

Viewpoint

Lifetime income planning

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RETIREMENT ISSUES RESEARCH REPORT

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Canada's lifetime income challenge

Canada, like most other industrialized countries, faces the challenge of a rapidly growing population of retirees who will need sufficient income to see them through retirement. With people living longer, Statistics Canada projects that by 2041 the number of people aged 65 and over will more than double to approximately 10 million people.⁽¹⁾

While many Canadians have absorbed the message that they must save for retirement, it is not clear that they all understand the planning and decision-making necessary for a secure income that will last the rest of their lifetime.

In this paper, we will outline the scope of Canada's retirement income challenge, discussing

- How retirees will have to change their financial thinking as they move from full-time work and wealth building to retirement and the need to draw on that accumulated wealth for income.
- The five key risks that retirees face in planning for incomes that will last the rest of their lifetimes: longevity, inflation, poor asset allocation, too-rapid withdrawals, and health care issues.
- The need to consider investment probabilities in retirement planning, rather than rely solely on historical average returns.
- Specific trade-offs and possible solutions to help achieve a financially secure retirement.

THE BOTTOM LINE: *To improve the odds of living comfortably in retirement, Canadians must develop realistic retirement income plans, cushion their investment portfolios against unforeseen financial shocks and update their plans regularly as their circumstances change.*

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SECTION I:

Aging Canada and the lifetime income challenge

CANADA IS ON THE VERGE OF EXPERIENCING a profound demographic change – an expansion of its retirement population that is unprecedented in its history. A significant portion of our population is, or will soon be, focusing on funding retirement, as the largest generation in Canadian history – the 10 million baby boomers born between the years 1946 and 1965 – enters retirement.⁽²⁾ In 2006, the first will turn 60.

- More than 4 million Canadians, or one in eight, are currently over age 65.
- Every day, approximately 800 Canadians turn 65.
- This rate is expected to almost double by 2040, with about 1,400 Canadians turning 65 per day.
- By 2041, close to 10 million Canadians will be over 65, about 23% of the population (See Exhibit 1).⁽³⁾

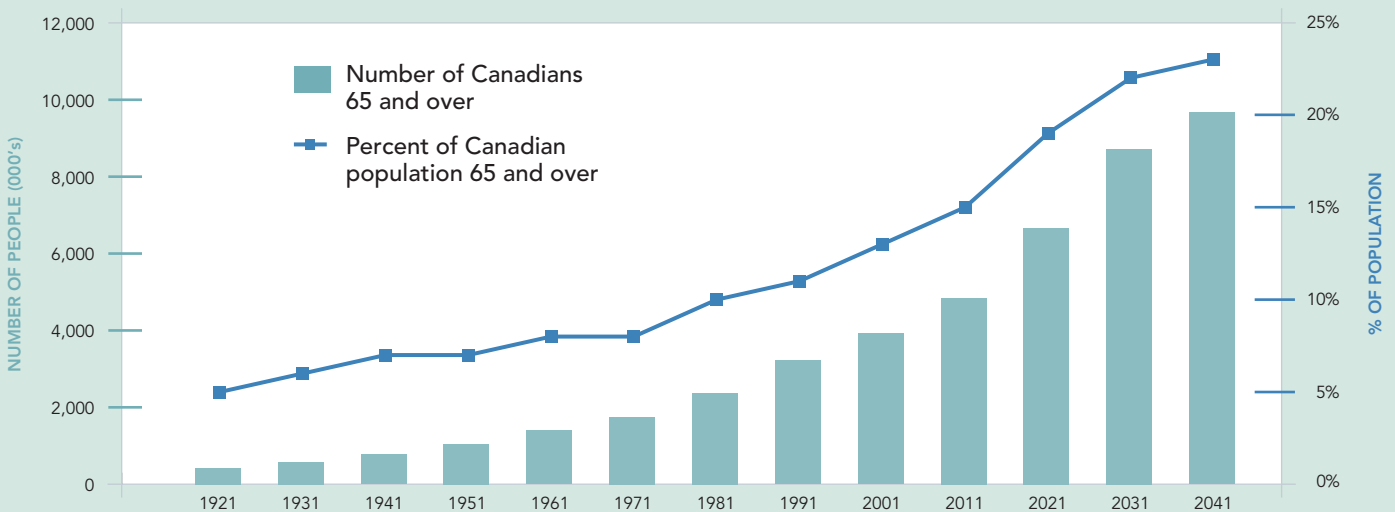
Meanwhile, individuals are increasingly being forced to shoulder the burden of their own retirement security. The percentage of Canadians participating in registered pension plans has fallen in recent years, and some companies are

eliminating registered pension plans from their employee benefits. As highlighted in Exhibit 2, by the end of 2002, less than 40% of Canadian workers were covered by an employer pension plan – a decline from the 45% levels seen only a decade earlier.⁽⁴⁾

As a result, more people will likely be relying on individual savings and wealth management to fund their retirement, making them more vulnerable to volatility in the markets. Since the early 80s, a significant proportion of Canadians has entered the stock market for the first time, either through retirement savings plans or by investing directly in stocks or in equity mutual funds. The percentage of Canadian adults owning stocks climbed from 13% in 1983 to nearly 50% in 2000.⁽⁵⁾ Many have already experienced the effects of a major financial setback. During the severe stock market correction of 2000-2002, billions of dollars of Canadians' personal savings were lost, and one of the groups that suffered most were people in or close to retirement.⁽⁶⁾ Many people still in the workforce felt compelled to delay retirement, raise their savings and lower

Exhibit 1

Canadian population over 65



Sources: Statistics Canada, 1921-2021, 2041; Urban Futures Institute, 2031.

their expectations for a retirement that had, until recently, looked very comfortable.

The cost of health-related services may also prove an unexpected burden for retirees. Inflation-adjusted per capita spending on health care has increased by at least 40% across the country over the past 20 years. Individuals today are bearing more of these costs via health premiums in provinces such as British Columbia, Alberta and Ontario. Meanwhile, private health spending, as a percentage of national health expenditure, has increased to approximately 30% of the total.⁽⁷⁾

The challenge of saving for retirement is complicated by another major demographic change: people are living longer and as a result need to stretch their financial resources over more years in retirement than they ever imagined. And all of these changes are coming together at a time when personal savings rates are at historic lows.⁽⁸⁾

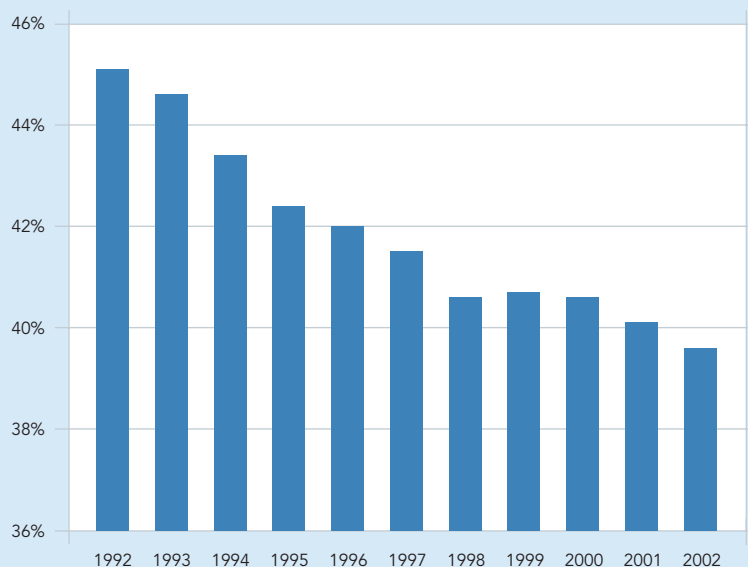
Taken together, these factors can make the job of financing a comfortable retirement seem overwhelming, if not impossible, both for individuals and for the nation.

But despite these challenges, many Canadians can have the kind of retirement they want – if they take inventory of their resources, plan intelligently and act on those plans. **The current economic status of retirees and those close to retirement is already quite positive.**

On average, Canadians over 65 are clearly healthier than previous generations of retirees. And they are certainly wealthier, in spite of the 2000-2002 stock market drop; Statistics Canada reports the percentage of Canadians over 65 with low incomes has dropped by more than 20%, from 8.6% in 1994 to 6.8% in 2003.⁽⁹⁾ Canadians over 55, the fastest-growing age group over the next several years, are now entering what

Exhibit 2

Percentage of paid workers covered by a registered pension plan in Canada, periods ending Dec. 31



Source: Statistics Canada, "Pension Plans in Canada," 2003.

are generally their peak earning years.⁽¹⁰⁾ They are inheriting their parents' wealth and finishing payments on big-ticket expenses such as mortgages and post-secondary education tuitions. The result may be even more net gains in wealth over the next 10 years.

So for many retirees and those close to retirement, the key variable for a comfortable retirement will be the ability to plan well and make their resources last.

THE BOTTOM LINE: As the largest generation in history reaches retirement age, more of the responsibility for meeting income needs in retirement is shifting to individual Canadians. Increased lifespans, low savings rates, reduced participation in pension plans, concerns about health coverage – all these factors make it essential for individuals to plan carefully for retirement income.

The big shift: from wealth building to lifetime income

EACH YEAR, HUNDREDS OF THOUSANDS OF

Canadians are entering into a dramatically different phase of their financial lives. As individuals move from full-time work into retirement, they are shifting from wealth building – saving and investing in their working years – to retirement income – drawing on those savings for income they can rely on for the rest of their lives.

This transition is more than just a move from work to retirement. It requires a major change in the way people manage their money. While many of the core investment principles and strategies that people rely on while accumulating wealth remain valid in retirement, they must be used in different ways to meet different goals.

What's more, the consequences of failing to plan and invest prudently can be painful. For example, a 2004 study by Statistics Canada found that the low income rate among elderly women five years after widowhood was as great as 9.4% – nearly two times greater than poverty levels among elderly married couples. The study suggests that a lack of financial planning and inadequate life insurance coverage were two important factors contributing to low income levels among widows.⁽¹¹⁾

Lack of planning, combined with a historic drop in Canadians' savings rates, have presented Canadians with a significant challenge in funding their retirement incomes. But with proper planning for post-retirement income, many people can avoid financial difficulties.

Core principles – and how they change

The core principles for building lifetime wealth through financial assets are straightforward.

- Invest as early in life as possible
- Invest regularly
- Increase savings
- Build a well-diversified portfolio
- Include a heavier equity weighting in the early investment years
- As retirement age approaches, add an increasing share of fixed-income assets, which though historically less rewarding, are also less volatile

This standard strategy of age-appropriate asset allocation is based on the past performance of stocks, bonds and short-term investments and the knowledge gained from previous generations of investors. It is designed to avoid the twin risks of excessive caution early in life and excessive risk-taking close to and in retirement. It enables an individual to use time itself to overcome short-term drops in the equity markets by capturing the long-term growth potential of stocks.

