

Introducing Investment

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At Fiscal Engineers, our role is to help you manage your wealth so that you have sufficient resources to achieve your financial goals. The most significant factor in the success of our work will be the way we construct and manage your investment portfolio. Choosing a mix of investments that is suitable for you is critical. The right mix depends on both your need to achieve returns to meet your goals and your emotional ability to live with the risks you will have to take to achieve these returns.

We have prepared this guide to help you understand these investment choices. This guide aims to:

- Examine the main types of investments that exist, their risks and rewards and what influences the way they behave.
- Explain how we use the different types of investments together to construct a robust and diversified investment portfolio.

Types of Investment

There are many things in which you can invest, but the main types, or asset classes, are cash, fixed interest (gilts and bonds), shares (equities) and commercial property. By and large, using these four key asset classes allows most investors to structure sensible and robust portfolios. Choosing effective products through which to access these asset classes, managing costs and reducing tax liabilities are also central to success.

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Cash

Unlike the money in your pocket, cash deposited in a bank or building society can earn interest. The first point to note is that by placing a deposit with a bank, you are lending that institution your money and it sits on their balance sheet. What you get in return is a promise to return your money at a set date in the future (or when you ask for it back) along with an agreed rate of interest.

The amount of interest that you get depends upon a number of different things:

- The general level of interest rates as set by the Bank of England.
- The size of your investment – larger investments may attract higher interest rates.
- How long you are prepared to give up access to your money – you may get more by deciding that you can wait, say, 60 or 90 days before withdrawing your money
- The financial health of the institution borrowing your money.

The risks of owning cash

Saving in bank or building society deposit accounts or using National Savings products, which offer interest, is the way most people start investing. But, there are a couple of major risks involved:

- Inflation: the interest you receive on such accounts, especially after tax is taken into consideration, may not be enough to allow the value of your cash to keep up with inflation. Over the long term this can mean that your money loses its value in terms of what it can buy.
- The risk that you don't get your money back: This is known as credit risk. The less healthy the institution, the higher the rate of interest they are likely to offer you, with all the associated potential consequences that we saw in 2008, with the likes of Northern Rock and Icesave.

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Let's look at the risk of inflation a little more closely: A £1 coin will always be worth £1, but what you can buy with that coin will reduce with inflation. Using the Government's target inflation rate of 2.5% over 20 years reduces the amount of goods your £1 coin would buy to 60p. With inflation at 5% a year over 20 years, this falls to just 36p. Inflation is the number one scourge of all long-term investors.

The table below demonstrates the effect of different inflation rates over different periods of time on the value of your £1 coin. What is evident is that even at low rates of inflation the purchasing power of your money will be greatly reduced over longer periods of time. The rate of inflation changes regularly.

Figure 1: The reduction in purchasing power of your £1 coin

Inflation	5 yrs	10 yrs	15 yrs	20 yrs	25 yrs	30 yrs	35 yrs	40 yrs
1%	95p	90p	86p	82p	78p	74p	70p	67p
2%	90p	82p	74p	67p	60p	55p	49p	45p
3%	86p	74p	63p	54p	47p	40p	34p	30p
4%	82p	66p	54p	44p	36p	29p	24p	20p
5%	77p	60p	46p	36p	28p	21p	17p	13p
10%	59p	35p	21p	12p	7p	4p	3p	1p

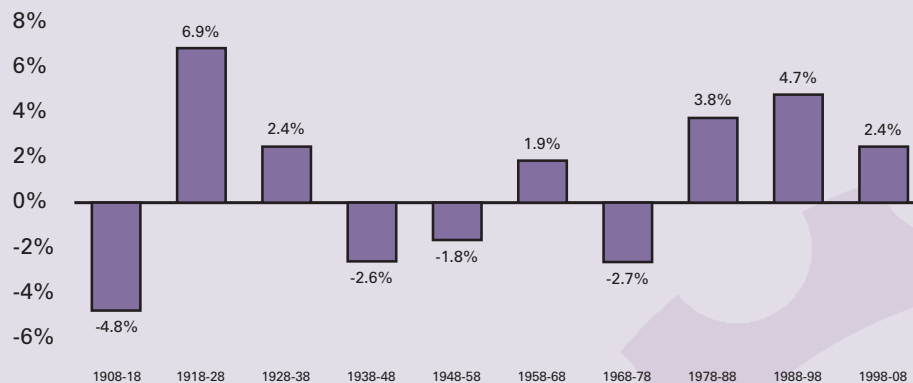
 = less than half its value left  = less than a quarter of its value left

