

Long Term Returns

The long run outlook for investment markets -
what returns should investors expect?



Long Term Returns

What returns should investors expect?

The returns that a portfolio can produce are a vital piece of the financial planning puzzle for investors!

Introduction

Have you ever wondered whether your pension fund will provide you with enough income in retirement or whether the hard earned money you have invested for you or your family will generate the lump sum that you need?

A lot of factors feed into answering these questions from a financial planning perspective; how much are you investing and for how long? What are the fees associated with the portfolio? How are gains taxed and can you access your money if you need it? How much do you think you need to meet your ultimate goal?

And then there's the risk and return for the portfolio. Generally, most investment funds or portfolios are risk rated these days which helps investors decide whether a certain fund or portfolio meets their individual willingness and ability to take on risk.

But what about the return potential for the portfolio? Here most advisers and investors understandably default to the historic returns generated by the portfolio. But is this the correct approach if "past performance is not indicative of future returns" as is frequently warned in investors' terms and conditions?

In this report we endeavour to develop investors and advisers understanding of the return potential of portfolios by producing our own estimates of the long term returns achievable from the main investment classes (public equities, government bonds, corporate bonds, commercial real estate and liquid alternatives). We stress that our approach is not or should not be used as a template for market timing or tactical asset allocation. Rather, we hope that this provides advisors and investors alike with a more refined approach to evaluating the long-term potential from portfolios, thereby aiding them in tackling a central issue in financial planning.

Long term asset class returns – what really drives them?

Economic and financial theory tells us that any number of factors can play some part in determining the long term returns from asset classes. Examples can include long term economic growth (which in turn is impacted by things like population and productivity growth), interest rates, inflation, corporate profitability, dividend or interest income, investor expectations and so on.

However, how each of these factors impacts investment returns makes for a complex cocktail. Take economic growth for example – if economic growth is the ultimate determinant of equity market returns then how come the Chinese equity market or emerging market stock markets for that matter haven't consistently outperformed over the past twenty years, a period when economic growth has been so strong?

The main takeaway for us from this example is our belief that it is difficult to build a simple economic based model which will produce reliable estimates of the long-term returns which are achievable from the main asset classes. So, what can we use instead?

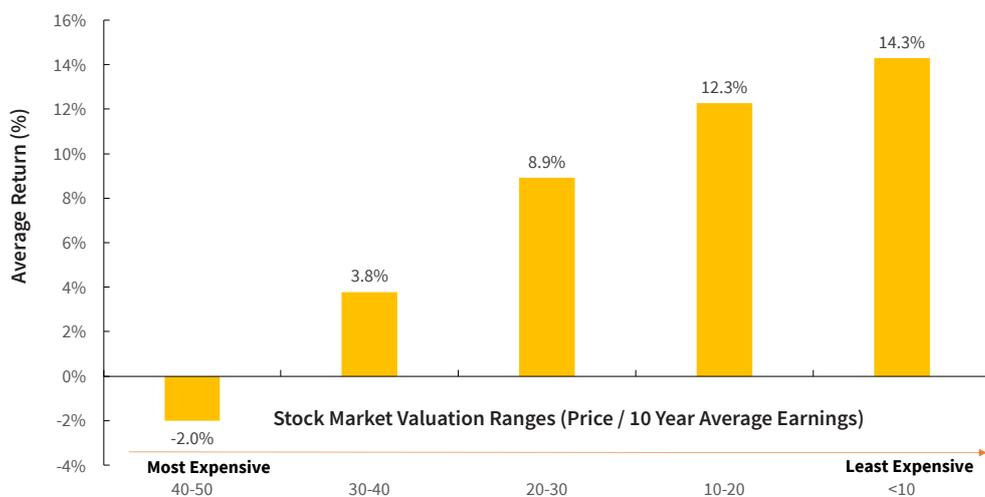
In our view the valuations for each asset class can provide useful estimates of the future long term returns that asset classes are capable of. Intuitively we think this makes sense – if an asset is cheap in valuation terms when you purchase it then it should stand a better chance of outperforming and vice versa, right?

