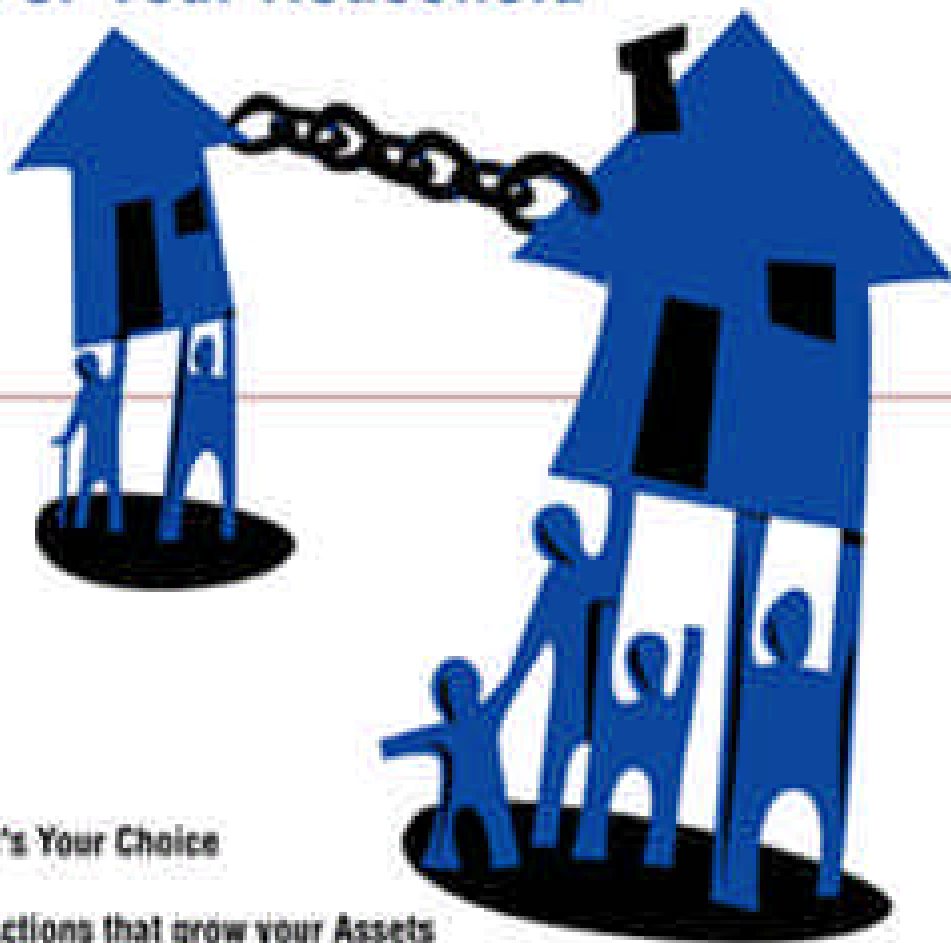# ACTION
MANAGEMENT
For Your Household

- ☑ It's Your Choice
- ☑ Actions that grow your Assets
- ☑ Plan for a Healthier, Wealthier, Wiser and Happier Life

Dr. John Troughton

ACTION
MANAGEMENT
For Your Household

Dr. John Troughton

Titles in the Action Management series by Dr John Troughton include:

Action Management: For Your Company
Action Management: For Your Household
Action Management: For Your Country

Other titles by Dr John Troughton:
Probing Plant Structure. With L.A. Donaldson.
McGraw-Hill Book Company. 1972
Plants, A Scanning Electron Microscope Survey. With F.B. Sampson.
John Wiley and Sons. 1973

FOREWORD

Individuals have choice, unlimited choice and many individuals choose to develop specialised "associations", the "family" or the "household". This association changes the values behind the future choices for the individual and introduces the individual to the equivalent of a running small business, especially when an investment is made in the house. The management of this association is very specialised and is the purpose of this book because there have been few books that address the management of the household.
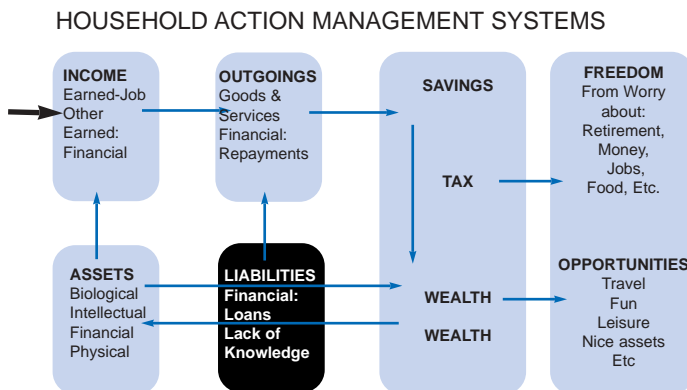
The perspective of management of the household is quite unique and not paralleled in business, because it is management **for the whole of living, for the whole of life,** and that may be 100 years. The management system is designed to assist the family discover what they don't know they don't know.

This book shows how management principles can be brought together and adapted to assist the household manage both the present and the future. Decisions are made and actions follow, and the methods of Action Management " the scientific art of directing all actions with a degree of skill so as to alter the system to increase freedom and value" are applicable.

The goals of the household/family are to be healthier, wealthier and wiser and action management assists the family to demystify the management and simplify the decision-making health, social, wisdom and wealth producing processes. By understanding the relationships the family is assisted in making better decisions faster. This book is gain without pain.

The complexity of optimising the needs of all members of the family all the time, "keeping them all happy", requires that modelling is used, especially as it is the only way to forecast the future before important decisions are made, and bad decisions get to haunt you. The book shows how this can be done and gives the results of a model of how an average family can project its future wealth.

The Action Management Systems that is developed in this book is built around the following model:

HOUSEHOLD ACTION MANAGEMENT SYSTEMS

CONTENTS

ABOUT THE AUTHOR

Dr. John H Troughton

M Ag Sc, Ph D, D Sc, FRSNZ
Director, Guntonia Investments, Business Associates Networks, HomeNet Pty Ltd, NZ National Research Fellow 1966-69, Carnegie Fellow 1973, Eisenhower Fellow 1984, Member of Australian National University Council 1968-69.

John Troughton specialises in design and implementation of Performance and Conformance Management Systems that deliver value to all constituents in the enterprise, and assure its competitive performance. These systems allow Directors, Managers, Suppliers and Staff of small and large companies to generate Future Value as determined by the Stakeholders. This is achieved by a clear statement of purpose, integrated through planning, people, processes and technology, into a company-wide system, that of itself adds value to the company. Measures of personnel capability, performance and accountability are built into the systems.

Interest in the "Fundamentals of Business Management" started as a result of a project investigating the factors influencing the transfer of knowledge to businesses with less than 200 staff. A study was made that included visits to 200 businesses and surveys to investigate the needs of business. The primary cause of difficulties in these businesses was the inability to access, cost effectively the professional services that could not be justified to maintain in-house capability. This especially related to technology, HR and business management advice. The average small business manager cannot be expected to be an "expert in all areas" but does not have the financial resources to source external advice. Action Management resulted.

Dr Troughton, through research at the Physics and Engineering Laboratory, DSIR, NZ and international projects, has developed a professional background in food processing, agriculture, horticulture, biotechnology, biophysics and ecology. His training was at Canterbury University NZ, Australian National University and Stanford University, USA. He has produced over a 100 papers and books, and lectured and consulted internationally in fields as diverse as energy, biology, information technology and business management.

Corporate management experience has been gained in both Public and Private institutions such as the DSIR NZ, Goodman, Fielder, Wattie, and as Director of eight companies in the food (fresh and processed), information technology, management and high technology sectors. These companies have been in NZ, Australia, Asia, and the USA, and have involved production and marketing for both domestic and export markets.

Over 25 years Dr Troughton has been developing expertise in Conformance and Performance Management Systems. Initially this was as a Lecturer at the NZ Institute of Management College from 1975-85. New techniques that have been developed relate to the management of complex systems, such as integrating international markets, logistics, processing and production systems, integrating technology, people and processes. This has been applied initially to the dairy, meat and kiwifruit industries and subsequently to the mining, manufacturing and service sectors. The Value Engine is the most recent development.

Dr Troughton has been consulting to small and large, domestic and international companies primarily in Australia and Asia from 1986-99. His consulting experience includes United Nations, PA Management Consulting Group, Drake International and as an Independent consultant. Projects have involved public e.g. NSW Cabinet Office, Malaysian Government, Public Trustee (NSW), and Sydney Water, listed e.g. BHP-Biliton, Bankers Trust, Bank of Queensland, Telstra, CIG and non-listed companies. The results have been to enhance company performance through implementing management systems, people management and technology.

The late Professor Albert Flay, Lincoln College, New Zealand, introduced Dr. Troughton to a life-long interest in management in the rural economy. An abiding memory was his insistence that good farm management systems and advice included the farm family. He recognised that their goals and values impacted on farming decisions. This book extends that approach.
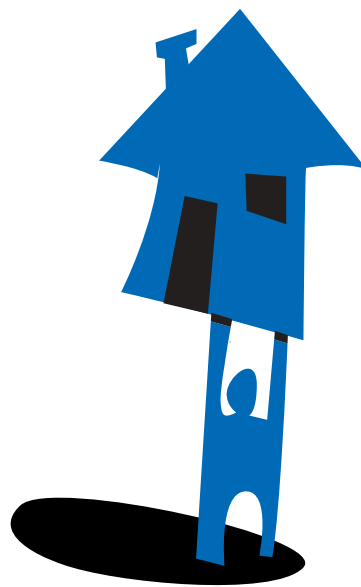
1

IT'S ALL ABOUT CHOICE. YOUR CHOICE.

Lifestyle is about choice. Choice is about decisions. Your choice. Your decision.

Every Australian has freedom of choice. The choices open to each Australian are endless, as there are so many aspects to their lives and there is choice in every aspect. Our society is the collective result of all the decisions made as a consequence of these individual choices, and because there are so many options, it is becoming more difficult to accurately describe, "Who We Are", although some would like a single national identity. This identity will become more difficult to define as our society becomes more complex, and the choices open to us continue to increase.

Some choices are made without major constraints; they are your free choice. To work, or not to work. Live where you like. Undertake whatever sport you like. Join whatever club you like. Travel wherever and whenever you like. In some cases the choices are constrained, such as paying taxes, obeying the rules of the road and living within your means. In other cases there is no choice, such as the surety of death. As a result of all these choices, not only is each individual significantly different from the next genetically, but also in their behaviours. However it is still possible to describe the population on the basis of what the majority does. For example, on a household basis, the different decisions that Australians make results in:

83% having a religion

80% not smoking

77% in multi person households

60% participating in sports

54% having a computer

44% having tertiary education

These collective results are all a consequence of independent decisions by each individual, which happen to be similar to others, and with few constraints on any one individual. However there will be peer pressure and the mind persuasion of the media.

Some constraints such as the inevitability of death are outside our control, although the age at which we die can be influenced by our lifestyle, accidents, wars and other factors. There is no single underlying factor determining "Who We Are", it is not county or culture of origin (1 in 4 is overseas born), or sex, or age, or education. If a major underlying factor that influences "Who We Are", had to be selected, it would most likely be our economic situation. On the one hand there is the need and desire to spend money and on the other there is the need to earn money and these two factors are closely linked. The need to earn money reduces our free time and how it might be spent. There still is the choice to work or not to work and 72.6% of men and 54.5% of women decide to participate in the workforce, and men in full-time employment average 43 hours a week in work.

The overall international, national "image", or "status" is, in part, a reflection of the national "wealth". In the year 2001, the GDP per head of population was $A32, 000 in Australia. This is not a complete description of our "wealth" but it is one International indicator that describes or encapsulates a major part of our identity. Given that there is freedom of choice for all Australians it is of interest to explore the economic consequences of all the decisions that individuals make throughout their life. This can be further examined by building models based on the decisions Australians are currently making and project these to cover the whole or part of their life. These models will help individuals learn what are the important factors determining their economic future, plan and make wise decisions. They are a map to the future and are called a Value Engine.

Some individuals believe the average wealth of $32,000 per head is not enough, and they are looking for "the quick fix". The desire to become "rich" entices the gambling behaviour and leads to people in NSW spending on average $1000 each annually in taking high risks to get high returns by gambling. The odds of winning are infinitesimal - at best with lotto 200,000:1 and winning will not guarantee that you will become a millionaire. At the other end of the investment scale is the stock market and how long will it take for investors to forget the risk they took in following the crowd and investing in "growth stocks" in the technology boom of recent times? They followed the herd, just as they did in the Poseidon boom of the late sixties. The result of the model that is developed in this book suggests that, with good management, most Australians can plan to be millionaires without taking such high risks, as long as they keep their head.

An alternative to gambling away the $1000pa is to invest it annually at a net 10% pa, compounded, and this will make a million dollars for you in your lifetime, to be exact in

48.42 years. There still are risks associated with this but where else would you get a historical return on **your** investment of an average of 43% per annum. Is that worth planning for?

To plan or not to plan is the first choice to make.

> Plan before you leap - have confidence in your future

> Leap before you plan - take potluck. Who is that lucky? Why take risks?

THE STARTING POINT

Your starting point is no different than for a company or the country, it's cash management time. What is my real income? Is the income enough? How can it be increased? Where can savings be made? How are the expenditures and investments best managed? What is a quality asset? What target should I set for a return on my assets?

Over an average of 40 years earning lifetime the average Australian in employment will have earned an income of between $1.5m and $3.0m in 2002 dollars. The performance measure that has to be applied is "How well will (or did) we create value on these funds we used?" If it is not possible to earn a good return on this money, why should we seek more through loans or why would anyone lend to us? The performance measure that will be applied to the household to measure our stewardship is the return on this invested capital. The importance of this has to be seen in the 10, 20 or 30 years of "retirement" when the "quality" of our assets generated from this capital will be measured by our investments ability to sustain us economically in our retirement.

At the same time the household will be writing out cheques, on a lifetime basis of at least:

> $300,000 for Food

> $280,000 for Transport

> $250,000 for Housing

> $180,000 for Recreation

> $ 90,000 for Furnishings

> $ 70,000 for Medical

> $ 70,000 for Clothing

> $.......................... Have you ever written a cheque out like that? Do you believe you will or have? Fortunately the cheques don't have to be written at one time.

Where are you at today economically? For the Australian population the variation among the population in its weekly income in 1999 (Data source: ABS 1999) is shown in the following figure, and the questions are, "Where do you fit on this curve?" "Where do I go from here?"
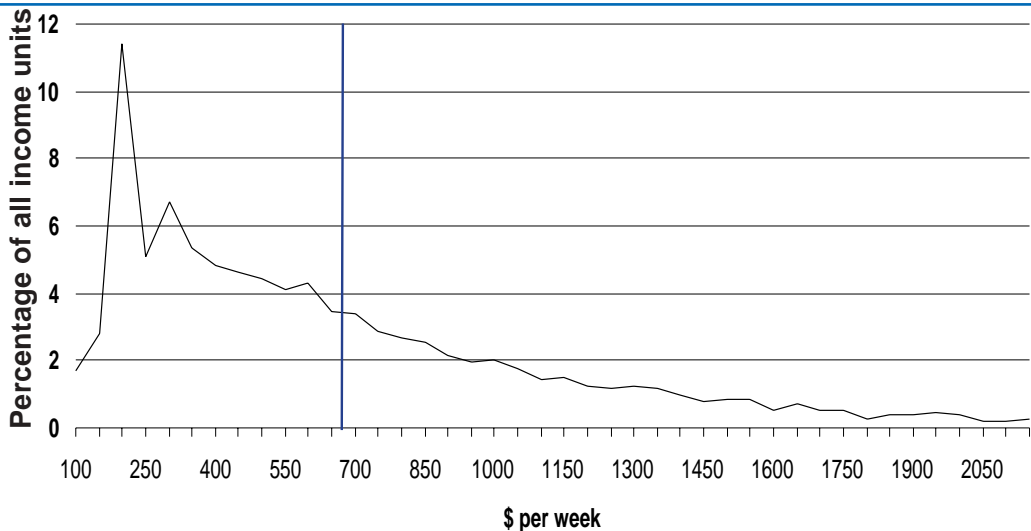
Figure 1.1The distribution of income per week for the Australian population.

The goal of the householder to be financially successful is difficult. Human frailty in "capturing the prey", for example in beating the popular stock market indices, is evident. Don't be discouraged. 70% of all professional fund managers fail to match the major stock market indices. Also the managers who out perform are not constant from year to year. It is not a trivial exercise. The world is not stable. Greenspan is also on a learning curve.

Our rational behaviour appears to be capable of being subjugated by the notion of "the herd" when peer pressures, and "being talked into it" causes deviant behaviour. Stock market "advisors" become sales staff (their income depends on you buying) and generate hype people fall for. Additionally, rational behaviour is distorted through over confidence, emotion or arrogance or just talking loudly. "If you want an answer I'll give you one". But is it based on factual or fictitious information? How is the right information to manage the income and expenditure throughout your life accessed? Life may be 100 years. What company has plans for 100 years? Are businesses with their professional advisors influenced by these same problems? Buffet of Berkshire Hathaway fame thinks so, as he said:

"For example:

• As if governed by Newton's First Law of Motion, an institution will resist any change in its current direction;

• Just as work expands to fill available time, corporate projects or acquisitions will materialise to soak up available funds;

• Any business craving of the leader, however foolish, will be quickly supported by detailed rate-of-return and strategic studies prepared by his troops; and

• The behaviour of peer companies, whether they are expanding, acquiring, setting executive compensation or whatever, will be mindlessly imitated.

Institutional dynamics, not venality or stupidity, set businesses on these courses, which are too often misguided."

You don't have to be a physicist to know about Newton's Law of Motion. Legendary investor Benjamin Graham noted long ago the difficulties in trying to value quickly growing companies: "There was nothing wrong with these ideas, except that it was almost impossible not to carry them too far. With encouragement from the past and a rosy prospect in the future, the buyers of 'growth stocks' were certain to lose their sense of proportion and pay excess prices. For no clear-cut arithmetic sets a limit to the present value of a constantly increasing earning power. Such issues could become worth any value set upon them by an optimistic market."

"The key to investing is not assessing how much an industry is going to affect society, or how much it will grow, but rather determining the competitive advantage of any given company and, above all, the durability of that advantage."

An additional biological factor is that of "competitive advantage" that has been the cornerstone of the understanding of evolutionary progress. It is a determinant of our success as much as it is that of Tiger Woods. Obviously the longer we can retain this competitive advantage the better. The success of Tiger is built on his biological motor skills and they will wane, but he will have accumulated financial assets to substitute for his motor skills. For an individual, a household, a company or a state, the reality of competitive advantage is inescapable, and whether we like it or not we are all playing on a global field.

Take responsibility for your life. Involve yourself in the management of the whole of living, for the whole of life. Just do it.

2

THE GLOBAL FAMILY

Globalisation has brought to the family a new meaning to the concept of competition and to economic success. Any approach to Action Management Systems for the household has to consider how the household is defined and how it operates, and how, with globalisation, the household concept and management systems have to transcend national boundaries.