Even cash placed on deposit has been a pretty poor store of value over time. As you can see from Figure 2 overleaf, over the past 100 years, there have been decade long periods when cash returns have been negative and this is before tax has been deducted. In the 1970's the purchasing power of your cash on deposit would have fallen by around 30%. Over the very long term, cash has delivered an after-inflation return of just 1%, before tax.

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Figure 2: Cash returns by decade, after inflation



Source: Barclays Equity Gilt Study, 2009

The role of cash in portfolios

Cash has an important role to play in the management of your wealth, not as a long term strategic component of your investment portfolio, but as a source of liquidity that allows you to meet your near-term liabilities and commitments without having to sell any of your longer-term assets. The true focus of where you place your cash should be driven by safety and liquidity first and then the rate of interest that you can achieve. 2008 was a salutary reminder of the risk of lending your money to others such as Northern Rock and Icesave.

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Fixed interest (gilts & bonds)

Bonds are issued by governments and private sector companies as a means of borrowing money. As an investor in bonds you are lending your money to the government or a company. Your main concern should be the likelihood that they will repay you your money and meet their obligation to pay you interest. The high profile collapse of firms like Enron, Lehman Brothers and Woolworths clearly illustrate the risk of default that you face in lending your money to others.

The UK Government issues bonds known as gilt-edged securities (or 'gilts' for short). In a similar way, companies borrow money by issuing corporate bonds. These are IOUs that state the date at which your loan to them will be repaid (the maturity or redemption date) and the interest (or coupon as it known) that you will receive in compensation. This is generally higher than the interest paid on deposit accounts because, as explained below, bonds are more risky than deposit accounts for a number of reasons.

The risks associated with owning bonds

The first risk that you face is that even though a bond is normally issued at a price of 100 and when it matures it pays you your capital back at a price of 100, in the interim, the price moves up and down. If you need access to your money before the redemption date, you can sell the bond to someone else in the open market. The price you get will be the market price of the bond at the time you sell, not the 100 it was issued at. This price depends on what has happened to interest rates, otherwise known as 'yields', since the bond was issued. Put simply, as interest rates (yields) demanded by the market go up, the price of bonds goes down and vice versa. This is because a bond pays a fixed rate of interest; if the market now demands a different yield as its perception of risk has changed, the only way in which this new yield can be accommodated is through the bond's price (see Figure 3). The further out the maturity date is into the future, the more sensitive the bonds price is to changes in yields. As such 'longer-dated' bonds are more volatile in price than 'short-dated' bonds. This volatility is sometimes referred to as interest rate risk.

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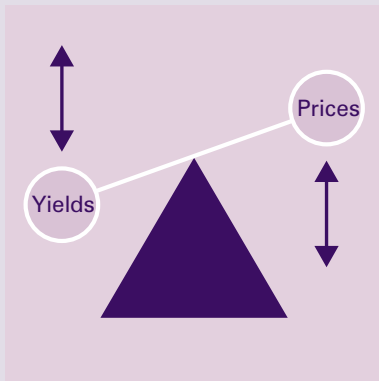


Figure 3: The bond see-saw

Aside from interest rate risk, when you invest in bonds you need to balance the return you will receive for holding it, against the probability that the issuer will be not be able to pay interest on its loans and ultimately pay its lenders (you) back. The latter is called risk credit or default risk. Gilts are a more secure option than corporate bonds as the likelihood of the UK Government defaulting is very slim as it can simply print money to repay its obligations.

Credit ratings

Credit rating agencies rank bonds according to their estimate of the likelihood of the company defaulting, i.e. the risk that the issuer will not be able to keep up interest payments or repay you at the redemption date. The safest corporate bonds are known as 'investment grade' bonds. The highest risk applies to 'high yield' bonds, sometimes known as 'junk' bonds, which may pay higher returns but run a correspondingly higher risk of being unable to repay your original investment.

