



Tomorrow's Consumers

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1. Foreword

Tomorrow's consumers

"We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next 10. Don't let yourself be lulled into inaction." – Bill Gates.

In this 15th AMP.NATSEM Report, we make an attempt to look forward at what will continue to be top of mind for most consumers – spending money.

How will Australians spend their money in 2020 when most of the Baby Boomers are in their retirement years? What items will be more common on our supermarket shelves and what kinds of shops are more likely to make up the malls of the future?

What will be the implications of an ageing population on business and the economy in general? And what will be the savings and investment implications for individuals – both younger Australians and those who will mostly have moved into retirement?

As with any prediction about the future, the one thing we know for sure is that we are likely to get it wrong. As the British journalist Alistair Cooke once said, "Man has an incurable habit of not fulfilling the prophecies of his fellow men".

However, if there is one thing it would be foolish to bet against, it is the inevitability of demographic change and the significance this will have on Australia's future.

Tailwind effect

For investors, whose returns are driven by increasing consumption, the future will continue to be rosy for those companies that are in the right markets at the right time. Just what those markets will be continues to be the elusive question.

A study by McKinsey & Co in 2005¹ demonstrated that the "tailwind effect" of being in the right markets at the right time can be as important for a company's growth prospects as the quality of the management or the success of its acquisition strategies.

The study showed that US markets and segments that offered favourable growth environments supported by established trends, such as ageing populations and deregulation, showed the best growth prospects during the economic cycle from 1994-2003. These segments included high tech, healthcare, financial services and retailing.

In Australia in 2020, according to this AMP.NATSEM Report, some of the potential growth areas could include aged care, medical and therapeutic appliances, leisure and gambling. Industries that produce consumables such as snack foods and baby foods, toy producers and early childhood care and education providers, might just tread water or even decline.

Older households

This change in consumer markets is a result of a population where households headed by older people, aged 55 or more, are likely to increase in number by around 1.4 million over the next 15 years, compared with an increase of around 385,000 households headed by someone aged 15-54.

The implications for business generally are for a forecast decline in economic growth from an average 3.75 percent per annum growth over the past 40 years to an average 2.25 percent per annum growth over the next 40 years².

Less growth in consumption and profound changes in the types of goods and services demanded by customers might mean a challenging future for many of those businesses that are currently enjoying prosperous times, while providing real opportunities for others.

And for those businesses counting on increased spending and consumption among households aged 65 or more in 2020, they might need to think again.

Over 65s

While the number of households headed by someone aged 65 or more will increase by around 1 million between 2004 and 2020, to represent more than 25 percent of all Australian households, the over 65s will only contribute 15 percent of total spending.

This is partly because, as older people, they just don't need to consume as much as when their children were still at home and they were in their peak spending days. And it is partly because, as we have investigated in previous AMP.NATSEM reports, many older Australians will have not saved enough assets to enjoy the lifestyle they thought they could enjoy.

On the other hand, we might see older Australians coping with this challenge by working longer, perhaps in a part-time capacity, to supplement their retirement income. There is a long-term shift in the way Australians are thinking about retirement – away from the idea that a person works up until a certain point in their life and then stops, to a person having options about easing themselves out of the workforce and into retirement over time.

It is also possible that they will change their savings behaviour as they heed the messages about the need to save an adequate retirement nest egg. If we look back 15 years, the notion that everyone would be largely responsible for funding their own retirement was entirely alien to most people. Now, there is some solid evidence that it is becoming widely accepted in our community.

1. Smit S, Thompson C M, Viguier S P, "The do-or-die struggle for growth", The McKinsey Quarterly, Number 3, 2005.

2. Henry K, Address to the Australian Industry Group's National Industry Forum, 9 August 2004.

Private pension growth

Australia's private pension market is forecast to grow from \$800 billion to about \$2.5 trillion within 10 years, eclipsing the size of Japan, China, India and the rest of Asia combined³ – an extraordinary achievement for a country our size given we represent only 2 percent of the world's population.

We also are yet to enjoy the expected benefits of the changes announced this year to abolish end-benefit taxes on retirement savings for people aged 60 or more. These are changes that will have long-term benefits for Australians. There's the obvious benefit of not having to pay tax on retirement savings. But an underlying benefit is that it should encourage Australians of all ages to put more into their superannuation. The positive impact of this policy change over the long term cannot be underestimated.

Two-phased retirements

This AMP.NATSEM Report reinforces the two-phased nature of retirement – one phase early in retirement when people have their health (and increase their spending on leisure, including gambling) and another phase later in retirement when people's health starts to become more of an issue. This is one of the main contributors to the big forecast increase in spending on health and medical services over the next 15 years.

Good advice can help retirees plan for both of these phases of retirement, so that retired people can spend what they need on leisure and still have income to pay for the health care expenses that will follow. While asset allocation is important in this process, having the retirement savings in the first place is the best way to deal with the challenge.

It's not too late

This 15th edition of the AMP.NATSEM Report shows the potential impact of an ageing Australian population. Its publication comes at a very interesting time for Australians who are looking to plan for the very future it describes.

The majority of the Baby Boomer generation still planning for their older years do so in an environment that is more conducive than ever to good retirement outcomes – markets have been strong, retirement incomes policy is more flexible and, according to AMP's own qualitative research, they are very motivated to take action.

It's not too late for Baby Boomers to still enjoy spending their time in retirement. As challenging as the future can sometimes appear to be, arguably there has never been a more exciting time to approach retirement.



Craig Dunn
Managing Director, AMP Financial Services

3. Allianz Global Investors. Asia-Pacific Pensions, Reform Trends and Growth opportunities, June 2005, Axis Australia.

2. Introduction

This report analyses the likely changes in consumption that population ageing will produce by 2020. Relatively fewer babies and children will result in very slow growth in related industries, such as baby food, nappies, and children's clothing and footwear. Conversely, the booming number of older Australians will produce strong growth for many health-related products and services.

Australia is currently experiencing population ageing. The combination of the sharp fall in fertility allied with lengthening life spans has resulted in a population in which the old are growing ever more numerous. While in 1960 every person aged 65 years and over could potentially be supported by 7.3 working age Australians, that ratio is expected to fall to one retiree for every 2.4 working age Australians by 2040.

Population ageing is expected to create major fiscal headaches for governments, because of the higher health, aged care and pension costs associated with an ageing population (Treasury, 2002; Productivity Commission, 2005). Previous AMP.NATSEM reports have focussed on a range of other important issues related to population ageing, including:

- the lack of adequate savings among those nearing retirement age (AMP.NATSEM Report No 2)
- whether inheritance is likely to rescue the baby boomers from this lack of saving (AMP.NATSEM Report No 5)
- the meagre lump sums of early retirees (AMP.NATSEM Report No 7), and
- the possible work disincentives for those of working age created by effective tax rates (AMP.NATSEM Report No 14).

Earlier government research has examined the fall in labour force participation rates that population ageing is likely to produce (because older Australians are less likely than younger Australians to want to work and, when they do work, are more likely to work fewer hours). This is one of the key factors driving the forecast fall in economic growth in Australia, with Treasury expecting our economic growth rate to decline from the 3.75 percent a year that we have averaged over the past 40 years to only 2.25 percent over the coming 40 years (Henry, 2004).

This fall in the speed at which our economy is growing is bad news for government, because it means lower growth in tax receipts. But it is also bad news for industry, because it means slower growth in consumption and profound changes in the types of goods and services demanded by consumers.

Of the almost 1.8 million new households expected to be created between 2004 and 2020, only 145,000 of them will be headed by a person aged less than 45 years.



