

# Beyond the noise

On investment theory, towards long-term asset management

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Colophon

Beyond the noise

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# 1

## INTRODUCTION

Rector Magnificus, esteemed guests,

'Investment theory and asset management' is the teaching and research remit I have been given as a professor at this university. An honourable position and an important remit. Honourable because it was here that I myself learned how to look at our profession, still in its infancy at the time, with an empirical and critical yet positive eye. Important because society increasingly demands financial knowledge and personal responsibility of us. Knowledge on estimating and sharing risk. Knowledge on the return you can expect. And responsibility for managing your assets in the short and long term. A challenge.

I am aware that this chair comes with an assignment. My ambitions therefore need to be high. I aim to inspire students. I want to teach them about the growing significance of investment and instil in them an enthusiasm for investment. I want to prepare them – should it prove necessary – for later taking the right investment decisions for themselves and on behalf of others. For today, however, I have set the bar slightly lower. As this is a chair where theory and practice meet, I will concentrate in this lecture on those issues that I attempt to teach students, the research topics I wish to focus on and the relevance of my research to practical investment and to society.

Next, I will outline the changes on the financial markets over the past two decades. I will then propose to you that returns on equity markets can be predicted to a certain extent. Firstly, the return on an equity index. Secondly, the higher return that can be earned via equities with specific characteristics and the predictability of these equities. This is investment theory with lessons for asset management. As this all works in the long term and society is calling for greater engagement, my third and final point contains a few suggestions on how to structure asset management in the long term. This also explains the title of this lecture. 'Beyond the noise' relates to the need for you to focus on the long term in investment and not to concentrate too hard on the hubbub surrounding the latest craze.

I hope that when you leave this fine lecture hall today you will have gained fresh insights, will look critically and curiously at the financial world around you and will at least take a few of the lessons from today on board.

## 2

### A BRIEF REVIEW

Let me start by looking back. When I graduated in 1997 and went to work at a pension fund, defined benefit (DB) schemes were common: you were promised a pension based on your indexed final salary, the pension was contribution-free and employers were often obliged to make additional payments. Those were affluent times. We were in the midst of the internet revolution, equity prices kept going up and up and pension reserves were skimmed off. It was the era of the new paradigm: earnings were unimportant in the 'new' economy and equity valuations rocketed. Do you remember the book "Dow 36,000" (Glassman and Hassett, 1999)? That luxury theory did not endure for long. A little under 20 years on, DB schemes have at best been slimmed down to become average-wage schemes with fiscal caps, in which indexation is little more than an ambition. Funding levels are low and the trend of shifting from DB schemes to defined contribution (DC) schemes, in which there is greater risk for the individual, can no longer be halted. Instead of a 'guaranteed' outcome, there is now only a guaranteed - or defined - contribution. The individual's contribution is also significantly higher.

I will now quickly take you through the predictability of returns, the option of adding value via equities with specific characteristics and the need for patience. And that last aspect is essential.

### 3

## THE PREDICTABILITY OF MARKETS

Each year, I play a variant of the beauty contest as described in such lively terms by John Maynard Keynes (1936) with my students. The idea is to get everyone in the lecture hall to write down a number between 0 and 100, whereby the winner is the player with the number closest to  $2/3$  of the average. As all the players possess all the information and are completely rational, there is only one 'correct' number: 0. Unfortunately, it doesn't work like that. Most players start by randomly choosing a number from the set (50) and then think one step ahead (33). Step 2 thinkers end up at 22, while those who think one step further name the number 15. And each year I have a few students (mostly those with quantitative backgrounds) who then go through all the steps and come up with 0.

*"The actual, private object of the most skilled investment to-day is "to beat the gun", to outwit the crowd, and to pass the bad, or depreciating, half-crown to the other fellow. This battle of wits to anticipate the basis of conventional valuation a few months hence, rather than the prospective yield of an investment over a long term of years, does not even require gulls amongst the public to feed the maws of the professional; – it can be played by professionals amongst themselves. Nor is it necessary that anyone should keep his simple faith in the conventional basis of valuation having any genuine long-term validity. For it is, so to speak, a game of Snap, of Old Maid, of Musical Chairs – a pastime in which he is victor who says Snap neither too soon nor too late, who passes the Old Maid to his neighbour before the game is over, who secures a chair for himself when the music stops. These games can be played with zest and enjoyment, though all the players know that it is the Old Maid which is circulating, or that when the music stops some of the players will find themselves unseated.*