Investment grade bonds, which have the lowest risk, are rated Triple A (AAA) to Triple B (BBB), whilst non-investment grade bonds are rated below Double B (BB) to D.

Understanding the return you will receive

There are two yield figures to consider:

- 'Current' or 'running' yield: This is simply the percentage income you get on your investment i.e. the interest rate (coupon) that the bond pays.
- 'Redemption' yield: This reflects the income and the capital growth, or loss, if you hold your bonds until the redemption date. This will depend on the price at which you purchased the bond. Very simplistically, if a bond that matures in a year's time has a coupon of 4% and you buy it at price of 98, on maturity you will get a 2% capital gain as it will repay your capital at a price of 100 plus you will receive 4% in interest giving you a total return of 6%.

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You should compare the two and note whether the current or running yield is higher or lower than the redemption yield: if it is higher, it is possible that you will not get back the amount you invested, particularly if you hold the bond until its maturity date.

The role of bonds in portfolios

Remember that when you own bonds, you are lending your money to another entity, be it a government or a company. You need to make sure that the return you receive amply compensates you for the risks that you are taking on. Broadly, these risks are: the volatility associated with lending your money for longer periods of time, the risk that the borrower fails to meet their obligations to return your money to you with interest, and the effects of inflation.

For a more cautious investor, bonds play the role of generating steady income over time with a far lower volatility and risk to the erosion of capital than equities. Inflation is the key long-term risk which can be mitigated by owning index-linked gilts (or other inflation linked investments such as index-linked National Savings certificates) which provide protection of capital and income from the effects of inflation.

For more risk tolerant investors, who own significant amounts of equity in their portfolios, bonds play the role of dampening equity market falls. They have the capacity to do this because they are inherently less volatile than equities in the first place and also their returns do not necessarily follow the same pattern as they are driven by different market factors. Bonds issued by companies are less effective than government bonds in this role of delivering equity market downside protection.

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Shares (equities)

Shares in a company are just that. As a shareholder, you own a part of the company in which you have invested, and have a direct share in its assets and future profits. In other words, the company is giving you a part of itself in return for the use of your capital to fund its business activities.

Shares are often called 'equities'. Part of the company's profit may be paid directly to you, as a shareholder, in the form of dividends. This dividend income is normally distributed twice a year. People also invest in shares to make money through an increase in value, which is reflected in the share price.

To convert your shares back into cash, you have to sell them to someone else in the stock market. The price you get depends on a range of factors such as what other investors think the future profits of the company are likely to be and the amount they are willing to pay you for each £1 of profit that they believe the company will generate in the future. Some of these influences will be specific to the individual company, some specific to the type of business that it is in, while others relate to the economic outlook more generally.

Over the longer term, the rewards that an owner will receive will be dominated by the dividends that they receive plus the change in price of the shares that is attributable to the growth in their profits. In fact from 1900 to 2008 the capital value of £100 invested in UK equities only rose to £139 over this whole period. However, with dividends reinvested this £100 would have increased in value (after inflation) to over £18,000, illustrating both the importance of dividends and the power of time and compounding to investors. (Source: Barclays Equity Gilt Study 2009).

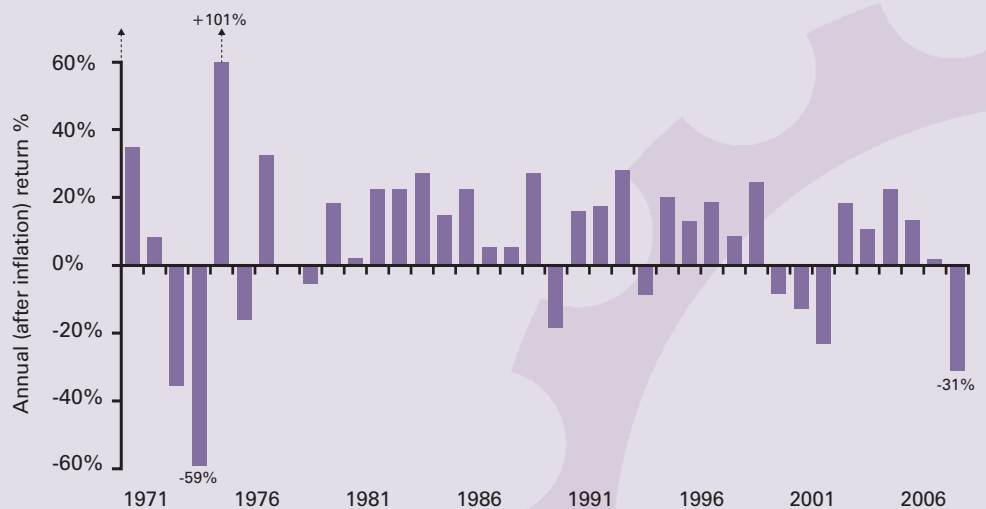
Owning equities for the cash based dividend and the growth in price attributable to growth in profits is investing. In the short-term, how much investors are willing to pay for each £1 of profits will vary; rising when the market is optimistic and falling when the market is pessimistic. Trading on the direction of sentiment driven changes in price is gambling (i.e. speculation).

