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To: UTFA members at the retirement seminar on May 2, U of T Faculty Club

From: George Luste, UTFA President

Re: **My presentation notes for "Anticipating and Thinking About Retirement"**
Part I - on "Financial Planning"
Part II - on " The U of T Pension Plan"

Part I - Financial Planning[1]

"Whatever failures I have known, whatever errors I have committed, whatever follies I have witnessed in private and public life have been the consequence of action without thought."
Bernard Baruch

A financial plan makes recommendations on a number of topics. It generally begins with an assessment of a person's (or family's) net worth and a list of income and expenditures and/or a budget. Following this picture of the client's current situation are the issues and recommendations in six key areas:

- **Day to day finances** (budgeting, expense control, mortgage, other debt, emergency, etc.)
- **Insurance** (life, health, disability, property)
- **Taxes** (exemptions, deferrals, income splitting)
- **Investments** (asset allocation, security selection, risk management)
- **Retirement** (UofT pension, RRSPs, RRIFs, CPP, annuities, etc.)
- **Estate** (wills, powers of attorney, use of trusts, planned giving, etc.)

Not all financial plans include recommendations for all of these topics.

For example, a retiring university professor with a mortgage-free residence and a pension that covers day to day expenses may want and need advice only with respect to investments, taxes, and estate planning.

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[1] **Disclaimer.** *Caveat emptor*! The presenter/author is not a registered financial advisor, and has no official financial credentials. I am not associated with any bank, mutual fund, brokerage, or other seller of securities. The information on these pages is provided in order to help inform individuals. It is presented "as is" at no charge, is in no way guaranteed and the author expressly disavows any liability.
Almost all of the Financial Planning text here is a verbatim copy from the Financial Webring website (at http://www.financialwebring.org/forum/viewtopic.php?t=101652), courtesy of some excellent and generous contributors such as Norbert, Mike, Keith, Bylo, Bruce and others. Much of the original text comes from Norbert's website for Libra Investment Management at http://www.libra-investments.com/

Doing it yourself (DIY)

Disclaimer. The advice hereafter is very brief and generic. It is not targeted specifically to any individual's circumstances. You may have personal or financial issues that must be handled specially, in which case you will need to learn more or consult a professional.

The following topics are organized as individual headings.

- Encouragement
- The basics
- Insurance
- Taxes
- Retirement
- Investing
- Implementation
- Estate
- If you can't or won't DIY
- Further Reading

Encouragement

For many people, reading financial material or carrying on a financial discussion is a baffling and humbling experience. Jargon flies, everyone but you seems to know what's being talked about, and you don't know how to distinguish good information from noise.

The purpose of this introduction is to provide basic information, simplified enough that hopefully the average person is enabled to better handle their finances on their own and at minimal cost[2]. The information presented here is necessarily abbreviated and not at all tailored to your own circumstances. Complexities and subtleties have been glossed over.

However, the following simplified recipe is 80-100% of what the average person needs to know about personal finance. Following the recipe will allow you to achieve 80-100% of what you should achieve financially, a significant improvement over the 50% you are likely to get if you consult the typical salesperson at a typical financial services firm. The typical salesperson is not incompetent or a thief, but the associated fees and continuing commissions (e.g. from mutual fund MERs) will consume half your wealth over time. No missed subtlety is likely to be as expensive for you over the long run as this cost factor.

If you're already fed up and can't stomach reading the rest of these short lectures, here is the super-condensed version:

- Spend less than you earn.
- Save/invest a percentage of every paycheque, not what is left after expenses.
- Don't put all your eggs in one basket.
- Watch the pennies and the dollars will look after themselves.

[2] In particular I shall be emphasizing the importance of minimizing ongoing 'frictional' costs.

The basics

No one cares as much about your finances as you do. You will not realize your financial goals, and no one else – not the most skilled advisor – can help you realize your financial goals if you are not engaged. While you can delegate some of this work, you cannot wash your hands of finance completely.

There is nothing complicated about basic finance. The guiding principle is avoiding self-destructive behaviour. If any of the following tendencies apply to you, fix them before you even think about investing:

- Spending more than you make
- Not paying off your credit cards every month
- Not opening mail from your bank or broker because you don't want to know
- Failing to take every free penny that comes your way, whether it be a matching contribution to a savings plan by an employer or a tax deduction from the government, because you don't want to put some money into the kitty yourself
- Leaving your family exposed to a loss of earnings due to death or disability
- Gambling (unless you're really good at it, in which case it's not gambling)
- Buying a house or car more to impress than to use
- Paying non-deductible interest on anything other than your home mortgage (and a good case can be made that you are better to pay off the mortgage than invest, which is something you are not likely to hear from a financial salesperson who gets paid a commission to sell you investments)

Insurance

The guiding principle for insurance is to use it only when a loss would be financially intolerable (or causes you to lose sleep due to worries about it). Otherwise 'self-insurance' – assuming the risk of loss yourself and saving on the premiums you pay to the insurance company - is the better alternative.

