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Low/Negative Interest Rates

Impacts on Asset Allocation

CONFIDENCE MUST BE EARNED
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Introduction

- **For several years now we have been living in an environment characterised by falling short- and long-term interest rates combined with low inflation, low economic volatility, declining growth potential, accommodative monetary policies …**
- **All businesses have gradually adapted to this new world but in recent years a new stage has been reached: a further weakening of growth potential, unconventional monetary policies whose avowed purpose is to keep short and long rates low (or even negative), with regulation encouraging the buying and holding of sovereign bonds**
- **It is now a question of adapting to a environment of low/negative interest rates. The purpose of this presentation is multiple:**
  - We assess the implications (25 implications identified) of this environment for the asset management business model
  - We present different solutions that could deliver returns to the portfolios
  - We present some of the consequences of negative rates on different business models : banks, insurers/pension funds, central banks, government issuers ...

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Low/Negative rates: consequences for asset management

Consequence #1: same portfolio duration = weaker performance

- One solution is to extend duration in order to generate returns, but this amounts to increasing the portfolio's risk. In addition, yield curves are relatively flat, which means that the premium for additional risk (term premium) is also relatively low

Consequence # 2: same credit rating = weaker performance

- The second solution is to invest in lower quality credit, but that is also more complicated, not only in terms of risk but also in terms of opportunity. Debt (govt bonds + covered bonds + corporate bonds) offering negative yield is around 30% in Europe (47% in Sept.)
- Oases of spreads in the desert of low rates: EMG, private debt, USD debt …

Consequence # 3: maintaining the same performance = taking more risks…

- Delivering returns in a very low interest rate environment means accepting longer and longer durations and increasingly lower credit ratings. In other words, we must be willing to add risk to the portfolios: to maintain the same level of performance (at the very least), we have to take more risk
- This obviously means revising risk tolerance thresholds… or revising (down) yield expectations
- Good news for deeply indebted entities, but bad news for banks (yield curve and level of rates), insurers (asset/liability matching) and asset managers (return), central banks (FX reserves management)…

Low/Negative rates: consequences for asset management

Consequence # 4: same degree of leverage = weaker performance

- In the absence of returns, the environment is conductive to adding more leverage to the portfolios
- Many are turning toward leveraged activities or introducing leverage into more traditional portfolios … A classic move whenever spreads and rates are low
- Greater use of derivatives, curve strategies, and spread strategies are the conventional solutions
- Focusing on changes in intra-curve and inter- curve spreads is clearly the best way to make use of divergences and decoupling: the divergence in monetary policy cycles between emerging and advanced economies has therefore been a real performance driver over the past few years

Consequence # 5: need to re-examine the very idea of a risk-free asset

- What is a risk-free asset? A risk-free asset has three very distinct characteristics:
  - Characteristic # 1: it is an asset whose anticipated return is equal to actual return; no reinvestment risk identified
  - Characteristic # 2: it is an asset with a very low correlation with risky assets. A negative correlation is what we normally see
  - Characteristic # 3: a risk-free asset is assumed to pose neither a specific nor a system risk. No default risk expected
- In **theory**, the risk-free asset is the Treasury Bill
- In **practice**, government bonds are frequently regarded as a good proxy (as safe, with a spread (carry)
- In **reality**, solvency, liquidity and that the shape of the yield curve design a risk

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Low/Negative rates: consequences for asset management

- **Consequence # 6: with negative short rates, the risk-free assets subtract value**
  - To protect against possible losses on risky assets, investing in risk-free assets results in immediate losses, which is not typical of a risk-free asset
  - “Liquidity parking lots” delivering negative yields are not risk-free assets but rather return-free assets or even return-free risky assets (with assymetric risk)

- **Consequence # 7: risk-free bond assets (designed to protect against possible losses on risky assets) no longer offer any protection**
  - Macro-hedging with sovereign bonds has become significantly less effective (low potential for lower interest rates)
  - It generates more volatility, less tolerance for loss and increased use of derivatives (which are products with potential margin calls and can therefore lead to substantial outflows of cash, etc.)…

