

## Introduction

*An investment in knowledge always pays the best interest.*

BENJAMIN FRANKLIN (1706–1790)

Endowments and foundations are entities that have been given assets to generate a return to support some purpose. Each endowment entity is unique in terms of its needs and financial resources, which implies that each endowment must have a unique investment strategy.

The largest pools of non-profit endowment assets today are to be found in the USA, representing educational, social, cultural, political and religious organizations such as museums, hospitals, orchestras, religious, universities and colleges and charities. The Giving USA Foundation estimates that Americans gave some \$248.5 billion to charity in 2004, an amount approximately equal to the national incomes of Norway or Indonesia. The largest foundation was that of Bill and Melinda Gates with assets at the end of 2004 just short of \$29 billion. The largest financial endowment of any academic institution was that of Harvard, which was nearly \$23 billion at the end of the fiscal year 2004. As long ago as the early 1930s the annual income from philanthropy in the USA was only exceeded by the incomes of the US and UK governments. Endowed assets in the USA at that time exceeded the estimated wealth of many nations.<sup>1</sup>

US endowment funds as a whole may not have been the first to exist but, apart from being the largest in the world, they are the most advanced in their investment thinking. This is probably due to the twentieth-century emergence of pension, insurance and mutual funds which all led to the demand for an intellectual foundation for good policies and practices.

Some of the oldest endowments can be found in Europe. Among the earliest examples was the gifting of agricultural land to the Church so that the income from tithes (a tax levied in kind of one-tenth of the annual produce of the land) and from rents and the sale or barter of produce would help to support the institution. Later examples include the medieval trade and craft guilds, called Livery Companies, of the City of London. They still exist today and some have their origins in the eleventh century. Other examples are the early universities and colleges, a number of which were started by the Church or were established following the dissolution of the monasteries in the sixteenth century when the tithe passed from ecclesiastic to lay hands. Yet others include the philanthropic, cultural and charitable organizations created out of the industrial wealth of the eighteenth and nineteenth centuries.

The largest endowment in the UK is the Wellcome Trust with assets of approximately \$18 billion. The Trust was created in 1936 by the Will of Sir Henry Wellcome in which the entire share capital of his pharmaceutical company, The Wellcome Foundation Ltd, was vested in trustees (now known as Governors) to distribute the income principally to support 'scientific research which may conduce to the improvement of the physical conditions of mankind'. The shares were sold in tranches over the 1980s and 1990s to diversify the asset base of what is now the largest endowed medical research charity in the world.

What is particularly notable about the oldest endowments in the UK is that few if any seem to have grown to a size that might have been expected given their long history and the power of compounding money over long periods of time. This is probably due to return being essentially in the form of income and all income being spent. The trade-off between current spending and the growth of an endowment, and therefore of the ability to grow spending power in the future, is one of the key factors in developing investment strategy. This is a message for trustees today and for governments if they wish for more of the burden of supporting need in society to be carried by philanthropic organizations.

## 1.1 ENDOWMENT FUND CHARACTERISTICS

Endowments may be ‘True Endowments’ (USA) or ‘Permanent Endowments’ (UK), where the trustees have no power to invade principal. They may be ‘Quasi-Endowments’ (USA) or ‘Expendable Endowments’ (UK), where they may make that conversion, albeit in the UK subject to certain constraints. A ‘Term Endowment’ is designed to expend capital over some period and therefore is not designed to exist in perpetuity.

Endowments are about claims on the future as much as the present. Whatever the underlying motivation for endowing a charity, trust or foundation, the main purpose of providing a lump sum of capital is to provide a return for supporting the activities for which the endowment was established, as defined in its constitution, and to ensure continuity in the activities of that entity over its anticipated life, whether or not that is very long term.

One characteristic of endowed entities, therefore, is their dependence on investment return, both to finance their current consumption and to maintain, or even improve, their asset base for the future. While pension funds can fall back on their sponsoring operating companies to fund them if returns are insufficient to meet their liabilities, and insurance companies can raise new money from shareholders, some endowments such as foundations do not have the luxury of alternative sources of funds. As Charles D. Ellis has written<sup>2</sup>: ‘most of the world’s great educational and cultural institutions – universities, colleges, libraries, museums and foundations – depend, to varying degrees, on their endowments and the spendable funds they produce.’

While endowments share investment characteristics with some other long-term funds, they are also different from them in another respect. Most endowments are established in perpetuity. Few other types of fund have an infinite investment time horizon and most other funds have constraints either through profit motive or through different regulations. Such funds do not therefore form a part of the consideration of this book even though most of the investment principles generally apply.

Some endowed organizations, such as most foundations, have no income other than that from investment. Most others have additional sources of finance, such as donations, subscriptions, legacies, fund-raising events, trading activities and fee income that may partially cover immediate consumption or be donated to capital. For instance, a university may rely for the majority of its operation on tuition and other fees. The endowed assets may simply provide a subsidy to those fees such as for specific scholarships to qualifying individuals to support eminent scholars or to fund research. Where an endowed institution has other income, this will be an integral part of investment strategy.

Organizations that may spend all or nearly all of their other income as it arises must still develop a strategy for investment of funds. But the strategy will depend on the role the endowment plays in the organization. If there is little income to fund an endowment’s mission other than the investment return on the endowed assets themselves, there is a simple trade-off.

That trade-off is between providing a more or less predictable level of shorter term realizable investment return to fund current expenses against a higher but more variable endowment value as a legacy for the future.