Looking back at the S&P/TSX Composite Index total return data since its inception in 1956, equities as an asset class have outperformed bonds or cash. But as recent experience shows, stock markets can also decline rapidly and substantially. They may also deliver low returns for several years at a time. Over long periods, however, equities historically have more than made up for those declines. Since 1956, every possible ten-year holding period has produced positive returns for Canadian stocks, as measured by the S&P/TSX Composite Index.⁽¹²⁾

Age-appropriate asset allocation strategies are designed to optimize an investor's chances of benefiting from those long-term patterns. These strategies aim to accumulate wealth by a date that individuals generally have control over – their chosen time for retirement.

Canada's financial services industry has educated the public about this wealth-building phase; millions of Canadians have invested in their registered retirement savings plans (RRSPs).⁽¹³⁾

But at the point where people move from building assets to drawing down their life savings, their situation becomes more complex – and the stakes are higher when making choices. **Retirees have moved from a situation where they could count on long-term averages to correct mistakes into a less forgiving world where they must depend on current, real returns from their portfolios – and plan based on a wide range of probabilities, not averages.** (See "The flaw of averages.")

The financial services industry is now shifting its focus to the retirement income phase of Canadians' financial lives. And the need is clearly there. Research sponsored by Fidelity Investments and conducted in 2005 by The Strategic Counsel, an independent research firm, found that only 29% of retirees have a written financial retirement plan.⁽¹⁴⁾ Many who do have plans have failed to include key issues, such as inflation. And most retirees are simply playing it by ear – at significant risk to their long-term financial health.

Of course, many basic investment principles – diversification, finding an appropriate risk-reward asset allocation, even keeping a long-term perspective – continue to be valid. For example, just as young savers focus on equities for their retirement savings in order to benefit from the long-term potential, it makes sense for new retirees to put some portion of their post-retirement portfolios into equities. Based on historical measures, equities purchased early in retirement will potentially deliver substantial long-term returns that can be used to finance income needs in the later stages of retirement, which may be 20, 30 or even more years away.

But some savings and investment tactics change when moving from wealth building to retirement income. For example, for most younger workers the best strategy is to save the maximum allowed in tax-sheltered savings vehicles such as RRSPs, before setting aside any other savings. By contrast, for most retirees the best strategy is to draw first on the original capital of their taxable assets, followed by taxable capital gains and income, and save their tax-sheltered savings for last – drawing on them only after other, non-sheltered savings are exhausted.

The flaw of averages

One of the most common and potentially disastrous mistakes in planning for income after retirement is to base those plans on historical average returns – and then project those averages out in a linear manner for 20 years or more. This approach to planning is somewhat like deciding to wade across a river based on the average depth: the average may be four feet, but that won't help you when you're in the middle of a section that's 12 feet to the bottom.

Referring to long-term averages can be useful in the wealth-building phase, because they encourage younger savers to look past short-term volatility, particularly in equities, and continue steadily building up their assets. With a very long time frame ahead, these investors should be able to adjust their savings strategies to increase their odds of accumulating sufficient retirement assets.

Post-retirement, though, there is less opportunity to correct errors. Relying on a linear projection of

average returns can create a misleading sense of security about a portfolio's chances of success. The real world of markets and investments is much more variable and unpredictable.

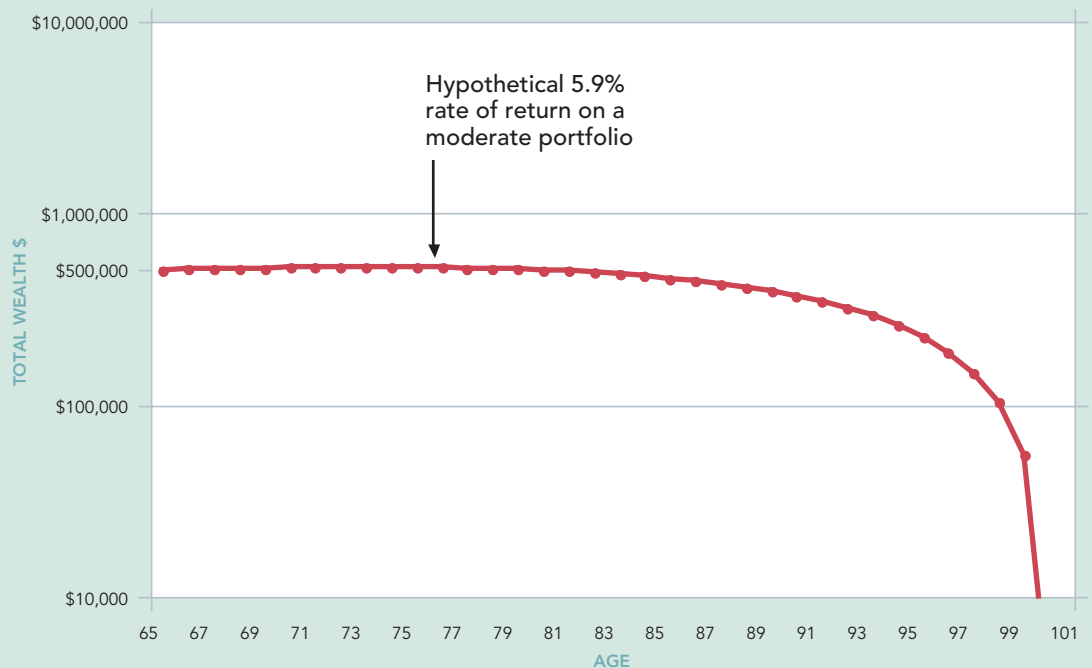
That's why Monte Carlo simulations are an important tool for reliable retirement planning. These probability pattern generators show the full range of possible results from a given portfolio. Instead of a single answer based on historical average returns, such as "You can draw down 6% of your portfolio per year," a Monte Carlo simulation will examine hundreds of possible future outcomes for a portfolio – based on past market actions or even on hypothetical events that range beyond past experience – and show probabilities of reaching a specific goal.

These two ways of assessing a portfolio produce dramatically different results. For example, in Exhibit 3 we see a hypothetical illustration of a portfolio's performance over 30+ years, based on a

Exhibit 3

Building a retirement plan around average returns can give a false sense of security

Hypothetical 5% withdrawal rate, adjusted for inflation



Source: Fidelity Investments. Please refer to the Important Legal Information page for important information about the methodology used in this chart and for source and other information. Hypothetical value of assets held in an untaxed account of \$500,000, earning a hypothetical 5.9% rate of return with an inflation-adjusted withdrawal rate of 5% per year. A constant inflation rate of 2.25% is assumed; actual inflation rates may be more or less. The hypothetical 5.9% rate of return assumes a steady return throughout the entire period. This chart is for illustrative purposes only and is not indicative of any investment. Past performance is no guarantee of future results.

5% inflation-adjusted withdrawal rate and assuming that historical average returns of 5.9% occur smoothly. The implication is that this portfolio will likely deliver a reliable income stream over that period.

And it might. In fact, it might return even more. But running the same portfolio with the same withdrawal rate through a Monte Carlo simulation model tells a dramatically different story, as demonstrated in Exhibit 4, because the simulation uses hundreds of possible historical returns for the portfolio and shows a very wide range of possible outcomes.

More importantly, it shows that in real market conditions, this portfolio – which looked rock-solid based on projecting past averages into the future – actually has only a 73% chance of delivering income for 25 years through age 90, and only a

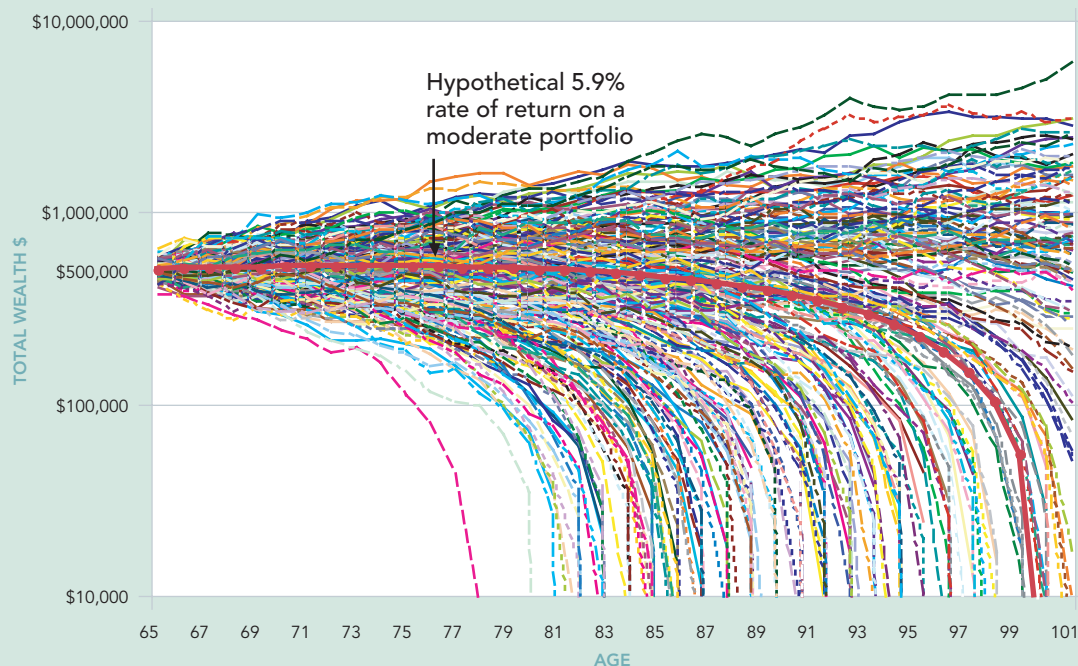
57% chance of delivering income to age 95. Perhaps more troubling, it also has a significant chance of failing in less than 20 years – a possibility that a projection based on averages completely masks.

One simple lesson for those seeking lifetime income security: **In planning for retirement, consider a full range of possible return scenarios rather than relying on a potentially misleading long-term average.** Monte Carlo tools can play a powerful role in making retirement planning more realistic and accurate.

Exhibit 4

Monte Carlo simulations can give a more complete picture

Hypothetical 5% withdrawal rate, adjusted for inflation



Source: Fidelity Investments. Hypothetical value of assets held in an untaxed account of \$500,000 invested in a portfolio of 30% Canadian stocks, 10% U.S. stocks, 10% international stocks, 35% bonds and 15% short-term investments with an inflation-adjusted withdrawal rate of 5% per year. Average rates of return on Canadian stocks, U.S. stocks, international stocks, bonds and short-term investments are based on the risk premium approach. Please refer to the Important Legal Information page for important information about the methodology used in this chart and for source and other information. Actual rates of return may be more or less. A constant inflation rate of 2.25% is assumed; actual inflation rates may be more or less. The hypothetical 5.9% rate of return line assumes a steady return throughout the entire period. This chart is for illustrative purposes only and is not indicative of any investment. Past performance is no guarantee of future results.

The five key risks to lifetime income



FINANCIAL SECURITY IN RETIREMENT DEPENDS on understanding and managing a series of risks that can erode even significant life savings. Here are the five biggest challenges to creating secure lifetime incomes.

1. Longevity risk

Arguably one of the most astounding success stories of the 20th century was the extension of human lifespans, driven by advances in science and medical research. In part, the increase reflects the decline in infant mortality: if fewer infants die, the overall life expectancy increases. However, the probability that individuals will live longer has also increased.