- **Consequence # 8: any mistake when making an investment in risky assets (stocks and corporate bonds) can be fatal to the value of a portfolio**
  - The fact that the less risky areas of the portfolio – bonds – generate low returns argues for greater caution and/or fosters greater volatility on the financial markets, with risky assets at the top of the list

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Consequence # 9: portfolio liquidity is just as important now as it was before

- The liquidity of portfolios has been reduced due to the decline in banks' inventories (reduced by 80% since 2008), the lower level of proprietary trading and in market-making activities, the loss of profitability from such activities, and the disappearance or the reduced activity of major players or even the waning presence of hedge funds on low-yield markets
- Risk is needed to cope with heavy withdrawals (from funds) or high disposals (of assets) and not being able to sell without triggering a market decline
- The risk is also to be unable to invest or to reinvest
- Portfolio liquidity would not necessarily be an important criterion to long-term investors if it were not for more stringent regulations (for portfolios regulated like pension funds, insurers, etc.)
- Strengthened regulations – as well as QE – have led to the transfer of liquidity risk from the sell side to the buy side activities

Consequence # 10: the financial markets are at the mercy of the central banks

- The low interest-rate environment is "dictated" by the central banks
- Some segments have become more and more fully managed by central banks
- As if more proof were needed, this demonstrates the extent to which the financial markets are at the mercy of the central banks

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Low/Negative rates: consequences for asset management

Consequence # 11: the problem of protecting investments and guaranteed products has now become particularly acute

- The problem is all the more acute for insurers than for asset management companies
- According to studies conducted by the rating agencies, German insurers already had the highest duration gap in Europe between assets and liabilities, which puts them under heavy pressure
- Reducing the percentage of guaranteed yield products and considerably reducing the level of these yields is the greatest challenge

Consequence # 12: the issue of the number of funds to hold

- The low interest rate and yield environment is driving a broad-based trend: streamlining (reducing) the range of funds in order to cut costs

Consequence # 13: revisit management fees

- What about management fees, given the low returns on investment?
- In light of lower returns, asset management companies have adapted by reducing fixed-income (and all asset classes) products management fees
- Based on consultants' databases, it would appear that management fees have declined 30% to 35% compared to 2012-2014 and the trend is still ongoing

Consequence # 14: pay attention to the execution quality

- It has also become more important than before: any errors can become a drain on total performance, already reduced by low rates

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Consequence # 15: improve the quality of advisory services

- The quality of advice or, more broadly, advisory activities, is becoming a crucial differentiating factor for asset management firms and a critical argument for asset owners

Consequence # 16: revisit the debate surrounding valuation of risky assets

- Low rates “justify” higher valuations but up to what point can you be confident about it
- This is a real issue for the valuation of risky assets: revise the equilibrium valuations, review the cost of capital, review the bubble estimation metrics?
  - Growth potential is revised downward
  - The equilibrium interest rate is revised downward (in the long run, GDP growth = equilibrium interest rate)
  - The risk premium is revised downward
  - As regards the prospects for growth and the long-term equilibrium rate, the cost of capital must be revised downward
- An excessive cut in rates inevitably creates abnormal, excessive valuations
- In valuation models, interest rates are a component of the denominators and, mechanically, the decline in rates reduces the cost of capital and results in higher valuations
- In other words, it is normal to have high valuations in a low-rate environment… without necessarily ending up with bubbles
- But it is all a question of proportion or… disproportion

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Consequence # 17: revisit strategic asset allocations and long-term expected returns is inevitable

- Revisiting the overall asset allocation strategy, rebalancing long-term expected returns and adjusting risk premium is inevitable
- Furthermore, we should revise the concept of diversification: diversification, calculated on the basis of contribution to risk, depends on volatility and on correlations

  The latter are particularly determining when you consider that the instability of correlations is a factor of instability for asset allocation
- The low level of interest rates, which has changed the correlations between assets, adds more risk. In fact, the portfolios that have been optimised using an average profitability-variance criterion are usually poorly diversified

