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Editor's Note

For active managers, the Dutch professional investor community is one of the hardest to crack. With very mature pension plan and insurance markets, **The Netherlands are, along with the UK and Switzerland, among the top three most cost-effective countries in the world for their pension system.** A number of players are now aiming to bring this institutional approach to investing to the retail market.

Also in the Netherlands investments are shifting from active to passive management. But the **Dutch quant funds are holding up well** as low expected returns could turn the tide in favor of active again. In addition, "passive" does not mean investors are doing nothing as on the strategic level, everybody has to be active and making choices all the time: which benchmark to use, how much of your assets go into which investment or asset class, rebalancing, or using tactical asset allocation. All those are active choices.

Low expected returns could favor active investment strategies

But even in the light of this, the active versus passive debate isn't that straight forward as it may appear. Of course, everyone agrees that a major problem over the last few years has been the underperformance of active managers who charge higher fees. But we also know that going forward **expected returns are quite low** and therefore investors just can`t expect much returns from such traditional portfolios (page 8-9). Despite the lower cost aspect, passive investing probably is not going to get investors very far. In addition, investors may also factor in a possible deflation risk should the Trump rally turn out short lived. Good news for investors is certainly that the active side of the industry is reacting and is creating more low fee products (page 10).

So maybe in this active/passive debate there should still be a place for **active strategies that produce alpha,** particularly when investors invest on a short to mid term basis (page 8-9). A diversified portfolio will benefit from allocations to alternatives like hedge funds and private equity which offer attractive returns with a lack of correlation.

This Opalesque Netherlands Roundtable took place end of 2016 in Amsterdam with:

1. Cornelius Müller, Institutional Sales, Eurex / Deutsche Börse
2. Freddy Forger, Partner, Blu Asset Management
3. Gildas LeTreut, Head of Prime Services, ABN AMRO Clearing
4. Iavor Botev, Quantitative Portfolio Manager, Aegon Asset Management
5. Oliver Gaunt, Investor Relations Manager, Saemor Capital
6. Patrick de Koning, Fund Manager, Hague Fund

The group also discussed:

- From which investment horizon on should investors consider active over passive (page 8)?
- What do Dutch investors want when they invest in funds (page 11)
- The Alpha Challenge: In the past, for every 50 winning funds there were 50 losers. Why does it appear today that for every 10 funds winning there are 90 losing (page 11)?
- How to build exposure to Commodity Trading Advisers (CTAs) (page 11-12)
- The importance of fund capacity and how to model it (page 12, 13)
- How can investors identify when a fund has grown over its optimal size (page 13)?
- Why most robo-advisers are actually not that smart (pages 13-14). How do some robots-advisers deceive investors (page 14-15)? How may robo-advisers add more systemic risk (page 16)?
- What should passive investors do when market go down (page 16 - 18)?
- How can artificial intelligence and machine learning be used for investing (page 18 – 20)?
- Quantitative over qualitative investing (page 20)?
- Exchange innovations: Total return swaps are now completely futurized (page 21)
- Investment opportunities (page 22)
- What is reverse capital introduction and who is offering it (page 23)?
- Fixation on liquidity: An unhealthy obsession of long term investors (page 24-25)

Enjoy!

Matthias Knab
Knab@Opalesque.com

Participant Profiles

(LEFT TO RIGHT)

Gildas Le Treut, Patrick de Koning, Freddy Forger, Iavor Botev, Cornelius Mueller, Oliver Gaunt, Matthias Knab

Introduction

Gildas Le Treut
ABN AMRO Clearing

My name is Gildas Le Treut. I am globally responsible for the Prime client segment at ABN AMRO Clearing, and my teams service institutional investors, banks, asset managers and hedge funds.

ABN AMRO Clearing is a leading clearing firm for the largest market participants in listed products across the globe, and a specialized prime broker for alternative investment funds.

We are known as a leading firm for automated execution and post trading services, including clearing, settlement, custody, and financing. As a prime broker, we are focusing on specific specialized type of hedge funds, very much around statistical arbitrage, arbitrage relative-value, Quants, CTAs and long/short equities that require operational and collateral efficiencies.

Oliver Gaunt
Saemor Capital

My name is Oliver Gaunt. I work at Saemor Capital as part of the investor relations team.

I have been working in the hedge fund industry for the last 15 years. Prior to joining Saemor, I worked at IMC Asset Management in the Netherlands, and previous to that I was at M&G and Merrill Lynch Investment Managers.

At Saemor Capital we manage a quantitative equity market-neutral strategy investing in European equities. We have been managing the strategy since 2008 and have won a number of awards for strong performance over the years. Our cornerstone investor and largest shareholder is Aegon, the insurance company. The link with Aegon is that our CEO, Sven Bouman, was the head of equities at Aegon before having the opportunity to set up Saemor.

Iavor Botev
Aegon Asset Management

My name is Iavor Botev. I work in the Multi Asset Team of Aegon Asset Management and I am based in The Hague, The Netherlands. Aegon Asset Management is an active asset manager, operating predominantly in the US, the UK, Continental Europe and Asia, with over € 300 billion assets under management at the end of the third quarter 2016. Approximately € 90 billion is managed in The Netherlands. In our team, which is based both in the UK and The Netherlands, we manage a variety of active multi-asset mandates and in addition manage separate FX, commodity and real estate products.

Within our team I focus on building and managing quantitative investment strategies in the multi-asset, FX and commodities space.

Freddy Forger
Blu Asset Management

My name is Freddy Forger, I am one of the Managing Partners of Blu Asset Management. We are a Dutch company but we actually started in London in 2011. We still have an office over there, and we have two offices in the Netherlands, one in Amsterdam and one in Soest.

We are a small company and manage around EUR 100 million at the moment, but we are growing very rapidly. We are serving Dutch family offices and high net worth individuals focusing on strategic asset allocation. We are not involved in tactical asset allocation or stock picking.

I started in 1997 on the Dutch stock exchange as a specialist, and I have been working on the active side of investing for many years at different companies. I know from my own experience how difficult it is for a manager to consistently beat the benchmark. After a post doc study at the VU in Amsterdam I steadily became more convinced that focusing on the strategic asset allocation is the most important part of long term investing and at the same time this approach is still underserved to the retail market for all kind of reasons. Blu has a mission to bring the investment approach to the retail market.

Patrick de Koning
Hague Fund

My name is Patrick de Koning. I am one of the founders and owners of Hague Fund. Hague Fund is an actively managed investment fund which develops and uses quantitative investment models.

Around six years ago the idea of developing our own investment strategy started. Now, we have been trading for around four years. Our strategies aim to benefit from increasing and decreasing market prices. They have the property of having an as big as possible asymmetric difference between the losses and the profits. So, our losses are really small, like a quarter of percent per trade, and our profits can be around 8% plus. We focus on worldwide volatile markets and only invest in very liquid products, mainly futures. Hague Fund's systems trade automatically on a daily basis. We are never fully invested, sometimes not at all. The average holding period is around a day and a half.

Hague Fund is, for now, only available to a selected group of investors.

Cornelius Mueller
Eurex

My name is Cornelius Mueller. Based in Paris, I work for Eurex Exchange which is part of the Deutsche Börse Group. We see our exchange as a one stop shop, offering both trading and clearing in futures and options for interest rates, equity index, single equities, futures and options, but also some more newer asset classes, like dividends and our volatility product suite. 62% of all equity index products in Europe were traded on Eurex in 2016 and 37% of all single name products on European names.

I mainly focus on single name futures and options where we can offer our clients lowest fees and a maximum of efficiency when it comes to margin netting across our product range.

Matthias Knab One of the ongoing trends in our industry, which is also discussed globally, is the trend from active to passive management. What is your view on this?

Freddy Forger: Well, I think that actually just the word passive can be a bit disturbing or off the mark in the sense that people may think that if you are a passive asset manager, you are doing nothing, but I think **on the strategic level, everybody has to be active.** You have to make choices all the time, which benchmark to use, how much of your assets go into which investment or asset class, rebalancing, or using tactical asset allocation. All those are active choices.

And even underneath that you need to make further decisions. For example, if you want exposure to US stocks, will you be buying a Vanguard ETF or looking for an active manager trying to beat the benchmark and accept a tracking error?

In our case, we are just using passive instruments, because first of all, investing overall is a zero-sum game. Somebody is successful in beating the benchmark and somebody on the other side of the trade is unsuccessful, and the group as a whole makes more costs because of the trading cost they make. So they actually get less return than a passive manager on a specific universe.