THE HOUSEHOLD

For this book, the focus is on the household but the terms, "family" and "household" will be used interchangeably to refer to this unit. A household is defined as a "task-oriented residence unit", while the family is a kinship group that may or may not reside in the same dwelling (Netting, R. M., Wilk, R. R., & Arnould, E (1984). Households: Comparative and historical studies of the domestic group. Berkeley, CA: University of California Press). A family household shares a dwelling unit, has at least some goals in common, and pools its resources to achieve those goals. Focusing on family households is appropriate as it is this unit that is the buffer between the individual and the larger society (Deacon, R. E., & Firebaugh, F. M. (1988). Family resource management: Principles and applications (2nd Edition). Boston, MA: Allyn and Bacon. Paolucci, Hall & Axinn, 1977, Family resource management: Principles and applications. New York, NY: Wiley).

The family household is viewed as a semi-closed system (Hill, 1971. Modern systems theory and the family: A confrontation. Social Science Information, 10, 7-26.) whose members are integrated and interdependent (Sztompka, 1974, System and function: Toward a theory of society. New York, NY: Academic Press.) but increasingly act in an individual

capacity i.e. independently. It is responsible for the maintenance of its members; fulfiling that function involves the production, distribution, and consumption of goods and services (Hill, 1971, above). "The household, through its organisation and pooling of resources, responds with actions designed to restore or maintain an acceptable level of well being in light of conditions that affect it but that are outside its control."

The management of resources to achieve family goals can be a series of steps: the family sets goals, assesses its resources, then plans the use of these resources, implements the plans, and evaluates the outcomes. This is an idealised view of how it works. The family's goals, developed through consensus building, have been viewed as a product of its values. It was not until the work by Ruth E. Deacon and Francille M. Firebaugh (1988, Family resource management: Principles and applications (2nd Edition). Boston, MA: Allyn and Bacon 1977, above) that "events" were included in a model of family resource management. According to Deacon and Firebaugh, demands are of two types, goals and events. As in earlier views of family resource management, goals are viewed as specific objectives that have their source in the families value structure. Events are " . . . pertinent unexpected or low-probability occurrences that require action" (Deacon & Firebaugh, 1988: p49).

THE GOALS

In approaching the task of exploring the modern household it is necessary to provide a purpose or direction for understanding the goals, which for this book are:

"To increase the independence of the individual and household, thereby increasing their choice, ensuring their freedom from waste, worry and work". The economic aim for the project is to create for the householder "their earliest financial independence". The social goal of the project will be "the creation of a new extended family concept for society, appropriate to the future trends in the new millennium." This sets the goals but it is not necessarily the goal for any one family or any one individual. A simple goal might be to become "Healthier, Wiser, Wealthier and Happier".

Of the many economic goals that individuals set in their life, the one that is universal is that relating to retirement. But retirement isn't what it used to be, and Governments won't save you. It has been noted, in the first 50 years of the 20th century, longevity for people reaching age 65 increased 1.3 years for men and 2.8 years for women. But from 1950 to 1995, longevity for men increased 2.7 years and for women it jumped 4.2 years. From 1995 to 2050, longevity is estimated to increase another 4.8 years for men and 3.2 years for women. In short, overall longevity is increasing at a faster and faster rate. "Looked at another way, the number of people age 65 or older is expected to increase 17.5% from 1995 to 2010-but the number is expected to increase 106.8% from 1995 to 2030. The number of people age 85 and over is expected to increase 133.3% from 1995 to 2030!"

A family may express these goals, as "I want to be wealthy". How often have we heard this desire expressed, and how often have we heard the claim of a solution?   Lots of recipes have been proposed but the search is still on to find the processes and systems that can be

guaranteed to make and keep a household wealthy. What are the keys to unlock the potential of the household and create real wealth? We all want to be rich or become millionaires, preferably instantaneously. How can we take control our own destiny? How can we become rich without making someone else a bit poorer?

Where do we start? This book recognises the need for a global view of wealth but starts at the micro economic level of the household and with the emphasis on economic wealth, to identify some of the methodologies, tools and information necessary to manage the household, and for families to create wealth.

THE STARTING POINT

The inhabitants of spaceship earth now know that their survival in the new millennium is dependent on their acceptance that their collective behaviour will determine the future of the planet.

It is also accepted that the human race is 6 billion, independent, functional, mobile entities with an infinite array of behaviours, because of the multiple options they have to choose from. Extensive information, 1000 billion megabytes, is available to them to assist their decision-making processes at the individual and global level and in the selection of options before their final decision. This is predicted to double in the next 5 years. This knowledge can be used to predict and plan for the future at all levels in society. One individual with one decision can change the world for good or bad but many people with similar goals will change it faster. The chain of reactions and the resources required to undertake all functions in the household has global consequences. This leads to the generalisation that:

All actions have local and global consequences.

THE FUTURE

The future is predictable.

The future for the individual is predictable, and for a population even more so. Death is very predictable. Even the global consequences of human actions are predictable. We are conscious that new technology can make some predictions seem hopeless, and are reminded by some that have been poor, such as those relating to the computer, but technology is predictable too:

"There is no reason anyone would want a computer in their home."

> — *Ken Olson*

"I think there is a world market for maybe five computers."

> — *Thomas John Watson, Sr. (1874-1956), American businessman, president of IBM*

"I do not fear computers. I fear the lack of them."

> — *Isaac Asimov (1920-92), Russian-born American scientist, writer*

"A computer lets you make more mistakes faster than any other invention in human history, with the possible exception of handguns and tequila."

> — *Mitch Radcliffe*

Technology continues to change:

"Every six months or so, the number of lambdas ["colours" of light, each carrying a full-speed data stream] on a single fibre thread, doubles. In 1996 the number was 16; in 1998, it was 40; in 2000, it was 160; in 2001, it may well reach 320-all with no increase in cost.

Meanwhile, [the speed of each "colour" on a fibre] has risen from ... 2.4 gigabits per second in 1996, ... to 40 gigabits per second in some rare applications last year. Nortel plans to offer 80 gigabits per second early next year, and Lucent proclaims the laboratory feat of putting 160 gigabits per second on a single lambda."

A recent announcement from NEC, indicating that they have now demonstrated 10.9 terabits/second over a single 73-mile fibre using Dense Wavelength Division Multiplexing (DWDM) — the data was packed into 273 "colours" of light within the fibre, each colour carrying 40 gigabits/second. http://www.nec.co.jp/english/today/newsreel/0103/2201.html).

"Mike Ruettgers of EMC estimated, at Storewidth 2001, that within the next five years, each computer user would command five terabytes of information, most of it out on the Net... Included will be myriad kilobyte emails, hosts of megabyte photographs, swarms of gigabyte video cassettes, throngs of twenty gigabyte DVDs, movies, favourite TV programs, sports events, books, and video teleconference archives...Someday when we say 'the network is the computer' we will believe it — so much perhaps that we will ask, what is a computer?"

"With growth in communications power exceeding growth in computer processing power by at least three times every 18 months, optics accelerates almost an order of magnitude faster than electronics over three years — and more than a thousand times faster in a decade — it pulls away exponentially."

> — *Gilder Technology Report, May 2001*

The Internet had more users in its first five years than the telephone did in its first thirty...

Email [now] outnumbers regular mail by ten to one...

> The TCP/IP network (which today we call the Internet) [will be] replacing all broadcast networks as the preferred access for the consumption of media, entertainment and information...

In 20 years, the challenges of broadband deployment will be resolved, and a wireless broadband connection will be as normal to a home as a bed, and as standard to a car as a steering wheel. Essentially, everything will be connected, all the time, everywhere. Ubiquitous broadband wireless connectivity will link every device of the TCP/IP (or other) network, always.

THE RESOURCES

One of the new resources that will be exploited in expanding the opportunities for households is that of knowledge. Knowledge is available on all aspects of individual and household functions. It may not be accessible or in a usable form. The translation of the knowledge to match the recipient is required.

Extensive knowledge is available for decision-making.

"By the year 2010, we're going to see a 1-millionfold increase in the amount of information on the Internet. We already have petabytes of information online, which is several hundred times, the contents of the Library of Congress. Our estimate is that between now and 2010, it will increase to a zettabyte: a "1" followed by 21 zeros. Sorting through all that information, securing all that information, will require a lot of new technologies that we don't have today."

— Mike Nelson, Director of Internet technology and strategy, IBM

It is reassuring to know that knowledge is available to provide the predictability and manageability of the future, and that knowledge is accumulating at an ever-increasing rate. The information technology revolution has also brought the tools to allow the sharing and manipulation of this knowledge, universally and instantaneously. There is a need to integrate this information into a form that allows it to be used for management, with different forms being required depending on the purpose the information will be used for. This is especially true of its usefulness to all parts of society, from the individual, to the household, state, country, continent and globe.

"If you take all of today's computers and sum them together you will end up with the equivalent intellectual power of 1×10^{17} flops/sec, which is what one human brain is capable of processing. With computer power increasing exponentially and doubling every 18 months or so, computers are catching up quickly. At the current rate, it will be approximately 2021 when computers will have the equivalent processing power of all humans on this planet combined!" Artificial Intelligence, Today and Tomorrow, Chris Moy. Scientists have now created working transistors — no longer out of "clusters of molecules" — but out of "one-single-organic-molecule" These experiments show that it is possible to realise transistor action in a single molecule without sophisticated fabrication procedures.

Not only does this redefine "small," since ten million of these transistors will fit onto the head of that proverbial pin, but these transistors are also "cheap to make" and can be "built" in ordinary laboratories, without the hugely-expensive clean room facilities necessary to make today's chips. Raoul Kopelman and Martin Philbert at the University of Michigan are creating "nanoparticles" that have a magnetic core (so they show up on functional MRI scans), which are housed within a biologically inert plastic shell. These particles will circulate in the blood stream and home in on cancer cells! In this version, the nanoparticles don't deliver a killing dose of poison to the tumour, but once they settle down on the tumour, a surgical laser can target the particles, and so zap the cancer cells

surrounding them with minimal collateral damage.

In contrast with our intellect, computers double their performance every 18 months. So the danger is real that they could develop intelligence and take over the world. Don't try and beat them, join them.

The information will be complex and it may not be easy to deduce an appropriate course of action to optimise a function for the individual or the household. Health is an example and with health a great degree of objectivity is necessary and a balanced conclusion must be the outcome. What is the health equation combining physical, mental, emotional, sensory and spiritual aspects of self? Then decide the optimisation of diet, exercise, low stress, no alcohol and no smoking? What is a safe dose of poison? Create the right balance between work, leisure, self, sleep, the family and other relationships; but how simple is that?

The components that make up the human social experience and contribute to happiness are even more complex. They can be heard on "Life Matters" ABC Radio, daily, or Macca, the ABC, Sydney 702 radio program every Sunday morning. Everyone has a fascinating story to tell and how diverse those stories are. Collectively they describe those features of life, past and present that make people happy and make them what they are. They are intertwined with the values and principles that make for living. Will we ever quantitatively describe them?

Changes are occurring that demand that many of these issues are addressed urgently. For example, retirement is not what it used to be. No longer is it considered a phase of life in which we suddenly and finally stop work, and it may not be a single event. It is a phase during which we enjoy total freedom, constrained by economics, to do what we want, when we want, and how we want. Freedom may be the goal through life but this is when it is finally reached.

Our starting point is our biological capability as expressed in the 30,000 genes that nature has been working on for at least seven million years. A transition from what may be considered as dominated by human motor skills (biological assets), in our ancestors to our current makeup, that requires substantial cognitive skills (intellectual assets), has occurred, but has it been fast enough to keep up with the cultural demands? Do we perform optimally and rationally when conducting, for example, financial reasoning and analysis? The evolution may not have focused on skills that are critical for success as the economists' "rational agent." Is it evolution from the family to the individual, from shared services to outsourcing?

The ultimate goal of this book is to provide the means whereby the family can take control of their own future, initially in economic terms. The information can be used in a predictable way so that decisions can be made knowing what the consequence of the decision will be. Decisions don't have to be made in the dark or be risky because the outcome is not known. Furthermore the confidence that can be generated by making good decisions can result in developing patterns of behaviour or habits that are good habits. The

acceptance of the quality of the decision making processes will allow the subsequent, selective, automation of decision making and of establishing default positions so that if a decision cannot be made at that time, it does not mean that opportunities are lost because time ticks on relentlessly awaiting a decision.

The need is to build a model that will convert this simple picture of the household into the complexity that is the real life situation confronting the householder.

Figure 2.1. The complexity of today's household issues

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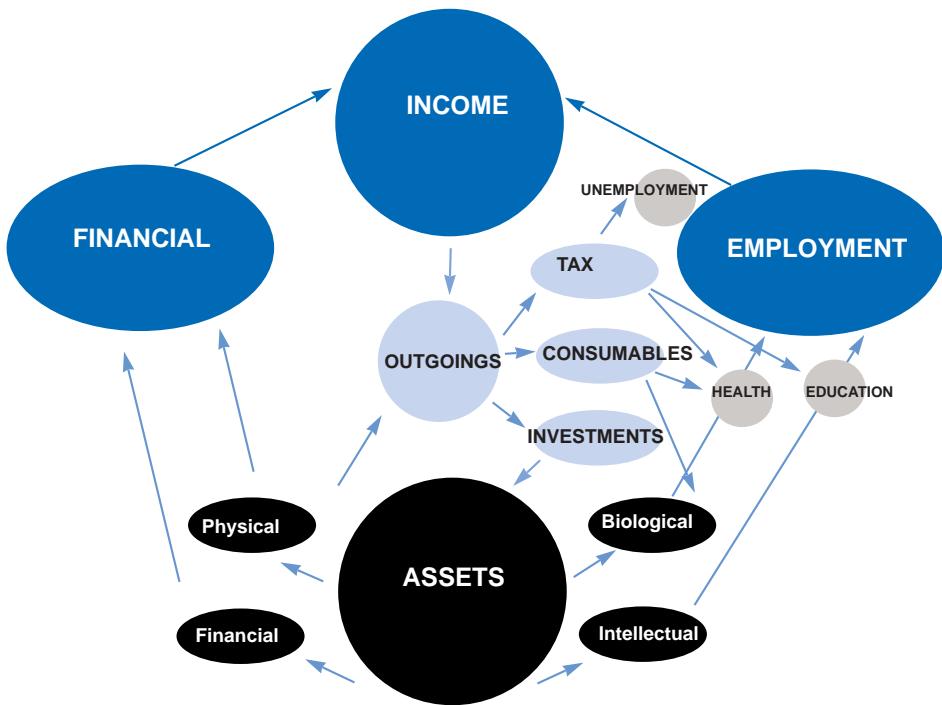
MODELLING THE FUTURE

THE RESOURCES

Everyone has dreams or visions of what they might achieve in life. The need is to convert that dream into reality. The link between a dream and reality is a model that describes how the dream will be converted into reality. This is followed by a plan.

Most individuals and most businesses and particularly business managers have a "model" of their business. Some people call this a vision of "what I want to do and where I want to go in life" These vary in the extent of their development and degree of documentation. The fact that people do have models in life or in business provides an immediate rapport with the supplier of goods and services; if they know what the individual wants then they can work to supply what they want. However not everyone knows that they have a "model" stored in their subconscious space in the brain.

An approach in business planning is to explore alternative models in order to challenge the assumptions within them and provide evidence of how the performance of the business, through the model, could be improved. The model is a necessity and it has to be in sufficient detail to allow it to be challenged.

The ways the models are expressed can be different. Some people are able to convert the concepts of a model into physical reality. At the other end of the scale, the ability of some people to verbalise the model can be very difficult and the initial starting point of communication is to be able to be able to "extract" sufficient of the elements of the activity to begin to formalise in words or diagrams the details of the model. There are some cases

when in fact the people in the business cannot even verbalise the model of the business and they require assistance in the construction of the primary elements necessary for that to operate.

A frequent problem is an artificial separation of the parties generating information for the household for the decision, from the decision maker. For this approach to be successful there is a need to work with decision makers so that the potential deficiency in linking the source of information and its collection and analysis phases with decision-making is minimised and where possible removed. Today, through PDA/mobile phones with wireless connection to the Internet servers, it is possible to have access to all required information instantaneously and internationally.

 Modelling is characterised by the ability to integrate multiple activities:

- •   In a systematic way.

- •   By establishing relationships in time and space

- •   By exploring qualitative and quantitative functions between activities

- •   Optimisation of resources

The complexity of the individual or activity creates an immediate problem in how to handle the view of the household in as quick a time as possible. This does not presuppose that the model has a physical form or a mathematical form, as it can be conceptual. More important in the context of the household is the definition of modelling, which can be "the art of one who models" or "the action of making models" or, as we will use it here, "the process relating to the making of models".

MODELLING AND DECISION SUPPORT

In this approach we do not differentiate between modelling and information management, which is often argued to be "separate activities". The reason for this, as it will become clear, is that although there is a point in time i.e. "the model", the dynamic nature of the process means that the model is not static and is constantly changing, and one source of change is as a consequence of decision making. When a decision has been made and an action had been implemented then it is inevitable that the outcome can be measured and fed back to the model. Consequently, the modelling process inexplicably includes elements of the "build, style, display, amend, compare or identify, formulate, model, solve, interpret, etc".

These modifications are conditional because of the nature of the system that is being addressed, where we are not only working with real people, on real problems, but we are also working in real time and are attempting to describe or simulate the process which an individual undergoes "problem solving" and "decision making". We describe it as the process of modelling where elements such as data accumulation, evaluation, building, solving, interpreting, predicting etc, and not being carried out sequentially but are actually being acted on in parallel. This is similar to the workings of the human brain.

THE MODEL

The notion of a model frequently implies that there is a discrete, specific, describable end product, as occurs in a sculpture or at a point in time in a mathematical model. The reality is that in this case the model is not static but is constantly evolving. Although a model can be tested and shown to be right, the reality in this context is that no model is ever ultimately right. It is therefore wrong. Whether the model is at the first iteration or after endless iterations is not relevant because the information contained within that model and the concepts associated with it are potentially of significant value to the business whether it is at the first or the nth iteration.

Also whether the "model" is conceptual or mathematical is equally of less importance that whether or not information has been collected and "visualised" in some way whereby it adds value to the activity.

The recognition of the components that make up the whole, frequently the first step in problem solving, is of itself value and this is further enhanced when these components can be visualised in space and time, and further enhanced when the interactional relationships between them can be formulated, irrespective of how primitive that formulation is. The recognition of the components frequently stimulates the immediate interpretation of action. The human process whereby the interpretation is inferred undoubtedly goes on, at the speed of light, from identification, formulation, modelling, solving and interpreting. The processes are possibly still sequential but the reality can be seen as a set of simultaneous activities occurring in parallel and tightly interlinked.

