Square Mile Report

PruFund Range

September 2018

Introduction

Savers have long sought the holy grail of investment; that is a return which is ahead of cash but with little or no risk to capital. Of course, no such investment exists, however the PruFund range go some way to this ideal by providing products that are designed to generate attractive long-term returns but where price movements are smoother than many other strategies investing in a similar mix of assets. Indeed, this range of multi-asset funds from Prudential Assurance Company (Prudential), which helps manage expectations around growth rates, is home to a significant body of assets.

However, the product comes with some restrictions and limitations as well as a non-traditional method for calculating the unit price for the funds. Advisers using the PruFunds should be fully aware of these factors and ensure that their clients are well informed about their implications.

Many advisers will be attracted to the PruFunds due to their past performance record and this is evidenced by their strong growth in assets seen over the last few years. Square Mile has undertaken an independent review of the PruFunds to help advisers better understand this investment proposition.

Within this report, we examine the different PruFund options available to investors and how the team behind the funds aim to achieve the stated objective of each. We discuss the mechanism which is used to smooth returns and provide a steady, incremental increase in unit price as well as the circumstances in which this mechanism can break down. We also describe how the portfolios are constructed on a layer by layer basis and the team responsible for this. An assessment of the complexity and transparency of the funds, relative to retail multi-asset collective funds is also made. Finally, we look at performance and value for money although this is not a straight-forward exercise due to the bundled charging structure of the funds on many products.

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1.1 Opinion

The Prufund range is a collection of multi-asset funds that offer investors different return and therefore risk expectations and aim to provide smoother returns than many other multi-asset funds.

We believe the PruFund range of funds offered by Prudential are an attractive proposition for investors who are willing to take on some investment risk but who would like a smoother return profile than is generally available from many multi-asset funds. Prudential are one of only a few businesses that have the infrastructure and capital strength to offer a product which has the potential to smooth returns. We believe the fund's simple and tangible objectives, which are to deliver an explicit level of capital growth each year, known as the expected growth rate (EGR), will resonate with both adviser and investor. Added to this, Prudential has an open and transparent policy of publishing EGRs and the rationale for any change is communicated to advisers.

Whilst the smoothing of investment returns is an attractive feature, investors should be aware that circumstances exist where the mechanism that is used to calculate this smoothed unit price can be suspended. We believe that this potential scenario, and the less transparent nature of the underlying asset value, caused by the smoothing mechanism, may be an impediment for some investors. Additionally, reductions in the EGR, which are possible, are unlikely to be warmly greeted by investors regardless of the circumstances surrounding the move and investors need to keep on top of the current growth rate to ensure it remains appropriate in meeting their longer term financial goals. In addition, the fact that the funds are only available via Prudential products and that the business reserves the right to delay cancellation of units for 28 days, under certain circumstances, may make them a less attractive option for some investors.

Prudential are long-term investors. Their approach is a sensible one which relies on assessing the long-term potential returns from a broad range of asset classes and constructing a portfolio which seeks to deliver relatively stable returns across a range of market environments. The modelling and work which go into building the asset class assumptions is very strong and we believe is on a par with leaders in the field.

The announced demerger of M&G Prudential from Prudential plc constitutes a structural change for the business. However, longer term we believe this to be a positive move and should benefit the firm, allowing it greater control over its business strategy and capital allocation. To date we are not aware of significant personnel changes which would cause us concerns around the long-term direction and leadership of the business.

We think the core competency and strength of the team responsible for the investment engine which drives the PruFunds is in strategic asset allocation (SAA) and risk management, both of which are fundamental to the successful delivery of the objectives of the fund. In our view, the team at Prudential Portfolio Management Group (PPMG) is strong and well-resourced, with the necessary skills to continue to manage the funds in a successful manner. The coming together of Prudential UK & Europe and M&G Investments (M&G) may cause some uncertainty over the team short-term but we believe it is unlikely they will be significantly disrupted by any changes.

Over the long-term the PruFunds have delivered strong absolute returns and have met their objectives. They also have a proven track record of delivering smoother investment returns than many other multi-asset funds. However, we caution that some of the strong returns across these funds and many other multi-asset funds have been bolstered by the fall in real interest rates and subsequent re-rating of equity markets. This means the expectation is that forecasted returns will be lower in the future than in the past, and this has been reflected in the reduction in the expected growth rate (EGR) on the funds. Indeed, if we were to see a correction in markets, like that experienced during the global financial crisis, the PruFunds, like many other multi-asset funds, may go through a period of very soft returns, which possibly could be negative if it becomes necessary for a unit price adjustment to be made, as was the case in 2008-2009.

The PruFunds are competitively priced compared to other multi-asset funds available via Prudential products, but they have a lower level of price transparency. The economies of scale and use of internal managers provide cost savings for Prudential and some of these benefits look like they are passed on to investors. The benefits of a large asset base, which provides the economies of scale, can at times be an impediment, as it has the potential to move markets. PPMG seek to mitigate this to some extent by using derivatives to change the portfolio shape and long-term they have demonstrated that they are good allocators of capital despite the large asset base and we see no reason why they cannot continue in the same vein going forward.

In summary, we think that the funds will appeal to the type of investor that isn't suited to the daily ups and downs of market returns and in return is willing to forego some of the transparency that you would receive in a unit trust or OEIC structure. These investors would also need to understand that, over time, any fund can only pay out what it has earned and returns are likely to be in line with the fund's net asset value and would have had to accommodate the requirement within its asset allocation to match liabilities as well as provide returns.

1.2 Outcomes & Objectives

1.2.1 Fund Outcomes

The Prudential PruFunds are a range of multi-asset funds which aim to provide capital growth over the longer term. The funds offer investors a range of different risk and return profiles.

PruFund Growth is the flagship fund and was launched in November 2004. PruFund Cautious was launched in July 2009 and the Risk Managed PruFund range was launched in November 2011. Within the report we refer to the funds collectively as PruFunds.

Each PruFund provides a clear expectation of the level of growth which it aims to deliver over the longer term (up to 15 years), known as the EGR. The EGR is reviewed and updated on a quarterly basis and may move up or down. The current EGRs applicable through one of Prudential's pension plans, the Retirement Account as at 30 June 2018, are detailed in figure 1: Note these rates may vary depending on the Prudential product through which the funds are purchased but provide an indication of the level and spread of returns potentially available.

Figure 1

PruFund Range and Expected Growth Rates

Name	*Current EGR*
PruFund Cautious	*5.5%*
PruFund Growth	*6.2%*
PruFund 0-30	*5.1%*
PruFund 10-40	*5.5%*
PruFund 20-55	*6.1%*
PruFund 40-80	*6.3%*

Source: Prudential, as at 30th June 2018

Guaranteed versions of the PruFund Cautious and Growth funds are also available. Here Prudential guarantee to provide a return of capital at the end of the selected term, which ranges from 10 to 15 years. There is an additional cost for the guarantee, on top of the total fund charge, and this extra charge varies by fund and term selected. The Risk Managed PruFunds are not available with guarantees.

1.2.2 Fund Objectives

PruFund Cautious

The fund aims for steady and consistent growth through a cautious approach to investing. The fund currently invests around 70% in a well-diversified portfolio of fixed interest securities and holdings of cash and money market instruments. The balance is invested in UK and international shares, property and alternative assets.

PruFund Growth

The fund aims to maximise growth over the medium to long term by investing in shares, property, fixed interest and other investments. The fund currently invests in UK and international equities, property, fixed interest securities, index-linked securities and other specialist investments.

PruFund 0-30

The fund aims to achieve long-term total return (the combination of income and growth of capital). The fund is actively managed, typically with a high exposure to lower risk assets such as fixed interest securities and holdings of cash and money market instruments with no more than 30% of the fund being invested in equities.

PruFund 10-40

The fund aims to achieve long-term total return (the combination of income and growth of capital). The fund is actively managed, typically with a bias towards lower risk assets such as fixed interest securities and holdings of cash and money market instruments but will always have some exposure to equities, with between 10% and 40% of the fund being invested in equities.

PruFund 20-55

The fund aims to achieve long-term total return (the combination of income and growth of capital). The fund is actively managed with a well-diversified exposure to UK and international equities, property, fixed interest securities, index-linked securities and other specialist investments. From time to time, however, the portfolio may have a high exposure to equities and / or fixed income assets. Between 20% and 55% of the fund will be invested in equities.

PruFund 40-80

The fund aims to achieve long-term total return (the combination of income and growth of capital). It is an actively managed fund with a well-diversified exposure to UK and international equities, property, fixed interest securities, index-linked securities and other specialist investments. Typically the fund will have a bias towards assets providing the potential for growth such as equities, with between 40% and 80% of the fund being invested in equities.

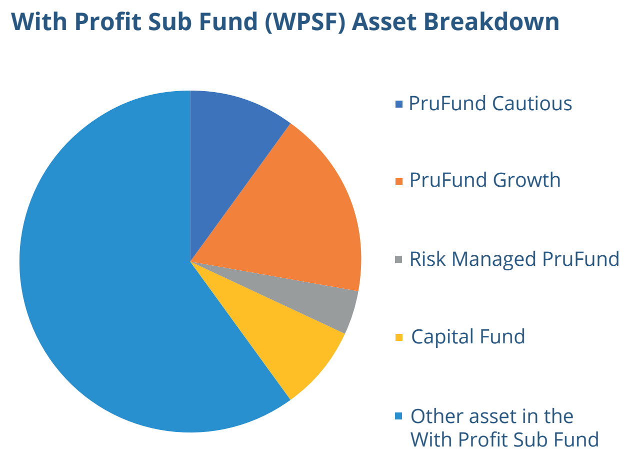
1.3 Fund Details

1.3.1 Fund Structure

The PruFunds have clear return objectives, however their underlying structure is complex. They are insured funds and so their accessibility is limited and they are only available via Prudential's own pension and investment products. Unlike most other retail open-ended funds where returns are directly based on the performance of the underlying investments within the funds, the PruFunds' returns are based on the EGRs and any unit price adjustments (UPA) are intrinsically linked to the performance of the assets within the Prudential With-Profits Fund.

The assets which support the PruFunds, and other with-profits funds, are held within one central pot of assets which totalled £101bn as at 31st March 2018. This pot is divided up into what Prudential refer to as the Asset Share Fund and the Capital Fund, the latter being the inherited estate and working capital of the life company. Whilst the inherited estate can be used to support PruFunds, any new business should be priced such that it is financially self-supporting. The returns from the Asset Share Fund provide the growth for the PruFunds, and the Capital Fund is used to support guarantees, smoothing and any redemptions at a time when the net asset value of the fund is below the smoothed unit price. Similarly, the Capital Fund will receive any surplus from redemptions when the NAV is above the smoothed unit price.