For us, it's very hard to choose the right active manager. Sure, he has a track record, but that's from the past. Looking forward, can he still beat his benchmark? And I think cost is the biggest component if a manager is able to beat a benchmark. So the debate active-passive should be narrowed on a specific universe. And when it comes to the multi-asset universe and allocations, I think we are all active, because you have to make choices there.

Matthias Knab You talked about making choices, does this include in your case the question if you go into a passive product or into an actively managed product? How often would you go into actively managed products and are there some rules to that?

Freddy Forger: We never go into active products. Now, remember that I am from the active industry. I have been trading my whole life, you could also call it speculating, and tried to beat competitors in a specific arena. That could be in a single stock, when I was a specialist, it can be on an index. But it's very hard to do, especially these days as markets become more efficient due to information being available everywhere and computers trading away alpha in nanoseconds.

One of the most successful active strategies nowadays is that of market making. Even in passive products there is room for liquidity providers making money from 'passive' investors. Because even 'passive' investors are active, because when they buy an ETF for the long term the moment they buy they are active.

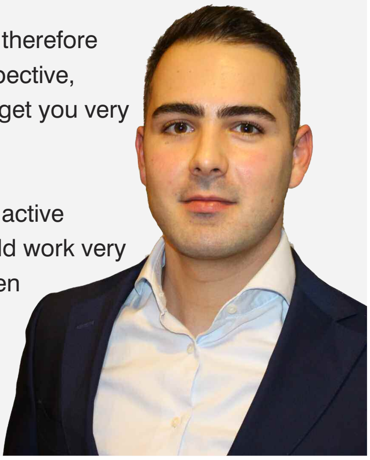
So when we want to buy an ETF and if there's nobody to sell the ETF to us, the market maker is going to sell it to us, maybe for a little bit higher price than fair value. He tries to get it back lower from somebody else selling at another time lower than fair value and this spread is the profit for the liquidity provider.

We see it as a real challenge to find good funds who can <u>consistently</u> beat the market, also going forward in the future. **We have seen a lot of examples of companies doing a great job**

for 10, 20 years and then the next 10 years are terrible. So we don't want to take that chance. We accept the returns of passive, we want the premium on equities, on bonds, but we are not looking for extra alpha.

Iavor Botev: The active versus passive debate isn't that straight forward as it may appear. Let me just mention two angles, the first one is costs and then returns.

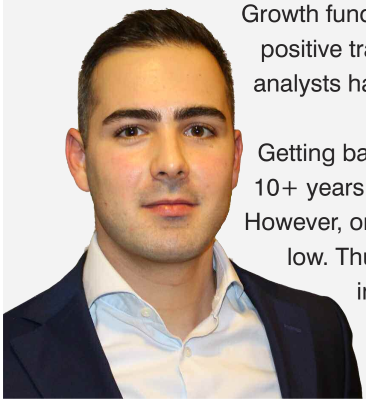
Let's start with clarifying what we mean by passive investing. For the sake of this discussion, by passive I mean investing in a predetermined universe of securities in a predetermined way which does not change for long periods of time. For example, that would be investing in 40:60 proportion in equities and fixed income and then just rebalancing every year. So in terms of costs, it is true that nowadays you can invest quite cheaply in such a way as a retail investor via, for instance, robo-advisors.



But the problem with this approach is that the expected returns going forward are quite low and therefore investors just can`t expect much returns from such traditional portfolios. So from a holistic perspective, taking into account both costs and expected returns, passive investing probably is not going to get you very far.

Speaking about costs, I think a big problem in the last years has been the underperformance of active managers who charge higher fees. For example, hedge funds with 2 and 20 fees structure should work very hard to justify their higher costs in an environment where the general costs of investing have been going down. I think this is a big challenge for the active management industry – justifying high costs.

Matthias Knab How have your funds been doing on the active side?



Iavor Botev: Most of our funds have had a very good year (2016) so far. The Diversified Income and Diversified Growth funds have managed to deliver positive returns so far this year. Our active Commodity fund has positive track records for the last 1, 3 and 5 years in an environment where most commodity investors and analysts have struggled with the market.

Getting back to active versus passive investing, I think investors with long investment horizons of over 10+ years such as pension funds should be able to harvest traditional risk premia by investing passively. However, on a short to mid-term basis expected returns across the board in all major asset classes are very low. Thus, if you want to invest for shorter time frame, you should be really careful putting your money into passive investments and should be ready for significant drawdowns.

Freddy Forger: One aspect to consider when talking about the returns is the volatility, for example on a Sharpe Ratio basis. You can reach higher returns, but you have to take them into perspective of how much volatility you want.

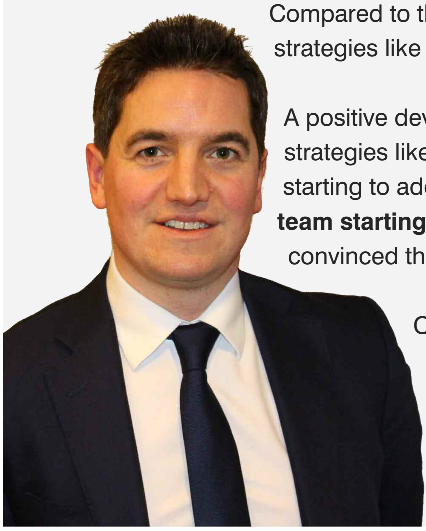
So if our clients want a higher return, the strategic asset allocation will be tilted more towards equities, because in the long run you are getting a premium from the equities. It's not the case that you have one single strategic asset allocation for every client. It depends on the risk they want, and if they are accepting more volatility in their portfolio, they can get more into equities, and then the returns can be higher than when you are going into a government bond portfolio at the moment.

So while we are in a current situation where we totally agree that expected returns will be quite lower than the last couple of years, but that's not the reason to just jump into something with more risk.

Matthias Knab That is a good point, but for some people the expected returns of different asset classes may not look attractive from a risk-return perspective, and they may look at alternative investments.

Oliver Gaunt: At Saemor, we are an active manager with an equity market neutral long/short approach, which has generated attractive consistent annual returns irrespective of financial market conditions. Our approach uses a dynamic multifactor model for stock selection and portfolio construction. The strategy is highly diversified, typically holding up to 250 positions and run with low (beta-adjusted) net exposure to be market neutral over time.

We have performed well versus our peer group, with low correlation to peers and the markets. We have also protected capital in negative equity months.

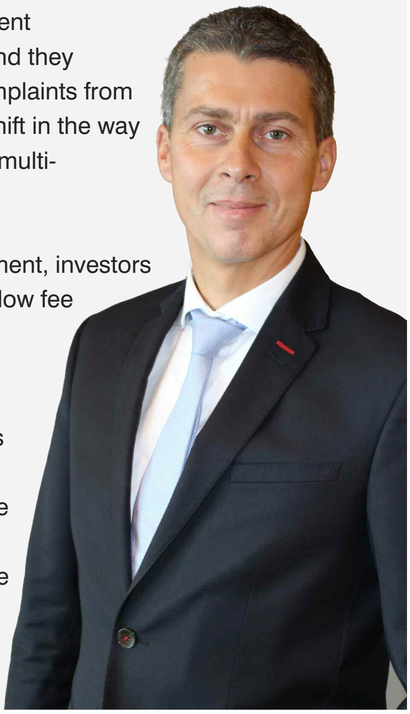


Compared to the last couple of years, 2016 has been a tough market for hedge funds and quantitative strategies like ours, however we have seen the style environment improving in the last few months.

A positive development is that we have seen an increased interest from investors for quantitative strategies like ours. It's interesting that some of the most established discretionary managers are now starting to add quantitative approaches. This is similar to our development, with **half of our investment team starting as fundamental equity managers, who have become extremely systematic over time,** convinced that quant investing yields the best results.

On the active/passive debate, it's not 'yes' or 'no' answer. We think that an active strategy should produce alpha. I also think that a diversified portfolio should also have an allocation to alternatives like hedge funds and private equity, who offer attractive returns whilst being uncorrelated.

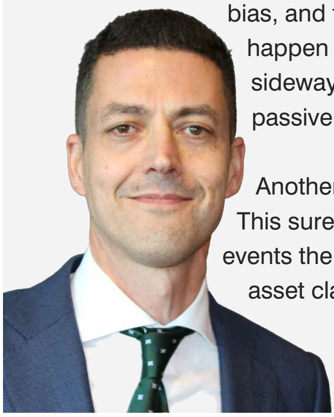
Gildas Le Treut: We talked about the link between performance and fees. Obviously, in current environment of low performance, investors look at the poor "performance over fees" ratio, and they consider that continuing paying high fees is not sustainable. The financial press is full of complaints from investors on fees and managers are now also creating **low fee products.** We have seen a shift in the way investors look at alternative investments. They do not want to pay up to 600 basis points on multi-managers allocations for a globally low-performing strategy.