Long term asset class returns

This 'theory' is also borne out in practice. Charts 1 and 2 below break up the valuations of the US stock market (as measured by Price/10 Year Average Earnings (P/E) ratios*) and the US bond market (as measured by 10 year yields) into quintiles ranging from most expensive (highest P/E ratio for stocks or lowest bond yield for bonds) to cheapest (lowest P/E ratio for stocks or highest bond yield for bonds). As we can see, in both instances the cheaper the valuation investors invested at, the better they performed over the next ten years and vice versa.

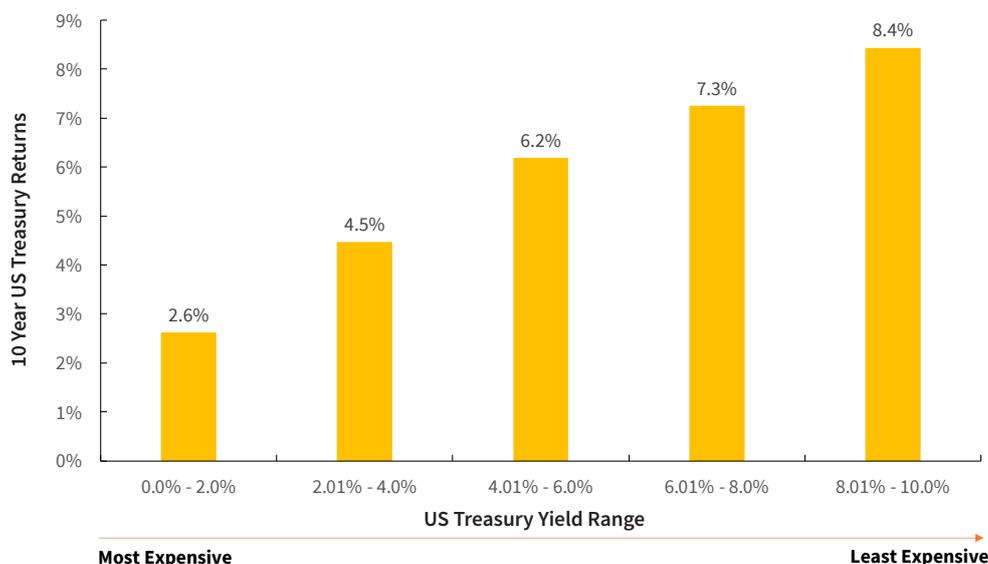
Over time, the valuations investors 'pay' for the various asset classes have proved to be a good predictor of the types of long term returns they can achieve.

Chart 1: Relationship between US Stock Market Valuations and Subsequent 10 Year Returns*



Source: Shiller Database, Bloomberg March 2022
 *Stock market valuation represented by Cyclically Adjusted P/E Ratio, returns on S&P 500, analysis performed since 1980

Chart 2: Relationship between US Bond Market Valuations and Subsequent 10 Year Returns*



Source: Bloomberg, March 2022
 *Returns based on FTSE US 7-10Y Treasury Index, Treasury yields refer to 10 year yields, analysis since 1990

Global Equities

We use four models to determine the possible long term returns global equity markets are capable of producing.

Methodology behind our ‘guesstimates’

As we noted earlier, the long term return forecasts we outline in this paper are determined based on valuations because as we can see in charts 1 and 2 – valuation has historically been a solid predictor of the long term returns on offer from asset classes. In this part of our report, we take it in turn to describe how we arrive at the return forecasts for each asset class.

Global Equities

Our modelling of future equity market returns is probably of most interest to investors given their likely significant exposure to the asset class. However, it is also the asset class in which we see the greatest potential variability in long term return possibilities. Overall, we employ four models to assess the long-term potential from equities.

Model 1:

Estimated returns based on the real earnings yield from equities (based on Price/10 Year Average Earnings) plus a long-term inflation assumption (2%)

Model 2:

Estimated returns based on the statistical (regression) relationship between P/E ratios (Price/10 Year Average Earnings) and subsequent 10 year returns over time.

As with model 1 a long-term inflation assumption is added to this estimated return.

Model 3:

A ‘building block’ approach* which includes a number of different elements of potential return – the income yield from equities (incorporating the dividend yield and any additional yield from share buybacks), a proxy for corporate profit growth (which we assumed to be an assumption of 2.5% for global real economic growth), an assumption for long term inflation (the same 2% as in models 1 and 2) and assumed upside or downside for equities driven by whether the asset class is ‘cheap’ or ‘expensive’ relative to long term average valuations.