While most would see this as a benefit, it does create challenges for building lifetime income. Longevity risk boils down to a simple sentence, **“You need to plan for the possibility that you will live longer than you think.”**

When it comes to retirement income planning, life expectancy figures can be seriously misleading. First of all, these

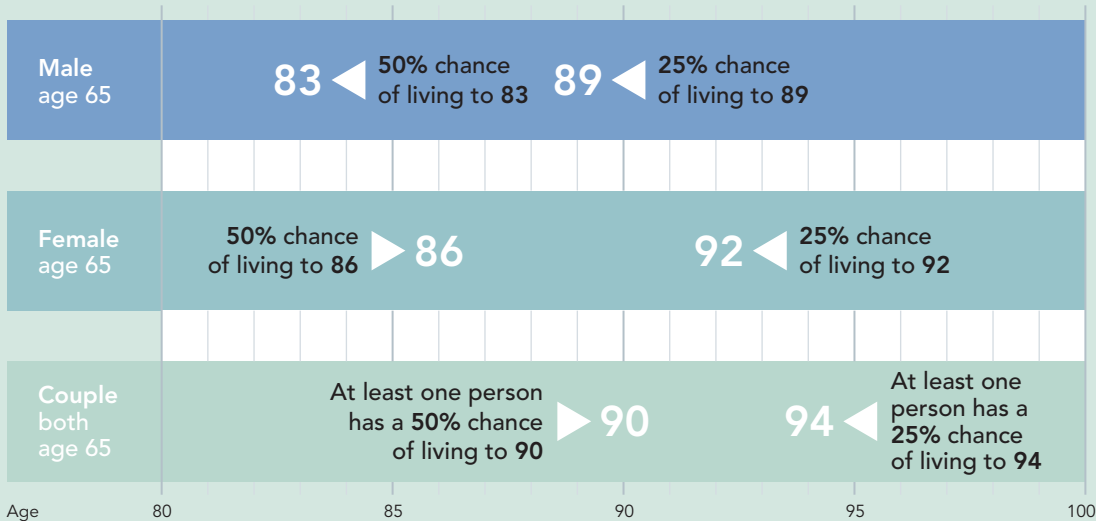
figures are, of course, an average; while some will die younger than expected, many people will live past the average for their demographic group. This means that most people ought to think hard about longevity risk – the real possibility of living 20, 30 or even 40 years past retirement age. Without planning, a longer-than-expected life could easily result in individuals or couples outliving their savings.

In addition, life expectancies tend to increase as a person ages.

At birth, an individual has a particular life expectancy that is an average of all people at that age, including those who will die young. As the individual ages, and some members of the group die, the average life expectancy for the group gets higher. Thus someone who has survived long enough to retire at 65 has a much greater probability of living many years beyond his or her life expectancy. Even people who have reached age 80 or 85 still have quite high probabilities of living 10 or 15 more years, if they are in good health.

Exhibit 5

Retirees need to plan for possible longer life expectancies



Source: Canadian Institute of Actuaries, UP-94 Projected to 2015.

SECTION III: The five key risks to lifetime income

Most people underestimate how long a retirement they need to plan for. Let's look at the facts. As Exhibit 5 shows, a man who has reached age 65 has a 50% chance of living to age 83 and a one-in-four chance of living to 89. For a 65-year-old woman, those odds rise to a 50% chance of reaching age 86 and a one-in-four chance of living to 92. The odds that at least one member of a 65-year-old couple will live to 90 are 50%. And there is one chance in four that one member of that couple will live to 94.⁽¹⁵⁾

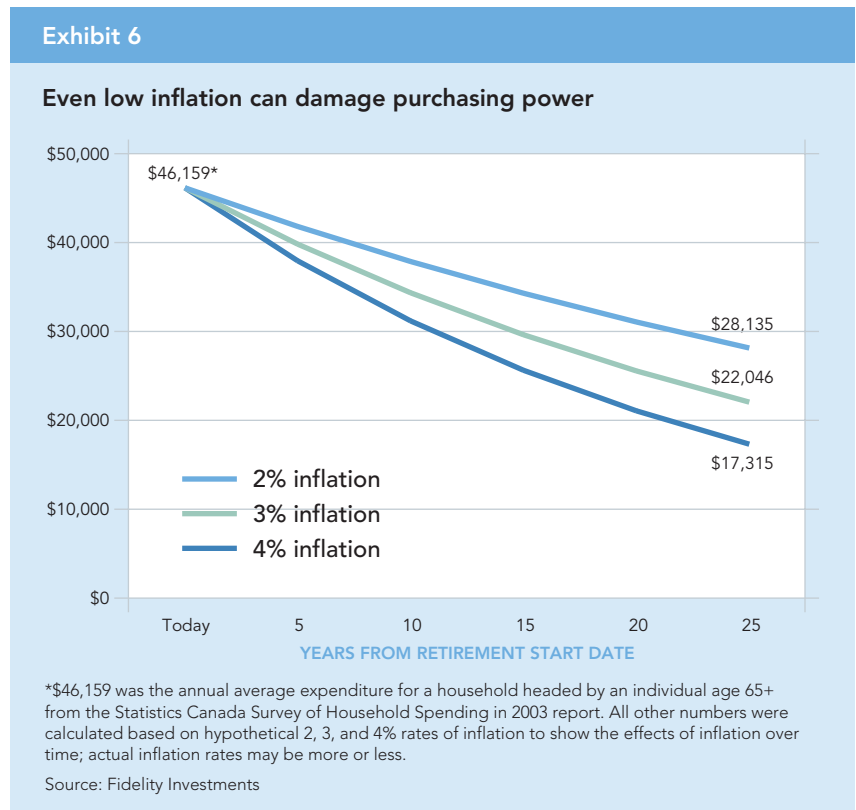
THE BOTTOM LINE: As active, healthy lifestyles and medical advances continue to push the life expectancy envelope, more and more healthy individuals just entering retirement will have to plan for the very real possibility of needing 30 to 40 years of post-retirement income.

2. Inflation risk

Inflation, the long-term tendency of money to lose purchasing power, can have a serious negative effect on retirement income, increasing the future costs of goods and services and eroding the value of assets set aside to meet those costs.

During the late 1990s and through the turn of the 21st century, Canadians have experienced relatively low inflation. But even in the 1990s, overall costs, as measured by the Consumer Price Index (CPI), rose more than 20%. Looking over the last half of the 20th century, inflation eroded ordinary Canadians' purchasing power by about 90% – reducing a 1950 dollar to 12 cents today.⁽¹⁶⁾

Inflation, in other words, is the norm rather than the exception. The high likelihood of continued inflation makes it essential to



choose investments that have the potential to beat inflation – especially over the longer lifetimes that today's retirees can anticipate.

As Exhibit 6 indicates, even a relatively low inflation rate of 2% can have a significant impact on a retiree's purchasing power. For instance, retirees with roughly \$46,000 of living expenses today would see their purchasing power eroded by approximately 39% in 25 years.⁽¹⁷⁾

THE BOTTOM LINE: Inflation is an economic constant and will inevitably erode the spending power of retirement savings. So it's essential for post-retirement portfolios to include investments that will, at the very least, keep up with inflation.

3. Asset allocation risk

Investors with longer time horizons can wait out the inevitable ups and downs of the stock market, adjusting their savings strategies to get them back on track. But retirees and those close to retirement age will probably have less time to recover from downturns. The wealth-building plans of those preparing for retirement can be sharply set back – and, in some cases, their retirements delayed – if their portfolios are over-concentrated in stocks when a serious bear market strikes. Retirees, who rely on fixed incomes and are uncertain how long their assets will have to last, are obliged to pay more attention to what their returns are each year, rather than trusting that in the long term their investments will provide them with enough income.

Each individual's portfolio must be designed with these risks in mind. Those who have a large amount of savings for retirement may be able to take a less aggressive approach and rely primarily on cash and fixed-income investments. However, most retirees will need to put at least some of their portfolio into equities. Not to do so is, in itself, a risky strategy. Given what we know about life expectancies and the effects of inflation, most retirees will need the growth that equities have historically provided in order to fund

their retirements. (This is an especially important point to emphasize during and immediately after bear markets, when many anxious retirees may overreact by selling most or all of their equity holdings.)

Looking at the S&P/TSX Composite Index as a proxy for the Canadian stock market, history shows equity returns have outpaced other major financial asset classes for several decades. They have certainly been subject to sharp drops, including a record 39% fall in a single year during the recession in 1982 and more recently the multi-year decline of more than 48% experienced from 2000 to 2002. Yet they have also produced positive returns for every ten-year period since 1956.

Performance during these longer periods has ranged from a low of just over 39% to a remarkable high of 494%, producing an average of 173% for every ten-year period since then. While past performance is no guarantee of future results, this record strongly supports the use of equities as a vehicle for long-term growth. The operative term, of course, is “long-term.”⁽¹⁸⁾

So even in retirement, it seems, the key to long-term success is most likely in a balanced asset portfolio – neither all stock, which carries too much market risk, nor all bonds and cash, which have minimal potential for upside appreciation.

SECTION III: The five key risks to lifetime income

Exhibit 7 illustrates how long a portfolio is likely to last, at a 5% inflation-adjusted annual withdrawal rate, given different asset allocation strategies. Using Monte Carlo simulations, we have projected the length of time a portfolio may survive under both extended down market conditions and average market conditions. Not surprisingly, as a portfolio's potential for volatility increases, the length of time it may survive in a down market decreases. For example, the most aggressive of the portfolios illustrated, composed of 85% equities, may only last 17 years in a down market scenario, versus 20 years for a conservative portfolio. However, being too conservative may not allow a portfolio to grow enough to last for a lifetime. Under

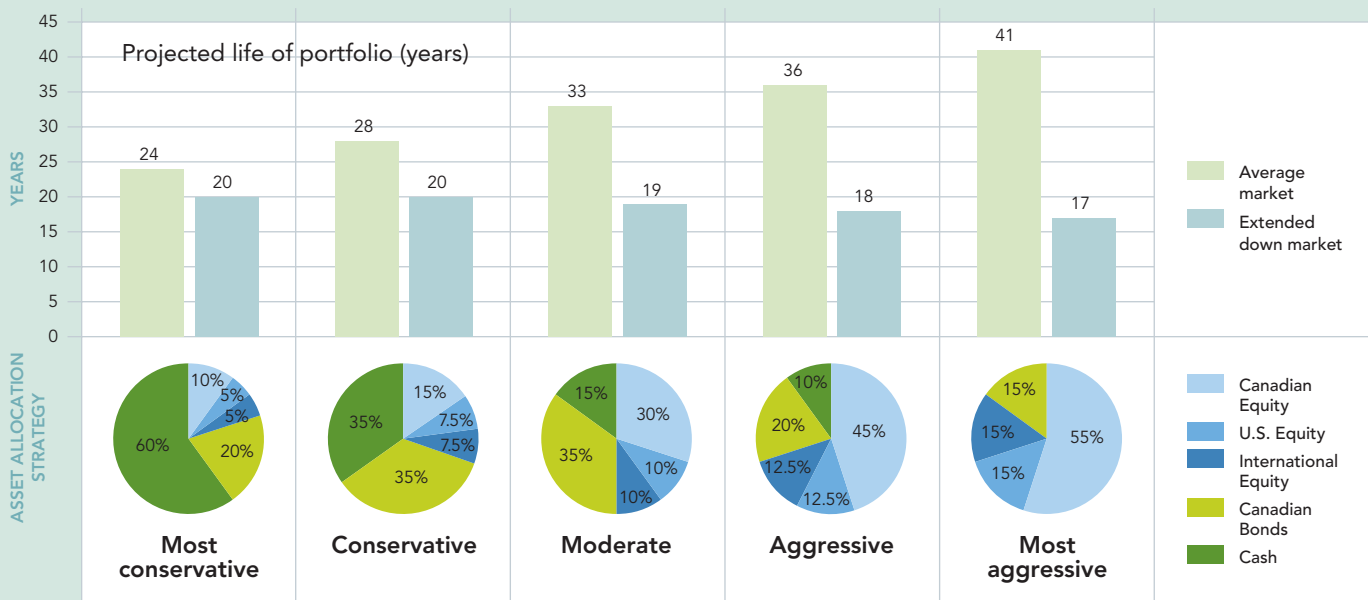
average market conditions, a conservative portfolio may only last 28 years, versus a projected 41 years for the most aggressive portfolio. A moderate portfolio appears to strike a balance between preserving capital during down markets and providing potential for continued growth during retirement.