THE PROCESS OF MODELLING

The approach then is to be engaged in the "process of modelling", and that the model is a visualisation of the whole at any point along the process of model development, and includes conceptual as well as mathematical approaches, then the methodology, which is being tested, is that of modelling. It has been chosen because:

- It can integrate multiple activities
- Is systematic in its approach
- Can establish relationships between activities in time and space
- Can operate conceptually
- Forces establishment of quantitative and qualitative functions
- Is amenable to "to get the ball rolling" approach
- Requires intimate knowledge of the systems being investigated
- Is amenable to the evolution of knowledge
- Can generate answers immediately

This approach has the immediate implications if we are to engage in this activity then the skill has to be developed, which can include

- • The ability to model

- • Speed and grasping in converting enterprise issues into the model

- • Capability of translating real world issues into concepts and translate conceptual findings to real world actions

It is important to reiterate that in the approach is to integrate the skills and contribution of the "problem solvers", "information, product and service providers" and that of the "decision maker" and that both these skills and contributions are recognised (and rewarded). We accept that may not be prudent in a bureaucratic organisations (e.g. government departments, large corporations) but this is not considered relevant in this model environment where separation may only exist in the mind of the mathematician. This approach, which eliminates the middleman, allows exposure to the decision makers to idea providers and facilitates the option of new ideas and innovations.

It is imperative that the components of the model are known and defined in order to undertake the process of modelling. Furthermore, this information is imperative for teaching the practitioners because it can focus on elements, which can be developed through learning processes.

THE DYNAMIC MODEL

Further to this discussion on modelling, there is a notion of being able to "address a particular question" or more particularly "ask the right question". What is "the right question"? In the real world the dynamic nature of systems under investigation and the constant changing environment and knowledge base guarantees that the right question has about the same lifespan of the mayfly. It is rare that a question is stable long enough to allow the normal process of deliberation, analysis, research, regurgitation, investigation, evaluation, discussion, reinvestigation, consultation, etc to occur. Any question never goes to completion. It is normally truncated in mid air, or redirected, or rectified at any point in time, and indeed, continuously. It is the facility to be flexible enough to redirect energy, resources, etc instantaneously and continuously that characterises business, especially small business. While the value of a solution to a specific request increases in proportion to the time and effort devoted to the activities, the value of an answer to that question diminishes through time as the importance of the question is subjugated by the next question.

This does not imply the information collection, evaluated, modelled and used to draw conclusions is of no value. It is in fact the basis of the home and is the intellectual capacity of the enterprise. The individuals accumulate this knowledge from their experience by contributing as much to the value of the home or business as the homeowner, banks or shareholders contribute in cash.

UNDERSTANDING THE MODELLING PROCESS

There is a first initial stage which is purely the conceptual one beginning to put together the elements that go to make up the function and this plot the level of activity is high and in fact dominates the total activity in modelling process. The expected outcomes of the activity are a general statement that the "planned content seems OK". There is sufficient understanding that at least in broad terms the relative components and interaction between the elements can at least be placed to infer their probable importance and interaction.

The second major activity peak is reached subsequently as there is an attempt to "prototype" the model so that it can be stated at the end of this phase that all factors have been identified and their importance deduced. This allows the establishment of constraints and their relevant importance.

The third phases would be one of refinement with an output, which results in a not unreasonable recreation of the function in a way that can be accepted to be "accurate".

The fourth phase of activity is that of testing, improvement testing, etc that validates the model with respect to data, firstly in an experimental mode and subsequently in a real life situation.

From a mathematical point of view the process isn't finished until the model is validated but in an activity sense there are major activities, which lead to the final phase, which are as an important part of the modelling process. At the first stage the representation and understanding of these activities are premature but indicative of process to carry out, in order to establish a more definitive understanding of a modelling process that pertains to the specific needs of an individual.

These approaches have been extended to the issues that individuals encounter of collecting information, processing it, optimising the resources, forecasting the future and making decisions. This first model is a start along the journey. As the model is customised for a specific individual, the value of the model for decision-making can only get better.

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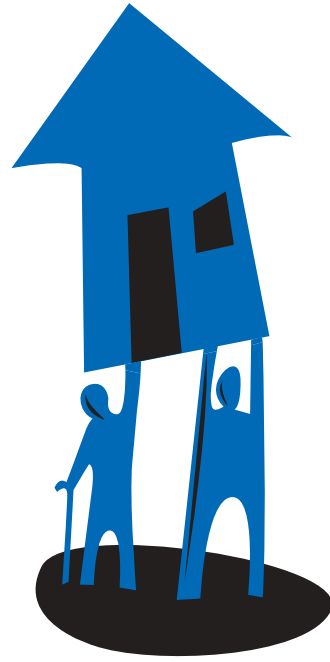
DESTINED TO BE MILLIONAIRES?

This model of the wealth generation of the Australian Household, built by NATSEM (University of Canberra) predicts that most Australian households, where the parents are 35 years or less, are destined to become millionaires at current dollars. Your decisions, however, will determine whether or not this actually happens, or how and when this happens. The implementation decisions are in your hands.

The model has been built takes into account many of the decisions that have to be made and based on how the Australian population makes that decision today, projects what financial wealth you will have in the future.

This model takes into account factors such as:

Family Type
Number of children
Income levels
Education
Income Tax
Superannuation
Home purchases
Longevity
Housing Costs
Savings
Investments.

The model predicts that even the lowest quintal of the population that was modelled would

become millionaires before retirement, and the higher income groups, multi-millionaires. This is based on the decisions that an average Australian family is most likely to make today. We all have confidence that we can do better than the average.

The model can be used to explore the implications of decisions made by you or the household. The importance of time is so profound that it can be used to illustrate the outcomes of just one decision "when to start to practice the principles encouraged by a better strategy, i.e. the impact of the date of implementing an even better home management system". Start thinking about these options earlier rather than later. Include in it a possible alternative solution such as is done here with HomeNet.

The model can be used to run the scenario for a couple with 3 children and in the high income/expenditure bracket to show the potential difference a planed approach to household management could make. The additional assets the member would have at age 65, for three different ages of joining, allowing for tax, are:

30 Years	$671,200
40 Years	$365,500
50 Years	$167,500

More detailed information can be collected and many options explored. Income and Expenditure patterns differ greatly among families, depending on a variety of factors such as age or the number of children. For example as shown in Figure 4.1 there are large variations in the patterns of expenditure throughout the 37-year period, associated with the normal working life.

Gross Income and Pre and Post HomeNet Expenditure

Couple with two children: Middle income

Joining HomeNet (light blue level) at age 27
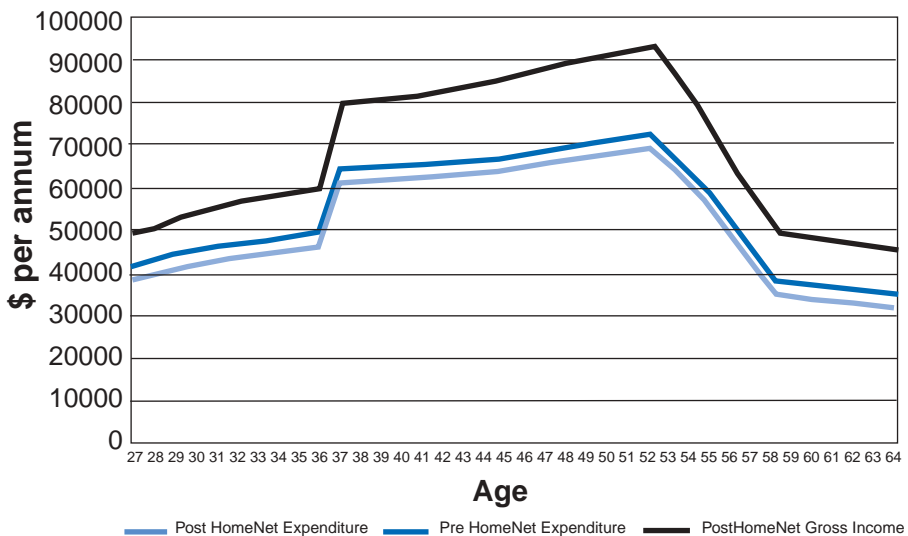
Figure 4.1 Gross Incomes and Pre and Post Expenditure

These patterns of expenditure included the allocation of some savings to investment and through time the impact of the saving patterns show up in the assets available to the family, as shown in Figure 4.2.

Accumulated Assets Pre and Post HomeNet

Couple with two children. Middle income Joining HomeNet (Blue Level) at age 27
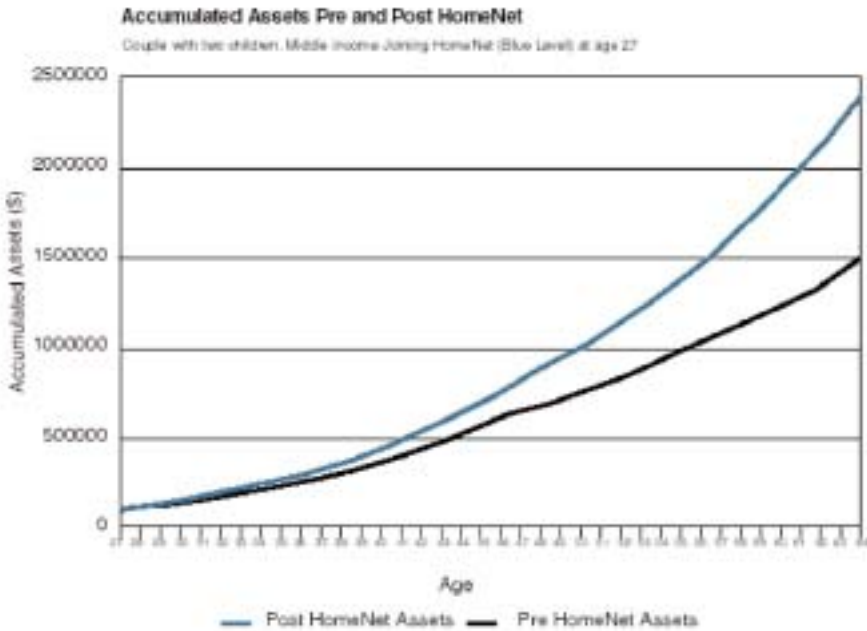
Figure 4.2 Accumulated Assets Pre and Post

The accumulation of these assets gives greater flexibility to the individual later in life. For example there will be decisions made as when to retire. There is the opportunity to investigate the impact of retiring early, as shown in Figure 4.3.

Figure 4.3 Disposable Annuities and Pension Income for Retirement at a Given Age
Family Type - couple with two children. Family Income - middle. Age at Membership - 27.

At 65 years of age, your family's accumulated net wealth (in 1998/99 dollars)

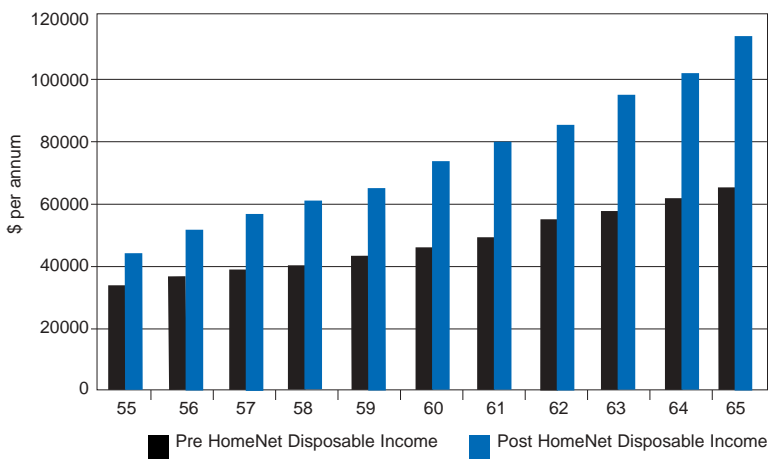|	
without HomeNet is	**$1,583,156**
with HomeNet is	**$2,548,751**
Difference	**$ 965,595**

The data can be expressed in terms of the benefits of the strategy at the normally accepted retirement age of 65 as shown above where the advantage would be $965,595.

All these estimates are very sensitive to the terms and conditions of all decisions on expenditure and investments, for example your super. The returns from all super funds are very sensitive to the expense ratio and any other charges. For example, for an investment of $10,000, if the average expense ratio of 1.4% per annum is assumed and there no other charges (frequently there are loads or sales charges on the buying and selling of shares) then the % of the profits each year that are kept by the fund, for three rates of returns are:

Fees as a Percentage of Your Profit

	% Return	% Return	% Return
Years Held	5	10	15
1	28%	14% (20%)	9%
5	30%	16% (23%)	11%
20	37%	26% (36%)	23%

The figures in brackets for the 10% return are for an expense ratio of 2.0% (compared with 1.4%), which is often charged especially for international funds.

These results show how difficult it is for the uninformed investor to understand what a return on investment really means and how to plan how much they would make over the term of the investment. The Securities and Exchange Commission of the USA has also been concerned with the independence of the Mutual Funds Directors. It now has a requirement that the majority of the Directors must be independent of the Board and its Management. It also illustrates the need for truly independent financial advice to be available for families.

The outcomes are also very dependent on the daily spending amount and pattern of the individual family. Most families show good management by balancing income and expenditure. A total debt of $70B in 2001 has been incurred to manage the household. The average weekly outlays for the average Australian family are shown in figure 4.4.

EXPENDITURE $/WK
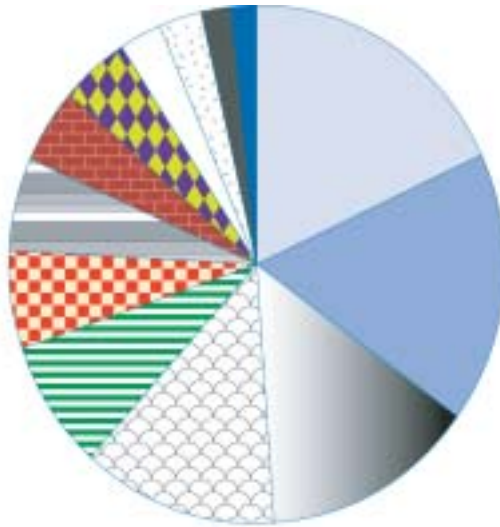
- Food & Non Alcoholic Beverages $127/wk
- Transport $118/wk
- Housing $97/wk
- Recreation $89/wk
- Misc. Goods & Services $57/wk
- Household Furnishings & Equip. $42/wk
- Household Services & Operation $41/wk
- Medical Care & Health Expenses $32/wk
- Clothing & Footwear $32/wk
- Alcoholic Beverages $20/wk
- Domestic Fuel & Power $18/wk
- Personal Care $14/wk
- Other $11/wk

Figure 4.4 Average Weekly Outlays for the average Australian Family

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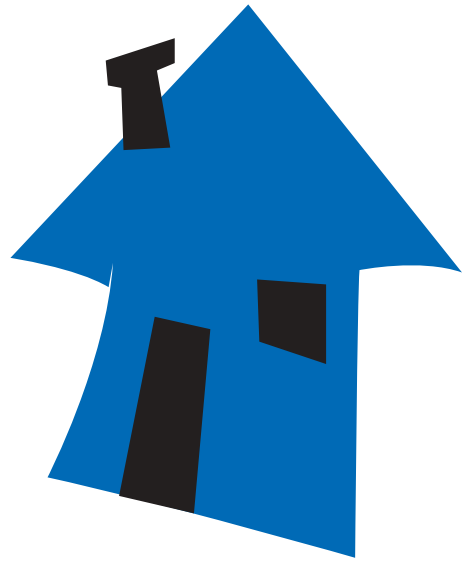
GROWING THE FAMILY ASSETS

Your money matters! How much money have you got? How much money do you need? The answer to these questions depend on whether it refers to cash in the bank, annual income or all the assets. This topic is investigated here and it is concluded that most young people in Australia have the potential to become millionaires, as defined by the total wealth that they will accumulate through their lifetime. The information here will assist them to use the knowledge accumulated through the experiences of their parents and grandparents of how to have money and grow the family assets so that they can become millionaires. The most likely barrier to achieving this will be their self-management. It is your destiny to become a millionaire, don't throw it away.

The secrets to success are bound up in understanding where assets come from, where they go to and how they can be accumulated. The knowledge on how to do this is not new but it is necessary for each new generation to understand the principles and especially how to apply them. How well do you manage your budget?

THE SIMPLE STATIC MODEL OF THE HOUSEHOLD

A simple model is given in the next figure. All the boxes and the arrows between boxes, including the big arrow into Income, are under your personal control (except maybe tax). The flow and changes in any component is the result of your decisions but the Management System can assist the decision making process, to assist you achieve, if it is practically possible, the goals you set, including your earliest financial independence.
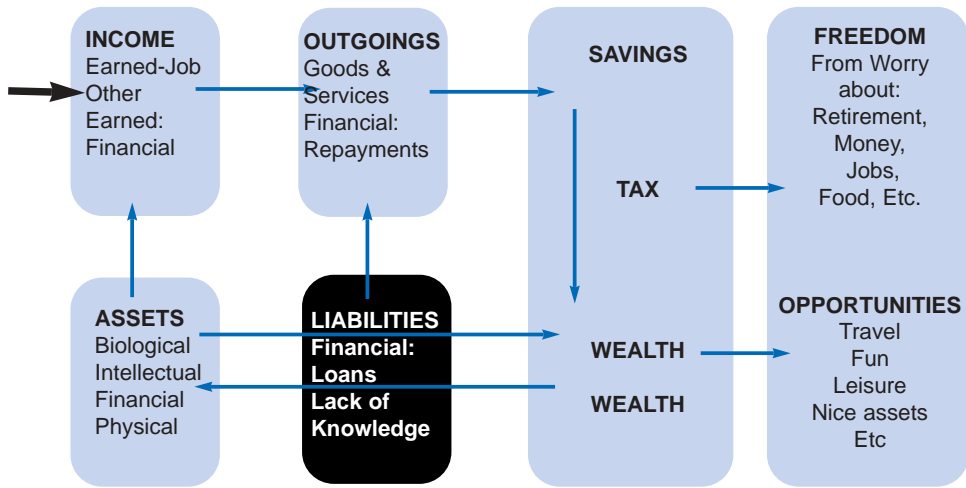
HOUSEHOLD ACTION MANAGEMENT SYSTEMS

Figure 5.1

Households, for example in Asia, have had centuries to work out how to manage the household and accumulate wealth and wisdom, which has been handed down from generation to generation. It would be challenging to any one of us to have to manage their household budget or that of an average household in the world today. The balance sheet and Income and Expenditure statement today may look something like this:

Family Balance Sheet

Assets of Biological:	7 family members:
	4 pigs, 1 horse, 20 ducks
Assets of Physical:	4-room house,
	0.64-acre field for growing rice,
	0.59-acre slope for growing other crops;

INCOME	EXPENDITURE
$12 from sale of 100 kg rice	$217 food
$54 for 100 kg chillies	$96 transportation
$25 for 150 kg rapeseed	$72 fertilizer and pesticide
$163 from selling pigs	$48 medicine, medical services
$34 sale of 20 ducks	$36 local taxes
$145 from construction work	$7 road building, improvements
$241 remittance from Meiquan's	$4 power station maintenance
factory wages	$6 education & culture
	$60 cloth and clothes
TOTAL: $674	**TOTAL: $546**

How would we manage the household? Principles have to be developed to organise the information about the family household in order to manage it efficiently. The assets consist of some biological resources (the 7 family members, the crop seeds and the animals), some physical assets (the house and land) and some financial assets (the savings of $128). The goal of good household management is to combine the assets in the best possible way to ensure the family is well fed and healthy, is being educated, is well clothed and the assets of the home and land are well maintained so as to survive into the next century and beyond. This family operates as a small business. The family shares the household functions and operates as an extended family. The management has to encompass the very young and the very old.

