AP7

Extract from the 2019 Annual Report

Diversification is one of our most important philosophies

Three perspectives >>>

In 2019, two reports were published on how to develop the premium pension system and the default option for premium pension savers. AP7 invited the two investigators to present their conclusions. Pension management involves a long investment horizon and spreading risk, so AP7 also invited two professors to give their perspectives on the importance of diversification.

#1.
What is the value of diversification in long-term asset management?
Luis M. Viceira, Professor at the Harvard Business School. Paolo Sodini, Professor of Finance at Stockholm School of Economics.

#2.
How should the default alternative for premium pensions be developed?
Mats Langensjö, investigator.

#3.
How can the premium pension system be improved?
Mikael Westberg, investigator.

#1 Diversification is the only free lunch in finance

The value of diversification

The idea of diversification is one of the most powerful ideas in finance, and probably the only 'free lunch' available to investors. This Nobel Prize-winning idea is behind many of the financial services that help us cope with risk and uncertainty, from car, life, or health insurance to mutual funds, exchange-traded funds (ETFs), and all kinds of collective investment vehicles.

This idea is rooted in basic statistical science. While independent individual risks can be unpredictable, the frequency with which those risks tend to materialize in a big population is largely predictable. We never know if we will be involved in a rear-end collision when we are driving, but the total number of such accidents in a given month in a region is much more predictable. This basic scientific fact opens to the door to one of the most fascinating ideas in finance: risk sharing, or the idea that we can protect ourselves from the potentially devastating impact of individual risks by pooling them together and sharing their cost with others. This idea is behind one of the most important institutions in modern societies: insurance.

This idea applies equally well in investing. Any company can experience a significant loss of value as a result of mistakes of its own making, such as designing a flawed new aircraft or folding phone screen, or through the effect of Fortuna, such as the death of a charismatic corporate leader in a ski accident or a technological discovery that deems a specific product suddenly obsolete. These idiosyncratic events are largely unpredictable, especially to outsiders. Investing all of our savings in one company exposes us to those potentially catastrophic risks.

But the overall frequency of such events is predictably bounded. We can avoid a disastrous idiosyncratic loss by investing in many companies, not just one, just like insurance companies are able to offer car insurance to all of us for a fraction of what it costs to fix a single car by pooling thousands of risks together, because only a few come predictably to fruition in a large population.

Finance goes well beyond translating this very important truth of statistics into an investing insight. First, finance notes that we as investors should require compensation for the risks we take. If we have two opportunities to invest, each of which we expect to pay a million krona in a year, we should be willing to pay more for the one whose payoff is more certain. Equivalently, in terms of return (the expected payoff divided by the price we pay), we should require a larger return on the riskier investment to invest in it.

Secondly, some risks are more diversifiable than others, in the sense that their impact can be reduced more through diversification. Independent (or idiosyncratic) risks are more diversifiable than correlated risks. The impact of the loss of value from a failed product launch by a specific company on the value of a well-diversified portfolio is negligible, while the impact of a global recession might not be, because it is a risk that is likely to affect the value of most companies. Nevertheless, unless risks are perfectly correlated, diversification always helps reduce overall portfolio risk. Not all companies will be impacted to the same degree by a global recession.

Thirdly, all investors ('the market') are willing to hold diversifiable or idiosyncratic risks for very little compensation, while they require compensation for correlated risks. Indeed, the typical stock in the market has a return volatility which is twice the volatility of a well-diversified portfolio ('the market portfolio'), but its average return is about the same as the return on the market portfolio. Riskier asset classes (such as equities) tend to have higher average returns than less risky asset classes (such as bonds). **Unless there are very good reasons to concentrate savings in very few securities, being undiversified can be very costly.** It simply increases the risk of significant loss for no obvious upside. In today's world, we can dramatically reduce investment risk without jeopardizing expected return, through collective investment vehicles that charge extremely low fees. Diversification is indeed a free lunch.

An investor might find value in being undiversified if they have insights about the future of specific companies, industries, or regions that are clearly superior to those held by every other investor in the market. But that investor must check carefully that their insights are truly superior, because there is another uncomfortable mathematical truth that might come to bite them: active investing is a zero-sum game. One investor's gain from holding a portfolio different from the market portfolio is another investor's loss. If we are undiversified, we are either winners or losers. There is no middle ground.

Therefore, unless we are absolutely sure we have an informational advantage or some other powerful reason to be undiversified, we should aim at investing in the 'world market portfolio', the portfolio that is as maximally diversified as possible, with each investment weighted by its relative size.