The second thing we have seen is a shift between beta and alpha strategies. In this environment, investors don't want to pay alpha related fees for beta strategies. We see an increase in the launch of low fee beta strategies and at the same time concentration of investment in truly performing alpha strategies.

Obviously, you can't really negotiate fees with consistently well performing managers. This is where I agree with Oliver on active strategies. Investors are interested in highly liquid and tradable strategies and with a certain degree of complexity and skepticism; you must be able to get out of positions very quickly and benefit from very volatile markets. We have recently seen that those CTAs that are not very active in trading, like "on-close" or "on opening", have experienced larger drawdowns than more efficient trading driven strategies.

Patrick de Koning: One undervalued point in this active-passive discussion is the sample size of markets which show "infinite growth". What I mean by that is that for example since 1900 until now most of the world has seen almost infinite growth, a long bias, and that was clearly the backwind of passively managed strategies to perform well. But what will happen if we enter a **deflationary world** like Japan has been having for decades, where markets go sideways or move up and down in corridors? I think in such a world it will be increasingly difficult for passively managed funds to perform without the long bias.



Another point is the diversification. Nowadays, the world has increasingly become very interconnected. This surely increases the chances of having tail-risk events. Data shows that during the negative tail-risk events the so called free lunch of diversification doesn't work. When one needs diversification the most, all asset classes tend to have a correlation of almost one.

Freddy Forger: I agree with you that there will always be a room for quantitative funds. Our strategic approach is also quantitative. I think investors are looking for rule-based policies, so it's not about any gut feeling of a manager, but rule-based policies in investing.

So again, I have been in the active market all my life, except for the last couple of years. I did a postdoc here at the Vrije University of Amsterdam, so I like to do deep analysis and looking at data. *Now, when I look into data, the data doesn't show me that the active managers are actually beating the markets.*

Saemor is one of the great companies on quantitative side and along with Transtrend one of the more professional funds in Netherlands. But when you look at your fund's volatility and the return, it's like a neutral passive profile with 8% volatility and 8% annual return. So you could also say it almost looks like 50% bond, 50% stock.

When I want to invest in funds, they have to give me either more return or diversification advantages, especially when equity markets are going through rough time, like the end of last year and the first two months of 2016. When you look at that period, not a lot of active funds made returns, actually a lot of those funds lost money in those months and the correlation with equities was quite high.

So when I am in Japan scenario, like Patrick says, and I am losing money on my equities or maybe on my bond position, I want something else performing for me at that moment. But that is where hedge funds at the moment are disappointing investors, they are not making money when they are supposed to make money.

When you look at something like Brexit, hedge funds should have made money, and a lot of funds didn't make any money. Even worse, a number of funds actually lost more money than we did as a passive investors. That's not because we are brilliant, absolutely not, because we don't do anything except for rule-based investing, but the hedge funds charge fees, like Gildas said, on top of everything, so if they don't perform, the problem acerbates.

Another well documented phenomenon is the **crowding of investors and assets** into a couple of large funds who admittedly have a lot of research power to produce the alpha. So when somebody is producing alpha, on the other side somebody is losing. The problem here is that today it seems for every 10 funds winning there are 90 losing instead of maybe 10 years ago where for 50 winners you had 50 losers.

We saw the same on the equity markets. When I was a specialist, in those days you also had the retail day traders, people at home making actually money from trading. But then the computers came and the sophisticated quant traders came, and all the day traders were losing money, because their alpha was disappearing, it was melting away.

Equities will make you money on the long run, but generally you will then also have to invest on the long run and you have to accept volatility. If you don't accept that, you have to add other asset classes to make the road to harvesting the equity premium a little less bumpy.

I mean, CTAs are example of a group which are performing very well when you actually need it. I think when there is a next crash like 2008 with one big 50% downward trend, CTAs will outperform. So if I as an investor want less drawdown, I am going to put in more CTAs. But now I also have a couple of problems; *which CTA to buy, how many CTAs should I have to get good diversification, and where can I buy them for cheap money?* These are challenges for an investor and we think that adding for example government bonds at the beginning lowers the volatility as well as maybe a CTA and gold gives diversification when you need it the most, so adding those categories in the Strategic Asset Allocation may do the job without having to find the best active funds in the world.

Matthias Knab Right Freddy, these are some of the challenges every investor has now globally, no? On the other side, I do these Roundtables globally since 2008 with a lot of seasoned investors and managers I different locations. And often they point us to the right opportunities as well.

For example, we have had Roundtables where LatAm managers were pointing to opportunities in Latin America which at that time most people didn't look at because it was out of favor. And next thing you see is that Latin American funds are up over 30% year-to-date as the best performing hedge fund strategy. So you have to be countercyclical, which is the perennial challenge in investing.

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Gildas Le Treut

Just to add to Freddy's point on CTA. No need to expect a new "2008" to have CTAs as part of your asset allocation. If you look at past volatility spikes and precisely after the Brexit vote and Trump's election, most CTAs, and globally hedge funds, have performed extremely well.

Matthias Knab

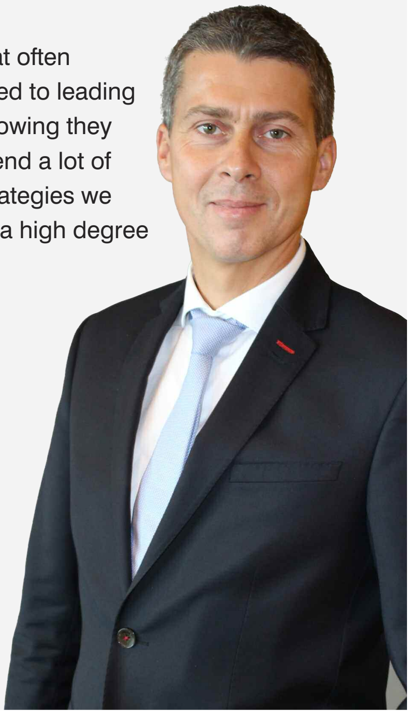
Regarding the question of selecting a CTA, I know a number of good CTA funds of funds who certainly do a good job and address that issue of timing and selection.

On the issue of funds just growing over their optimum capacity, we all know that there are asset gatherers and then you also have performance hunters who will put a size limit on their fund. What is your view on that?

Oliver Gaunt: **Capacity** is important and managers should be aware of their capacity. Institutional and most other investors want to know what we think our capacity is and at what point it could start to affect performance. As a quant manager, we are able to model capacity.

We are currently managing approximately half a billion dollars. We trade actively and use leverage. Having modeled our capacity, we believe it is up to four times our current asset level. We are a highly liquid strategy, our universe is around 1000 stocks, investing in the most liquid cash equities in Europe, which makes our strategy very scalable. Being transparent is also important, we are able to show where we are invested and talk about why we have positions in individual stocks. We choose factors that have a behavioural or economic rationale to them and rank all our stocks based upon the combination of these factors.

Gildas Le Treut: You are right, estimating your capacity is key and estimating the impact of growth in AUM on performance is also paramount.



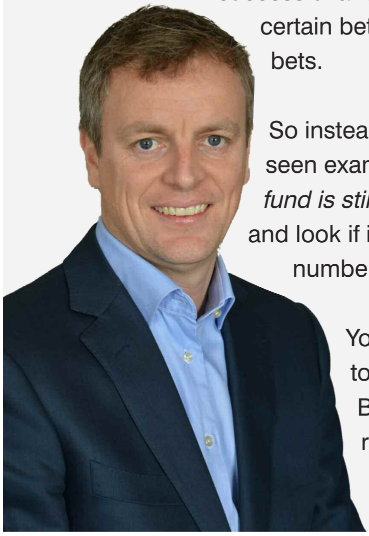
We service and talk to numerous **small funds and emerging managers** with limited size that often outperform larger and well established hedge funds. They are even often negatively correlated to leading peers. These funds are a great source of performance and diversification. However, while growing they start facing market slippage and performance tends to reduce. These managers need to spend a lot of attention on potential slippage and on the liquidity of the portfolio. Indeed, as most of the strategies we cover are very much relying on active trading and use a sizable leverage, these also require a high degree of market liquidity.

Some strategies require large capacity to be sustainable. It starts with large asset under management and high leverage to be able to capture small spreads but a couple of million times. Market making, statistical arbitrage and relative value arbitrage strategies need this capacity, leverage and liquidity, and so far have been performing pretty well.

As mentioned previously, we have seen a lot of interest from investors in such strategies seeking alpha. These strategies require a high degree of expertise in trading, a huge level of investment in systems and highly skilled professionals and, as said, they require sizable leverage. Ticket to invest in these funds are often very large, and you can't find this in a UCITS format.