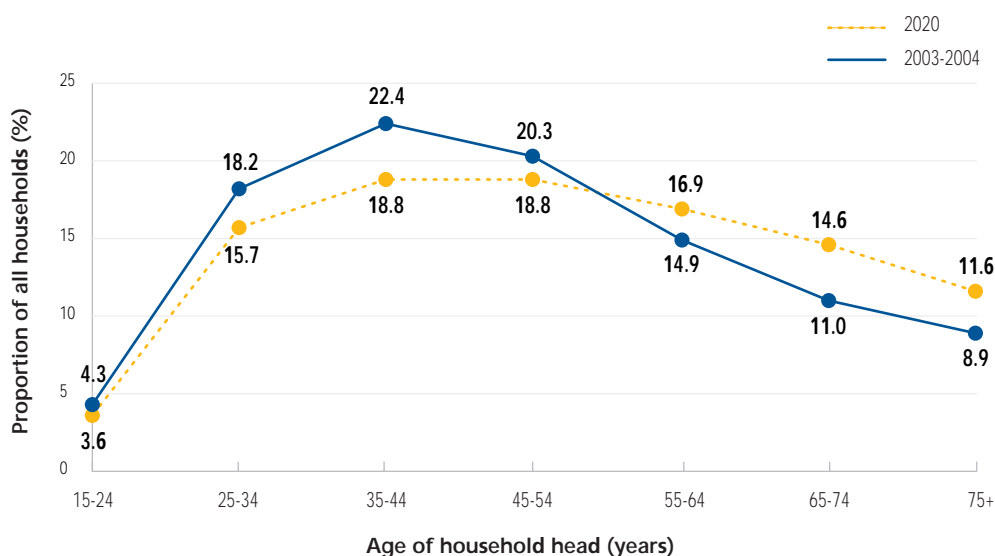
3. Population structure in 2020

To simulate the future structure of households in 2020, we took the snapshot of the population contained in the 2003-04 Household Expenditure Survey from the Australian Bureau of Statistics (ABS) and imposed upon it the expected population and labour force structure of 2020 (see Technical Notes for more details). Over these 16 years, the total number of households in Australia is expected to grow from 7.7 million to 9.5 million.

But there will be major changes in the composition of households. There will be more households headed by older people. As Figure 1 shows, while today 22.4 percent of households have a household head aged 35 to 44 years, by 2020 this is expected to fall to just under 19 percent.

There will be a pronounced fall in the proportion of households headed by younger to middle aged workers, with about 57 percent of all households in 2020 being headed by a person aged 15 to 54 years, down eight percentage points on 2004. In contrast, the proportion of all households headed by a person aged 55 years and over will grow from about 35 percent in 2004 to 43 percent in 2020. A striking one-third of this growth will be among the "old" old, with household heads aged 75 years and over. Because the "old" old tend to have lower incomes and poorer health, this has major implications for industry and our economy.

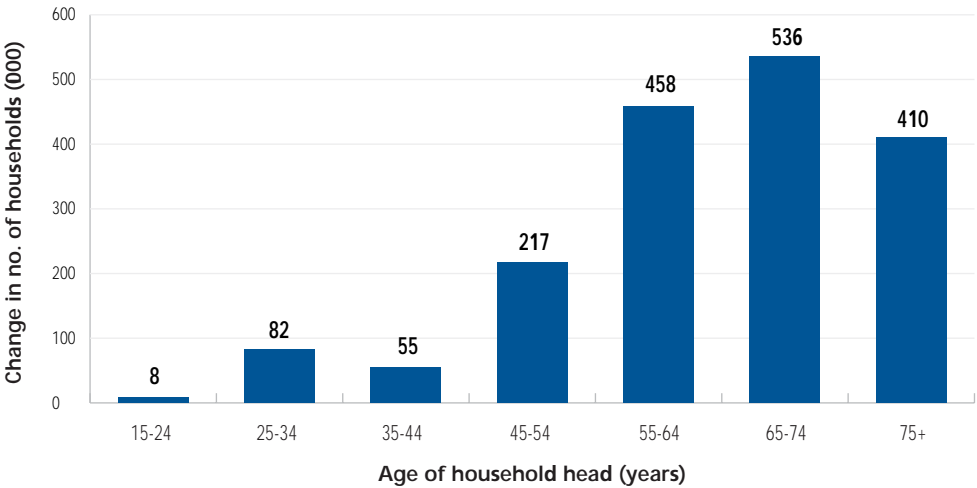
Figure 1 Forecast composition of households by age of head, 2004 and 2020



The strong growth in the number of households headed by older Australians is shown clearly in Figure 2. Of the almost 1.8 million new households expected to be created between 2004 and 2020, only 145,000 of them will be

headed by a person aged less than 45 years. In contrast, more than half a million of the new households will be headed by a 65 to 74 year old – and about 410,000 by a person aged 75 plus.

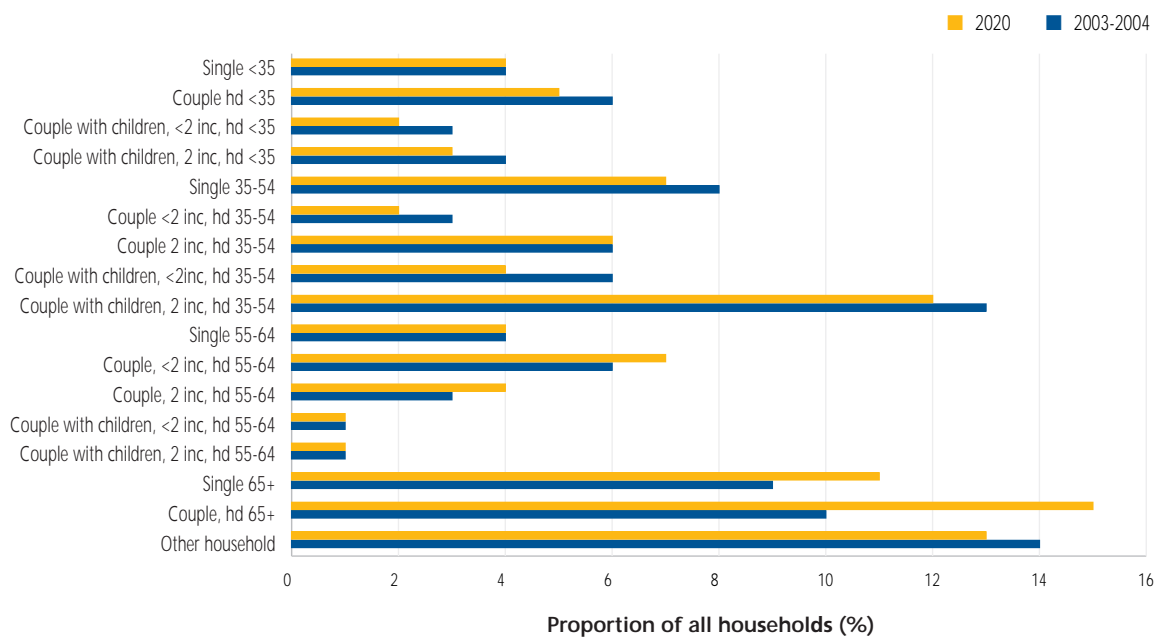
Figure 2 Forecast change in total number of households by age of head, 2004 to 2020



Total income for all households living in private dwellings is projected to increase from about \$452 billion today to about \$686 billion by 2020.



Figure 3 Forecast change in composition of households by household type and age of head, 2004 to 2020



Note: The "other household" category includes multiple family households and sole parents. The figures shown here may appear different to those in Figure 1 because, for example, some of those households classified as a "head aged 65-74" years in Figure 1 may live in multiple family households.

Figure 3 provides additional detail about the forecast changes in household type. While a notable feature of the past 10 years has been the growth in two income working age couples with children (Harding and Robinson 1999, page 23), population ageing is bringing this trend to its end. Instead, Figure 3 suggests that there will be strong growth in "empty nester" baby boomer households, with household heads aged 55 to 64 years whose children have finally flown the family coop.

This change in household composition is one reason why the growth in total spending is slightly lower than the forecast growth in total "real" income (that is, after taking out the impact of inflation). After making projections about earnings growth, we estimated that the "real" total income of the *average household* would increase by 24 percent between 2004 and 2020. While the first three columns in Table 1 trace the impact on the *average household*, the

next four columns show the changes in household demand for the *entire economy*. The percentage increases in demand for the whole economy are much higher than those for the *average household*. The reason is that there are expected to be substantially more households in 2020, with growth in demand partly coming from the *greater number* of households as well as the rise in projected expenditure *within* each household.