Time is an important factor in all aspects of the management of the family. In the case of a family on the land, there is a need to manage the physical assets to ensure that they will be there for the next generation, and the next and the next. The biological asset issues including procreation, illness and aging, all of which have to be accommodated. Without planning for either the seasonal time frame or for the effects of old age and death, the family would be placed in a perilous position.

It is much easier to manage the household in Australia, but the same principles apply. Each household has to assess its assets and work out the best way to combine them to secure its goals to be healthy, wise and wealthy and to have fun at the same time. It has to plan within the seasonal, short term and long-term time frames.

Starting out in life most individuals have few assets other than their own biological assets. Some have an inheritance, which may not be available for a long time. You can't rely on inheritance. Your parents may live to 100 and you may be 80 when they die. It is necessary to understand what assets are available and how these can be leveraged to grow the quality your of life to the level you have set as your goal.

ASSET MANAGEMENT

The management of the family starts with understanding the extent and status of your assets. To assist with the management of your assets they are divided into five types:

Biological assets   health, physical prowess, beauty, sporting ability etc

Intellectual assets   education, skills, native ability, left and right brain etc

Financial assets   investments, shares, bank accounts, cash, income etc

Physical assets   land, cars, houses, artwork, stamps, boats, furniture etc

Relationships   children, work, aged parents, community etc.

Most businesses concentrate on only two of these asset classes, the physical assets and the financial assets. Sometimes they do attempt to measure the intellectual assets and rarely the biological assets, other than in specialist businesses. Australia wishes to be a "Clever Country", it can't do this without the developing intellectual assets.

- A study by Keen.com and Lewis, Mobilio & Associates found that Americans ask an average of four questions per day and spend an average of 8.75 hours per week searching for answers. The Internet has become the top resource for finding these answers.

- A 1998 study by George Mason University of college graduates found that 95 percent of respondents view lifetime learning as an essential part of their career.

- According to a 2000 OECD report, since 1985 the expansion of knowledge-based industries has outpaced gross domestic product (GDP) growth in the developed countries. Knowledge-based industries now account for more than half of OECD-wide GDP.

- A 2000 PricewaterhouseCoopers report found that intellectual assets now account for 78 percent of the total value of American S&P 500 companies.

The biological assets are especially important and under-recognised when it is now realised that an individual Australia sportsperson in Australia, can, as a result of their biological capability, command a contract of $30m over 5 years (Internationally $500m over 10 years). That's better than a lot of businesses and it is to do what they like doing most. This income comes in the early years of their working life, which is the best time to earn money, however little or much. To use their biological assets to earn big money has frequently required Australians to go overseas e.g. in the clothing, entertainment or sporting industries, to be an Elle McPherson, Mel Gibson, Kylie Minogue or a Greg Norman. They are all "businesses" because of their biological assets.

The range of these talents is extensive and often not recognised early in life and so do not get the effort required for their development. Each individual will have all the subclasses but with different strengths. Some of the sub-classes of the assets as classified in Multiple Intelligences in the Classroom by Thomas Armstrong (ASCD, 1994) are:

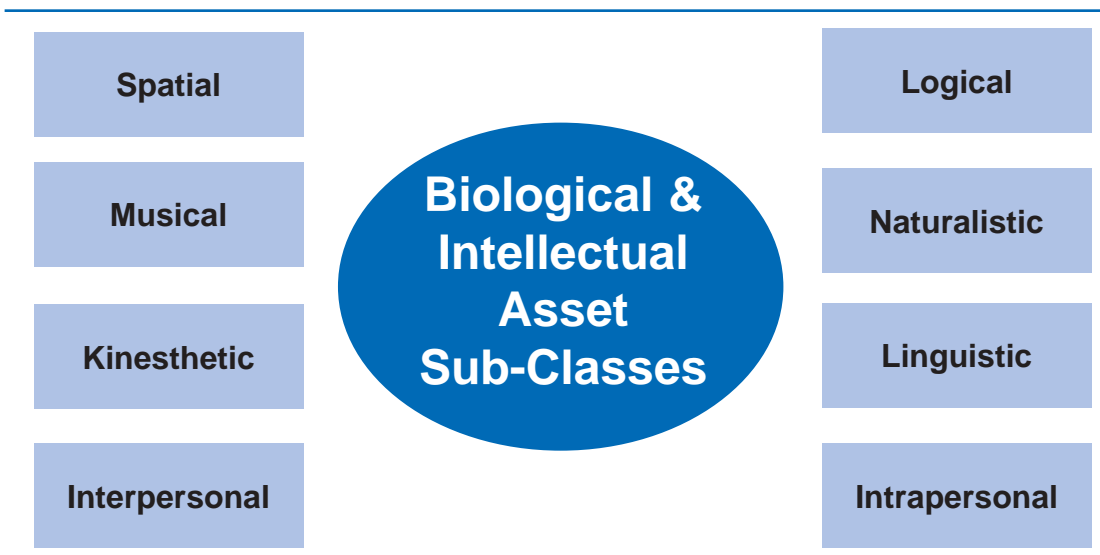| Spatial		Logical
Musical	**Biological & Intellectual Asset Sub-Classes**	Naturalistic
Kinesthetic		Linguistic
Interpersonal		Intrapersonal

Figure 5.2

KINESTHETIC. Do your kids talk with their hands? That's a sign that they use their bodies to solve problems. Often, this physical intelligence is downplayed in classrooms in favour of language and logic and may even be seen as disruptive.

SPATIAL. Ever sketch the dimensions of a room before rearranging the furniture? That's using your spatial intelligence! There's even a link between our ability to form mental images and reading comprehension

MUSICAL. Musical intelligence is the earliest of all talents to emerge — even babies can sing and match rhythmic structures. Exposure to music can help kids increase their coordination, understand their culture, relax, and even improve their math skills!

LINGUISTIC. Linguistic gifts are all about words and how we communicate. We put them to work whenever we speak, read, write, or listen. In the classroom, kids must draw on their linguistic talents all the time. For those who aren't strong in this area, schoolwork can be a struggle.

INTRAPERSONAL. People with strong intrapersonal gifts have a good sense of self. This gift is closely tied to interpersonal intelligence — understanding of others. Normally, neither can develop without the other. Kids need to build talents in both areas.

LOGICAL. People who favour this gift look for patterns when they solve problems. This intelligence is very important at school, and in taking standardised tests. Some school subjects may be difficult for kids who aren't strong in this area.

INTERPERSONAL. Interpersonal intelligence is about understanding other people. This gift is closely tied to intrapersonal intelligence — understanding of self. Normally, neither can develop without the other. Kids need to build their talents in both areas.

NATURALISTIC. Naturalistic talent is the ability to easily recognise and classify plants, animals, and other things in nature. Some young children are great at this: Take the four-year-old who's an encyclopedia of dinosaur facts!

All eight subclasses and the five major asset classes have to be addressed individually in household management because they are identifiably different types of assets or sub-assets and have to be managed in totally different ways, but they also have to be interlinked and work together to be successful. The total assets of a family are the integration of all the four classes and eight subclasses. Each one interacts, and the sum of the whole is greater than the sum of the parts.

The management of the assets can be broken down into two aspects, the planning that relates to the status of the assets through time, and execution, which states the actions that are required to maintain or grow the asset. The plans may only be a single sheet of paper but they will provide the direction that is followed and can be revised at any time interval for each of the four asset classes.

THE PLANS

For each of these assets it is proposed that a plan is needed if the potential value of the assets is to be realised. These plans are a statement of the current status of the asset, the maintenance required to sustain them, and the decisions required to grow them. They include a statement of the direction that is being pursued and how to get there. What are the short term and long term goals of the individuals and the family?

The plans will predict the status of all the assets on a daily, weekly, annually or on a whole of life basis, which in 2000 will be a 100-year plan. They will also have a financial component that will state the projected cash flow position in the same time frames. The cash will have to be able to show what the cash position is through into retirement and to document the source of the income. A source of income relying on the actions of governments 20 or 50 years hence is unpredictable and the impact of risk on these plans must be estimated. Many businesses are focused on the quarterly results, which result in very short-term plans. It is rare that the business plan has to accommodate possible situations 50 years or more out, such as the family has to.

There are a variety of plans that will be required and these may be individual or consolidated. The plans are for the whole of life for the whole of life. The initial plans will be:

- **Home Management Plan.** Long term survival and wealth
- **Income Development Plan.** Jobs, careers, skill development
- **House Plan**
- **Car Plan**
- **Savings, Super and Investment Plans**
- **Health Plan**
- **Emergency Plans**

EXECUTING THE DREAM

The process of maintaining and developing the family assets requires that knowledge; products and services are sourced from the home or outsourced from a supplier. The process of sourcing or outsourcing can be defined as a project, a series of steps

    Plan,   Do,   Check,   Modify,   Review.

The major categories for external procurement are:

Income   can be self employed or employed in another company

Services   these may be trade services to the home, education, or finance

Goods   the home, car, food, furnishings, whiteware, toiletries

Most people have set goals, had dreams or made New Year resolutions frequently through their life. They also revise them, sometimes because of success such as winning the lottery, or because of tragedy in losing a loved one, being overcome by a flood or fire or because they are "discovered". Everyone has difficulty keeping the goals or remembering what the goals were. It is so difficult keeping track of everything that people hire "minders" or "managers". Many people hire fitness trainers, just to make sure that they carry out their good intentions to undertake a program. Sportspeople hire managers to look after their welfare. The problem often is not in setting the goals; it is in executing them.

The process has a problem at the start of finding the professional or service person that is right for you. This may be in personal areas or in finding the right plumber, builder, roofer, electrician, lawyer or accountant.

The objective is to have a plan which includes how the plan is going to be executed, by whom, when, how and to what specification. It should also predict the benefits. For investments it must indicate the expected rate of return on the investment. The time it takes to become a millionaire is very sensitive to the rate of return as shown in the graph for a savings rate of $1000 per year at a monthly rate. The major investment is the house. What return are we expecting on the house? 5%, 10% or 15%?

Figure: 5.3

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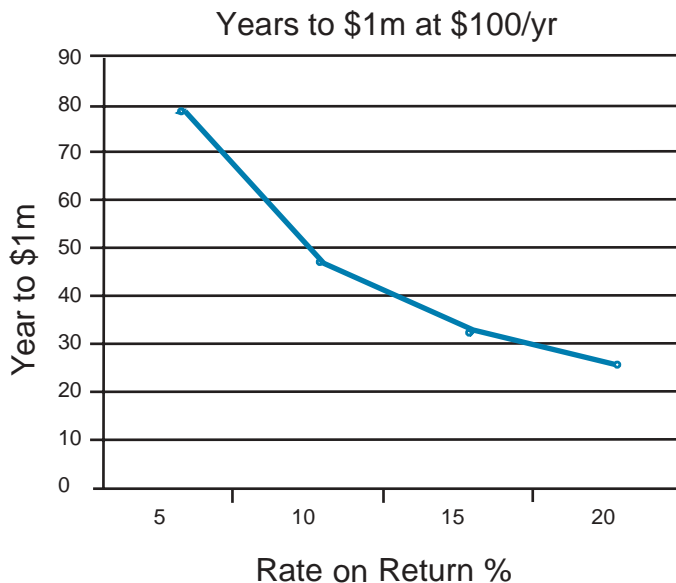
IS YOUR HOUSE AN ASSET OR A LIABILITY?

The house may be only 25% of the assets of the average Australian, if the biological and intellectual assets are included. Statistics normally exclude these two asset classes and so the house is about 50% of the Total Household Wealth. It is often said that the first, and most important asset or investment the Australian has is their home. But do they know what return there is on the investment? Is it the best investment they can make?

The components of Total Household Wealth (1996) are shown in the diagram and the importance of the house is very significant to the householder (ABS Statistics).

50% Owner-occupied housing

19% Superannuation

14% Interest Bearing Assets

7% Business Assets

5% Net Rental Property

5% Dividend Yielding Assets

Figure 6.1 Components of Total Household Wealth

Figure 6.2: Growth in Wealth
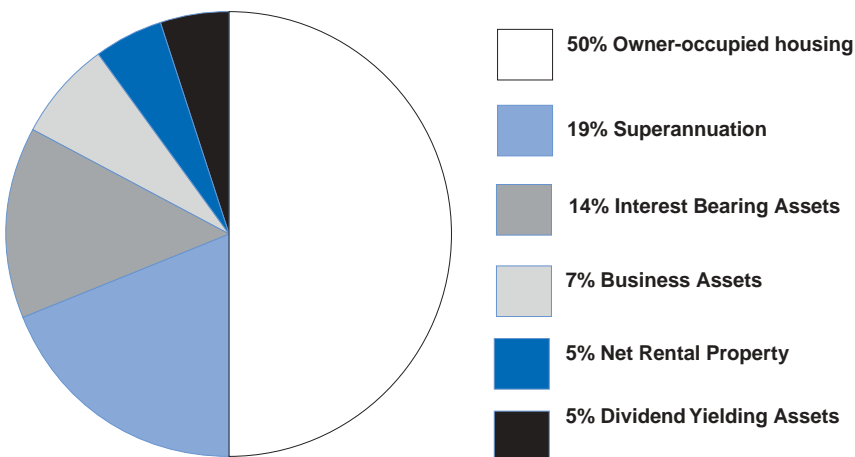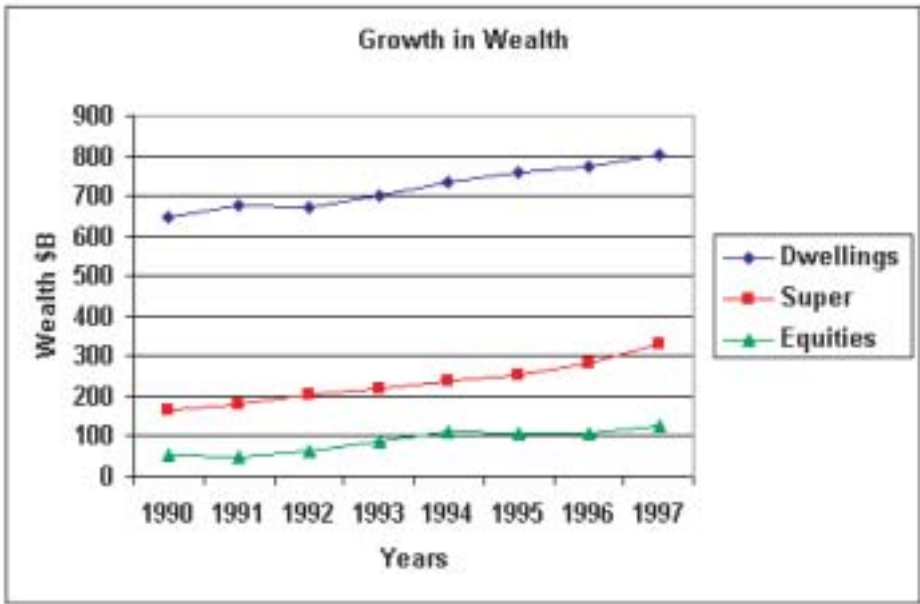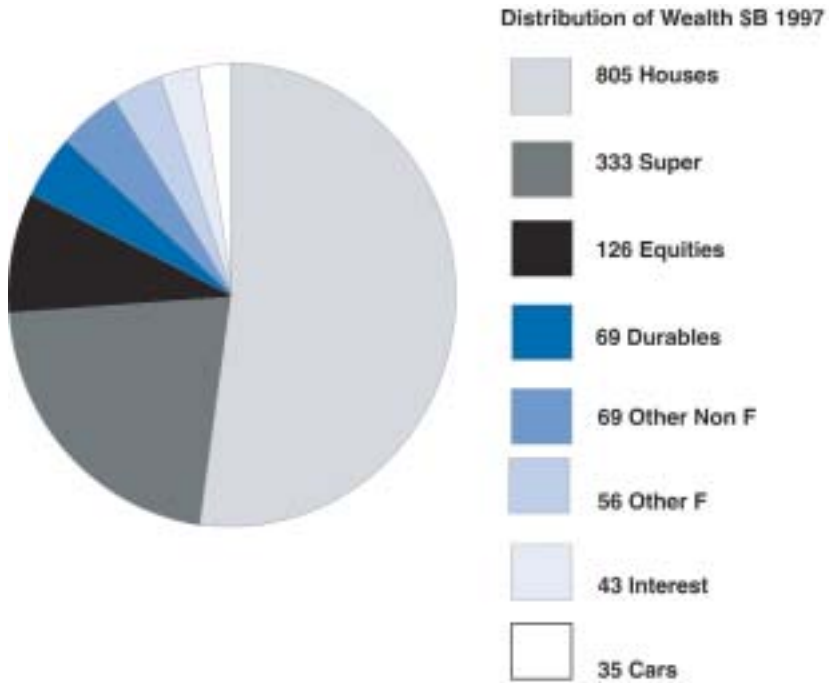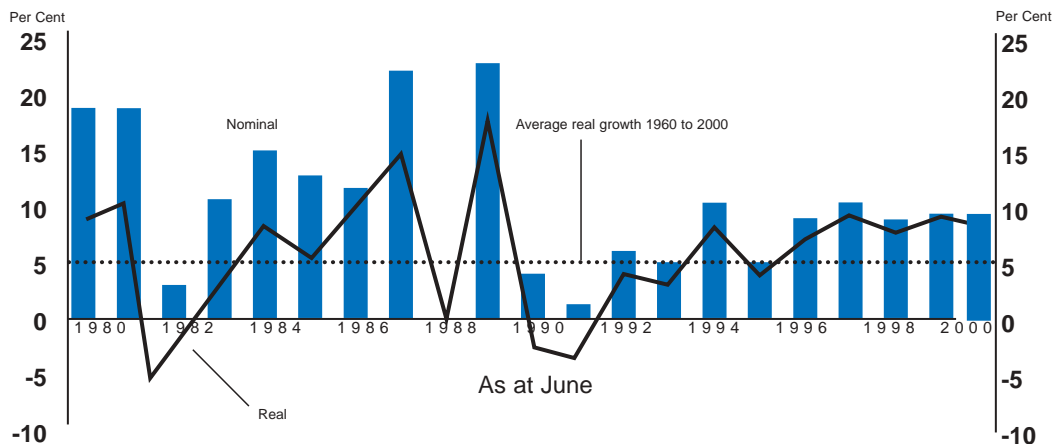

Figure 6.3 Distribution of Wealth

Figure 6.4: Increase in Average Wealth (Treasury 2001)

Average wealth has been increasing over the last 20 years as shown by the graph. (Treasury, 2001) Home ownership however has been showing signs of falling in Australia,

Why is it declining? Is the body of opinion suggesting that investing in the home is not the best option? Who knows? Lots of different factors affect the decision, many of them not economic, but the objective is to give families tools to make the best decision on one of the most important decisions in their life.