Consequence # 18: revisit benchmark strategies via “smart Beta” approaches

- To raise low returns on specific asset classes, particularly fixed income and credit, revising the composition of the benchmark strategies is a natural course of action
- This approach, very familiar to bond managers, was developed across all asset classes
- There are currently three Smart beta strategies based on exposure to risk: minimum variance, maximum diversification, and risk efficient indices
- All in all, it is fairly easy to show how strategies founded on Smart beta are more efficient than cap- weighted strategies from a risk-return standpoint

Low/Negative rates: consequences for asset management

Consequence # 19: revisit asset allocations via “factor investing” approaches

- Focusing on factors and not just on asset classes is a wise choice, especially considering that central bank QE, among other things, has disrupted the relative performance of asset classes, some of which tend to develop in correlation with each other
- This, along with the fact that this approach cuts across all asset classes, explains the growing popularity of factor investing
- Risk factors are the building blocks that explain asset returns
- A number of factors, particularly on the equity markets (value, momentum, quality, size, dividend), have a proven capacity for adding value that has been acknowledged for years (”styles”)
- Building an allocation no longer based solely on asset classes but above all on factors has been proven to make sense, especially in the current environment
- A factor-based approach is particularly helpful for investors whose assets and/ or liabilities are sensitive to certain macroeconomic shocks

Consequence # 20: one way of getting around the low-interest, tight-spread environment is to give absolute return and allocation strategies a larger role

- Say goodbye to benchmarks and hello to highly flexible investment processes that establish constraints (maximum drawdown, concentration, etc.) that are different from those that prevail with index investing (tracking error, etc.) and also expand the investment universe to take advantage of more opportunities to generate returns

Low/Negative rates: consequences for asset management

- **Consequence # 21: seek out assets with higher yields and lower volatility / higher recovery rates …**
  - When people mention such assets, they immediately think of infrastructure, private debt, private placements, ABS …
  - However, we should not forget one subtlety: some of these assets have low volatility because they undergo infrequent valuation
  - Low volatility is sometimes an illusion … This is what the 2008 financial crisis taught some investors that had too many illiquid assets
- **Consequence # 22: search for assets that are undervalued because they are being shunned**
  - The rate environment, maintained by central bank asset purchasing programmes, causes excessive valuations of some asset classes and subclasses, both to the upside and the downside
  - This in turn leads to fears about asset bubbles and “shunned” assets. For the most part, shunned asset classes are attractively priced, and they are usually significantly underweighted in portfolios
  - Rebuilding long positions on these assets could be beneficial over the medium term
- **Consequence # 23: adding a forex component when building portfolios**
  - This makes much more sense now that currency adjustments have multiplied in this low-interest rate environment
  - There are so many that they have created extreme valuations
  - Without significant changes in interest rates, there is even reason to believe that currencies will be used as an adjustment variable

Low/Negative rates: consequences for asset management

Consequence # 24: focus more on real assets

- This is an attractive option in the current context: capturing liquidity premiums (private equity vs. listed stocks, private debt vs. listed debt with credit ratings, real estate) is a way to add value
- Sacrificing some portfolio liquidity can be profitable
- However, be careful: we are living in a world where «liquid» assets are much less liquid than they used to be
- This clearly demonstrates the interest shown in assets with little liquidity (a liquidity premium that better rewards some relatively illiquid assets than other supposedly liquid assets), but also the danger posed by excess liquidity in the portfolios

Consequence # 25: use the Big Data / SMART Data new environment in order to better understand information and trends

- The capacity of treatment and consistent algorithms allow to consider and analyse rapidly all available data
- Big data approaches can give precise information of future trends on any kind of indicators, and especially on economic, financial and political indicators
- The domain for such an analysis is nearly infinite, and taking account SMART data properly can give accurate and leading information on investment decisions
- Moreover, big data will give the possibility to avoid some assumptions and constraints on proxy (everything is measurable with big data) and correlation, sometimes counter-intuitive and dangerous because largely unstable
- It will facilitate the creation of very precise indicators, with the capacity to precede the usual leading indicator
- In other words, some approaches might become out-of-date due to the adoption of big data approaches

