



ECONOMIC SITUATION AND STRATEGY

12. July 2021

Hurray for King Football; but what will be the aftermath?

There is hardly any other sport with such allure and mass fandom as European Football. We are currently witnessing it again as the Euro Cup is in its final days – albeit without German participation – and millions of fans around the globe are feverishly following the finals from their televisions at home. Last year during the first Covid lockdown, we saw how fans suffered from having to live without football as all leagues around the world were forced to take a break. Even politicians clamored to bring back the Bundesliga (initially without spectators) as it – and I quote: ‘especially in pandemic times offers immeasurable intangible social value.’

It is rather obvious that financial interests are playing a major role here considering the immense amount of cash flow from broadcast licensing, merchandising, advertising, pay-per-view, and ticketing. It also comes as no surprise that player income is correspondingly high with a strong increase in the past few years. The 2021 economic report of the German Football League (DFL) illustrates this rather well. According to this report, the eighteen German football clubs in the national league reported for the 2019/2020 season a combined total expense in the cost center ‘game operation personnel’ of EUR 1.447 billion. This covers all regular payments in the form of salaries, bonuses, and premiums to personnel that is directly involved in game operation, i.e. players and trainers. Given an average team size of thirty players and a staff of five trainers, this yields an average salary of some EUR 2.3 million per year or an average monthly income of EUR 190,000. However, there is a significant pay gap between the German football clubs headed by record

leader Bayern Munich with a salary average just short EUR 10 million per year.

These numbers may sound staggering, and they really are when compared to the average German income. One may come to the premature conclusion that professional football players are set for life at the end of their careers and may never have to think about their finances or an alternative professional career thereafter. That may be true to for the superstars of Germany’s national league who gross several million euros per year. However, most professional football players are not that lucky. In the lower-tier professional leagues, the pay scale is significantly more modest than in the national league. The second league average salary is below EUR 450,000 per year and in the third tier, it is ‘merely’ EUR 120,000. The top players in particular, but also the second and third-tier players, are also heavily burdened with taxes and social security contributions, so that considerably less is left over in net terms.

The main problems are of a different nature, though. While the typical employee ideally has a rising income over his career until the age of retirement, pro football players have a prime career of ten to fifteen years at most. During this time, they are under constant threat of injury that may render them incapacitated. Unless they have acquired professional qualifications prior to their football career, such injury will leave them suddenly without means of support. After all, not every player is immediately qualified to become a sports commentator or trainer. Furthermore, it is easy to get used to the extravagant lifestyle of the rich and famous and one can easily

forget to save for an abrupt end to the money flow resulting in a sudden drop into poverty and subsisting on social security. A common example is George Best, a British pro player who was famous in the 1960s, who answered the question of where all his money went as follows: "I spent a lot of money on alcohol, women, and fast cars. The rest I just wasted." This is certainly an extreme example, but who thinks about extensive financial life planning and provision for old age at a young age, especially when "the ruble is rolling" now.

Yet, this is precisely where to start to set the path to future financial security beyond the time of fame and fortune. Otherwise, one runs the risk of a pension gap when misfortune strikes or the career just fizzles out. This pension gap could easily be thirty years as even the formerly famous cannot draw on their state pensions early. Some countries have already formulated solutions to this problem. A prominent model is the Dutch Professional Football Bridging Scheme that provides corresponding pensions in the Netherlands. This is mandatory insurance and designed to bridge income for professional football players between the end of their career and commencement of their state pension. The players pay a certain percentage of their income in premiums and receive monthly payments after they retire. The pension fund generates capital gains from capital market investments. There is no comparable mandatory pension insurance in Germany. However, some German financial service providers offer voluntary policies that have yet to find broad acceptance.

This raises the question of how to structure a pension plan suitable to close the income gap for professional football players. While this would suggest a usual pay-up plan as in personal pension insurance, the needs of professional football players are significantly different and pose some additional challenges. A run-of-the-mill private pension insurance ideally starts when the policyholder is young and will continue with regular premium payments until the insured person reaches statutory retirement age. For professional football players the premium payment phase depends on the duration of their careers and is about limited to 10-15 years. Their high income allows for considerably higher premiums. Following the short premium collection phase is a long payout phase tailored to the desired standard of living ideally at least up to the time of statutory pension commencement.

Let us illustrate the problem with the example of a professional player in the first-tier league drawing the above-mentioned average annual income of EUR 2.3 million.