The future legacy is known as ‘intergenerational equity’. This phrase implies an endowment maintained for future generations sufficient to allow a level of well-being no less than that of the current generation. In the endowment world, intergenerational equity means preserving the capital required to maintain, in real terms, the mission of the endowment.

What is the right balance between current and future demands? The trustees must make that judgment if it is not already mandated in the endowment’s constitution. But they must make it knowledgeably. That means understanding what any decision to spend now really means for growth of ability to spend in the future, and the implications in terms of the endowment’s fundamental objectives.

The following financial formula, where the numbers are all expressed as a percentage of endowed assets at the beginning of the period, is a key message of this book. The formula says that the total return on the endowment over time must equal or exceed both the spending rate and inflation if it has no other income. If the endowment return exceeds the spending rate and inflation over time, then it will grow in real terms and so will spending:

$$\textit{Investment return} + \textit{Other income} = \textit{Spending rate} + \textit{Fund growth}$$

We will call this Micawber’s Rule, reflecting the Dickensian quotation at the beginning of Chapter 5 entitled ‘Spending Rules’, and we will see in that chapter that investment strategy is not just about creating investment return, the first term of the formula. All four terms of the formula are interrelated. If other income is zero, if investment return is 8% per annum and if 5% of the endowment is spent each year, then the endowment fund, and the spending growth, will automatically grow each year by 3%.

If 7% of the endowment’s 8% return is spent each year, then the growth of the fund, and therefore the growth of spending in future, will be only 1% per annum. However, given the same numbers and inflation at 3%, an 8% per annum nominal return is only 5% real (inflation adjusted). If 6% per annum of the endowment is spent, the fund, and future spending, will grow by 2% per annum in nominal terms. In real terms, however, fund growth and spending must by definition decline by 1% per annum.

Investment strategy cannot therefore be decided independently of other factors and we will look more closely at this equation in Chapter 5. We will see that the formula helps to discipline spending and decisions on the balance between current spend and intergenerational equity.

While the four components of Micawber’s Rule may be inextricably linked, in many endowments the four elements are considered separately. In larger endowments the elements may each be represented by different committees, such as investment, finance, fund-raising, budget and charitable committees. The maths, however, is such that the outcome of (and input to) each committee must be consistent. The two sides of Micawber’s Rule must be equal. If nothing changes on the left of the equation (income and financial return) and current spending rises, future growth (of both endowment and spending) must inevitably fall. If current spending as a percentage falls with no change in the return or other income, future growth must rise. Determining the balance is the responsibility of the governing body.

Endowments are therefore different from other long-term funds. Other funds generally have finite lives and have behind them a ‘lender of last resort’. Endowments generally have infinite

time horizons and depend to a greater or lesser degrees on the investment return generated by a fund of assets; they may or may not have other sources of income.

Endowments as considered here are not-for-profit entities. Pension funds are part of a profit-generating environment that has a different priority and creates other specific issues, especially of a regulatory nature. The same applies to insurance companies that can ultimately fall back on shareholders for funding. Not-for-profit endowments do not have any financial conflicts between either the benefactor or the beneficiary. Pension funds and insurance companies, other than mutual insurance companies, are funded by shareholders to meet contractual and regulatory requirements. Shareholders are subject to profit and loss considerations at the possible expense of beneficiaries and vice versa.

Another sense in which endowments are different is in respect of intergenerational equity issues. There is a special tension between meeting today's needs and providing benefits for a perpetual future. This tension, between current spending and maintenance of funds for the future, is greater when the policy of the endowment is not restricted simply to spending the income but making available for consumption the total return of the fund. Many trustee bodies, not unnaturally, tend to focus more on the needs of today rather than the distant future of the next generation. But, in the words of David Salem, trustees must 'delicately balance the concrete and often very vocal demands of current stakeholders against the amorphous and very silent demands of future stakeholders'.

A long-term perspective can provide opportunity to an endowment that other institutions cannot even contemplate. Endowments should be the last institutions to suffer from the timing pressures generated by short-term investment performance. If they do suffer, then investment and spending strategies have not been properly integrated.

## 1.2 CONSTRAINTS ON ENDOWMENTS

The tax and regulation surrounding endowments, touched on in Chapter 7, 'Legal, Social and Ethical', are one area of potential or actual constraint. In the USA, for instance, the Internal Revenue Service requires foundations to spend 5% per annum of their asset base in order to maintain their charitable status. Charities in the UK are subject to the Trustee Investment Act and the rules of the Charity Commissioners. As far as tax is concerned, UK charities are generally exempt from tax but there are important tax considerations in the structuring of the endowment from the point of view of cost recovery and trading activities.

While endowment funds are different in a general sense from most other long-term funds, they are also different in a specific sense: each is constrained by its own particular purpose and needs. In the UK, the landmark law of the Trustee Act 1925 provides that trustees have an absolute duty to carry out specifically the terms of their trust. The same applies in the USA. Committing or allowing breach of that trust could leave trustees personally liable. The investment strategy of each endowment will therefore be unique where the needs are uniquely different from that of others. This has important implications for performance assessment and benchmarking, as we will investigate later.

Each endowment has its own quantum and type of resources that may, in turn, be covenanted to be consumed in a way that is defined by its constitution. In the case of Yale University,<sup>3</sup> for instance, some four-fifths of its funds constitute true endowments where donors have specified the objectives: 23% of donors have specified that their gift is to be used for professorships, teaching and lecturing; 18% for scholarships, fellowships and prizes; 4% for maintenance; 3% for books; and 31% for various other specified purposes. Only 21% of the donations are unrestricted.

