HOW TO INVEST IN DC PENSION PLANS
'BE CRITICAL AT EACH STEP!'

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After an internship at the Columbia Law School in New York City Patrick started his career at Arthur Andersen. During his career Patrick had several management positions at financial institutions. During his 10 years at Moore Stephens Amsterdam Patrick build the international pension consultancy practice.

Patrick has more than 20 years of experience regarding International Pension Consultancy. Both collective and expats. Patrick is passionate about quality and adding value. He is a trusted advisor of a number of especially German and Japanese Global Companies. As well as of many Expats of whom most are of Board level.

Increased Relevance Of Investments
Due to especially the low interest rate guaranteed Defined Benefit (DB) pension plans have become expensive. Thus the premium and investment based Defined Contribution (DC) pension plans have become popular.

A DC pension plan requires optimal investments in order to be able to have a sufficient pension at retirement age. Thus we will now focus on the essentials of investing in a DC pension plan.

Personal Risk Profile
The essence of investing in a DC pension plan is to have the best investments for your personal risk profile. Thus the start of the investment process is to make sure you know your own risk profile.

This profile is used to:
• Select which kind of investment categories might be used;
• How long and until what age you will be able to invest in each investment category.

Your profile might be different regarding pension investment versus regarding separate investments due to difference in investment horizon. It is advisable to never go beyond your own risk profile.

A] 5 Risk Profiles
We can distinguish 5 different kind of risk profiles:

• Very Defensive	Totally risk averse. Not all investment categories are allowed.
• Defensive	Risk averse. More investment categories are allowed.
• Neutral	Risk is tolerated as long as there is a long enough investment horizon.
• Offensive	To go for higher profit, substantial risk is allowed with a shorter investment horizon.
• Very Offensive	To go for the highest profit, the highest risk is allowed with an even shorter investment horizon.

B] Establish Risk Profile
If you still have to establish your personal risk profile, feel free to use our own carefully drafted Investment Risk Form as enclosed on our website under Brochures. In the form you can answer 28 questions after which we will inform you of your risk profile according to our opinion.

Now we will mention several of the most relevant technical questions on the form:

<u>Do you have recent experience with investing in Equity or Real Estate or Bonds?</u>
O Yes, within the last 10 years
O Yes, within the last 5-3 years
O Yes, within the last year
O No

<u>Do you have substantial recent experience with investing in Financial Derivatives?</u>
O Yes, and I have extensive knowledge about them
O Yes, and I have some knowledge about them
O No
O I don't know what they are

<u>Do you agree that an Equity investment requires i.e. at least 7 years of investment horizon?</u>
O Yes
O No
O I don't know

<u>Do you agree that a Real Estate investment requires i.e. at least 5-7 years of investment horizon?</u>
O Yes
O No
O I don't know

<u>You agree that a High Yield Bond investment requires i.e. at least 5 years of investment horizon?</u>
O Yes
O No
O I don't know

<u>Do you agree that a Solide Bond investment requires i.e. at least 3 years of investment horizon?</u>
O Yes
O No
O I don't know

<u>Would you keep investing pension capital as of retirement age for more profit at a high(er) risk?</u>
O Yes, totally
O Yes, but just with limited risk
O Yes, but just with very limited risk
O No

<u>What amount of Equity (high risk investments) do you prefer at 5/3/1 year before retirement age?</u>

O 65%	35%	25%
O 35%	20%	10%
O 25%	10%	0%

O I don't know as I am not an expert

Investment Categories
There are the following Investment Categories with the related risk indication:

1] Derivatives
• Extremely high risk which only focusses on change in value and not to buy a certain object itself.
• For example Options/Warrants/Futures.
• Thus only for those with a Very Offensive risk profile and a high level of knowledge.

2] Equity/Stock
• High risk even though the exact amount of risk can be different due to the kind of sector and global location.
• Equity requires an investment horizon of at least 7 years in general.
• For those with a (very) offensive risk profile, a slightly shorter period might be acceptable.