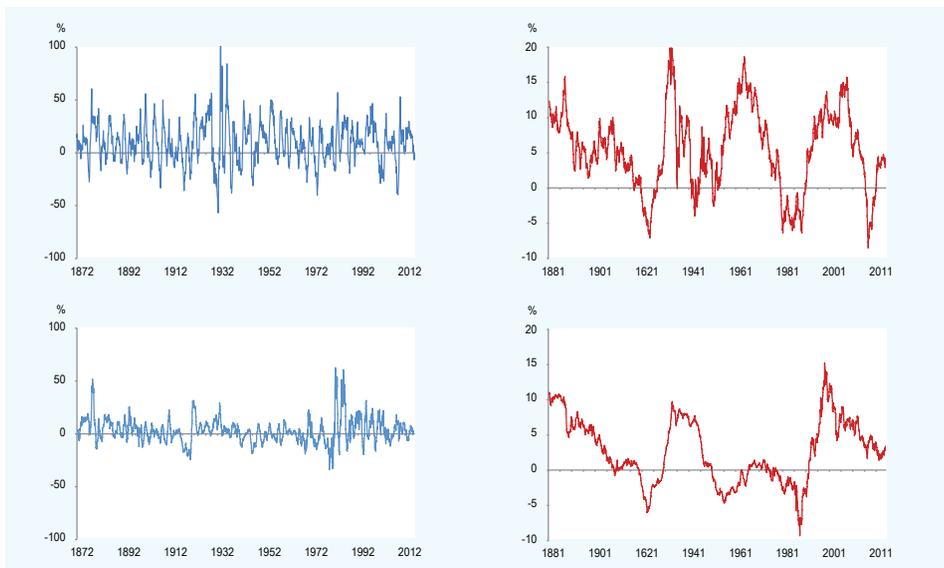
*Or, to change the metaphor slightly, professional investment may be likened to those newspaper competitions in which the competitors have to pick out the six prettiest faces from a hundred photographs, the prize being awarded to the competitor whose choice most nearly corresponds to the average preferences of the competitors as a whole; so that each competitor has to pick, not those faces which he himself finds prettiest, but those which he thinks likeliest to catch the fancy of the other competitors, all of whom are looking at the problem from the same point of view. It is not a case of choosing those faces that, to the best of one's judgment, are really the prettiest, nor even those that average opinion genuinely thinks the prettiest. We have reached the third degree where we*

*devote our intelligences to anticipating what average opinion expects the average opinion to be. And there are some, I believe, who practice the fourth, fifth and higher degrees."*

Keynes (1936)

The game shows all too clearly that it's not about who is 'pretty' but about the expectation of what the consensus considers to be 'pretty'. The same goes for modern investment practice. It is not so much about the predictability of earnings, growth and discount rates, but rather about 'predicting' what others expect of them: it's all about 'predicting' market psychology. In this case investment becomes speculation, because the short term cannot be predicted. Let me explain this further.

Figure 1 - Moving average returns on equities and bonds



The top graphs show the real total returns (adjusted for inflation and including dividends) on equities over 1-year and 10-year periods. The bottom graphs show the real yields on an investment in a government bond. The data period is 1871 – 2015. The monthly data for the S&P500 index, a market capitalisation equity index, come from Shiller and Standard & Poor's. The bond market data are from Global Financial Data and Bloomberg.

If we analyse time series of financial assets over different horizons, things quickly become clear. Smith (1924) and Siegel (1998) demonstrated many years ago that investors require a great deal of patience. In the long term, equities outperform bonds and there is a lower risk of a negative return, or loss. Another method of depicting this graphically is to show the returns based on moving averages. Yet there is more. Equity volatility declines in the long term. And by extending the investment horizon the distribution of the returns becomes significantly more 'normal'. In the short term, noise has the upper hand and predictions are difficult. The opposite applies to the long term.

### **The return on a market index can be predicted to a certain extent**

Any investor, from the smallest private investor to the largest pension fund, faces the same challenge when he (or she) – given his objective, risk profile and the asset classes in which he can invest – makes an investment decision. What should I invest in? What risk is involved? And what is the corresponding expected return? Historical returns may be a guide to what to expect, but they cannot accurately predict expected returns. Arnott and Bernstein (2002) and Fama and French (2002) have demonstrated that historical returns are an over-estimate of what can be earned.

Over the last two decades, both in academia and in investment practice, it has become clear that returns can be predicted to a certain extent based on valuation criteria. Campbell and Shiller (1998, 2001) were the first to demonstrate this. In my own doctoral thesis (Salomons, 2005) – which I defended here over 10 years ago – I show that the value (ranking prices based on underlying fundamental indicators such as earnings: the price/earnings (P/E) ratio, Figure 2) at the time of purchase is a sound indicator of future returns.