A new model has been developed to calculate the return on the house you live in that can answer these questions. The House Investment Evaluator calculates the return on investment and thus the house buyer or owner is no longer in the dark. They can compare their investments in the stock market, house or the bank. Is your house an asset or a liability? How well is the nation doing on the $805B 1997 invested in housing?

There are so many factors to consider in getting this calculation right. The cost of buying; the cost of selling; maintenance; interest rates; equity; and the term of the loan. It is not surprising that the average buyer does not have the information they need when they make their decision and what do they compare it with? A house bought to live in is quite different from property bought for investment, where the income from rent should cover the cost of running the property. The capital gain can be allocated against the equity put into the property and not to offset costs.

The first law that emerges is to "Buy Right". Once the location has been decided on social grounds apply the economic concept of not over committing on price or making sure that leasing locally is not the best bet. Then reduce the loan principal as fast as possible. Interest is a necessary evil. The graph shows how much interest will cost if it is not paid off quickly. At 20 years the principal and the interest are both $350,000.
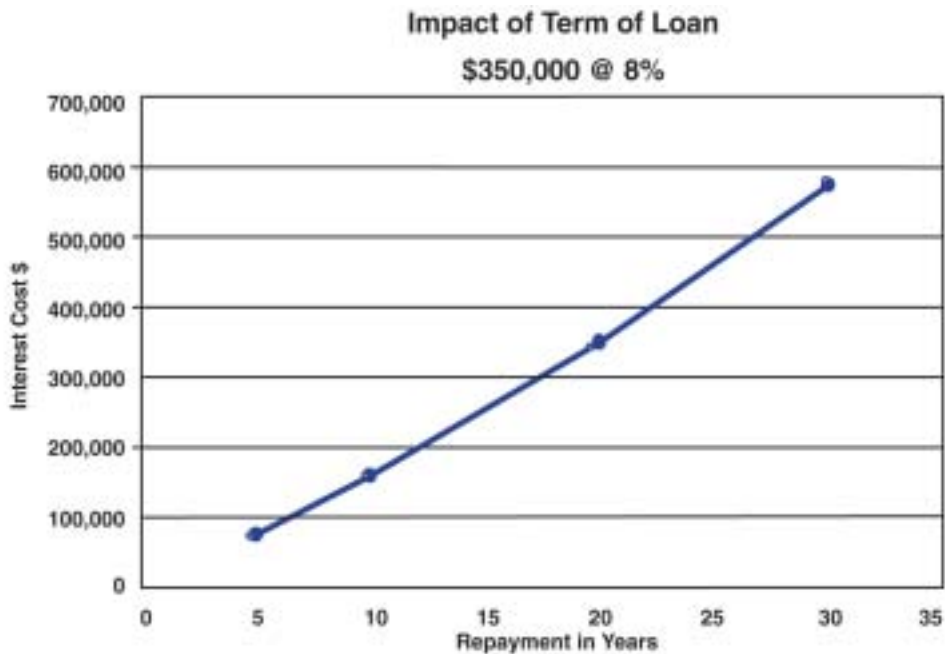
Figure 6.5

The interest is not paid off evenly over the term of the loan; it is not linear as shown by the "To Pay" line. More is paid off at the start as shown in Figure 6.6. Not only is the principal $350,000 required to be paid back regularly, but also the difference at 10 years in the extra interest repaid is 20%, $75000 of your money. If that were invested at 10% for 10 years it would be worth $203,000.
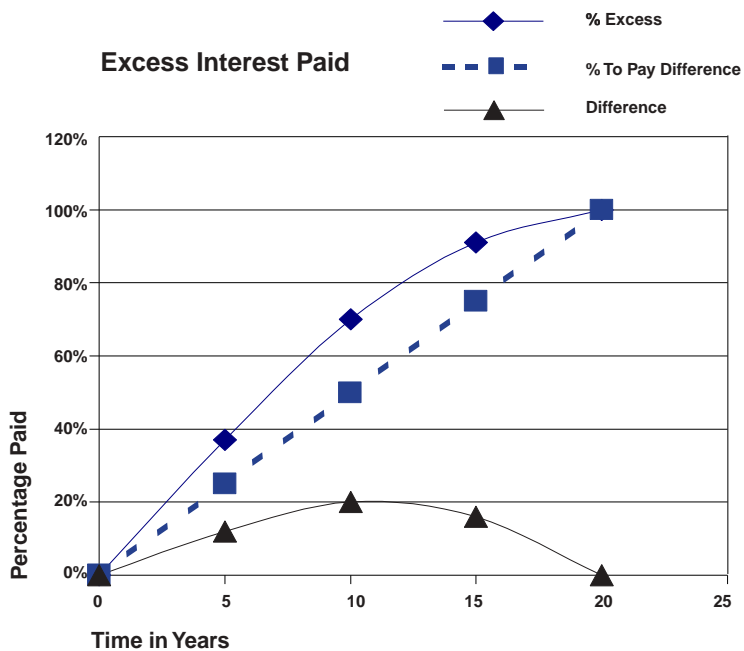
Figure 6.6

The resale value of the home remains the dominant factor in determining the rate of return on the investment as shown in Figure 6.7.

Return on House Investment
$350,000 Sale after 7 Years
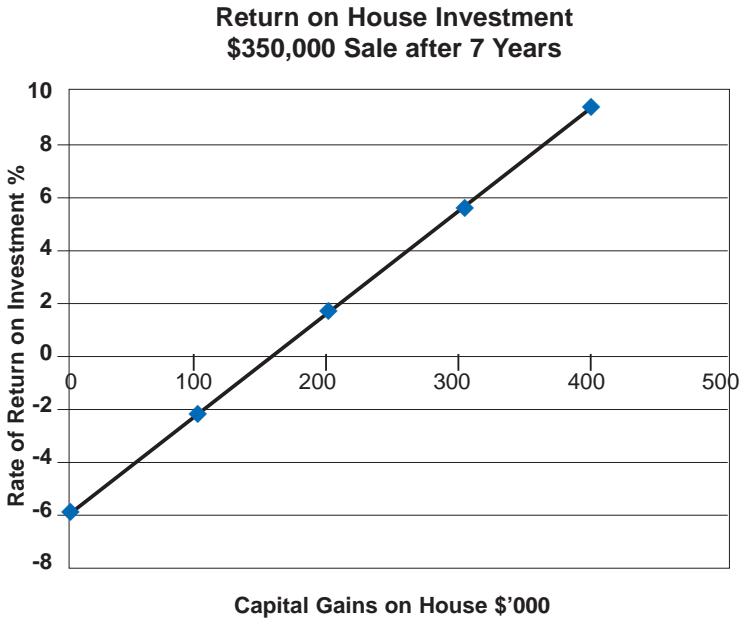
Figure 6.7

The amount of equity the investor puts into the investment does influence the return by about 2% in the following example given in Figure 6.8.

Equity and Rate of Return
$350,000 Investment
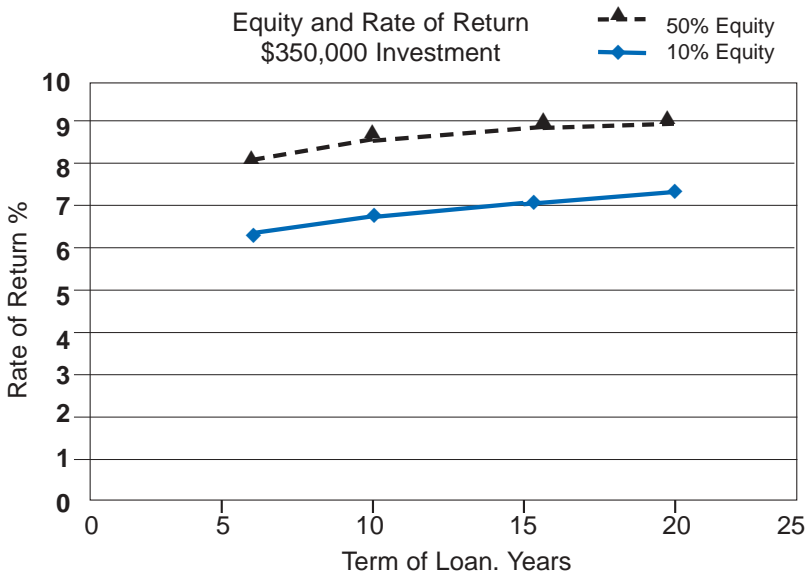
Figure 6.8

Figure 6.9 shows how sensitive the return is to the income equivalence. If the property that is brought could be rented, what would it bring in the area in which it is located? That sets the income equivalence. In this example it is shown that return is sensitive to this factor in the model. It is not sensitive to term of the loan.

Income Equivalence Impact
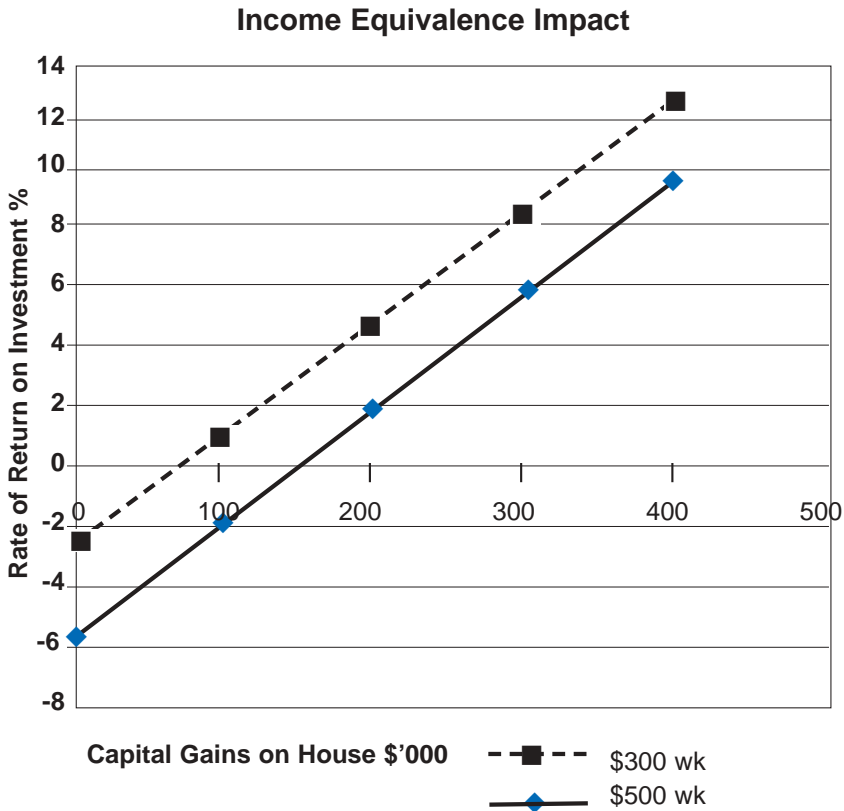
Figure 6.9

The structuring of the home loan will be an important determinant of the economic outcome of the home investment. Two options examined here are to have the normal standard home loan or a line of credit (LOC) with the income being credited to the account and coupled to a credit card, paid off monthly. The loan is for $130,000 at 8.05% and for a term of 25 years. The LOC is for $130,463 and at 8.05%. The net monthly income is $5,518, less the Cash Account of $1000 per month, Credit Account of $2,900 per month and current Loan Repayments of $1008 per month. This leaves a surplus of $610 per month. The Expenses Inflation Rate will be assumed to be 3.50% per annum and the Salary Indexation Rate 3.79% per annum. The impact of paying off the loan faster is shown in Figure 6.10.
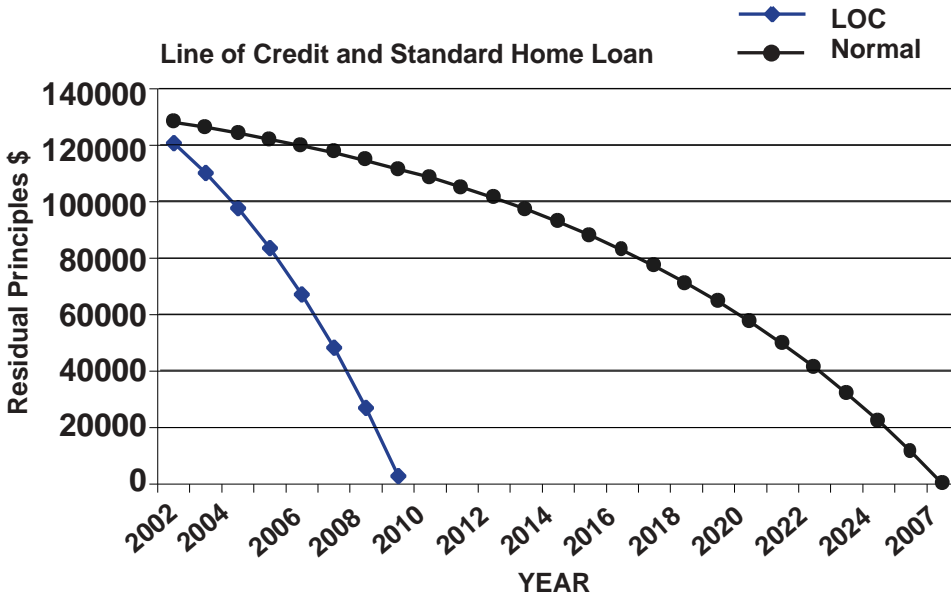
Figure 6.10

The Standard Home Loan would have
Total Repayments of $301,294,
Total Interest paid of $171,294
25-year mortgage.

The Mortgage Reduction Programme (LOC) will require
$47,982 in Interest Payments,
Paid off in 8 years 3 months.

The savings in interest would be $123,312 between the two approaches.

If the Net Monthly Cash Surplus for the home of $610 per month were invested monthly at
a net 8% per annum and compounded, then it would yield, pre tax,

8 years	$82,204
13 years	$167,591
25 years	$583,000

TARGET A RETURN
OF 15% PLUS PER ANNUM?

Good home management requires that the investment decisions are made on sound information and that they create value. A measure of value is the rate of return on the investment. "What is a good return and how can I get it?" Are equities better than the house, or fixed interest, or cash? Return of 15%+p.a.!! I'd like to see that.
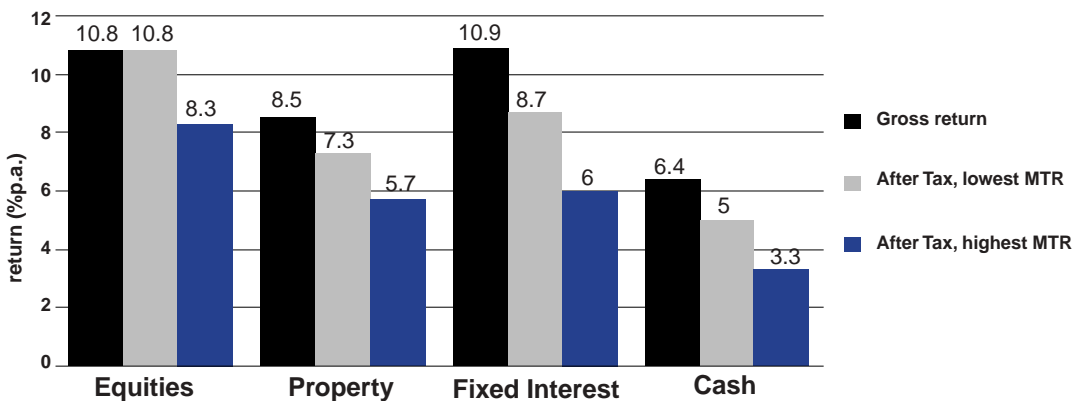
Figure 7.1

The data shown in Figure 7.1 is an average for Australia over a period of 10 years. There are fluctuations from year to year that have to be taken into account, so that the question does not have a simple answer. The results shown in the graph also indicate that you may have to allow for tax and management fees, depending on individual circumstances. Then there is inflation of about 3%. The results may suggest to you that it is reasonable to expect a 10% rate of return. If so set 10% as your target.

What about a target of 15% at low risk?

Set a target of 15% pa as the rate of return on your investment you would aim for. Is this attainable for you?

Start with 0 dollars.

Save and invest monthly a total of $1000 per year.

Accept a return of 10% pa.

Leave the interest gained in the account.

Leave it for 46.26 years.

Total at 46.26 years approx $1,000,000

This is at low risk.

The information can be shown in graphical form as in Figure 7.2.

Figure 7.2 Compound Interest Result

Your Total personal investment is $52,800.

The return gained on the investment is $902,849.

After 44.45 years the Actual Total value is $955,649.

The return on **your** investment, $52,800, **on average** over the 44 years, is **41%pa.**

THE POWER OF COMPOUND INTEREST

1. Save $100/month throughout your life.
Invest for a Return of 10% net pa and reinvest.
Have $1m by the time you are 46.

2. Save $1000 per month throughout your life.
Invest for a Return of 10% net pa and reinvest.
Have $1m by the time you are 23.
Have $100m by the time you are 68.

	$130m		$94m

					$50m	$130m	$94m

				$17m			
			$6m				$35m
2 $.2m	$.8m	$2.3m				$13m	
1 $.02m	$.08m	$.23m	$.6m	$1.7m	$5m		
0-10yrs	10-20	20-30	30-40	40-50	50-60	60-70	70-80	**80-90**
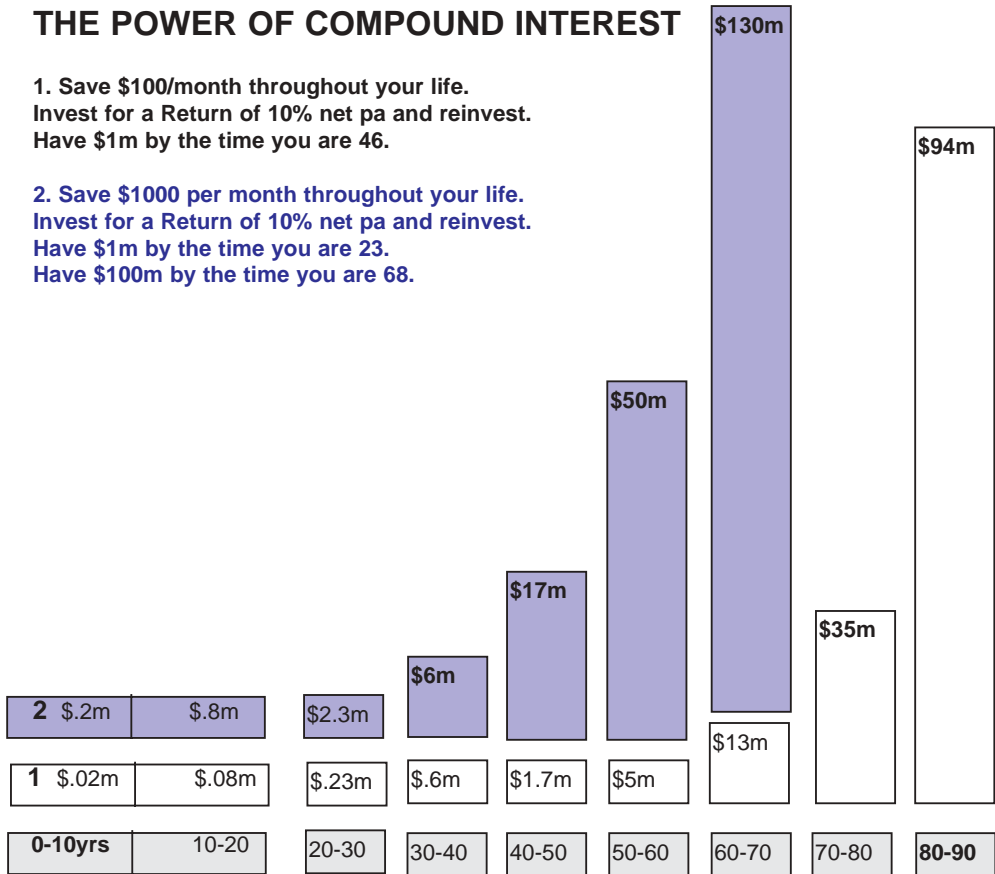
Your age from birth in years.