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The chart below shows how the value of the index of UK shares (FTSE All Share) has changed each year, measured January to December, from 1971 to 2008.

Figure 4: Returns (after inflation) from the FTSE All Share since 1971



Source: Dimensional Fund Advisors Ltd – Returns Program.

The role of equities in your portfolio

In compensation for the risks inherent in being the owner of a business, as an equity investor you would expect to receive rewards (dividends and capital gains), on average and over longer periods of time, in excess of those on property, bonds and cash. Over the long term, this has been around 5% above inflation, on average. From the graph above it is pretty clear that the road is not a straight one. Equities form the return engine of portfolios, but need to be tempered by the inclusion of non-equity assets such as property and bonds that are less volatile and behave differently, given the varying sources of their returns.

It is important to note that shares can go down as well as up and you may not get back the amount you originally invested.

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Commercial Property

The commercial property market consists of three principal sectors: retail, offices and industrial. An investor's return will be his share of the rental income after expenses. There may also be an increase or fall in the property value which the investor must take into account. In fact, commercial property sits somewhere between bonds and equities in its characteristics. Imagine a new, high quality office block with a major global oil company as its tenant, who has signed a twenty year lease with an upward only rent review (i.e. rents can only go up, not down in the future). They pay their rent quarterly. That is quite similar to a corporate bond with the bulk of the return being from the rental income. Imagine on the other hand a hotel that has tenants (individuals) who sign overnight leases. The value of the property is much more closely tied to the management company's ability to generate profits and it will act more like equity, with more of the return relating to the residual value of the actual property.

Whilst returns from residential property have largely been linked to rapid increases in capital value, the major component of commercial property return generally arises from income. This makes the commercial property market very different to residential property.

Commercial properties are usually valued with reference to the future stream of rental income they are likely to generate. The simplest valuation yardstick is 'initial yield', which is the current annual rent divided by the value of the property.

Example

Rental Income = £1m

Initial Yield = 8%

Value = $£1,000,000 \div 0.08 = £12,500,000$

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If there is an expectation that rental income will rise in the future, either because of specific terms in a lease, or as a result of general market conditions, this may increase the valuation.

When compared to the fixed interest and share markets, direct investment in commercial property is relatively illiquid; properties do not change hands anywhere near as much as fixed interest securities and shares. This is down to a number of factors including the large cost per property and the high transaction costs involved. The basis of valuation is also very different compared to the fixed interest and share markets. In the latter, values are determined simply by what another investor will pay for an asset. Whereas, in the absence of an active trading market, property values are simply a valuer's opinion of the most likely selling price.

Commercial property appears to go through cycles in a similar way to the economy, in that it has periods of growth leading to a time of oversupply and then market weakness, followed by stabilisation and absorption, then back to growth again and so on. During this cycle, the average initial yield across the property market fluctuates as a result of general economic conditions and specific changes in attitude to property. In turn, this will affect valuations.

