan, the Netherlands, Spain, Sweden, Switzerland, the United Kingdom and the United States. [2] Firms with an interest coverage ratio less than one for three consecutive years, over 10 years old and with a Tobin's q below the median firm in the sector in a given year.

Sources: Datastream; Datastream Worldscope; national data; authors' calculations.

Source : BIs Quarterly review

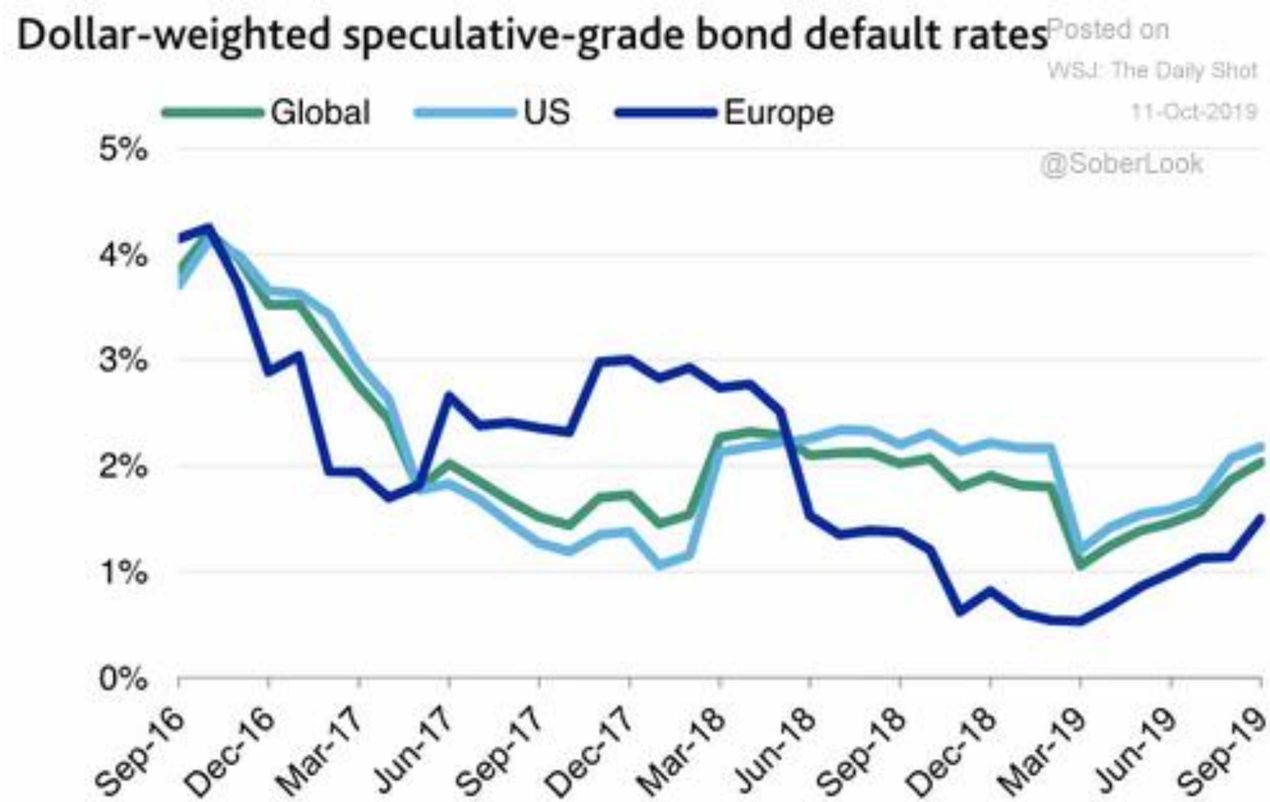
CORRELATION IS EVEN HIGHER AND BETTER WITH REAL YIELDS. ZOMBIE FOR EVER !



Source : Arbor Research and Trading LLC

OTHER REASON FOR THIS PROLIFERATION : COMPRESSION OF DEFAULT RATES.

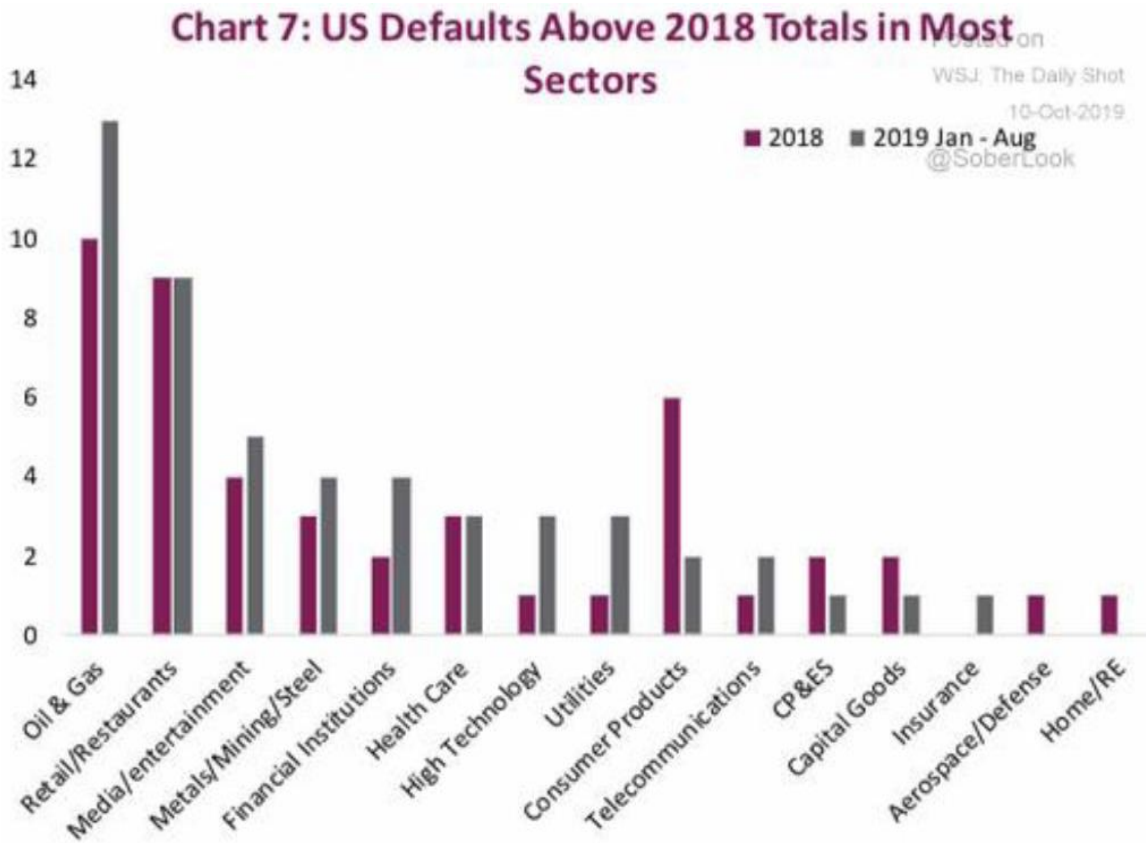
- The recent increase in the default rates of companies is mainly concentrated in the Oil and Gas sector.
- The default rates remain extremely low, about 2 % globally.



