

SAVING AND INVESTING: GROWING YOUR MONEY

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In Unit 2, you learned how to manage your money and increase your spare cash. Now you need to put that money somewhere. You could keep it in your pocket, stash it under the mattress, keep it buried in the garden or lock it away in your bedroom. But are these really good choices? Perhaps not. So where are some of the best places to put the money you save?

Depending on your goals and the amount of money you have, you could begin investing.

There are many different types of investments. You've probably heard of various investment types such as savings accounts, shares and property. Your goals will help you work out which investment is right for you.

Some investments limit the access you have to your money, others give you access whenever you need it. With some you know exactly how much money you'll have at the end, whereas others are affected by unpredictable things so the end value is not known.

We know that there is a lot to get your head around when you invest money, but there are some real advantages to learning about investing early. This unit will help you get started.

Your first investment

When you start working, it's likely that your employer will make superannuation contributions on your behalf.

Super is your money to use when you've stopped working and are in retirement.

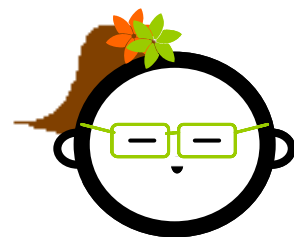
Even though you can't touch it now, you do have some control. It's important to think of super as an investment and apply what you learn in this unit.

Open your mind

Mel stashes all her money in her bank account. Why? Because that is what her parents do. Over the years she's listened to them at the dinner table... "Look at what shares did today, the prices change all the time!" And, "How could you sleep at night not knowing how much money you really have?"

This kind of attitude has rubbed off on Mel - she believes her bank account is the best place for her savings.

But, after reading this unit, Mel realises that by just putting money in a bank account she could be limiting her options and potential.



Step one in making your money work hard for you is understanding the basics. Here are three to get started with...

1 Time value of money

Time value of money means that money is worth more now than it is in the future. If someone offered you \$100 today or \$100 in two year's time, you'd take it today - who wouldn't? This is because that \$100 is worth more to you today. Why? Because you can put the money to use... right now.

How could you use the \$100? One option is to spend it, and in return you get whatever you purchased.

But what if you saved or invested it? What's your reward then? Well, when you save or invest your money, you receive earnings or interest on your original sum. That's your reward – a payment for allowing a financial institution or company to use your money while you are not.

2 Inflation and taxes

Inflation can eat into your savings. How?

Inflation occurs when the price of goods and services rise. We've had inflation in our economy for decades, ranging from barely 0.5% to over 18% in a year. Fortunately, inflation usually averages between 3% and 4% per year.

But what does that mean, and why should you care? It means that you're going to be paying more in the future for the same trainers, skateboard, purse or hamburger than what you pay for them now.

Inflation can add up over a long period of time because it continues to occur year after year, even in small amounts. The result is that a dollar in the future won't buy as much as today's dollar. So when you're thinking about saving for your long-term goals, you need your money to grow fast enough to beat inflation. Let's see this in action...

Today, a can of soft drink costs \$1. You have \$2 in your pocket, you buy the soft drink and put the remaining \$1 in your savings account, where it earns 5%.

Next year, the dollar in your savings account is worth \$1.05. You take your savings out and go to buy your favourite soft drink, until you realise the price has gone up to \$1.10.

Inflation has gone up faster than your earnings! Can this really happen? You bet. It has and it will. Inflation can work against your money, so learn to invest wisely, follow the rate of inflation, and make sure your investment rates are higher than those of inflation.



Lena often wonders how much her kids will have to pay for sports shoes. At 3% inflation in 30 years time, they'll be paying \$291 a pair.

Lena pays \$120, so that's nearly **2 ½ times more than what she pays now!**

Taxes also affect your investments. When you earn interest in a savings account, the government taxes those earnings just like income from a job. If you buy and sell investments, like shares, the government taxes you on any gains or profits you make.

3 Compounding

When your money is working for you it grows in value, or compounds.

Compounding, or compound interest, is the idea of earning interest on interest. This is one of the greatest aspects of personal finance, so you should probably listen up and read on.