For the first three models we produce a global equity return forecast based on each region’s approximate current weight in a global equity benchmark.

Model 4:

A dividend discount model for a number of the key regional international equity markets**. This model is slightly different to the previous ones insofar as it provides an indication of what long term returns are ‘priced into’ the main equity markets at present based on current equity index levels and bond yields and assumed growth rates (based on long term returns on equity and retention ratios).

A summary of dividend discount models for the US, Europe and Japan is included in the appendix to this report with areas shaded as red, amber or green indicating values at which each region’s equity market may be overvalued (red), fairly valued (amber) or undervalued (green) from a long term perspective. Using the current 10-year bond yield and equity index level, readers can identify the equity risk premium which is currently priced into each market. By adding this ten-year bond yield to the equity risk premium, one can obtain a rough estimate of potential long term returns from each market.

*Based on Grinold and Kroner’s 2002 paper “The Equity Risk Premium: Analysing the Long Run Prospects for the stock market”

**Markets analysed are the US (S&P 500 Index), Pan Europe (Stoxx 600 Index), Japan (Nikkei 225 Index), Asia Pacific ex Japan (MSCI Asia Pac ex Japan Index) and Emerging Markets (MSCI Emerging Markets).

Our equity market return forecasts are summarised in table 1 below.

Table 1: Summary of Global Equity Return Forecasts

Region	Return Model 1	Return Model 2	Return Model 3
US	2.3%	0.2%	0.8%
Europe	3.4%	3.9%	4.4%
Japan	4.1%	0.1%	1.0%
Asia ex. Japan	5.1%	6.6%	4.7%
Emerging Markets	5.3%	3.5%	5.1%
Global Real Return Forecast*	3.1%	1.6%	2.1%
Long Term Inflation Assumption	2.0%	2.0%	2.0%
Global Nominal Return Forecast*	5.1%	3.6%	4.1%

Source: BlackBee, Bloomberg, April 2022

*Global Return Forecasts calculated using approximate weights for each region from MSCI World benchmarks

Our models give varying results but overall we think a global equity portfolio is capable of returning somewhere between 5% and 7% before fees over the long term.

Key Messages

In our view the key messages arising from the analysis are:

- **Models 1-3 indicate that forward looking nominal equity return estimates are likely to be in the range of 3-5% per annum, lower than the long-term historical returns which investors have become accustomed to.** Furthermore, the returns are not currency hedged – currency moves could either add or detract from returns.
- **Our results indicate that US equity markets appear relatively expensive from a long-term perspective.** Consequently, the forward-looking nominal return forecasts for the US market are lower, ranging from 1% to 4%. This tends to drag down the overall global return forecast, given the significant US equity weight in many leading global equity benchmarks.
- **In contrast regions like Europe, Asia ex Japan and the emerging markets all look capable of delivering stronger returns,** albeit again generally lower than investors have been used to through time.
- **Our dividend discount models in the appendix tend to indicate a better outlook for equity market returns.** The models in Appendix A-C indicate better returns of 5% to 7% are achievable across developed markets like the US, Japan and Europe with potentially better returns in Asia and Emerging Markets. At an overall global level this points to returns of more like 7%.
- **Long term equity valuations (in this case P/E ratios calculated as Price divided by average 10-year earnings) such as the ones we use in models 1-3 typically tend to be quite poor predictors of short term market movements.** We can see this in practice in the past few years – for example, our models suggest US equities are relatively expensive and emerging market equities are relatively cheap. Yet US equities have outperformed in recent years while emerging market equities have lagged.
- **Consequently, we would view any attempt by investors to use this analysis as a tactical asset allocation or market timing tool as unwise.** In our view the power of this analysis is instead in providing investors with more realistic expectations around future equity returns (helpful when performing long term asset allocation exercises) and in potentially identifying regions investors may wish to tilt towards to improve the long term potential performance from their equity portfolios.

Long Term Returns

Bonds

We believe a global government bond portfolio is capable of delivering returns of close to 2% (before fees), while investment grade corporate bonds could deliver close to 3% (before fees).