Source : Moody's Investors Service

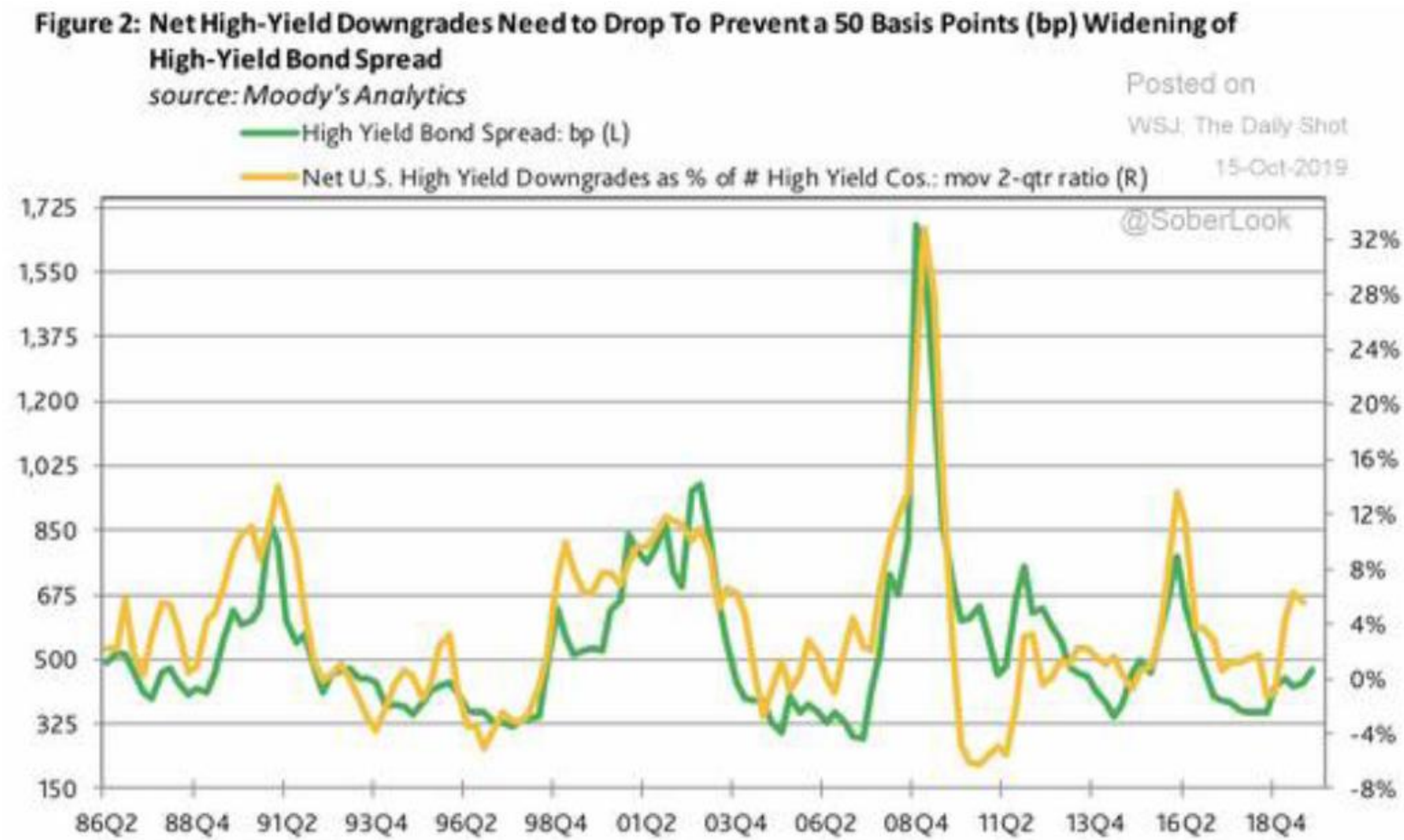
THE GROWING IMPORTANCE OF THE DEFAULT RATES

- In the USA, default rates during the first 8 months of the year have increased in most sectors, with the notable exception of the consumer products sector.



Source : Market Ethos, Richardson GMP

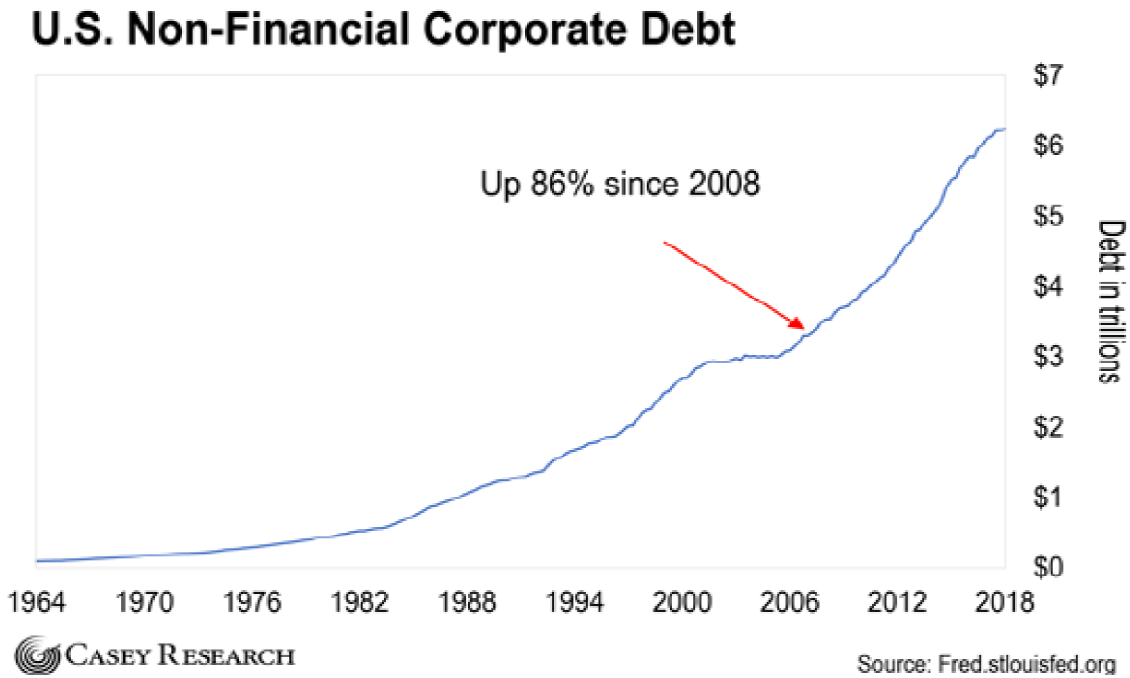
- The recent increase of notation downgrades among US High Yield issuers could eventually weigh on the whole High Yield Bonds/Treasuries spread.



Source : WSJ : Moody's Analytics

ANOTHER CAUSE : A VERY EASY ACCESS TO CHEAP CREDIT

- US corporates debt (non financials) has increased 86 % since 2008 and the great financial crisis.