Matthias Knab It's one thing to model the capacity, but from what I hear from investors, they are also concerned about the whole investment style or philosophy can change when a fund morphs from say 100 million to 2 billion. A lot of things change, you have more people, different people making important decisions, and certainly more procedures. So I wonder, how can investors determine if the set up and nature of a manager is still that of an alpha hunter, even when it may grow x-fold in size?

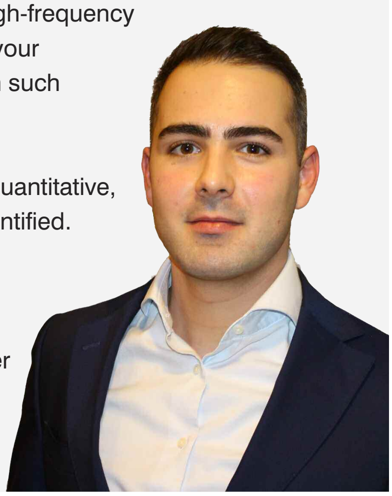
Freddy Forger: Well, it depends on the strategy. But let me share one thing we have seen in the past when a manager is successful and grows is asset base in say a value or maybe some market neutral strategy, they will have certain bets on they believe in, and what we sometimes see is that they start **doubling down** on the same bets.



So instead of taking a two percent long and short position, it becomes 5% long and short. And we have seen examples of 20% or 30% long and short. That is something we as an investor look at, *if in fact the fund is still diversified in the strategy as well.* So if you have transparency, you can look into the strategy and look if it's still scalable. However I don't know how you do it, Oliver, but I think it's hard to define such a number or limit on a strategy.

Your strategy is European market neutral, but you could probably also expand that from Europe to the United States and possibly Asia. You could then maybe grow a lot bigger with that strategy. But the proof is in eating the pudding, so we as an investor have to see through with quant and risk reports and do good due diligence if there's no style drift or leveraging on a winning bet.

Iavor Botev: We shouldn't forget that the time horizon in which you expect to open and close trades also affects capacity and market impact, how much trading cost you generate. So if you are doing market making or high-frequency trading, then clearly capacity, market impact and trading costs are very, very important, but if your investment time frame is days or weeks, and you don`t make too many or too big trades, then such considerations are still very important, but decreasingly so.



In terms of scaling a fund up, I think it's very advantageous to have a transparent, preferably quantitative, strategy. Such a strategy can be modeled and its market impact and trading costs can be quantified.

I think CTAs in that respect can gain by increasing their size of their funds as that can bring diversification benefits when they trade in say 100+ different futures. When done right, a small CTA which is growing in terms of AUM could see positive effect on its returns because of better diversification rather than negative effect because of market impact.

Matthias Knab We mentioned and discussed asset allocation, rules-based investing, and this goes along with some of the big global buzzwords now which are FinTech and Robo Advisory. Any comments and observations from your side regarding these developments?

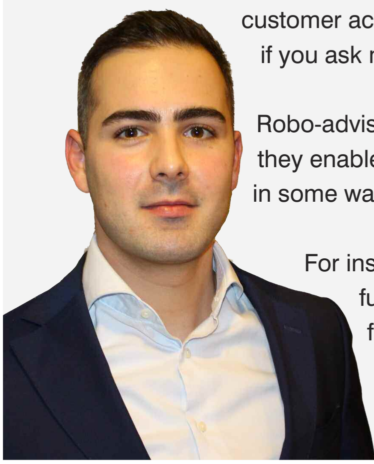
Iavor Botev It is often that there is quite a lot of confusion with such new buzz words. For example, robo-advice sometimes is associated with "smart" machine learning algorithms. However, I think most robo-advisors are actually not using "smart" algorithms in their investment strategies; robo-advisors for the most part invest passively in long-only ETFs.

Matthias Knab So that's not smart?

Iavor Botev: Well, the problem is the name robo-advisor implies something different than what one might expect. for me smart and sophisticated strategies should incorporate, for example, probability theory and machine learning algorithms which would make it possible to have very structured and rigorous investment decision making. in that sense *robo-advisors' strategies are certainly less sophisticated than most systematic or CTA type of funds.*

Another aspect is that robo-advisors are not actually funds, and they are offered to retail clients who generally don't have the ability to distinguish between different alternative strategies. There are more sophisticated alternative strategies and also less sophisticated, but i think the robo-advisors in their advertising are not making this distinction clear.

The business model of robo-advisors is another problem as they require large AUM to make profits. however, customer acquisition costs are also very high, so the overall business outlook for robo-advisors is not great, if you ask me.



Robo-advisors are good in the sense that they are definitely lowering costs a lot for the whole industry and they enable retail investors to save more money for specific goals. So certainly, the end client will benefit in some ways, but there are also downsides to this innovation which we have to address as well.

For instance, as a retail client, i would be reluctant to currently put my money in passive long-only funds,because of the heightened risk of market crashes in the next couple of years, as such funds by design do not react in times of market turbulance. This will also be newmarket environment for robo-advisors as they have become mainstream only in the last few years.

Freddy Forger: I think robo-advice is a great marketing phrase. So it's a rule-based asset manager, and a quantitative approach to investing. I do think that for retail clients robo-advisors represent a significant improvement

We are actually welcoming robo-advisors, even if they are also a competitor for us, but in our view it is our job to show that for maybe a little bit more fees or maybe the same fees, we are offering something on top of what the robo-advisors have.

There is a particular downside we see with robo-advisors in that sometimes they are **cutting the corners** by risk profiling their clients. Many are offering goal-based investing, and what we see there is that they use very high expected returns. Of course it is nice to give a client the option to achieve 7% and I guess many will go ahead and select such a return, while at the same time we and most other serious investors know that expected returns will probably be much lower than that. So he will still be disappointed.

Matthias Knab Or you could even say he will be deceived.

Freddy Forger You could say that. So in such a case, the final investments will be rule-based, but it will still be a disappointment, because the robo-advisors presented unrealistic assumptions to them.

Matthias Knab Freddy, you said that for maybe the same or maybe a little bit more fees you would offer something on top of what the robo-advisors do. Where exactly do you see your edge against the robo-advisors? What can you offer on top?

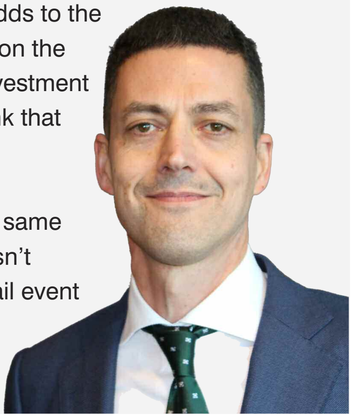
Freddy Forger: We all know that for any quant model the "garbage in, garbage out" rule applies. So, you can build a great robo-adviser but if you calculate with wrong correlations or with wrong or impossible expected returns, your outcome will disappoint in the end. But I do agree that over all robo-advisors can make the market more efficient, in the same way as technology changed the game for the specialists back then.

So instead of having 20 portfolio manager folks working on a strategic asset allocation, you have a couple of bright guys writing algorithms and crunching data.

But once more, I have to come back to the point that the people, so the end clients, need to put in realistic expected returns. What can we expect from the markets? Just look at the bond side, we believe what you see is what you get, and what I mean here is that we are looking at very low returns on the bond side, like 1% annually. This is what we expect for our clients: 1% annually on bonds for next 10 years. *We don't say, "Well, if we are lucky it can be three."* No, it's 1%. Therefore, 1% for bonds plus 5% for equities will give you in a 50/50 portfolio 3% annually before fees. So after fees maybe 2,5% or 2%

But we see a lot of robo-advisors who still calculate with much higher returns, like 4% or 5% after fees in a 50/50 portfolio. If people set aside money to reach a certain goal, 2% a year difference will get you to big differences at the end of the investment horizon. And they maybe get disappointed at the end. But instead these systems should say, "This is the rate, so your targets will be lower, so you have to put money aside to reach your targets."

But again, I do think that the good robo-advisors will be good for the market. They will help lowering fees, also our fees. I think it's ridiculous to charge 2% for strategic asset allocation. It's the same in retail. If I buy a television and I can buy it online for $500 and $520 in a shop but they will come in and put it on the wall, et cetera, maybe I'd say, "I'll go with the shop." But when the television is a $1,000, I would say, "no, I will go to the internet," because I don't see the added value with paying $500 more than via the internet. I think that robo-advisors will do the same in our industry. We have to show our added value or lower our fees.