These differences of purpose are reflected in different patterns of expenditure. An endowment designed to fund long-term research will have a different pattern of expense from an endowment established to provide scholarships. Equally, the constraint may be in the form of restriction of sale of the asset donated, not constriction of the purpose. An endowment that has been funded with cash to be invested with no restraint on consumption of income or capital, or on the asset classes in which funds may be invested, will be different from an endowment that has, as its principal asset, illiquid real estate. Apart from its unmarketability, real estate can be left to an endowment constrained by a term of the bequest that the real estate should not be sold.

The starting point for the investment and consumption of the resources of any endowment must be the governing document, or constitution, that defines its purpose and initial funding. This governing document may be a trust deed; a letter of wishes; the memorandum and articles of a company; the minutes of a meeting; the mission statement of a benefactor. Once the characteristics, aims, objectives and restrictions of an endowment are clearly defined, then, and only then, can an investment objective and a subsequent investment strategy be framed properly and resources spent wisely.

That is the point at which the interplay between constitution and investment strategy becomes iterative. An entity can only consume, now or in the future, what its resources can in reality provide. Expectations must therefore be tailored to reality. When markets have provided many years of double digit returns, trustees have been known to believe that this is sustainable indefinitely and change policy just at the moment when valuations revert to a lower mean. A classic example is a period of secular disinflation when a Government bond of long maturity offers a guaranteed future nominal income yield of, say, 4%, having fallen in yield to that figure from double figures and having thereby provided a historic double figure rate of total return.

The other side of the iterative process is the constant assessment of expected returns, and the way in which that return may be delivered. This involves the tailoring of asset structures to endowment needs as much as the tailoring of expectation to investment reality. For example, if an endowment is established to provide scholarships annually, then an investment and consumption strategy should be framed to provide funds annually that rise in value with the increase in academic fees, not just the general rate of inflation. Too many scholarships awarded now means fewer in the future.

But what constitutes too many now? Is 'too many' a short-term judgment, because of volatility of markets, or a longer term one, because of permanent diminution in wealth? And if those scholarships are funded by an institution in one country to provide places at universities in another, then the trustees must take this into account subject to any conditions in the constitution. The mission of one foundation in Hong Kong, for instance, is to provide scholarships for local students to go to universities all over the world. The trustees of this institution therefore define their strategy in terms of the currency in which the scholarship is consumed, not in terms of the currency in which the endowment is provided. The mission sets the currency and the type of asset class of investment.

Trustees can only invest endowment assets within the scope of the governing document otherwise they may be liable for losses. If there is no governing document, or the document is silent on investment, then, in the UK at least, the trustees automatically have a general power of investment into any kind of investment, excluding land. This general power, which is in addition to other powers expressly given in the governing document or given by statute, is defined in the UK by the Trustee Act 2000. This act also defines a general duty of care of investment by trustees. In the USA, trustees have broad latitude in selecting investments provided prudence is used.

The social objective of the endowment will rarely be defined in financial terms so it will be the duty of the trustees to translate the social objective into a financial one. This means a financial plan. This in turn means costing the objective: how much does it cost to run an orchestra or to send students to university? How much will or can the endowment provide toward meeting a sum of money? Such a plan needs a vision beyond the immediate future and some definition of continuing real or nominal liabilities. The plan must define a working operational and intergenerational framework.

The resources of the fund determine the ability to meet the need. Does the endowment have one fund generating all the return that drives the activities? Or are most of the activities funded by new money inflows and the fund is merely a back-stop reserve? The answers to these sorts of question have an impact on the allowable percentage of consumption to return on assets over any significant period of time. But it also begs the question of the nature of total return itself. It is not only the level of the return over time (in real terms) but it is also the pattern that matters, especially given some trade-off between level and volatility of return.

The extent to which the objectives can be achieved will of course be a function of the return on the endowment. But the future return will be partly dependent on the growth of the endowment. As Micawber's Rule shows, the growth (of the endowment and equally therefore of the ability to spend) will be the rate of investment return less the rate of the spend, both expressed as a percentage of the value of the fund. So before we can begin to look at endowment strategy we must look in turn at return on investment, then at risk – which is indissolubly linked to return – and to spending policy. Only then can we begin to understand the principles of strategy and only subsequently be in a reasonable position to implement.

### 1.3 HISTORY RHYMES

Dionysius of Halicarnassus said 'history is philosophy teaching by examples'. He may not have had investment philosophy in mind when he wrote those words in the first century BC but past experience forms the bedrock of investment as well as others beliefs. Investment philosophy is as fundamental to what drives investment management as vision and mission is to the purpose of an endowment.

Lived examples together represent experience. The experience of some of the older endowments proves the message that 'history may not repeat itself but it rhymes'. Human nature may itself be a constant but the behavior that arises from it seems almost predictably cyclical. An understanding of the past may at least help to alleviate the behavioral tendency to repeat past errors and to avoid the cardinal sin of compounding them.

Early endowments in the UK were in the form of land rather than money so the activities of the endowment were simply financed by rents or tithes, which was a form of tax in kind. In many cases these tithes moved from ecclesiastic to lay hands with the dissolution of the monasteries. In 1836, tithes were commuted for a rentcharge that was based on an index of the price of wheat, barley and oats averaged over the previous seven years. From endowment of land grew a tradition – which was embedded in laws and lasted until the second half of twentieth century – that income was for spending and capital was for preserving the purpose of the endowment. Common stocks and other forms of investment, particularly mortgages and bonds, did not form a significant part of endowment fund portfolios until the twentieth century.