Figure 2



Source: Prudential, as at March 2018

The Capital Fund essentially contains the excess of the life company assets over those required to meet the reasonable expectations of policyholders and the solvency capital for Prudential. It therefore invests predominantly in short duration bonds. The scope of this report does not extend to any opinion of the financial strength of the Prudential With-Profits Fund as this is outside of Square Mile's area of specialisation. There are businesses that specialise in providing guidance on the financial strength of with-profits funds and investors should refer to these for guidance in this regard.

This large central pot of assets also supports a number of Prudential's business activities including, traditional with-profits, non-profit, unitised with-profits and with-profits annuities. The current structure of the overall Asset Share Fund is circa 70% in real assets (equities, property and alternatives) and 30% in nominal assets (fixed income). This mix is deemed appropriate to provide a sufficient level of return over the long term to meet the expected growth rates supporting a number of funds which form part of this central pot as well as support the underlying liabilities of the funds. The PruFund Cautious fund is legally a separate pool of assets. This is based on the fact that it has a materially different mix of assets, where circa 62% is in nominal assets and 38% in real assets.

The method of calculating returns for the Risk Managed PruFunds is based on the performance of the appropriate assets in the With Profits fund and is referred to by Prudential as 'hypothecated returns'. The simplest way to illustrate how this works is through the example below.

If a Risk Managed PruFund had an asset mix of 50% UK equities and 50% UK bonds, and the return net of fees of the UK equity portion of the with-profits funds was 7% and the UK government bond portion 3%, then the hypothicated return on the fund would be 5% (i.e. 3.5% (50% x 7%) + 1.5% (50% x 3%)).

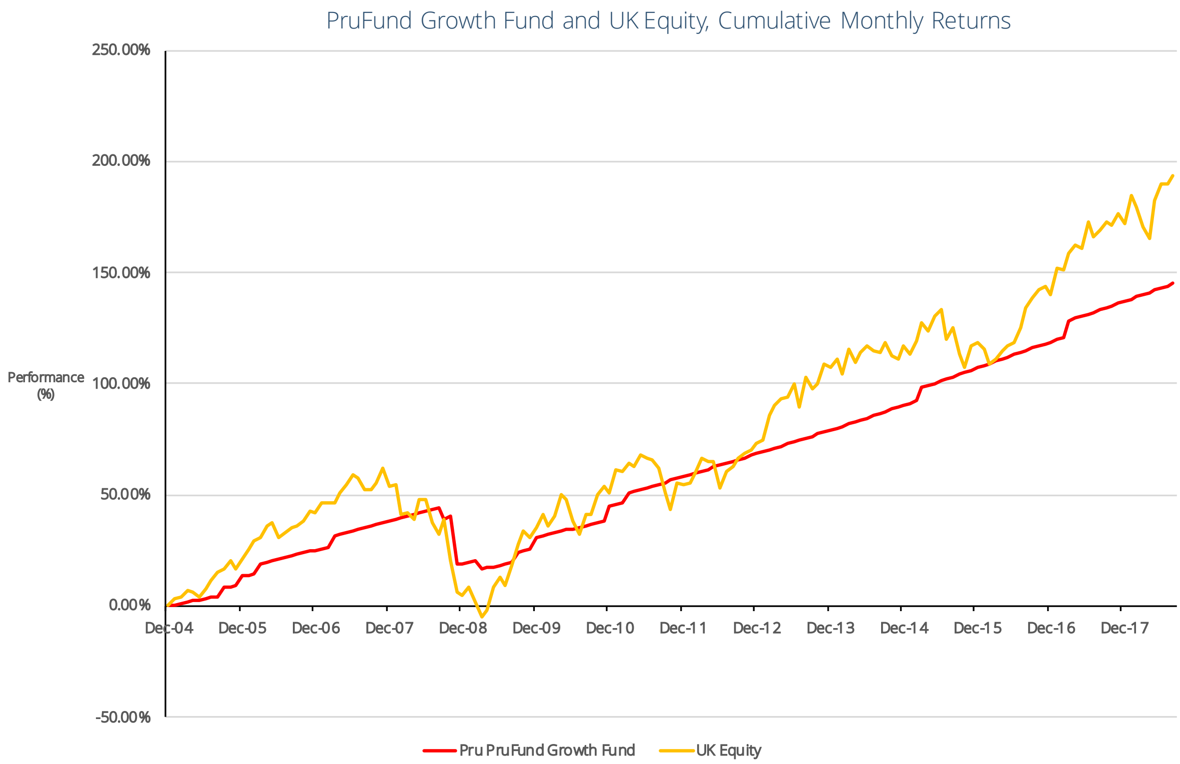
The large size of the Asset Share Fund is likely to be an impediment to the team's ability to be nimble and quickly change its underlying asset allocation in a targeted way, however futures can be used to implement capital efficiently. The investment approach for this fund is very long-term in nature and the team try to anticipate thematic changes in markets and sentiment before they are reflected in asset prices. Whilst the volume of assets under their control is large, PPMG has a good track record of being able to manage investments on this scale. Flows into the PruFunds continue to be strong, with inflows of over £11bn over 2017. The underlying unit holders continue to be retail investors.

Prudential have shown a firm commitment to the retail IFA market over many years, both pre-and post-retirement, and have launched products which showcase their strengths and which should also help broaden their distribution. This includes the LF Prudential Dynamic Focused Portfolios, a low-cost range of risk managed funds, as well as the PruFund ISA and the Retirement Account, a flexible pension plan.

1.3.2 How the PruFunds are priced

Another feature which differentiates the PruFunds from a standard retail collective multi-asset fund is the smoothing mechanism used to mitigate some of the effects of sharp market movements of the price of the fund. It should be noted that the smoothing mechanism works in either direction and does not, therefore, offer any guarantee as to the future return which can be expected from the fund. If the value of the underlying investments supporting PruFunds fall, the price of units in the PruFunds may also fall, but perhaps not quite as sharply. This is illustrated by figure 3, which shows the performance of PruFund

Figure 3



Source: Financial Express & Square Mile as at - 30th June 2018

Growth during the global financial crisis.

Each quarter Prudential sets an EGR for each fund which is based on their long-term expectations (15 year plus) for asset class returns and the objectives and risk budgets of the funds. The unit price of the PruFunds increases daily in line with the specified EGR. The fund therefore will move in line with the EGR in what is referred to as the smoothed unit price (SUP), rather than the net asset value (NAV) of the supporting assets.

Initial investments into the PruFunds go into a holding fund, called the 'PruFund Account', and switch into the selected PruFund on the next quarterly or monthly (depending on the product wrapper) investment date. Movement from the PruFund Account into the PruFunds is monthly for the Prudential Retirement Account and quarterly for the Prudential Investment Plan, ISA, International Investment Bond and Trustee Investment Plan. While the initial investment is in the 'PruFund Account', it will increase daily with the applicable EGR. During this period charges are taken but the investment will not be subject to any smoothing adjustments or suspension, the process for which is described in further detail below. Therefore, clients have downside protection during this phase of their investment.

At the end of each quarter (monthly for some products), should the SUP be more than 5%* above or below the NAV of the underlying assets then the SUP will be moved 50% back towards the value of the underlying assets. At any time, should the SUP become more than 10% adrift of the value of the underlying assets, again in either direction, then it will be immediately adjusted. Should this happen the price will be moved to within +/-2.5% of the underlying asset value.

Prudential use a 5-day rolling average to calculate the underlying assets' value. Using a 5-day rolling average reduces the instances when such adjustments are required by reducing the impact of single day market movements. Prudential may suspend the whole smoothing process should they experience large movements of capital into or out of the funds. On a suspension, the SUP will revert to the underlying asset value of the fund. To date Prudential have never had to suspend the smoothing process on any of the PruFunds.

Any shortfall between the SUP of the PruFunds and the NAV of the underlying assets supporting these is borne by the With Profits Fund on encashment. Similarly, should the NAV of the underlying assets be above the SUP of the PruFunds, then this will be retained.

**Note: With effect from 26th November 2018 the smoothing limits for PruFund cautious, PruFund 0-30 and PruFund 10-40 will be lowered to 4%. The revised daily smoothing limit will reduce to 8%. The gap after adjustments will reduce to 2%. The new limits will apply quarterly as previously with the exception of series E investments that will be checked monthly.*

Figure 4 shows the expected growth rate for the PruFund Growth Life fund. This highlights the fact it has reduced by 1.5% over the 14 years or so since the fund was launched. However it has not been a straight downward line as the EGR was increased by 0.2% in May 2014 following four prior reductions. Since November 2014, the EGR has been reduced downward on a further four occasions. The EGR reduction of 1.5% or 22% over the last 14 years does not to us seem an excessive move when considering that global growth over this period has slowed to below trend and that this is widely expected to continue to be the case in the foreseeable future. Figure 5 details the historical unit price adjustments for PruFund Growth Life Fund which are also illustrated in figure 3.

Figure 4

PruFund Growth Life Expected Growth Rate

From	*To*	*EGR*
25/08/2016	Present	5.10%
25/05/2016	24/08/2016	5.50%
25/02/2016	24/05/2016	5.90%
25/11/2014	24/02/2016	6.00%
27/05/2014	24/11/2014	6.40%
26/11/2012	26/05/2014	6.20%
26/11/2009	25/11/2012	6.60%
26/05/2009	25/11/2009	6.70%
26/02/2006	25/05/2009	6.85%
25/11/2004	25/02/2006	6.60%

Source: Prudential: as at 30 June 2018

Figure 5

PruFund Growth Life Historical Unit Price Adjustments

Date	*Unit Price Adjustment*	*End or Mid term adjustment*
27/02/2017	+3.18%	End
25/02/2015	+2.69%	End
25/02/2011	+2.63%	End
25/11/2010	+3.86%	End
25/11/2009	+3.54%	End
25/08/2009	+3.26%	End
25/02/2009	-4.00%	End
23/11/2008	-8.26%	Mid
06/10/2008	-8.20%	Mid
26/08/2008	-3.96%	End
26/02/2006	+3.26%	End
27/02/2006	+3.42%	End
25/11/2005	+3.14%	End
25/08/2005	+3.18%	End

Source: Prudential: as at 30 June 2018

The link below provides details of all PruFund historic growth rates and unit price adjustments:

https://www.pruadviser.co.uk/funds/prufund-egr/?icid=links_next-steps_ViewthePruFundExpectedGrowthRates

1.4 Team and Company

1.4.1 Parent

Prudential plc is a global financial services group that operates in the UK, Europe, Africa, US and Asia. The group has a number of businesses including Prudential Corporation Asia, Jackson National Life Insurance Company, M&G Prudential and EastSpring Investments. In August 2017 Prudential announced that it was merging its UK businesses, M&G Investments and Prudential UK & Europe, to form M&G Prudential. In the UK, Prudential is a long-established provider of life and pension solutions.