Because of the expected increase in the number of households, the 24 percent increase in the income of the average household translates into a 52 percent growth in total income within Australia (Table 1). That is, total income for all households living in private dwellings is projected to increase from about \$452 billion today to about \$686 billion by 2020. Total household spending is projected to increase from \$406 billion to almost \$610 billion a year.

Table 1 Forecast average and aggregate income and expenditure of households in 2003-04 and 2020

	Weekly average per household			Annual total for all households			
	2003-2004 \$	2020 \$	Change %	2003-2004 \$billion	2020 \$billion	Difference \$billion	Change %
Gross income^a	1,124	1,388	24	452.1	685.8	233.8	52
Current housing costs	143	169	18	57.7	83.4	25.7	45
Domestic fuel and power	24	29	23	9.5	14.4	4.9	51
Food and non-alcoholic beverages	153	189	24	61.5	93.6	32.1	52
Alcoholic beverages	23	29	25	9.4	14.4	5.0	54
Tobacco products	12	14	18	4.6	6.7	2.1	45
Clothing and footwear	35	43	21	14.2	21.0	6.8	48
Household furnishings and equipment	52	64	24	20.9	31.7	10.8	52
Household services and operation	54	67	23	21.8	32.9	11.1	51
Medical care and health expenses	46	60	31	18.4	29.5	11.1	60
Transport	139	172	23	56.0	84.7	28.7	51
Recreation	115	143	24	46.1	70.5	24.4	53
Personal care	17	22	25	6.9	10.6	3.7	54
Miscellaneous goods and services	79	95	19	32.0	46.9	14.9	47
Total current expenditure on goods and services	893	1,098	23	359.1	542.7	183.7	51
Repayment of principal on home	36	42	17	14.5	20.8	6.4	44
Other capital housing costs	58	68	17	23.5	33.8	10.3	44
Life insurance	3	4	21	1.2	1.8	0.6	49
Superannuation	20	26	29	8.0	12.6	4.7	59
Total expenditure	1,010	1,233	22	406.2	609.4	203.3	50

Note: All dollars are in 2003-04 dollars (that is, the table shows trends in real income and expenditure, after adjustment for inflation). Note that there are concerns about the accuracy of the superannuation figures when compared against other benchmark sources (as explained in Technical Notes).

a Gross income is total weekly household income from all sources such as wages and salaries, government cash benefits and investments, before income tax and the Medicare levy have been deducted.

Almost one quarter of all spending in 2020 will be from the pockets of households headed by 35 to 44 year olds, while almost another one quarter will be from those headed by a 45 to 54 year old.



More dramatic are the differences in spending growth between the various types of goods and services. Spending on housing is forecast to increase by only 45 percent, reflecting the lower housing costs of older Australians (who are more likely to have paid off all or a large slice of their mortgage). Similarly, spending on tobacco products is set to grow by only 45 percent, due to the increasing dominance of older households, with household heads aged 65 years and over being less likely to smoke than younger households (Harding and Percival, 1997, p. 19). In contrast, household spending on medical care and health is expected to boom, up by 60 percent by 2020 (Table 1). Other key areas where spending is expected to increase by more than the average include:

- alcohol
- household furnishings and equipment (such as carpets, cutlery and linen)
- recreation, and
- personal care services (such as hairdressing) (Table 1).

Spending trends within each of the broad expenditure categories used by the ABS are summarised in Figure 4. The final categories shown in Table 1 and in Figure 4 are termed "capital expenditures" rather than "current expenditures".

This is because such spending can be regarded as a form of saving rather than as consumption. These items include paying off part of the mortgage principal on your house and "other capital housing costs" (such as the purchase of investment properties and extensions). Including these capital spending items, total household expenditure on all goods and services is projected to increase by 50 percent to almost \$610 billion.

While expenditure on superannuation appears to grow substantially by 2020, it is likely that these figures underestimate both the current and likely future amount that will be invested in superannuation by Australians. Compared to the \$8 billion of voluntary contributions estimated to be put into superannuation in 2003-04 in the ABS Housing Income and Expenditure Survey (as shown in Table 1), the Australian Prudential Regulation Authority (APRA) reported in their 2005 Bulletin that Australians put \$22.9 billion into their super accounts between July 2004 and June 2005 (APRA, 2005:6). This refers to the amount contributed by employees (and thus excludes that contributed by their employers). As the ABS survey requires people to state how much they voluntarily put into super over the survey period, it is likely that this low figure could be the result of people not really knowing how much they contribute to superannuation each pay.

Figure 4 Forecast change in aggregate spending for broad expenditure groups, 2004-2020

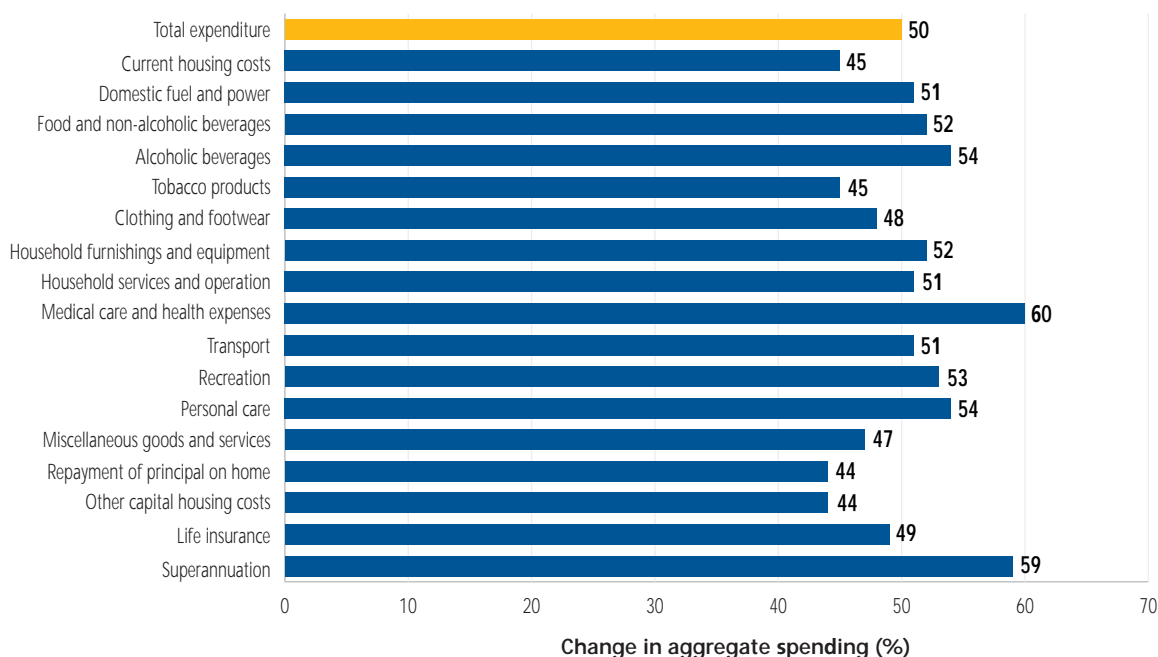
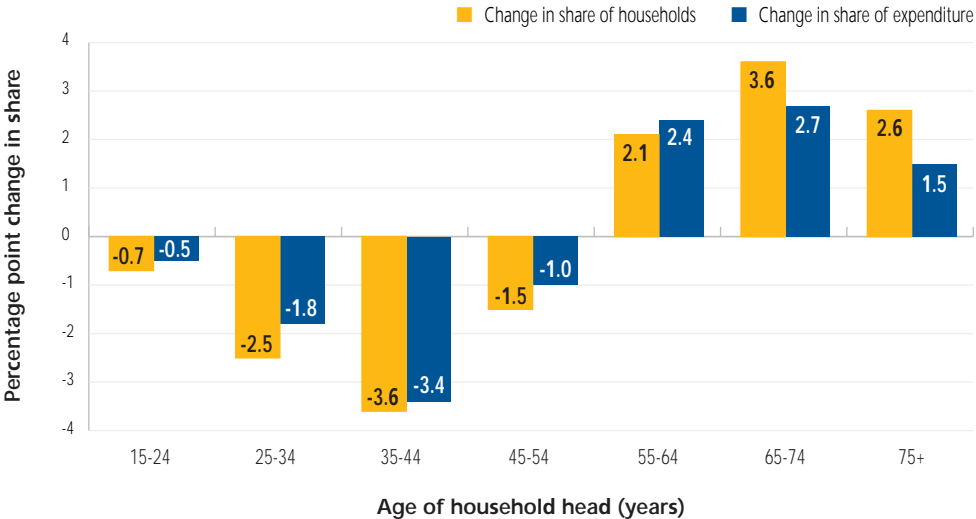