Patrick de Koning: Investing has a lot to do with psychology, emotions. So what robo advisory adds to the whole process is that it actually excludes the biases people tend to have and fall into, particularly on the business side of retail, the human investment advisors. So I agree that robo advisors make the investment process more quantitative and therefore more efficient from a business perspective, but I also think that they add more **systematic risk** because more people are doing exactly the same.

When the markets crash, then more people are most likely wanting to leave the room through the same door at the same time, because their model says that. If something unexpected happens, which isn't provided previously or can't be managed, like Freddy said, garbage in/garbage out, you have a tail event and then with that tail event you will increase the systematic risk.

Matthias Knab So Patrick says the robo-advisors can also create a new form of crowding.

Patrick de Koning Yes.

Freddy Forger: At the same time, there is a similar old debate about passive, that it's dangerous if everyone is going into a passive mandate. But look, clients didn't do anything at the Brexit, because they know that within their mandate, for example 80% equities and 20% bonds, they will run the risk of losing 30%. When it's happening it's not nice, but they know it can and will happen at some point. So when something like a Brexit happens, they are not running through the doors, but they think, "Okay, here we go, let's see when it bounces back."

So, if you're on your risk side – and that maybe a danger of a robo-advisor, if you have a sort of 90% VAR or 95%, or 99% – a lot of the reaction will depend on how strict your risk management is. This will be a major factor then. You have to be very humble upfront and saying, "Well, this can happen." In 2008, two standard deviations moves happened all the time. So you have to inform your clients and tell them that any time things like 2008 can happen again. 2008 was certainly a defining moment for our industry, and we cannot ignore it.

But the funny thing is that **passive investors don't or shouldn't do anything when markets go down temporarily.** I am sure the quant people here are observing this as well. *We observe a lot of full activity and abnormal market moves for maybe one to three minutes, but at the end of the day, the volatility slides away again.*

When I was trading in 1998, volatility could stay on for days. But nowadays, the market patterns are completely different. You can see it with people using passive ETFs for the wrong reasons, like a liquid future. An ETF can be the same as an index future, a quick way to get into an asset class. You could say that futures are very good for trading and ETF or the funds are good for holding. But if you use it as a liquid product and you are panicking in the opening of a market, as that happens every couple of months, you get killed. It was the same 20 years ago. You panic in the opening and get a cup of coffee, and when you're back you saw your positions got taken out. *But immediately, within two minutes, everything is back to normal.*

People look at a Flash Crash and go, “Oh, I should have bought here, that would have been a great price!” *But now, they couldn’t do it, because that price wasn’t there for even 20 minutes, it was there for 30 seconds.*

So, yes there will be more volatility going forward, but the passive guys shouldn’t do anything, they won’t sell. For all the active people selling, instantly the quants and algos come in and say, “Whoa, this is undervalued”, and very fast the stock is back to normal again.

From that perspective, I think the volatility will be less and less going forward, but with certain spikes. There could be a stock opening €6 lower and everybody is like, *“What?”*, and then three minutes later, it’s square.

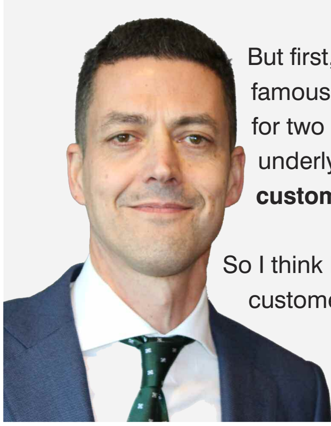
Patrick de Koning

Perhaps the dynamics you just described are a by-product of the Central Bank policies. It created this illusion of extending the long bias which perhaps dampen the volatility, but when that policy ends, maybe we’ll get back to a normal market.

Freddy Forger: Yes, but also we have to ask ourselves what is a normal market? In 1987 was a crash, and I also traded the Asian crisis, the Brazilian crisis, the Internet bubble, the housing bubble. Such things are part of the market and when you are in equities, you will get such volatile routs ahead. *If you don’t believe that you make money in equities on the long run, you should do something else with your money or put it under a pillow.* But I think investing in equities over the long term will make you money.

How much money depends on risk-free rate, inflation, GDP growth, et cetera. But I think we all agree that investing will make your money, and I think that’s the big difference. We don’t believe in tactical or active asset allocation. Some people do believe in active asset allocation, and I think it’s not that one is better than the other, it’s maybe a flavor the investor feels comfortable with.

Patrick de Koning: The key here is not to only know oneself, or your company, but also know your customer, and the customer also has to know himself/herself.



But first, I do not agree with you that buy and hold investors would not be selling at the bottom. There is a famous study about a very large and successful fund in the US which on average made like 28% annually for two decades or so, but when you do a study and check how much of that was captured by the underlying investors of that fund, it turned out that the customers lost on average 10%. That only means **customers do sell at the bottom and buy at the top.**

So I think key here is to inform your customer and get them on board with your strategy. You are lucky if the customer knows him- or herself and thus stick with you over the longer term.

Freddy Forger: I agree that this will be the main challenge, and that's actually where some software providers in the US are doing a great job when it comes to the mental aspect of investing.

Look, there are high net worth individuals who have so much money, they should be able to handle any pressure coming in. But on the mental side, when they lose 10%, they freak out. This is where robo-advisors have a hard job to identify this kind of psychological behavior and where **behavioral finance** comes into play. How can we give a customer a portfolio which he doesn't want to sell and where there is no need to sell it? This is a big challenge also for us on the strategic side when we build portfolios. And maybe exactly here we can add a bit of value versus a robot advisor.

You can show the client data and talk with him about what happened in the markets before. "When a crash happens, your money will look like this? What do you think?" Well, he obviously says, "I don't like it." "But do you need to sell?" "No." "Okay, then maybe this is the right strategic asset allocation for you."

And it sounds very simple, but I think we have to go back to simple. The problem with our industry in the internet age is that we've got so much data and information overwhelming people. It is a challenge to educate people about the basics if they open the paper or check their phone everyday and they see all those different opinions about, "Oh, Trump is coming, you have to sell." Of course, he's getting afraid.

We have a different approach and are advocating a strategic asset allocation with a say 20 year outlook. We tell people to come back in 20 years, look at the money and enjoy. We also believe that pensions should invest that way as long-term investors, but we see them running so many active Global Tactical Asset Allocation funds trying on a daily basis to make extra money, but we think that at the end of the day investing is about diversifying and spreading your risks, lowering your fees, and then in the long run, pick up the returns.

Oliver Gaunt: This is an important discussion and investors all over the world are constantly trying to find the best ways to invest and make money. But I also believe that there are **several ways to invest,** there is not just one "right" style.

What differentiates us, is that we manage a quant strategy with a discretionary overlay. Every quant strategy is based on some human input, and ours is no different. However, where we believe we distinguish ourselves from our peers with the team's fundamental background, as they have a deep understanding of stock markets and equity investing. Risk management is an integral part of our investment process. Our investment team apply holding restrictions for stocks that are exposed to M&A, litigation risk, political risk or other conditions that may be overlooked by a quant model. The optimizer constructs a portfolio that maximizes alpha subject to several constraints, including these overlays. The investment team review the orders before sending them to market using algos. So having a **human input** is very important, sticking to a rules-based approach with the ability to cut risk.

We've mentioned it before, however the ability to have an uncorrelated approach is at the crux of the active/passive debate.

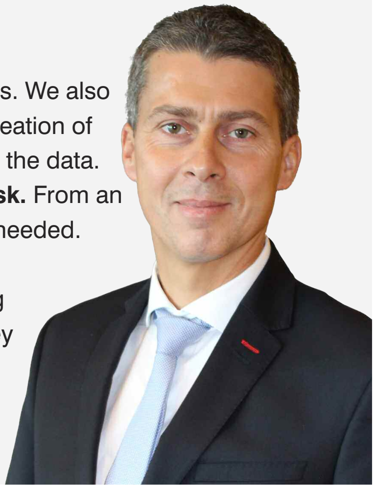
As a quant manager, we like data, and are better placed to use new interesting 'big data' sources more so than others.

We have heard stories of some managers looking at data, like satellite pictures from shopping centers showing footfall. This may give a manager a potential edge, however it may also just be an interesting marketing tool and a way of differentiating from peers. To date, I do not think there have been any successful long term strategies based on data from social media, like Twitter. However this may change over time. Some of the larger well known CTA's have been investing in alternative markets and indices, diversifying over the years. These types of development and diversification could also be interesting to a quant approach like ours.

Matthias Knab What has been your experience when you were looking at machine learning?