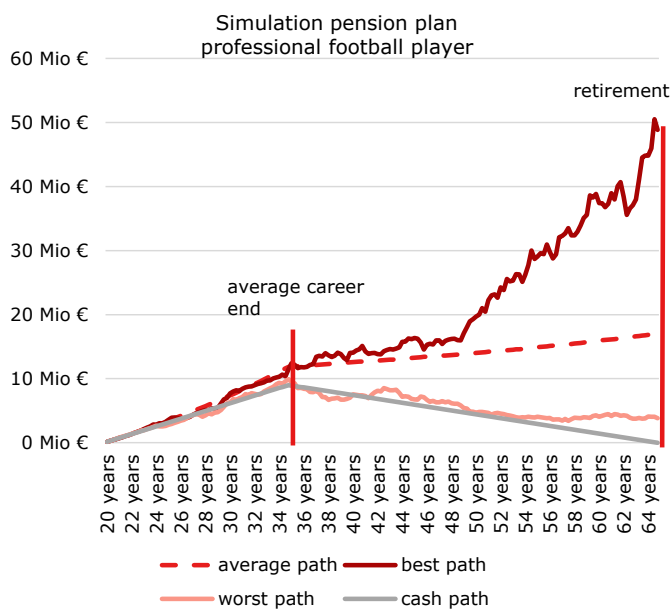
We furthermore assume that after taxes, social security, inflation, and cost of living, about a quarter of the gross income or EUR 50.000 per month could be invested into a savings plan with a fifteen-year duration. Given a withdrawal phase of thirty years means simply stuffing that money into a pillow will obviously leave only half of it or EUR 25.000 per month until the statutory pension kicks in. This would be a rather naïve thing to do as the money could be invested in the capital market. It is similarly naïve to assume that the invested funds can only be kept in the market until retirement, as the player will not immediately need the entire capital leaving residual capital to invest going forward. That makes the effective investment horizon for such a capital insurance plan significantly longer as the accumulated capital can be invested for thirty years or more.

What does this mean? Looking at asset class returns over various past investment periods shows that the gap between the best and worst annual returns is the lower, the longer the investment period is. Equity investments in the DAX index portfolio after the end of 1964 do not show negative annual yields on fifteen-year investment periods. Longer holding periods make investment in risky securities less volatile and thus more calculable. We therefore recommend designing such pension plan as a broadly diversified global portfolio with less risky, investment-grade sovereigns and corporate bonds, at least a third in global stocks, and an admixture of high-yielding, non-investment-grade bonds.

What can one reasonably expect? Only looking back to determine a historical yield for the portfolio allocation outlined above would be decidedly near-sighted. We will have to apply significant yield discounts especially in bonds due to the pronounced deterioration of interest rates over the past few years, which will remain this low for many years to come. Yields must therefore be corrected forward and replaced with realistic expectations across all asset classes. To better model this risk and assess effects on attainable payouts as well as payout projection under the pension plan, we use the entire data pool of past yields on asset classes, break them down, and re-assemble them into thousands of theoretical performance curves. Rather than plotting purely historical yield data, bootstrapping shows many possible performance curves for broad-based multi asset portfolios that all could occur just like this in the future.

Economic Situation and Strategy

The chart below plots the best, worst, and average performance curves for the above-outlined strategic allocation and assumed premium and payout amounts EUR 50,000 and EUR 25,000 per month, respectively, derived from thousands of possible performance paths. We are showing for comparison the naïve strategy of squirrelling away money in a piggy bank. The average may be used as a kind of expected value for the amount of possible withdrawals. On average, the pension plan provides payouts well beyond the age of retirement and still leaves considerable capital to use for further payouts or bequeath. Even under the worst-case scenario, our simulation would cover private pension at least until the beneficiary is 77 years old and thus much longer than any piggy bank.



In the spirit of ‘better safe than sorry,’ we have shown professional football players the necessity of and a way to provide for their financial future. Is this situation unique to football players? No! Other athletes as well as actors, musicians, and social media influencers may earn a lot of money over a short amount of time whilst always facing the risk of sudden income loss.

We thank our colleagues Dr. Ralf Budinsky und Yannick Müller for this contribution.