In terms of Prudential's scale within the UK with-profits market, their AUM is around a third of the total market, which is estimated at around £300bn as at the end of 2016. In addition, Prudential continue to dominate flows of both regular and single premium business. There remains a reasonable number of providers open for new with-profits business, however many of the historically larger players, for example, Aviva, Royal London, Scottish Widows, Legal & General and Standard Life, are no longer actively seeking new business. The rest of the market is made up by products provided by Mutual and Friendly Societies.

1.4.2 Investment Team

PPMG is the team responsible for managing PruFunds. They are independent of the many underlying asset management businesses within the Prudential group. The team consists of experienced investment professionals with expertise across a wide range of investment activities.

Being part of the Prudential group means PPMG can leverage the wider group resources, which includes M&G Investments, M&G Real Estate, Prudential Portfolio Management America (PPMA) and South Africa and Eastspring Investments. PPMG manage around £100bn in multi-asset portfolios. M&G manage around 68% of these assets, PPMA manage 11%, Eastspring 10%, PruCap 5% (cash), PPMG Alternatives 3% and 3% is external.

PPMG is structured into defined investment teams, with key positions held by Jonathan Daniels, CIO, Parit Jakhria, Head of Long Term Investment Strategy, Barry Widdows, Head of Multi-Asset, Mike Howard, Head of Alternatives and Ciaran Mulligan, Head of Manager Oversight.

1.4.3 Investment Philosophy

PPMG believe in the importance of asset allocation and the effect that it has on investment returns. Indeed, they see it as the key driver of investor returns, as opposed to fund or stock selection or market timing. Moreover, they see asset allocation as a specialist skill and believe it should exist separately from other investment activities.

PPMG believe in;

- A long-term approach to investing
- Diversification, by both asset category and geography
- Active management
- The importance of valuation
- Illiquidity and credit premiums

The team seek to add value through;

- Strategic asset allocation
- Mandate design
- Tactical asset allocation (working closely with the macro team in M&G Investments)
- Underlying manager alpha
- Efficient implementation

PruFund portfolios will have some common characteristics;

- Active equity portfolios generally have a slight value bias
- Fixed income portfolios have a credit bias
- Property portfolios have a bias towards high quality assets in core locations
- Private assets represent a relatively sizeable proportion of portfolios
- Portfolios will evolve as new asset classes and opportunities are embraced

1.5 Asset Allocation

1.5.1 Developing Long-Term Assumptions

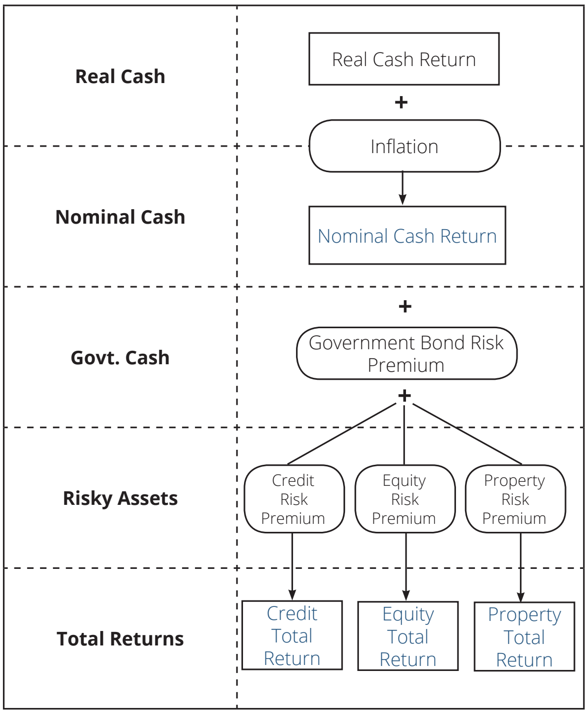
The Long Term Investment Strategy (LTIS) team is responsible for building long-term Capital Market Assumptions (CMAs) for the Prudential group and for recommending asset allocation for both retail and life office products (including the PruFund). LTIS consist of a team of 10 investment professionals from different academic backgrounds including actuaries and economists. Parit Jakhria is head of the team and Director of LTIS at PPMG. He has been at Prudential for over 15 years and is a Fellow of the Institute and Faculty of Actuaries and a CFA charterholder.

A significant amount of data is used by the LTIS team to help build a picture for the global outlook. The team assess each major economy and region on an individual basis, principally assessing the growth of the productive capacity for each economy. Inputs to this include both faster and slower moving trends, including population growth, GDP growth, demographics, availability of labour, savings and investment rates and trends in technological progress. Not only does the assessment of these factors help to build a picture of a country or region across a broad range of economic indicators but it also helps build a level of consistency within expectations across economies.

The team accept their assumptions are a trade-off between stability and fundamental change. However, the building block framework is based on the principle that investors face a risk and return trade off when choosing assets, based on how much they can realistically expect to receive for the risk they are taking on. Their approach captures how a change in one factor automatically feeds through into asset classes dependent on it. For example inputs from demographics and the economic growth models inform views on longer-term real cash rate assumptions. Assumptions for each asset class and region are unique and individually constructed based on the building block approach. The simple example below illustrates this.

Figure 6

Equilibrium Return Network



The team build a view on expected cash returns, inflation and government bond returns. They will then add a 'risk premium' which is effectively an element of extra return investors can expect to receive to compensate them for taking on extra risk.

Using the framework for UK equities the current long-term assumptions for UK real cash (0.25%) + inflation (2.0%) = a nominal long-term cash return of 2.25%.

The current government bond risk premium is 0.75%. You then add an UK equity risk premium of 3.25%. Therefore the current long-term return expectation for UK equities is 6.25%.

This process is repeated across geographies and asset classes. The team believe that the modelling they undertake on alternatives, including private equity, hedge funds and infrastructure, is superior to competitors because they have a long history of investing in these asset classes which has enabled them to collect proprietary data.

When trying to estimate future volatility, the team look at historical data from the various regions over different rolling time periods and investment regimes e.g. high inflation and recessionary environments. They also consider the liquidity, size and financial standing of the market. On this basis equity regions are currently categorised into four broad groupings which are developed, developing, frontier and private equity.

The choice of indices and benchmarks used when modelling asset class returns is based on a set of common principles, such that indices need to be representative of the opportunity set and capture a large part of the asset class performance under different market conditions. In addition, the team try to avoid concentration risk and therefore aim to be diversified across countries, industries, sectors and issuers. As part of this process the team look at correlations of indices with constituents to see if there is significant concentration risk. For example, this process led to a capped Asia ex Japan benchmark due to the high exposure, and therefore concentration risk, of China.

All assumptions are fed into Prudential's proprietary optimiser which builds an asset allocation on a layer by layer basis for portfolios with different risk and return characteristics.

1.5.2 Modelling

Prudential believe that the future is uncertain and therefore can have many possible outcomes based on world events and political and economic change. They therefore try to build portfolios that can withstand some of this uncertainty whilst still meeting their stated objectives.

In the early 2000's PPMG started developing and building their in-house multi-asset economic scenario generator (ESG), known internally as GeneSIS. By developing and using their own ESG system, Prudential believe they have an advantage over many competitors. They think the proprietary system allows for a consistency of views to run through both long-term and short-term expectations as well as portfolio construction considerations and we can see merit in their claim. Having your own ESG system means you are able to make it bespoke to suit your requirements. There is also an element of knowledge which is built up which only comes with developing and building your own systems. This knowledge, particularly within their stochastic work, is retained within the business and is used to enhance their offering.

GeneSIS enables the team to build asset class and portfolio return probability graphs across a complete term structure.

The system allows for a certain amount of refining of the results by tweaking different variables and inputs within the system. The output provides a median return estimate, along with the probability of other potential outcomes. In total 10,000 scenarios are modelled which should give a broad range of outcomes. The long-term assumptions used to generate the scenarios are updated at least annually.

The team do not necessarily aim to build an asset allocation which will provide the best risk and return outcome but one which is likely to be the most stable over time and one which is positioned to benefit from a broad number of scenarios, not just a few. Scenario testing is carried out to ensure the portfolios are 90% stable across a range of risk outcomes. This work also helps the team understand the potential risks posed by black swan events.

PPMG describe their asset allocation process as "optimised with robustness overlaid". This robustness is qualified at the end of the process where the asset allocation produced directly from GeneSIS is subjected to a qualitative overlay and where PPMG carry out sense checks and apply some fine tuning. The final portfolio is usually decided following an iterative process, with many considerations. These considerations may include factors such as ensuring the asset mix remains appropriate for the target market as well as an appreciation of the current portfolio and any implications for trading. When modelling and checking has been completed, the new SAA is presented to the Prudential board for sign-off.

1.5.3 Tactical Asset Allocation

The Macro Investment Business (MIB) within M&G Prudential is responsible for tactical asset allocation (TAA) decisions. The team is close-knit and very experienced. The CIO, Dave Fishwick, has run a TAA mandate for Prudential since 1999. He will have final say in any investment decisions, although MIB do work as a team, constantly sharing and testing investment ideas.

The strategy employed within the TAA mandate is based on two key beliefs. Firstly, that investors are surprised by markets and secondly, that they are prone to overreacting to these surprises. In practice, if MIB believe a sell-off in equity markets has been driven by investor fear but fundamentals are still strong, they will view this as a strong buy signal. The team describe these scenarios as 'episodes' which can be short-lived or last for several years.

Alongside this 'behavioural' approach MIB also have a long-standing valuation framework which helps the team assess and understand the long-term value of an asset class before any investment is made.

Mr Fishwick generally implements his strategy through taking more macro long/short positions in regional market indices and bonds. However, if he feels that a specific sector looks particularly over/undervalued he will take a position.