Low/Negative rates: consequences for asset management

- **The implications for the business model of asset management are clear**
- **Portfolio managers / CIO / Asset owners need to:**
  - Re-examine the notion of a risk-free asset
  - Review portfolio construction, in particular the role and the level of government securities
  - Re-examine the notion of portfolio diversification
  - Re-examine the number of funds it is feasible and beneficial to hold
  - Revise – downward – the management fee structure
  - Fine-tune the quality of trade execution
  - Place the focus on advisory services, a differentiating factor

Low/Negative rates: consequences for asset management

- **To add value in portfolios, we suggest a number of solutions below:**
  - Extend portfolio durations
  - Accept more credit risk (more credit, lower ratings, etc.)
  - Add leverage
  - Take advantage of distortions in the yield curves
  - Search for assets that are undervalued because they are being shunned
  - Seek out assets with higher yields and lower volatility (ABS, infrastructure, private debt, etc.)
  - Add a forex component to portfolios
  - Capture liquidity premiums
  - Review the construction of the benchmarks we use (“Smart Beta” approaches)
  - Better assess investment factors (“factor investing” strategies)
  - Take benefit from the big data / smart data new environment
  - Focus more on real assets
  - Allocate more to absolute return strategies
- **Very different solutions depending on whether one look at things from a yield, liquidity constraints or risk outlook point of view**

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Low/Negative rates: impacts on Government issuers

- **For government issuers, there is a paradoxical aspect to the situation**
- **The weak term premium (it was until recently at its lowest level since the 1960s in the United States) simply means that investors are no longer compensated for the interest rate risks they incur**
- **In contrast, issuers, including governments, are rewarded when they go into debt**
- **Instead of paying interest, they receive compensation**
- **In other words, zero or negative interest rates equate to imposing a savings tax and a debt accumulation subsidy, which does not really encourage keeping debt under control**
- **Put simply, governments are funding themselves at very low, even negative, rates and the ECB is purchasing a significant portion of these issues (it is purchasing more than twice the net issues of European governments)**
- **A kind of perpetual motion machine, but not very healthy**
- **The situation is similar to the banks' one: maintaining rates and yields at low level is not a strong incentive for government issuers to become more rigorous**

Low/Negative rates: impact on FX reserves management

- **If we are to believe the comments, the central banks must shoulder a substantial part of the responsibility for the advent of this situation**
- **However, many major factors (lower potential growth, lower productivity gains, globalisation …) have pushed rates down and it would be unfair to place the entire blame at the doors of the central banks**
- **In any event, central banks must also adapt, in particular in terms of managing their reserves**
  - We have known for some time that it is the “return – risk – liquidity” triad that dominates their decisions
  - We also know that, in the decreasing order of importance to which central banks have admitted in various surveys, we should really say “security – liquidity – return”
  - In other words, the comments on the bubbles that may have been created by the QE programmes have somewhat disrupted the management of their priorities
- **Liquidity is impacted by the vast purchasing programmes of central banks... while return is impacted by the very low level or interest rates and bond yields**
- **Low/Negative rates represent, of course one the major stakes for foreign exchange reserves management entities**

Low/Negative rates: impacts on banks

- **European banks are nothing like the banks of 2008 or 2011. Not only have they raised very heavy amounts of equity, but the ECB's anti-crisis mechanism is now well established, with bank supervision, stress tests and so forth**
- **Moreover, for more than one and a half year they have had access to ECB liquidity, something that has reduced specific and systemic risk considerably**
  - Surveillance of banking systems has improved considerably since the financial crisis, along with disclosures in this area. The ECB has undertaken a full and extensive audit; stress tests have been reassuring, and risks well identified
  - European banks are now well-capitalised: they have raised more than €500bn in equity since the crisis
  - Last 10 March, the ECB launched a new TLTRO programme, which provided reassurance on central bank support for euro zone banks;
  - Credit exposure is nothing like it was in 2008: we have moved from a credit bubble to a credit "deficit"

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Low/Negative rates: impacts on banks

- **Falling interest rates were effective at first**
  - Banks were given immediate access to very low financing costs and, more importantly, without relation to their real risk level
  - True, some banks early in the crisis had a hard time securing funding on the interbank market and all banks' share prices collapsed, but in the US and Japan as well as in Europe non-conventional policies at first boosted bank profitability
  - QE programmes sent bond yields down sharply, while deposits are of a far shorter duration than bank portfolio assets
  - Abundant liquidity and persistently low interest rates in some cases allowed banks to put off shoring up their balance sheets