3] Real Estate
• Depending on the type of Real Estate, similar or slightly less risk than Equity.
• Thus requires an investment horizon of in general 5-7 year horizon.
• For those with a (very) offensive risk profile, a slightly shorter period might be acceptable.

4] High Yield Bonds
• As these kind of Bonds go for the higher return on investment and risk, they require an investment horizon of at least 5 years.
• For those with a (very) offensive risk profile, a shorter period might be acceptable.

5] Solid Bonds
• As these kind of Bonds aim for a regular return on investment and risk, they require an investment horizon of at least 3 years.
• For those with a (very) offensive risk profile, a shorter period might be acceptable.

6] Savings
• No real investment risk as long as not at a fixed term.

Funds or Individual Objects
The essence of investing is to get the highest return on investment at the lowest risk.

One of the best ways to reduce risk is to spread the capital over many investments within each investment category. You will always have the risk of investing in a certain category. But if you spread the capital over many different kind of investments within that category, you will optimally reduce the risk of having a certain investment object.

Thus we advise clients to only invest in Investment Funds. As thus you spread your capital not only between Investment Categories but also in the best way possible within each Investment Category. In general it will also improve the liquidity of your investment.

As of now we will only focus on Funds.

Active or Passive Funds
A] Active/Vision Funds
These kind of funds try to generate a higher return on investment than by just following the index. As they often charge (high) additional costs for their services and as the positive outcome is not

guaranteed, it is advisable to be critical about these funds. They often have a specific focus on certain sectors and locations.

B] Passive/Tracker (ETF) Funds
These funds do not believe that it's possible to each year outperform the index. Thus their focus is to follow the index at the lowest amount of costs possible. That is their challenge and added value. Due to the huge effect of compounded annual return on investment, it's a fact that a low cost level is highly relevant.

C] Active Funds: Fundamental/Technical Analyses
Active Funds need to have a policy regarding the use of fundamental and/or technical equity selection.

<u>Fundamental Equity Selection</u>
This approach looks into the 'real' or fundamental value of the company and how this reflects in the stock price. The ideal would be to buy stock of a company with a strong financial and market position while the stock price still is undervalued (according to the Fund).

The idea behind this approach is that even as equity is a high risk investment, due to the good underlying company value the risk will be to some extent more acceptable

<u>Technical Equity Selection</u>
This approach does not focus on the company. It only looks at the volatility of the stock price and what recent movements might mean for the future. It is about trying to predict future trends and act accordingly.

This approach has nothing to do with investing and is pure speculation. Even though we are highly critical towards this approach, it can't be denied that in the past it sometimes did work.

D] Active Funds: Sector Allocation
Each economy can be divided into a number of different sectors which each have their own character. A common enumeration is: • Technology • Financials • Health Care • Energy • Industrials • Telecom • Materials • Utilities • Consumer Staples • Discretionary

As Active Funds aim for the highest profit, they try to choose the sectors with the best prognoses.

The business cycle has four phases which reflect fluctuations in the economy. Each phase may have an effect on sector performance. Historically some sectors tend to perform better or worse than others in certain phases. Monitoring the business cycle may help Active Funds to determine which sectors they should focus on during each phase.

For example:

- <u>Cyclicle Sectors</u> : They quickly react to a change in economic pace. Sectors like Construction/ Chemical/Dredging/Employment Agencies.
- <u>Non Cyclicle Sectors</u> : They tend to have a more stable or defensive character. They often pay-out a higher dividend. Sectors like Supermarkets, Consumer Products, Utility, Real Estate. These sectors are often carefully compared with High Yield Bonds.

E] The Importance Of Sector Allocation
As each index has all sectors, this provides a certain stability. Active Funds lack that kind of stability. If they implement a specific approach and the opposite happens, the risk exposure is much more substantial. Active Funds that implement sector allocation agree to this additional risk.

F] Sector Rotation
This approach seeks to generate excess return through both sector rotation and factor-based security selection as well as risk management approach during declining economic environments.