1.6 Fund Selection

1.6.1 Implementation

The portfolio managers within PPMG are responsible for efficient implementation of the SAA and the ongoing management of portfolios, which includes numerous important activities. Key responsibilities are described below:

Funds in shape;

- ensure portfolios are managed in-line with target exposures and limits whilst minimising cost and risk
- manage cash flows and other fund dynamics

Implementation;

- ensure changes in strategic asset allocation are implemented effectively and efficiently

Operational management;

- systematic preparation and review of trade instructions to minimise operational errors

Portfolio monitoring;

- ongoing review of exposures, risks and performance in conjunction with PPMG Risk and Manager Oversight teams

Liquidity;

- is managed and reported on to ensure that outflows can be covered in stressed scenarios

Hedge implementation;

- ensure hedge programmes are managed against liability benchmarks by instructing and executing suitable derivatives within approved VaR limits

Derivative documentation;

- manage derivative agreements with bank counterparties and ensure they are negotiated on an ongoing basis to maximise implementation efficiency in a rapidly evolving market and regulatory environment

Collateral management

- ensure that ample collateral is available to meet derivative collateral and margin requirements

1.6.2 Positioning

The funds continue to be highly diversified both at an asset class and regional level. The funds have no benchmark and each is managed on a flexible basis to achieve the performance objective as well as remain within its risk parameters.

Within equities the funds have a bias to developed markets, in particular the UK. Currently the equity portfolios have broadly a third in the UK, a sixth across each of Europe, US and Asia and the remainder spread equally across Japan and emerging markets.

The funds are very highly diversified within fixed income too. Unlike a number of multi-asset funds which invest predominantly in UK bonds, the funds have a relatively high exposure to European, US and Asian fixed income and private credit markets.

The funds retain a meaningful exposure to physical property, the majority of which is UK commercial property, although some US, European and Asian property exposure is held. The funds also hold positions within other alternative assets including hedge funds, infrastructure, alternative credit and private equity. Cash levels vary across the portfolios but are generally low within the moderate to higher risk funds.

1.7 Investment Governance

1.7.1 Oversight

The PruFunds are populated using investments predominantly managed by the Prudential group's fund managers. A high number of the underlying strategies are run as segregated mandates due to the scale of the overall funds. However, where Prudential does not have the expertise in-house, they may utilise external managers. External managers have traditionally been used in the alternatives space.

M&G, Eastspring Investments and PPMA manage most of the assets within the PruFunds. Some mandates have bespoke benchmarks, for example in the Asian mandate the Chinese, Australian and Korean weightings are capped at 15% to avoid too much concentration risk. Whilst active management is most prevalent, passive strategies are also used.

A separate Manager Oversight team of six ensures that the managers employed by PPMG are performing in line with the objectives set out in the Investment Management Agreement (IMA). The team not only check compliance with the mandate but also have a good understanding through regular reviews of reasons behind the key performance drivers.

The Manager Oversight team, in conjunction with the other teams within PPMG, are responsible for deciding on whether a mandate or existing fund is used within the portfolios. The same collaborative process is used to decide on whether to use active or passive strategies, although active strategies are predominantly used. PPMG then work with the underlying sub-managers to agree how much latitude each has, for example from a stock and sector perspective. The mandate is designed to maximise risk adjusted returns, for example the UK exposure uses a mixture of passive and active mandates to try and provide returns ahead of the index.

PPMG have a large alternatives team of nine who select investments for this part of the portfolio. Areas of focus for the team include private equity, infrastructure, hedge funds and alternative credit. The governance around many of these less liquid and more specialist alternative investments needs to be thorough and robust. The team carry out many layers of due diligence covering operational factors, investment risk and legal implications.

PPMG has its own risk team which comprises of seven individuals. The team has many functions including providing independent challenge to the wider Prudential risk management function, monitoring and reporting risk exposures of the funds managed by PPMG against their risk limits, independently stress testing and performing scenario analysis on funds, assisting with the identification of risks and setting risk appetite and framework and ensuring operational risks are managed within acceptable tolerances.

Figure 7

PruFund Cautious and Growth Asset Allocation as at 30th June 2018

	PruFund Cautious	PruFund Growth
UK Equity	12.2%	19.1%
European Equity	4.4%	8.1%
US Equity	4.8%	8.7%
Japanese Equity	1.9%	3.5%
Asian Equity	5.4%	9.2%
GEM Equity	1.7%	3.2%
Property	6.4%	14.5%
Fixed income UK & Europe	28.8%	12.8%
Fixed Income US	19.9%	8.9%
Fixed Income Asia	5.6%	2.5%
Other Fixed Interest	1.6%	0.8%
Other Investment Assets	3.6%	5.8%
Cash	3.7%	2.9%

Source: Prudential

Figure 8

Risk Managed PruFund Asset Allocation as at 30th June 2018

	PruFund 0-30	PruFund 10-40	PruFund 20-55	PruFund 40-80
UK Equities	6.0%	9.4%	13.0%	16.9%
North American Equities	3.7%	5.8%	8.0%	10.5%
European Equities	3.5%	5.5%	7.6%	9.8%
Japanese Equities	1.5%	2.3%	3.2%	4.2%
Pacific Market Equities	3.9%	6.1%	8.5%	11.0%
Global Emerging Markets Equities	1.4%	2.2%	3.0%	3.9%
Property	10.0%	13.7%	16.7%	18.7%
UK Fixed Interest	21.0%	16.5%	12.0%	7.5%
Euro Fixed Interest	11.3%	8.9%	6.5%	4.0%
US Fixed Interest	22.3%	17.6%	12.8%	8.0%
Asia Fixed Interest	6.4%	5.0%	3.6%	2.3%
Other Fixed Interest	2.0%	1.5%	1.1%	0.7%
Cash	7.0%	5.5%	4.0%	2.5%

Source: Prudential

Underlying Structure of the PruFund Growth

The table below highlights the asset allocation of PruFund Growth and details the main funds or mandates, the investment style used by the manager and the weighting to each. This will be reflected across the other funds but the weightings will be different.

Figure 9
PruFund Growth main Holdings as at 30 June 2018

Fund Name	*Investment Style*	*Allocation*
M&G UK Equity Core M&G UK Absolute Return	Passive Active	19.1%
M&G Europe Equity Core M&G Europe Absolute Return	Passive Active	7.9%
PPMA US Public Equity Core Mandate M&G Passive Canadian Equity segregated mandate	Active Passive	8.6%
ESI Japan Equity segregated mandate ESI Japan Smaller Companies Fund	Active Active	3.5%
ESI Asia Pacific ex-Japan segregated mandate ESI Developed Asia Sicav Class D	Active Active	8.9%
Prudential Core Value Fund (South Africa) ESI Emerging Asia Sicav ESI GEM Dynamic Sicav PPMSA Africa Equity Sicav	Active Active Active Active	3.3%
M&G UK Direct Property	Active	10.1%
M&G European Property	Active	1.4%
M&G US Direct Property	Active	1.3%
M&G Asia Property	Active	1.3%
Portfolio of Private Equity	Active	2.3%
Portfolio of Hedge Funds	Active	2.20%
Portfolio of Infrastructure	Active	1.4%
M&G Fixed European Income Mandate segregated M&G Fixed European Income Mandate - Lev Loans M&G Fixed European Income Mandate - High Yield M&G European Credit Investment Fund M&G European High Yield Credit Fund M&G Global Credit Investment Fund M&G Traditional Credit Fund	Active Active Active Active Active Active Active	12.8%
PPMA US Fixed Income total return mandate segregated	Active	9.0%
ESI Asian Bond USD Sicav ESI Asian Local Bond Sicav	Active Active	2.4%
M&G Global Convertibles segregated mandate	Active	0.50%
Bridge Loans	Active	0.20%
Private Yield	Active	0.18%
Cash and Deposits		2.9%

Source: Prudential

1.8 Performance

The unit prices of the PruFunds are based on the EGR declared for each individual fund and not the NAV of the underlying assets supporting it. This approach to unit pricing, whereby 1/365th of the declared EGR is added to the unit price daily, means comparing the PruFunds' historic volatility, and other risk-adjusted measures, with multi-asset funds priced on their NAV, (which applies to the majority of funds), is not a useful exercise. This is because the smoothing of the unit price created by the pricing mechanism leads to the funds exhibiting a lower level of volatility. This means the PruFunds will always have a volatility lower than funds with a similar asset allocation or risk profile.

Although the NAVs of the PruFunds are not very transparent, there are other funds managed by the group which follow a similar high-level asset allocation and which are priced based on their NAV, see figure 13. The underlying investments of these funds will differ, as will the charges, but they can be used as a broad proxy for the unsmoothed price of funds.

Prudential do not publish daily information on the PruFunds' underlying NAVs and so a clear and accurate understanding of this is not available. In addition, the PruFunds are only distributed within Prudential product wrappers and therefore only funds that are also available within the same product can be easily assessed on a like-for-like basis.

Each PruFund has an explicit EGR which lets investors know the level of return they can expect on a forward-looking basis. However, this EGR is subject to change and both the long running PruFund Growth and Cautious funds have had their EGRs changed on many occasions over the last 10 years. In line with Prudential's expectations for growth over the last decade, and general market consensus, the EGRs have progressively been reduced. Having a moving performance objective presents more of a challenge than one which is static over time, when trying to assess whether a fund has successfully met its outcome. To date most PruFunds are meeting their expected outcomes based on those set when the funds were originally launched, i.e. the EGR at outset.

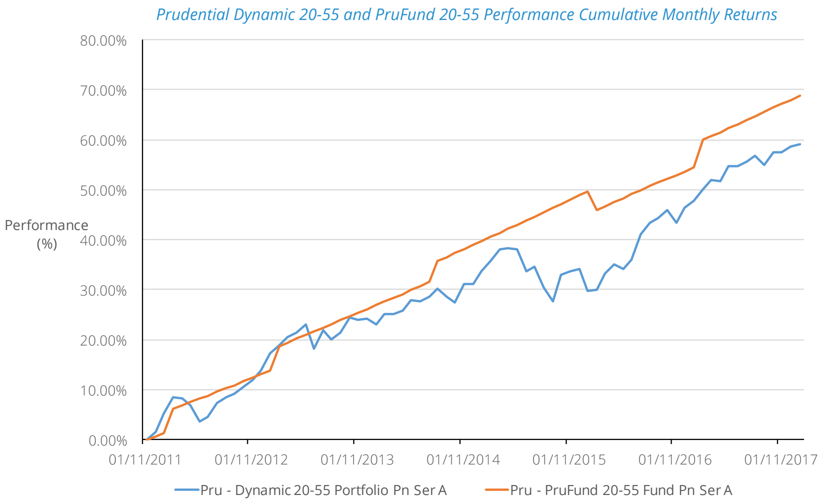
Given the above challenges, we have assessed the performance of the PruFunds in a number of ways. Firstly, we have measured performance against their stated EGRs and we believe this is the best measure of success. For this exercise we have taken the earliest EGR quoted for the fund (which is generally the highest) and the current EGR quoted (which is generally the lowest) and compounded these over the review period. We consider funds to have met their objectives if their cumulative return is between the two EGR returns over the medium to long-term. These two return series illustrate the range of returns investors could have expected over the life of their investment. Clearly investors who invested at the beginning of the funds' lives will have a higher return expectation as their EGR is likely to have been higher at outset.