In the first half of the twentieth century one of the leading economists of the period provided evidence to a Royal Commission on Tithe Rentcharge in his capacity as Bursar of King's College, Cambridge. The economist was John Maynard Keynes who managed to make, and

to lose through leverage – then to make again in larger size and grow over subsequent years – a personal fortune from his investment activities. But his skills as an investor touched the fortunes of King’s College, Cambridge, and of Eton College, Windsor. Keynes was bursar of King’s between the 1920s and 1940s. The least constricted of the funds he managed at King’s was the Chest Fund. This fund grew a remarkable 11-fold under his stewardship between 1920 and 1945 – a period over which the London Industrial Share Index rose 60% and the US Standard & Poor’s index rose 90%.

Keynes first became involved with the financial affairs of King’s College, Cambridge, after his election as a Fellow in 1909 when he became an Inspector of Accounts. His influence really began to be felt after his appointment as Second Bursar in 1919 and then First Bursar in 1924 until his death after the Second World War.

Through both his involvement with an insurance company, and as bursar of a Cambridge College, Keynes was responsible for a significant commitment by those long-term institutions to equities, rather than just bonds and real estate, long before this became common practice in the UK. Equities were simply regarded as too risky but Keynes also invested in commodities as well as currencies. There was one famous occasion with an investment in wheat on behalf of King’s College in 1936 when he was about to take delivery of one month’s supply for the whole of the UK. He estimated the cubic capacity of King’s College Chapel and found it was too small!

Keynes’s credo was to commit funds in a large way to those investments he knew about rather than to diversify across a multiplicity of investments he did not follow closely. He referred to the latter as ‘carrying eggs in a great number of baskets without having time to discover how many have holes in the bottom’. He believed ‘a speculator is one who runs risks of which he is aware and an investor is one who runs risks of which he is unaware.’<sup>4</sup>

Keynes also argued that ‘the object of an investment policy is averaging through time’ compared to an insurance policy that is ‘doing that a little bit but on the whole is averaging of a number of items which are in the same position in time but in different positions in place’. And his concern was to avoid ‘stomers . . . I mean by this definite mistakes where the fall in value is due not merely to valuations but to an intrinsic loss of capital.’<sup>5</sup>

In a post mortem on investment in 1938<sup>6</sup> Keynes wrote that successful investment depended on three principles:

1. A careful selection of a few investments based on actual and potential intrinsic value in relation to alternative investments;
2. Holding them in fairly large units through thick and thin until they have fulfilled their promise or their purchase has proved to be a mistake;
3. A balanced investment position, i.e. a variety of risks and if possible opposed risks (e.g. a holding of gold shares among other equities since they are likely to move in opposite directions when there are general fluctuations).

He also commented in the post mortem that it was:

a mistake to sell a £1 note for 15 shillings in the hope of buying it back at 12 shillings and sixpence and a mistake to refuse to buy a £1 note for 15 shillings on the grounds that it cannot really be a £1 note (for there is abundant experience that £1 notes can be bought for 15 shillings at a time when they are expected by many people to fall to 12 shillings and sixpence).

Keynes’s investment philosophy was to exploit relative value – a message that coincided with that of Benjamin Graham in the USA. Benjamin Graham is one of the icons of investment management, having co-authored in 1934 with David Dodd the classic book on value investing,

*Security Analysis*. He then published in 1949 *The Intelligent Investor*, which is described by Warren Buffet as by far the best book on investing ever written.

Keynes also pre-empted the key message of portfolio diversification formalized in modern portfolio theory. He stated that optimal diversification is achieved not simply by averaging risk across many numbers but by combining securities that are not correlated with each other. Keynes's investment philosophy of seeking relative value, of diversification by non-correlation of risk and of averaging risk over time all permeate our thinking on investment strategy in this book.

## 1.4 THE US ENDOWMENT EXPERIENCE

A study in 1932<sup>7</sup> of the endowment assets of the 30 leading universities and colleges, with reported endowed assets amounting to 74% of those of all institutions of higher education with assets more than \$5 million, was illuminating. It was published three years into one of the worst bear markets in history, during which common stocks had fallen 75% from their highs. It was a period over which endowments 'suffered so severely as to be forced to reduce their teaching staffs, to lower salaries, to discontinue various courses, to close buildings and to curtail activities to a degree which threatens to minimize their efficiency in the field of higher education'.

Of the aggregated portfolios, bonds and preferred stocks were 58% of assets, real estate mortgages 13.5%, directly owned real estate 13.1% and common stocks 10%. Mortgages were not marketable but were regarded as secure streams of income. Agricultural real estate was considered speculative and the whole focus of strategy was on improving the quality and level of income yield and extending duration. Endowments lived off income. Capital preservation was sacrosanct but Government bonds yielded little, the value to endowments of their marketability was limited and the price paid for high security and high liquidity was considered 'a needless sacrifice of income'. They were worth more to other investors with liquidity needs.

Despite the investment conditions at the time, the particular nature of endowments was recognized as being different from other long-term funds, such as insurance companies. It was understood that the endowment income must be related:

to the uses to which it necessarily is put . . . this obviously suggests that certain investment media, such as selected common stocks in ably managed, essential companies, which become more productive in periods of rising prices, have their place among university investments alongside of the traditional bonds and mortgages.<sup>8</sup>

Endowments still had to contend with the same issues as Keynes in allocating funds between asset classes, even if the focus was primarily on analysing and selecting fixed income assets by type, duration and level of security. Yale University acknowledged the difficulties of tactical asset allocation and thought it had an answer to the problem of sustaining and then growing the income that provided a large percentage of the total needed to operate the institution in the 1930s.