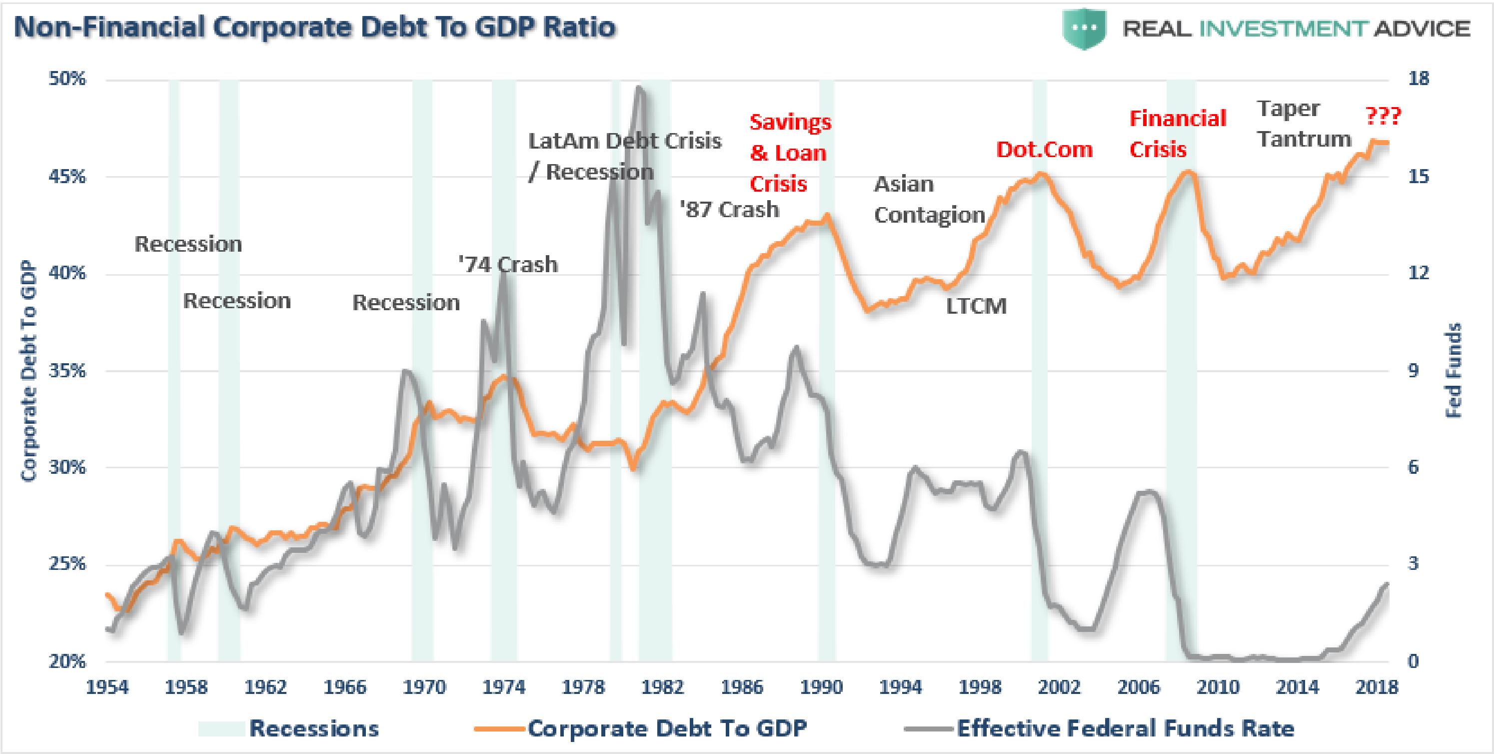


- But, in the meantime, the GDP is up by 18 % only.

THEREFORE…

Source : Casey Research

- The ratio US corporate debt (non financial) over US GDP is… at its historic high!



- Almost 50 % of GDP (47% as of 30th of June 2019), the kind of levels where the peaks are associated with…

RECESSIONS

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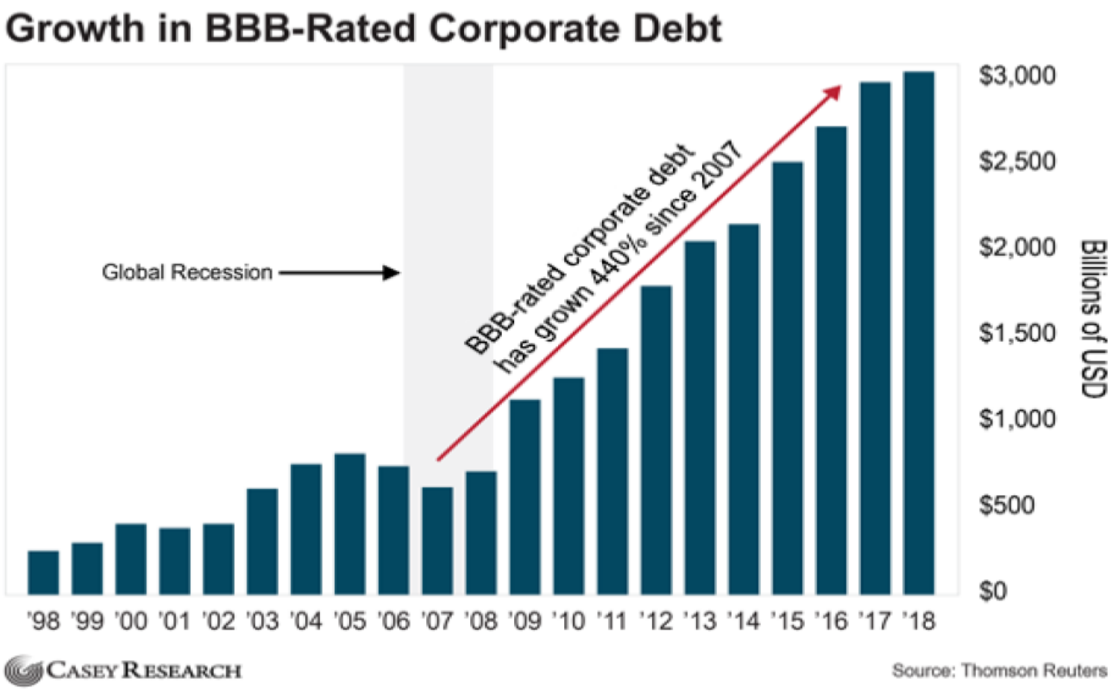
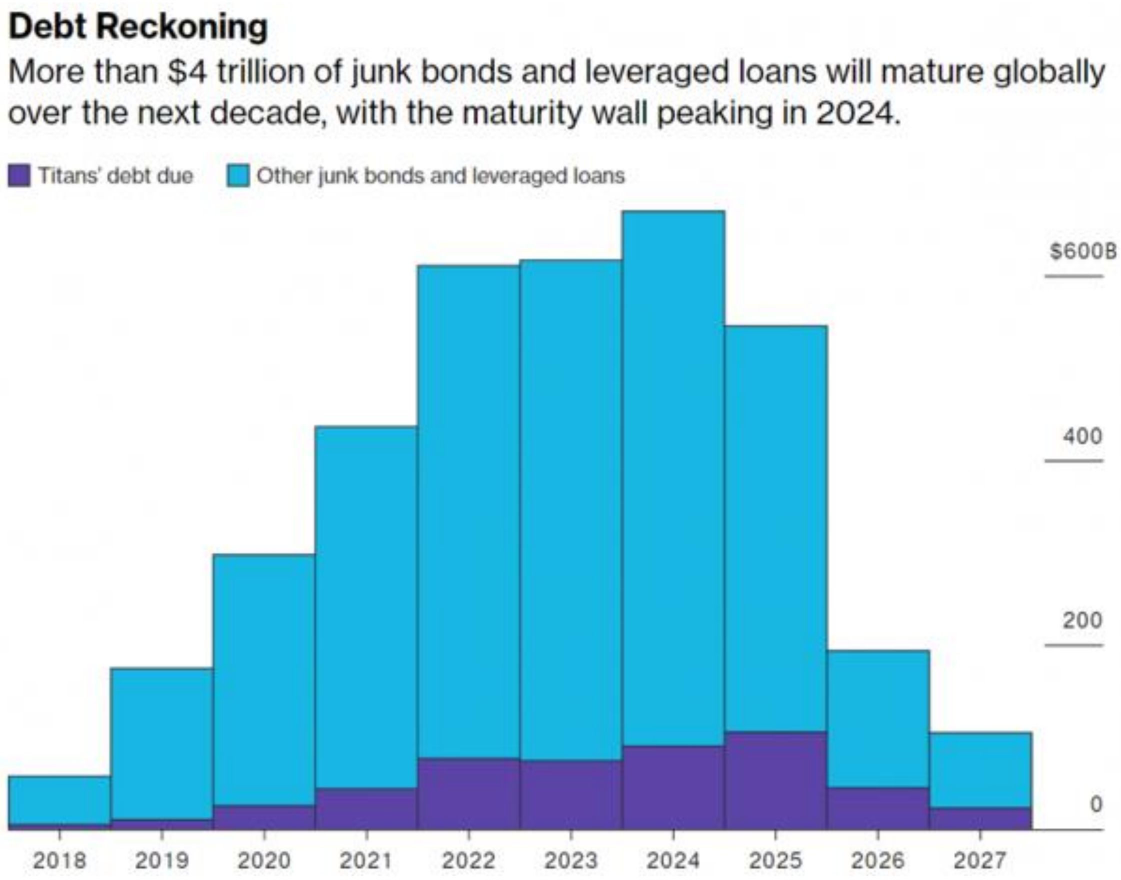
Source : Real Investment Advice