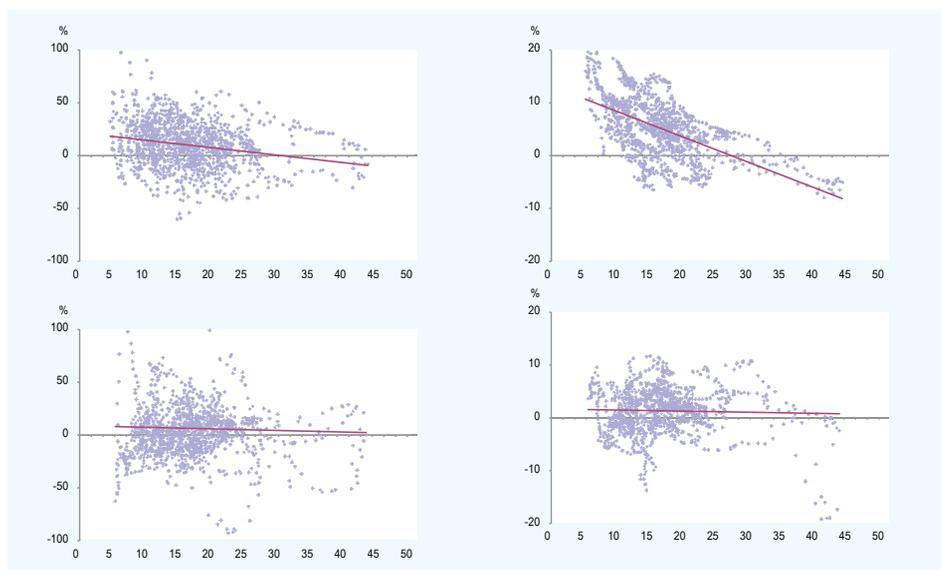
Figure 2 - P/E ratio



The graph depicts the CAPE (cyclically-adjusted price earnings) for the S&P500. Here, prices are divided by the reported earnings over the past ten years, filtering out the effect of the economic cycle on the valuations. The data period is 1881 – 2015. The monthly data for the S&P500 index, a market capitalisation equity index, come from Shiller.

The predictability derives from the ‘mean reversion’ in the valuation variables. If P/E ratios revert to trend, this may be due to changes to the price, the earnings or a combination of the two. This needs to be remembered. As a lecturer this is when I say to my students: “I would make a note of this.” There is predictive value in the long term. In the short term, however, you cannot make predictions based on valuations. High valuations go hand-in-hand with low expected returns and vice versa. In the short term there is noise... The hubbub surrounding the latest craze dominates in the short term.

Figure 3 - Relationship between current valuations and future returns



The top graphs show the relationship between the CAPE (cyclically-adjusted price earnings) and the return. The x-axis gives the P/E ratio at the time of purchase. The y-axis gives the corresponding real total return (adjusted for inflation and including dividends) over the subsequent 1-year and 10-year periods. The bottom graphs depict the relationship between the CAPE and the subsequent 1-year and 10-year real earnings growth. The data period is 1881 – 2015. The monthly data for the S&P500 index, a market capitalisation equity index, come from Shiller and Standard & Poor's.

The relationship between valuation variables and future returns can be illustrated quite simply. In Figure 3 you can see that there is no relationship in the short term between current valuations and future earnings. Nor is there – in the short term – a relationship between current valuations and future returns. In the short term, valuations tell us nothing. Yet this relationship does exist in the long term, but only for future returns. Valuations tell us nothing about future earnings. P/E ratios mean revert, but it is the prices that prompt that reversion. So if as an investor you cherish the hope that although current valuations are on the high side this means that earnings will grow more quickly in future, I'm afraid you are hoping in vain.

## **What can we expect at the moment?**

So where does that get us? As of the end of May 2016, 10-year bond yields are below 1% in the Netherlands (and many other European countries). Inflation is forecast at just 1%, meaning that the real yield is about 0%. Even long-term investors can therefore not expect much return on their bond investments. The situation is not much better outside Europe either. It is true that nominal bond yields are slightly higher in the US, but the same applies there to inflation forecasts.

Equity investments will yield slightly more in the long term. Yet current P/E ratios are above average in all the developed markets. This means that long-term expected returns are lower. At a P/E ratio of about 20, an expected return of about 4% is realistic. The average share price in developed countries stands at 21 times its earnings, while in emerging markets an average of 14 times the earnings is paid, in line with the long-term average. Purely on the basis of this comparison, it is therefore possible to earn more.<sup>1</sup>

A traditional portfolio containing 50% equities and 50% government bonds will consequently not exceed an expected real return of 2-3%. I will come back to the question of how to deal with these low expectations later. I first wish to focus on the predictability of the returns themselves.

One of the topics I wish to focus on in my research over the next few years is how this mean reversion occurs. Whether, in contrast to what I wrote over ten years ago, there is a different average to which P/E ratios gravitate? It is essential to answer this question because in the US valuation levels have exceeded the long-term average for over 25 years.

<sup>1</sup> The standard for P/E ratios applied here is the version in which prices are divided by the reported earnings over the past ten years. This is in line with Shiller and adjusted for the economic cycle. The data are from Thomson Reuters Datastream.