Even if it seems counter-intuitive, especially after the downturn of 2000-2002, historical asset-class returns suggest retirees do need stocks for the long haul.

THE BOTTOM LINE: Longer retirement planning horizons – reflecting greater awareness of longevity risk – make stock holdings vital for portfolios intended to provide income throughout retirement.

Exhibit 7

The trade-offs of different allocation strategies at a 5% withdrawal rate



Source: Fidelity Investments. Hypothetical value of assets held in an untaxed account invested in portfolios with asset mixes as indicated. A 5% inflation-adjusted withdrawal rate was applied. Average rates of return on Canadian stocks, U.S. stocks, international stocks, bonds and short-term investments are based on the risk premium approach. Please refer to the Important Legal Information page for important information about the methodology used in this chart and for source and other information. Actual rates of return may be more or less. A constant inflation rate of 2.25% is assumed; actual inflation rates may be more or less. This chart is for illustrative purposes only and is not indicative of any investment. Past performance is no guarantee of future results.

4. Excess withdrawal risk

Before considering this risk, a reminder: When considering rates of withdrawal for retirement income, it is important to incorporate changes in cost of living into the plan. As stated earlier, a substantial, constant income stream today can amount to considerably less down the road because of inflation. So throughout this discussion, we have used inflation-adjusted withdrawal rates.

Changing the annual rate of withdrawals can, of course, dramatically affect how long a portfolio will last. Unlike other factors, this one is largely within the retiree's control: withdrawal rates can be adjusted to take into account a person's age, health, the desire to leave a legacy and many other variables.

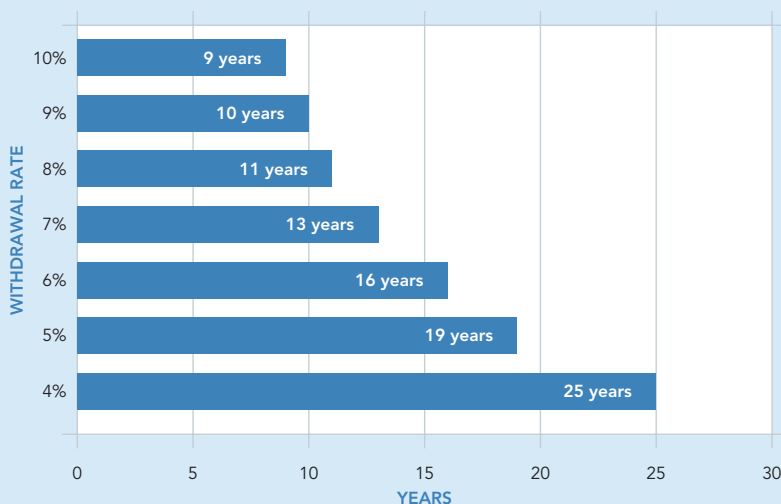
Until recently, many people in early retirement may have been overly optimistic about the amount they could withdraw because their expectations of the future were conditioned by high equity returns between 1982 and 2000.⁽¹⁹⁾ They may have assumed that they could draw out 7%, 8% or even more per year, while rising stock prices kept the total value of their portfolios virtually unchanged, or even growing.

The market corrections of 1987, 1998, and 2000-2002 reminded us that this is a fallacy. As Exhibits 8 and 9 demonstrate, retirees need to carefully consider just how much they can really afford to withdraw.

Exhibit 8

Consider the impact of withdrawal rates on a portfolio

Number of years a portfolio may last, based on percentage of assets withdrawn each year (95% confidence level, 50% equity portfolio)



Source: Fidelity Investments. Hypothetical value of assets held in an untaxed account invested in a portfolio of 30% Canadian stocks, 10% U.S. stocks, 10% international stocks, 35% bonds and 15% short-term investments with inflation-adjusted withdrawal rates as specified. Average rates of return on Canadian stocks, U.S. stocks, international stocks, bonds and short-term investments are based on the risk premium approach. Please refer to the Important Legal Information page for important information about the methodology used in this chart and for source and other information. Actual rates of return may be more or less. A constant inflation rate of 2.25% is assumed; actual inflation rates may be more or less. This chart is for illustrative purposes only and is not indicative of any investment. Past performance is no guarantee of future results.

Exhibit 8 shows how long a balanced portfolio of 50% stocks, 35% bonds and 15% short-term instruments would last if its owner withdrew between 4% and 10% a year, adjusted upwards annually for inflation. When creating this exhibit, numerous possible return scenarios were considered at a 95% confidence level.

SECTION III: The five key risks to lifetime income

Exhibit 8 shows that at a 10% withdrawal rate, a retiree could only count on the portfolio lasting nine years. At a 4% withdrawal rate, however, the investment portfolio would last for 25 years – long enough to provide a 65-year-old with an income stream to age 90. Moving that rate up to just 6% would risk exhausting those assets by age 81 – an age that a majority of 65-year-olds are expected to see.⁽²⁰⁾

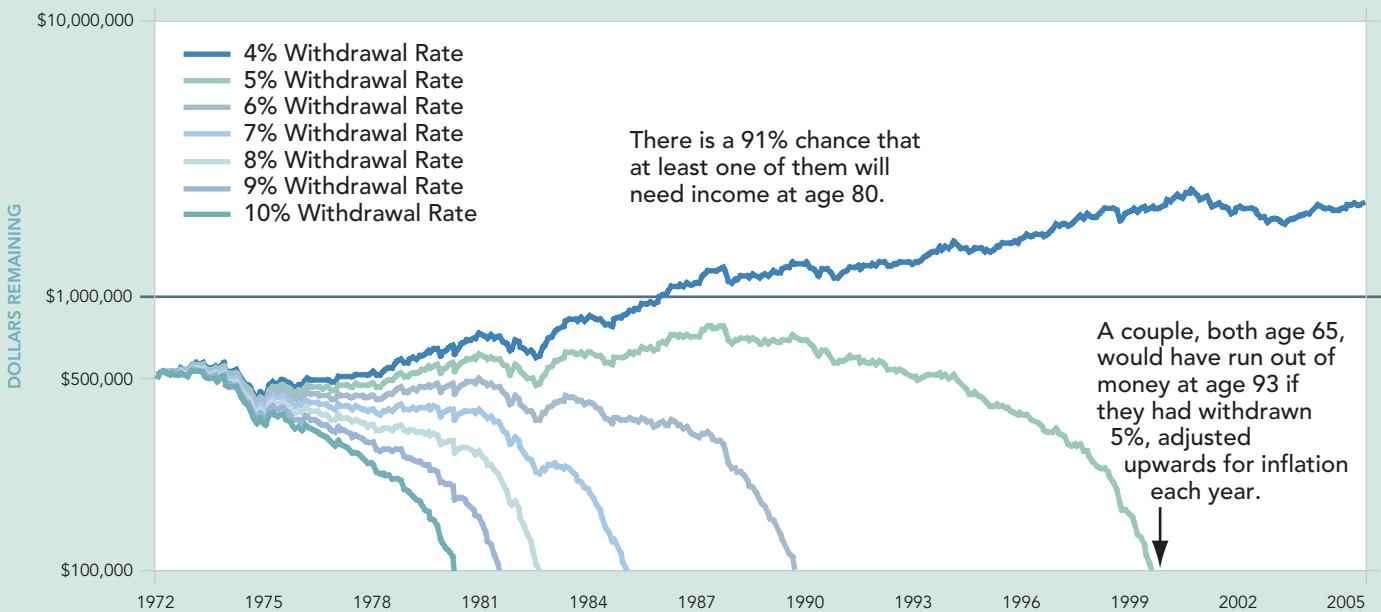
Therefore, retirees should carefully consider their withdrawal rate, especially in their early draw-down years. If their portfolios hold up well as they age, retirees may then decide to increase their withdrawal rate without putting their future income at risk.

Exhibit 9 looks at the impact that a range of inflation-adjusted withdrawal rates would have had on a \$500,000 portfolio of

Exhibit 9

Prudent withdrawal rates can extend the life of a portfolio

If you had retired in 1972 with \$500,000



Year	1972	1977	1982	1987	1992	1997	2002
Probability that one member of a 65-year-old couple would survive	100% at age 65	99% at age 70	97% at age 75	91% at age 80	76% at age 85	50% at age 90	21% at age 95

Source: Fidelity Investments. Hypothetical value of assets held in an untaxed account of \$500,000 invested in a portfolio of 30% Canadian stocks, 10% U.S. stocks, 10% international stocks, 35% bonds and 15% short-term investments with inflation-adjusted withdrawal rates as specified. This hypothetical illustration uses historical monthly performance from January 1972 through May 2005: Canadian stocks, U.S. stocks, international stocks and short-term investments are represented by S&P/TSX Composite Index, S&P 500 Index, MSCI EAFE Index, and the Scotia Capital 91-Day T-Bill Index, respectively. Bonds are represented by Scotia Capital Universe Long Bond Overall Index prior to January 1980 and Scotia Capital Universe Overall Index from January 1980 forward. Probabilities of a couple surviving to various ages are based on UP-94 Projected to 2015 from the Canadian Institute of Actuaries. Please refer to the Important Legal Information page for important information about the methodology used in this chart and for source and other information. This chart is for illustrative purposes only and is not indicative of any investment. Past performance is no guarantee of future results.

50% stocks, 35% bonds and 15% short-term investments over the period from 1972 to 2005. This period includes the great bull market of the late 20th century – roughly 1982 to 2000. But it also encompasses two of the worst bear markets in history, two recessions and the inflationary outbreak (also one of the worst in Canadian history) and painfully tight monetary policy of the late 1970s. This exhibit uses the actual, historical returns over that period.

At a 6% withdrawal rate, the initial pool of \$500,000 would have been exhausted by 1990. A 65-year-old couple who retired in 1972 with this portfolio would face more than an 83% probability of having one member survive to see those assets completely drained away.