We have also compared the PruFunds against selected competitor multi-asset funds available within Prudential’s investment and pension products. Whilst the PruFunds do not aim to beat these competitor funds they provide a good indication of the type and level of returns produced by competitors. It also helps illustrate the smoothing mechanism in action. Finally, we have also assessed the PruFunds against some of the ABI Mixed Investment peer groups as many investors still see these as a good proxy for returns of multi-asset funds generally.

When analysing these results, it is important to be mindful that not all competitor funds have the same performance objective (and/ or reside in the same sector) nor do we know the annual management charge Prudential are paying each investment company fund, as on a number of products only the total plan charge is disclosed.

The chart below plots the PruFund 20-55 Pension Fund vs the Prudential Dynamic 20 - 55 Portfolio Pension Fund which has a similar asset allocation. The return profile illustrates the lower volatility of the PruFund vs the non-smoothed fund.

Figure 10
Smoothing process in action

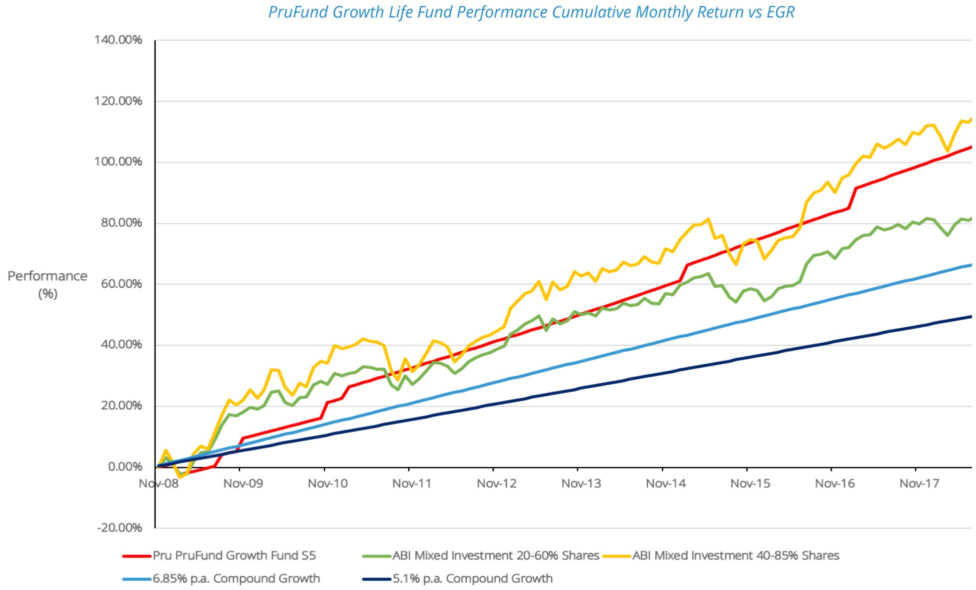


Source: Financial Express as at 30th June 2018

The PruFund Growth Life fund (using the fund series with the longest track record in FE Analytics) has delivered strong absolute returns over it's life. The fund has comfortably outperformed its stated EGR applicable at outset (6.8%) and that currently in place (5.1%). The fund has also outperformed the ABI Mixed Investment 20-60% Shares sector median but has moderately underperformed the ABI Mixed Investment 40-85% Shares sector median. The fund also compares favourably to a selected number of competitor funds, outperforming most over it's life.

Figure 11

PruFund Growth Life Fund performance since launch to end of June 2018

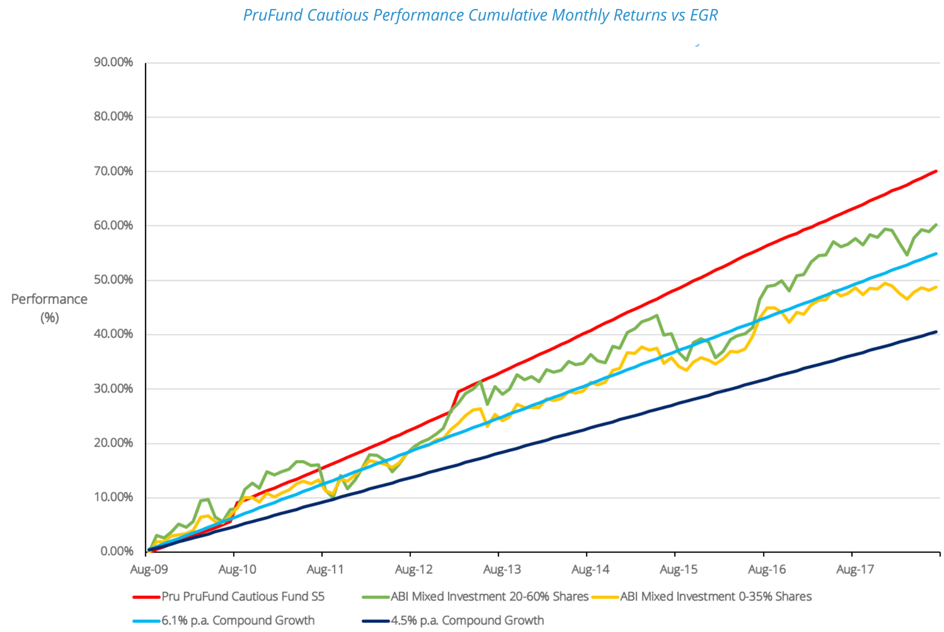


Source: Financial Express and Square Mile as at 30th June 2018

The PruFund Cautious Life fund (using the fund series with the longest track record in FE Analytics) has delivered strong absolute returns over it's life. The fund has comfortably outperformed its stated EGR applicable at outset (6.1%) and that currently in place (4.5%). The fund has also outperformed both the ABI Mixed Investment 20-60% Shares sector median and the ABI Mixed Investment 0-35% Shares sector median. The fund also compares favourably to a selected number of competitor funds, outperforming most over it's life.

Figure 12

PruFund Cautious Life Fund performance since launch to end of June 2018

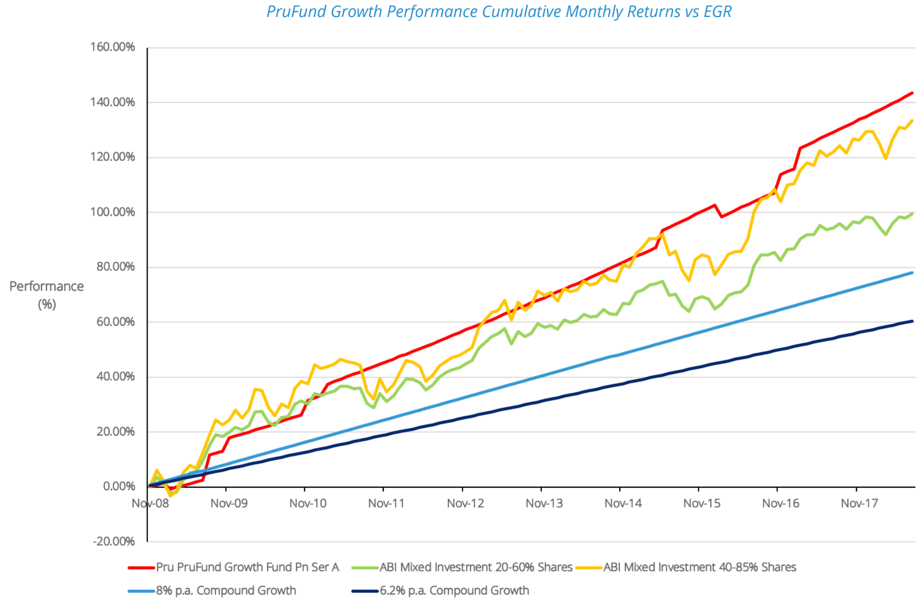


Source: Financial Express and Square Mile as at 30th June 2018

The PruFund Growth Pension fund (using the fund series with the longest track record in FE Analytics) has delivered strong absolute returns over it's life. The fund has comfortably outperformed its stated EGR applicable at outset (8.0%) and that currently in place (6.2%). The fund has also outperformed the ABI Mixed Investment 20-60% Shares sector median and the ABI Mixed Investment 40-85% Shares sector median. The fund also compares favourably to a selected number of competitor funds, outperforming most over it's life.

Figure 13

PruFund Growth Pension Fund performance since launch to end of June 2018

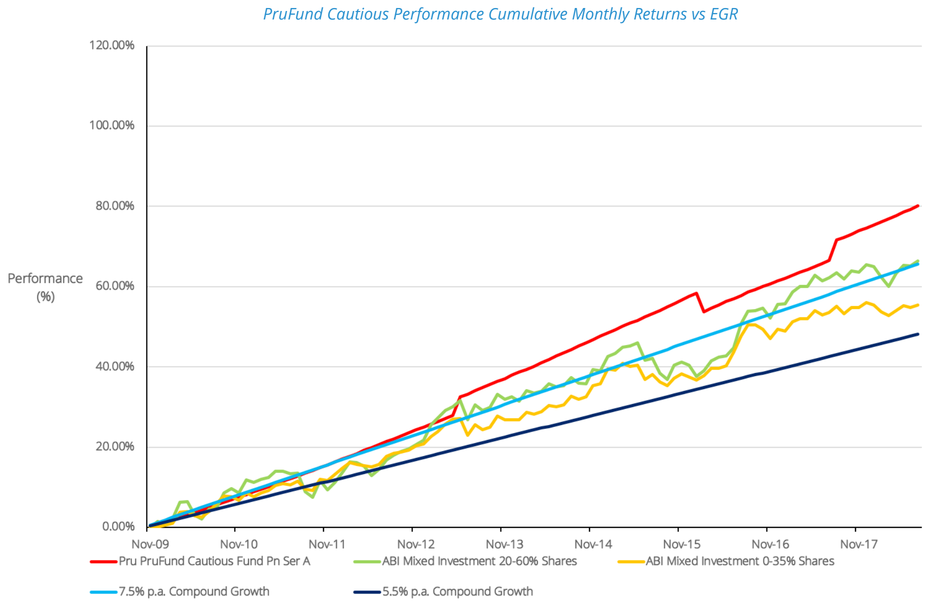


Source: Financial Express and Square Mile as at 30th June 2018

The PruFund Cautious Pension fund (using the fund series with the longest track record in FE Analytics) has delivered strong absolute returns over it's life. The fund has comfortably outperformed its stated EGR applicable at outset (6.1%) and that currently in place (4.5%). The fund has also outperformed both the ABI Mixed Investment 20-60% Shares sector median and the ABI Mixed Investment 0-35% Shares sector median. The fund also compares favourably to a selected number of competitor funds, outperforming most it's life.