One method of examining empirically whether a series reverts to trend is to use stationarity testing. If we take structural breaks into account in this type of test (something I was unable to do in previous work), then a break can be identified at the end of 1990. Not entirely by chance, this was the start of a period in which valuations rose sharply. What could explain this?<sup>2</sup>

### **There is no relationship with bond yields, or is there?**

Many recent articles have claimed that the low yields on the bond markets are one reason behind the high valuations on the equity markets. I will not go into the cause of the low yields here, but take them as a given.<sup>3</sup> Whatever the reason, the data show that capital market yields are also reverting to trend. At the same time, no break is visible yet in the most recent years. The crucial question for investors is whether the high valuations on the equity markets are due to a possible distortion on the bond markets. I am not convinced. I have previously argued against this on theoretical and empirical grounds (Salomons, 2005). Prior to this lecture we re-examined the data from many angles and again failed to find a relationship with yields. Or to be more precise, there is no stable relationship.

The observation that there is no stable relationship between equity market valuations and bond market yields comes as no surprise, but it does provide food for further research. For instance, periods in which there is a negative relationship

<sup>2</sup> I will not go into the argument presented by, among others, Jeremy Siegel which argues that the Shiller standard is irrelevant as accountancy regulations have been adjusted and this P/E ratio is an over-estimate of valuations. However, it could be argued that actual valuations are even higher than represented here. That argument follows the line that corporate profit margins have been higher over the past ten years than is tenable in the long term. In other words, that the capital factor has profited more than proportionally from globalisation and technological developments.

<sup>3</sup> The culprit is supposed to be unconventional monetary policy – in which instead of cutting (short-term) policy interest rates, the economy is steered via capital market yields. Personally, I prefer the argument that it is simply that people are saving large amounts and that the Western world, like Japan a few years ago, has undergone a balance sheet recession, after which the focus has shifted to deleveraging for several years. See Richard Koo (2003 and 2014). Demographic trends should also not be underestimated.

(declining yields and higher equity valuations) seem to correspond with periods of inflation. The opposite situation (declining yields and lower equity valuations) seems to be true in times of disinflation and deflation. This is a crucial aspect, as the latter is precisely what worries economists and investors. For now, I simply wish to repeat the message that equity market valuations revert to trend irrespective of what bond market yields are doing.<sup>4</sup>

### **The problem of low expectations**

Low expected returns have many implications. Low bond yields, high equity valuations and the lack of a stable relationship between the two are also very important to the solidity of the pension system. Long-term investors are not in an enviable situation. Solvency (or funding) levels have dropped, putting the continued existence of the current pension system up for discussion.<sup>5</sup> This is neither the time nor the place to reflect on or philosophise about the cause. What is clear is that we can no longer afford to sit back and wait.

### **The need to earn higher returns**

There are only a restricted number of solutions to the problem of low returns on traditional asset classes and the need to earn a higher return. The first option is of course to accept that expected returns are lower. In this case, you will need to talk to pension scheme participants about their expectations. Receipt of the same pension when the expected return is lower requires a larger amount to be deposited. All the other solutions involve risks for which it needs to be clear in advance who bears those risks. Has a 'guarantee' been given and does this mean that the risk is

<sup>4</sup> I adopt no position here on the direction of bond market yields as this is irrelevant (in the long term) to the expected return on equities. In the short term, there is a correlation and it can be argued that investment in nominal bonds is now riskier and that is one reason why investors may be willing to settle for lower returns on equities. Debt levels have risen sharply around the world (McKinsey, 2015) and, as Reinhart and Rogoff (2009) have shown, periods of recovery in the wake of financial crises last a long time. There are various ways of easing the burden of debt (bankruptcy, inflation, raising taxes and financial repression). However, all these methods affect the equity markets in the long term.

<sup>5</sup> See Riemens of the Federation of Dutch Pension Funds in *Het Financieele Dagblad* of Wednesday 20 January 2016.

for the account of the fund? Or are both the risk and the yield for the account of individual participants? This determines which discount rate needs to be applied. These choices need to be made by employers, pension boards, the government and probably also participants themselves.<sup>6</sup>

## **Other risks**

Over the past few decades, in their search for higher yields many institutional investors have sought refuge in alternative investments. The idea is that adding these provides potential for extra returns and/or reducing risk. Yet the hoped-for result did not materialise in many cases. I lack the time to go into the reasons for this in detail today. Let me restrict myself to saying that in lectures I tell my students that many alternative asset classes are nothing more than a group of risk premiums packaged up differently, a package which is less liquid and/or financed differently (Ang, 2014). I often use the analogy here that Andrew Ang uses to a diet. A healthy diet comprises different components. Asset classes also contain different risk premiums. A great deal can already be explained using traditional factors, such as equity risk and interest rate risk. Yet these do not tell the whole story, as I shall demonstrate in the next part of my lecture.

## **In summary**

In summary, it is important to know that investors with a longer horizon are in an excellent position to hold more risk in their portfolios. The advantage of a longer horizon is that this is the only horizon for which the predictability of returns works in your favour. Adding greater equity risk to portfolios could work, but in doing so you do increase the risk of interim setbacks. The alternative is to seek this within asset classes, in the cross-section. Here, too, a longer investment horizon is beneficial. Allow me to swap one Nobel Prize winner, Robert Shiller, for another, Eugene Fama.

