Cashflow Modelling General Assumptions

The purpose of this document is to list some key assumptions used in our cashflow modelling software and explain how we chose the figures we use. If you are reading this document then you most likely requested or were offered it because you had some more in-depth questions on our assumptions, so the level of detail in this document is more granular than we would generally provide.

These are our general planning assumptions, which we review annually. All our financial plans are bespoke, and we would be happy to personalise these if you wished to suit your needs, however, if you decide to use specific planning assumptions, we would ask you to justify these so we can ensure your plan is robust.

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Introduction

Why Do We Use Cashflow Modelling Software?

Planning for the future is extremely complex, given the vast range of variables in play – this stretches from the banal to the morbid and covers everything in between: from future interest rate and inflation expectations, through all your hopes and dreams, all the way to when you might die! This all must be considered when trying to plan your financial future, and cashflow modelling software is the only practical way to manage all these variables.

Which Software Do We Use?

We use Prestwood's purpose-built software known as Truth. Prestwood have provided the UK's leading cashflow modelling software since 1984, and Truth is the most advanced and powerful available. It was built by financial planners and continues to develop as the profession evolves.

The Shortfalls

Cashflow modelling is far from perfect. As with any modelling exercise, good output requires good input. Much of this input will be provided by you, and this will be details of your assets, liabilities, income, and (perhaps most importantly) expenditure over the years. The remaining inputs are the assumptions detailed in this document, which are designed to fix salient variables as sensibly as possible.

> *"If you can't fault the assumptions,*
> *it's reasonable to accept the conclusions"*

A person's finances can often go from rags to riches very quickly with a few small amendments to these assumptions, so please remember the following:

- The assumptions are, and always will be, a guess. They are best guesses, based on all the knowledge, experience, data and opinion we can acquire and absorb, but they are guesses none-the-less.

- Given the high levels of uncertainty, we choose to be defensive – often very defensive – with a lot of these guesses. This should mean most error margins would fall largely in your favour. It should also mean the plans produced are conservative, and the contingency plans are robust, giving your financial plans a better chance of success.

- Our plans are bespoke, so if you do not like any of our guesses, we can usually change them (although we may challenge your reasons for wanting to do so – consider this due diligence).

General Assumptions

PRICE INFLATION (3%)

Inflation (as measured by RPI) has averaged c. 2.7% per annum[1] since responsibility for UK inflation was handed to the Bank of England's Monetary Policy Committee (MPC) in 1997. Furthermore, the MPC have an inflation target of 2% per annum as measured by CPI[2], and CPI is generally approximately RPI-1%.

The Bank of England's inflation data spans multiple centuries, but market oversights and mechanisms have changed so drastically over time that it negates the relevance of older data, so we choose to look solely at the period for which the current inflation control mechanisms have existed (i.e. 1997 to now).

Our software does not differentiate between measures of inflation, so we assume 3% to reflect expectations around the higher measure of inflation (RPI) to create a more defensive financial plan.

Numerous items in your financial plan are assumed to increase with inflation including car prices, motoring expenses, household expenses, and tax bands and allowances (unless frozen by law). We will also apply this rate of inflation to all items of income, rental income (increasing every two years), and expenditure unless there is a compelling reason not to – for example, investment or savings premiums are not generally indexed unless they are pension contributions linked to salary.

EARNINGS INFLATION (3%)

Earnings are assumed to grow with inflation in the long run, unless you tell us otherwise (e.g., if you know you are due certain pay increases in future). Arguably, we could assume faster growth for younger clients to reflect the expectation that earnings increase with age but equating it to inflation creates a more defensive financial plan. It also means clients only need to target inflationary pay rises for their plan to be successful; they do not have the pressure of needing to obtain larger pay rises.

INTEREST EARNED ON CASH DEPOSITS (0%)

The Bank of England base rate is 0.1% as at October 2021 and has not been above 1% in over 12 years[3]. Whilst interest rates on easy access deposits are still available up to 0.65% (as at October 2021[4]), the current accounts offered by most high street banks pay nothing and their savings accounts pay next to nothing.