Bonds (Government and Investment Grade Corporate)

Our approach to estimating the future return potential from bond markets is simpler because we assume that the return over the next ten years is essentially based on the current yield to maturity, perhaps the most conventional way of valuing bond (particularly government bonds). In other words, we implicitly assume investors buy these bonds, hold them to maturity and that any credit or default risk is negligible.

From a government bond perspective we analyse the return potential from a global portfolio (based on current FTSE World Government Bond Index weights) although as with our work in equities, this return is not currency hedged and is subject to further possible volatility arising from foreign exchange movements.

In calculating our return estimate for investment grade corporate bonds we add a weighted average credit spread to the government bond return forecast (based on current US credit spreads) and implicitly assume that defaults in the space will not have a material impact on returns, in line with historic experience.

Key Messages

- **We estimate that a global sovereign bond portfolio is capable of producing a return of approximately 1.7% given where sovereign yields stood at the end of the first quarter.** As with our equity return forecast, this is not a currency hedged return and consequently currency volatility could add to or detract from this return.
- **For those investors who invest only in Euro zone government bonds, we estimate that the return potential from sovereign bonds in this region is lower, at approximately 1.2% per annum over a ten-year horizon.**
- **Investment grade corporate bonds offer a decent yield pick up over sovereign bonds based on spreads at the end of the first quarter. Based on our analysis we believe an investment grade corporate bond portfolio could deliver annualised returns of approximately 2.8%.**

Real Estate

Prime Commercial Real Estate

In addition to equities and bonds, prime commercial real estate is another asset class that most Irish investors are exposed to in some way as part of their portfolios.

Theoretically the return from commercial real estate comes from two parts:

- The rental yield from the property, or the rental income divided by the value of the asset together with any compression or expansion of this yield, and
- Rental growth through asset management and other factors such as demand for the asset, its age, location, condition and increasingly the Environmental, Social and Governance (ESG) characteristics of the building, where premiums are offered to those with the highest green specifications

Key Messages

- **At present, looking at prime Irish commercial property yields are generally in the range of 4-4.5% (4% for office and industrial assets, 4.5% for prime retail). If we can even conservatively assume that commercial real estate achieves long term rental growth in line with our earlier equity market inflation assumption of 2%, then unleveraged returns of 6-6.5% look achievable for prime real estate assets.**

Liquid Alternative Funds

Liquid alternative funds have grown in popularity over the past twenty years as investors have sought to take advantage of these hedge fund type portfolios in an effort to gain diversified exposure to a range of investment markets and reduce downside risk. In addition, these funds also tend to come with the added features of daily pricing and liquidity which has added to their attractiveness.

Data from Preqin show that the global liquid alternative sector grew significantly in size from \$156 Billion in 2005 to \$876 Billion by 2020. However, they have struggled periodically to outperform their 'cash plus' return targets, particularly during periods of low market volatility such as in the past ten years.

The multi asset nature of these portfolios together with their more active trading style (similar to hedge funds) and the unique investment strategies followed by each fund do make it more difficult to pin down the return potential from these portfolios. Here we use the building blocks of our return forecasts for equities and bonds to produce what we believe is a reasonable long run return guesstimate for conservatively managed liquid alternative funds.

Liquid Alternative Funds

Returns of 6-6.5% look achievable from prime Irish commercial real estate while liquid alternative funds could produce returns of close to 4% (both before fees).

Key Messages

- Overall, we make a basic assumption that our liquid alternatives portfolio is proxied by a rough 50/50 exposed to equities and investment grade corporate bonds. In addition, we assume that the betas of the equity and corporate bond parts of the portfolio are relatively low (no higher than 0.5). Finally, we assume long run manager alpha of 2% per annum. Altogether this produces a long run return estimate of 3.7%.



Long Term Returns

Pulling it all together

Our analysis shows that future returns are likely to be lower than investors are used to across a range of asset classes. However, this phenomenon is most visible for bond investors.

Pulling it all together

In table 2 we have assembled our return estimates for the various asset classes alongside their historical performances.