Oliver Gaunt Two of the investment team are doing research on machine learning. We are looking at whether it could help improve our factor timing. Potentially, it could make our strategy a little bit smarter in terms of how we look at timing. So that's just one element of our current research agenda. Another area where we may consider applying machine learning, is the analysis of unstructured data, using it as a signal in the investment process.

Gildas Le Treut: As a prime broker, we look at AI from a model standpoint. This means how the model works, how it reacts to stress and market turmoil and how this fits with our risk parameters. However there is always a man (or a woman) behind the machine, and we need to understand him (her) as well.



Obviously, AI is not new, but it has come as a buzz or a marketing tool for some quant managers. We also hear a lot about machine learning, but still, at least so far, there are always people behind the creation of strategies, and there is still a need for human intervention somehow to work on the model or on the data. When it comes to *machine learning from another machine*, I think such things could be a **tail-risk.** From an investment standpoint and robo advisors, I think that there is always also a bit of a psychology needed.

With respect to psychology in investing versus robotisation, just a funny parallel: In horse racing women win more than men. It's not because they know more about horse racing, it appears they bet on the names, physiology or energy of the horse, and other soft factors that prove to be as relevant as race statistics.

Matthias Knab Does anybody have an idea about the market share of robo advisors in Holland, and what would it be compared to the rest of the world?

Freddy Forger: It's certainly a nascent industry but it's growing. If you look at what's called the **fourth industrial revolution,** a lot more aspects of economic activity will end up being digitalized and online. This will also happen irrevocably in our industry.

Now, the frightening thing is that there are many e-commerce or internet giants, who already have the most unbelievable market penetration and client access. *If someone like Facebook, Amazon or Apple decide to start an asset management and say to young people, "You can now start investing at our place," they can potentially become a huge force in our space.* But sooner or later our whole industry will have to go there and become even more digital, everything will be online.

Matthias Knab Where else do you see innovation, improvements or new products in our industry?

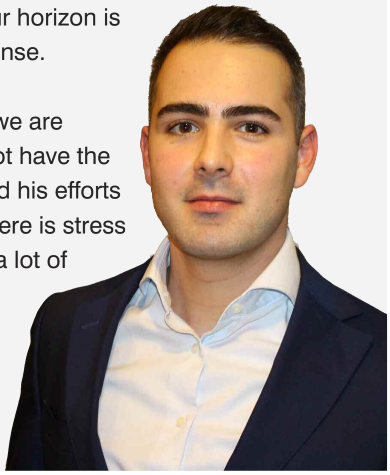
Iavor Botev: Let me come back for a moment to machine learning and artificial intelligence. For the most part, these are not new approaches and generally have been around since more than 30 years. But what happened recently is computational power has increased and at the same time has become much cheaper which has allowed for algorithm-intensive approaches like deep learning to thrive.

Another big game-changer is the **democratization of machine-learning algorithms,** which now are being released to the public by the big-tech companies. For instance, Google has released their TensorFlow deep learning library around one year ago and now everybody can freely download it and use it. What this means is that now it has become very easy for a student in his dorm room to download really state of the art algorithms and some reasonable market data from the internet, and create some quite sophisticated trading strategies by him/herself.

So in a sense, machine learning and AI are not really new concepts, but they have been enabled by technological factors so that they can be used more easily. If you look at all the automation that is going on in our everyday lives with self-driving cars, smart homes, robotics, et cetera, I believe that the investment industry will sooner or later follow this trend and become more and more quantitatively driven as well.

My personal impression at the moment is a lot of investments are still very much qualitatively driven. *Many investment decisions are being made in a nonscientific way.* Or on the other hand you have automated services such as robo-advice which sounds as if they are somehow highly intelligent. They are automated, yes, but in my view they are not smart as in artificially intelligent.

Coming back to the active-passive discussion as well, I think for a long-term investor such as a pension fund passive investing does make sense because indeed, as Freddy mentioned, over the long term they will be receiving the market risk premia. That is what you will be receiving when you truly invest for the long term. So if your horizon is really 20, 30 years and maybe even goes on in perpetuity, then passive will probably make sense.



But the key point is, a lot will depend on who the client is. Who is the person on which behalf we are investing and who ultimately controls the money? I believe that the typical retail investor will not have the mental strength to refrain from selling when the markets crash 20% or more. Freddy mentioned his efforts when on-boarding a client to communicate with those clients very closely, particularly when there is stress in the markets, so that they don't get scared or worried, and do a rushed decision. But I think a lot of retail investors would definitely not act rationally.

In general, I think the potential of statistical methods and machine learning is not appreciated by the industry and there ought to be more companies taking advantage of these techniques.

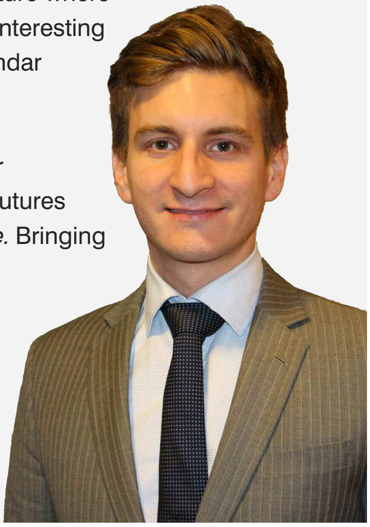
Oliver Gaunt: Commenting briefly on the question of new products, we have seen a lot of demand from European investors for **UCITS funds.** Our strategy fits perfectly into a UCITS structure, and we are able to offers daily liquidity. Our UCITS fund will be on one of the asset managers platforms, under a Luxembourg umbrella and will be launched at the end of Q1 2017. The largest hedge fund investor base continues to be the US, where investors are more familiar with Cayman structures, and we will be launching our own Cayman fund in early 2017.

I also want to briefly mention the Dutch hedge fund industry, which is growing and becoming more diverse. The regulatory environment in the Netherlands is very strong, with one of the largest pension markets in Europe. We have a large and professional investment industry, which enables us to be able to hire and retain talented individuals.

Cornelius Mueller: When it comes to launching new exchange-traded products, you will have to think in longer timelines and also adapt the products to the needs of the market. For some time already a lot of our innovation and new product development has been basically driven by one big theme which is the **futurization** of the industry.

A number of our recent products like dividend swaps on single names or the EURO STOXX 50 index are now becoming larger and larger. Being traded on an exchange makes them accessible to a larger number of market participants. Now, the index for dividends will be tradable from the US as well. So generally, we see a trend of liquidity going away from the OTC market and towards the listed world. The US has introduced, for example, new margin rules on variance swaps, so we believe this is the next market which will follow and move more towards on-exchange.

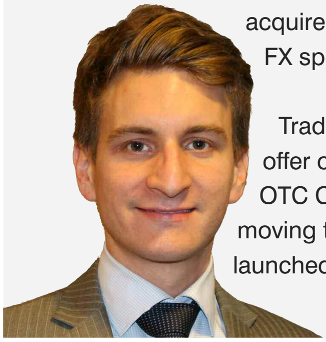
Another interesting product where banks and buy side saw an increasing need to have an exchange traded version are the **total return swaps,** which are now completely futurized. Consequently, we offer a total return future where clients may trade the implied equity repo rate on the EURO STOXX 50, and this is, I think, quite interesting for the hedge fund community. You can implement a variety of strategies for example trade calendar spreads as the futures are listed up to five years.



In addition, they are particularly interesting when you are already directional in certain futures for example the EURO STOXX 50 Futures because when someone trades as well the Total Return Futures the overall margin requirements may be reduced significantly. *Savings up to 80% are achievable.* Bringing those OTC swaps on exchange just made sense from a capital requirements perspective

One of the main themes or benefits we want to bring to the community as an exchange is basically helping firms to lower cost and ease the overall capital requirements with a number of new products where it makes sense whilst keeping a maximum of security for all market participants with robust risk models in place.

Matthias Knab Eurex is now also doing this in the currency or FX space with a new acquisition, right?

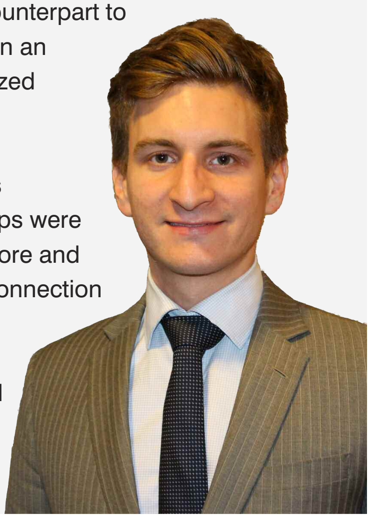


Cornelius Mueller: Exactly, and that also brings us back to the topic of FinTech. 360T, the company we acquired, is a FinTech which started out quite small and within a couple of years became a major player for FX spot and swap trading.