For simplicity and defensiveness, we assume all cash earns no interest.

PROPERTY GROWTH (4%)

This is a tough variable to choose as house price growth has been high for a long time. The average yearly percentage increase in the price of all types of property in the UK was over 8.9% for the 50 years up to July 2021; even in more recent times, annual growth averaged over 5.2% for the 20 years to the same month[5].

The recent growth rates are generally considered unsustainable. We also believe the current economic and political climates are likely to create substantial downward pressure on house price growth in the coming years as interest rates can only rise in the long term, and the Government continues to legislate to disincentivise the ownership of second homes and investment properties.

As such, we use 4%, which means we still believe property is likely to grow faster than inflation, but we think growth will be far more modest in the coming decades.

There are pros and cons to being defensive with this assumption. We could use downsizing as a strategy for funding retirement, so it makes sense in this instance to be defensive to ensure the desired retirement can be achieved. However, a defensive property price growth rate also means a risk of underestimating a future Inheritance Tax (IHT) liability.

INVESTMENT RETURN – VARIES BY PORTFOLIO

Our assumptions for investment growth depend on the level of equity content of your portfolio. Assumptions are based on careful consideration of the historic performance over recent decades of indices relevant to the two main asset classes held in our portfolios, namely equities and fixed income, which are weighted accordingly to give an assumed gross return rate.

We make a deduction of 1.27% to allow for fees and charges, which represents both Lexington's fee plus a notional product/platform/provider fee. We then round this figure to the nearest 0.5% to arrive at the net return figures used for our assumptions.

Portfolio	Assumed return
20% Equity & 80% Fixed Income	2%
40% Equity & 60% Fixed Income	3%
60% Equity & 40% Fixed Income	5%
70% Equity & 30% Fixed Income	5.5%
80% Equity & 20% Fixed Income	6%
100% Equity	7.5%

PLANNING TO AGE 100

Our default is to plan to age 100. Where a client is in their late 80s/90s, we may increase this further. We would only plan to a younger age when a client requests this and has good reason for doing so.

We do not use life expectancy averages because the nature of averages means roughly half our clients should live longer than average; you could even argue that, because our clients have above-average wealth (which is generally conducive to a better lifestyle and, therefore, longevity), most of our clients should live longer than average.

CAR REPLACEMENT

Cars are high cost wasting assets which must be replaced periodically, so we need to allow for this in our models. We assume our clients will replace their car every 5 years until age 75, at which point we assume they keep the final car for 10 years until they stop driving at age 85 and instead use taxis, for which we generally assume an expense of £400 per month. This is based on real world experience with our clients, but this assumption can be changed easily if needed. We assume each new car is purchased for the same price in real terms (i.e., after inflation) as the previous car.

Depreciation varies enormously depending on the age, history, condition, make and model of the vehicle. New cars depreciate at an average rate of 20% per annum over the first 3 years, but the rate of depreciation generally becomes negligible after the 8-year mark[6]; a 5-year-old car, on average, has lost 70% of its original value[7]. We have decided to blend the depreciation at 10% per annum to reflect that some clients buy pre-owned cars rather than new cars.

GROWTH ON EXCESS CASH

For any period in which your cash inflows are more than your cash outflows, Truth assumes the excess cash is accrued in what it calls the 'surplus account'. We have the option to apply a growth rate to that surplus account. We choose to apply no growth rate (i.e. 0%) to assume any excess cash will be kept as cash in the bank, rather than invested.

This avoids naïve or overly optimistic forecasts, although we must still take care to ensure the model does not accrue a large balance in the surplus account if you would spend this additional cash in reality.

STOCK MARKET CORRECTION

As previously stated, we use historic data spanning several decades to inform our investment growth assumptions, meaning the growth rates already include the impact of numerous real-world market crises. As such, our market crash assumptions are intended to consider the impact of an inconveniently timed crash, rather than of a crash in general.