The major correction that has to be made is for tax and this would be very different depending on the particular circumstances of an individual. If the return was as annual interest there would be a tax to pay each year, and this would substantially reduce the return. If the 10% were in capital gains then there would be a capital gains tax to pay at the end. This is the power of compound interest and why you need it on your side.

To target a 15%+ rate of return on your assets over the long term and only five key steps are required. The Five Key Steps are:

Generate Income
Establish Home Account (Savings)
One Credit Card & Loyalty Points Card (Savings)
Master Trust (Investment)
Direct Investment (Investment)

This establishes the Management Cycle, which is based on the five key functions identified in the home management design:

"The credit card is the controlled interest free float to manage and track the monthly

expenditures (a management tool), but that is cleared monthly (55 days). The home account can be a line of credit or an offset account, into which income flows to reduce the level of the outstanding amount to minimise the daily interest rate charges. Any savings can be retained in the home account to reduce interest charges or automatically transferred into a variety of investment vehicles, directly (saving management fees) or indirectly through management trusts (of which Superannuation is a special type), to generate income or grow the assets. The allocated pension kicks in, in retirement"
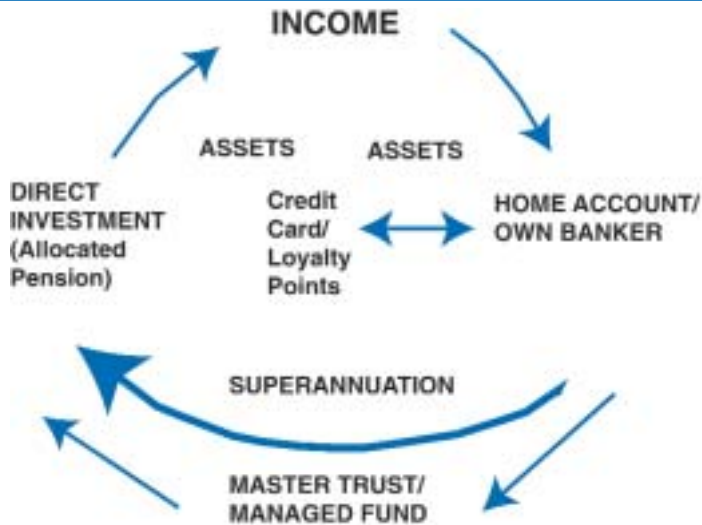
Figure 7.3

The investment accounts must be carefully chosen, constantly tracked and continually compared with other investment options. The aim of any investment must be to achieve an annual net return of 10% and to re-invest the returns, be they dividends, rent, interest or income. Figure 7.4 shows the build up in the funds and the return on the investor's savings.
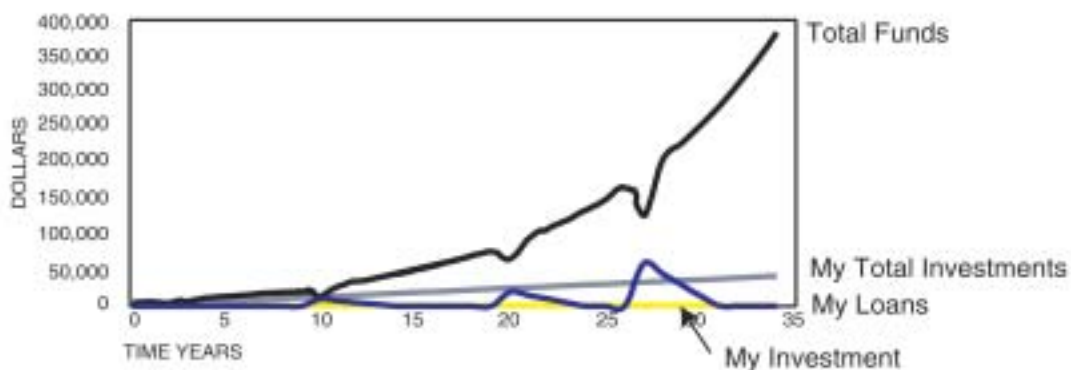
Figure 7.4

Become your own banker if the account is accessible. The cash in your account will build up (as in Figure 7.5). Some could be spent on your own needs, e.g. to buy a car, or an external investment. This example is for loans of $10,000 after 10 years, $20,000 after 20 years and $60,000 after 27 years, in each case at 10% and repaid in 5 years. It is important to "loan" the money from your account, to yourself and then apply bankers rules of paying yourself back as though you were paying back anyone that loaned you the money. The pay back ensures that you conserve your capital and the interest will be a savings on what you would have paid out to someone else. You can also charge yourself bankers' fees.

8
MANAGING THE HOUSEHOLD

The home and family will only function properly if certain actions and activities are undertaken. It is necessary to combine the assets in different ways to ensure that the household works in unison to meet the goals in the plan. The five functions, that have been identified as drivers and are critical, are the income, savings, and investment, sharing and maintaining the assets. These activities have been defined as:

8.1 Assure the income.	There has to be a source of income coming into the home from jobs, businesses or investments
8.2 Make savings.	The cost of information, goods and services will vary from source to source. Find the best price.
8.3 Invest wisely and early.	Decisions have to be made into how the income is spent. The impact of the decision is both short and long term. Delaying saving can be costly.
8.4 Share the income or assets.	The assets can be shared
8.5 Maintain the assets.	The home, car, self, investments etc have to be maintained and protected. This takes effort.

These five actions can then be defined in terms of each of their individual components, for example **8.1 Assure the Income** component requires the family to a have an **Income Development Plan** including:

8.1.1 Health (of Self)	Preventative, emergency, developmental
8.1.2 Development.	Formal and informal education, continual development, training
8.1.3 Career Direction	Forecasting opportunities
8.1.4 Jobs	Short and long-term opportunities
8.1.5 Life Balance	Home, work, relationships, sport

These can each be further devolved into subsets, for example **8.1.2 Development** would be:

8.1.2.1.Personal Profile	Maintain up to date information database
8.1.2.2 Competencies	Measure capabilities, identify gaps
8.1.2.3 Development	Prioritise gaps and undertake training
8.1.2.4 Opportunities	Monitor job opportunities
8.1.2.5 Rewards	Assure short and long term returns

The function **8.3 to "invest early and wisely"** is also complex. It can be broken into

8.3.1 Manage Compound Interest
8.3.2 Balance Risk and Return
8.3.3 Diversify Investments
8.3.4 Optimise Returns
8.3.5 Review Regularly

All decisions in the household or family interact with all the five functions in some way or other. If the maintenance of self is not right e.g. the health is not right it can affect 8.1, the income and 8.2 the savings especially if insurance wasn't in place and even if it was. Obviously if spending is up savings may be down and this could affect investments. The way in which the five major elements interact can be illustrated by the activity to buy an asset e.g. the car or the house. It is a simple decision, to buy or not to buy but it will impact three functions, 8.2 savings, 8.3 investing and 8.5 maintenance.

The savings can be on the price for the new car, how it is financed, is it leased or bought and the costs of running the car; the investment can relate to whether a new or used car is bought and the rate of depreciation; maintenance is the cost of maintaining the value in the car through regular services. It is obvious that the decision, which appears simple, has a lot of implications for household management. The decision on buying the house is more complex and more important as it has the chance to be an appreciating asset if managed correctly.

8.3.2. Balance Risk and Return involves the concept of risk. One end of the scale is the risk when undertaking a gamble. The chances of winning are low but we still "invest". At the other end of the scale was traditionally "money in the bank" because Governments guaranteed banks. Buying a house on this scale is at the low-end of the risk scale. It does depend on how much of your own equity you put in or how sure you are that you can repay the loan during the whole of its term. If for a $150000 house you invest $25,000 of your own, the amount you could lose is less than putting in $50,000, as long as the house

appreciates in value. The rate of return on this money depends on what you sell the house for after, for example 7 years, keeping interest rates, income and other factors constant. If it made at least 25% in the seven years the return would be about than 7%. Less than this, the more money put in, the lower the return and more the risk. A $50,000 investment would have a negative return if the gain in value of the home were zero. Obviously the prices of houses (and shares) go up and down and this risk has to be taken into account.

THE FAMILY CASH FLOW, SAVINGS AND INVESTMENTS

Cash flow is what the family has left at the end of the day when you compare your income and expenditure. It should be positive; there should be a profit. If you were operating as a company the profit may be expected to be 20% to 30% of the income. This can be used for savings, investments, discretionary expenditures or paying off debt. What will your cash flow be for the rest of your life and will it be positive?

The cash flow can be determined on a daily, weekly, monthly or annual basis. In most circumstances the monthly basis is the most relevant, but the position in and for retirement is most important. Knowing the daily position helps daily decisions.

Income - Tax - Expenditure = Cash Flow = Potential Savings

The cash flow can be positive or negative. If the cash flow is negative you are in debt and personal debt on consumer credit in Australia has grown to $74.6B in 2000 and the debt in Australia on credit cards is $15.6 billion or $5435 per adult in 2000. Buying products interest free is great but if you don't pay when the time is up you will pay up to 27% interest, and 50% of the buyers don't pay up on time. Households are in a relatively good position to handle debt, as it amounts to only 10% of their balance sheet, but it may not match their cash flow needs on a short-term basis.

The income tends to be regular on a weekly or monthly basis while the expenditure can be irregular and totally under the control of the householder. Also the income often comes from one source while the expenditure goes to many sources in a wide range of amounts so is more difficult to track.

By measuring the income and the expenditure it is possible to make projections on the cash flow and on the amount that can be saved and the impact of this saving over time. This saving can be used on investment in the car, house, shares or super. Home ownership is the most important goal for saving that Australians have and 41.3% of the households have fully owned homes and 31.3% have mortgaged property, so that the occupier owns 72.6% of all homes (June 2000).

A particular long-term need is retirement. This introduces the topic of Superannuation. Compulsory super is an important part of the creation of wealth and especially for households in the lower 50% of the Wealth percentiles, as shown in the graph.

Super as a % of Total Wealth 1993
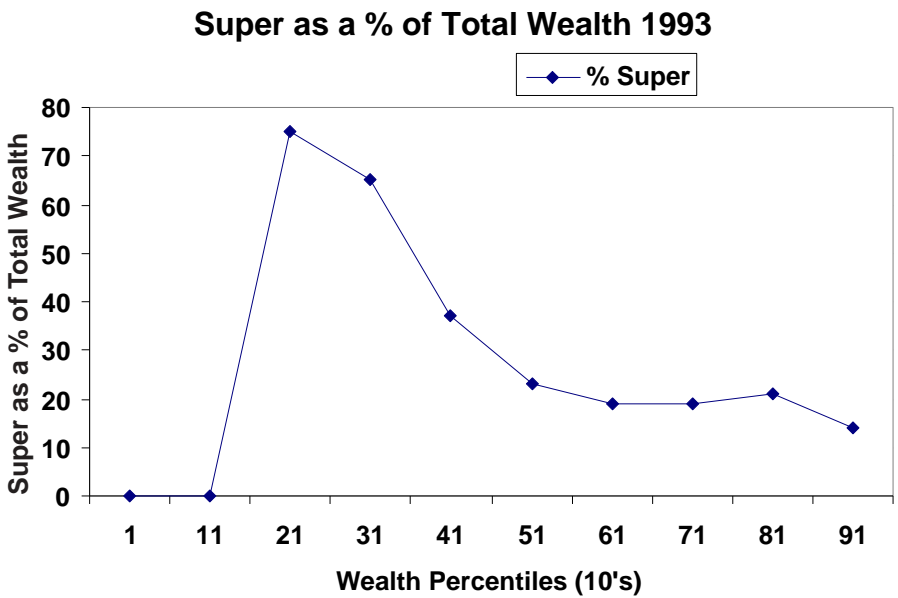
Figure 9.1

An example is given of how the numbers may look historically over the whole of the working life for an average household.

Income:
Earn $40,000 (average) for 40 years. The gross income is $1.6m.

Tax:
Tax is about 30% of the income or $480,000 so the **net income** is $1.12m.

Expenditure: (no savings)
Expenditure of $28,000 per year will mean in 40 years there are no savings for retirement $0m.

Saving with 8% Compulsory Superannuation

Savings of $3,200 per year through super will yield in 40 years

0% net interest on super savings	$128,000
5% net interest	$386,559
10% net interest	$1,416,296
15% net interest	$5,693,089

If the amount to survive for 20 years in retirement is $500,000 then the 5% net interest rate on the super funds will not be enough. You will run into debt or you will have to reduce your lifestyle. Ask your super fund manager what their net rate of return is on the money and find one that can guarantee a higher net return.

To assure $1,416,296m for retirement, if the net interest rate of return was only 5% and not 10%, it would require that you put 29% of your salary into savings each year!

Paying off the house is a means of saving and the creation of an asset that if fully owned by retirement will mean the owner will save on having to pay rent or interest on the mortgage in retirement and thus reducing housing costs substantially.

These sums are very sensitive to the level of income and the length of time you earn.

This is shown in the table.

Income Per Year	Total Earnings Earning Period 50 Years	Total Earnings Earning Period 40 Years	Total Earnings Earning Period 30 Years
$40,000	$2.0m	$1.6m	$1.2m
$60,000	$3.0m	$2.4m	$1.8m
$80,000	$4.0m	$3.2m	$2.4m

This then has an impact on the level of savings in super and the amount available at retirement, as shown in the Table. This illustrates the power of compound interest. If there is an investment earning a return and the return is reinvested (not spent), then the fund will grow and the earnings will grow in a compounding way.

Income	Total Super at 8% 40 yrs, Net Interest 5 %	Total Super at 8% 40 Yrs, Net Interest 10 %	Total Super at 8% 40 Yrs, Net Interest 15%
$40,000	$0.386m	$1.414m	$5.693m
$60,000	$0.580m	$2.124m	$8,539m
$80,000	$0.773m	$2.832m	$11,386m

Funding the Household Cash Flow

Mortgages, lines of credit and borrowing money on your credit cards can be effective ways to finance the short-term home cash flow and the large purchases. Banks have introduced a wide range of ways to handle the mortgage. Both lines of credit and borrowing money are revolving and charge interest only on outstanding balances. And both have predetermined borrowing limits. But there are big differences in terms of cost, convenience and risk.

The major difference is that credit lines usually have lower interest rates and higher available limits. Commercial lines of credit are therefore more cost effective than credit cards. But that's not to say that credit cards don't have advantages — especially in terms of convenience.

Instead of asking your bank to transfer funds from your credit line to your checking account, you can use the credit card and charge it. Another credit card plus is record keeping. Monthly statements are a handy way to track expenses for general record keeping and tax purposes.

Credit cards also frequently come with savings like discounts on goods, air miles, travel insurance, warranty extensions and discounts on rental cars, hotels and fuel. If these extras are valuable to you, credit cards make a lot of sense.

Credit cards also offer grace periods on purchases, usually 25-55 days. That means you can avoid interest charges altogether, if you pay your balance in full each month.

Fortunately, credit lines and credit cards aren't mutually exclusive. You will certainly want to obtain at least one credit card, but only one, for expenses. But you may also want a line of credit for larger purchases and to draw upon during periods of irregular cash flow.

What does this all up to in cold hard cash? If you about 30 and you continue to manage like your parents managed and like your friends will manage, then your net wealth at 65 will be the lower of the two sets of data in the table. Make a decision and apply the Action Management Systems and you have the potential to follow the upper set of data, in figure 8.2. Select which of the income and expenditure group you are in and see the difference in your net wealth at 65 years.

Your Net Wealth at 65 years

$5M
$4M
$3M
$2M
$1M

Your Action Management System

Your current home management

Low   L-M   Middle   M-H   High

INCOME/EXPENDITURE FAMILY + 2 CHILDREN
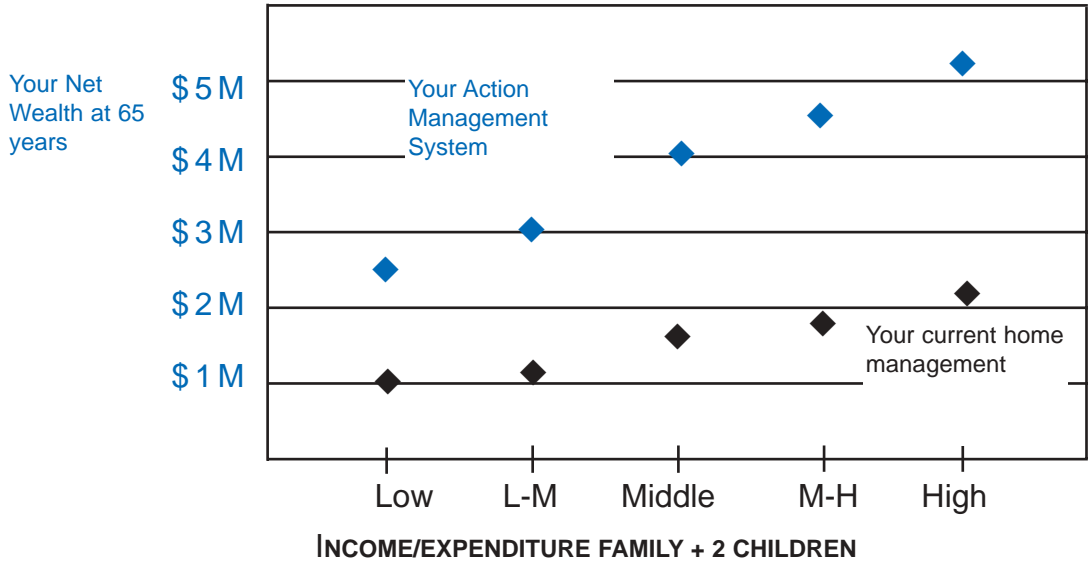
Figure 8.2

10

LONG TERM, BIG IMPACTS
OF SMALL DECISIONS

Small savings all add up. Save $30 per week on the mortgage, invest all the savings at 10% and over a 20yr mortgage it will add up to $100,000!!!

Choice Magazine recently had a list of five ideas that could save $600 per year. Invest that $600 at 10% for 20 years and that would yield $34,365 and teach your children to do it for 40 years and it is worth a quarter of a million dollars!!! The five ideas are:

Minimise the use of cheques
Don't use foreign ATM's
Put your purchases on the credit card and pay it out monthly
Get benefits from the bank mortgage
Put spare cash into a cash management trust.