<sup>6</sup> A great deal can be said for individual participants gaining greater say over their pensions. This fits in with the trend towards flexibilisation of the job market, but would also do justice to individual wishes. Why should a young employee pay just as high a contribution as an older one, while he or she has a longer investment horizon? And why shouldn't there be greater heterogeneity in the investment mix? A young employee can hold more equities in his or her fund than a pensioner. This type of set-up still allows risks to be shared collectively. The debate on this and the ultimate decision-making are a matter for politicians.

## PREDICTABILITY WITHIN MARKETS

The previous section looked at the predictability of the financial markets. The focus was on the equity markets and the potential for predicting future returns on the index. I will now look further within markets and concentrate on a number of equity characteristics. It is certainly possible to earn a better return than the index via stock picking, but this often means taking a greater or a different risk. I will argue that it is possible to outperform the index by applying specific factors, via stock picking. And this doesn't mean by definition that you have a riskier equity portfolio. It is fair to warn you in advance, however: you need to set the bar high when selecting factors. I will quickly lead you through the literature on the subject, explain what the general consensus is and what stage the debate has reached. The latter is of course fantastic for a brand new professor.

### **A quick tour through the literature**

When I was a student, investment theory was fairly clear. The Capital Asset Pricing Model (CAPM) was created in the 1960s. In it a single factor, the beta of the equity, or the correlation between the equity and the general equity index (i.e. the market), determines the risk and expected return.<sup>7</sup> In the years that followed, the literature addressed the question of whether the CAPM was a sound description of reality.<sup>8</sup> By the time I graduated, two additional factors were generally accepted. Fama and French (1993) described how small companies (size, measured by market capitalisation, small minus big or SMB) and cheap companies (value, measured as book-to-market value, high minus low or HML) also explain the cross-section of returns. During the 1990s, the momentum (momentum, measured as the difference between returns over the past year, winners minus losers or WML) effect of Jegadeesh and Titman (1993) and Carhart (1997) was added. These are the factors about which there is a general consensus.<sup>9</sup>

<sup>7</sup> The Capital Asset Pricing Model adheres to Sharpe (1964), Lintner (1965) and Mossin (1966).

<sup>8</sup> Fama and MacBeth (1973) was one of the first papers to test the CAPM and is still quoted frequently. The article now has 10,533 citations in Google Scholar (April 2016).

<sup>9</sup> The general consensus on HML and SMB can be seen from the fact that the Fama and French paper (1993) has 17,630 citations. The momentum papers have somewhat less citations.

## **My warning: the bar needs to be raised**

The academic and financial worlds have not stood still since then. In a recent article, Harvey, Liu and Zhu (2015) discuss the more than 300 different factors that have since been tested and are supposed to lead to improved investment results. Yet the statistical relevance of a positive result needs to be viewed with some scepticism, especially if several strategies are tested simultaneously. It is essential to consider whether there is a theoretical basis to each test that is conducted. After all, aspects can be proved for which there is no theoretical basis. Next, it can also be said that the empirical bar ought to be higher. In practice, we need to go a step further. We also need to examine whether the strategy can be implemented (see Hsu, Kaleshnik and Viswanathan, 2015).

## **Promising research**

Many of the strategies should be viewed with some scepticism. The added value may be structural. Yet it may also be temporary and due to other factors. Let me describe briefly what stage the literature has reached on this. The following factors are promising but still open to discussion. Although highly popular since the marked corrections on equity markets over the past few decades, there is still no consensus on low volatility (Baker and Haugen, 1991, Blitz and Van Vliet, 2007) and quality (Novy-Marx, 2014). A few criteria that come under the category of quality, such as profitability and investment growth, have been embedded in the new Fama and French 5-factor model (Fama and French, 2015, Novy-Marx, 2013).<sup>10</sup>

In Figure 1 you saw that investors in equities need a great deal of patience. They also need it for the underlying factors in the equity market (see Figure 4). There are long periods in which factors do not work. Time is a restrictive factor.