Assume you have \$100 in an account earning 10% interest per year. At the end of that one year, you have \$110 in your account. In year two, your account also earns 10%. How much do you have at the end of the second year? \$120? No, you actually have \$121.

Where did that extra dollar come from? Compounding. In year two, you still have your original \$100 working for you at 10%. But you also have the \$10 of earnings – from year one – working at 10% as well. Multiply \$110 times 10%, and you get a total of \$11 of earnings for year two. Add that to your account value at the end of year one, and you wind up with the \$121.

The power of compounding

Assume you have \$10 today. Using the various interest rates listed in the table below, fill in the compound value of \$10 for each of the time periods listed.



For example, \$10 growing at 4% is worth \$10.40 after one year. For the second year, multiply \$10.40 by 4% and add the result to \$10.40, for a total of \$10.82.

	1 yr	2 yrs	4 yrs	6 yrs
4%	\$10.40	\$10.82		\$12.65
5%				
6%				
8%				
10%				

The rule of 72

Mathematicians have come up with a simple rule based on the concept of compounding. It's called the Rule of 72, and it tells you how long it takes your money to double in value.

Here's how it works. You divide 72 by the interest rate to determine the number of years it will take your money to double. For example, assume you can earn 6% on your money. How long will it take \$100 to grow to \$200?

$$72 \div 6\% \text{ interest} = 12 \text{ years}$$

That's right. At 6%, your money will double in value in 12 years.

On the other hand, you might have a set time period in mind. You can figure out what interest rate you need to earn to double your money in this set period. If you have \$200 today and need a total of \$400 in eight years, what interest rate do you need to earn?

$$72 \div 8 \text{ years} = 9\% \text{ interest}$$

With eight years to invest, your money will double if you can earn 9%.

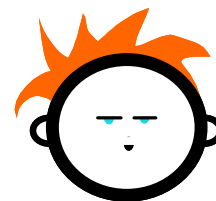
Use compounding to your advantage

Start early

We touched on the importance of time earlier when looking at the time value of money. But let's expand on that. The fact is, the more time you have to reach your savings goal, the more money you could have at the end of that time.

The advantage of starting early

For example, Nick decides to invest \$1,000 a year— money he earns from working at Macca's – in an account that grows by 9% per year. He's disciplined and continues to invest \$1,000 a year for 10 years. He stops when he turns 25.



Nick tells Baz (the *Midget Safari's* drummer) about the money he's saved over the past 10 years, and he realizes that putting a little bit away for a long time can make a big difference. So at age 25 Baz starts putting away \$1,000 a year (earning 9%). After 25 years Baz and Nick get together and compare how much money they've made.

Who made the most? Even though Baz invested more than twice as much as Nick, Nick ends up with over \$46,000 more. Why? He took advantage of time, by starting to save earlier.

Nick		Baz	
Age	Saving Early	Age	Saving Later
16	\$1,000	16	
17	\$1,000	17	
18	\$1,000	18	
19	\$1,000	19	
20	\$1,000	20	
21	\$1,000	21	
22	\$1,000	22	
23	\$1,000	23	
24	\$1,000	24	
25	\$1,000	25	
26		26	\$1,000
27		27	\$1,000
28		28	\$1,000
29		29	\$1,000
30		30	\$1,000
31		31	\$1,000
32		32	\$1,000
33		33	\$1,000
34		34	\$1,000
35		35	\$1,000
36		36	\$1,000
37		37	\$1,000
38		38	\$1,000
39		39	\$1,000
40		40	\$1,000
41		41	\$1,000
42		42	\$1,000
43		43	\$1,000
44		44	\$1,000
45		45	\$1,000
46		46	\$1,000
47		47	\$1,000
48		48	\$1,000
49		49	\$1,000
50		50	\$1,000
Amount available at age 50	\$131,050	Amount available at age 50	\$84,701

Nick invested a total of **\$10,000**

Baz invested a total of **\$25,000**

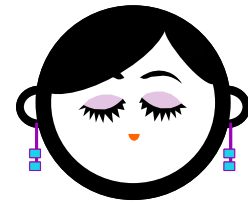
Difference due to starting early **\$46,349**

Aim for higher returns

Rate of return is how fast your money grows. It is a critical factor in the savings and investment world.