In most cases, this means we assume the market crash happens today. Our starting point is to assume your investments fall 50% and take 10 years to fully recover. The most severe market drop seen in the last fifty years or so was just under 51%[8]. There have been larger market drops in history, but our economic understanding and market mechanisms are so fundamentally different today that we do not see value in looking too far back. This does not mean a larger drop will never happen again, but we consider it sufficiently unlikely that we do not plan for it.

Furthermore, for most clients, a 50% drop is excessive as they are not fully exposed to the stock market. As such, if a client cannot absorb a 50% crash, we may reduce the drop to a point they can absorb, however, we are unlikely to reduce the drop to be less than half their market exposure (so for a 40% equity portfolio, we may use a 20% drop if a 50% drop were unmanageable).

A 10-year recovery is also a pessimistic assumption. This is twice the length of time taken for the economy (as measured by GDP) to recover after the 2008 financial crisis[9]. We do this because the software's definition of 'recovery' is not just when you have returned to your starting position, but when you have reached the position you would have attained had the crash not happened at all – clearly, this will take longer than the market crash alone.

OVERDRAFT RATE (WHEN APPLICABLE)

Similar to the 'growth on excess cash' assumption, for periods in which outflows exceed inflows, the software uses the surplus account. If there is a balance in the account then this will be spent, but once the account is empty, it becomes overdrawn, and an overdraft rate is applied to the negative balance. If this becomes relevant to your plan, we generally use the assumed growth rate applicable to the assets we would most likely recommend you use to fund the cash requirement.

This is to reflect the fact you would probably use cash on deposit, or sell investments to fund outflows, rather than borrow. If we did not do this, the software will assume continued compound growth on investments which have been sold years prior to fund spending.

RENTAL INCOME (WHEN APPLICABLE)

If you receive rental income, we generally assume the rent will increase by inflation every two years to reflect the fact that many landlords tend not to increase their rents annually, preferring to keep existing tenants happy.

Assumptions in Old Age

HELP AROUND THE HOUSE FROM AGE 80 - £400 PER MONTH

This somewhat arbitrary figure reflects the fact most of us require more help with simple household tasks as we age.

This allows for additional expenditure on jobs you may currently do yourself such as cleaning, gardening, decorating or minor repairs. It is not intended to include the cost of funding any care needs as this is considered separately.

SWITCH FROM OWNING A CAR TO USING TAXIS AT AGE 85, COSTING £400 PER MONTH

Again, this somewhat arbitrary figure reflects the fact that there may come a day where you are no longer able or willing to drive a car. We assume this happens at age 85, and this is based on experience of what most people consider reasonable. We assume any non-collectors' cars are sold, and we add an expense for taxis to reflect the continuing need for transport. £400 per month very roughly equates to a return journey costing £10-£20 each way every two to three days.

Of course, clients should be eligible for bus passes, but given our client demographic, we assume it would be impractical or undesirable for most to use buses on a regular basis.

FEES FOR CARE IN LATER LIFE – £6,000 PER MONTH, INCREASING AT 4.7% PER ANNUM

The starting point for the £6,000 figure was the UK average figure for dementia and nursing care (the highest level of need quoted) in a care home for 2020/21 which is c.£4,143 per month[10]. We uplift this, firstly to offset the downward skew caused by the discount attained by local authorities, and secondly because most clients want a better-than-average care home. From experience, £6,000 per month seems reasonable, although certain regions and certain care home brands are considerably more expensive.

We assume fees increase by 4.7% per annum because this would have been greater than or equal to 90% of the annual price increases measured from 2012 to 2020[11]. This allows us to capture the higher end of the range minus the outliers.

Where relevant, we assume a care duration of 7 years. Various studies suggest the average stay is far shorter and is generally held to be somewhere between 2 and 3 years depending on the study, although the data is skewed by a small number who stay in care far longer. One of the more in-depth studies suggested 90% of residential bed residents (i.e. those with lower care needs) stayed 6.5 years or less[12]. As such, 7 years should encompass the likely needs of most clients.

We assume care will start from age 85. It is hard to find reliable data on the average age at which people enter care, so this age comes from experience of what most people consider reasonable.