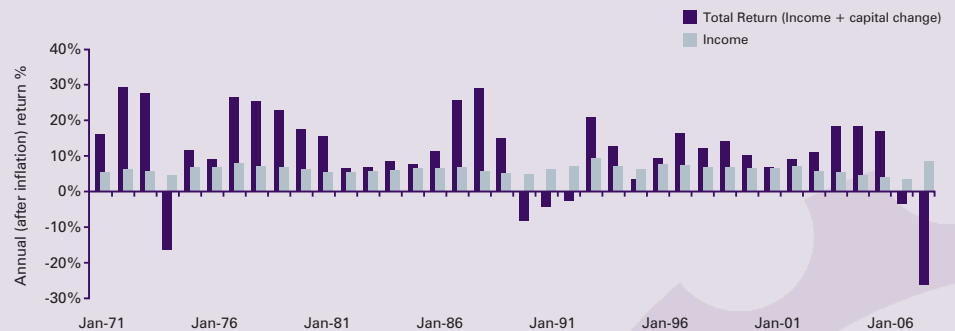
When investing in commercial property, you need to take into account the value or potential value of the property, i.e. the initial yield, and the probability that the tenant will be able to meet the rental payments for the remainder of the lease. Other factors include supply and demand and the economy in general.

The following chart shows commercial property returns broken into the income and the total return (the balance being made up by capital gains or losses) over each calendar year since 1971.

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Figure 5: Returns from commercial property 1971-2008



Source: IPD

The role of property in portfolios

Property provides a useful, but not a guaranteed means, of providing protection against equity market falls; 2008 clearly demonstrated that it does not always help. Its return generating capability, largely through income, is likely to be better than that of cash or bonds over the longer term making it a useful diversifier of equity market risk as less return is given up in the portfolio when property is substituted for equity exposure.

Other asset classes

Often when you pick up the paper or listen to a financial commentary, you will come across any number of things that you could invest in; such as hedge funds, private equity and structured notes – to name but a few. Whether you should invest or not is an entirely different matter! As an astute investor, you should only add additional assets into your portfolio if you have a strong, long-term rationale for doing so, driven by the fact that they add something positive to your overall portfolio. Remember that you will be adding them at the expense of the tried and tested core asset classes explored above. You should only invest in them if you truly understand the risks that they entail, how they work with the other assets in your portfolio and if you understand where the returns come from.

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At Fiscal Engineers, we have, through our Investment & Research Committee, studied and concluded that only a few other asset classes are adequately understood and rewarded. We divide these into other equity asset classes that have the potential to increase the returns that we hope to achieve, from broadly diversified ownership in companies in developed markets (i.e. holding most of the publicly listed companies that form 'the market') and into non-equity asset classes that act as diversifiers of equity market risk.

Equity return enhancers

If you lend money to someone, you expect to receive a return, by way of interest, that compensates you for the risk this lending entails. Riskier borrowers (i.e. less healthy companies) must pay more to lenders than safe borrowers. Likewise, with equities; if you own riskier companies then you would expect to receive a higher long-term return. Otherwise, why would you bother?

You have three choices if you want to generate returns higher than the broad market return from equities: you can own less financially healthy companies (these are known as 'value' companies in the investment world), own smaller, more risky companies rather than to large 'blue chip' companies, or own companies that operate in the emerging markets of the world where the risks of doing business are greater. Owning small but meaningful amounts of these additional risks provide investors with the opportunity to increase portfolio returns, although there are no guarantees that this will be the case.

Equity risk diversifiers

In terms of non-equity asset classes that provide a diversification benefit (i.e. they can improve the relationship between the return that a portfolio delivers for the risk it takes on) we have identified that exposure to a varied basket of commodities (such as energy, agricultural commodities and precious metals) provides a useful opportunity to diversify risk in portfolios. This basket has a return pattern that bears little relationship to those of either bonds or equities and can therefore reduce portfolio volatility without adversely affecting returns. The price of the underlying assets will change according to supply and demand and so investing in commodities should provide an additional benefit of inflation protection.

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Choosing risks carefully is the key to building robust portfolios

“Risk surrounds and envelops us. Without understanding it, we risk everything and without capitalising on it, we gain nothing”

Source: Glynis Breakwell, (2007) 'The Psychology of Risk', pp.1.

As you will have gathered, all investments carry an element of risk. Generally speaking, where there is less risk to your investment, your money will grow more slowly. With a more risky investment, the likelihood that you will lose money in the short term comes with a stronger probability that you will make more money over the longer term. Building portfolios requires insight into the risk that are involved and careful mixing of these risks to create a robust and logical portfolio. If you are not prepared to take any risk then you should not expect returns any higher than the risk-free rate from cash deposits. If all risk is eliminated from your portfolio then higher returns will not be achievable. You must therefore manage the risk to balance the returns you wish to obtain with your tolerance to variations in the value of your portfolio.