With a more modest 5% withdrawal rate, the portfolio could have continued to generate income for over 28 years. But it still would have run out when there was a 31% chance that one member of the couple would still be alive. In stark contrast, a 4% withdrawal rate – \$20,000 in the first year, then adjusted upwards in later years for actual, historical inflation – would have done more than just sustain the asset pool. It would have left enough assets intact to benefit strongly from the long bull market that began in 1982. Indeed, this portfolio would actually have increased to \$2.4 million at the market

crest in 2000 before falling back to just about \$1.8 million by 2003. It could easily pay out more than \$50,000 in 2003, 31 years later, while still leaving enough in the portfolio for future needs. And at that point there is a 16% chance that one member of this retired couple would still be alive.⁽²¹⁾

This exhibit illustrates how the risks of inflation, market volatility, withdrawal rates and longevity are interrelated. It also shows the power of equities – given enough time – and the critical importance of selecting withdrawal rates that give the investor the opportunity to benefit from those powerful returns.

A 4% withdrawal rate does not offer magical security or assure asset immortality. Real-world outcomes depend on market performance. But it is clear that rates over 4% begin, fairly quickly, to increase the risk of outliving one's retirement savings.

THE BOTTOM LINE: *The risk of outliving one's investments rises at withdrawal rates over 4%. Retirees should consider a conservative withdrawal rate in the early years of their retirement. Those who have planned wisely and preserved their investments may be able to increase their withdrawal rates later in retirement, with less risk of depletion.*

SECTION III: The five key risks to lifetime income

5. Health care expenses

The need to consider health care expenses as a significant issue in retirement income planning is a relatively new notion for Canadians. No formulas have yet been designed to calculate how much of a risk health care costs could be. However, there are a number of issues that should be considered.

Issues in the Canadian Health Care System

Canadians currently enjoy access to a health care system based on principles of universality, comprehensiveness and accessibility. However, the costs of this system have been rising over the years. Health care spending currently makes up almost 10% of GDP, and the percentage of provincial government budgets devoted to health care has grown on average to almost 40%. Meanwhile, private spending has grown to about 30% of total health care expenditure.⁽²²⁾

There have been numerous reports on how to address rising costs, and raging debates on the appropriate split between public and private funding. Recent court cases have added yet another dimension to this complex issue.

Amid the uncertainty, one thing seems clear: Canadian health care will continue to change. Depending on how it changes, retirees could find themselves taking on more financial responsibility for their own health care. And as the envelope of “basic” coverage gets smaller, people need financial resources to pay not just for unexpected events, but for services the government may not deem medically necessary but that many people consider essential for a full and dignified life.

Personal responsibility for health care expenses

Many people are not fully aware of how the health care system actually works and what they are covered for at various stages of their lives. In fact, even under our current system, individuals need to assume responsibility for some or all of the costs associated with specific health care needs, and that degree of responsibility can change depending on their age.

Government insurance plans for seniors who retire at age 65 cover basic needs such as visits to doctors, hospital in-patient services and most prescription drugs. Government insurance also covers part of the cost of long-term care, as well as some community services.

However, anything beyond the basic coverage costs extra. For example, if a person receives certain drug therapies not covered by government plans, then the individual (or the individual’s private insurance plan) will have to pay. Similarly, services that are provided in the community, outside hospital walls, typically do not have the same level of government coverage or may not be covered at all. In addition, the amount of coverage available through provincial government health insurance plans varies, and eligibility criteria such as age, income, and level of illness or disability also determine what and how much individuals receive.

It is important for those preparing for retirement to understand what is covered and what is not while they are still well, not later, when they are confronted with illness. Unfortunately, many do not. A 2005 Ipsos-Reid survey found that 49% of Canadians do not have a financial plan to deal with a critical illness, either their own or a family member’s.⁽²³⁾

While all Canadians need to keep that eventuality in mind, obviously it becomes more likely with age. Close to half of retirees now turning age 65 will be admitted to long term care facilities at some point in their lives. Nearly 25% will stay there one year or more, and almost one in ten will stay five years or more.⁽²⁴⁾ This can be a major expense. If the individual is not financially prepared, there can be significant financial hardship for the individual and/or the family. Insurance companies are offering new and enhanced products such as critical illness and long term care insurance that can provide a financial safety net.

Personal preference

Retirees may want to take advantage of the growing number of health care products, insurance plans and specialized health care services available. Examples include specialized dental care, cosmetic surgery, personalized health service plans, and home renovations and special devices for those with disabilities. People in retirement may also want to spend more on leisure, fitness and travel as a way to contribute to their overall health.

Personal preference becomes particularly important when retirees think about the future, when they may require care – anything from occasional assistance with daily activities to palliative care. Do they want to stay at home rather than be admitted to a hospital or long term care facility? What are the relative costs? Again, individuals who have adequate resources set aside to address these types of expenses will be in a better position to choose what they and their families prefer.

Implications for Retirement Savings

In summary, there are three key reasons to consider saving for both expected and unexpected health care expenses. Individuals may want or need

- **more** of certain services than are available through government plans – for example, more nursing or rehabilitation care, in order to stay at home
- **enhanced** services such as a private room in a retirement home or an electric wheelchair rather than a manual one
- **different** services than those available through government plans – for example, drugs that are approved for sale in Canada but not available through government drug benefit programs.

Canadians should expect to take on some degree of personal responsibility for health care expenses in retirement. The amount of financial expense will vary by individual interests, needs and desires. But being well prepared and well informed about various options is essential.

Ideally, those about to retire should have a small amount of savings earmarked for potential health care costs, such as co-payments for accommodation in long term care facilities. If they are satisfied with the basic coverage provided by the government health care plan, then those savings may be sufficient.

On the other hand, pre-retirees who want more, enhanced or different types of health care services than those offered through government plans should set aside additional savings to cover health care expenses.

SECTION II: The big shift: from wealth building to lifetime income

There are several other key differences between the wealth-building and retirement income phases. While young savers can monitor their progress using long-term average annual returns as a benchmark, retirees have to meet their expenses from real, current returns on their assets. These returns can fluctuate substantially and unpredictably each year.

While younger savers have a fairly predictable and controllable deadline – their retirement date – retirees simply don't know how long they'll live. They can't forecast with any certainty how long their savings must last.

Given these uncertainties, it's important to address five key risks in planning for lifetime income:

- *longevity risk* – living beyond theoretical life expectancy
- *inflation risk* – losing real value of savings because of increased cost of living
- *asset allocation risk* – designing a portfolio that's too conservative or too aggressive
- *withdrawal risk* – drawing down savings too rapidly
- *health care* – not having enough money to cover health-related expenses

Some of these risks are more complex than the financial hazards people have faced in building their retirement nest eggs. And mistakes in managing post-retirement risks can be difficult to correct. Yet all of these retirement income risks can be met, and potentially overcome, provided people understand them and take action by creating sound plans for post-retirement income.

THE BOTTOM LINE: *Entering retirement and beginning the retirement income phase of one's financial life involves a major change in financial tactics and mindset to successfully manage a series of high-stakes risks.*

The Fidelity/Strategic Counsel study suggests that Canadians view health issues as a risk in retirement. Both retirees and pre-retirees said that health was their single greatest concern about retirement.⁽²⁵⁾ It is important for retirees to understand the potential financial fallout of health problems in retirement so that they can make conscious decisions about precautions, both for practical reasons and for their own peace of mind.

THE BOTTOM LINE: *While health care expenses in retirement are difficult to predict, they should be included in retirement income planning. Retirees should understand what is and is not covered by the health care system and realize that their responsibility for covering health care expenses may change over the coming years. They also need to think carefully about what they feel is essential for their own quality of life in the event of disability or illness. The amount of money retirees put aside will vary according to their preferences and how much risk they are willing to tolerate on health care issues. However, we do know that health worries peak during retirement. Putting enough money aside to cover a range of potential situations can provide retirees with considerable peace of mind.*

Many experts, many opinions

The Senate's Kirby Commission (excerpts from Volume 6: *Recommendations for Reform*)

- Kirby found that, assuming costs continue to rise, Canada's health care system, as it is currently organized and operated, is not fiscally sustainable at current funding levels.
- Health care costs of the elderly are considerably higher than the health care costs of younger people.
- Canada is the only major industrialized country that does not have some form of private hospital and doctor system parallel to the public system.
- Kirby felt that Canadians should not be denied the right to purchase private supplementary insurance to pay for services they are unable to access in a timely fashion in the publicly funded system.

The Romanow Report

- "I am convinced the medicare house needs remodeling, not demolishing." (interim report)
- Romanow recommended \$6.5 billion in near-term spending to reform the system, which he felt could be funded from general government revenue or budget surpluses. He also suggested that Canadians are willing to pay higher taxes to cover health care if needed.
- The report proposed expanding coverage to include catastrophic drugs, home care and additional diagnostic services.
- It opposed private delivery of publicly funded services.

Getting to satisfactory: trade-offs and potential solutions



ONE WAY TO DEFINE SUCCESSFUL FINANCIAL planning in retirement is managing the risks well enough to provide the income necessary to enjoy a satisfactory lifestyle. But exactly what that means will vary widely by individual. That's because total life savings, the degree of risk, risk tolerance, health issues, what's considered a "satisfactory" lifestyle and how much it costs can vary so widely.

In this section, we examine a number of key factors that everyone needs to consider when seeking retirement income security. This is not a comprehensive view of all aspects of retirement planning. We will not, for example, cover estate planning and trust services. Instead, we focus on a retiree's own desired lifestyle. We then discuss some key trade-offs that people should understand before they make the critical financial and investment decisions needed to achieve their vision.

Getting started: Visualize retirement

The first stage in planning for the retirement income phase is for people to envision what they would like their retirement to look like. What will they do when all of their weekdays become *weekends*? Where do they want to live? Which is more important to them – passing on a large legacy to heirs or taking a first-class cruise every year? Do they want a life of full-time leisure, or are they interested in pursuing a new career or working part time? How concerned are they about their own health or that of a spouse?

Once people have carefully considered what shape their retirement may take, they can make a more accurate estimate of what it will cost to fund that lifestyle.

Clearly, visualizing retirement involves deeply personal choices. But the exercise does alert people that achieving the retirement they want will require planning, saving and successfully balancing a series of trade-offs, and it gets them started on evaluating their resources and investment strategies. (The checklist on page 30 provides a good starting point for a discussion about financial issues in retirement.)

Contentment equals preparedness

A 2002 study of retirees by gerontologist Ken Dychtwald underscores the importance of these factors. Dychtwald divided retirees into four broad categories, ranked by contentment:

- **Ageless explorers** are financially affluent, feel fully in control of their lives and are eager to launch new ventures.
- **Comfortably contents** are also financially solid, but prefer a more leisurely lifestyle.
- **Live-for-todays** see retirement as a new life, yet are anxious about their finances.
- **Sick-and-tireds** failed to plan adequately and now feel unfulfilled in retirement.