- The growth of the US corporates debt (non financials) ranked BBB :
  - a 440 % increase since 2007
  - Was almost $3Tn at the end of 2018



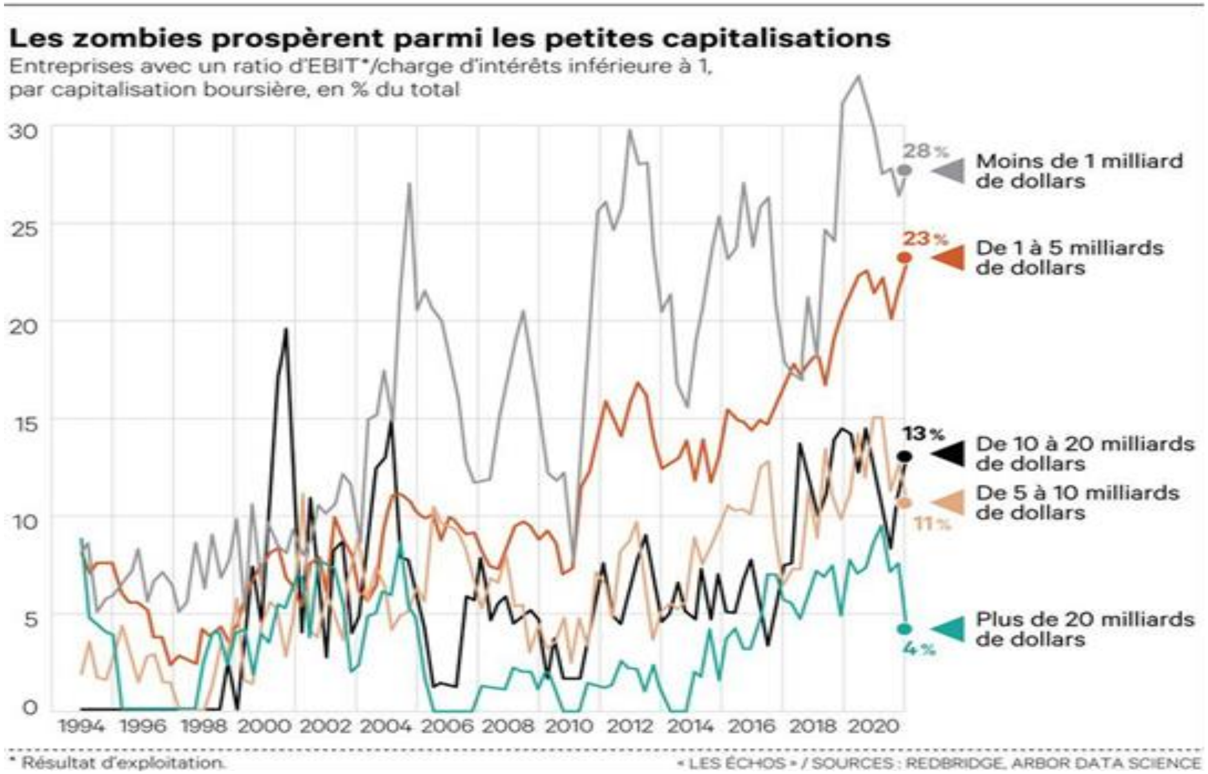
- BBB ranking: last level in the Investment Grade category.
- It takes 2 downgrades to fall in the High Yield (junk) category.

- The debt maturity wall for High Yield and Leveraged Loans :
  the peak will be reached in 2024 with more than $600 Bn maturing.



Source : Bloomberg

WHAT KIND OF COMPANIES ARE THE MOST AFFECTED ?



- This was already one of the conclusion of the economists who worked on the Japanese Lost Decade: small and medium-sized enterprises were the most affected.
- Still there are some big market capitalisations, notably among the Chinese SOE (State-Owned Companies).