Managing risk through diversification

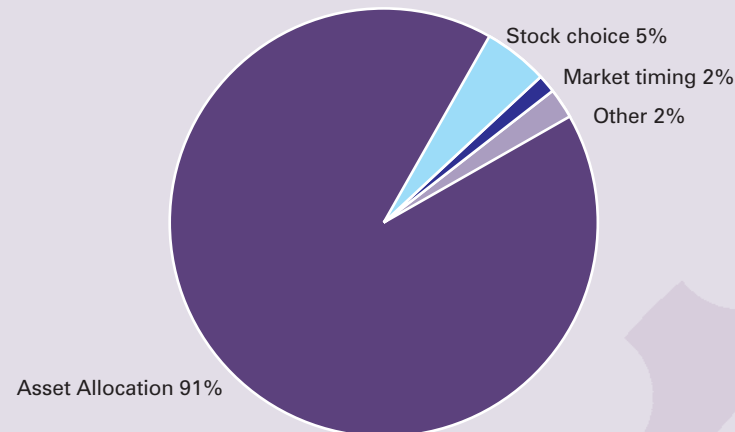
One of the main weapons available to combat risk is diversification. This is the process of combining together different asset classes that perform in different ways, with the aim that when one asset class is falling another will be rising. Dr Harry Markowitz in his 1952 paper 'Portfolio Selection' researched the use of diversification to reduce risk within a portfolio. His work was so influential that it forms the basis of what we call today Modern Portfolio Theory and it earned him the Nobel Prize for Economics in 1990.

Subsequently a number of academic studies have confirmed that the most significant factor affecting the level of risk, and therefore return from a portfolio, is the way that capital is split between different asset classes such as cash, fixed interest securities, equities and property. They conclude that this so-called asset allocation in fact explains more than 90% of the variation in returns, and therefore performance.

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Figure 6: The determinants of portfolio performance



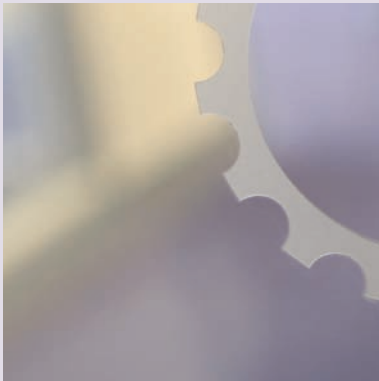
Source: Brinson et al. (1991), Determinants of Portfolio Performance II, Financial Analysts Journal May/June.

Building a portfolio is therefore about deciding which risks you want to take in order to generate the returns you need to achieve. At its simplest, it is a balance between the risks of being a lender (cash and bonds) and those of being an owner (equities and property). The choices you face as a lender relate to who you lend to and how long for. The choices you face as an owner relate to what type of company you lend to (large or small, healthy or less healthy) and where they are located (developed versus emerging economies). These choices, as you move away from holding cash are summarised below.