Interestingly, the study found that the single biggest driver of satisfaction was not total assets per se, but financial preparedness – retirees' sense that their resources, and plans for drawing on them, would sustain their chosen lifestyles for many years to come. Two key determinants of preparedness were the number of years spent saving for retirement and how long retirees spent planning their retirement. Regardless of their absolute wealth, the most satisfied retirees were those who had

SECTION IV: Getting to satisfactory: trade-offs and potential solutions

been saving for 24 years or more, using a variety of investment vehicles.⁽²⁶⁾

The decision to save for retirement is itself a trade-off between consuming now and consuming later. Retirement saving provides a less tangible benefit – the knowledge that assets are growing to meet future needs at a time when the individual will likely be less able to work and earn. This pattern of weighing and choosing among trade-offs – sacrificing something now to acquire something later – begins, then, well before retirement. And to achieve satisfaction in retirement, it must continue as a person structures an income plan for the rest of his or her life.

1. Choosing the date

One of the most basic trade-offs is the actual timing of retirement. This is something most retirees have substantial control over.

In recent years, they have increasingly chosen to retire early. In 1976, for example, the number of men between 60 and 64 still in the workforce was over 66%. Twenty years later, in 1996, that number had fallen to just over 43%. However, by 2004, the number of men at that age still working had moved back up to 53%.⁽²⁷⁾ The median retirement age for all Canadians shows a similar pattern. By 1997, the traditional retirement age of 65 had dropped to 60.6, but it spiked back up to 61.4 between 2002 and 2004.⁽²⁸⁾

These statistics may only reflect a short-term financial crunch produced by the stock market troubles at the turn of the century, combined with low savings rates. But economic pressures and changing

attitudes toward work and leisure may be prompting a longer-term trend toward later retirement. A service-based economy with fewer physically demanding jobs may be increasing both demand for seniors' experience and their willingness to work. Some sociologists predict that many seniors, after their initial retirement, will use their mid-60s to go back to school and acquire new skills before pursuing a second or third career, full or part time.

Delaying retirement can contribute substantially to income security later in life. (It can, for example, help make any later decision to return to work a voluntary choice – not a sheer necessity.) Consider the multiple advantages of delaying retirement beyond age 60 – the minimum threshold for collecting Canada Pension Plan (CPP) and Quebec Pension Plan (QPP) benefits – to age 65, when full retirement benefits are available.

Remaining at work through this period brings a person to full eligibility for provincial seniors' health care coverage by the time he or she retires. Assuming a person's job provides drug and other health benefits, that alone means a saving of five-years-worth of potentially expensive drug and health insurance costs. Meanwhile, the pre-retiree can continue to save, and his or her retirement nest egg remains untapped and may benefit from further compounding.

Those who stay at work can also elect to take CPP or QPP benefits early and invest the proceeds in a registered account to take advantage of tax-deferred compounding. Alternatively, they can delay taking a pension, thereby increasing their future monthly benefits significantly.

What Canadians can expect from government retirement benefits

According to data from Social Development Canada and Régie des rentes Québec, a baby boomer born in 1948 who is eligible for the CPP or QPP maximum benefits can expect a monthly payment (in 2005 dollars) of approximately:

- \$580 on retiring at age 60
- \$829 on retiring at age 65
- \$1,077 if he or she continues working and takes CPP or QPP benefits at age 70⁽²⁹⁾

These figures do not include Old Age Security (OAS) benefits, for which retirees become eligible at age 65, and which provide a maximum benefit of about \$476 per month (2005 dollars), with additional benefits available to people with low incomes. OAS may be subject to a clawback for individuals with net incomes exceeding a particular threshold (\$60,806 in 2005).⁽³⁰⁾ However, only about 5% of pensioners are subject to the clawback, according to Human Resources Development Canada.⁽³¹⁾

The CPP and QPP plans, when combined with OAS, can provide significant income for Canadian retirees. According to a 2005 study conducted by the Organization for Economic Cooperation and Development (OECD), lower-income earners stand to gain the most from these programs. For those whose incomes are half the Canadian average, the government's pension plans alone will replace about 89% of their pre-retirement, after-tax incomes, compared to the U.S. lower-income replacement rate of about 61% and the average for countries belonging to the OECD of 85%. Canadians with average incomes will receive about 57% after retirement versus only 51% in the U.S. This is less generous, however, than the average replacement rate of roughly 69% provided in OECD countries.⁽³²⁾

While these benefits are significant, Statistics Canada data show that Canadian households aged 65+ have significant supplements to their public pensions. Senior households on average relied on government plans for only 43% of their total income in 2003; their additional income came partly from pension plans (27%), while personal incomes from investments and earnings made up most of the balance.⁽³³⁾ (These proportions will, of course, vary depending largely on income level and participation in employer pension plans.)

2. Converting assets for retirement income

Retirees are also required to make trade-offs when deciding how much they need to cover basic and discretionary expenses, whether the available assets can meet all those expenses, and how those assets can best be organized to cover expenses.

Some retirees will have sufficient guaranteed pension and government

benefits to cover all of their retirement expenses for life. But most will have to consider strategies for structuring and drawing down their life savings to provide enough income to cover all their expenses not met by guaranteed income sources. This, in turn, will require trade-offs – sacrificing liquidity and flexibility, for example, to secure guaranteed income streams for life.

SECTION IV: Getting to satisfactory: trade-offs and potential solutions

Exhibit 10 provides a basic template for organizing assets in retirement. It suggests using the most predictable income sources to meet essential expenses and converting financial assets to cover any income gaps. Then, after there is a reasonable certainty that essentials are covered, financial assets can be used to fund discretionary expenses such as travel, entertainment and club memberships.

It makes sense to arrange assets so that essential needs are met first. As the name suggests, discretionary expenses are “nice to haves,” which can be adjusted up or down depending on the performance of financial assets earmarked to cover these expenses. And knowing essential expenses are covered allows retirees to ride out periods of volatility in the financial markets and take advantage of the long-term benefits of stock investments.

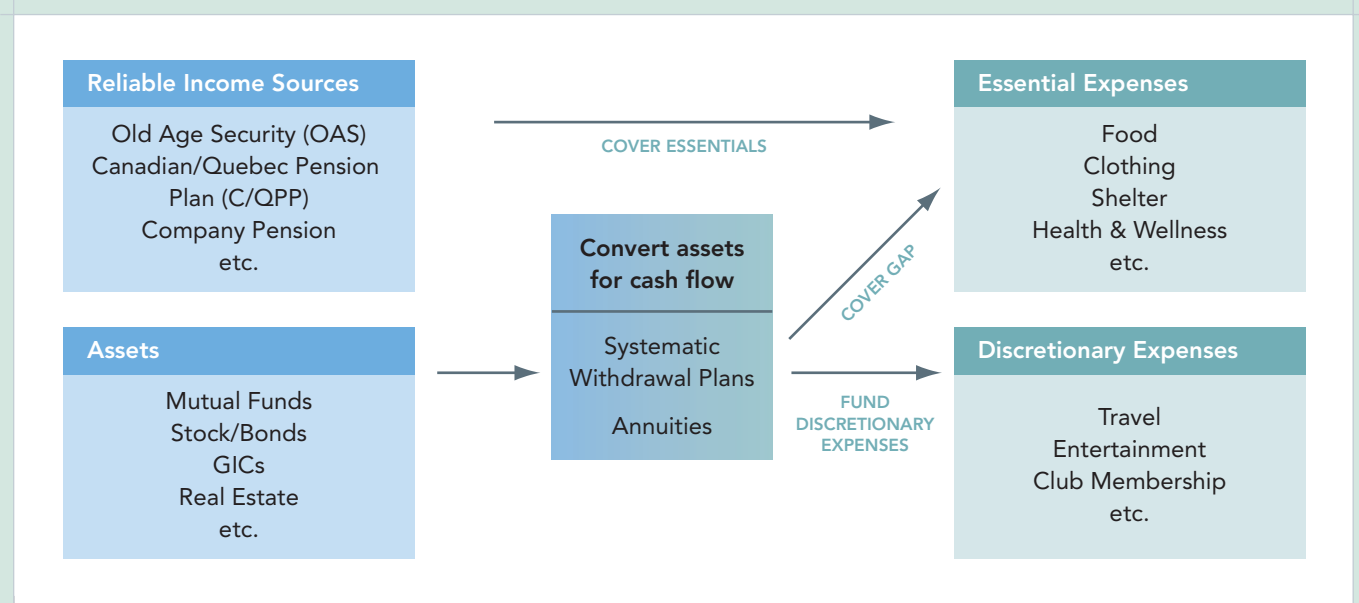
The following is a list, by no means complete, of potential building blocks for retirement income security and some of the trade-offs in certainty, growth potential and flexibility.

Old Age Security and the Canada and Quebec Pension Plans provide guaranteed income for life and are adjusted automatically for inflation. However, once a retiree has formally signed on, there is no flexibility. Plus, a retiree’s age at formal retirement locks him or her into a set pattern of payouts for life.

Pension plans refer to traditional defined benefit programs, which provide predictable lifetime income. Some, but not all, pensions also offer the possibility of increased future payments to compensate for inflation. Like OAS and CPP/QPP, there is little or no flexibility once a pension plan withdrawal is initiated, and benefits will, in most cases, be reduced on the death of a spouse.

Exhibit 10

Match the reliability of cash flow to the importance of the expense



Systematic withdrawal plans (SWPs) are strategies for drawing income from a given pool of investments, such as mutual funds, over specific periods of time. SWPs can be designed to last for specific time periods or a lifetime. Recipients need to adjust their withdrawals each year for market fluctuations or changes in life expectancy, in order to make the SWP last for the chosen time period. In making calculations on how much income can be safely drawn from a given asset pool, Monte Carlo simulations should be used. (For a more detailed explanation, see “The flaw of averages.”)

The SWP works well for the investor who needs to withdraw a regular amount to meet a budgetary expense. It allows the investor to withdraw an exact amount, but the investor can adjust the amount if circumstances change. However, if the investor does not make use of this feature or does not use it effectively, he or she runs the risk that in a sustained down market, the pool of investments may be depleted sooner than expected. The investor has the option of adjusting for market shifts by changing the amount withdrawn. Thus when markets are buoyant, the investor could withdraw more, and when markets pull back, withdrawals would be reduced in order to conserve capital. The obvious trade-off is that while the investor will potentially be able to withdraw more without depleting the pool of investments, the size of the withdrawals is not guaranteed; in down markets, the investor will probably have to withdraw less, if the pool is to survive.

Another issue is tax efficiency on non-registered accounts. As discussed above, the most tax-efficient way to make withdrawals on non-registered accounts is to withdraw the original capital first, before

capital gains. As a result, the investor defers the date when the accumulated gains will be taxed. With a conventional SWP, the investor withdraws a combination of the original capital and the capital gains. As capital gains grow in the account the tax liability on a conventional SWP grows. However, new withdrawal plans allow an investor to withdraw all of the original capital first, thus improving the tax efficiency of the investment. The trade-off is that this method is somewhat more complex and less flexible than a conventional SWP. Also, eventually the original capital will be depleted, leaving only a pool of capital gains that will be taxed as it is withdrawn.