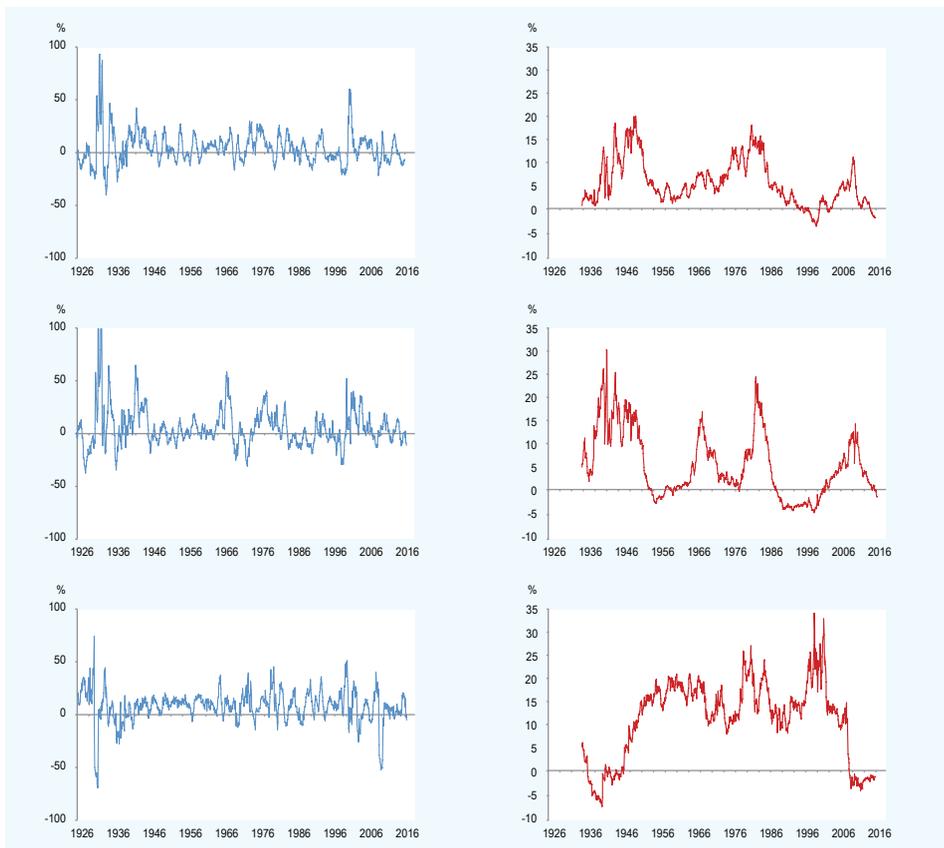
<sup>10</sup> Low volatility, often applied in what are known as smart beta strategies, is disputed. It could be a proxy for interest rate risk (Driessen and Kuiper, 2016). Novy-Marx (2016) demonstrates that a large proportion of defensive equity can be explained by adjusting for size, value and profitability. Profitability (measured as robust minus weak or RMW) and investment growth (investment measured as conservative minus aggressive or CMA) are also controversial (Blitz and Van Vliet, 2015). These factors are embedded in the literature on finance (Greenwald, Kahn, Sonkin and Van Biema, 2001). Companies should only invest in future asset growth if that growth is profitable, or if the profitability is higher than the cost of acquiring extra capital. Finally, Arnott, Beck, Kalesnik and West (2016) show that a large part of the historical return of many recent, popular strategies (smart beta or factor investing) can be traced to changes in valuations.

## Predicting factors

The above demonstrates that extra return can be earned that cannot be explained by market exposure (beta as in the CAPM). By introducing the correct long-term exposure within their portfolios, investors can therefore earn a higher than average return. Yet, as is the case with equity risk premiums, these premiums are not stable. This immediately begs the question of whether it is possible to predict these premiums. In my humble opinion, the answer to this question is a resounding 'yes'. However, research into this is still in its infancy.

Allow me to conduct a thought experiment with you while I continue on from the previous section. If the P/E ratio of the equity index is a sound predictor of the future return on that index, is the relative P/E ratio of a factor a sound predictor of the future return on that factor?

Figure 4 - Rolling returns on factors



For each factor the graph on the left shows the return over a 1-year period, while the graph on the right depicts the 10-year return. The following factors are given from top to bottom: value (HML), size (SMB) and momentum (WML). The data period is 1926 – 2015. The monthly data come from French.

If cheap value equities are valued as extremely cheap versus expensive growth equities, is there then a greater chance of value performing better in future? And can small caps become so expensive that the size factor yields less than the historical average? I think so...

## IMPLICATIONS FOR ASSET MANAGEMENT

So far I have given two examples of predictability. First I argued that equity P/E ratios determine long-term yields on equities. Next I demonstrated that there are factors within equities, in the cross-section, that can explain returns. As this chair is about where theory and practice meet, we of course also need to discuss the practical application of these theories.

### **Strategic Asset Allocation**

With respect to the predictability of market indices, the application is obvious. If returns can be predicted in the long term based on current valuations, then investors with a long-term investment horizon need to base their strategy on these. In professional jargon, this is the strategic asset allocation aimed at ensuring that liabilities can be met. The use of historical returns is completely redundant if this can be improved upon.