Figure 5 underlines the results presented earlier in Figure 1 showing, for example, that there will be almost a four percentage point fall in the proportion of all households that are headed by a person aged 35 to 44 years by 2020. However, this chart also illustrates why population ageing is not a boon for industry, as the lower incomes and spending of older households mean that their greater numbers are

not automatically translated into an equivalent growth in market share. Thus, while the proportion of all households headed by a person aged 75 and over is expected to rise by 2.6 percentage points, their share of total household spending is forecast to grow by only 1.5 percentage points (Figure 5).

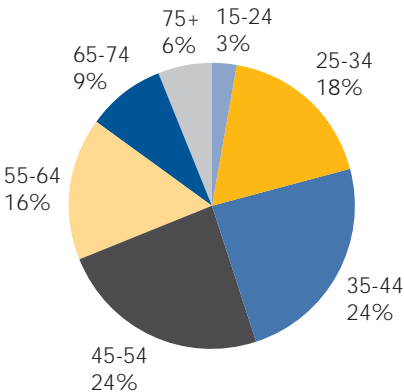
Figure 5 Forecast change in share of households and total expenditure by age of reference person, 2004 to 2020



This point is emphasised in Figure 6, which shows that working age households will continue to represent the largest markets for industry. Almost one-quarter of all spending in 2020 will be from the pockets of households headed by 35 to 44 year olds, while almost another one-quarter will be from those headed by a 45 to 54 year old.

Thus, despite the relatively rapid forecast growth in households headed by a person aged 75 years or more, this group will still only make up six percent of estimated total household spending in 2020. The key point for businesses planning their futures will be to take into account which market segments are growing most rapidly.

Figure 6 Forecast share of total expenditure by age of household head, 2020



Governments will have to think carefully about future rationalisation in the provision of school services.



4. The baby bust

Over the next 14 years, children will become a less numerous part of our population. The ABS projects that between June 2006 and June 2020 the number of children aged zero to 19 years will increase by a mere 58,000. In sharp contrast, the number of people living in Australia is forecast to increase by 3.1 million over the same period (ABS, 3222.0). This rapid change is due largely to the sharp fall in the average number of babies borne by Australian women, with fertility dropping sharply in the 1960s and the 1970s and remaining below the replacement rate ever since. These trends mean that by 2020, if you walk down a typical Australian main town street, you will be less likely to see children and more likely to see older people compared with today.

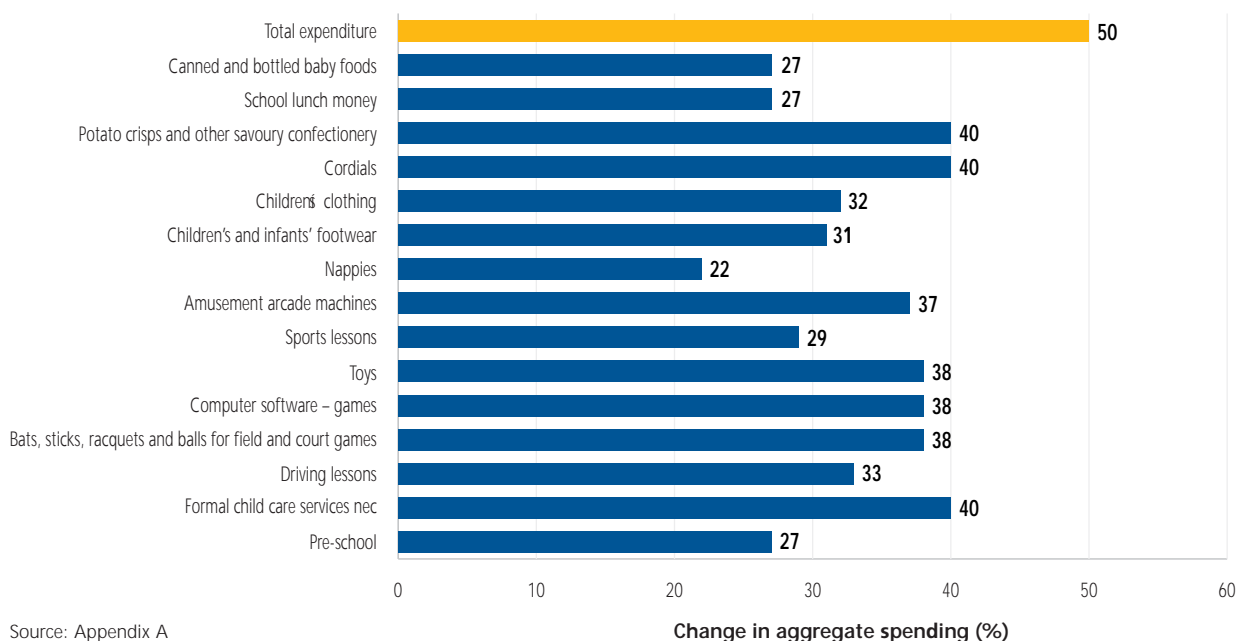
These changes will have profound implications for industry and the types of goods and services demanded by consumers. The food industry will have to take account of the baby bust, with a slump in demand for baby foods and those products particularly loved by children but not by adults, such as potato crisps and cordials. For example, total spending by households

on canned and bottled baby foods is forecast to grow by only 27 percent between 2004 and 2020, well below the average 50 percent growth rate notched up for total household spending (Figure 7). Similarly, nappy manufacturers can expect relatively bleak times, with only a 22 percent increase in total forecast spending on nappies.

Clothing suppliers will also have to shift emphasis from children's clothing to clothing for more mature consumers, with only a 32 percent increase forecast in total spending on children's clothing and 31 percent on children's and infants' footwear.

The baby bust will also lead to profound changes for sporting and leisure spending, with spending on sports lessons and equipment for field and court games expected to grow much more slowly than the average (Figure 7). Similarly, the amusement arcade machines that teenagers can play for hours may be less numerous in the future, with spending growth of only 37 percent. Spending on toys and computer software games will likely share the same fate.

Figure 7 Forecast change in expenditure on child related products and services, 2004 to 2020



Source: Appendix A

With relatively fewer teenagers needing to subject their parents to the harrowing experience of learning to drive the family car, spending on driving lessons is also expected to grow slowly, at only 33 percent.

The baby bust also has profound implications for government and business planning, with spending on formal childcare services expected to grow relatively slowly, despite the forecast increase in the number of working mothers. Total spending on pre-school services by parents is forecast to grow by only 27 percent, about half the rate expected for expenditure generally. This suggests that governments will have to think carefully about future rationalisation in the provision of school services, as some areas within Australia are likely to face sharp falls in the number of school age and pre-school age children living within their catchment areas.

An issue of key concern for parents is their children's school fees. Table 2 shows that in 2003-04 parents whose children were attending an independent (private) school at primary or secondary level were spending an average of \$130 per week on school fees. (This includes sports fees for secondary students.) Families with children at a Catholic primary or secondary school spent \$54 a week on average and parents of children at government schools around \$5 a week. These fees are, of course, in addition to other costs of schooling for parents, such as uniforms, school lunches and transport. In 2020 it is predicted that these fees will rise across all school types, with the greatest real-dollar rise being for independent school fees which are predicted to go up by \$37 a week.