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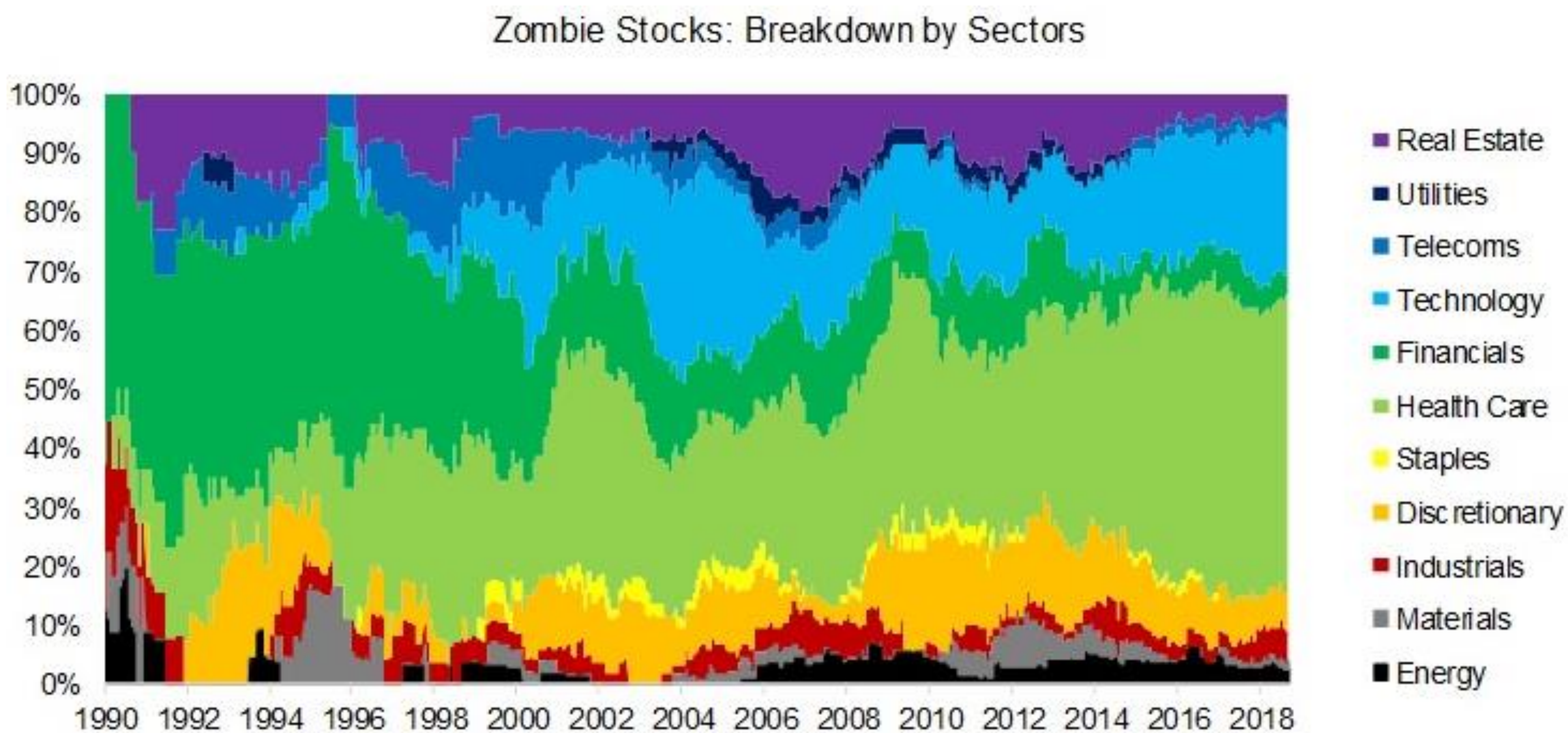
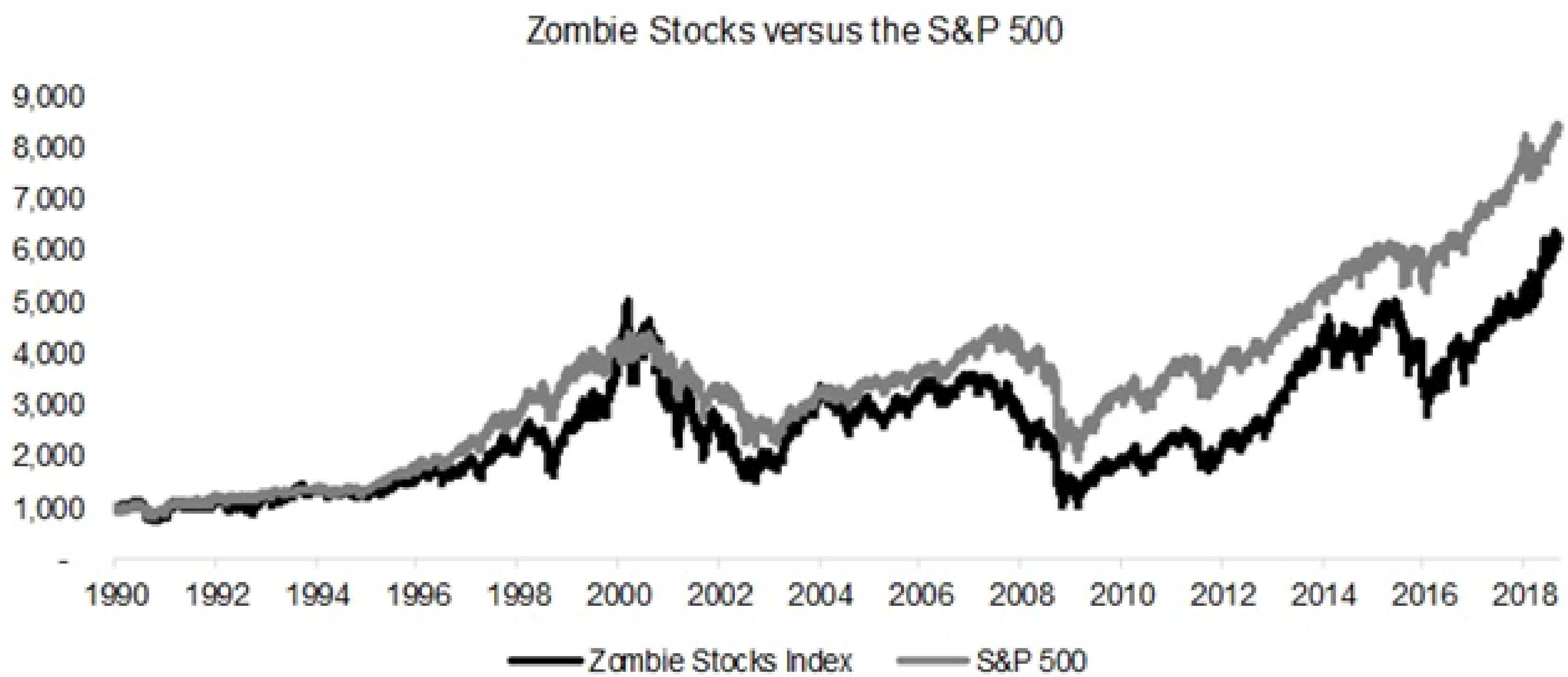
Source : RedBridge with ARBOR Data Sciences

- Sharp increase of zombies companies in Bio Tech and Technology.
- Two sectors more focused on growth rather than profitability.



Source : FactorResearch

- US zombies companies stocks performances are surprisingly good…. And their under-performance is far from being dramatic !



- Likewise, one might expect these stocks to trade at low valuations given their unhealthy financials characteristics ?

Not at all… !

- … Quite the opposite in fact! They are trading on a much higher « Price to Book » ratio than the average stock (especially since 2012).