You pay for insurance when:

- It is legally required (e.g. liability insurance for a vehicle)
- It is contractually required (e.g. your mortgage lender insists you have fire insurance)
- A loss would cause serious financial hardship to your family (e.g. a paid for house burns down and you cannot afford to rebuild out of other resources; your family depends on your earnings from a job or business, and you are unable to work because of death or disability)

You do not pay for insurance when:

- A loss is immaterial to your wellbeing (e.g. an extended warranty on a $300 television is a waste of money)
- No third party can be harmed by an event (e.g. life insurance for a person with no dependents)
- A loss cannot be compensated with money (e.g. life insurance on a child)

- The risk is not really avoidable (e.g. segregated funds guarantee a minimum market value, but if the market really goes into the tank, are the insurance company's finances robust enough to make good?)
- The all-in cost is similar to the loss you're trying to avoid (e.g. paying fat fees to life insurers to avoid paying fat taxes at death, but your children will end up with the same amount in either case)

No matter what, do not let a salesperson make you feel guilty about a non-existent or trivial risk. Avoid buying insurance for emotional reasons.

An excellent introduction to insurance and annuities for the layperson is Milevsky's *Insurance Logic*[3]. It may be available at your public library.

Taxes

You do not need to know every detail of our incredibly complicated income tax system in Canada. The average person will be well served by taking advantage of these five types of tax planning opportunities.

Do:

- Avoid taxes: Profits from the sale of a principal residence, and up to $500,000 of capital gains from the sale of an active business you own, are tax free.
- Defer taxes: Contribute to pension plans or an RRSP[4], and an RESP if you have children or grandchildren. Investment gains are not taxed until withdrawal, which allows income to compound tax-free over long periods of time.
- Split income: Our tax system has progressively higher rates as you earn more, so having income taxed in the hands of lower income family members saves money. Consider employing your spouse or children if you have a business. Contribute to a spousal RRSP. Split your CPP entitlements.
- Generate tax-preferred investment income: Dividends from Canadian corporations and capital gains on the sale of investments get preferential tax treatment relative to earned income and interest. Earning $80,000 at a job in 2004 would cost about $23,000 in income tax plus CPP and EI premiums. The same income, half in Canadian dividends and half in capital gains, is liable for only $8,000 in taxes.
- Keep the least tax-efficient securities inside your RRSP/RRIF and the most tax-efficient outside.

Don't:

- Cheat on your income tax returns by falsifying your income or expenses.
- Buy an investment that is being touted more for its tax benefits than its returns.

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[3] http://www.captus.com/Information/InsuranceLogic-flyer.htm

[4] UofT pension plan members normally are not able to contribute to RRSPs because our Defined Benefit pension plan uses all the tax-deferred allowance Ottawa allows.

Retirement

The most common question asked by those who invest for retirement is, "How much money do I need to retire?" That cannot be answered until you answer the question, "How much money do you need to spend each year?"

The answer to that question – and the answer is entirely up to you – is the critical ingredient when it comes to knowing how much is needed to retire. No one can tell you what sort of lifestyle you want to lead. That is inevitably your personal decision. Some people are happy with a paid for house and $2,000 a month to spend. Others insist that $100,000 a year is what they really want. You must decide what's right for you.

Once you have done that, a ballpark estimate for how big your portfolio needs to be isn't too hard. First, if the estimate you have made is after tax spending, you need to bump it up a little to get back to pre-tax figures. Adding 25% is roughly right; you can refine your estimate by using Ernst and Young's tax calculator[5] or Walter Harder's Income Tax Estimator[6].

Now deduct what pensions you will receive (from UofT) in retirement, because your portfolio won't have to produce that income.

The historical evidence is that you can take roughly 4% from the starting value of an investment portfolio, raising it each year by the inflation rate, without running into disaster. If your portfolio will need to support you for a period longer than 30 years, e.g. because you are an early retiree, then shave a little from the 4%, say 3.3% instead. History is not a perfect guide to the future, but barring nuclear war, natural disasters, or complete economic collapse, 3% to 4% should be your guide. That gives a convenient way of estimating the total funds required as 25-30 times what the portfolio needs to produce each year.

A simple example: The 63 year old Mr. Magoo wants $40,000 per year after taxes to spend in retirement. Before tax, it's about $50,000. CPP will pay $6,000, OAS $5,000, and his company pension $11,000 per year. His portfolio needs to generate $28,000 per year in retirement. At a 4% withdrawal rate, his portfolio should be worth at least $700,000.

Consider annuities[7] if any of the following are a concern

- You and/or your spouse are relatively healthy and are likely to live longer than average.
- Maximizing your income in retirement is more important than leaving an estate.
- You want a *guaranteed* monthly income stream regardless of how long you live.

The first two-thirds of How to Completely Avoid Outliving Your Money[8] provides a good introduction to annuities.

N.B. Since their purchase is irreversible, always seek professional advice before you purchase an annuity

5 http://www.ey.com/global/Content.nsf/Canada/Tax_-_Calculators_-_2006_Personal_Tax
6 http://www.walterharder.ca/T1.html
7 The UofT pension you receive (or will receive) is in effect a partially indexed annuity. It is guaranteed for 'life'.
8 http://www.ifid.ca/pdf_workingpapers/WP2002OCT1.pdf by Moshe Milevsky (34 page pdf file)

Investing

Investing can be a fundamentally simple process. There is so much jargon and so much information flying around that it looks incredibly complex. For someone untutored about investing, fobbing the whole task off onto someone else is very tempting.