EXPENDITURE	There is no particularly systematic way we do this but, unless you have given us details of how you expect your expenditure to change in future, we generally assume your lifestyle expenditure will decrease by around 25% at age 75 and again at age 85. We generally apply this to expenditure on clothes, alcohol, food, holidays and eating out. This is based on the experience of having seen how many clients' habits change as they slowdown in later life.

Catastrophe Assumptions

When planning, we consider the outcome had the client or, where appropriate, their partner, died or become severely disabled yesterday. This helps identify where insurance could provide peace of mind.

For premature death catastrophes, we assume the following: the deceased's income stops; any death in service or pension death benefits pay to the survivor; any life policies pay out; all assets are distributed in line with that person's Will; all pensions are distributed in line with its scheme rules or the deceased's wishes as appropriate; a one-off funeral expense (see the table below).

For disability catastrophes, we consider a permanent disability so severe that the person affected is never able to work again. This generally means the following: the disabled person's income stops following any sick pay to which they are entitled; any critical illness or income protection policies pay out; the disabled person's car is sold; the survivor continues to work unchanged; the couple must pay for the cost of that person's care (see the table below).

FUNERAL COST - £10,000, INCREASING AT 4.5% PER ANNUM	The average cost of dying in the UK is currently the highest it has ever been at £9,263; this includes the funeral, plus professional fees and send-off costs (e.g. a memorial service, catering, flowers etc)[13]. Furthermore, the average cost of a basic funeral has increased by 128% since 2004[14], or c.7.5% per annum. This increase has slowed in recent years and was unlikely to continue at that rate, but even so, we assume costs will continue to rise faster than inflation, and 4.5% is 150% of our inflation assumption.
CARE FEES FOR IMMEDIATE DISABILITY - £6,000 PER MONTH, INCREASING AT 4.7% PER ANNUM	We use the same figures as those assumed for care in later life. This is not to say we expect the type of care to be the same – a disabled person is more likely to receive care at home in the form of personal assistance – but the cost of this can be vast (Age UK quote an average of £15 per hour[15]) and the total cost will depend on how much assistance is needed so, for lack of a more scientific alternative, we use the same figure as for a care home, also rising faster than inflation.

References

PRICE INFLATION	[1] https://www.bankofengland.co.uk/monetary-policy/inflation/inflation-calculator [2] https://www.bankofengland.co.uk/monetary-policy/inflation
INTEREST EARNED ON CASH DEPOSITS	[3] https://www.bankofengland.co.uk/monetary-policy/the-interest-rate-bank-rate [4] https://moneyfacts.co.uk/savings-accounts/
PROPERTY GROWTH	[5] https://landregistry.data.gov.uk/app/ukhpi/browse?from=1971-07-01&location=http%3A%2F%2Flandregistry.data.gov.uk%2Fid%2Fregion%2Funited-kingdom&to=2021-09-01&lang=en
CAR REPLACEMENT	[6] https://www.theaa.com/car-buying/depreciation [7] https://motorway.co.uk/sell-my-car/guides/car-depreciation-guide
STOCK MARKET CORRECTION	[8] As measured by maximum drawdown figure for the MSCI World Index from Dec 1969 to Sep 2021; data from FE Analytics [9] https://www.ons.gov.uk/economy/grossdomesticproductgdp/articles/the2008recession10yearson/2018-04-30
FEES FOR CARE IN LATER LIFE	[10] LaingBuisson's Care of Older People UK Market Report, 31st Edition, published May 2020 [11] LaingBuisson's Care of Older People UK Market Report, 31st Edition, published May 2020 [12] Length Of Stay In Care Homes Report 2011, Forder J & Fernandez J
FUNERAL COSTS	[13] SunLife Cost of Dying Report 2021 [14] SunLife Cost of Dying Report 2021
CARE FEES FOR IMMEDIATE DISABILITY	[15] https://www.ageuk.org.uk/information-advice/care/paying-for-care/paying-for-homecare/