- The strong and continuous divergence started in 2012, when Quantitative Easing policies started to be very widespread…

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Source : FactorResearch

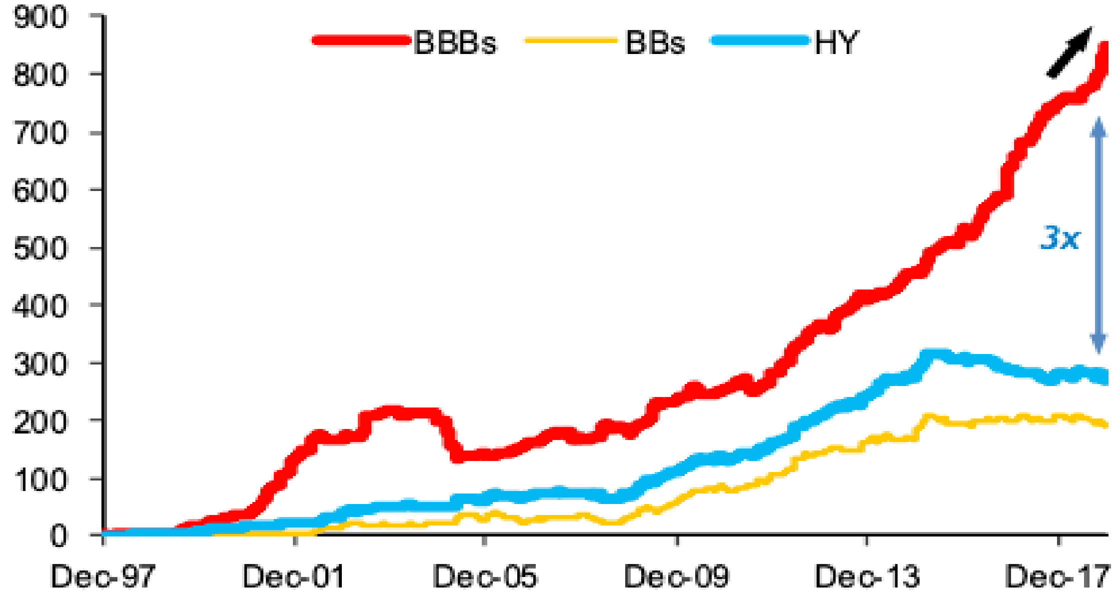
- … This trend strenghtened again during the spring of 2019 !

Source : Bloomberg with Goldman Sachs and Barclays

EUROPE IS NOT IMMUNE

- The European BBB market has exploded : +€100 Bn in 2018.
- At close to € 1 Tn, it is 3 times the size of the HY market.

Chart 10: The size of the BBB market keeps surging in Europe: the market has grown almost €100bn in the last year (using BBB non-fins)



Source: BofA Merrill Lynch Global Research. BBB non-financials only. HY face values are for the entire market (non-financials and financials).

- Any economic slowdown can become an important destabilization factor, not only of the IG market, but especially of the HY market.

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Source : BoA-ML

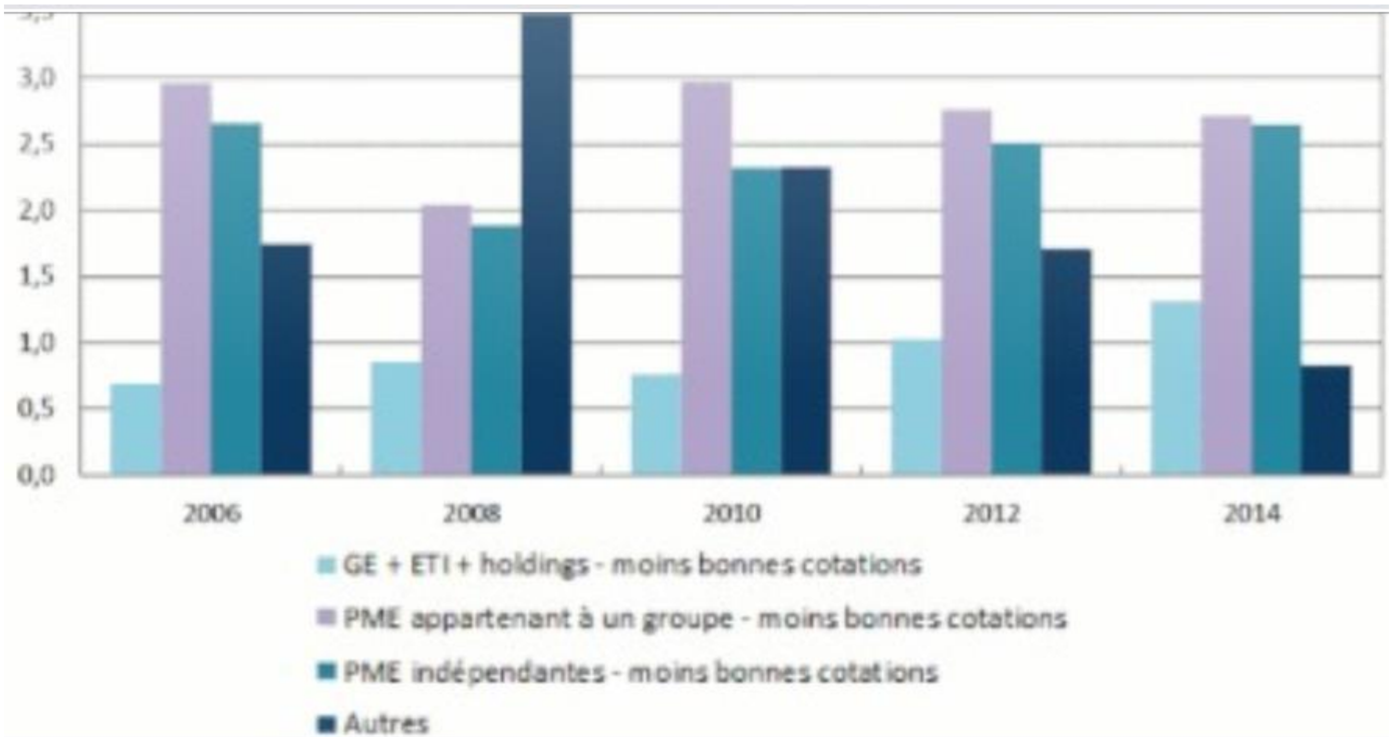
THE FRENCH CASE

EARLY 2017 BANQUE DE FRANCE DETAILED SURVEY

- The study concluded :
  - The relative scarcity of zombies in France
  - The relative stability of their share between 2005 and 2014 : 2,5 % of French Small and Medium-sized enterprises,
  - About 1 % of big companies and ETIs.
- But this study was based on figures from 2014. In March 2018, Coface estimated that zombies probably represented 6 % of the French enterprises.
- S&P Global Ratings valued the gross debt of French companies at more than €4 000 Bn (mid-2018), i.e 175 % of GDP (up from 135 % at the end of 2017). A European exception!
- According to the last Banque de France readings, during the first quarter of 2019, French companies showed a debt level almost twice bigger than the German companies.
- But the « Haut Conseil de la Stabilité Financière » is watching……

THE FRENCH CASE

-ARE THERE ANY ZOMBIES COMPANIES IN FRANCE ?