Professionally managed bond funds can also play multiple roles in a retirement portfolio. Bond funds pay monthly distributions, which retirees can receive in the form of cash or have reinvested for additional compounding. Bond funds can also add stability to a portfolio that contains equities. And because these funds own many individual securities with varying maturities and coupons, investors aren't overly reliant on any one bond. Certain bond funds are diversified across various sectors of the bond market, including corporate, government, mortgage-backed and government agency securities, for even more stability.

Bond funds do not have set maturity dates, and their principal value will fluctuate inversely with interest rate movements. However, conservative investors can mitigate this risk to some degree by investing in bond funds with shorter maturity dates or in inflation-protected bond funds, which typically hold federal and provincial securities and whose principal value will adjust to inflation as measured by the CPI.

SECTION IV: Getting to satisfactory: trade-offs and potential solutions

Bond or GIC ladders may be useful to investors who want a fixed schedule of income payments or the relative certainty of knowing that their principal will be returned on a specific date.

In a bond ladder, the bonds are purchased so that their maturity dates are staggered, to lessen the impact interest rate movements can have on the value of the principal. For instance, the ladder may be set up so that bonds mature annually.

By assembling a mini-portfolio of bonds, retirees can create a more predictable income stream for a certain period and then reassess their income needs at the end of the period. Also, while the bond ladder provides a relatively steady source of income, retirees can invest other savings in growth-oriented mutual funds or equity pools without worrying too much about day-to-day stock market fluctuations. This strategy trades growth potential for a regular, reliable income stream. It does, however, offer some flexibility, because the individual bonds underlying the ladders are generally quite liquid.

More conservative investors can create ladders using Canadian Deposit Insurance Corporation (CDIC)-insured Guaranteed Investment Certificates (GICs), which are bank deposits held for specific periods of time. GICs generally pay higher interest than regular bank savings accounts but offer less flexibility because most impose some sort of penalty if they are cashed in before maturity.

Real estate assets, such as primary residences or vacation homes and investment properties, can be used in a variety of ways to fund retirement – sale, rental income or reverse mortgages (a loan that allows an owner to convert the equity value of a home into a source of income).

Each of these methods for converting real estate into a source of funds for retirement has certain advantages, risks and costs associated with it, which should be reviewed carefully.

Fixed and variable annuities offer lifetime incomes in exchange for a non-refundable initial investment and can be used to provide guaranteed coverage of essential expenses. Income annuities come in two basic forms. Fixed annuities promise to make regular equal payments of income, either for a specific period of time or for as long as a person lives, but do not adjust for inflation. Variable annuities also offer period-specific or lifetime incomes. But as the term indicates, that income may vary depending on the performance of the annuity's underlying investments. As with stocks and equity mutual funds, a variable annuity could provide a partial hedge against inflation – but the payments are not fixed. Another option is the indexed annuity, which adjusts for inflation but is more expensive.

3. SWPs and annuities

Choosing among these financial vehicles and strategies to create personalized income plans for retirees involves some trade-offs. One common choice is between a SWP, based on a diversified pool of assets, and a guaranteed lifetime income product, such as an annuity.

The benefit of an annuity is that it provides relatively predictable income at the cost of paying an insurance premium and giving up some flexibility. As noted above, it will not necessarily provide protection against inflation. However, variable and indexed annuities can provide retirees with some cost-of-living protection, although they come at an additional cost.

A SWP based on a balanced portfolio of equities, bonds, and short-term investments can provide considerable protection against inflation. The underlying assets can grow at rates that, over the long term, have generally exceeded the rate of inflation and may even provide increased income in a retiree's later years. But this potential growth also comes at a cost: While capital markets have historically trended upward over the long term, they may, as recent events have shown, also move downward, shrinking retirees' asset base and source of income.

Another key difference is in flexibility. While a life annuity can provide a guaranteed income stream, once payments have begun, they are generally fixed for the rest of the annuitant's life. SWPs, on the other hand, give the retiree a great deal of choice in how much to draw down from the assets and when. But there is no guarantee how long the assets will last.

SWPs and annuities also differ in their effect on the investor's estate. If the annuitant dies early on, none of the original principal used to purchase the annuity would go to the heirs. (Some more expensive contracts offer guarantee options to retain a portion of these assets in the event of unexpected death.) With SWPs, however, if a retiree's assets outlive the retiree, the balance, net of costs and taxes associated with estate administration, goes to the heirs.

Obviously, there are both benefits and costs to SWPs and annuities. What a SWP can offer a retiree in inflation protection and flexibility, an annuity can provide in security and stability. Ultimately, some combination of the two may be desirable, depending on a retiree's goals and circumstances.

4. Long term care insurance

The government's health program pays only a portion of long term care or assisted living costs, unless retirees have no assets of their own. Consequently, another trade-off retirees need to weigh is the cost of long term care (LTC) insurance versus the risk that lack of such coverage may inflict serious damage on their assets if they face prolonged stays in a long term care facility. Exhibit 11 illustrates the costs of annual long term care in various regions of Canada and the annual costs of LTC insurance.

An LTC policy may pay most or all of the costs for stays in long term care facilities, and many policies also pay for care at home or in other community settings. Since policies vary, it's important to understand what a policy covers. Since an LTC policy can be in force for a long time, the financial strength of the insurance company issuing the policy is also a major consideration.

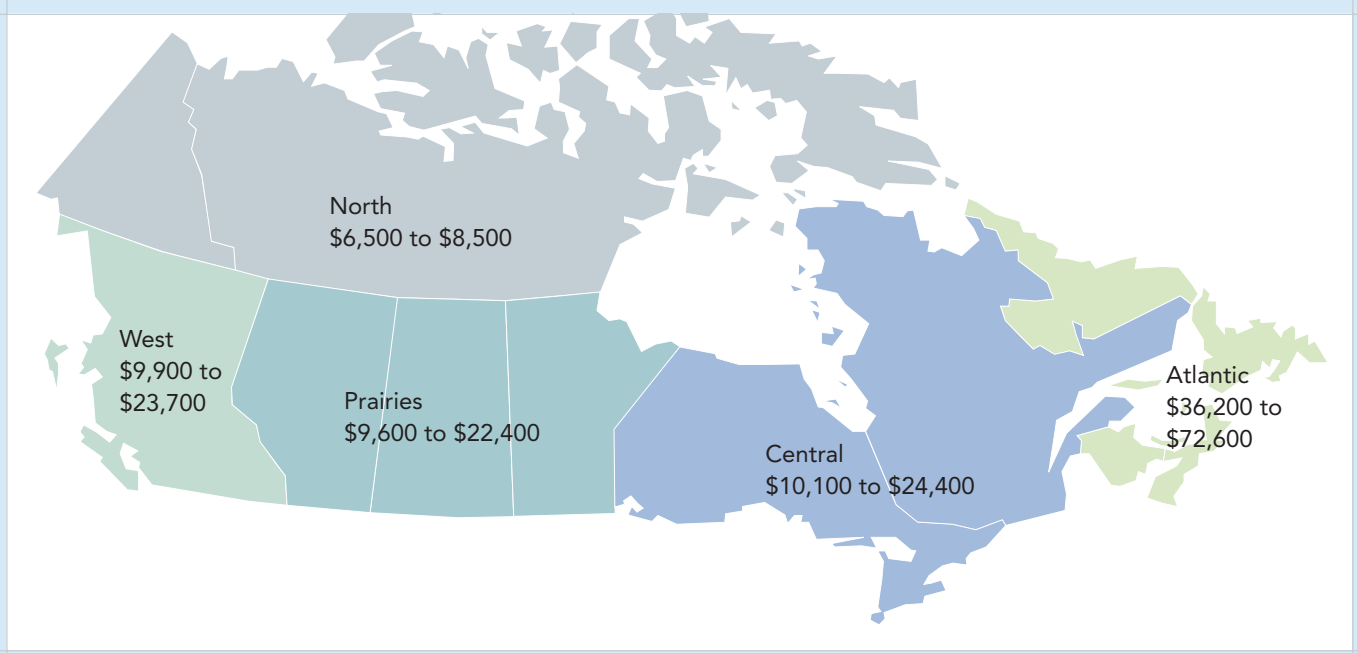
The cost of LTC coverage increases as the individual ages. But the cost of staying in a long term care facility can be significant over the long term. Retirees must calculate this trade-off with a clear sense of the statistical likelihood of needing an extended stay in a long term care facility, combined with a realistic understanding of their own health and history.

For example, while estimates suggest that about half of people over 65 will spend some time in a long term care facility, the average stay is generally less than three years.⁽³⁴⁾ Three years of living in a long term care facility, at costs ranging between \$10,000 and \$70,000 per year depending on region, level of privacy, and level of

SECTION IV: Getting to satisfactory: trade-offs and potential solutions

Exhibit 11

Annual long term care costs by region (ranges are approximations)



ANNUAL COST FOR LONG TERM CARE COVERAGE*

Age at which coverage is initiated	45	50	55	60	65	70	75
Cost/year	\$882	\$1,132	\$1,503	\$2,023	\$2,908	\$4,238	\$6,463

*The costs shown are for inflation-adjusted coverage for an individual. Policy coverage is assumed to be a lifetime benefit of \$28,800 per year in costs and includes a one-time 90-day deductible period. For exhibition purposes only. Costs shown are for FSNA-eligible applicants only, as defined by FSNA. Insurance costs, conditions, and benefits may vary significantly by plan/provider. Source: Federal Superannuates National Association (FSNA), 2005

care, requires a significant amount of money.⁽³⁵⁾ Many retirees may already have resources in place to pay for such care. (For instance, some homeowners may plan to sell their home and use the equity to pay for long-term care.) In some cases, however, especially Alzheimer's disease, stays of eight years and longer may occur.⁽³⁶⁾ Obviously the expense incurred in these situations can deplete even very substantial retirement accounts.

The provincial governments will provide extra subsidies for those with insufficient assets should they need extended long term care. Consequently, LTC insurance is probably not necessary for individuals with particularly low income levels.

For those who do choose LTC insurance, it may be worthwhile to purchase a policy that provides lifetime benefits, rather than term policies, if financially possible. Exhibit 11 shows cost estimates for inflation-adjusted

LTC insurance, which can run as much as 50% higher than coverage that does not include inflation protection. Given these higher costs, some people may wish to consider purchasing an LTC policy that does not adjust for inflation and using other assets, such as equity investments, to self-insure against the inflation risk of long-term care.

5. Asset allocation and withdrawal rates – a combined view

Evidence presented in this paper suggests that a 4% withdrawal rate (adjusted annu-

ally for inflation) maximizes the likelihood of a portfolio surviving through retirement. A compelling case has also been made that exposure to equities is necessary throughout retirement to improve a portfolio's chances of lasting. From a practical perspective, however, a 4% withdrawal rate may not generate sufficient income to meet a particular individual's retirement income needs. Likewise, a single balanced asset allocation strategy may not be appropriate for all investors.