The combination of maneuvering through sectors in various economic cycles and the expected ability to lower equity allocations might provide the portfolio with enhanced risk control.

History has shown sharp equity market downturns correlate highly with economic slowdowns and recessions. The Sector Allocation portfolio seeks to identify these disruptions as they occur and adjust allocations accordingly

G] Active Funds: Global Allocation
Allocation of Equity/Bonds/Real Estate
After the Active Fund has determined the investment categories, it has to decide the global allocation thereof.

Why Global?
Global allocation of assets means to be able to in a professional manner evaluate economic conditions, currency issues, market opportunities and risks across the global landscape.

With a comprehensive global market viewpoint, it seeks to deliver more consistent returns with less severe drawdowns through all types of market conditions. Which does not mean that this global allocation will always provide a higher return on investment at lower risk and lower costs than by means of a certain local portfolio.

Global Tactical Asset Allocation
This is a top-down investment strategy that attempts to exploit short-term mis-pricings among a global set of assets. The strategy focuses on general movements in the market rather than on performance of individual securities.

Three Type of Markets
Around the globe, investment regions are usually described as:

• *Developed Markets*: they represent companies in mature economies and efficient infrastructures, specifically for financial market transactions. For example USA/EU/UK.
• *Emerging Markets*: they provide the greatest opportunity for return, as they are some of the largest and fastest growing economies in the world. For example China/India/Brazil.
• *Frontier Markets*: they will offer the highest risk, as they are the least developed. For example Argentina/Koeweit/Vietnam.

Abandon Global Allocation?
The decision to abandon Global Asset Allocation should according to research only be made, if the investor is certain that he can consistently time the world's markets.

There is no evidence that any investor has been able to meet that test and no reason to believe that any ever will.

Self Investment or Broker Advice

If it is possible to use a provider who provides excellent fund information, then it is understandable if you prefer to self invest and do not retain an advisor.

The difference in costs can be very substantial. Self investment at funds is possible as of rounded 0,2% direct annual costs whereas advice might cost you up to 2,5% annually.

In case of doubt about your own selection ability, feel free to request our advice. Which we will gladly provide to our clients as aftercare.

Mix Funds

These funds invest in several kind of investment categories in order to offer one complete portfolio. As each investment category has its own risk and minimum required investment horizon, we do not really recommend these funds. We prefer separate fund investments per investment category.

Life Cycle Funds

A] Mix Fund

These funds are mix funds that automatically reduce the risk as the owner ages. The positive aspect is that thus you have no risk problem if you forget to pay attention to your portfolio. These funds are often used in pension related investments and can be advisable if implemented correctly.

B] Type of Life Cycle Funds

• Most providers offer several type of funds with each a different personal risk profile.
• Another distinction is that they might offer the choice between active versus passive funds.

C] Critical Aspects of Life Cycle Funds

• Do they implement the optimal reduction of risk at the right age for you? Be highly critical as this is relevant and not always implemented correctly. With possibly huge negative effects.
• Do check if the cost level for the additional services is not too high.

D] Risk Reduction with Age

A) Standard Risk Reduction

One of the most relevant aspects of Life Cycle Funds is if they indeed reduce in the most optimal manner risk as age increases.

A standard example is the following fund:

First Phase: 2017-2037

A fixed spread of:

• Equity 90%
• Bonds 10%

Second Phase: 2037-2062

Increasingly a shift towards lower risk and at the end:

• Equity 50%
• Bonds 40%
• Cash 10%

Third Phase: 2062-2069

Increasingly a shift towards lower risk and at the end:

• Equity 30%

• Bonds 50%
• Cash 20%

B) Difference in Risk Reduction
This is best explained with an example. While comparing Life Cycle Funds risk reduction, we have seen that regarding a neutral risk profile, funds had the following different implementation:

	Start Risk Reduction	**Equity Age 60**	**Equity Age 65**
Fund A	Age 50	23%	5%
Fund B	Age 53	33%	12%
Fund C	Age 55	50%	35%

C) Conclusion
The fact that a Life Cycle Fund promises to provide optimal risk reduction fitting to your risk profile, does not automatically result in the best implementation.