The clearest finding from table 2 is that our return estimates are lower than the returns investors have traditionally been used to. While this applies to most of the asset classes in our analysis it is particularly relevant to bond market investors and by extension investors in conservatively managed funds which may have a significant bond market exposure. Other key implications of this analysis revolve around fees, active manager alpha, and portfolio diversification.

Clearly if returns may be lower going forward than investors are used to then it will be important for investors to focus even more on the issue of fees. One approach may be to try to minimise costs where investors are investing in large liquid markets or asset classes (for example through index funds or ETFs), freeing up fee budgets to perhaps use in more niche asset classes where significant manager outperformance is more achievable.

The lower returns from our research also underlines the importance of carefully evaluating investment managers, their track records and their capacity to outperform in the future. If the next ten years is indeed going to be a period of lower returns, then active manager outperformance will take on an even more crucial role in generating investment success. A third implication from our analysis is that investors would be well advised to consider other alternative type investments which are lowly correlated with equities and bonds, but which also offer new and diversified sources of returns. While this may involve more legwork for investors, we believe this is labour that could help yield better long-term outcomes for investors.

Table 2: Long Term Nominal Return Expectations

Asset Class	Long Run Return Estimates	10 Year Historic Return (per annum)*
Global Equities	5.0%	8.8%
Developed Market Government Bonds	1.7%	7.7%
Investment Grade Corporate Bonds	2.8%	8.0%
Commercial Property (Prime Ireland)*	6.3%	13.0%
Liquid Alternatives (Absolute Return)	3.7%	1.9%
60/40 Equity/Govt. Bond split	3.7%	8.4%

Source: BlackBee, April 2022

US Government Bond Historic return from FTSE USBIG 7-10 Year Treasury Index, average of 10 year return vintages from March 1990

US Corporate Bond Historic return from FTSE USBIG Corporate Index, average of 10 year return vintages from March 1990

Liquid alternative historic return from HFRU Hedge Fund Composite Index, average of 10 year return vintages from 2018 onwards

Historic Global Equity returns, source MSCI - average of 10 year return vintages from December 1979

*Historic average annual return for JLL Ireland Property Index - 2012-2021

Indicative returns over a ten year period

*Historic 10 year returns based on average 10 year return vintage for respective indices

Conclusions

In recent times numerous prominent investment commentators have warned that investors should prepare themselves for a new era of lower returns across investment markets. Given the scale of the gains investors have earned in recent years, one would certainly be forgiven for suspecting that returns might indeed be more modest going forward. This is a key goal of our research – to try to help investors identify how much future performance could differ from the recent past.

As investors we know that any financial market forecast is rarely correct, and we're humble enough to accept that it is very likely our estimated returns will not be perfect in this instance either. On balance our return estimates for risk assets like equities and commercial real estate may err on the side of caution. So, in reality the long run upside for these asset classes could end up being slightly higher.

However, by focusing on valuations we believe we can obtain a realistic handle on what is achievable from markets in the future, particularly since they have a solid historical track record in guiding likely returns.

In our view, tackling the issue of what asset class returns are achievable now might prove crucial in helping investors with their long term asset allocation, which still to this day remains the biggest single driver of portfolio returns and one of the biggest challenges around financial planning for customers.

Conclusions

Extra focus on fees, manager evaluation and other alternative investments will be crucial for investors in mitigating the lower future return outlook.





Appendix A/B/C: Dividend Discount Models for US, European and Japanese Equity Markets

Appendices

A

S&P 500 Equity Valuations (Current Value = 4,132)										
Equity Risk Premium										
	3.75%	4.00%	4.25%	4.50%	4.75%	5.00%	5.25%	5.50%	5.75%	6.00%
1.00%	N/M	N/M	N/M	N/M	N/M	N/M	74,891	19,338	11,102	7,786
1.25%	N/M	N/M	N/M	N/M	N/M	74,891	19,338	11,102	7,786	5,996
1.50%	N/M	N/M	N/M	N/M	74,891	19,338	11,102	7,786	5,996	4,875
1.75%	N/M	N/M	N/M	74,891	19,338	11,102	7,786	5,996	4,875	4,107
2.00%	N/M	N/M	74,891	19,338	11,102	7,786	5,996	4,875	4,107	3,548
2.25%	N/M	74,891	19,338	11,102	7,786	5,996	4,875	4,107	3,548	3,123
2.50%	74,891	19,338	11,102	7,786	5,996	4,875	4,107	3,548	3,123	2,789
2.75%	19,338	11,102	7,786	5,996	4,875	4,107	3,548	3,123	2,789	2,519
3.00%	11,102	7,786	5,996	4,875	4,107	3,548	3,123	2,789	2,519	2,297
3.25%	7,786	5,996	4,875	4,107	3,548	3,123	2,789	2,519	2,297	2,111
3.50%	5,996	4,875	4,107	3,548	3,123	2,789	2,519	2,297	2,111	1,953
3.75%	4,875	4,107	3,548	3,123	2,789	2,519	2,297	2,111	1,953	1,817
4.00%	4,107	3,548	3,123	2,789	2,519	2,297	2,111	1,953	1,817	1,699