Table 2 also shows the percentage of students in 2003-04 that attend each type of school by income quintile. Income quintiles are created by ranking all Australians by their equivalent disposable income and then dividing them into groups of 20 percent, so that the top 20 percent, or fifth quintile, comprises the 20 percent of Australians with the highest incomes. For the lower four quintiles, the majority of students in each income quintile attend government schools, although this proportion decreases as family income increases and as children become more likely to attend private schools. In 2003-04, more than half of all students in the top income quintile attended non-government schools. While attendance at Catholic schools also increases with income, around a fifth of all students in the second, middle and fourth quintiles go to Catholic schools, and a quarter of students in the top quintile.

Estimates for 2020 show little change in the distribution of students across school types. While our predictions for 2020 take into account increases in income and changing family structures, they do not project into the future a further trend away from government schools, so these results should be treated with caution.

Table 2 School attendance by type of school and income quintile and average weekly expenditure on school fees

School Type	Quintile of equivalent household disposable income					All	Average weekly expenditure on school fees	
	Bottom Q1	Q2	Middle Q3	Q4	Top Q5		2003-04	2020
2003-04	%	%	%	%	%	%	\$pw	\$pw
Government	80	75	70	64	45	69	5	7
Catholic	9	17	22	22	25	19	54	66
Independent	11	8	8	14	30	12	130	167
Total	100	100	100	100	100	100	34*	44*

Note: The percentages above represent the proportion of *all school students* attending the given type of school, at either primary or secondary level.

a The average weekly expenditure on fees is the average for all households that include a student attending the given type of school. The fee is the sum of primary and secondary school fees, and secondary school sports fees.

* Average weekly fee across all school types, for all households with school children.

As the baby boomers begin to worry about knee damage, very active sports will become less popular



5. Changing leisure spending

Population ageing is also expected to have a major impact upon leisure-related spending. Demographer Bernard Salt explains that the baby boomers have redefined old age, now regarding age 55 to 65 as their “lifestyle” period (somewhat like a second adolescence), with “retirement” being pushed back to 65 to 75 years and “old age” to 75 years onward (2005). As the “sea-changing” and “tree-changing” boomers enter a period where they want to have more fun, we can expect to see more of the grey nomads touring Australia. This is reflected in the 69 percent increase in spending on caravans shown in Figure 8, one-third higher than the projected increase in total spending. Spending on caravan park fees and caravan hire is also expected to escalate by around 65 percent.

Golf courses can also expect booming business, with a projected 73 percent increase in green fees.

The sea-changers will also result in strong growth for boating and fishing related goods and services, with a forecast 63 percent increase in boat purchase, parts and operation and a 55 percent growth in fishing equipment.

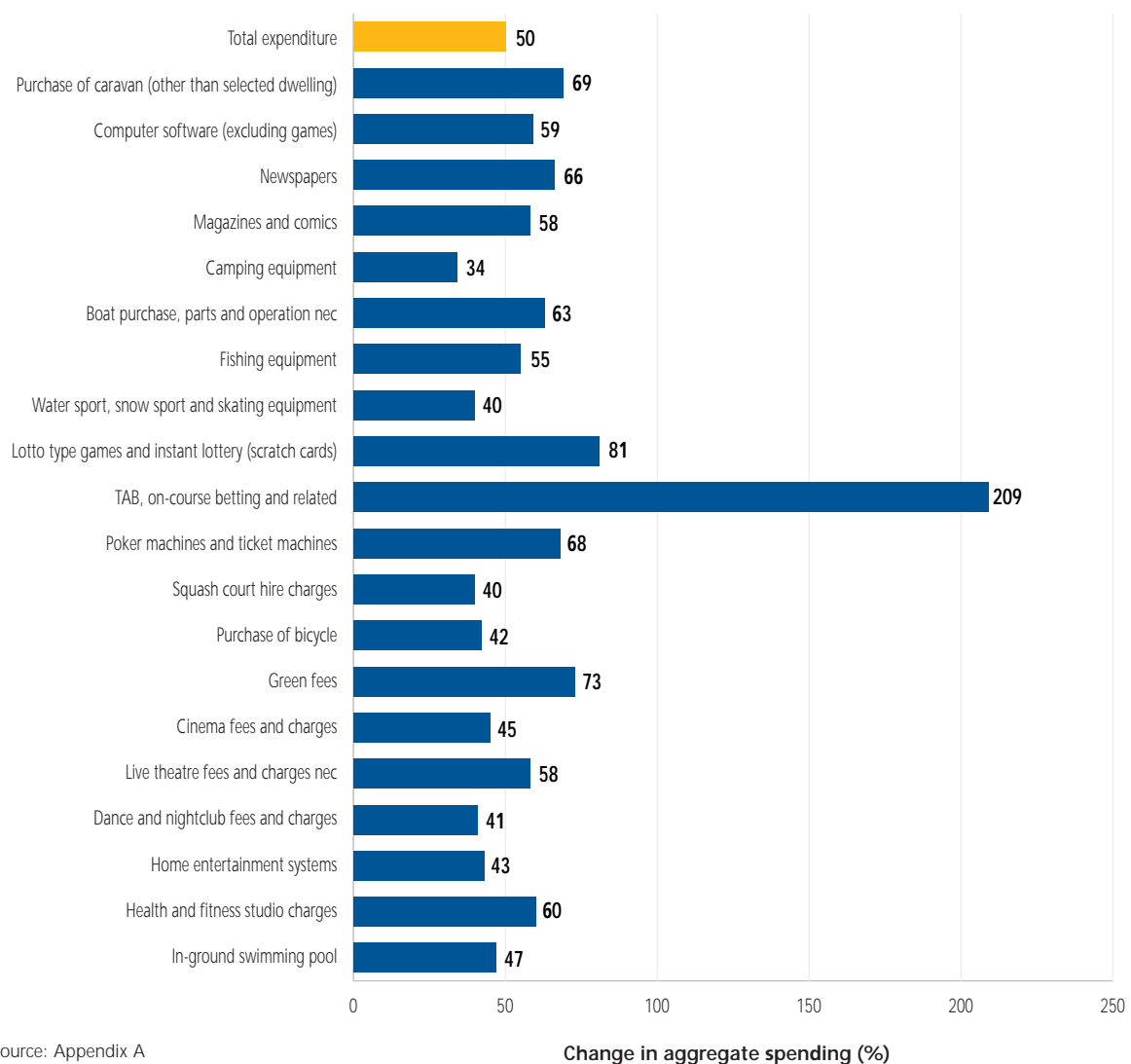
As the baby boomers begin to worry about knee damage, very active sports will become less popular. Spending on squash court hire is expected to grow by only 40 percent, while ski resorts already facing bleak seasons due to global warming will find their customer base growing slowly. Spending on water sport, snow sport and skating equipment is expected to grow by only 40 percent by 2020, one-fifth lower than the growth in average spending. However, spending on health and fitness studios is expected to grow more rapidly than average spending, as the boomers try to stay trim.

The baby bust leads to a forecast relative decline in bicycle purchases, while demand for camping equipment is expected to grow even more slowly, at 34 percent, as the boomers prefer the relative comfort of caravans to camping (Figure 8).

Once the sun goes down, the mature boomers also prefer different types of entertainment to younger Australians, with an expected increase in live theatre spending and a relative slump in nightclubs.

And finally, if the current preferences of older Australians continue into the future, then we can expect a boom in gambling. TAB on-course betting is projected to increase four times faster than average spending, with spending on lottery games and poker machines also expected to surge.

Figure 8 Forecast change in expenditure on leisure related products and services, 2004 to 2020



Source: Appendix A

The impact of higher health costs for consumers will be pronounced.