The 'Yale Plan', as it was known, created a long-term strategic benchmark allocation, and when markets took the asset values outside a range around that allocation, simply rebalanced the fund, subtracting from equities and adding to bonds when the equity percentage rose beyond a given percentage and vice versa. This was a formula for naturally selling a rising asset value into one that had fallen and worked perfectly for a while when markets see-sawed around a mean level. However, during the 1940s and 1950s Yale continually rebalanced in favor of fixed



income that continued to lose real value. This is one of the issues of a 'regression to the mean' policy in terms of market values or returns in a trend-change environment. As we will see, there is another regression to the mean policy of rebalancing assets that is based on relationships rather than fixed values and provides a more effective way of managing strategy.

A shift back to equity, and a growth stock era, led to a change in view away from a centuries old concept that only income is consumable. A Ford Foundation report in 1962<sup>9</sup> acknowledged that 'The Foundation has not only expended all of its income but has invaded its capital . . .'. The report added: 'The Trustees are prepared to continue invading capital, as necessary, to respond to opportunities for making advances on the vital problems of the period ahead.' The policy was to continue to reduce the reliance on Ford Motor Company stock and not to be governed in grant-making by 'short-term increases or decreases in its capital or income'.

The Ford Foundation, established in Detroit in 1936 and subsequently increased substantially in size by bequests from the estates of Henry Ford and Edsel Ford, played a major role in the late 1960s in raising the level of sophistication of endowment management with attention on the funding and financial management of higher education. McGeorge Bundy, who had been a star figure in the Kennedy administration, became head of the Foundation in 1966 at a time when few colleges had professional managers of money. Prompted by George Keane and Bill Greenough of TIAA-CREF, the Foundation commissioned a report that was published in 1968 entitled *The Law and Lore of Endowments*. A second study entitled *Managing Educational Endowments* was completed a year later.

The second study concluded that the focus of endowment investing should be on total return and not on income yield, as had been the tradition of endowment investment based on accounting practice and the continuing need for realized cash flow to fund activities. The 20 years following the end of the Second World War had seen the combination in equity markets of growth in earnings and dividends. Low interest rates both enhanced return on risk capital and helped to translate that earnings growth into capital gain because low interest rates ensured a higher present value of growth. The new focus on total return had a dramatic effect on investment strategy thereafter to the present day. Total return investment underlies thinking on financial return, on risk assessment and on spending rules.

The publication of the Ford Foundation studies and the establishment of The Common Fund for Non-profit Organizations influenced the development of a new law in the United States known as the Uniform Management of Institutional Funds Act (UMIFA). This was first proposed by the National Commission on Uniform State Laws and subsequently adopted by most state legislatures. Following on a lead by Yale, this officially sanctioned the 'total return' concept and authorized spending of a 'reasonable portion' of an endowment fund. It essentially ended the time-honored practice of spending only dividends and interest without spending the corpus or principal of the endowment.

The Ford Foundation also supported the establishment of what is now known as Commonfund (formerly the Common Fund for Non-profit Organizations), an initiative that has grown into one of the most successful specialist investment management operations in the USA, providing a broad range of advice and investment capability to educational endowments and other non-profits in the USA. The Commonfund was established to provide a safe and professional way for colleges to invest through a pooled process. There were some 2,000 colleges and about 1,500 community colleges in 1971 but only some 600 had significant endowments.

The Ford Foundation agreed to pay \$2.1 million toward operating costs for the first three years of the Commonfund's life, including an additional \$500,000 grant to support research. TIAA-CREF, the nationwide pension system for higher education institutions, offered space

for the first board of 10 trustees to meet. The trustees were selected by Bill Greenhough, Chairman and CEO of TIAA-CREF, on criteria that included representation by size and by geographic location of potential contributory endowments.

George Keane, who helped to conceive the idea of a cooperative professional investment management program during his 10 years as an officer of TIAA-CREF, was chosen to run the Commonfund as its founding President. He opened an office in New York on January 1, 1971.

During 1970 the Board of Trustees conducted extensive analysis of equity strategies and managers and on July 1, 1971, the Commonfund established an equity fund to invest across a spectrum of large and small capitalization, value and growth, using specialist managers for each category. Diversifying the equity portfolio across a range of styles and managers was revolutionary at the time, especially because one style, growth stocks, had performed so well since 1945. In due course this approach became broadly accepted by nearly all such institutions to great beneficial effect on their investment returns.

Once the Equity Fund was established, George Keane also realized that many colleges had money from tuition fees that was being held in checking accounts that earned no interest. So in 1972 the board approved a research study that recommended the creation of a short duration cash/bond fund to offer to colleges for the management of their operating funds. The board was reluctant to begin a second fund until the IRS were prepared to issue a tax exemption on these funds. Tax exemption was granted in mid-1974 and the second fund was launched in October 1974. The fund was managed by Fisher, Francis, Trees & Watts (FFTW), a start-up firm that had worked with George Keane on the project.

The formula for this 'cash plus' fund, which has consistently provided higher returns than cash on deposit for the past 30 years since inception, was to credit participating colleges monthly with the current yield on 90-day Treasury Bills but to invest in varying durations depending on the outlook for interest rates. At the end of each quarter the total return on the fund would be assessed and half of any excess return would be credited to the colleges and half to reserves. If interest rates rose, then funds would be extracted from reserves.

The Commonfund's short-term fund was a novel concept for education. It smoothed the volatility of return over time and was the first commingled approach to providing a general operating reserve asset class for educational institutions. It was the first time a vehicle for raising return on cash became available to such institutions and has grown to become the largest of the many investment programs provided today by the Commonfund Group.