### **Factor premiums**

The implications for the factors that determine the cross-section of returns within equity markets are more subtle. There is as yet no consensus on all the factors. Are these new ideas or just old ones in new packaging? It is worth asking whether you can put these to use as an investor. For a newly-appointed professor, this is like being let loose in a sweet shop. For the time being, as an investor I would continue to focus on those factors about which there is a general consensus. Warren Buffett (1984) hit the nail on the head when he described this as an imaginary contest in which people had to guess whether a flipped coin would land heads or tails up over several rounds. If the group of people is large enough, there is always a sub-group that turns out to have guessed correctly after ten rounds. If this sub-group is completely random, it doesn't give rise to any questions. Yet if these people have a large common denominator it might be worth investigating further. At the time, Warren Buffett's observation was that many successful investors in the coin-flipping contest had been trained in the tradition of Graham and Dodd (1934). In fact, Fama and French (1993) provide academic support that investment in undervalued equities leads to superior results.

One innovation in the financial markets is that many of the named factors can be obtained cheaply as products. Either in their purest form or combined, whereby several factors can be mixed to form a 'smart index'. I have reservations about some of the products on offer and hope that you will be able to make careful investment decisions based on what I have told you.

### **Analysis**

One of the main implications of separating out the underlying factors is that it enables a thorough evaluation of asset managers. In one of the cases I examine with students, I give them the marketing material and realised returns of an asset manager. The CAPM already allowed analysis of how returns relate to market risk. The expanded variants (Fama and French, 1993 or Carhart, 1997) enable analysis of whether yields can be explained by other factors. Does the portfolio manager in question do what he (or she) says? Is he really better than the market index? Does he have a positive 'alpha'? Or does he simply have greater exposure to small or undervalued companies? Does any 'alpha' remain if we adjust for this?

## FOCUS ON THE LONG TERM

In the previous sections I made the link between theory and practice. In this final section, I would like to take you a step further into practice. You will be aware that academic literature is not entirely positive about the added value of asset management. The conclusion is often that, when adjusted for fees and risk, there are only a handful of managers who really succeed in outperforming the market index. To outperform the index you need to deviate from it, and this is where the problem lies. Cremers and Petajisto (2009) demonstrate that those investors who deviate significantly from the index who perform better in the long term. However, the question is whether they are given the time to prove this in day-to-day investment practice. Cremers and Pareek (2015) show that it is precisely the long term that is important. There is a paradox between theory ('long term is better') and practice ('playing safe').

Eleven years ago I sat in this lecture hall and argued that the advent of index funds was a wonderful thing. It cut costs for private investors and enabled institutional investors to obtain cheap exposure to a market index. The advent of the 'smart index' enables even better steering according to factors that generate return in the long term. Yet there are also disadvantages. There is a Catch 22. Indices do not have an opinion and they say nothing about the underlying motives of investors, over their role as providers of capital.

### **Case**

I want to make the case for reverting to investment based on fundamental analysis and placing less emphasis on indices. A case for the long term and for investors in their role as providers of capital. There is also the aspect of social relevance here. Traditional portfolio theory has brought us many wonderful things. Yet if you want to exaggerate you could say that when major institutional investors allow themselves to be guided completely by the index they then surpass their role as providers of capital. Again, I want to say to my students: beware! Investment is more than just numbers in a spreadsheet. It is about providing risk-bearing capital to companies who use it to finance their activities, to make investments and to hire employees. Company share prices – and therefore their capital costs – should not be set because they are or are not included in the index. You could argue that index funds are the opposite of contrary investors, those investors who conduct their fundamental

analysis and subsequently allocate and withdraw their capital on that basis. These investors deliberately deviate from the index.

### **Short-term focus**

Although predictability increases in line with the length of the investment horizon, it is noticeable that in practice this horizon is shorter. Both listed companies and investors have shifted their attention from the long term to the increasingly short term over the past few decades. A recent study by Barton and Wiseman (2014) shows that listed companies are under growing pressure to publish short-term results. CEOs remain in their posts for shorter periods and have to show proof of results more quickly. Investors tend to hold equities in their investment portfolios for shorter periods. The IMF (Jones, 2016) demonstrates that institutional investors, excellent examples of investors with a long horizon, also display pro-cyclical behaviour. In the societal debate, there is a trend towards a greater long-term focus. Yet the debate would benefit from greater academic support and insights into how that long term can be given more active substance.<sup>11</sup> There is still a great deal of work to be done and I would like to contribute to this. I believe that there are two important research topics.

<sup>11</sup> Several large institutional investors in the Netherlands and elsewhere are calling for longer-term horizons at pension funds, asset managers and companies (Dutch Association of Investment Professionals (VBA), 2015 and Fink, 2016).