Figure 14

PruFund Cautious Pension Fund performance since launch to end of June 2018

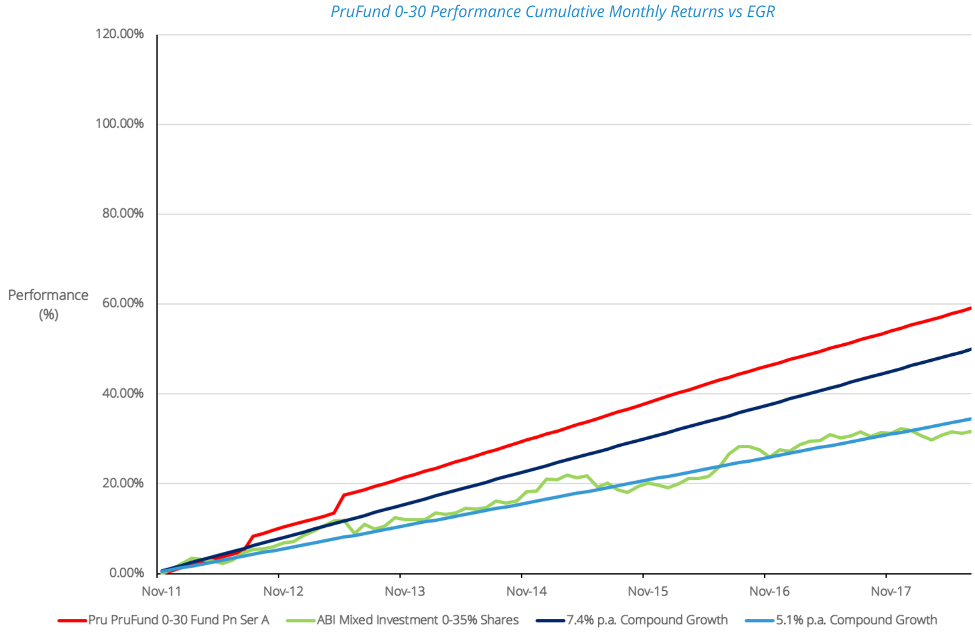


Source: Financial Express and Square Mile as at 30th June 2018

The PruFund 0-30 pension fund (using the fund series with the longest track record in FE Analytics) has delivered strong absolute returns over it's life. The fund performed within the expected range based on the stated EGR applicable at outset (7.4%) and that currently in place (5.1%). The fund has comfortably outperformed ABI Mixed Investment 0-35% Shares sector median over it's life.

Figure 15

PruFund 0-30 Pension Fund performance since launch to end of June 2018

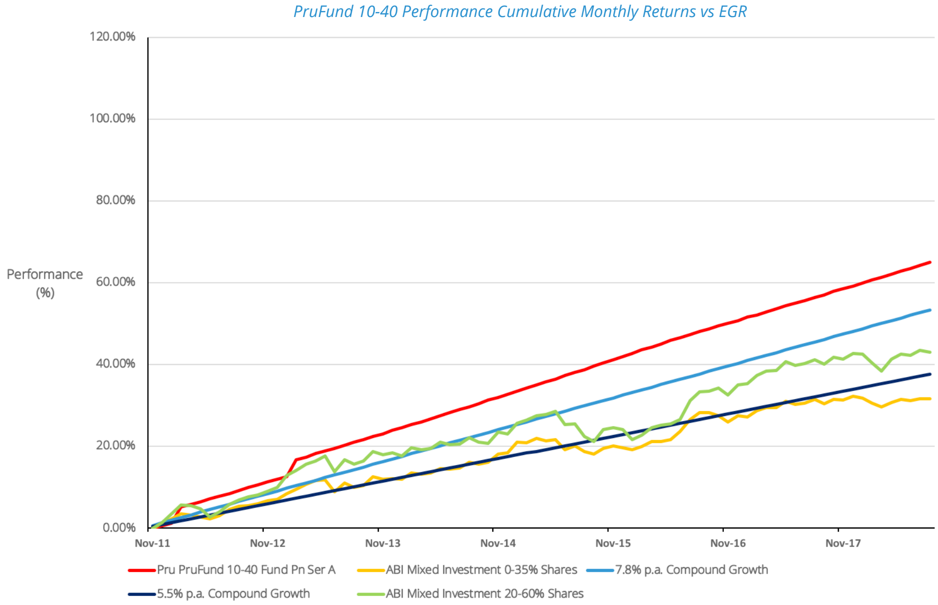


Source: Financial Express and Square Mile as at 30th June 2018

The PruFund 10-40 pension fund (using the fund series with the longest track record in FE Analytics) has delivered strong absolute returns over it's life. The fund's return has exceeded the stated EGR applicable at outset (7.4%) and that currently in place (5.1%). The fund has comfortably outperformed ABI Mixed Investment 0-35% Shares sector and Mixed Investment 20-60% Shares sector median over it's life.

Figure 16

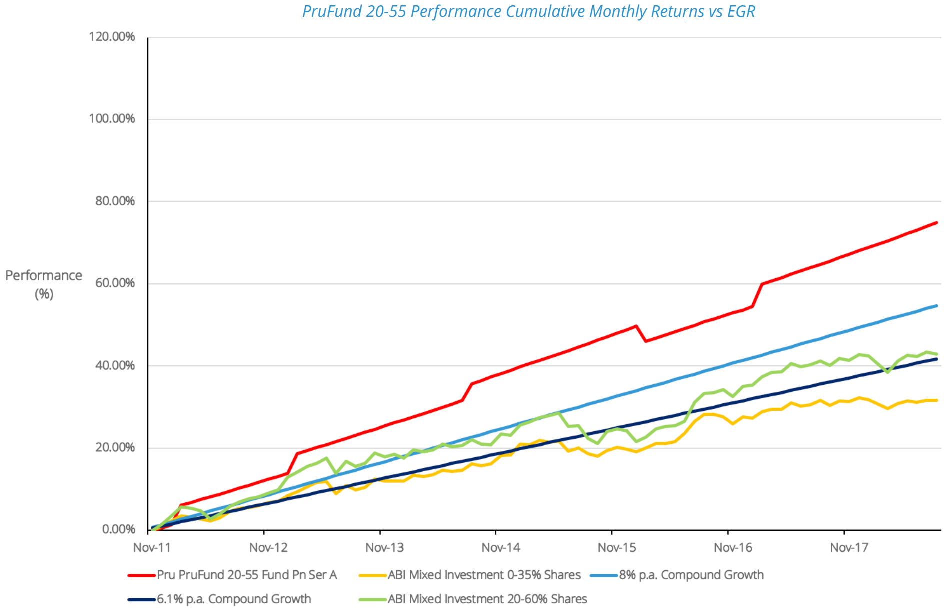
PruFund 10-40 Pension Fund performance since launch to end of June 2018



Source: Financial Express and Square Mile as at 30th June 2018

The PruFund 20-55 pension fund (using the fund series with the longest track record in FE Analytics) has delivered strong absolute returns over it's life. The fund's return has exceeded the stated EGR applicable at outset (8.0%) and that currently in place (6.1%). The fund has comfortably outperformed ABI Mixed Investment 0-35% Shares sector and Mixed Investment 20-60% Shares sector median over it's life.

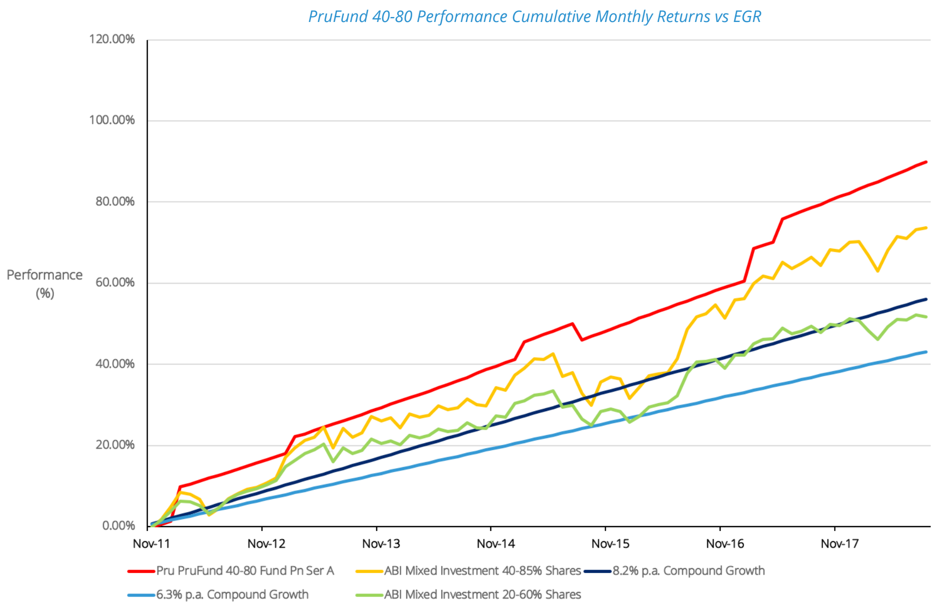
Figure 17
PruFund 20-55 Pension Fund performance since launch to end of June 2018



Source: Financial Express and Square Mile as at 30th June 2018

The PruFund 40-80 pension fund (using the fund series with the longest track record in FE Analytics) has delivered strong absolute returns over it's life. The fund's return has exceeded the stated EGR applicable at outset (8.2%) and that currently in place (6.3%). The fund has comfortably outperformed ABI Mixed Investment 20-60% Shares sector and Mixed Investment 40-85% Shares sector median over it's life.