You read earlier that the more time you have, the less money you need to reach your goal. In a similar way, the higher your rate of return, the less money you need to reach a goal.

Kim did get hold of that \$100 and surprisingly (?!?!?) decided to invest it. She's got two choices: Investment A grows at 4% per year, while Investment B grows at 8% per year. How much will each investment be worth after 10 years?

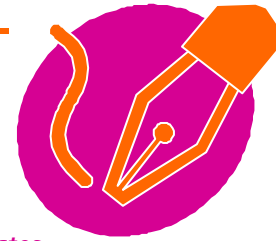


Even though both investments could be started with the same amount of money, at the same time, and grow for the same time period, Investment B is worth \$68 more. Why?

Because it grew at a higher rate of return.



The impact of higher returns on savings and investments



Now, let's see how the Rule of 72 applies to higher rates of return...

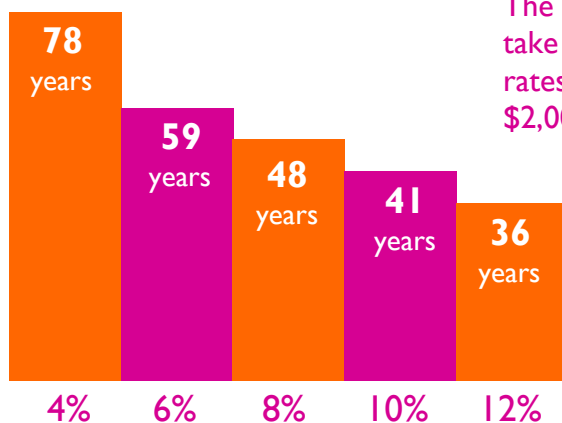
Assume you have \$100 to invest right now. Using the interest rates provided and your knowledge of the Rule of 72 (if you need to refresh your memory, go to Page 37), determine how long it will take to double your money and write that amount in the appropriate column.

Interest Rate	6 yrs	9 yrs	12 yrs	18 yrs	24 yrs
3%					
4%					
6%					
8%					
12%	\$200				

Make a million?

Rather than trying to win a lot of money through games of chance, you can make your own luck through smart investment planning.

The graph shows how long it will take to save \$1 million at different rates of return, assuming you invest \$2,000 each year.



Imagine, if you were to invest more, you'd reach your goal that much faster!

Savings and investment choices

There are many ways to put your money to work for you. The information that follows provides a broad picture of the choices available. All of the options have pros and cons, and some work better in certain situations.

Generally, people put their money to work for two reasons: income or growth. Income means they get paid – in cash – for holding certain types of investments. Growth means they hold an investment in the hope that it will increase in value over time.

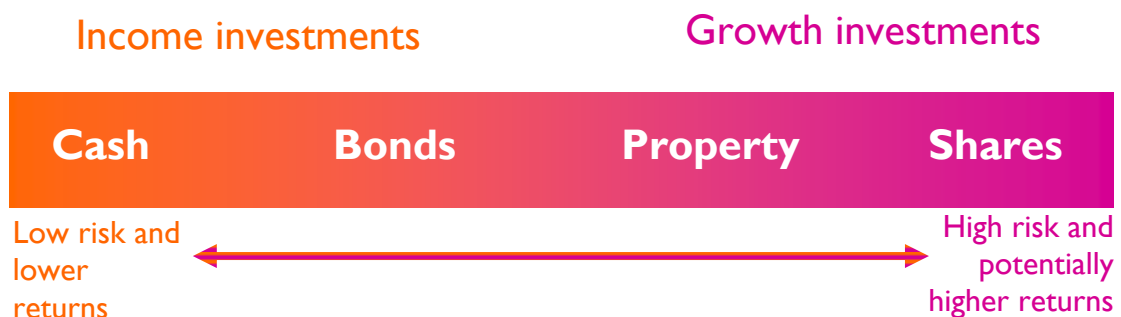
In terms of months or even a few years, income investments tend to provide more reliable returns. Over the short term they are less risky than growth investments, and their returns are therefore lower.