- « Companies in difficulty which benefit from very cheap credit and ultra low rates, the so called « zombies », remain rare in France… » Agefi

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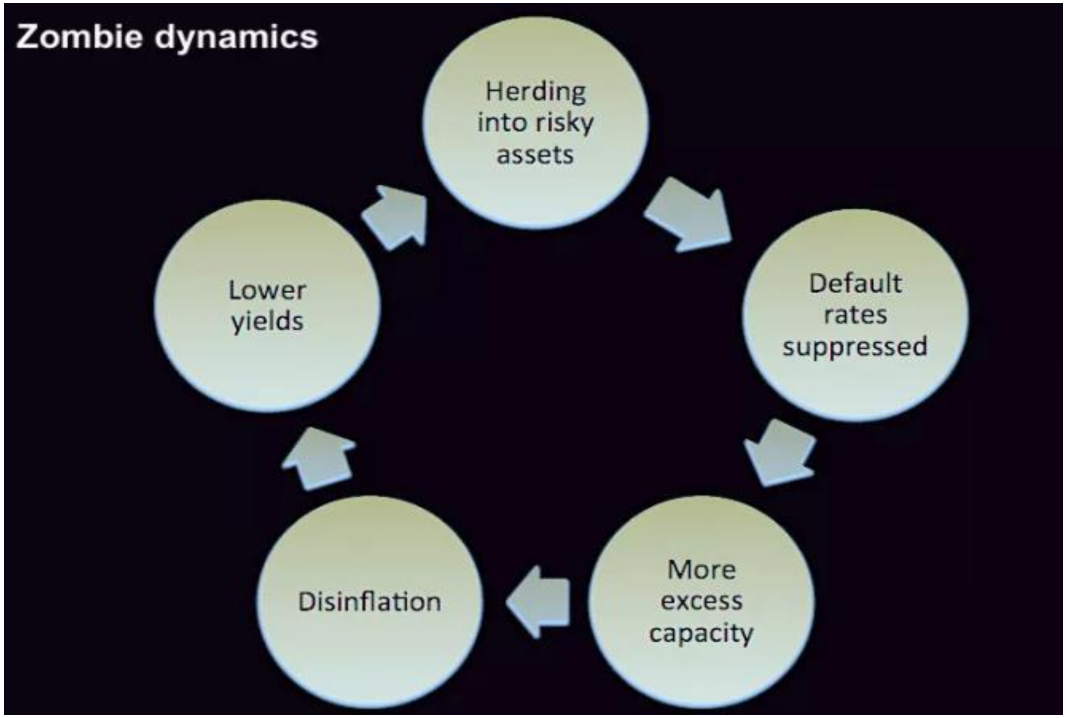
Source : Agefi

ZOMBIES DYNAMICS…

- The policies which created this dynamic were supposed to drive inflation rates towards their initial targets (2 % in general).
- Ironically, they have actually created a deflationnist environment !
  - Excess capacity has never been adressed against an insatiable financial demand
  - For products with a yield > 0

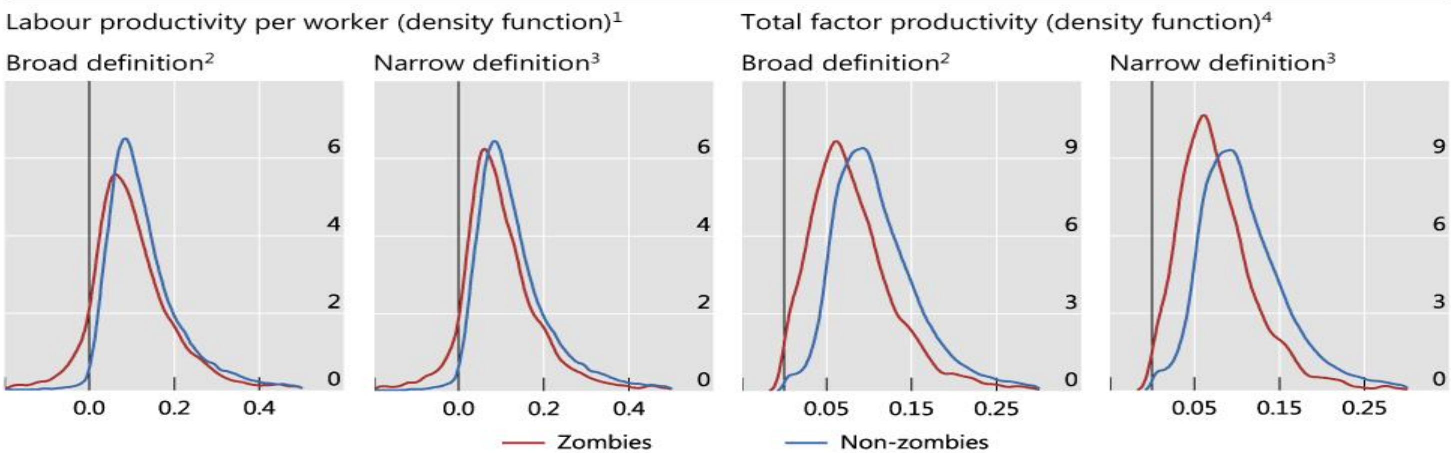


Source : The HEISENBERG

CONSEQUENCES : A ZOMBIE APOCALYPSE ?

- Most part of the studies show that the zombies enterprises weaken global economic performances (japanisation).
- these enterprises are far less productive: on average their productivity per capita and their Total Factor Productivity (TFP : measure the share of the economic growth which is not explained by the increase of the volume of capital and the volume of labor. Measure the efficiency of the productiv combination).

Zombie firms are less productive — Graph 5



[1] Gross value added per worker, in constant 2010 US dollars. [2] Broad zombies defined as firms with an interest coverage ratio less than one for three consecutive years and over 10 years old. [3] Narrow zombies defined as broad zombies with a Tobin's q below the median firm in the sector in a given year. [4] In constant 2010 US dollars, based on Solow residuals from ordinary least squares regression estimates of sectoral production functions.

Sources: Datastream; Datastream Worldscope; authors' calculations.

Source : BIS quarterly review

SO THE INCREASE OF THE NUMBER AND THE LONGEVITY OF ZOMBIES COMPANIES IS NOT GOOD FOR THE ECONOMY !

- How do these enterprises drag down their respective economies, and indirectly the global economy ? The OECD highlighted 3 different effects…

1. **Crowding out.** The longer a zombie company survives, the longer it will soak up society's finite resources and prevent them from being used on more productive enterprises. Thus lowering the potential growth for healthy enterprises. OECD writes that when the zombies share increases by 1 %, productivity growth declines by around 0,3 %... And GDP growth is a function of productivity growth as well.

2. **Capital misallocation.** Not only do zombies crowd out healthy companies, they also do plenty of wasteful spending themselves, by promoting overcapacity (See various examples in China). Many zombies either produce more or build out the capacity to produce more in an attempt to turn a profit, even if the market is not calling for increased production.

3. **Delayed technological diffusion.** A gradual fall in investment and innovation is another consequence of the resources misallocation.

THIS WORLDWIDE ZOMBIES COMPANIES PROLIFERATION SENT ALARM BELLS RINGING TO THE IMF.