Figure 18
PruFund 40-80 Pension Fund performance since launch to end of June 2018

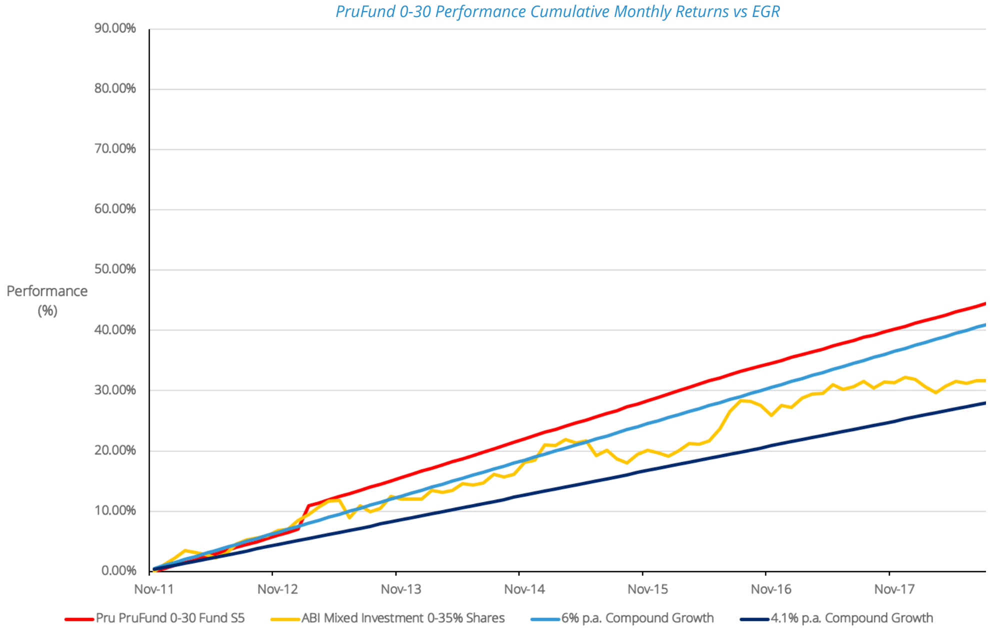


Source: Financial Express and Square Mile as at 30th June 2018

The PruFund 0-30 life fund (using the fund series with the longest track record in FE Analytics) has delivered strong absolute returns over it's life. The fund has performed within the expected range based on the stated EGR applicable at outset (6.0%) and that currently in place (4.1%). The fund has comfortably outperformed ABI Mixed Investment 0-35% Shares sector median over it's life.

Figure 19

PruFund 0-30 Life performance since launch to end of June 2018

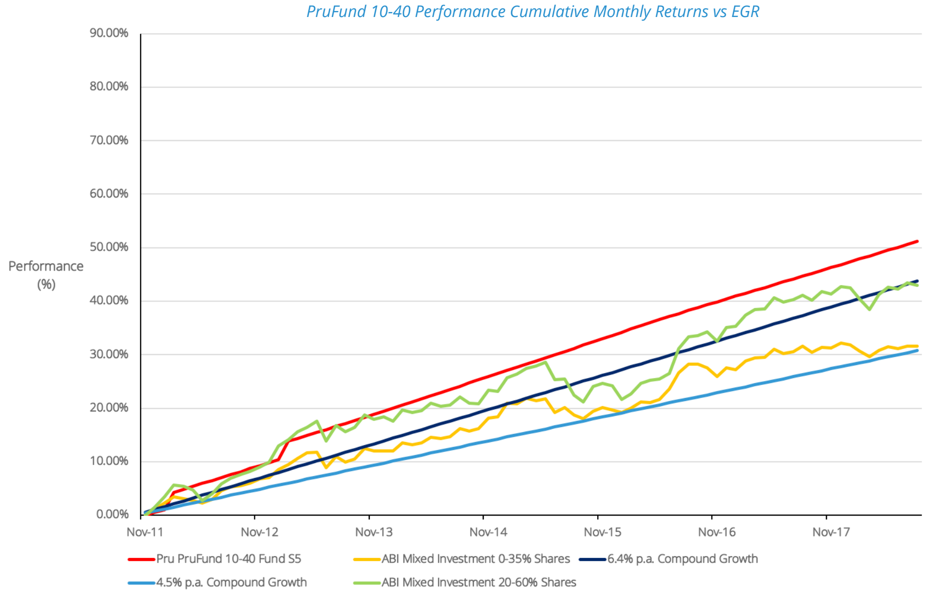


Source: Financial Express and Square Mile as at 30th June 2018

The PruFund 10-40 life fund (using the fund series with the longest track record in FE Analytics) has delivered strong absolute returns over it's life. The fund's return has exceeded the stated EGR applicable at outset (6.4%) and that currently in place (4.5%). The fund has comfortably outperformed ABI Mixed Investment 0-35% Shares sector and Mixed Investment 20-60% Shares sector median over it's life.

Figure 20

PruFund 10-40 Life performance since launch to end of June 2018

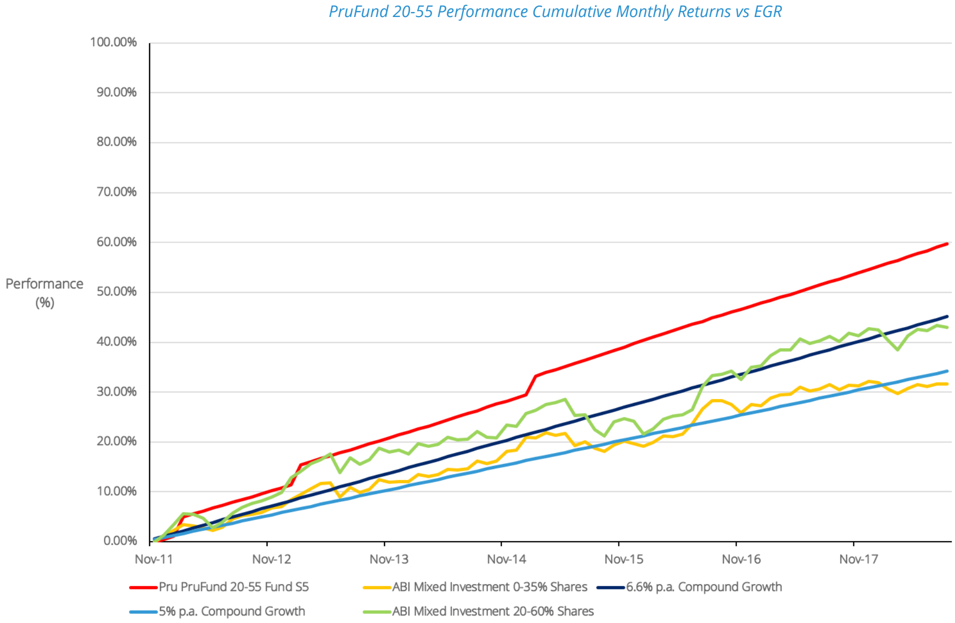


Source: Financial Express and Square Mile as at 30th June 2018

The PruFund 20-55 life fund (using the fund series with the longest track record in FE Analytics) has delivered strong absolute returns over it's life. The fund's return has exceeded the stated EGR applicable at outset (6.6%) and that currently in place (5.0%). The fund has comfortably outperformed ABI Mixed Investment 0-35% Shares sector and Mixed Investment 20-60% Shares sector median over it's life.

Figure 21

PruFund 20-55 Life performance since launch to end of June 2018

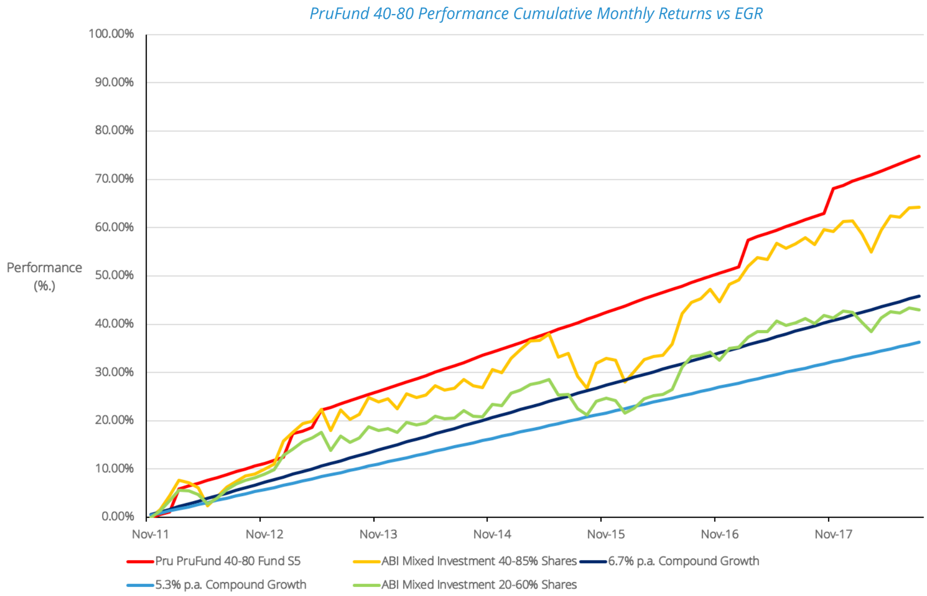


Source: Financial Express and Square Mile as at 30th June 2018

The PruFund 40-80 life fund (using the fund series with the longest track record in FE Analytics) has delivered strong absolute returns over it's life. The fund's return has exceeded the stated EGR applicable at outset (6.7%) and that currently in place (5.3%). The fund has comfortably outperformed ABI Mixed Investment 20-60% Shares sector and Mixed Investment 40-85% Shares sector median over it's life.

Figure 22

PruFund 40-80 Life performance since launch to end of June 2018



Source: Financial Express and Square Mile as at 30th June 2018

1.9 Value For Money

The PruFunds are available across a number Prudential's pension and investment plans and the cost of accessing the funds across different products varies. Therefore, assessing whether they offer value for money from a whole of market perspective is less straightforward than a unit trust or OEIC structure with a clean share class that is available across most third-party investment platforms.

In addition, Prudential does not explicitly quote an ongoing charge figure (OCF) for the PruFunds. Instead, they quote a total charge figure which is similar to the OCF but which also includes costs for property expenses. Hence a simple like-for-like comparison of the PruFunds and other retail mutual funds is more challenging.

To assess the value for money of the PruFunds we have reviewed the total cost of the funds on three of Prudential's Pension and Investment products currently accepting new business, the Retirement Account, Prudential Investment Plan and Prudential ISA, and compared them to other multi-asset funds available within the same products. Figure 23 illustrates that the PruFunds appear competitively priced relative to the multi-asset funds reviewed. Based on this we believe that the PruFunds represent good relative value for money when accessed via Prudential products when considering the smoothing mechanism of the funds, the experience of the team and the strong long-term track record.

Unlike most investments targeted at retail investors, the PruFunds do not explicitly break out costs within the total charge figure for the funds. We do not think this demonstrates best practice, as investors cannot then put a price on the cost of the various features offered, for example the cost of the smoothing mechanism.