## **A long horizon is socially relevant**

Firstly, the relationship between investors' horizons and corporate investment decisions remains reasonably uncharted territory. Given the climate of moderate economic growth that the global economy has faced over the past few years, this relationship is highly relevant. Are companies choosing not to invest (or investing less) because their long-term growth forecasts are low? Are they choosing not to invest because they know that they can create no value? Or are they choosing not to make profitable investments because they are scared of affecting their quarterly figures? And would they invest if they were not listed? That would be disturbing.<sup>12</sup> Further research is required for us to reach any hard conclusions.<sup>13</sup>

## **Practical application for long-term investors**

Secondly, in order to be able to give genuine substance to the desire for a longer-term focus, the interests of investors and companies need to be aligned. Investors with a longer horizon are excellently suited to taking risk and acting as (fiduciary) agents of capital. We can only applaud the fact that these investors have contracted this out to professional asset managers as a result of a lack of knowledge and a need for low (internal) costs. The fact that the general structure of the asset management industry leads to evaluation at increasingly short intervals is a matter of regret and not the best-possible situation. The 'contract' between the as-

<sup>12</sup> Graham, Harvey and Rajgopal (2005) show that 55% of financial directors at listed companies would not invest in (long-term) investment projects with a positive NPV if doing so would mean that they fail to achieve their (short-term) earnings forecasts. Asker, Farre-Mensa and Ljungqvist (2014) examine the growth in assets at listed public companies versus private companies. When adjusted for the size of the company and the life cycle phase, average growth at private companies is nearly twice as high (6.8% versus 3.7%).

<sup>13</sup> In the debate on corporate investment behaviour we also need to examine how profitable those investments are. If private companies invest more and the expected return on that investment – when adjusted for risk – is the same or higher, then there is an issue to discuss. Simply calling for more investment is pointless. Similarly, there is the question of whether companies are investing less because they expect future growth to be lower than it was in the past. If we assume that bond market yields are an accurate reflection of expected long-term growth, then less investment may well be rational and prevent overcapacity.

set manager, pension fund and the company in which the investment is being made needs to be unambiguous and all the parties need to apply the same horizon.<sup>14</sup>

### **The role of regulators**

The above also clearly contains a role for regulators. Two issues are important here. Firstly, equities yield more than bonds in the long term, but Dutch pension funds are obliged to report their asset mix and funding level – based on something similar to market value – to De Nederlandsche Bank each month. There would appear to be an inconsistency between the long-term objectives and short-term regulatory pressure. Secondly, earlier in this lecture I attempted to demonstrate that not all equity portfolios are identical. A portfolio of undervalued equities with better growth forecasts could be less risky in the long term than a market index. The short-term focus and (perceived) regulatory yoke mean that managers need to be very sure of themselves to deviate from this.<sup>15</sup> It would be interesting to investigate whether there is a causal link.

<sup>14</sup> I am referring here to the principal agency problem. In the literature on corporate finance (Jensen and Meckling, 1976) this is an issue between managers and shareholders. In investment theory, this involves the interests of asset managers and clients. Cremers, Driessen, Maenhout and Weinbaum (2009) demonstrate that those asset managers at which portfolio managers invest in the same fund in which their (pension fund) clients invest perform better. Having 'skin in the game' helps to realise parallel interests.

<sup>15</sup> I find the financial sector's criticism of regulators too easy. I know from personal experience that greater regulation of the solidity of the pension system was (and is) essential. It is logical for the regulator of a pension fund to demand that sufficient capital is held if risky investments and 'risk-free' promises are being made. On the other hand, I share concerns that there is a risk of regulation becoming oppressive.

## BEYOND THE NOISE

Let me now conclude my lecture and bring today's proceedings to a close. In this lecture I have offered you a perspective of the predictability of the markets. I started by stating that predictive value does exist, that it is based on valuations and chiefly to be found in the long term. On this basis, expected returns on equities are lower than has been the case historically. The fact that bond yields are also low prompts us to conduct further research into the relationship between the two.

Next, I discussed the predictability of returns within markets. If investors require a higher return, it is possible to earn an additional return, again in the long term. Predictability can be found here too, but there is less general consensus on this.

Theory directly touches upon practice here. Bernstein (2003) argued that in a climate of low expected returns there is a greater need for an active investment policy. The importance of an active investment policy is obvious, but it is not without risk. During the 1980s and 1990s, an additional one percent of return made little difference as this went virtually unnoticed in what were already high returns. The markets were very bountiful. That extra one percent of return is now extremely important and can mean the difference between having to make additional pension contributions or not.

Finally, I have outlined a research topic that will be a frequent topic of conversation over the coming years. This research topic derives from investment practice and it is partly up to the academic world to come up with an answer. Theory tells us that returns are predictable in the long term both at market level and within markets. We know that the liabilities of institutional investors are of a long-term nature. So why is there so much emphasis on the short term? Or to go back to Keynes's beauty contest: why is there such a focus on the latest psychological craze?

I started my introduction by outlining the changes to pension terms and conditions since my time as a young student here. I am under no illusions. There will continue to be major changes over the next few decades. This is precisely the motivation for my academic efforts and the link to social relevance. It is that relevance that makes it such an honour for me to be in this great city, to do my utmost to develop this relatively new professional field further; to teach students to become empi-

rical academics and critical investors and via research on the financial markets to become involved in the public debate which – given the trends in pensions – will require greater financial expertise than ever. I cannot give you the psychological push needed to look beyond the latest investment craze. But after today you will at least have the expertise you need to do so.

Thank you.

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