B

EuroStoxx 600 Equity Valuations (Current Value = 450)																	
Equity Risk Premium																	
	4.00%	4.25%	4.50%	4.75%	5.00%	5.25%	5.50%	5.75%	6.00%	6.25%	6.50%	6.75%	7.00%	7.25%	7.50%	7.75%	8.00%
0.00%	N/M	N/M	36,012	4,616	2,466	1,682	1,277	1,029	861	741	650	579	522	475	436	403	374
0.25%	N/M	36,012	4,616	2,466	1,682	1,277	1,029	861	741	650	579	522	475	436	403	374	350
0.50%	36,012	4,616	2,466	1,682	1,277	1,029	861	741	650	579	522	475	436	403	374	350	328
0.75%	4,616	2,466	1,682	1,277	1,029	861	741	650	579	522	475	436	403	374	350	328	309
1.00%	2,466	1,682	1,277	1,029	861	741	650	579	522	475	436	403	374	350	328	309	292
1.25%	1,682	1,277	1,029	861	741	650	579	522	475	436	403	374	350	328	309	292	277
1.50%	1,277	1,029	861	741	650	579	522	475	436	403	374	350	328	309	292	277	263
1.75%	1,029	861	741	650	579	522	475	436	403	374	350	328	309	292	277	263	250
2.00%	861	741	650	579	522	475	436	403	374	350	328	309	292	277	263	250	239
2.25%	741	650	579	522	475	436	403	374	350	328	309	292	277	263	250	239	229
2.50%	650	579	522	475	436	403	374	350	328	309	292	277	263	250	239	229	219
2.75%	579	522	475	436	403	374	350	328	309	292	277	263	250	239	229	219	211

C

NIKKEI 225 Equity Valuations (Current Value = 26,848)														
Equity Risk Premium														
	3.00%	3.25%	3.50%	3.75%	4.00%	4.25%	4.50%	4.75%	5.00%	5.25%	5.50%	5.75%	6.00%	6.25%
0.00%	N/M	1,010,064	168,344	91,824	63,129	48,098	38,849	32,583	28,057	24,636	21,958	19,805	18,037	16,558
0.25%	1,010,064	168,344	91,824	63,129	48,098	38,849	32,583	28,057	24,636	21,958	19,805	18,037	16,558	15,304
0.50%	168,344	91,824	63,129	48,098	38,849	32,583	28,057	24,636	21,958	19,805	18,037	16,558	15,304	14,226
0.75%	91,824	63,129	48,098	38,849	32,583	28,057	24,636	21,958	19,805	18,037	16,558	15,304	14,226	13,290
1.00%	63,129	48,098	38,849	32,583	28,057	24,636	21,958	19,805	18,037	16,558	15,304	14,226	13,290	12,470
1.25%	48,098	38,849	32,583	28,057	24,636	21,958	19,805	18,037	16,558	15,304	14,226	13,290	12,470	11,745
1.50%	38,849	32,583	28,057	24,636	21,958	19,805	18,037	16,558	15,304	14,226	13,290	12,470	11,745	11,100
1.75%	32,583	28,057	24,636	21,958	19,805	18,037	16,558	15,304	14,226	13,290	12,470	11,745	11,100	10,521
2.00%	28,057	24,636	21,958	19,805	18,037	16,558	15,304	14,226	13,290	12,470	11,745	11,100	10,521	10,001

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