Figure 23
PruFund Charges

Retirement Account		*Prudential Investment Plan*		*Prudential ISA*	
Fund	*Total Charge*	*Fund*	*Total Charge*	*Fund*	*Total Charge*
PruFund Growth	0.79%	PruFund Growth	1.47%	PruFund Growth	1.34%
PruFund Cautious	0.72%	PruFund Cautious	1.40%	PruFund Cautious	1.27%
PruFund 0-30	0.75%	PruFund 0-30	1.43%	PruFund 0-30	1.30%
PruFund 10-40	0.79%	PruFund 10-40	1.46%	PruFund 10-40	1.34%
PruFund 20-55	0.82%	PruFund 20-55	1.48%	PruFund 20-55	1.37%
PruFund 40-80	0.84%	PruFund 40-80	1.50%	PruFund 40-80	1.39%
Invesco Perpetual Distribution	0.82%	Invesco Perpetual Distribution	1.82%		
Jupiter Merlin Balanced	1.65%	Jupiter Merlin Balanced	2.51%		
Investec Cautious Managed	0.83%	Investec Cautious Managed	1.60%		
M&G Episode Growth	0.94%	M&G Episode Growth	1.34%		
Janus Henderson Cautious Managed	0.72%	Janus Henderson Cautious Managed	1.55%		
Newton Multi Asset Balanced	0.68%	Newton Multi Asset Balanced	1.52%		

Source: Prudential. Data as at 30th June 2018.

During our discussions with Prudential we tried to gain a better understanding of the constituents of the total cost figure quoted. Prudential confirmed that the estimated cost for management of the PruFunds is circa 0.65%. The remainder of the total charge is used to pay for the cost of administration of the tax wrapper where applicable.

The 0.65% charge covers investment expenses, the smoothing charge and shareholder transfers. The wrapper charge covers administration and acquisition expenses.

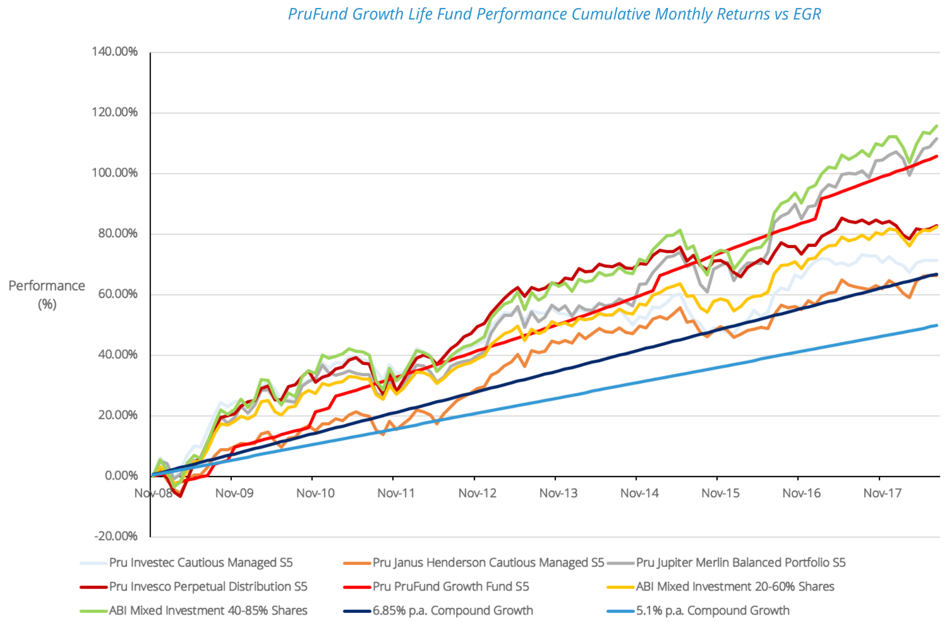
Note: The cost of insurance company and platform product charges is outside the scope of this report and does not fall within Square Mile's area of specialisation. Our comments do not therefore relate to whether the product fees of Prudential are competitive or not within the broader market.

2.1 Appendix

2.1.1 Historical Performance of the PruFunds versus other Multi-Asset funds

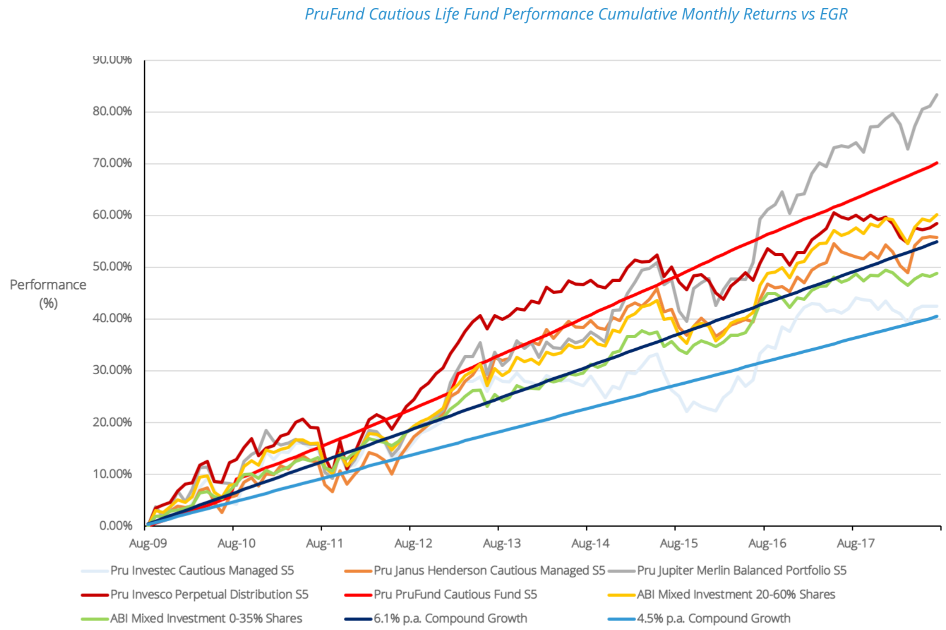
The charts below illustrate the longer term performance of the PruFund Growth and Cautious funds versus a number of competitor multi-asset funds which are also available within the various Prudential products.

Figure 24



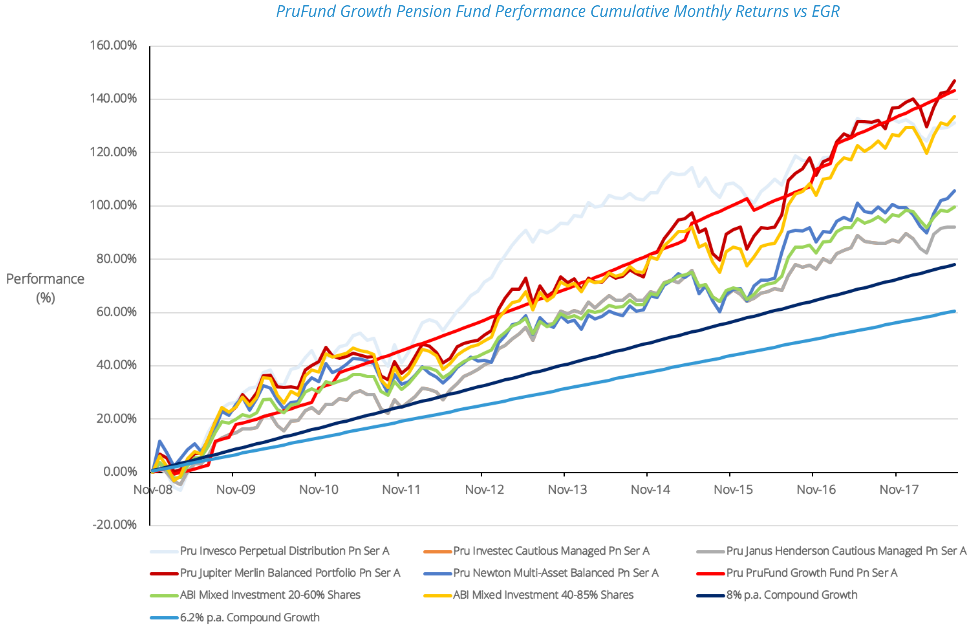
Source: Financial Express and Square Mile as at 30th June 2018

Figure 25



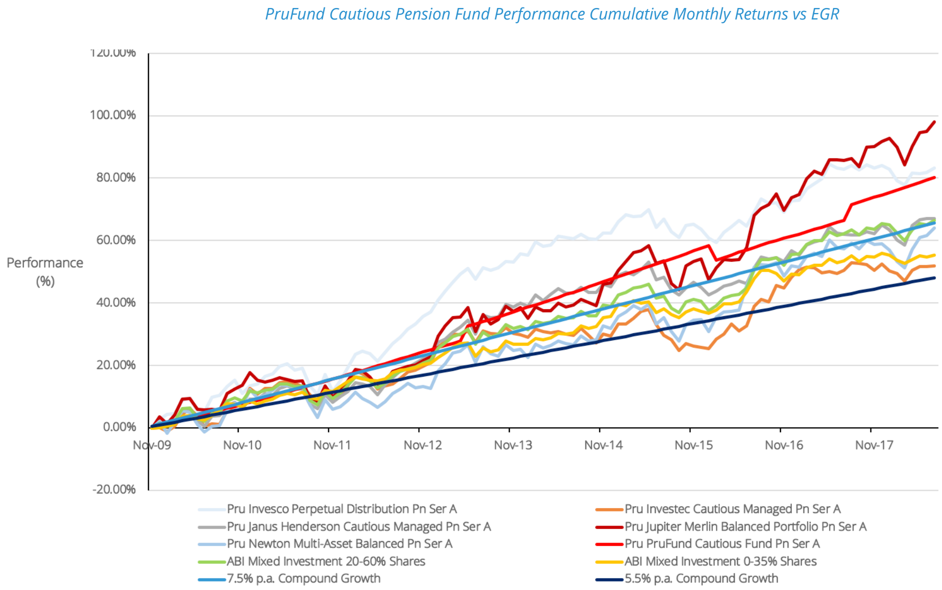
Source: Financial Express as at 30th June 2018

Figure 26



Source: Financial Express and Square Mile as at 30th June 2018

Figure 27



Source: Financial Express as at 30th June 2018.

Glossary

ABI - Association of British Insurers

EGR - Expected Growth Rate

ESI - EastSpring Investments

ISA - Individual Savings Account

LTIS - long Term Investment Strategy

MIB - Macro Investment Business

NAV - Net Asset Value

PPMA - Prudential Portfolio Managament America

PPMG - Prudential Portfolio Managament Group

OCF - Ongoing Charge Figure

OEIC - Open Ended Investment Company

SAA - Strategic Asset Allocation

TAA - Tactical Asset Allocation

UPA - Unit Price Adjustment

VaR - Value at Risk

Important Information

This report is for the use of professional advisers only.