Trading FX via 360T being completely integrated into Deutsche Börse is an ideal combination to our offer on FX Futures and Options which we have also launched. 360T aims to offer a hybrid model with OTC Clearing next to exchange trading. Also here, I guess in the long run, also the FX market might be full moving to an exchange environment. But at the moment, the market interest is going to our most recently launched products, the variance futures as well as total return swaps.

Freddy Forger You are right, from a market crash perspective, the variance swap is interesting to buy.

Cornelius Mueller: We already had implied volatility listed with the VSTOXX as the European counterpart to the VIX in the US. The Variance Futures were launched to also make realized volatility tradable on an exchange. This of course makes it also possible to implement interesting strategies trading realized versus implied volatility.



The variance was a purely swap traded market. The Variance Futures as a futurized product was launched already over a year ago but was not straight away used by market participants as swaps were still easier to trade. Now, with new swap rules on margining in place in the US, trading OTC is more and more costly. Trading via the exchange is making things of course easier as you need only one connection and the products are centrally cleared with transparent daily settlement prices.

I think it's a great product which I think has now reached its time to become an exchange traded product.

Matthias Knab Any other observations about recent trends or developments?

Gildas Le Treut: We have seen an increased interest of our clients to trade ETFs and Brazil. This is probably due to the type of clients we have who generally are trading very actively and benefit from market and products mis-pricing. Most of the CTAs, proprietary traders and hedge funds are always looking for new product opportunities and new markets where they can generate performance. We have worked at facilitating access and financing on Brazil for our clients. We have seen them growing volumes and delivering nice performance in this market. With respect to ETFs, we endeavored to streamline the clearing and settlement process, and thus making trading in ETF more efficient through lower frictional costs.

Oliver Gaunt: As we have been successfully managing our European strategy, many investors have asked us if we would think of expanding the strategy. We have researched managing a global strategy, with allocations to Europe, Asia, the US and emerging markets. This type of global strategy would have also done well over the last few years.

It would make sense for us as many investors start with a diversified global allocation to quant, before looking at a regional focus like ours. Many of our peers manage a global strategy and we are one of only a few with a purely European approach.

Freddy Forger I was wondering how your product fits into a strategic asset allocation? For example, do your investors want to go long the EURO STOXX 50 but they want less volatility as the EURO STOXX, so they go with you, or are your investors more sort of opportunistically buying your funds just to create return?

Oliver Gaunt: We have seen both. Some investors want exposure to Europe through a market neutral approach, looking for alpha or lower downside risk in their equity allocation. We have also seen interest in our strategy from investors with an alternative portfolio, where our strategy offers strong performance with low correlation to markets and peers.

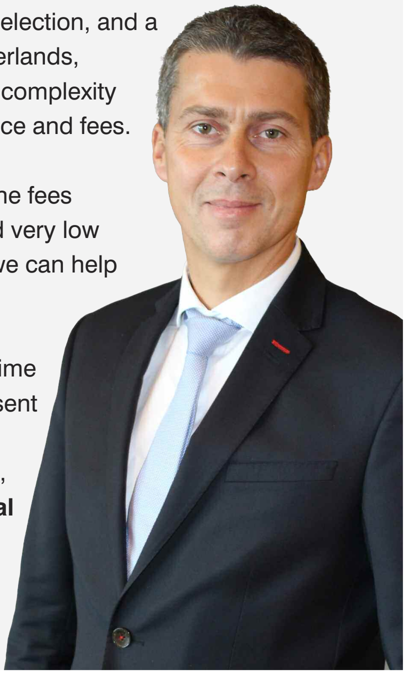
If an investor has a diversified hedge fund portfolio, we may be considered as part of the equity or a quantitative allocation. As our approach is diversified and has low correlation to markets and peers, we can be an attractive addition.

Again our lack of correlation would be attractive to a general portfolio investing in bonds, equities and alternatives.

Freddy Forger A low correlation is good if you make returns.

Oliver Gaunt Absolutely, and this is something that we have done.

Gildas Le Treut: Just a last remark on what we see in the industry. Over the last couple of years, a lot of complexity hit the fund industry via new regulation such as AIFMD, MiFID, et cetera. And now in 2016 there were a number of political shifts on top, creating a lot of uncertainty for many managers. We had Brexit, Trump election, and a rise in populism further in Europe and other parts of the world. There will be election to Netherlands, France, Germany and other places that may have effects on our industry. This brings a lot of complexity and uncertainty for the funds to deal with on top of the pressure from investors on performance and fees.



Today, everyone is pressed to be more competitive. This was not an issue in the past when the fees managers could charge were 2 and 20, but now it is often down to a quarter of a percent and very low performance fees. However for us, it is an opportunity to demonstrate to the managers that we can help them to be more efficient and more competitive.

We have also experienced an interesting change on how we deal with investors. Typically, prime service providers have cap intro teams and go out to understand investors interests and present interesting funds. But now, we see investors and allocators coming to us saying, “Guys, we know the usual suspects, do you have specific strategies, managers that may be less known, early stage and that you appreciate?” So it is in a way a complete reverse approach to **capital introduction,** and of course we are always eager to support broadening the network of relationships. This trend demonstrates that Investors are seeking alternatives to the largest global asset managers.

Cornelius Mueller: You mentioned global markets, and the fact we see is that investments are now done more on an **international level** without less home bias. I think there are two big trends which we see as an exchange. For example, we see more volume and liquidity going out of the national indices and more into the international or European indices like sector indices.

Especially the STOXX Europe 600 established itself with the EURO STOXX 50 Futures as a benchmark for Europe comparable to the S&P. In addition, we see the EURO STOXX Banks trading more than the DAX. Other up and coming indices are Gas & Chemicals or the Automobiles & Parts Futures. Looking at those figures, I guess we can say that European integration is finally happening at least within financial markets.

Investors increasingly invest on the European level and as a consequence you see the *CAC40, the DAX Futures being less liquid than they used to be.* In addition to this trend, we can observe also other emerging products, like our futures on MSCI indices. The MSCI Emerging Markets, World and Europe all saw increased activity with an open interesting growing over one year 240% and volumes being 75% end client driven. Also here it was the recent US uncleared swap margin, capital and segregation requirements which generated significant interest our Futures and Options complex. The main benefit we can offer as an exchange to our clients is the full offer to invest in any region or country and profit at the same time from margin efficiencies as they are centrally cleared with us.

Freddy Forger: You are right, and that is because asset managers like us want to diversify. So as you said, the good thing about the innovation over the last couple years is we are able to diversify, and instead of just buying a Dutch index, we can now also buy Latin America, or we can buy the whole world. And it is also not only about returns. Investors not only like us, but also retail investors, have now more options to reduce systemic risk as well.

So you are confirming, Cornelius, that investors now indeed diversify and spread their investments over the world. But along with that, what I always find very strange is that a lot of longer term investors over the last couple of years have become so **fixated on liquidity.** Investors like pension funds come to Oliver and say that they want to get in and out daily. I am wondering why, because in many cases they will throw away the liquidity premium, and that's something investors should want to take and harvest as a long-term investor.

You see the same on the ETF side where investors are overly concerned about tracking errors... For us it's more important, as a long term investor what the tracking difference of the ETF is to the underlying index. I don't care if ETF is ten cents higher on the close in an index due to a stock that may have a strange close that day. For the long run, I am more interested if there are methodological differences between an ETF performance and the underlying benchmark.

Maybe investors have to be very careful now that the croupiers in the casino want to deliver more liquidity because every possibility to trade is more money, but from an investor's view, maybe that is not a good trend. Yes, it's nice to be able to diversify, but maybe if everyone has that option to get in and out of everything every second could also be dangerous and risky on the behavioral side. So maybe that flight to constant liquidity is a dangerous trend.

Matthias Knab Right, you don't have to get out, right? You can still do your long term bets, no?

Freddy Forger: Sure, but again, when things got volatile in the past, and you want to get out say in 1987, you had to call your broker or send a fax. And should you have been out of the office that day and come back and one day later and you wanted to get out, the stocks would be up again in many instances. But now, you react on the spot and put in your sell order over the internet or your phone. *But the thing now is when are you going back in the market?* So I just don't see that this obsession with liquidity makes a lot of sense for a large number of investors.

Oliver Gaunt: From a fund manager's perspective, I just want to reinforce Gildas' comments on the increased regulation and regulatory costs. It has become much harder for a startup manager, especially if you are looking to attract institutional investors. The barriers have become a lot higher over the years. For example, there is an expectation that a manager has a dedicated independent risk officer and an in-house compliance officer. As we are a relatively large and established manager, we are able to do this, however that may be tough for a startup. Some of those regulations can affect our industry in unprecedented ways. For example, we expect to see a negative impact from MiFID II on the depth and breadth of broker research in the future.