By Paolo Sodini and Luis M. Viceira.

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Home bias – favoring the home market

Investors tend to suffer from 'home bias' – the tendency to either invest all their wealth in their own local market, or to allocate a disproportionally large share of their wealth to it. The proverbial 'Belgian dentist' thinks he knows more about the Belgian market than anyone else in the world. He does not realize there are analysts all over the world, in London, New York, or Hong Kong, whose sole professional focus is to understand the Belgian market and who have access to Belgian companies and analytical resources the dentist could never even dream of having. This dentist concentrates his portfolio in Belgian stocks and bonds that represent a tiny proportion of the global economy and capital markets. By doing so, he is implicitly making a bet that the Belgian economy will grow in the long run faster and better than the rest of the world.

This investor should ask himself whether this is a reasonable bet. It is far from obvious that betting on one specific region being better in ten or twenty years from now is safer than betting that the world as a whole will be better. There is little evidence that one large market has systematically dominated others over long horizons. The Japanese stock market handsomely beat all other large markets in the world during the 70s and most of the 80s, only to be at the bottom of performance since. The US stock market has been a clear winner over the last ten years, but it underperformed all other major stock markets in the world except Japan in the first ten years of this century. Over long horizons, it is very hard to say which regional market will be the winner. Owning a geographically diversified portfolio appears to be a safer bet than trying to pick the next winner.

Some argue that the benefits of international diversification could be offset by carefully selecting stocks in your own country. The idea is that local investors have a better knowledge of companies on their doorstep than foreign investors, enabling them to pick these companies to generate a higher return than an internationally diversified portfolio. In order for this to be possible, at least some local stocks must be mispriced, and local investors must be able to profit from that. Even though local investors might have an advantage compared to foreigners, there are several arguments against the possibility that their local ability might persist in the long run.

First, successful stock picking requires superior information, typically not public and difficult to obtain. Secondly, even if local investors have superior information, they will compete with each other, thus eliminating mispricing and, with it, their informational advantage in relation to foreigners. Thirdly, foreigners can always choose to invest in local stocks through local professionals if they think locals have an informational advantage. Money flows very fast where there are opportunities, and drives mispricing away, eliminating the gains of investing locally. In all, it is far from certain that, in the long run, local investors can consistently and significantly exploit their potential informational advantage.

There are two additional important arguments against holding portfolios concentrated in local stocks that might outweigh any possible informational advantage. First, the income of local investors and the returns on local stocks are likely to be exposed to the same sources of risk. Investing in local stocks exposes local households to the danger of both negative income shocks and capital losses on their savings. In other words, their financial wealth is likely to be low precisely when they are facing adverse income realizations and when they need wealth the most. Instead of hedging, local households investing in local stocks engage in a form of anti-hedging strategy, which is typically a mistake.

Secondly, as explained above, investing in local stocks reduces portfolio diversification and exposes investors to idiosyncratic risk that is unlikely to be compensated by higher returns. It should be remembered that Sweden comprises only 1% of the world index, and the argument that Swedish companies might be representative and strongly correlated with international companies, if anything, strengthens the reason for investing internationally.

Some have also argued that investing abroad is either impossible or limited for many investors, and expensive. This argument holds no water today. In most modern economies, including Sweden, investors have very easy access to cheap mutual funds and ETFs that invest in global equities and bonds.

Because local company returns are not affected by currency fluctuations, one reason to invest in local stocks is the possibility of limiting currency risk. However, institutional investors like pension funds and asset managers can cheaply limit currency risk through currency hedging contracts. We discuss currencies next.

Table 1. **Returns, 1991–2019**

Local Returns

	Australia	Canada	China	Germany	India	Japan	U.K.	U.S.	Average
Annualized Mean	11.6%	10.7%	16.7%	9.2%	20.7%	3.0%	9.9%	11.6%	**11.7%**
Annualized Stdev	13%	13%	35%	18%	32%	18%	14%	14%	**19.6%**

$ Returns

	Australia	Canada	China	Germany	India	Japan	U.K.	U.S.	Average
Annualized Mean	12.5%	11.0%	16.7%	12.8%	15.9%	3.9%	8.6%	11.6%	**11.6%**
Annualized Stdev	20%	18%	36%	27%	33%	18%	16%	14%	**22.9%**

FX Returns

	Australia	Canada	China	Germany	India	Japan	U.K.	Average
Annualized Mean	0.2%	-0.2%	-0.7%	3.3%	-4.3%	1.3%	-1.1%	**-0.2%**
Annualized Stdev	11%	8%	7%	20%	8%	11%	9%	**10.4%**