Over longer periods of time, such as several years or decades, growth investments offer higher returns. But the returns come with a price – higher risk – and there are no guaranteed returns.

This risk-to-return relationship means the more risk you take with your money, the greater the potential return you receive. However, the reverse is also true – less risk, less return on your money.

On the following pages you'll learn more about each of the investment choices available – cash, bonds, property and shares.

Remember that each has a different risk and return potential. The diagram below shows how they all fit together.



Owner or lender?

If you are a lender, you lend your money to a financial institution, a company or the government and receive interest. If you are an owner, you buy a piece of a business or property and hope the value rises. Lenders typically take on less risk than owners, so owners tend to get paid more – but there's no guarantee.

Income investments (Lending your money)

● Cash

Savings accounts

This is your normal everyday bank account, which may have an ATM card, or cheque book attached to it. By saving your money with a bank or credit union you are, in effect, loaning your money to these financial institutions. In return, the financial institution pays you for the loan. These payments are called interest. Savings accounts are low risk investments, which means they also tend to pay low interest rates. You can usually take your money out at any time with no restrictions.

Cash Management Trusts (CMTs)

CMTs are similar to savings accounts in many ways – you can access your money at any time, and you can have an ATM card or cheque book attached to your account. However, there are some key differences. Most CMTs have limitations on how much must remain in the account (usually a few thousand dollars) and how much you can invest or withdraw at a time (usually a few hundred dollars). But in return for these limitations CMTs pay a higher interest rate than savings accounts.

Term deposits

When you invest money with your bank or credit union for a specified period of time, you get a guaranteed interest payment at the end of the period. Term deposits can range from one month through to five years, and if you withdraw your money early, you can lose some (or all) of your interest.

● Bonds (fixed interest)

This is when you lend money to a company or the government for a fixed period of time. In return for your loan, you are paid guaranteed interest at certain times, and at the end of the period you get your money back. You can invest for one year, or up to 30 years.

Growth investments (Owning something)

● Shares

Shares (also known as equity or stocks) are investments that represent ownership in a company. When a company first issues shares, it does so to raise money. The company then puts that money to work to produce its product or service. It might buy some new equipment, or it may hire new employees. The investors who purchase the shares actually own a part of the company.

Because the price of a share is dependant on how a company is doing (or performing), the share price can go up or down. Ideally, when you buy a share you want the price to go up, so when you sell it you've made some money. The difference between the purchase price and the selling price is the investor's earnings, which are also called a capital gain.

For example, you invest \$1,000 in a company's shares – you buy 100 shares for \$10 a share. Seven years later, you decide to sell your 100 shares, but they're now worth \$25 a share – making your investment now worth \$2,500. The difference in the buy and sell price, \$1,500, is known as your profit or capital gain.

When buying shares, you have to remember that prices can go down as well as up. Imagine if you decided to sell your shares when they were worth \$5 a share – you then would have made a loss of \$500.

How can you tell which companies you should buy shares in? No one can predict the future. But some people spend their lives researching which shares are the best to buy. They're known as stockbrokers and you can get advice from them when you want to invest in shares.

Over longer periods of time – such as five years, 10 years or longer - shares tend to generate higher rates of return than income investments. But because shares can also lose value, they are considered to be riskier than income investments. On the plus side, growth investments like shares have historically earned rates of return that consistently beat the rate of inflation.

Test it out for yourself

Pretend that someone on the side of the road just gave you \$15,000. OK, so it's highly unlikely, but just pretend anyway.

Go to the end of this unit and try the share market simulator. Being good at investing in shares is something you CAN learn... so why not start practicing?



● **Property**

Investors buy property, such as land or a building, in the hope of generating a profit. Your parent(s) or family owns property if you live in a house owned by a family member. When you own property like this, it can take some time to sell and it's not always easy to turn this type of investment into cash. Property investments can range from shopping centres and apartment complexes to undeveloped land, commercial buildings, and farmland. You can also invest in property through the share market – this is called listed property.