6. Escalating healthcare costs

Healthcare costs are expected to be the strongest growing component of the typical household's budget over the 16 years (Table 1). The two major government reports referred to earlier have confirmed that Federal and State governments should be very concerned about the likely impact of population ageing on government health costs. But this report suggests that the impact of higher health costs for consumers will also be pronounced.

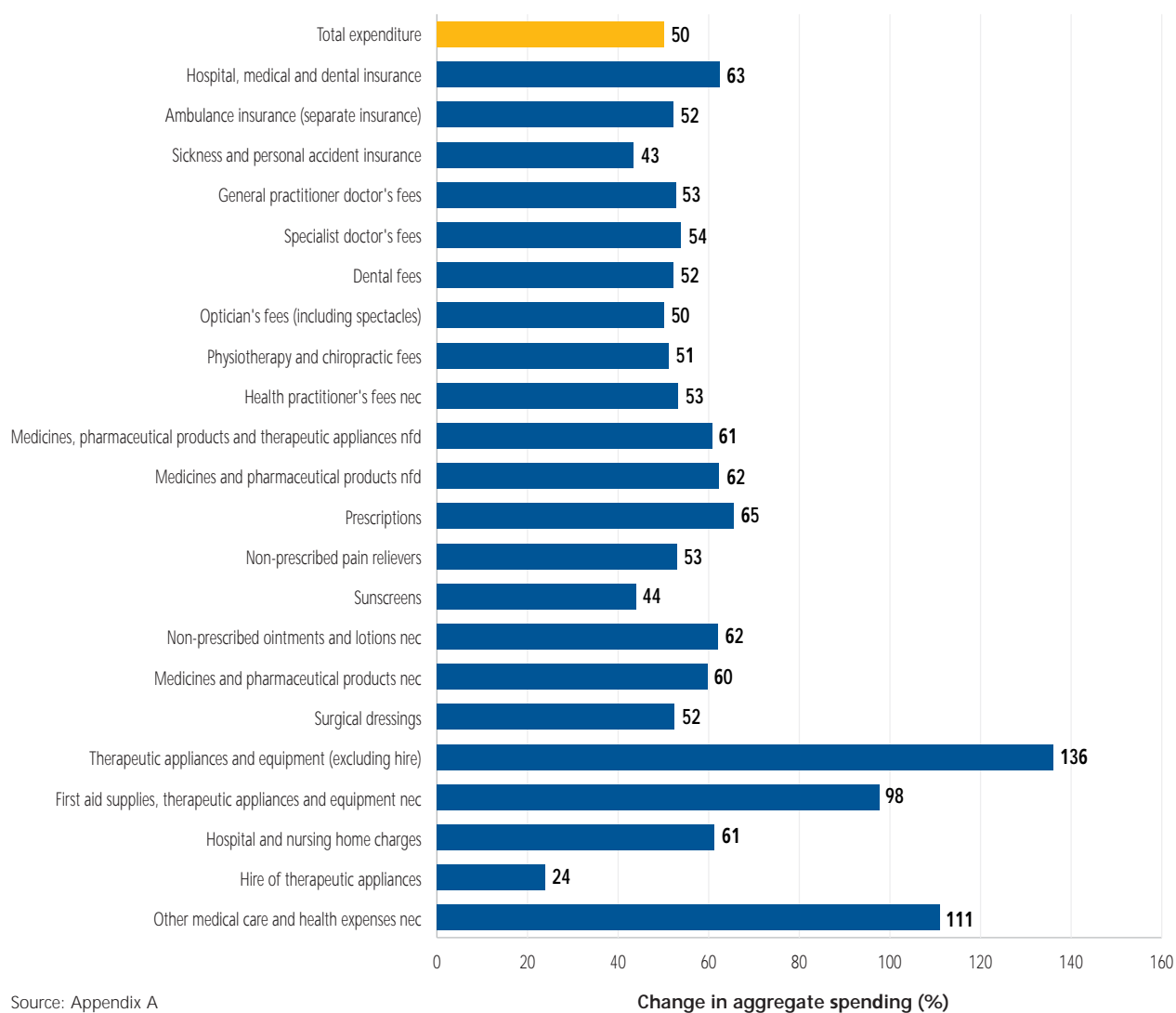
It is difficult to forecast future spending in such areas as prescriptions, where the price that will actually be paid will depend upon medical innovations that have not yet been made and upon Federal government policy decisions about the co-payments required from consumers under its Pharmaceutical Benefits Scheme (PBS). As described in Technical Notes, the methodology of this report essentially assumes that the real cost of pharmaceuticals to consumers will increase at the same rate as real incomes, with the higher than average growth in this and other healthcare items thus arising from the increasing number of older households (who spend more on pharmaceuticals, etc, than do younger households).

As a result of the ageing of the population, the single largest increase in health charges forecast is for purchase of therapeutic appliances and equipment such as wheelchairs; arm, wrist and knee braces; crutches; trusses; hearing aids, orthotics and heat lamps (Figure 9). The second most strongly growing area is medical care and health expenses not elsewhere classified, which is projected to double over the 16 years. These charges cover, for example, ambulance charges and transport, home nursing and repairs to therapeutic appliances. The third area of escalating health spending, set to increase at double the rate for expenditure on average, is first aid supplies and therapeutic appliances and equipment, which includes such items as:

- humidifiers
- syringes
- vaporisers
- thermometers
- contact lens holders, and
- medicine glasses.

Total spending on GP and specialist fees is forecast to grow somewhat more rapidly than total spending, while spending on prescriptions is expected to increase by 65 percent. Spending on other medicines and pharmaceutical products is also expected to grow about 60 percent, a growth rate one-fifth higher than the average for all goods and services.

Figure 9 Forecast change in expenditure on health, 2004 to 2020



Source: Appendix A

7. Conclusions

During the next 15 years, there will be pronounced changes in the characteristics of consumers, which will have profound impacts upon both business and government. By 2020, the large baby boom cohort will be aged 60 to 75 years and growth in the number of older households will be much more rapid than for younger households. About one million new “retired” households with a household head aged 65 years or more will be created between 2004 and 2020. This compares with less than 150,000 new households with a head aged less than 45 years.

This fast pace of demographic change will result in total sales of those goods and services preferred by older Australians increasing rapidly – while those associated with children will face a relative slump. Areas set for above average growth include:

- healthcare spending
- caravan sales
- gambling
- golfing green fees, and
- live theatre.

Areas facing a relative decline include:

- baby foods
- children’s clothing and footwear
- toys
- cordials
- sports lessons, and
- driving lessons.

Consumption trends during the past decade were partly driven by the rising number of two-income working age families, who spawned a boom in childcare and home help services, take-away and restaurant meals and short holiday breaks. But over the coming years to 2020, change will be more strongly driven by empty-nester baby boomers in their 50s and 60s – who are frequently two-income, but also beginning to save more seriously for their looming retirement – and by those who have already retired.