OPALESQUE TV

What happened in Week 3?

Hedge fund manager A has produced a custom video with Opalesque.TV and it has been online for a few weeks. As with manager A, we sometimes notice that the weekly views of a video can jump several hundred percent from one week to the other.

Weekly video views	Week 1	Week 2	Week 3
of Manager A:	110	101	376

There are a range of different reasons for such a sudden jump in views, for example manager A could have:

– won a prestigious award or was nominated to it
– been included in some industry ranking
– been written up in the press / hedge fund media
– just launched a new fund that gained a lot of attention
– posted a (very) good month or year
– etc.

It is safe to assume that on any given day, someone or many will google any hedge fund manager's name, fund name, or company name. Good for those who have a custom made, targeted video online that investors can access any time, and at their time.

Unexpected long-term effect

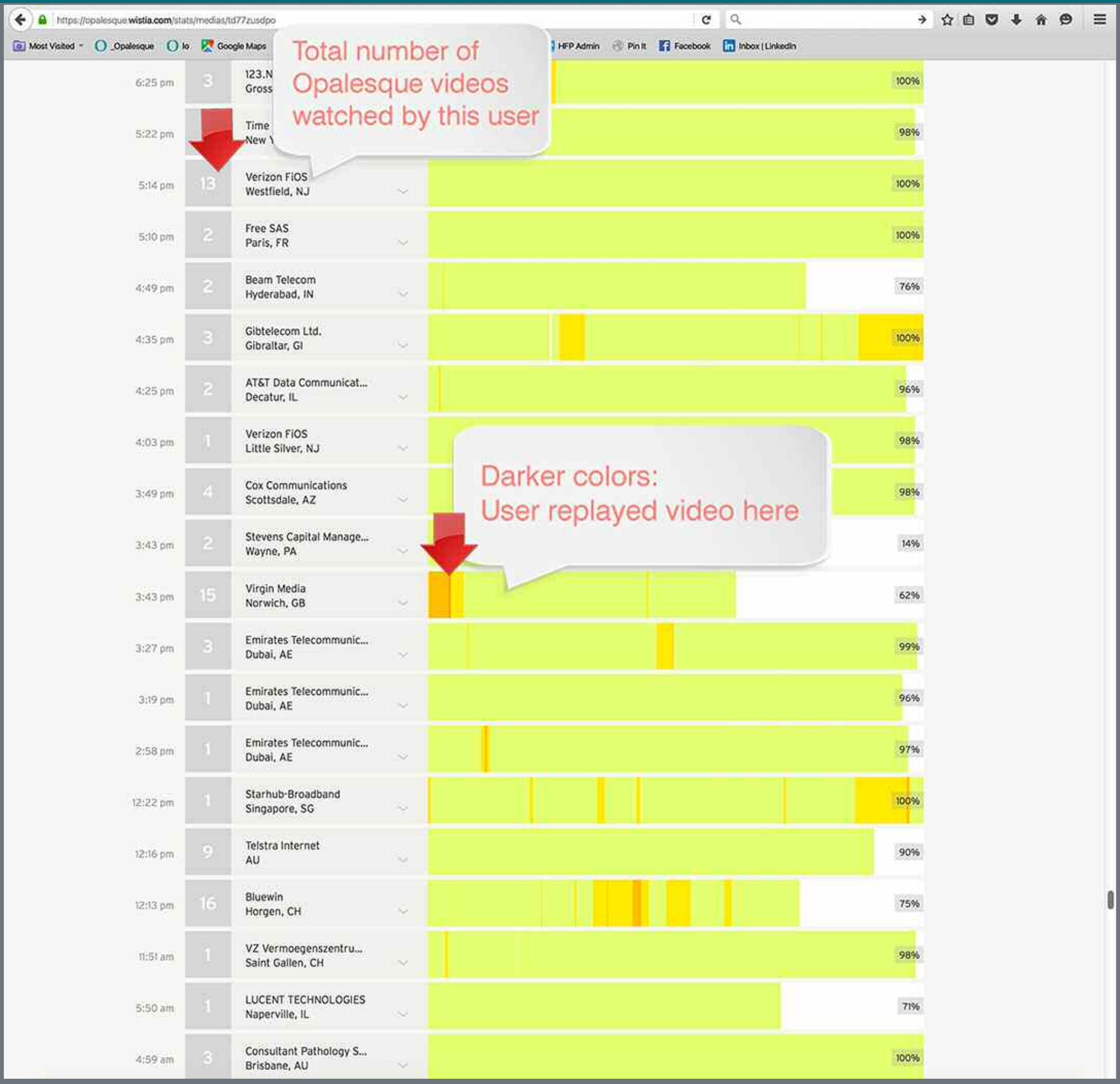
Opalesque has detailed viewer stats on 280+ videos since 2009. What's most interesting is that **video views do not drop significantly over time**, no matter how long the video has been online.

Taking Meetings over Christmas and while you're sleeping

Opalesque.TV videos are designed to simulate a first time meeting with a prospective investor. Many of these allocators will watch a video when they see that there's one available on the manager they are researching (like the viewers of manager A). All 280+ managers who have produced a custom Opalesque.TV video can therefore actually make business (or "have a meeting") while sleeping. Or when it's Christmas.

This video was watched 104 times over the 2016 Christmas holidays:
http://www.opalesque.tv/hedge-fund-videos/patrick-stutz/1

Take a look at the next graphic, especially at the hours (which are Central European), the locations, and the completion (how many viewers watched the video until the end):



We therefore believe there are real **opportunity costs** for managers who do *not* use videos to explain what they do.

Save up to 50% in travel costs by making your first meeting the second one

Have you ever spent time and money to take a trip to present your fund, only to hear, *"Thank you for coming to our office, and please keep sending me your reports ..."*?

What if you had known before that the investor is looking for something else?

By sending their video to prospects **before the meeting,** the manager wins twice. Should the investor be looking for something else, the manager can focus his efforts on those investors who watched the video **and liked** what they saw.

In these cases, managers tell us that the first real meeting becomes more like a 2nd meeting (the 1st one being the video) as the groundwork has been laid and the meeting will be much more successful and achieve much more compared to a regular first meeting. By better **qualifying your leads**, you can basically halve your travel budget and raise more assets quicker.

Working with a trusted partner

Over 1.2 million people have watched one or more Opalesque.TV videos, which means that the people you may be targeting will already be familiar with Opalesque.TV videos.

Managers like **Julian Robertson, Izzy Englander, Jim Chanos, Jeffrey Ubben, Elena Ambrosiadou, Anthony Scaramucci,** and many others have done Opalesque videos, as well as institutions like **Morgan Stanley, State Street Global Advisors, M&G Investments.**

You're in control

When you're doing a custom Opalesque.TV video, you have full control about any aspect of your message. This is not a given in any other regular media coverage.

A manager portrait on Opalesque.TV is generally designed to simulate a first time meeting with a prospective investor, meaning that questions like the following will be discussed:

- Please introduce yourself and your firm
- What is special about your strategy?
- How are you different from your competitors?
- What else is important regarding the asset class?
- Opportunities you focus on

Broad distribution

You can either produce a private video with us, which will only be hosted on the non-public part of your website, or we can offer you the broadest possible multi-channel distribution on Opalesque.TV and our partners like Reuters and other leading platforms. Contact us to discuss your custom distribution package.

Managers have **quadrupled assets** thanks to our video ($700m to $2.4bn in 1 year) and also received a book contract or **invitation to speak at the World Economic Forum or at TED** through our video:

- View count: Over 1.2 million views (hundreds of thousands of people)
- Thousands of investors will view your presentations
- Longterm effect: views do not drop significantly over time
- Without investing a single additional minute of your time - time required to record a video is approximately 90 minutes.

Costs

For a 10 minute video the all-inclusive package price is US$4000 which includes: travel (Europe and NY tristate), full production at your office, multiple edits (cuts), provision of the final video file, and a global, multi channel distribution package. A 15 minute video is $5000, so $1000 will be billed for each additional 5 minute segment above 10 minutes. The client determines the final length of the video.

Links

Opalesque.TV video which got 104 views over 2016 Christmas:
http://www.opalesque.tv/hedge-fund-videos/patrick-stutz/

Opalesque.TV videos sorted by number of views:
http://www.opalesque.tv/most-viewed-hedge-fund-videos/

Opalesque.TV videos sorted by number of social media shares:
http://www.opalesque.tv/most-shared-hedge-fund-videos/

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