The last factor is particularly significant factor. If funds currently held in Australian transaction accounts were transferred to other savings accounts or bonds with higher rates of return and assuming that similar rates of return are available, Australians could be earning at least an **extra** $3.4 billion annually (if deposits were invested at 5.1 per cent per annum) or $5.6 billion annually (if deposits were invested at 7.1 per cent per annum). Assuming that all interest is reinvested and the investment accumulates for 10 years, Australians could be earning between $4.6 and $8.4 billion annually in additional interest payments, another $1180 per family per year.

There are a lot of examples of the impacts of short-term decisions on the long-term position of the family finances.

A simple example is to estimate the impact of stopping drinking coffee out. It is assumed that the number of cups per day is 4 and the savings per cup is $2.00. Over a year this amounts to about $3,000 and invested at 10% for 30 years this would be $493,482 before tax, or $265,239 allowing for an inflation rate of 3%. Take a cut lunch to work; save $5 per day, invest it, how much would that be after 40 years? What would be the impact of stopping smoking?

Another set of examples is shown in the Table where a variety of ways of saving are shown. The age at which the savings were started are 40 years old and the age of retirement was assumed to be 65 years. The first interest rate was assumed to be 6% and the interest was taxed and the result came to $203,874. Also shown is the total at 10 % net interest and what would be the result if the savings started at 30 years.

Where to save and what to save is the choice of the individual family. A good starting point is to look at the cash flow and set some target areas.

Decision Area	Saving per Month	Accumulated Savings per Year	Invested over 10Years at 6%	Available at Retirement
Waiting to buy a new car	$100	$1200	$14,507	$67,958
Plus Eating out less	$100	$2400	$29,013	$135,916
Plus Buying fewer clothes	$50	$3000	$36,267	$3169,895
Plus Paying off Credit card	$50	$3600	$43,520	**$203,874**
Total at 10% Starting at 40yrs		$3600	$49,493	**$372,948**
Total at 10% Starting at 30yrs		$3600	$49,493	**$1,027,768**

25 Easy Ways to Save

There are many ways to save money. Here are just a few for you to consider:

1. Use the library. You can borrow not only books but also videos, audiotapes and CDs.

2. Ask your credit card company to waive your annual fee, or change your credit card to one that doesn't charge an annual fee.

3. Find a credit card with the lowest interest rate through Bank Rate Monitor

4. Pay your entire credit card balance monthly.

5. If you use a cellular phone, shop around and get the best plan for the calls you actually make and receive. Don't pay for time and features you don't use.

6. Ask your telephone long-distance carrier to give you its best rate or else change carriers. If you get a six-month introductory rate, call the carrier after six months to ask that it be continued.

7. Use the ATM machine at your own bank to avoid paying a service charge.

8. Buy generic brands at the supermarket and clip coupons if you have the time.

9. Don't buy a higher grade of gasoline than your car's manufacturer recommends, and rotate your tires as recommended.

10. Use public transportation.

11. Turn the heat down when you're out of the house all day.

12. Don't pay for cable TV if you can rent movies for less than your monthly cable bill.

13. Buy a used car instead of a brand-new one. A car depreciates in value most during the first year or two.

14. Shop around periodically to check comparable rates on your auto and home insurance.

15. You can probably save $1,000 a year by taking your lunch to work.

16. Pay all your bills the first day of the month to avoid late charges.

17. Don't buy life insurance unless you need it (that is, if you have dependents).

18. The ATO doesn't pay interest on your money; so don't use big refunds as a way to "save."

19. If you itemise deductions on your tax return, be very diligent about saving receipts on everything that may be tax-deductible. Even little expenses add up to a savings on your tax bill.

20. Buy items out of season, when they are on sale.

21. Take the good clothes you are just tired of wearing to a consignment shop and shop for something that's new to you while you're there.

22. Use a debit card from your bank if you have a problem controlling your urge to overspend on your credit card. It's the same as if you were writing a check, so be sure to enter each use in your check register in order to keep track of your balance.

23. See if there is a credit union you can join. Credit unions often have free checking and better interest rates for car loans, and they may even give you some interest on your checking account. If your job doesn't offer a credit union, check your academic or religious affiliations; family members are also often eligible.

24. Find the lowest airfare and hotel prices by doing research online.

25. Always ask hotels for their best rate when you make a reservation. You may be pleasantly surprised.

DESIGN YOUR OWN CASH FLOW STATEMENT

Examples of cash flow statements are given in the following table. One column is left for you to test your knowledge by putting in the figures for your family.

For comparison a possible cash flow statement for the average family is also given although the actual numbers will vary widely, especially depending on the number of children and the income.

A third column is an example of expenditures for a couple in retirement. The expenditures here are primarily dependent on the income. The income and expenditures have to balance.

Most families do not know what their expenditure distribution is. Where did the money go? How do you know without tracking it?

House: Rent/Mortgage/Maintenance	Average	Your Target	Retired Average
Rent			298
Council Rates/Water Rates	1385		677
Electricity/Gas	1000		
Building/Contents Insurance	500		3097
Interest on Loan	7000		
Capital Repayments	7000		
Repairs and Extensions	1000		
Furnishings/Equipment	2000		

Car and Transport	Average	Your Target	Retired Average
Car Registration-Pink Slip	200		50
3rd Party Insurance-Green	300		232
Comprehensive Insurance	100		
3rd Party Property Insurance			
Service and Repairs	500		200
Petrol	1000		1040
Repayments	1000		
Public Transport	100		260
Taxis	100		260
Food			
Supermarket	5000		
Butcher	300		
Corner Store	300		
Eating Out	1000		
Food Services			2184
Self and Health			
Insurance	2000		1200
Doctor	300		530
Eyesight	50		
Dentist	400		
Hairdressing	100		150
Gym			
Other			
Lifestyle			
Lottery Tickets/Gambling	500		50
Alcohol and Cigarettes			
Entertainment/Clubs/Sport/Hobbies	1000		65
Holidays	2000		
Books/Magazines/Newspapers	300		50
Home Help/Gardening			
Telephone and Internet	400		400
Education	2000		
Clothing			
Clothing	1250		200
Footwear	500		
Savings			
Investments	1000		
Costs of Shares			
Other Homes			
Gifts	500		500
TOTAL	**42,085**		**11,443**

11
THE JOURNEY

The journey that now beckons is the management of the whole of living, for the whole of life. The success of the approaches discussed here, for example the Action Management System, are not instantaneous and not without considerable effort. Time is a key component and the diagram illustrates a possible journey that can be undertaken.

TO YOUR EARLIEST PERSONAL FREEDOM

7 ASSETS + INCOME IN PERPETUITY

6 ASSETS + INCOME + BUSINESS

5 JOB + SAVINGS + INCOME EARNING ASSETS

ACTION MANAGEMENT SYSTEM
To directly influence all actions for a purpose

YOUR JOURNEY

4 JOB + SAVINGS

3 THE JOB

SELF-MANAGEMENT OF ALL ASSETS
Intellectual
Biological
Physical
Financial

2 LEARNING

1 BORN FREE
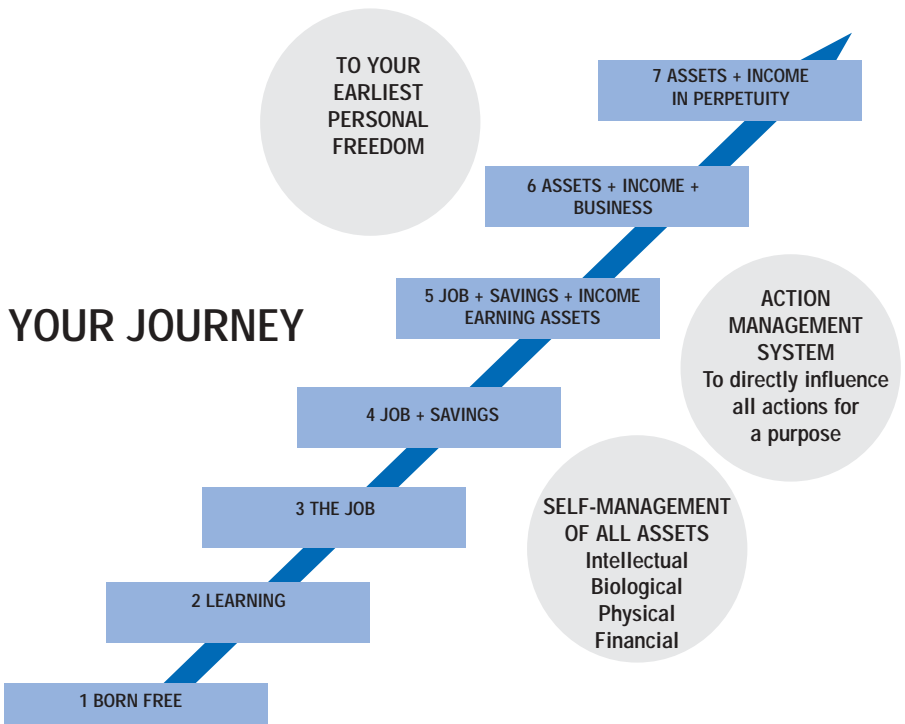
The goal can be set as freedom or your "Earliest Financial Independence". The starting point is the biological event, birth, and the end for the individual is the biological event, death. The assets live on and will provide the next generation with a stepping-stone for their new journey.

How long the journey takes depends on where you start, the number of re-starts you need and how fast you progress. Others have been on the journey and it would be silly to ignore their hard learnt lessons.

The journey starts by understanding what the Action Management System is and how it could be of benefit to you.

THE INDIVIDUALS' JOURNEY

The emphasis on the household should not hide the modern relevance of the individual. Fundamental to the future evolution of social structures is the role and behaviour of the individual. Some of the inescapable social principles that have emerged from our studies, and are considered in this book, are:

The independence, yet dependence of the individual.

Each person makes his or her own decisions with the consequent implications.

Freedom of choice for the individual.

The individual is free to make whatever decision they like and should be encouraged to make their own choices.

An infinite array of choices available to the individual.

The word infinite is used advisably but there are literally an infinite number of options to choose from for even one of the household functions, e.g. shelter. Lots of things to buy but do we have the means to buy them?

The approach to collating the data and describing the household systems that has been adopted in this book has been to begin to focus on the household, rather than the individual. However there are many reasons why in future these studies will be orientated to the individual; e.g. the nature of the biological entity, the diversity of individual choice and the government driven economic approaches that are emphasising the need for individuals to be responsible for their own destiny. Governments generally will no longer provide support systems for the population at large, i.e. a common solution for all diverse individuals. Of necessity the book starts at the macro level and moves into the behaviour of individuals, or deduces individual behaviour from macro information.

It is possible to propose some principles that may be the means to desired ends for the individual

- Set clear goals through out life.
- Have the right information and ability to make choices

- Having the ability to make a self-assessment of and analyse one's financial position

- Having a necessary level of financial understanding

- Having a level of "aging literacy" that recognises the new elements of aging

- Having the capability to implement the strategies necessary to carry out one's goals

- Opportunities

- Independence

- Choice/control

- Dignity

- Responsibility

- Peace of mind

- Legacy

- Security

- Achievability

THE BIOLOGICAL ENTITY

The primary biological entity for Homo sapiens is the individual, of which there are over 6 billion on the planet. Each of these has their own diverse and particular needs, that are not constant through time, and these needs are met in particular, and sometimes peculiar, ways for each individual.

Yet the common features among humans are very extensive. All higher animals are composed of eucaryotic cells, which are similar, organisationally and functionally. In the physiological context the uniformity of the higher animals is a feature and even in Homo sapiens the uniformity is significant even in very diverse features. It is possible to treat the population as basically one entity.

Diversity has to be recognised in maintaining the individual e.g. keeping healthy. The individual (the body) does exist as a collection of functionally different, specific and partially independent cells; yet they work together on agreed tasks. The cells are linked by a specialised cellular network (nerves), for communication, which ensures rapid, immediate and universal communication, integrated by the brain and linking the multiple input sensors with the output cells that supply the reaction to stimuli (e.g. muscles). All parts are calibrated to the same standards.

The information relevant to the development of the diverse whole is contained in each cell and it propagates and transfers the information to the next generation of cell or individual. Maintenance is continuous and the whole system can operate autonomously or in a default

mode that can be overridden by the individual. It works even when the individual is asleep. The information and the genotype are continuously evolving in response to external environment stimuli. The individual (the whole person) can be used as an analogy for the design and development of superior companies, institutions or societies.

Individuals have choice i.e. they are free to express their own solution to providing for their needs and this leads to an infinite number of diverse solutions to a common need. It is this diversity and variation in outcomes as a result of numerous independent decisions that is of most interest in exploring the behaviour of the population.

"I am only one; but still I am one. I cannot do everything, but still I can do something; I will not refuse to do something I can do."

> — *Helen Keller*

FREEDOM?

"Independence, yet dependence of the individual" It is problematic as to how free any individual is to make their own decisions; they may be born free but few are free politically, culturally, religiously or economically or all at once. Parents also have a major impact in what their offspring can or can't do. The network of interlinking economic relationships that now exist results in limited freedom for the individuals in the western world. Other individuals are limited by their circumstances: 826 million are undernourished; many millions physically unhealthy; and many millions lack reliable shelter from the ravages of the natural elements.

For those that seek economic "freedom", i.e. the source of an acceptable income without having to "work", there is the realisation that this is rarely achieved even by the time the individual seeks to leave the workforce voluntarily (retires) or forced to by virtue of age or ill-health.

The independence does not cover all aspects of the total life span of the individual. Early (after birth) and late in life, and in a debilitating illness or accident, the individual is dependent on others. The length of these periods is variable but still may account for 10% of the life period. Furthermore there may be periods of economic dependence on others, again for the same reasons but these may account for 20% of the total life span.

ASSOCIATIONS

Individuals are born into or form associations to assist in satisfying their needs and wants. This may be as partners, families, tribes, clubs, companies, institutions, states, countries and blocs.

The potential of an individual may be limited for most individuals if they had to do it all themselves. Safety in numbers, economies of scale, sharing resources, social interaction, providing moral support, are all some of the factors that lead to the drive for individuals to associate. The family (biological basis) or household (economic basis) has long been a

primary and universal unit. The household (family) is the level of association that is focused on in this study.

To understand the mathematical imperatives of associations take a look at the different communication networks that have appeared historically. The simplest are the "one-to-many" broadcast systems familiar from television. In such systems, the overall value of the network rises in a simple relationship to the size of the audience. The bigger the audience, the more you can charge for advertisements and the more valuable your network. To put it mathematically, when you have a "one-to-many" system, the value rises with n, the size of the audience. This relationship is known as Sarnoff's Law, after a pioneer of radio and television broadcasting.

The telephone network is a "many-to-many" system, where everyone can get in touch with everyone else. Here the mathematics are quite different. With n people connected, every individual has the opportunity to communicate with n-1 other people (you exclude yourself). So the total number of possible connections for n individuals = n(N-1) or n2-n. This relationship is known as Metcalfe's Law, after Bob Metcalfe, the inventor of computer networking. The value of a telephone network, which will be related to the number of possible transactions, n2-n, rises dramatically as n grows larger. Of course, not every person will actually contact every other person on the network, but the value of a "many-to-many" network increases with the number of users much faster than a broadcast system. That has been borne out historically with the growth of the telecommunications industry.

What about the Internet? At first it looks like just another telephone system, with e-mail replacing speech, and its value following Metcalfe's Law. But the Internet - and particularly the mobile Internet, which will hit us in force in 2001 - adds something extra. Internet users have the opportunity to form groups, in a way they cannot easily do on the telephone. Any Internet user can easily join discussion groups, auction groups, community web sites, chat rooms and so on. And now Internet users can build their own group meeting places and web sites.

David Reed, former chief scientist at Lotus Development Corporation, has recently shown, if you have n people they can in theory form 2N-n-1 different groups. You can check this formula by considering a 'n', of just three individuals, a, b and c. They can form three different groups of two people: ab, ac, cb and one group of three people abc, making a total of four groups as predicted by the formula. Or ten people, 1013 groupings. What's really remarkable about the mathematics of Reed's Law is that as n increases, the number of potential groups and the value of the network rise at an astounding rate. Of course, only a tiny fraction of potential groups will ever form. But that potential is so stupendous that a lot of the value of the web will be realised by facilitating its extraordinary power to form spontaneous groups.

The trend is already there to see. The early days of the Internet were dominated by a small number of centralised services (Sarnoff's Law), then e-mail exchange (Metcalfe's Law) and now the formation of groups (Reed's Law). This process will accelerate in new ways in 2001

and beyond. In 2001 third-generation high-speed mobile Internet phones are on sale in Japan. Soon afterwards, we'll see the readily availability of mobile phones/PDA's that allow people to read information from anywhere and transmit their precise location, wherever they are. In your pocket, you'll be able to carry a device that has a web connection faster than the one you have in your office, that can work from anywhere, and knows exactly where it is. And simpler tools will be available to build web sites tailored for mobile phone access. These developments will allow the formation of ever more fleeting groups in time and space.

NEEDS

Satisfying the needs for food (which will cost you $300,000 during your life) illustrates the variation and evolution of the needs of individuals and the role that associations can play in the present society. The functions that have to be undertaken in the food system are production, transport, storage, processing, preservation, preparation, presentation and consumption. Sometimes the functions are undertaken by the individual, family or community group for their own consumption and at a cost in their time to achieve it. It is possible for almost all functions to be outsourced by the individual or household and paid for by a source of income, frequently wages. In many Western households as much as 20% of the wages can be used to outsource in part or in whole, satisfying of the need for food and increasingly the trend in the more affluent groups is to outsource all aspects of the food chain.

Some needs of individuals are very specific and very necessary. One basic need is food and this need is satisfied in many ways, frequently beyond the fundamental need for energy, 8 ± 4 MJ per day per person, or the 9 elements, 8 amino acids, 6 vitamins and some anti-oxidants.

While 1 billion individuals are "undernourished", the other 5 billion are in various states of being "overfed". Food is more than energy and nutrition, it is part of a ceremony, and it is satisfying needs which are sensory in nature; sight, touch, smell and taste. There is an infinite combination of foods available to satisfy the "needs" of the individual, as illustrated by the supermarket shelves. The law of conservation of energy does apply and excess energy is converted to other forms in the body e.g. fat, with its potential flow on impacts on health.

"As global economies pass through various stages of economic development, the emphasis moves from centralised and industrially based to service-driven economies. Changing consumer behaviour, fuelled by rising affluence, parallels this. At the earliest stages of economic development, food consumption is survival-orientated. Sustenance from basic, traditional style commodity products is a prime requirement, and meals will be structured and family based. A gradual increase in income levels will lead to the development of a mass market and an overall increase in the purchasing of branded goods. Snacking will begin at level two of economic development. By level three, traditional meal structure will

be eroded in favour of grazing on the move and real opportunity for snack products emerges. In highly developed markets, consumers seek a balance between health and indulgence. Tastes are sophisticated and increasingly international and products are expected to be customised and convenient."