● **Collectibles**

Collectibles are usually unique items that are relatively rare in number. Examples include paintings, sculptures, and other works of art. If you own a collection of footy trading cards, you have collectibles. Just like shares or property, collectors buy items they hope will go up in value over time.

Because relatively few people trade collectibles, investors view them as very high in risk. What is popular and in demand one year may be 'out' the next. Prices for collectibles can change quickly and dramatically. It definitely helps to have expert knowledge about a particular collectible, like classic cars, so you know if you're getting a good deal or not.

Managed funds

When it comes to making investment decisions, investors always have a choice. They can go it alone, or they can hire a professional to make their money management choices for them. Investors who want professional management turn to managed funds.

A managed fund pools money from several investors and uses the money to buy a particular type of investment, such as shares. A fund manager is an investment expert who makes the decisions around when to buy or sell the investments in the fund.

These funds can be created for several different purposes or objectives. Some are designed to produce income, and invest in bonds or other income-producing items. Other funds are designed for growth and invest in shares or property.

Managed funds invest in almost any area of the business world. There are funds that invest in technology, in food and agriculture, in government bonds, in foreign countries, in energy, and even in gold and other precious metals. So if you have a particular interest in a product or service, and you want to invest in the companies that are part of that industry, you can do so by hiring a professional money manager and investing in a managed fund.



Because managed funds are made up of a variety of investments, investors enjoy the benefits of diversification. **Diversification** simply means spreading your money among different choices. When you divide your money up among varying types of savings and investments, you reduce the chance that any one of them will really hurt you financially with a drop in value. You are reducing (or managing) your investment risk (or chance of a loss) by diversifying your investments.

Managed funds are available through most financial services companies – such as banks, credit unions and fund managers.

Most of these organisations have websites where you can access information or use interactive tools to help you learn more.

Some sites will also let you compare what's available. For example:

www.ninemsn.com.au
www.moneymanager.com.au

Superannuation

Your first managed fund is likely to be your super fund. When you begin full-time (or even part-time) work your employer will make contributions on your behalf to a super fund.

These payments are made directly – you don't see the money, so you're not tempted to spend it. Remember, this is the money you're likely to live off in retirement once your working days are over and your income drops away.

By law, your employer has to contribute 9% of your salary to superannuation.

(Unless you are under 18 and working less than 30 hours per week OR earning less than \$450 per month).

OK, retirement is way, way, way off! Why think about it now? This is the trap many of us fall into, and many people in the past relied on the government to support them after they stopped working. But things are changing. We're all living longer and we're retiring earlier. (Which is good news.) More good news is that we're cramming more in to retirement, like taking holidays... it all looks fantastic.



Go to the calculator page on www.asfa.asn.au, click on the SuperSmart Planner and have a play.

The calculator assumes 9% contribution by your employer, but you can experiment with salary, your contributions and how long you'll be contributing for. See how this can affect how much you could have when you retire (final lump sum box). Did you have any idea about how much you might save?

Now for the bad news. With more of us retiring and living longer, as time goes on Australia will have more older people than younger people. This means that the government can't afford to support all these long-living, fun-loving oldies.

So these days we need to pay for ourselves in retirement. Which means one thing: start saving now.

When you do start contributing to super, take advantage of your situation. Remember the power of compounding and the advantages of starting early, and think about putting in some extra payments.

It's worthwhile spending some time on – your super is likely to be the second largest asset you accumulate in your lifetime (after the family home). In Australia, it forms 20% of the wealth of the average household.*

* *Levels, patterns and trends of Australian household saving – A report prepared for the Financial Planning Association of Australia (FPA), November 2002, by the National Centre for Economic Modelling (NATSEM).*

Getting the right advice

With so many different types of funds it's not always easy to know what to choose. Financial planners can help by spending time with you to find out about your needs and circumstances. They then draw up a plan and make a recommendation to suit your needs.