- The authors of the last IMF Global Financial Stability Report, Tobias Adrian and Fabio Natalucci, think that « a sudden and severe tightening of the financials conditions could unveil all these vulnerabilities and apply pressure on assets valuations. »
- They underline that companies, across 8 major economies, pile more and more debts when their ability to pay them back weakens.
- « If you consider the potential impact of a pronounced economic slowdown (twice less severe than 2008 GFC), our conclusion is sobering :
  - The debt owned by companies unable to cover the interest with their profits (what they call the corporate debt at risk) could reach $19 Tn ;
  - It's almost 40 % of the total corporate debt in the 8 economies we studied. »
- In France and in Spain, the debt at risk is getting close to the levels of the previous crisis. In China, in the UK and in the USA, it's already above the 2007 levels !

Source : BRI rapport trimestriel

Source : HOWMUCH

TOP 5 COMPANIES WITH THE MOST LONG-TERM DEBT

1. AT&T	*Telecommunications*	$166.3B
2. COMCAST	*Telecommunications*	$107.3B
3. VERIZON	*Telecommunications*	$105.9B
4. FORD MOTOR	*Motor vehicles & parts*	$100.7B
5. GENERAL ELECTRIC	*Industrials*	$95.2B

TOP 5 COMPANIES WITH THE HIGHEST DEBT-TO-EQUITY RATIOS

1. GENERAL ELECTRIC	*Industrials*	8.35
2. UPS	*Mail, package & freight delivery*	6.56
3. FORD MOTOR	*Motor vehicles & parts*	2.80
4. FIRST ENERGY	*Utilities*	2.61
5. AMGEN	*Pharmaceuticals & Health Care*	2.36

A POSSIBLE SOLUTION

- Stephen KING (HSBC Senior economist) : « The higher asset prices spurred by excessive easing masked company issues and prevented the need for cost-cutting. »

  « Capital markets were thus no longer able easily to perform their central function, namely the efficient allocation of capital. Too much capital stayed in bloated and inefficient companies leaving too little to support the growth of smaller, more dynamic, enterprises.»

- **From the point of view of healthy companies, it’s almost unfair competition!**

  King's proposed solution to the problem is simple: "Let already-dead — or 'zombie' — companies collapse."

  The OECD concurs, saying, "Reforms that accelerate corporate restructuring can have powerful effects on productivity." It turns out that creative destruction is hampered when the "destruction" part is diminished, but it can be rejuvenated by letting the whole process work.

  One way to do this (probably the most straightforward way) would be to normalize interest rates to a historically average range, comes what may in the financial markets. But after the Central Banks coordinated offensive to halt a decline in the stock markets of barely 6% at the beginning of June 2019, don’t hold your breath….

PROBLEM : THIS SOLUTION LEADS TO A ZOMBIE APOCALYSE… !

- … With its litany of bankruptcies, lay-offs, loss of confidence, and eventually a decrease in consumption leading to a negative spiral very difficult to stop.
- It will certainly NOT happen as this would undoubtedly cause significant short-term pain in terms of layoffs and wealth destruction in the markets. The social cost would for sure be unbearable for many politicians, especially the local ones. (Remember that zombies are mainly small and medium-sized entreprises, not multinationals…)
- To avoid such desastrous consequences, there is no other choice than to keep running ultra-loose monetary policies, with rates even lower… While keeping its fingers crossed that it will keep working until things miraculously turn for the better !

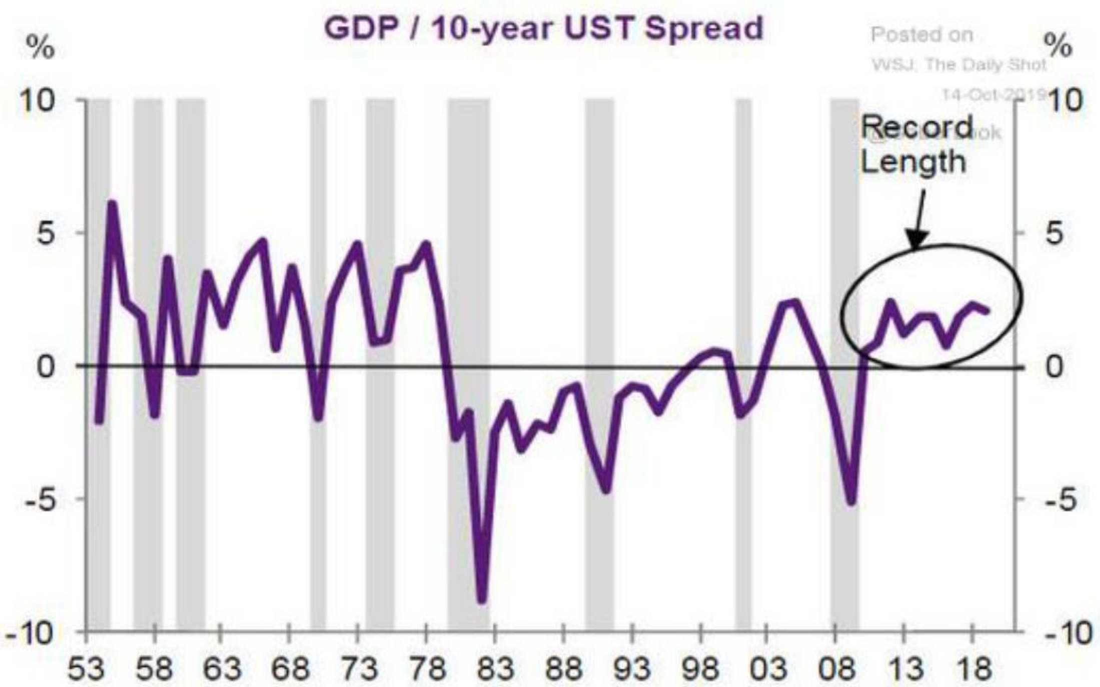
ANOTHER SOLUTION IS POSSIBLE :

The IMF proposal, in its recent review on financial global stability.

- Lower these risks by applying a stricter supervision and tighter controls…
- Set up a strenghtened macro-prudential supervision for these companies….

But all this would need to be implemented in every country.

- Given the fact that bonds yields are low compared to the GDP growth rate, this should, at least theoritically, extend the current credit cycle.



Sources: Natixis, BEA, US Treasury

Nominal GDP growth continues to run in excess of the yield on the 10-year Treasury note. This remarkable development, which is likely to persist because of renewed monetary accommodation, means that investors should not yet worry about elevated debt levels. The ability of firms to service their debt necessarily implies a delay in the corporate default cycle.

Source : Natixis and US BEA

CONCLUSION

- The rising tide of zombies companies will contribute further to the low-growth, low-inflation, low-rates future we are likely to see.
- And with the promise of more rates cuts coming soon everywhere, and the re-start of various QE policies in a not too distant future, the odds are high that their number will keep going up AND that they will all survive for longer…..
- To the extent that the IMF started to get worried and stated that the corporate debt is a « time bomb » (October 2019).
- So there will be more zombies and they will survive longer, therefore resulting in a possible « Japanization » of the economy.
- And the last three decades in Japan highlight that letting zombie companies roam freely is likely detrimental for economic growth and society, much like in literature and in the movies.

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