A. Detailed tables for selected expenditure

	Weekly average per household			Annual total for all households			
	2003-2004 \$	2020 \$	Change %	2003-2004 \$million	2020 \$million	Difference \$million	Change %
Selected child-related expenditures							
Canned and bottled baby foods	\$0.2	\$0.2	3.5	\$72.4	\$92.0	\$19.6	27.1
School lunch money	\$0.3	\$0.3	3.0	\$129.0	\$163.2	\$34.2	26.5
Potato crisps and other savoury confectionery	\$1.8	\$2.0	14.0	\$712.9	\$998.1	\$285.1	40.0
Cordials	\$0.4	\$0.5	14.3	\$168.5	\$236.7	\$68.2	40.5
Children's clothing	\$2.3	\$2.4	7.5	\$913.6	\$1,206.1	\$292.5	32.0
Children's and infants' footwear	\$0.7	\$0.8	6.9	\$290.0	\$380.9	\$90.9	31.3
Nappies	\$1.2	\$1.2	-1.1	\$501.9	\$609.8	\$107.9	21.5
Amusement arcade machines	\$0.1	\$0.1	11.3	\$21.0	\$28.8	\$7.7	36.8
Sports lessons	\$1.1	\$1.1	4.8	\$423.8	\$545.7	\$121.9	28.8
Toys	\$2.3	\$2.6	12.6	\$942.0	\$1,302.6	\$360.5	38.3
Computer software – games	\$0.2	\$0.3	12.3	\$97.8	\$134.9	\$37.1	37.9
Bats, sticks, racquets and balls for field and court games	\$0.2	\$0.2	12.4	\$82.3	\$113.7	\$31.4	38.1
Driving lessons	\$0.2	\$0.2	8.0	\$70.4	\$93.5	\$23.0	32.7
Formal childcare services nec	\$3.2	\$3.7	13.9	\$1,303.0	\$1,822.9	\$519.9	39.9
Pre-school	\$1.2	\$1.3	3.1	\$494.5	\$626.6	\$132.0	26.7
Selected leisure expenditures							
Purchase of caravan (other than selected dwelling)	\$0.5	\$0.7	37.9	\$192.6	\$326.2	\$133.7	69.4
Computer software (excluding games)	\$0.3	\$0.4	29.3	\$128.6	\$204.2	\$75.6	58.8
Newspapers	\$2.6	\$3.5	35.5	\$1,028.2	\$1,711.2	\$683.0	66.4
Magazines and comics	\$1.8	\$2.3	28.3	\$725.4	\$1,142.9	\$417.6	57.6
Camping equipment	\$0.3	\$0.4	9.0	\$134.2	\$179.8	\$45.5	33.9
Boat purchase, parts and operation nec*	\$0.4	\$0.5	32.7	\$143.6	\$234.2	\$90.5	63.0
Fishing equipment	\$0.5	\$0.6	26.1	\$184.6	\$285.8	\$101.2	54.8
Water sport, snow sport and skating equipment	\$0.5	\$0.5	13.9	\$186.9	\$261.4	\$74.5	39.9

A. Detailed tables for selected expenditure (continued)

	Weekly average per household			Annual total for all households			
	2003-2004 \$	2020 \$	Change %	2003-2004 \$million	2020 \$million	Difference \$million	Change %
Lotto type games and instant lottery (scratch cards)	\$3.5	\$5.2	47.0	\$1,417.5	\$2,558.9	\$1,141.5	80.5
TAB, on-course betting and related	\$0.1	\$0.2	151.2	\$35.7	\$110.1	\$74.4	208.5
Poker machines and ticket machines	\$0.8	\$1.0	37.1	\$303.9	\$511.7	\$207.7	68.4
Squash court hire charges	\$0.0	\$0.0	13.9	\$17.0	\$23.8	\$6.8	39.9
Purchase of bicycle	\$0.1	\$0.2	15.3	\$54.2	\$76.7	\$22.5	41.6
Green fees	\$0.8	\$1.2	40.9	\$329.7	\$570.6	\$240.9	73.1
Cinema fees and charges	\$1.9	\$2.3	18.0	\$777.3	\$1,127.1	\$349.8	45.0
Live theatre fees and charges nec*	\$0.9	\$1.1	28.4	\$343.2	\$541.1	\$197.9	57.7
Dance and nightclub fees and charges	\$0.5	\$0.6	15.0	\$216.7	\$306.0	\$89.3	41.2
Home entertainment systems	\$1.3	\$1.6	16.6	\$535.6	\$767.2	\$231.6	43.2
Health and fitness studio charges	\$1.4	\$1.9	30.2	\$577.3	\$922.9	\$345.6	59.9
In-ground swimming pool	\$3.2	\$3.8	19.7	\$1,278.2	\$1,879.4	\$601.2	47.0
Selected health expenditures							
Hospital, medical and dental insurance	\$15.4	\$20.4	32.3	\$6,190.0	\$10,059.0	\$3,869.1	62.5
Ambulance insurance (separate insurance)	\$0.2	\$0.2	23.9	\$78.4	\$119.4	\$41.0	52.2
Sickness and personal accident insurance	\$2.1	\$2.4	16.7	\$834.6	\$1,196.8	\$362.2	43.4
General practitioner doctor's fees	\$1.6	\$2.0	24.3	\$635.6	\$970.8	\$335.2	52.7
Specialist doctor's fees	\$4.2	\$5.3	25.2	\$1,705.1	\$2,622.3	\$917.2	53.8
Dental fees	\$5.7	\$7.1	23.9	\$2,307.1	\$3,511.1	\$1,204.0	52.2
Optician's fees (including spectacles)	\$1.2	\$1.4	22.2	\$474.0	\$711.5	\$237.5	50.1
Physiotherapy and chiropractic fees	\$1.1	\$1.4	23.0	\$452.3	\$683.5	\$231.1	51.1
Health practitioner's fees nec*	\$0.5	\$0.6	24.8	\$199.2	\$305.3	\$106.1	53.3
Medicines, pharmaceutical products and therapeutic appliances nfd*	\$0.5	\$0.6	30.9	\$187.4	\$301.3	\$113.9	60.8
Medicines and pharmaceutical products nfd*	\$0.8	\$1.1	32.1	\$334.4	\$542.8	\$208.4	62.3
Prescriptions	\$3.7	\$5.0	34.7	\$1,492.9	\$2,469.7	\$976.8	65.4
Non-prescribed pain relievers	\$0.6	\$0.8	24.6	\$254.1	\$388.7	\$134.7	53.0
Sunscreens	\$0.1	\$0.2	17.2	\$52.5	\$75.5	\$23.1	43.9
Non-prescribed ointments and lotions nec*	\$0.7	\$0.9	31.9	\$286.4	\$464.1	\$177.6	62.0
Medicines and pharmaceutical products nec*	\$3.3	\$4.4	30.1	\$1,347.3	\$2,152.3	\$805.0	59.8
Surgical dressings	\$0.3	\$0.3	24.1	\$109.6	\$167.1	\$57.5	52.4
Therapeutic appliances and equipment (excluding hire)	\$1.2	\$2.3	92.2	\$488.0	\$1,152.0	\$664.0	136.1
First aid supplies, therapeutic appliances and equipment nec*	\$0.2	\$0.3	61.0	\$77.0	\$152.2	\$75.3	97.8
Hospital and nursing home charges	\$2.2	\$2.8	31.3	\$872.2	\$1,406.8	\$534.6	61.3
Hire of therapeutic appliances	\$0.0	\$0.0	0.8	\$6.9	\$8.5	\$1.6	23.8
Other medical care and health expenses nec*	\$0.1	\$0.1	71.8	\$29.8	\$62.9	\$33.1	111.0

*nec means not elsewhere classified; nfd means not further defined

Technical Notes

The base data for this project was the latest 2003-04 Household Expenditure Survey (HES) confidentialised unit record file, released by the Australian Bureau of Statistics (ABS) in 2006. This is a representative national survey of 6,957 households and contains extensive sociodemographic, labour force, income and expenditure details about individuals, families and households. The major task carried out within our modelling is to “age” this dataset to a future world. Two key steps are involved in this attempt to “age” the dataset – reweighting and uprating.

Reweighting

The HES 2003-04 is a sample survey of about a tenth of 1 percent of all Australian households. To calculate estimates for the whole of Australia from the sample data, each of the individual records within the survey dataset is given a *weight* that represents the estimated number of comparable households within the entire population. For example, the ABS might give the first household in the sample a weight of 400, which means that it estimates that there are about 400 comparable households in Australia.

For the purpose of analysing the likely changes in consumption that population ageing will produce by 2020, we changed these weights to reflect the forecast structure of the population in 2020. The two benchmarks used in this exercise were: projected population of 2020 classified by sex and age; and projected population of 2020 classified by State and Territory of residence, sex and labour force status.

To calculate the first benchmark, the projected population of Australia for 2020 was firstly tabulated by age and sex. This projected population was derived from ABS Population Projections (Category 3222.0, series B). This population includes both those who live in private dwellings and those who live in non-private dwellings (such as nursing homes, hostels and prisons). The HES, on the other hand, only captures those who live in private dwellings. The ABS projected population for 2020, therefore, needs to be adjusted to reflect only those who live in private dwellings.