Table 2. **Correlation of Local Returns and US Returns**

	Australia	Canada	China	Germany	India	Japan	U.K.	Average
1991-2019	68%	78%	40%	74%	29%	51%	77%	**60%**
1991-2001	58%	77%	24%	61%	9%	37%	67%	**48%**
2002-2019	75%	79%	55%	83%	53%	61%	83%	**70%**

Currencies

When we invest globally, we are also exposed to currency risk. US stocks trade in US dollars, and German stocks in euros. The US stock market might do very well, but the US dollar could depreciate against the krona, thus detracting from the performance experienced by a Swedish investor who invests in the US stock market. In other words, a Swedish investor who invests in a foreign market is placing a double bet: one that this market will do well, the other that the currency in which this market trades will appreciate.

Currencies are risky. Exchange rates fluctuate significantly in response to changes in interest rates, inflation, growth, and investor sentiment. Currency returns are extremely volatile. Table 1 shows the average return and volatility of eight large stock markets in their local currency and in dollars, and their currencies over the period 1991-2019. Exchange rate volatility is very significant (as low as 7% per annum and as high as 20%) and it adds significantly to the volatility of investing abroad. The volatility of dollar returns of different markets (the returns a US investor would get from investing abroad) is significantly greater than the volatility that local investors would experience.

However, the risk of currencies appears to be uncompensated. Table 1 shows that, generally, the average return on currencies is zero. Over long periods, the average return on an investment in US dollars (i.e. buying dollars, putting those dollars in US bonds for safekeeping and earning some interest, and then exchanging them back into, say, euros) is no different from the average return the same investor can earn by not buying dollars and investing in German bonds instead. In other words, typically a euro investor is not compensated for taking US dollar/euro risk passively. The average return on that investment over investing in domestic bonds is zero, while its volatility is significant.

Currencies therefore add to the risk of a global portfolio, but there is no evidence that they add to its expected return. Table 1 shows this. Over the 1991-2019 period, the average return of a global portfolio in dollars is very similar to the average return in local currencies – about 11.6%. The currency bet implicit in investing abroad does not seem to be compensated over long horizons. This would be a risk that long-term investors would want to reduce or eliminate.

Unfortunately, currency risk is hard to reduce or eliminate through diversification because the currency bets implicit in a global portfolio tend to be sizable. The US stock market represents as much as 55% of global equities, so a global equity portfolio will have a very significant implicit bet in the US dollar. This added risk does not go away over time.

This leads to the notion of currency hedging. Investors can reduce currency risk by entering into currency hedging contracts in which a counterparty agrees to exchange the foreign currency back to the local currency in the future at a fixed rate, thereby taking the risk of currency fluctuations off investors backs. These contracts are typically offered (or mediated) by large global banks. The cost of these contracts is not large, as it is typically the case for large currencies, so currency hedging is a desirable feature of investing abroad.

Globalization and the benefits of international portfolio diversification

In recent decades, the world has experienced a process of liberalization and globalization of trade and capital flows not seen since the late 1800s and early 1900s. As a result of this dual process of liberalization, the correlation of global stock and bond markets has increased significantly over this period. Table 2 illustrates this phenomenon. It shows the correlation of the US stock market with other seven markets in the 1991-2001 period and in the 2002-2019 period. The average correlation has increased almost by half, from 48% to 70%.

Pundits have noted that this secular increase in correlations should have reduced the benefits of global portfolio diversification. However, there are two reasons why global portfolio diversification still makes sense.

Table 3. **Sharpe Ratio ($ Returns), 1991–2019**

	Australia	Canada	China	Germany	India	Japan	U.K.	U.S.	Average	Global Portfolio ($)
Sharpe Ratio	48.6%	44.6%	37.9%	36.8%	39.0%	5.6%	35.7%	60.4%	38.1%	56.9%

First, while markets have become more correlated, they are far from being perfectly correlated. Investors can still achieve a meaningful reduction in portfolio risk without sacrificing return by being globally diversified. Table 3 shows that over the period 1991-2019, individual stock markets have produced a Sharpe ratio (the ratio of the return in the market in excess of a risk-free investment over the volatility of the market) of about 38% on average. A global stock portfolio, on the other hand, has produced a Sharpe ratio of 57%. This is a very significant improvement.