- **In a second stage, lower yields and the flattening of the yield curve led to an outright collapse in the interest margin and profitability receded**
  - In other words, the interest rate gap between (short) liabilities and long (assets) almost vanished

- **Banks nonetheless remain weakened by the fall of interest rates into negative territory and the stubborn relatively high cost of capital**

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Low/Negative rates: impacts on banks

- **Banks' cost of capital did not decline, for several reasons:**
- **The weight of past crises**
  - The return to normal never actually happened, as the 2011-2012 bank crisis left long-lasting traces
- **Fears of future crises**
  - The banking environment is still weak in some countries (Italy with its bad bank and Portugal) and there are persistent fears and rumours surrounding some banks (Deutsche Bank …)
- **Regulatory uncertainty**
  - It is another reason that cost of capital has remained high. What will Basel 4 ultimately look like?
- **The market's failure to make distinctions between different banks and different banking systems**
- **The "abnormally" low level of interest rates and yield curves**, with a direct impact on profitability and, hence credit supply

Low/Negative rates: impact on life insurers / pension funds

- **A low interest rate environment impacts asset management (pension funds, asset managers, insurance companies, etc.) in three main ways:**
- **Impact # 1: The effects on cash flows**
  - As interest rates move lower, securities coming to maturity and regular cash flows are gradually reinvested at lower rates, which detracts from performance
  - For insurers who have sold policies at guaranteed rates, returns start approaching (and may even fall below) the contractual rates negotiated with customers which the insurance companies are then required to pay
  - In other words, as interest rates fall, insurers' margins shrink
  - Obviously, when rates turn negative or sink to very low levels, policies negotiated at higher guaranteed rates are no longer viable
  - The only alternative is to reduce the guaranteed rates on future policies. Note that for non-life insurance companies, lower returns should be seen in relation to insurance activities for which there has been no change in risk. This makes insurers vulnerable
- **Impact # 2: The reinvestment risk**
  - It is the second factor involved in the deteriorating situation facing insurers, pension funds and other fund managers
  - Securities coming to maturity and cash flows are necessarily reinvested at lower rates. Moreover newcomers to a fund cause overall performance (and the earnings of the initial investors) to falter
  - Not only does this have a negative impact on total return but it makes the fund vulnerable to future interest rate hikes: a disproportionate interest rate decline creates asymmetric risks

Low/Negative rates: impact on life insurers / pension funds

Impact # 3: The effects of valuing liabilities represent the third impact

- This is crucial for insurers and pension funds, whose liabilities are a key pillar of their solvency
- Liabilities are all the higher when interest rates are low and meeting solvency margin requirements imposed by regulators becomes a difficult exercise
- By definition, **life insurers** have a longer duration for their liabilities than for their assets. As a result, any further decline in interest rates widens the duration gap and degrades their solvency because the value of their liabilities increases faster than the value of their assets

  The sector's vulnerability is all the more pronounced when the duration gap between assets and liabilities is greater (a large gap increases reinvestment risk) and a substantial portion of policies (on the liabilities side) were negotiated at guaranteed rates

  According to Moody's, in late 2012, the largest duration gap was in Germany: at 11 years (including health insurance), it was twice that of France or the Netherlands

  It was also in Germany that greatest number of policies at guaranteed rates were negotiated (more than 92% of policies, compared to 60% in the Netherlands, 79% in Italy and 84% in France), and at the highest rates (between 3% and 3.5% in Germany, between 2% and 3% in Italy, around 1% in France and at adjustable rates in Spain)
- The same goes for **pension funds**
- For **asset management companies**, lower interest rates and diminishing returns can create problems for assets in the form of sudden massive withdrawals as investors switch to other instruments with less risk and greater returns (search for yield, search for spreads, search for value, etc.). It is not the same problem facing pension funds and insurers but asset management companies must accurately model their liabilities to address this type of contingency in the knowledge that a low interest rate environment may particularly undermine some funds over others

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