Exhibit 12 explores this trade-off between various asset allocation strategies and

Exhibit 12

The trade-offs of different allocation strategies at various withdrawal rates

Longer planning horizons require greater equity exposure

Inflation-adjusted withdrawal rate		Projected life of portfolio (years) for varying asset allocation strategies				
		Most conservative	Conservative	Moderate	Aggressive	Most aggressive
4%	Average markets	33	39	52	59	88
	Extended down markets	26	26	25	23	22
5%	Average markets	24	28	33	36	41
	Extended down markets	20	20	19	18	17
6%	Average markets	19	21	24	26	28
	Extended down markets	16	16	16	15	14
7%	Average markets	16	17	19	21	22
	Extended down markets	14	14	13	12	12
8%	Average markets	14	15	16	17	18
	Extended down markets	12	12	11	11	10

Average markets: probability based on 50% confidence level
 Extended down markets: probability based on 95% confidence level

Source: Fidelity Investments. Hypothetical value of assets held in an untaxed account invested in the following portfolios:
 Most Conservative - 10% Canadian stocks, 5% U.S. Stocks, 5% international Stocks, 20% bonds and 60% short-term investments
 Conservative - 15% Canadian stocks, 7.5% U.S. Stocks, 7.5% international Stocks, 35% bonds and 35% short-term investments
 Moderate - 30% Canadian stocks, 10% U.S. stocks, 10% international stocks, 35% bonds and 15% short-term investments
 Aggressive - 45% Canadian stocks, 12.5% U.S. stocks, 12.5% international stocks, 20% bonds and 10% short-term investments
 Most Aggressive - 55% Canadian stocks, 15% U.S. stocks, 15% international stocks and 15% bonds
 Inflation-adjusted withdrawal rates have been applied as specified. Average rates of return on Canadian stocks, U.S. stocks, international stocks, bonds and short-term investments are based on the risk premium approach. Please refer to the Important Legal Information page for important information about the methodology used in this chart and for source and other information. Actual rates of return may be more or less. A constant inflation rate of 2.25% is assumed; actual inflation rates may be more or less. This chart is for illustrative purposes only and is not indicative of any investment. Past performance is no guarantee of future results.

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withdrawal rates. The matrix illustrates the expected survival rate of a number of asset allocation strategies – from conservative to aggressive – using different withdrawal rates ranging from 4% to 8%, under both average (50% confidence levels) and extended bear market conditions (95% confidence level).

As the exhibit makes clear, reducing the withdrawal rate of a given portfolio can dramatically increase the potential lifespan of a retiree's portfolio. Similarly, increasing the equity weighting of a portfolio can significantly increase a portfolio's longevity under average market conditions. However, it is important to realize that in bear market scenarios, the projected lifespan of this more aggressive portfolio is much shorter than that of a more conservative portfolio. The key is to select an appropriate balance between a withdrawal rate that meets an investor's needs and an asset allocation strategy that maximizes his or her portfolio's longevity in both average and down market conditions.

THE BOTTOM LINE: *Successfully managing assets to create an income that will last through retirement involves a complex series of trade-offs. These touch on retirees' core values and preferences – ranging from desired lifestyles to the wish to leave substantial estates to heirs, to willingness to endure some uncertainty or pay more for income guarantees. There is no one-size-fits-all solution. The only absolute is the need to plan wisely to help increase the likelihood of a secure retirement.*

THE TRANSITION FROM FULL-TIME WORK AND wealth building to retirement and creating lifetime income requires a new and complex set of financial decisions. The main challenge – creating a financially secure retirement – is a serious one. It is also eminently within reach. If they plan carefully, most Canadians can use investment, income and insurance products to craft strategies that will reliably meet their retirement lifestyle needs. But that is a very big if.

Educating millions of Canadians to understand this need and act on it will require an immense effort by the financial services industry, employers, advisors, the media, government officials and individuals – an effort that starts with encouraging average Canadians to save and invest during the wealth-building phase of their lives.

Fidelity believes all retirees and pre-retirees should have an income plan that realistically estimates their expenses and seeks to ensure they do not outlive their assets. We believe essential expenses should be covered – first – by predictable sources of lifetime income such as Old Age Security, CPP or QPP, pensions, annuities or sustainable long-term withdrawals from assets.

That means making sure every retirement income plan has an asset allocation mix

that addresses inflation and health costs, and balances the need for long-term investment growth with the risk of short-term market volatility. What's more, we believe retirement income plans should be flexible – so that they can be changed as a retiree's own circumstances change – reviewed regularly, and revised, if necessary, so that they stay on track. Above all, we believe the single most important step is to begin the planning process early – the sooner the better.

Starting the planning process is the essential first step in seeking financial security in retirement. For those approaching retirement age, planning may lead to significant decisions such as changing current savings levels or the timing of retirement. For those already retired, planning can dramatically reduce the risk of outliving one's assets.

By helping the individual discriminate between essential and discretionary expenses and put plans in place to ensure the essential expenses will be met, planning can make it possible to meet additional goals – including bequests to charity and gifts and legacies for family members. Perhaps most importantly, retirement income planning can provide retirees and their families with the comfort of knowing they've taken the first steps to a potentially secure retirement.

A five-step checklist for retirement income planning

Step 1: Expense inventory

- Estimate monthly or annual expenses, dividing them into essential (food, housing, clothing, health care costs, insurance, etc.) and discretionary (travel, entertainment, etc.).
- Estimate any amount to be left as a legacy.

Step 2: Income inventory

- Draw up an inventory of all sources of income – government pensions, traditional pensions, lifetime annuities or other predictable long-term income flows.
- List all financial and real assets (stocks, bonds, mutual funds, GICs, real estate, rents, etc.) that could be used to fund retirement, including estimated income from these assets.

Step 3: Compare essential expenses with highly predictable income sources

- Compare the projected essential expenses with projected total after-tax income. This comparison will show whether the essential expenses can be fully covered.

Step 4: Allocate assets to cover essentials and to fund discretionary expenses

- If there is an income gap, you will need to re-evaluate.
- If there are savings as well as sources of income, the retiree can draw on these to cover the rest of the essential expenses. The assets can either be segregated into a specific pool that can be drawn on systematically over time or used to purchase a guaranteed income product, such as an annuity.
- Once essentials are funded, the assets remaining can be used for discretionary expenses, according to a systematic withdrawal plan.
- If the sources of income plus income generated from the assets will not cover the essential expenses, then consider some alternatives. These could include postponing retirement, cutting back on basic requirements or deciding not to leave a legacy.

Step 5: Protect and update the plan

- Decide whether to protect the lifetime income plan with major life and long-term care insurance.
- Review the plan at least once a year, adjusting all the elements – including expenses, asset allocation and withdrawal rates – as necessary to meet changing personal circumstances.

End Notes

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- (3) Canadians aged 65+ in 2004, Number of Canadians turning 65 in 2004: Statistics Canada, CANSIM, table 051-0001. Number of Canadians turning 65 in 2040: Baxter, David, Jim Smerdon, and Andrew Ramlo, "Forty Million: Canada's Population in the Next Four Decades," Urban Futures Institute, Vancouver, 1999. Canadians aged 65+ in 2041 (projection): Statistics Canada, "A Portrait of Seniors in Canada," 3rd Edition, Ministry of Industry, 1999.
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Bond returns: prior to 1980, Scotia Capital Universe Long Bond Overall Index; since 1980, Scotia Capital Universe Overall Index.

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- ⁽¹⁶⁾ Inflation data: Bloomberg, Consumer Price Index, February 1914 to June 2005.
- ⁽¹⁷⁾ Approximately \$46,000 in annual household expenditures: Statistics Canada, "Survey of Household Spending in 2003," special tabulation, 2003.
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Important legal information

Exhibits 3, 4, 6, 7, 8, 9 and 12 are not intended to project or predict the present or future value of the actual holdings in a participant's portfolio or of the performance of a given model portfolio of securities.

The calculations and results generated for Exhibit 9 are based upon historical performance analysis of the stated asset groups, goals and assumptions. The historical monthly performance utilized is from January 1972 through May 2005: Canadian stocks, U.S. stocks, international stocks and short-term investments are represented by S&P/TSX Composite Index, S&P 500 Index, MSCI EAFE Index, and Scotia Capital 91-Day T-Bill Index, respectively. Bonds are represented by Scotia Capital Universe Long Bond Overall Index prior to January 1980 and Scotia Capital Universe Overall Index from January 1980 forward.

Investors may be charged fees when investing in an actual portfolio of securities, which are not reflected in illustrations utilizing returns or market segments.

For Exhibits 4, 7, 8 and 12, several hundred financial market return scenarios were run to determine how the asset mixes may have performed. For Exhibits 8 and 12, the Average market and Extended down market results are based on 50% and 95% confidence levels, respectively. The results for the Average market highlight the number of years the hypothetical portfolio would have lasted in 50% of the scenarios. The results for the Extended down market are based on a 95% confidence level highlighting the number of years the portfolio would have lasted in at least 95% of the scenarios generated. For

Exhibit 8, a 95% confidence level was utilized indicating that the percentage of assets withdrawn annually could have been supported for the number of years noted in 95% of the historical scenarios that were generated.

The estimated returns for the stock and bond asset classes are based on a "risk premium" approach. The risk premium for these asset classes is defined as their historical returns relative to a Canada 10-year benchmark bond. Risk premium estimates for stocks and bonds are each added to the 10-year benchmark bond yield. Short-term investment asset class returns are based on a historical risk premium added to an inflation rate which is calculated by subtracting the Canada Real Return Bond yield from the Canada 10-year benchmark bond yield. This method results in what we believe to be an appropriate estimate of the market inflation rate for the next 10 years. Each year (or as necessary), these assumptions are updated, to reflect any movement in the actual inflation rate.

Volatility of the stocks (Canadian, U.S. and international), bonds, and short-term asset classes is based on the historical annual data from 1954 through May 2005.

Canadian stocks are represented by S&P/TSX Composite Index from Ibbotson Associates, Inc. starting in 1970 and Toronto SE-300 Total Return Index from Global Financial Data prior to 1970. U.S. stocks are represented by S&P 500 Total Return Index from Ibbotson Associates, Inc. starting in 1960 and from Global Financial Data prior to 1960. International stocks are represented by MSCI EAFE Total Return Index from Ibbotson

Associates, Inc. starting in 1970, and a synthetic EAFE that was constructed using individual EAFE country total returns from Global Financial Data weighted by historical gross domestic product for each country prior to 1970. Short-term investments are represented by the Scotia Capital 91-Day T-Bill Index from 1986 forward, and by Canadian T-Bill History from Moneyware Inc. prior to 1986. Bonds are represented by the Scotia Capital Universe Long Bond Overall Index prior to January 1980 and Scotia Capital Universe Overall Index from January 1980 forward. Annual returns assume the reinvestment of interest income and dividends, no transaction costs, no management or servicing fees and the rebalancing of the portfolio every year.

For Exhibits 3, 4, 7, 8, 9 and 12, which highlight varying levels of stocks, bonds, and short-term investments, the purpose of the hypothetical illustrations is to show how portfolios may be created with different risk and return characteristics to help meet a participant's goals. You should choose your own investments based on your particular objectives and situation. Remember, you may change how your account is invested. Be sure to review your decisions periodically to make sure they are still consistent with your goals. You should also consider all of your investments when making your investment choices.

Read a fund's prospectus before investing. Mutual funds are not guaranteed; their values change frequently and past performance may not be repeated. Investors will pay management fees and expenses, may pay commissions or trailing commissions, and may experience a gain or loss.

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