Secondly, most investors have long investment horizons, particularly those saving for retirement. For long-term investors, what matter are long-run risks and correlations. There is some evidence that the long-run correlations of global stock markets have not increased as much as short-turn correlations as a result of globalization. The volatility and correlation of markets is driven by two distinct factors. One factor is fundamentals, i.e., growth, and the other is investor

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risk tolerance or sentiment. Trade globalization has contributed to making fundamentals more correlated across markets. Financial globalization has contributed to making investor sentiment more correlated – or, more precisely, it has made contagion easier as capital now flows freely across borders.

Each of these factors impact market correlations and volatility differently. Investor sentiment is transitory in nature, so it has a much more pronounced impact on short-term volatility and correlations. In contrast, fundamentals impact short-run and long-run volatility and correlations equally.

As a result, globalization has had a much larger impact on short-run correlations than on long-run correlations. Although globalization has arguably reduced the benefits of global portfolio diversification, this reduction is mostly concentrated at short horizons. Long-horizon investors still have plenty to benefit from being globally diversified.

Are individual households diversified?

We have evidence that high net worth households achieve a good level of diversification by holding portfolios that invest directly in a considerable number of stocks. In other words, instead of investing in one or two mutual funds, they hold many stocks directly. Moreover, we observe in the data that the number of directly held stocks increases strongly with household wealth. This could be a good strategy when funds charge large fees, and can also be tax efficient.

Otherwise, households are typically able to reach a good level of diversification by investing in mutual funds. Investors should try to avoid paying high fund fees, for example by investing in index funds and ETFs.

Leaving high net worth households aside, on average individual investors tend to hold very few stocks directly, which is not nearly enough to achieve appropriate diversification. However, they limit the diversification losses from holding concentrated portfolios by investing only a low fraction of their financial wealth in those stocks. Financially sophisticated households tend to invest the rest of their wealth in mutual funds that give them the benefits of diversification.

Poorer and less educated households keep most of their financial wealth in bank accounts instead. This is a mixed blessing. On the one hand, they avoid investing substantially in poorly diversified portfolios holding only a few stocks, thereby limiting their diversification losses. On the other hand, by keeping most of their savings in a bank account, they fail to harvest the risk premium, or extra return, that a properly diversified portfolio across stocks and bonds can produce over the interest on cash accounts.

Unless investors have extremely low tolerance for risk, holding most financial wealth in cash can be a big mistake, particularly for young and middle-aged investors, because of the compounding effect of this extra return on wealth accumulation. An urban legend claims that Albert Einstein once said that "compound interest is the eighth wonder of the world." Whether he said it or not, the reality is that compounding is a very powerful force. Over 30 years, wealth compounded at 2% grows 81%, but wealth invested at 5% grows 332%. In other words, investing at 5%, rather than 2%, over 30 years will yield a cumulative growth more than four times larger.

Overall, high net worth and financially sophisticated households are better diversified, either through diversified portfolios of directly held stocks or by investing in mutual funds. Poorer and less educated households instead tend to hold only stocks and only a few of them. However, they also keep most of their money in their bank account, limiting the perils of holding very undiversified portfolios, but also severely reducing the return they earn on their savings. This might be a costly mistake for young households as they are saving for the long term.

Helping households get access to inexpensive and well diversified mutual funds and ETFs is key to improving diversification for individual investors, particularly for those who need it more. The long-run effects of diversification and the ability to gain exposure to global risk premia should never be underestimated.

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#2

Who is the default option for?

The national retirement pension forms a basic level of security. What requirements does this place on a default alternative? This is addressed by Mats Langensjö in a guest article based on the proposals in his report, *Förvalsalternativet inom premiepensionen* ('The Default Option in the Premium Pension').

The most common reaction when I discuss the premium pension component of the Swedish pension system is to question how we can have such a free and 'risky' component in the national pension system. People don't take into account what risk really means from a pension perspective.

Pensions are fundamentally a very long-term savings plan. For most people, pension savings accumulate over 40 years, and this must then support them for perhaps 20, 30 or even 40 years after retirement. This makes it difficult for the individual to see the link between the decisions taken on premiums, employment, funds and portfolio during their time on the labour market and the final effect, i.e. how much the pension will be and in what form. At the same time, decisions and choices regarding pensions are some of the biggest and most important financial decisions that most people make as individuals.

There are many individuals with the knowledge, capabilities and desire to be constantly engaged and adapt their fund and pension choices, but most people just want a solution that offers a relevant and stable pension. They have neither the capabilities nor knowledge to enable them to make deliberate and informed pension choices.