Figure 7: Choose your risks (and rewards) carefully

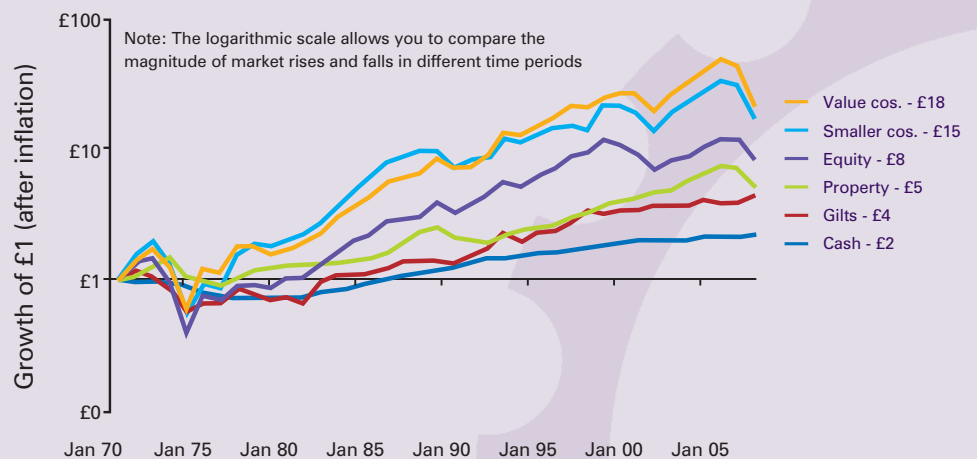


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Putting this into the context of the markets helps to illustrate the point. The following chart shows the growth of a £1 investment in UK Shares, commercial property, and cash since 1971, which is the first common date for all of these asset classes.

Figure 8: The growth of £1 in real (after inflation) terms since 1971



Data source: Dimensional Fund Advisors: FTSE All Share, Dimensional UK Small Cap Index, Dimensional UK Value Index, UK 1-month UK Govt T-Bill. Barclays Equity Gilt Study 2009: UK Gilts. IPD: UK Commercial Property.

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Risk summary and asset class benefits

The table below summarises the types of risks and benefits for the different asset classes.

Asset	Risks	Benefits
Cash	<ul style="list-style-type: none">• Inflation risk• Interest rate risk• Bank/building society failure risk	<ul style="list-style-type: none">• Capital security• Interest (usually variable)
Fixed Interest Securities	<ul style="list-style-type: none">• Market risk• Default & credit risk• Currency risk• Inflation risk	<ul style="list-style-type: none">• Opportunity to earn more than a deposit account• Steady income
Shares	<ul style="list-style-type: none">• Market risk• Currency risk• Company failure risk	<ul style="list-style-type: none">• Opportunity to earn strong, after-inflation returns• Protection against inflation
Commercial Property	<ul style="list-style-type: none">• Market risk• Default & credit risk	<ul style="list-style-type: none">• Opportunity to earn more than a deposit account• Steady income• Protection against inflation

Risk in a nutshell

If your investment is bought and sold in the market, you are exposed to **market risk** as market prices may fall as well as rise.

If you are entitled to a regular payment (as with fixed interest and property), there is the risk that the issuer may not be able to keep up these payments or repay you at the agreed redemption date. This is known as **default or credit risk**. In addition the issuer of the bond may not actually default, but the perception that they might, may change, and this could lower the market value of bonds and property. This risk is part of **credit risk**.

If the investment is overseas in a foreign currency, or a company does business overseas, its value in sterling will be affected by exchange rates. This is called **currency risk**. Inflation reduces the future purchasing power of your investments, and the interest you earn may not compensate for this. This is called **inflation risk**.

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The rules of good investing

Hopefully, this paper will have provided you with some of the basic background into the asset classes that form the core of most investors' portfolios and the risks that are associated with them. In essence, good investing is about doing a number of simple things exceptionally well.

At Fiscal Engineers, we have identified seven key principles for good investing:

1. **Asset allocation drives returns:** As this paper notes, building a long-term strategic portfolio that incorporates understood risks which offer adequate compensation to the investor is central to success.
2. **Diversify, diversify, and diversify:** Owning a broad combination of asset classes, both equity and non-equity in nature makes sense, to help reduce volatility.
3. **Manage the danger of inflation:** Inflation is the greatest scourge of the long-term investor and needs to be managed carefully by owning assets that can protect against its long-term effects.
4. **Ruthlessly drive down costs:** The returns that you actually achieve are net of costs. Given that equities have historically only returned around 5% per year above inflation, proactively managing costs is essential to success – that includes managing your tax position carefully.
5. **Exploit time and compounding:** Time and compounding are powerful allies. Small differences in returns on a year-by-year basis make big differences to long-term lifestyle outcomes.
6. **Control emotions and stay the course:** Emotions have the potential to destroy more wealth than the markets. Being influenced by emotions results in buying high and selling low – a sure route to damaging your wealth. With investing, less activity is a good thing in most cases.
7. **Rebalance portfolios:** Over time, portfolios become skewed toward assets that have performed better, usually the riskier assets. It is important to sell out of good performing assets and buy worse performing assets to keep your portfolio at the risk level you both need and can tolerate.

Please feel free to contact us if you want to find out more about our robust and effective approach to investing our clients' assets.