The Financial Planning Association (FPA) is the industry association that can help you find a financial planner and let you know what planners should be providing to you.

To find a financial planner, visit the FPA's website – www.fpa.asn.au and use the *Find a Planner* tool. If you already have a planner (or someone recommends one to you), use this tool to check that they are certified and / or a member of the FPA - it's important to get someone who knows what they're doing and has to follow set guidelines and ethics. They are dealing with your money after all.

When you visit a financial planner they'll ask lots of questions to find out your goals, how much risk you want to take on, and to generally understand more about your money situation. The planner will then look at this information and recommend where you should invest your money. The recommendation is given to you as a financial plan.

To help you understand more about financial planning and what should be in your financial plan, the FPA and ASIC (Australian Securities and Investments Commission) have produced a brochure called *Don't Kiss Your Money Goodbye*. It's really easy to read and your parents might even be interested in it. Just download it from www.fpa.asn.au/services/brochures/asp or from www.fido.asic.gov.au.

Your rights

Under the law, you have the right to complain if you are not happy about any aspect of a financial product or service.

Check out www.fido.asic.gov.au - they have some important information on the steps you should take, your rights and how to make a complaint. ASIC is the consumer protection regulator for financial services. In this role, ASIC protects investors, superannuants, depositors and insurance policy holders.



Step 1

To make it easy, we've selected three companies you might have heard of for you to 'invest' your \$15,000 in, but you can always choose other ones if you want to. Each company listed on the share market has a three-letter code. The one's we have selected are:

Company	Sharemarket code	How much should I invest?
Qantas	qan	\$5,000
Telstra	tls	\$5,000
Coca-Cola Amatil	ccl	\$5,000

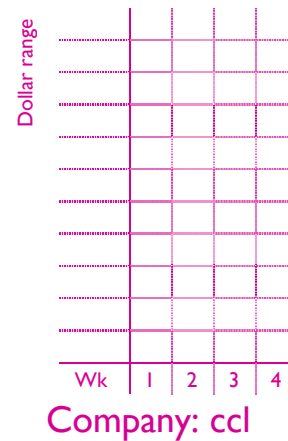
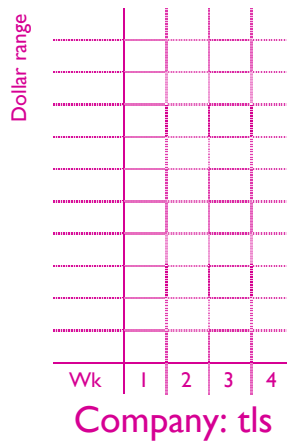
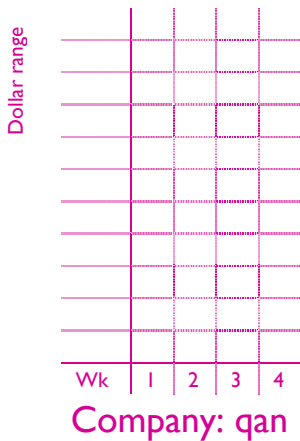
Step 2

Go to www.asx.com.au and enter the Sharemarket Code into the 'Get a price' box, and click 'Go'. Then, work out how many shares you can buy at Today's Opening Share Price (TOSP):

Sharemarket code	Today's Opening Share Price (This is the price in the Open column)	How many shares can I buy? ($\$5,000 / \text{TOSP} =$ number of shares)
qan		
tls		
ccl		

Step 3

Now, it's time to follow the share price for each company for the next four weeks. Just go to www.asx.com.au at the end of every week and plot the share price on the graphs below. (Don't worry about the number of shares you have for this step – just see how often the share price changes – or doesn't change). For each of the different companies, you'll have to fill in the dollar range on the vertical axis...



Step 4

After four weeks, it's time to see how much your shares are worth. Just find out Today's Opening Share Price (TOSP) and fill in the box below. Did you make or lose money?

Sharemarket code	Today's Opening Share Price	How much are my shares worth? (TOSP x number of shares (from Step 2) = investment value)
qan		
tls		
ccl		