In a welfare society, the national retirement pension must offer basic security, including the component that is the premium pension. In principle, this component is intended as an individualised part incorporating freedom of choice. For people who cannot, do not want, or lack the capabilities to choose funds or an investment portfolio, it is reasonable to expect that the principal owner – the state in this case – offers a relevant portfolio for pension savings and a solution that provides a reasonable outcome for most people when they retire.

However, risk-taking is unavoidable in a pension system, and has served pensioners well, but risk changes and requires knowledge and the ability to manage it and adapt the portfolio accordingly. Over the long life cycle, major changes take place that fundamentally affect the equity markets in which the pension premiums are invested.

The weak link between action and effect, the long perspective, and complexity are some of the factors that behavioural science research unanimously identifies as reasons why individuals choose to not become engaged in their pension choices, which was one of the goals of the premium pension when the system was started.

Mats Langensjö
Author of the report
Förvalsalternativet inom premiepensionen.

A good default option therefore needs a flexible approach that is adapted to developments on the different equity markets, thereby utilising the role as a very long-term investor. This will benefit savers in the form of greater returns, better risk management, i.e. the ability to manage fluctuations on the equity markets, and more sustainable portfolios. As a large and long-term investor, the default alternative should be able to take advantage of its competitiveness by investing cost-effectively in different asset types, some of which are difficult for other actors to invest in. This will ultimately result in better pensions.

This applies during the saving phase, where the goal is to maximise the size of the pension capital. It also applies during the payment phase, where the long investment horizon can be utilised to secure better pensions, even if the primary goal is to ensure stable pension payments. The default alternative therefore has two important roles.

So far in the debate, we have mainly focused on building up capital in the saving phase, but equally important is to get the payment phase right. It is then that the pension forms the basis of the individual's income. Here too, there are many people who want to and can plan and adapt their various pension sources to their individual needs.

Every person is different, and needs to design their pension saving according to their wishes and ability. For most people, the national retirement pension forms part of a basic financial security. In its structure, a default option needs to take a position on who it is primarily aimed at. A default option cannot just be a safe investment portfolio – by making full use of its clear competitive advantages, it can also be a source of a better pension outcome.

#3

Choice architecture – the key to a better premium pension system

In 2019, the principal investigator Mikael Westberg submitted the report *Ett bättre premiepensionssystem* ('A Better Premium Pension System') with proposals for how to improve the premium pension system. Here, Mikael Westberg describes some of the challenges in the premium pension system, and the proposals presented in the report for tackling them.

A fundamental component in the Swedish welfare system is a universal, obligatory and comprehensive social insurance system that gives financial security for everyone insured throughout the different phases of life. Part of the social insurance is the national retirement pension (made up of income pension and premium pension) that gives a lifelong income, regardless of how long the insured person lives. A fundamental aspect of the national retirement pension is that the premiums paid ensure a standard protection when the individual retires.

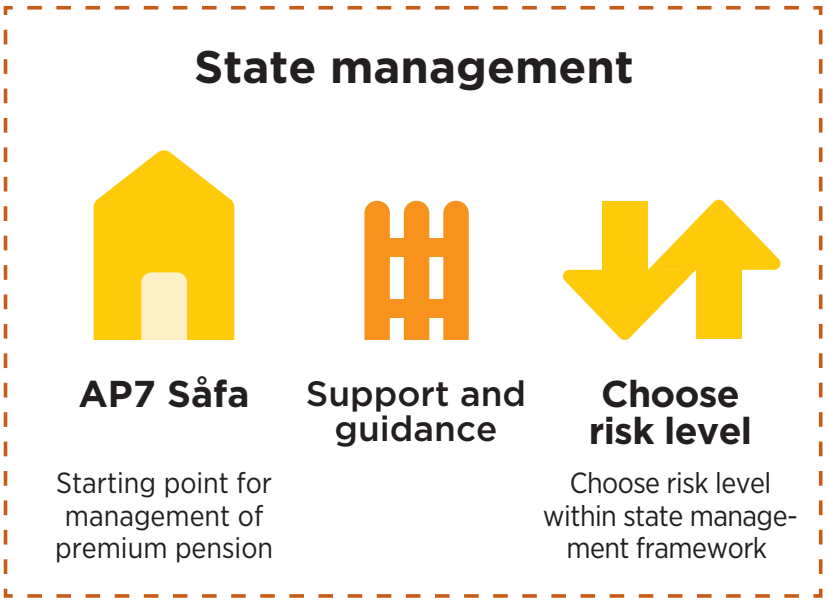
Higher returns in the premium pension system. So far, by investing in the equity market, the premium pension system has yielded much higher returns than the income pension system, and has also helped to spread risks in the retirement pension system. At the end of 2019, the return in the income pension system was 3.1 percent, while the average return in the premium pension system was 7.7 percent. So, historically, the average pension saver has benefited from the premium pension system.