Although the Commonfund struggled during the difficult stock market in the first half of the 1970s, by the time it reached its tenth anniversary in mid-1981 it had clearly demonstrated the advantage of diversified professional investment management. By the late 1980s the Commonfund was receiving \$1 billion a year in new money from endowments. Membership grew from 200 to more than 1,000 institutions during the 1980s and assets rose from \$500 million to \$10 billion. Additional investment programs were added for bonds, international equities and private capital market investments. Today the number of non-profit investors exceeds 1,600 institutions, and assets under Common Fund management total more than \$35 billion.

The Commonfund established a sister organization in Canada and the success of the Commonfund has inspired other similar organizations that were started for particular types of endowment. For example, the Christian Brothers Investment Fund was started as a program for religious organizations. The CIO of this entity was Frank Haines who had worked for George Keane. Another fund was started specifically for hospitals and is now run by the Commonfund.

The Investment Fund for Foundations (TIFF) was created to serve the large and growing number of charitable foundations in the USA.

Harvard University, by contrast to Yale, had made a major and unprecedented move from fixed income assets to common stocks in the mid to late 1940s. Harvard's endowment had traditionally been managed by State Street Investment Management (not to be confused with the trust bank), an officer of which was Paul Cabot who had served as Treasurer of Harvard.

George Putnam, who succeeded Paul Cabot in 1974, decided that the management at Harvard should change, and that Harvard was large enough to have its own manager. The Harvard Management Company (HMC) was therefore established in 1974. Putnam's original concept was to employ a diversified group of managers for a portion of the endowment fund, along similar lines to the Commonfund, but to manage the bulk of the funds with an internal staff. Outsourcing fund management proved not to be successful and Harvard decided to bring most of its investment management in-house.

Jack Meyer, who came in to head up the Harvard Management Company in 1990 introduced the 'policy portfolio' concept into the management of the endowment.<sup>10</sup> Meyer was skeptical of managers' ability to time market moves, although he allowed some deviation of weight from the neutral policy portfolio in anticipation of short-term market moves. The main thrust of the investment strategy, however, was to add value from mispricing within each of the asset classes that comprised an overall diversified portfolio. While identification of this mispricing had been mostly in-house under Putnam, and in the early 1990s only 15% of the assets was being managed externally, by the year 2000 external management had increased to 35%. Most of this allocation was to real estate, private equity and timberland.

In 1967, Yale had also been one of the first institutions to adopt the concept of 'total return'. This policy went hand-in-hand with a change in their spending policy. Until that time the Endowment's contribution to the operating budget of the university was simply the income yield from dividends, interest and rents. Yale realized, however, that this policy could result in a bias in investment strategy toward yield at the expense of growth – a bias that was expensive in total return terms for much of the 1950s and 1960s when growth stocks outperformed value. In the latter part of the 1980s, Yale also adopted, under the leadership of David Swensen, an unconventional approach to asset management with considerable success. The approach was based on absolute return with a heavy commitment to 'alternative assets' such as hedge funds and private equity.

By June 2004,<sup>11</sup> only 7.4% of the Yale endowment was in fixed income and the balance in equity-type assets. Of the 92.6% in equity-type assets, however, only 14.8% was in domestic-listed equity. This compared with over a third in domestic equity with many other educational institutions in 2004 and over three-quarters of Yale's own portfolio in US stocks, bonds and cash only 20 years before. The rest of the 92.6% comprised private equity, international equities, real estate, other real assets such as timberland and oil and gas.

The Ford Foundation's Report, which encouraged of endowments to become more aggressive and imaginative, was published at the end of the 1960s just as a long bull market was coming to an end. A large part of the Foundation's own resources was invested in equity assets. The endowment and its annual grants more than halved in value from 1972 to 1974 and then recovered in 1975. The universities that followed the advice suffered similarly. The 1970s was one of the poorest decades for stock and bond returns in the twentieth century and endowment fund contributions to operating expenses shrank. Over the longer term, however, the recommendations of the Ford Foundation have been validated and the results have helped to produce fundamental changes in the way all endowment funds are managed.

The 1980s and 1990s, by contrast, saw a boom in asset prices as inflation and interest rates fell and growth was stimulated. But inevitably boom led to excess in a number of areas. Those bull market returns then led once again to siren voices for higher payouts from endowments. The US economist Robert Shiller published his book *Irrational Exuberance* in 2000<sup>12</sup> which analyzed the latest bull market and foretold the subsequent setback in equity prices. He wrote:

... colleges and foundations with endowment funds invested in the market should consider, when possible, substantially lowering their payout rates. This conclusion stands in sharp contrast to some recent recommendations about endowment payout rates. For example, the National Network of Grantmakers, an organisation of progressive foundations, issued a report in 1999 urging all foundations to increase their payout from the 5% of assets mandated by US law to 6%... For endowments heavily exposed to stock market risks, these recommendations are pointing in the wrong direction.

It was only a short time before Robert Shiller was proved right. William Dietel said in a talk to the Institute for Philanthropy in June 2002: 'There is abundant and serious bad news to confront today. The endowments of our largest foundations with few exceptions have been seriously diluted by the failure of the financial markets of the recent past.' He mentioned in particular the Packard Foundation where the portfolio value, with 70% invested in the founder's Hewlett-Packard common stock, fell from a high of \$15 billion to under \$5 billion at the bottom of the market.<sup>13</sup> Staff were laid off, grant-making was curtailed and extended over a greater number of years.