Market data

| Stock marketes | As of | Change versus | | | | |
|--------------------------------|---------------------|-----------------------|------------------------|-------------------------|-----------------------|-------------------|
| | 12.07.2021 10:18 | 05.07.2021 -1 week | 09.06.2021 -1 month | 09.04.2021 -3 months | 09.07.2020 -1 year | 31.12.2020 YTD |
| Dow Jones | 34870 | 0,2% | 1,2% | 3,2% | 35,6% | 13,9% |
| S&P 500 | 4370 | 0,4% | 3,6% | 5,8% | 38,6% | 16,3% |
| Nasdaq | 14702 | 0,4% | 5,7% | 5,8% | 39,4% | 14,1% |
| DAX | 15679 | 0,1% | 0,6% | 2,9% | 25,5% | 14,3% |
| MDAX | 34845 | 0,9% | 3,1% | 6,4% | 31,2% | 13,1% |
| TecDAX | 3638 | 2,0% | 6,6% | 4,4% | 19,5% | 13,2% |
| EuroStoxx 50 | 4051 | -0,9% | -1,1% | 1,8% | 24,2% | 14,0% |
| Stoxx 50 | 3528 | -0,3% | 0,5% | 4,6% | 17,2% | 13,5% |
| SMI (Swiss Market Index) | 11967 | 0,0% | 1,5% | 6,5% | 18,0% | 11,8% |
| Nikkei 225 | 28569 | -0,1% | -1,0% | -4,0% | 26,8% | 4,1% |
| Brasilien BOVESPA | 125428 | -1,2% | -3,4% | 6,6% | 26,5% | 5,4% |
| Russland RTS | 1629 | -2,1% | -2,7% | 14,9% | 32,0% | 17,4% |
| Indien BSE 30 | 52451 | -0,8% | 1,0% | 5,8% | 42,8% | 9,8% |
| China CSI 300 | 5133 | 0,9% | -2,0% | 1,9% | 6,0% | -1,5% |
| MSCI Welt (in €) | 3053 | 0,0% | 4,6% | 5,0% | 30,1% | 17,3% |
| MSCI Emerging Markets (in €) | 1318 | -2,8% | -1,4% | -0,8% | 16,6% | 5,5% |
| Bond markets | | | | | | |
| Bund-Future | 173,90 | 120 | 134 | 253 | -262 | -374 |
| Bobl-Future | 134,55 | 41 | 21 | -51 | -30 | -63 |
| Schatz-Future | 112,18 | 2 | -1 | 6 | 8 | -10 |
| 3 Monats Euribor | -0,54 | 2 | 2 | 2 | -11 | 4 |
| 3M Euribor Future, Dec 2017 | -0,53 | 0 | 0 | 3 | -6 | 0 |
| 3 Monats \$ Libor | 0,12 | -2 | -1 | -7 | -15 | -12 |
| Fed Funds Future, Dec 2017 | 0,08 | -1 | 0 | 0 | 11 | 0 |
| 10 year US Treasuries | 1,34 | -10 | -15 | -33 | 73 | 42 |
| 10 year Bunds | -0,30 | -5 | -6 | 3 | 19 | 27 |
| 10 year JGB | 0,03 | 0 | -4 | -7 | 2 | 1 |
| 10 year Swiss Government | -0,30 | -7 | -9 | -4 | 15 | 20 |
| US Treas 10Y Performance | 699,20 | 0,7% | 1,3% | 3,4% | -4,3% | -2,3% |
| Bund 10Y Performance | 671,01 | 0,8% | 0,8% | 0,4% | -1,1% | -2,0% |
| REX Performance Index | 495,98 | 0,4% | 0,5% | 0,3% | -0,2% | -0,7% |
| US mortgage rate | 0,00 | 0 | 0 | 0 | 0 | 0 |
| IBOXX AA, € | 0,22 | -5 | -3 | 1 | -11 | 20 |
| IBOXX BBB, € | 0,59 | -6 | -6 | -5 | -67 | 4 |
| ML US High Yield | 4,55 | -2 | -10 | -22 | -218 | -42 |
| Convertible Bonds, Exane 25 | 8374 | 0,0% | -0,2% | 0,6% | 10,0% | 0,6% |
| Commodities | | | | | | |
| MG Base Metal Index | 429,75 | -0,3% | -1,4% | 8,1% | 46,3% | 21,2% |
| Crude oil Brent | 74,90 | -3,0% | 3,6% | 18,8% | 76,2% | 44,3% |
| Gold | 1803,21 | 0,7% | -4,6% | 3,5% | 0,1% | -5,0% |
| Silver | 26,13 | -1,1% | -6,3% | 3,4% | 40,2% | -0,9% |
| Aluminium | 2480,70 | -2,1% | 0,4% | 10,4% | 51,6% | 25,7% |
| Copper | 9482,25 | 0,0% | -4,7% | 6,1% | 50,5% | 22,4% |
| Iron ore | 215,78 | 1,6% | 2,7% | 26,7% | 106,3% | 38,5% |
| Freight rates Baltic Dry Index | 3300 | 2,4% | 33,0% | 58,3% | 82,3% | 141,6% |
| Currencies | | | | | | |
| EUR/ USD | 1,1875 | 0,1% | -2,6% | -0,1% | 4,7% | -3,2% |
| EUR/ GBP | 0,8555 | -0,2% | -0,8% | -1,2% | -4,4% | -4,4% |
| EUR/ JPY | 130,67 | -0,7% | -2,0% | 0,2% | 7,4% | 3,3% |
| EUR/ CHF | 1,0853 | -0,7% | -0,5% | -1,4% | 2,1% | 0,5% |
| USD/ CNY | 6,4717 | 0,1% | 1,3% | -1,2% | -7,5% | -0,9% |
| USD/ JPY | 110,16 | -0,7% | 0,5% | 0,4% | 2,8% | 6,7% |
| USD/ GBP | 0,72 | -0,3% | 1,8% | -1,1% | -9,1% | -1,5% |

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