Sometimes we see funds that according to our client protective stance, keep the risk level too high for too long and too near retirement age.

Cost Categories

A] Regular Costs

• Costs related to opening and having an account. (Often none.) : Paid directly by investor
• One time transaction costs: As of 0,15% : Paid directly by investor
• Annual management costs: As of 0,2% : Paid directly by investor
• Fund costs: processed into the capital of the fund : Not paid directly by investor

B] Not Regular Costs

We often see that insurance companies offer the possibility to reduce the risk of value decrease by a sudden drop of the market. This by using financial derivatives to thus create a minimum value.

We are highly critical towards these kind of additional clauses. Often they are just too expensive. If you need more safety, would it not be better to change your investment categories and thus even get a higher net return on investment at lower costs?

C] Deviant Cost Levels

The longer you are paying a too high cost level, the higher the negative impact thereof due to the substantial impact of compounded return on investments.

In order to prevent this, we advise you to be especially allert towards Active/Vision Funds and Broker related activities. You would not be the first investor paying not the usual 0,3% - 0,5% annual direct costs but instead 2% - 2,5%.

Investment Parameters In Time

A] Inflation

• As of 1900 the average global inflation amounted to annually 2,9%.
• The current inflation in Holland/EU/USA amounts to rounded 1,4% / 2,1% / 2,9%.

B] Equity Results in Time

As of 1900
The average annual return on investment after the effect of inflation amounted to:
• Global Shares: 5,25 %

• Dutch Shares: 5 %

30 Year Period
Recent Allianz research stated that if you invest for at least 30 years in Dutch stocks, the minimum annual return on investment will amount to 3% and maximum to 11%.

C] Bond Results in Time
As of 1900
The average annual return on investment after the effect of inflation amounted to:
• Global Bonds: 1,95 %
• Dutch Bonds: 1,75 %

Recent Years
The best performing funds had an annual return on investment of rounded 3,5% - 4%.
The expected (slight) increase in interest rate, might have a (very) negative impact on existing Bonds.

D] Savings Interest Rate in Time
As of 1900
The average interest rate after the effect of inflation amounted to:
• Global savings: 0,95 %
• Dutch savings: 0,65 %

Recent Years
The current interest rate amounts to 0,5% - 0%

E] The Robeco Return on Investment Projection 2017-2021

• Solide Equity	: 6,2 %
• Solide State Bonds	: -3,5 %
• Solide Corporate Bonds	: -1,5 %
• Savings Interest Rate	: 0,5 %

The by Robeco expected increase of the interest rate, has a highly negative impact on the expected annual return on investments of Bonds.

F] Expected Return on Investments Large Caps Global Bonds

• Vanguard	: 1,8 %	(2017-2026)	(Not corrected for inflation)
• GMO	: -3,3 %	(2017-2023)	(Corrected for inflation)
• Robeco	: -3,5 %	(2017-2021)	(Not corrected for inflation)
• Blackrock	: 0,6 %	(2017-2022)	(Not corrected for inflation)

G] Expected Return on Investments Large Caps Global Equity

• Vanguard	: 7 %	(2017-2026)	(Not corrected for inflation)
• GMO	: 1,9 %	(2017-2023)	(Corrected for inflation)
• Robeco	: 6,5 %	(2017-2021)	(Not corrected for inflation)
• Blackrock	: 5,6 %	(2017-2022)	(Not corrected for inflation)

Conclusion in 6 tips

- Tip 1: Spread for Risk Reduction
- Tip 2: Low Costs Matter
- Tip 3: Don’t Trade
- Tip 4: Choose the right Investment Mix

- Tip 5: Keep It Simple
- Tip 6: Look in critical manner at Morningstar Evaluation