The premium pension has also helped to enable the individual to influence the risk level and investment focus for their pension savings. For a long time, there were over 800 funds for the savers to choose between, but, after a slight change in the system, there are currently around 500 funds in the fund marketplace. However, a reasonable guess is that, with unchanged entrance requirements for funds and a gradually increased premium pension capital, the number of funds will be around 800 again within a few years.

Hard to make financially rational choices. Even if the premium pension system, on average, has generated returns that exceed those in the income pension system, other ambitions and intentions have not been realised. The experiences from the premium pension system so far, and the behavioural economics research, are unanimous in the view that the large number of funds make it difficult for the savers to make informed choices. The general conclusion of behavioural economics – that individuals for various reasons are not as rational as the economic models assume – is particularly clear when it comes to pension savings. Pension savings are a recurring example of a complicated decision-making situation – individuals save either too little or too much, seek or are offered advisory help, or make investment decisions that are not always financially rational.

Long-term equity management for pensions also requires expertise and interest to compile an effective portfolio and maintain it over time. There is also a significant inequality between the pension saver and the fund manager in terms of knowledge and information. This should, at least partly, have encouraged virtually all insurance companies offering occupational pensions to apply a procedure whereby the savers do not need to choose between many different equivalent funds.

Greater awareness of how individuals act in reality. In many other countries and within the framework of different pension solutions, a change in approach is taking place – from conviction about the individuals' opportunities to make active choices,



and their interest in doing so, to an awareness about how the individuals act in reality. Even if the structure of pension systems in other countries is different to the Swedish system, and work in a different environment and culture, there are noticeable similarities in terms of experiences of how individuals act, or do not act, and how the advising market grows when the system becomes too complicated.

In the report, *Ett bättre premiepensionssystem* (SOU 2019:44), I and my colleagues put forward a number of proposals for managing these problems in the premium pension system. The proposals are in line with the assumptions for changes in the premium pension system in the Pension Group's agreement from 2017. It means, for example, that open affiliation of funds should be replaced by a selection procedure that ensures that savers are only offered high-quality, cost-effective and reviewed funds.