Socio-economic evolution and food consumption trends
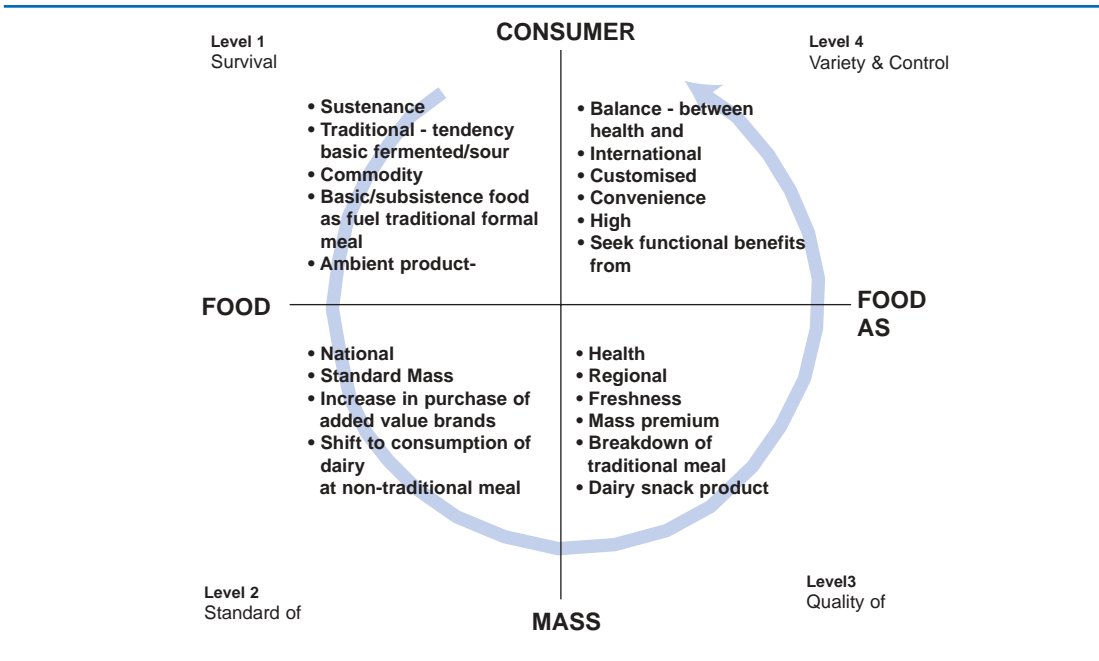
The infinite "needs" of an individual; physical, social and mental; food, clothing, shelter, entertainment, etc; and the infinite choices in each of these categories results in an infinite range of options available to an individual. The increased universal availability of information increases the options available to any individual. A tie, frequently worn with a suit, does not have any immediate obvious vital function and there are probably more than 1 million different ties to choose from in making the decision of which one to buy.

ASSETS

The individual is born with biological and intellectual (also biological) assets. Subsequently these assets are developed and added to in the form of physical and financial assets. The biological assets have been a major factor in tradition physical work favouring the strong, or the current "work" involving the beautiful, the entertainer or the sporty type. The intellectual assets are critical for the knowledge economy and can be developed by education, training and learning.

The biological assets require development and maintenance and their state can be described by their "health"; a state of complete physical, mental and social well-being, not just the absence of disease or infirmity. It is rare for any individual to be perfectly healthy.

1. Every person possesses all eight intelligences. These intelligences all function

together in different ways that are unique to each person. Most of us fall somewhere in between two poles — highly developed in some areas, modestly in others, and underdeveloped in the rest.

2. Most people can develop intelligence to an adequate level of competency.

3. Intelligences usually work together in complex ways. They are always interacting with each other. For instance, to play kickball, a child must be able to run and kick (bodily/kinesthetic), orient himself to the playing field and anticipate where the ball will land (spatial), and be able to argue a call (interpersonal and linguistic).

4. There are many ways to be intelligent within each category. For example a person may not be able to read, but may still be able to tell a great story. (Both rely on linguistic intelligence.)

Source: *Multiple Intelligences in the Classroom* by Thomas Armstrong (ASCD, 1994)

The physical assets of land, buildings, cars and equipment are a traditional form of household asset and they also require development and maintenance. The financial assets and their management are frequently out sourced. Households develop financial assets through the medium of savings or "Superannuation", which can be voluntary or imposed by government regulation and thereby restricting their choice.

CRITICAL DECISIONS AND PERFORMANCE

There is a universal search underway to find a measure of how well our society is satisfying the needs of individuals in the short term and improving the planet in the short and long term. It is not the intent of this book to find the currently indefinable single measure, although others will use the findings in their search for the universal measure. The approach adopted here is to leave the decision on what makes the individual "happy" to the individual. What we will investigate is what levers have to be pulled to achieve it.

Individuals consciously or unconsciously make decisions that impact their own and subsequently the family, nation or global performance. It is possible to identify several categories of critical financial decisions that a person will make. These could include:

Choice of Lifestyle. To smoke or not to smoke; to gamble.

Choice of Career. Wages, profession, self-employed (time dependent)

Savings. To save or not to save, how much, when

Marrying. Why, when and to whom

Children. How many, when and for how long

Acquiring Assets. Buy a house or a car, when

Managing debt. How many credit cards, how many loans, what rate

Protecting Assets. Insure against what and how much

Handling Risk. For a given age or level of assets what risk position

Discretionary Income. Save it? For education, holiday, celebrations
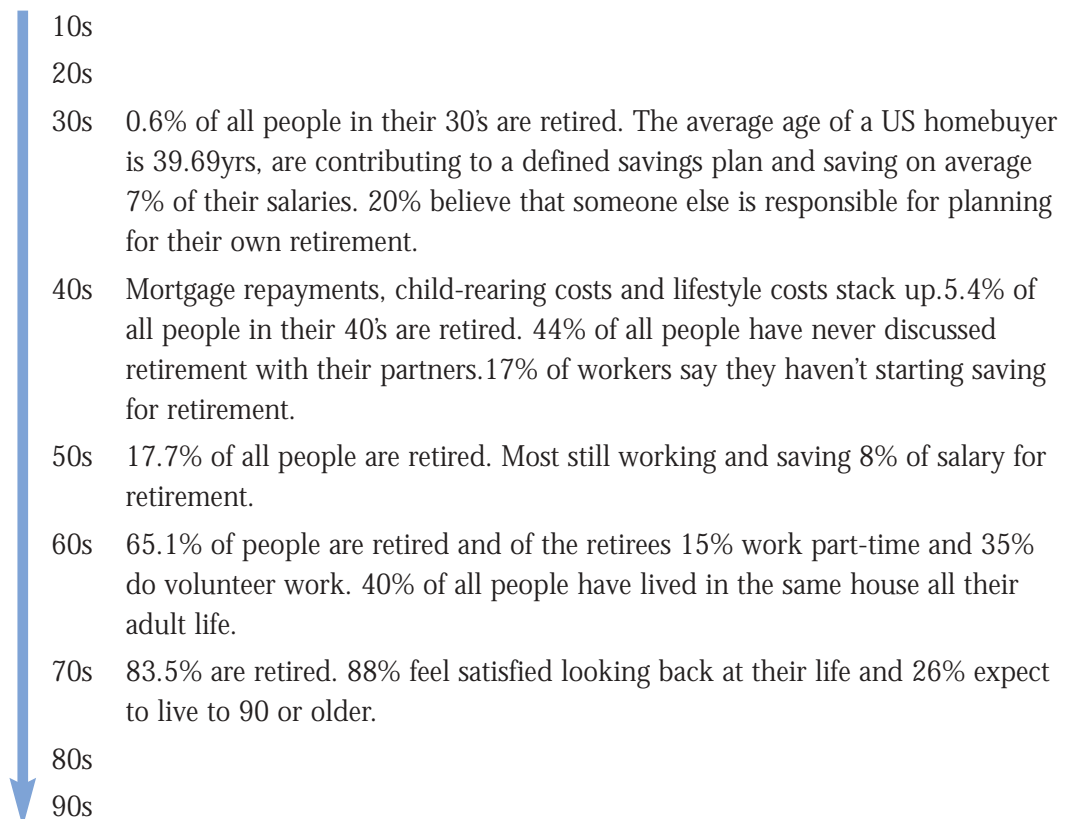
This is only a small number of the decisions but these alone are enough to make or break an individual financially. The need is to understand the implications of these decisions and know the likely outcome before the decision is made. Otherwise the individual is contractually locked into positions that will prevent the performance being the best that could be obtained given the particular circumstances.

THE LIFFETIME JOURNEY

The lifetime journey includes more than the few critical decisions that have been discussed above, and it necessary to examine the decisions made in isolation, the interactions between the decisions and the multiple of continuous decisions that are made consciously or by default. Frequently the steps are described as birth, growing up, work, and marriage, buying a car, buying a house, children, independence, retirement, and death.

The magazine, Fortune devoted the issue of 14/8/1999 to Retirement and had a feature article on the "The Road to Retirement, Decade by Decade" although not all decades were covered. This article vividly illustrated some of the differences occurring among the USA population as they age. Some of this information is given here.

DECADES FROM BIRTH

10s

20s

30s   0.6% of all people in their 30's are retired. The average age of a US homebuyer is 39.69yrs, are contributing to a defined savings plan and saving on average 7% of their salaries. 20% believe that someone else is responsible for planning for their own retirement.

40s   Mortgage repayments, child-rearing costs and lifestyle costs stack up.5.4% of all people in their 40's are retired. 44% of all people have never discussed retirement with their partners.17% of workers say they haven't starting saving for retirement.

50s   17.7% of all people are retired. Most still working and saving 8% of salary for retirement.

60s   65.1% of people are retired and of the retirees 15% work part-time and 35% do volunteer work. 40% of all people have lived in the same house all their adult life.

70s   83.5% are retired. 88% feel satisfied looking back at their life and 26% expect to live to 90 or older.

80s

90s

Age is an obvious category that will be important in unlocking the full potential of the household treasury. More important though will be the consequences of decisions made in one decade on the next. The impact could be cumulative, either positively or negatively. The journey for most individuals will be a learning experience; the objective of this study is to prevent the errors that history can teach us.

THE INDIVIDUAL AND THE FREE MARKET

Two and a quarter centuries ago the Scottish philosopher Adam Smith used a particular metaphor to describe the competitive market system. He saw the competitive market as a system in which:

"...every individual... endeavours as much as he can... to direct... industry so that its produce may be of the greatest value.... neither intend[ing] to promote the public interest, nor know[ing] how much he is promoting it.... He intends only his own gain, and he is in this, as in many other cases, led by an *invisible hand* to promote an end that was no part of his intention.... By pursuing his own interest he frequently promotes that of society more effectually than when he really intends to promote it..."

Adam Smith's claim back in 1776 that the market system promoted the general good was new. Today it is one of the most frequently heard commonplaces. For Adam Smith's praise of the market as a social mechanism for regulating the economy was the opening shot of a grand campaign to reform how politicians and governments looked at the economy. The model of the operation of the market and the businesses making up the market can now be extended to the household, through the common denominator of people. The people in the household are the people in the business.

The success of any organisation or institution, public or private, is dependent upon many factors but the major one is people. Most organisations acknowledge this and frequently proclaim, "People are our greatest asset". If this were true, how do organisations measure and value this asset? What methods do they use to ensure that people create and add value to the organisation? Who are the people that create and add value to the organisation?

Business, public or private, is about people, activities are undertaken

- for people - customers (householders) and society (householders)
- by people - suppliers, managers, employees (householders), investors\(householders)

This collection of people is our definition of the business. Each of these parties seek their own individual needs from the business and these diverse needs have to be satisfied. The management of the expectation of these people is a specific management responsibility and currently there are no tools that optimise these diverse expectations. Inevitably there are significant conflicts of interest between the parties, which may vary between different parts of the organisation, either along the value chain or vertically from top to bottom of the organisation. The householder drives the business chain.

In order to value and manage the people factor in business, it is necessary to define how people contribute to business. The main areas of contribution are:

- Physically
- Socially
- Intellectually
- Financially, and
- Knowledgeably

These components do not act in isolation. Business has processes, systems, brand names, images and knowledge that it owns; these have to be seamlessly integrated with people. People can add value to these items and hence increase the intellectual property in the organisation. The overall intellectual value of the organisation is the combined value of that attributable to people and that resident in the organisation. The biological and intellectual assets.

The contribution of people to business is further modified by technology and unless the people, technology and intellectual property are seamlessly integrated, the performance of the business will not achieve its potential. Technology is the most important current resource, which can provide major leverage to add value to the contribution of people.

Customer and shareholder values are external measures of current performance (the output) of the organisation. These tend to be in financial terms and very tangible as they will impact the financial future of the company. Once these outputs are known it is too late to measure the, the bird has flown. The internal people and other factors can be measured as a capability. The capability will impact tomorrow's results. They are "future performance indicators" The capabilities of the organisation drive the future value. The future value of earnings drives the price of a company's shares, but it is the public (and private) perceptions of the capability of the organisation that causes speculation of the future value. To unravel some of the major factors contributing to the future value, it is necessary to describe the current key capabilities.

These include at the corporate level:

- External Relations
- Strategic Directions
- Corporate Processes
- Technology Management
- People Management
- Financial Management
- Conformance Management

At the operational level, they include:

- Marketing Focus

- Operating (Production) Process

- Systems Development

- Research and Development

- People Practices

- Customer Relationships

- Supplier Relationships

These capabilities are expressed as externally measured values to the shareholders, the customers and the community. The shareholders will construct a value from

- Return On Investment (The Shareholder)

- Strategic Positioning and Alliances

- Intellectual Property

- Cash Flow

- Tangible Assets

- Public Image

The customer (revenue from the products measure) the values are more immediate,

- Value of Products

- Quality of Products including Reliability

- Convenience including Availability

- Customer Service including Delivery

- Safety and Environmental Sensitivities

The community value is a combination of the shareholder and the customer value. It is apparent from these lists that there now exists some specific components that can be measured, tracked and managed to ensure that, through improvement in the corporate and operational capabilities. There will be seamless integration through to shareholder, customer and community value. The householder is at the start, middle and end of this value chain.

The Inescapable Mathematical Logic

It is mathematically logical, and inescapable, that if the individual customer (Householder), shareholder (Householder?) and the community (Householder) values are known and described, then it should be possible to produce the algorithm that will describe the total

process of conversion of raw resources to the ultimate prescribed output. This requires quantification of all steps in the conversion, the resources required, the timing and the efficiency of each activity and the external controls over the processes.

A mechanical approach to action this is structural analysis, with the processes broken down into their elements and subsequently reconstructed to see if the reconstructions conform to the original. The visualisation of these processes and the ability to run scenarios ensure that the output is realistic and optimisation of that the total system is possible.

This approach is applicable to the conversion of sunlight into sugar, natural gas into petrochemicals, wheat into bread, a policy into an institution, or a bill into a payment, savings into householder satisfaction. The discipline of science, the approach of the engineer and the expertise of the analyst can be combined to apply these approaches to all aspects of the business. A household is a fluid, dynamic, complex of numerable activities that generate value only because they are sequentially and geographically organised, generate feedback, create and store knowledge and have outputs to the householder, business and the community.

It is with the confidence of a scientist that it is possible to begin to generate models that can describe the household and business, and in this case the contribution, role and

ACTION MANAGEMENT SYSTEM
Asset Management Assurance

ASSETS	Acquire	Protect	Maintain	Develop
BIOLOGICAL	✪	✪	✪	✪
INTELLECTUAL	✪	✪	✪	✪
PHYSICAL	✪	✪	✪	✪
FINANCIAL	✪	✪	✪	✪

responsibility of people within the household to the household and the business. This will cover all assets, for the whole of life and for all stages of the asset, as shown in this figure.
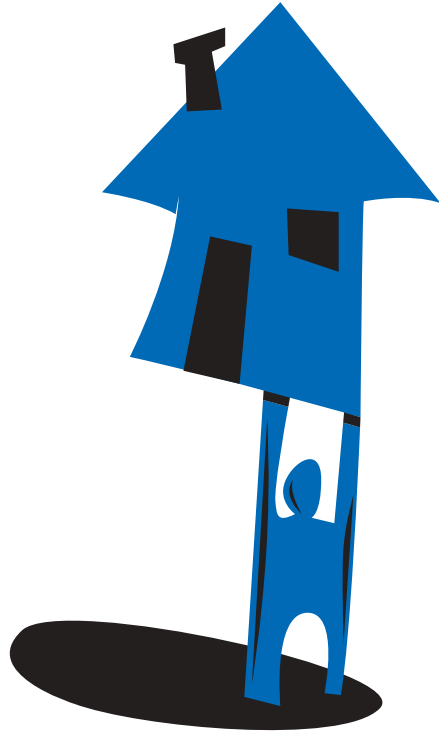
The approach that is adopted in this approach to home management is:

> **"Management of the whole of living;**
>
>> **For the whole of life;**
>>
>>> **To create greater freedom and value".**

12

THREE HOT TIPS

1. MANAGE YOURSELF

EVERYONE HAS DREAMS AND SETS GOALS, BUT WHO KEEPS THEM?

The Need is for:　　*You to be Your Own Personal Assistant*

　　　　　　　　　　To manage your time, so that you

Will increase your

- **Choice**
- **Freedom**
- **Opportunity**
- **Wealth**

You may need assistance to :

Find, Deliver and Assure household services to your specifications

- Home management services for planning, projects, assets
- Trade services, plumbing, electrical, house cleaning etc
- Professional experts as and when required
- Advice on wealth generation
- Emergency services

Find, Deliver and Assure household products to your specifications

- New homes, maintenance, extensions or hardware goods for DIY householders

- New Car and Car Parts

- Household products

- White goods

- Insurance and Loans

- Land

2. MANAGE YOUR CASH

THE FOUR STEPS TO CASH CONTROL

1   Organise your finances

- Save first, spend after

- Prepare your own balance sheet

- Determine your long and short term goals

- Estimate your long term wealth position

2   Track your income, expenses and guarantees

- Know where your money is going

- Keep account of income and expenditure

- Review the Home Management Plan Monthly

3   Manage your cash flow

- Forecast money in and money out

- Investigate impact of major decisions on cash flow before the decision

- Maintain a career, house, car and super plan

4   Be your own Bank Manager

- Understand the power of compound interest

- Save funds and loan them back to self with interest

- Have an investment plan

3. MANAGE THE HOUSEHOLD

1   Ensure the Income.

Know what you are worth. Test your capability. Develop your skills. Market your skills. Plan your promotion. Prepare an Income **Development Plan.**

2   Maintain and Develop the Assets.

Protect the income and wealth earning assets, especially one's health as well as the house, car, boat and financial investments. All must have maintenance plans to ensure their long term earning capacity or to retain value. **Maintenance Plans for Self, House, Car, and Investments.**

3   Save Wherever Possible.

If you can save $100 per month without decreasing your standard of living, this will be worth $1m in 40 years before tax. Superannuation at 9% of the salary is a good savings scheme if it is invested so as to get the right interest rate. Have a **Savings Plan**.

4   Invest in Valuable Assets.

That have strong short and long term earning through interest dividends or capital gains (+10%pa?). **House, Car, Investment and Superannuation Plans**.

5   Share.

The 30% shared through the tax system is a very generous sharing arrangement, and not the only one. Ensure the taxes are well spent.

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