While the pioneers of absolute return strategies with diversified portfolios, such as Harvard and Yale, escaped the worst of the bear market which began in 2000, this was the second time in 30 years that endowments with more conventional exposures to equity assets had suffered a major setback to their ability to fund their collective stated purpose.

Academic studies have shown that nine-tenths of the variation in return of a portfolio is due to asset allocation. History has shown that we are condemned to repeat our errors, or as Machiavelli said, history is always the same and never the same. Can we use this experience of the past to create an architecture of endowment investment strategy to prevent setbacks to achieving an endowment's mission in the future? Prevent, no; manage and minimize, yes. That is the purpose of this book.

## 1.5 STRUCTURE OF THE BOOK

Chapter 2, 'Language of Return', looks at definitions of investment return, of time- and money-weighted return, of arithmetic and geometric return, whether nominal or adjusted for inflation. We see that not everything is what it seems and we discover Einstein's eighth wonder of the world: compound interest. Chapter 2 introduces the concept of the Nobel prize-winning economist, Sir John Hicks, who defined income as what a person can spend and expect to be as well off at the end as at the beginning. The Hicks concept is that income is simply the wealth that can be consumed in a year and leaves unchanged the original quantum of wealth to generate the same income in the following year. The amount that is generated to be consumed, which is income in his words, is equivalent to total return adjusted for inflation. The quantum of wealth left unchanged to generate the same income in the following year is equivalent to intergenerational equity – a concept that is at the heart of endowment fund management.

In Chapter 3, 'Elements of Return', we look behind investment return to see what creates it. It is only by understanding what creates return, rather than simply by extrapolating

past returns, that one can hope to make reasonable judgments for the future. This chapter outlines the macroeconomic forces and circumstances that favor different asset classes. The chapter also looks at some of the indicators that give clues to the type of financial environment that is created by governments and the ‘animal spirits’ of rational and irrational economic agents.

The chapter draws on research by Dimson, Marsh and Staunton of the London Business School,<sup>14</sup> and other sources, in looking at historic returns. The Dimson, Marsh and Staunton study of listed financial market returns in 15 different countries over the twentieth century and into the twenty-first is by far the most comprehensive published work in this area to-date. The twentieth century saw a wide range of economic conditions in which investment return has been generated: global war and peace; communist and capitalist political systems; worldwide inflation and deflation; monetary attachment to, and detachment from, gold; fixed and managed currencies. No other era has been such a testbed for return or, indeed, for risk. Certainly no other era has those factors so well documented in financial terms.

Knowledge is of no use without understanding. So what created those returns? What were the underlying factors that caused periods of above-average and below-average investment return. Are those factors sustainable and, if so, over what time period? How do we identify and monitor them? And even if we monitor them, how can we be sure that what was true in the past will also be true in the future? We cannot, but we can make shrewd judgments of most likely outcomes by analysis of the drivers of change. History may not repeat itself but it rhymes, and as GaveKal also reminds us occasionally, ‘this time it’s different’ are four of the most expensive words in the English language.

If there is one message that should be taken from Chapter 2, ‘Language of Return’, and Chapter 3, ‘Elements of Return’, it is that endowments that have the luxury of a longer term perspective have an advantage over the multitude of funds driven by shorter term needs. These chapters help to show that long-term superior wealth creation can be achieved by compounding positive return, and avoiding major total portfolio downside. This needs to focus on the strategic exploitation of longer term signals rather than the short-term noise often created by high-frequency and volatile short-term economic and financial market data.

Chapter 4, ‘Understanding Risk’, is second only to understanding return in importance for strategy. The Chinese written expression for risk is formed from two characters: the first means danger, the second means opportunity. The two together mean risk, suggesting that risk and opportunity are inextricably linked. This is true in financial markets especially when markets are being driven by those two fundamental forces of human nature: fear and greed.

The western view of risk is often expressed more in terms of danger, of downside, of failure to achieve expectation, of loss. Peter Bernstein in his most readable history of risk, *Against the Gods*,<sup>15</sup> has argued that measuring and controlling risk has been at the center of western economic development through the ability to assess the future and weigh the consequences of actions and events. Bernstein argues that all the tools we use today for analyzing decisions and making choice stem from the developments of probability theory in the sixteenth and seventeenth centuries, from the concept of regression to the mean in the nineteenth century and from modern portfolio theory in the twentieth century.

Chapter 4 looks at how these developments in statistics influenced the practical application of theories of risk. The chapter looks at the key to investment diversification: the co-movement of investments resulting from factors that are common between them. It focuses on risk as failure to meet liability driven benchmarks and formulates a concept of endowment fund risk based on failure to meet a minimum level of need.

After risk and return comes the creation of a sustainable spending rule for the consumption of return. Chapter 5, 'Spending Rules', considers this process which is an iterative part of determining strategy. Whatever the endowment's aims and objectives, the limits of reasonable expected return from any asset class must constrain the desired quantum of spending and the balance between current and future consumption.

Chapter 5, therefore draws on what we have understood from return and risk to generate a sustainable spending strategy. This strategy is defined by the resources of the endowment fund in the context of the economic and financial environment. It dwells on what can be spent and what needs to be reinvested to sustain the activity of the endowment in the longer term.

Chapter 6, 'Assets for Strategy', defines two major asset classifications based on asset class usage: operational reserves and intergenerational reserves. The first are assets that can provide for defined near-term (up to five years) operational needs with a high degree of certainty. The near-term operational needs include those of the organization in meeting grant-making and administrative needs as well as those of the investment manager when managing the assets to reduce portfolio risk by reducing portfolio duration.