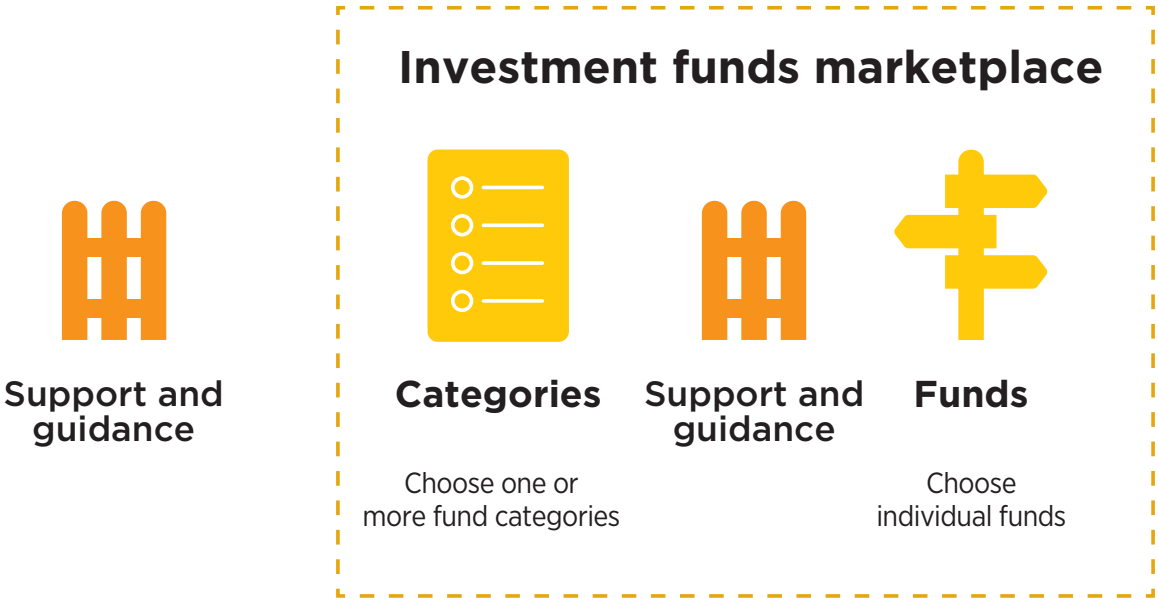
Mikael Westberg
Principal investigator

Choice architecture for managing the behavioural economics challenges. The challenges shown by behavioural economics can be tackled by the state taking considerably greater responsibility for the design of the system. The proposal is to introduce a choice architecture that will encourage the pension savers to make informed and well-considered choices on the management of their premium pension funds. The premium pension system should be designed and administered so that only savers who want to and can compile their own fund portfolios do so. A well-considered and well-maintained choice architecture that gives support and guidance is the leading instrument for managing the challenges shown by behavioural economics, while the much-appreciated freedom of choice component in the premium pension system is retained and developed further.

The main feature in the choice architecture should be that the default alternative should be the starting point for all savers. This would mean that the investment and choice environment is designed in such a way that it does not require the saver to be active or have financial knowledge. Pension savers who choose to leave the default alternative should be informed that they are then taking over responsibility for choices and maintenance of their choices. The saver needs information, support and guidance on which they can base their decision as to whether it is suitable to leave the default alternative. The new choice environment should continue to offer the opportunity to choose risk level within the framework of state management. If the saver wants to go further than simply choose the risk level, they should have the opportunity to choose one or more fund categories in which the saver can invest their funds. If the saver does not simply want to choose a category, they should be able to invest in procured funds in the investment funds marketplace.

Well-designed choice architecture enables more funds. A well-designed choice architecture with clear steps in the process, and barriers to prevent undesirable and ill-considered choices, enables a great diversity of funds with different risk levels and investment focus. Conversely, a weak choice architecture enables only a smaller number of funds in the investment funds marketplace.

In this way, a good choice architecture increases security in the premium pension system, while preserving the freedom of choice.



Proposal for choice architecture for the premium pension system. The investigation proposes a choice architecture with clear steps in the process to help pension savers make informed and well-considered choices.

AP7's perspective on diversification

In AP7 Såfa, the risk level varies according to the saver's age, and the equity portfolio is based on a broad geographical and sector distribution with investment in over 3000 companies. In other words, spreading risks is an essential part of the AP7 strategy. We gathered the AP7 equity management team for a discussion about the importance of diversification.

"Diversification is one of our most important philosophies," says Ingrid Albinsson.

What is diversification?

Hans Löfgreen: Quite simply, it involves spreading the risks. The old proverb "Don't place all your eggs in the same basket" sums it up perfectly.

What are AP7's views on diversification?

Ingrid Albinsson: Diversification is one of our most important philosophies. It's one of the most important features we can add to pension savings to generate a higher return without increasing risk.

Kristina Styf: AP7's view on diversification also involves the premium pension being a part of the individual's flow of capital through their life.

Lilly Zuo: Yes, if you have a permanent job and you're young, it's often said this is like a fixed-income product. The monthly salary is the same as a stable return every month. Because of that, it's good if this is combined with large exposure to equity in the overall pension portfolio. However, as you get older, the number of future monthly salaries decreases. You should compensate for this by cutting down the risk in your savings to increase the level of security.

Christer Wanngård: Precisely. That's why our diversification is based on the individual's assets over time, either the inflow of revenues from work or the saved financial capital. We give our savers diversification by adjusting the relationship between equity and fixed-interest products during the period of saving.

Kristina Styf: So, when you're young, we have a higher level of risk in AP7 Såfa. If the value of the equity falls for a period, you can manage it because you still have work capacity and time to let the equity build up again. But when you're 65, you have less opportunity to build up new wealth, because the number of future paydays is less. Then we lower the level of risk in AP7 Såfa.

What is time diversification?

Hans Löfgreen: Imagine that the financial market develops like a hammock, with a trough and then an upswing. Buying everything on a single occasion would involve a greater risk than if you'd bought through both troughs and upswings by saving monthly.

Per Olofsson: Put briefly, you have a built-in time diversification simply because your premium pension is paid in continually over many years – sometimes you're buying when equity is cheaper and sometimes when it's more expensive.

Carl Fredrik Pollack: Time is used at different levels in pension saving. You put in new capital every year over 40 years, and then you take it out over 20-30 years. This is a type of time diversification because you're doing it over a long time. The other example is that you're spreading out the purchase of an asset to avoid being affected by the market situation at one particular point in time, which is what we at AP7 do in all asset classes.