To do this we commissioned the ABS to provide us with a special table, showing the estimated number of the population living in private dwellings as at June 2005. The population was sub-divided by age, sex and State or Territory of residence. Using the ABS estimates of the total population as at June 2005 (derived from ABS Category 3201.0, Population by Age and Sex, Australian States and

Territories), also classified by age, sex and state of residence, we then calculated the proportion of each sub-group who lived in private dwellings in 2005. We then applied these same ratios to the forecast 2020 population. For example, for women in NSW aged 80 in June 2005, an estimated 91.49 percent of such women lived in private dwellings. We thus assumed that 91.49 percent of women living in NSW aged 80 in 2020 also lived in private dwellings.

The new projected population living in private dwellings in 2020 was then regrouped into the same age groups as persons captured in the HES 2003-04 sample survey (e.g. 35 to 39 years). We initially tried to keep the State and Territory split in these age-gender population projections, but our reweighting software failed to find a satisfactory solution. As a result, when carrying out the final reweighting, we were forced to aggregate across all States and Territories to calculate the total projected national population of 2020 classified by sex and age group.

Apart from population growth by age and sex, the second important possible change over the coming years that we attempted to take into account was labour market change. In recent years there has been a pronounced increase in female labour force participation (see AMP.NATSEM Report No. 12). The recent extensive study by the Productivity Commission suggested that these trends would continue for particular age-gender groups and that unemployment would also be lower in the future (2005).

Our second set of reweighting benchmarks was thus calculated by using the Productivity Commission projections on labour force status for the year 2020. The Excel spreadsheet projections that underlay the calculations in the 2005 Productivity Commission report can be freely downloaded from their website. They report the total number of employed and unemployed persons respectively in 2020 by State and Territory, by age group and by gender (we used the file labour force summary states.xls available from <http://www.pc.gov.au/study/ageing/finalreport/data/index.html>).

To calculate the number who were not in the labour force we subtracted from the estimated total projected population of Australia living in private dwellings in 2020 the sum of those who were employed and those who were unemployed in the Productivity Commission projections for 2020. These three groups – employed, unemployed and not in the labour force – were then classified by state of residence and by gender to derive our second set of

reweighting benchmarks. Although we initially attempted to reweight by the more complex age-gender-State-labour force status benchmarks, the reweighting software was unable to find a satisfactory solution, so we had to reduce the complexity to gender, State and labour force status.

It is important to appreciate the limitations of static ageing when interpreting the results of the simulation. In this study, for example, the population has been reweighted by age, gender, State or Territory and labour force characteristics. This means that the resulting population sub-group estimates will match projections of these characteristics. However, changes in, for example, housing tenure have not been included in these reweighting benchmarks. The ageing of the population will mean that there are more elderly people and, because such a high proportion of the elderly own their own homes, the reweighting will produce more elderly home owners within the population in future years. This trend will be partly captured by the reweighting process because the weight attached to elderly males in 2020, for example, will be higher than their weight in 2003-04 and thus the number of elderly male home owners will increase accordingly¹. However, housing tenure is not included within the reweighting process and housing outcomes are thus implicitly derived rather than explicitly imposed.

In some cases, this may not be considered the most desirable outcome. For example, recent research has suggested a substantial decline in home purchase rates among younger cohorts in the past decade or two (Harding et al 2002, p. 7). It is thus possible that, for example, employed 25-29 year old males in 2020 will have lower rates of home ownership than such males in 2003-04. The only way to capture expected changes in characteristics such as housing tenure is to include such characteristics within the reweighting benchmarks. While a much wider range of characteristics *can* be included within the reweighting procedure, the reliability attached to the resulting estimates is then reduced. For example, while demographic and labour force projections are fairly well established, projections of housing and family status are much more debatable (and hard to find). In addition, increasing the number of benchmarks makes it harder for the reweighting software to converge and find a satisfactory solution – so that there are practical limitations as well as data and theoretical limitations to the number of benchmarks that can be used.

The reweighting of HES 2003-04 is finally done by using GREGWT, which is produced by the Statistics Services area of ABS. In this exercise, the integrated weighting at a household level is used, to make sure that each person within a household carries the same weight as that of the household. The resulting weights constitute the solution to the optimisation problem of minimising a specified distance function subject to a set of constraints.

Uprating incomes and expenditures

The second major phase in the static ageing, after the reweighting of the dataset, was the adjustment of the incomes and expenditures of each household to better reflect likely changes between 2003-04 and 2020. To do this, we assumed that real incomes would increase at 1.5 percent per annum (“real” means after taking out the impact of inflation). This is somewhat lower than the real earnings increases that have been apparent in recent years – but assuming that earnings growth would stay as high and inflation would stay as low as it has been during the past few years appeared somewhat optimistic. This assumption resulted in a 26 percent growth in real income across the 16 years (with the average in Table 1 for households being somewhat lower than this, due to changing household composition). This methodology also implicitly assumes that government cash benefits increase at the same rate as other (private) income sources.

To capture likely changes in each household's expenditure between 2003-04 and 2020, we simply assumed that each household would continue to spend the same proportion of its gross income on each particular expenditure item as it did in 2003-04. Thus, for example, if a given household within the sample spent 15 percent of its gross income on housing in 2003-04, then it was assumed to spend 15 percent of its (higher) gross income in 2020 on housing as well. Implicitly, this means that expenditure on any given item (or savings) is assumed to change by a uniform percentage, which is the same as the forecast percentage increase in real gross income for a particular household between 2003-04 and 2020.

This is not a perfect method of capturing likely future expenditure trends. As income increases, a declining proportion of income is typically devoted to necessities such as fuel, and an increasing proportion is generally devoted to luxuries. Changes in taste and technology are other factors that can be expected to affect future demand. These types of changes are not captured within our simulation.

This methodology is, however, transparent and easily understood. The reweighting methodology described earlier means that the impact of demographic and labour force changes on expenditure patterns is captured. For example, the projected increase in the proportion of “single person aged 70+” households between 2003-04 and 2020 results in an increase in the weight (or importance) of that family type and a consequent increase in their contribution to the overall expenditure pattern. The methodology also creates some link between forecast income increases and future expenditure changes.

1 Although the *number* of such male home owners will increase (because the total number of such males has increased), the *proportion* of such males who are home owners will not change.

References

- Australian Bureau of Statistics, 2006, *Household Income and Expenditure Survey 2003-04 Confidentialised Unit Record File*, Canberra.
- Australian Bureau of Statistics, 2006, *Population Projections, Australia*, Cat No. 3222.0, Canberra.
- Australian Prudential Regulation Authority (APRA), 2005, *Annual Superannuation Bulletin*, Sydney.
- Harding, A. and Percival, R., 1997, "Who Smokes Now? Changing Patterns of Expenditure on Tobacco Products in Australia, 1974-75 to 1993-94", Discussion Paper No. 24, National Centre for Social and Economic Modelling, December, Canberra.
- Harding, A., King, A. and Kelly, S., 2002, "Incomes and Assets of Older Australians: Trends and Policy Implications", *Agenda*, Volume 9, Number 1, pp 3-18.
- Harding, A. and Robinson, M., 1999, "Forecasting the Characteristics of Consumers in 2010", Discussion Paper No. 40, National Centre for Social and Economic Modelling, March, Canberra.
- Henry, K., 2004, Address to Australian Industry Group's National Industry Forum, 9 August.
- Productivity Commission, 2005, *Economic Implications of an Ageing Australia, Overview*, Canberra (available from www.pc.gov.au).
- Salt, B., 2005, *The Big Shift: How Demographic Change is Shaping Attitudes Towards Retirement*, The Australian Financial Review Ageing Population Summit 2005, Sydney, 27 September.
- Treasury, 2002, *Budget Paper No. 5, Intergenerational Report 2002-03*, May.



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