The second classification, intergenerational reserves, incorporates all the longer duration assets available to meet intergenerational needs. Defining asset classes, such as equities, bonds and real estate, is more a question of asset class characteristic than of nomenclature. It is about finding factors that are common, as sources of risk and return, to all investments in that asset class. Some fixed income bonds, for instance, can behave like real estate; real estate can behave like equities and equities like commodities. Investment styles such as 'growth', 'value' and 'momentum' are also about characteristics: each has factors in common.

Chapter 7, 'Legal, Social and Ethical', touches on non-financial issues as they bear on investment strategy for endowments. The chapter is not designed to be the definitive word on the legal obligations of trustees, but it touches on codified and case law in respect of fiduciary obligations. The focus of this chapter is then on governance and the areas of social and ethical responsibility and how they relate to investment strategy.

Probity and trust have always been 'top of the agenda' in matters of money, but corporate governance and socially responsible investment have become more of a general issue for trustees. Some religious groups have always had constraints on the type of asset in which investment can be made. These include the Quaker constraints on investing in defence- and alcohol-related stocks or the Muslim obedience of Sharia Rules. But non-financial issues have become a much higher profile for all trustees in the twenty-first century.

To the extent that legal, social and ethical issues feature in the vision of an endowment, they should be integrated with overall policy and the ground rules of strategy. It is too late to consider these issues until the strategy has been determined and to paste an ethical screen over a predetermined investment policy. As Sir Robert Megarry established in his judgment in *Cowan v. Scargill* 1984, 'campaigning for changes in the law' on ethical matters is a different matter to following the law in responsibility to beneficiaries. The constitution of an endowment should make clear the ground rules for trustees to interpret.

Chapter 8, 'Understanding Strategy' and Chapter 9, 'Implementing Strategy' form the kernel of the book. Chapter 8 brings together the characteristics, aims and objectives of endowments, the anticipation of investment risk and return and the appropriate spending strategies into one coherent whole. It demonstrates that the jigsaw puzzle of appropriate strategy is incomplete without each of those pieces.

Chapter 8 is not just an holistic approach to the issue of marrying resources with the achievement of objectives. It is about ways of thinking, of considering different scenarios created by different conditions and not simply relying on one best estimate of future expectations. It is then about structuring portfolios in the light of resources and both operational and intergenerational needs. It is about scenario analysis for intergenerational assets, avoiding asset classes which protect against risks that do not exist and diversifying among those that do.

Scenario analysis is akin to weather forecasting, looking beyond the next weather frontal system and understanding the long-term, stratospheric weather patterns. It is having 'what if' scenarios in case the forecast is wrong: if the approaching depression deepens to a serious storm or, alternatively, 'fills in' to a more benign outcome. It is beneficial to be aware of the best estimate or the most likely forecast. However, the trustees must also be aware of the likelihood of different outcomes and the consequences in case things go wrong.

Chapter 8 considers the questions on investment risk and return that trustees should be asking their investment experts, the consultants and managers to whom the day-to-day advice on strategy and management of investments may be outsourced. Trustees should be satisfied that the investment strategy being followed is consistent with the endowment's requirements and timeframes.

Too often an endowment that has a genuine 20- or 30-year perspective is being managed by an expert on the basis of quarterly returns, and this is usually due to the trustees' monitoring method. It may also be more due to the perceived risk to the manager of losing the business of the endowment – as a result of being spectacularly wrong for a period of time – than to the real financial and portfolio risk to the endowment fund. As Roger Murray said, managers should be measured on a quarterly basis but the time period should be a quarter century not a quarter of the year.

The chapter looks at the difference between strategic and tactical asset allocation, between the framework for asset allocation within parameters determined by the objectives of the endowment and shorter-term judgments about the most likely next scenario. The latter must be integrated into the former for the proper fulfillment of the objectives of an endowment. A football field defines the limits of a game, and occasionally strategy might move the goal posts, but it is then tactics within the strategy, as effected by the team of players, that achieves the ultimate goal.

Finally, this chapter considers the issue of moving the strategy goal posts by rebalancing asset classes when relative performance changes their relative weights within the portfolio. It looks at different approaches and suggests 'relationship rebalance' as the optimal end game of investment strategy.

Chapter 9, 'Implementing Strategy', is the practical application of 'Understanding Strategy.' It considers the practical impact of philosophy and principles and the structure and process through which strategy is effected. It is about forging good policies and practices. It is about investigating the selection of investment consultants and investment managers. It covers Charters and Investment Policy Statements, the structuring of operational and intergenerational reserves, the formation and operation of investment committees, and the costs, fees, and performance monitoring over appropriate timescales.

The conduct of trustee meetings is a critical part of the overall process. Good governance at these meetings will focus on the strategic and tactical areas and not dwell on specifics of security selection. Too long spent on the past performance of an individual security sometimes indicates more of a personal investment interest by the trustee than necessarily an independent

concern for the fund. Even with a focus on strategy, too much time can be spent on justifying the immediate past. Too little time is often spent on the future which is represented in the portfolio as it stands, too little time in considering different possible scenarios rather than a manager's single best guess of what will happen next.

Chapter 10, as the title 'Synopsis' suggests, summarizes the chapters and the key messages of the book. While the book covers varied ground, there are some overriding messages for endowment trustees. Finally, there is a References and Reading Matter section and a Glossary. The references section includes suggested reading other than just those publications from which quotes and ideas have been taken and acknowledged. The glossary is more of an *aide-mémoire* than a detailed and definitive explanation of investment terms, and tries to avoid economic or accounting terms unless they are specifically investment related.