Per Olofsson: For example, with the unlisted private equity investments, it's extremely important to invest at different points in time. If you invest at one particular time, you get a high concentration of the valuations during that period.

Time diversification is an important aspect of pension saving to spread the risks, explain Per Olofsson, Lilly Zuo and Pontus von Essen.

Even if globalisation means the markets fluctuate more in line with each other today, diversification still has great value, particularly in the long term, say Hans Löfgreen and Kristina Styf, together with Christer Wanngård and Lilly Zuo.

Diversification is one of our most important philosophies

Pontus von Essen: What it boils down to is that it's extremely difficult to find the exact right time to buy or sell, because that time is affected by many things over which you have no control, such as changes in policies or the global economies.

Ingrid Albinsson: We diversify by spreading the level of risk on several different levels. One is time diversification, but we also diversify over different markets globally and within different asset classes.

The traditional picture of diversification is to spread the investments. What is AP7's perspective on that?

Ingrid Albinsson: Here we come to spreading risk specifically in the equity market and which equities we want to buy. We want to spread the risk over many regions and countries. This is why we invest in over 3000 different companies all over the world. Another reason we do this is that, if you only save for your pension in Swedish equities, you're very sensitive to how Sweden, Swedish companies, and the Stockholm stock exchange performs and develops.

We also want to spread the risk to other currencies than Swedish kronor, because an individual's salary is probably in Swedish kronor. If you then have another underlying currency, you get diversification in the currency flows too.

Strategy in the AP7 Equity Fund

AP7 Equity Fund is a diversified global equity fund with high-risk features and a clear sustainability profile.

Global equity portfolio
Global equity with a broad geographical and sector distribution in over 3000 companies. Combined with equity-related financial instruments that increase risk and expected return.

Diversification
To spread and increase the efficiency of risk taking, AP7 Equity Fund also invests in asset classes and investment strategies that supplement the range in the global portfolio. For example, unlisted companies (private equity), smaller companies and emerging markets, and in equities with special properties, factor risk premiums, and alternative investment strategies.

Risk framework
In order to adapt the total risk level in the fund over time, a systematic risk framework is also applied. The risk framework manages risks in the equity portfolio and protects the fund capital. It primarily limits the effect of extreme troughs in the equity market.

AP7 doesn't just diversify through time, different asset types, and a large equity holding – it also chooses different equity styles to spread the risks, explains Christer Wanngård to Lily Zuo and Pontus von Essen.

How else does AP7 diversify apart from the time aspect and owning shares in 3000 different companies?

Christer Wanngård: We have different asset classes, such as listed equities and unlisted private equity. We buy shares in large and medium-sized global companies, but also small companies to give us evengreater diversification. We also consider that different driving forces lie behind the pricing of shares. We therefore diversify by selecting different share styles such as shares with high quality or low valuation or a positive price momentum. This is called factor risk premiums. Different factors increase on different occasions, so we spread the risks because the factors don't fluctuate in the same way.

But don't the global markets fluctuate in more or less the same way?

Hans Löfgreen: Yes, the world's markets are more correlated today, but at the same time it's clear that different markets still develop differently in different years. And because private equity companies are more difficult for private investors to invest in, they're also less correlated with the global markets. So, there's great value in diversifying to more asset types.

Why isn't AP7 even more diversified?

Kristina Styf: AP7's diversification is governed by a regulatory framework. We can only own liquid assets, such as equities, and no more than 10 percent in other assets. A broader investment mandate than is the case today would be an advantage for savers because pension savings are long term. We would be able to invest in tangible assets such as property, infrastructure and forest. We have a very long-term perspective, so by increasing that proportion we could make investments that are very difficult for private savers to access.

Has AP7's shift in replacing leverage with greater diversification had effect?

Lilly Zuo: The point of diversification is that we will get greater return in relation to risk per invested krona. We'll be slightly less sensitive to the variations in the equity market. So far, we've been in a type of growth trend that has been very favourable for most asset types, both equity and fixed-interest investments. We won't get the answer until we've gone through market conditions that put pressure on equities and fixed-interest products. The idea is that it will then have been worthwhile, because the most important thing for us is that we attain our goal of long-term returns.

Pontus von Essen: Yes, because our objective is that diversification will provide some protection even during downturns. When the market goes down, the savings in AP7 will also go down, but if our diversification is successful, we'll go down less than before. However, it should be remembered that this is still a high-risk product, based on our view of the role of the premium pension in relation to the otherwise much more secure income pension.

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