Don't do it! You can do it yourself by following these simple guidelines:

- Most news is noise. The biggest risk for most people when investing in securities is paying too much attention to the news. What is in the business news today is totally irrelevant if you follow the rest of these guidelines. If you want to read the business pages or watch ROBTV for amusement, that's fine. Just don't invest that way.

- If your time horizon is really short and money is being invested that will need to be used within a few years, **STOP!** Don't do it. Putting your house down payment in the stock market is folly.

- Don't make the opposite mistake either by underestimating your time horizon: A person starting to draw on an RRSP today may have 30 years of retirement ahead, so keeping that RRSP in cash is a mistake as well.

- You must be willing to take some risks. While you may do fine just buying GICs at your bank, you can do much better. Even the most conservative investor is well advised to own at least some stocks, even if not individual stocks.

- Do not be stupid about taking risk. Historical evidence[9] is that even aggressive risk-seekers get scant extra return from going wild. Study the return table in Appendix – A.

- Write yourself an investment policy, using this template[10]. Very conservative investors should probably have 75% of their portfolios in fixed income like GICs or bonds or preferred shares and 25% in equities. Very aggressive investors should have 20-25% in fixed income and the remainder in equities. If you're in the middle, a 50-50 or 60-40 mix is quite reasonable. Or you can use one of the many online questionnaires such as BMO Investor Profiler[11], Edmond Financial Group Risk Tolerance Questionnaire[12], or TD Waterhouse Portfolio Planner[13] to help you determine whether you are a conservative or an aggressive investor.

- Make adjustments to the policy mix if your job, hence your salary, is highly correlated with one type of investment. Tenured university professors with generous indexed pensions probably should not own indexed bonds. Software engineers with vested stock options should lighten up on high tech stocks.

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9 http://www.ndir.com/cgi-bin/downside_adv.cgi

10 http://www.advisor.ca/tools/templates/forms/article.jsp?content=21480

11 http://www.bmoinvesting.com/InvestorProfile/questions.asp?sIPLang=E

12 http://www.efgi.com/personal/investing/questionnaire.html

13 http://eadvisortwe.tdassetmanagement.com/pProfiler/survey.asp

Implementation

Don't put all your eggs in one basket. Once you have an investment policy with an asset mix, your job is mostly done. The asset mix goes a long way to getting you a diversified portfolio. Now go the rest of the way. Nowadays, you need not buy a single stock or bond in order to invest. For every asset class in your investment policy, there is a low-cost and tax-efficient vehicle that will work for you.

Some investors may choose to invest directly in stocks and bonds for all or part of their portfolio. **If done wisely**, this can be an effective strategy. But such direct investments must be carefully monitored and are not for everybody. If in doubt of your ability to "stock pick", you should either avoid direct stock purchases or limit such investments to amounts you can afford to lose. Further discussion of stock selection procedures is beyond the scope of this guide.

For those who prefer not to select individual securities, here is a list of possible investment choices. Exchange traded funds are listed with symbols in the lists below and should generally be used because their costs are lower. If you are accumulating funds, say by depositing funds regularly from a paycheque, then it's often better to use open-ended funds like the low cost TD-e series, because there are no commissions to buy or sell them.

Fixed income:

- Individual bonds or GICs purchased through a broker
- Barclay's new bond ETF (XBB) and short-term bond ETF (XSB)
- PH&N Bond and Short-Term Bond and Mortgage
- CIBC Canadian Bond Index [for clients with more than $150k at CIBC]
- TD Canadian Bond Index-e
- Diversified Preferred Share Trust (DPS.UN)

Equities - Canada:

- iShares Composite Canadian Equity Index Fund (XIC)
- iShares S&P/TSX60 Index Fund (XIU)
- iShares S&P/TSX Midcap Index Fund (XMD)
- CIBC Canadian Index Fund [for clients with more than $150k at CIBC][14]
- TD Canadian Index Fund – e

Equities - U.S.:

- Vanguard Total Market VIPERS (VTI)
- S&P depositary receipts (SPY)
- iShares S&P 500 Index Fund (IVV)
- Vanguard Extended Market Index VIPERS (VXF)
- CIBC US Equity Index [for clients with more than $150k at CIBC]

[14] Provided you have in excess of $150,000 invested at CIBC the rebate MER policy on all CIBC index funds (which is not well advertised!) makes all the CIBC index funds a low maintenance and attractive investment option. The total annual management expense ratio (MER) fee can be as low as 0.31%. In my own family's SD-RRSP as well as UTFA's equity position for its reserve funds, we use a CIBC Investor's Edge discount account and CIBC's index funds. See https://www.investorsedge.cibc.com/ie/home.jsp Similar options are available from some of the other banks and via the combined use of Exchange Traded Funds (ETFs) and a discount broker.

- TD US Index - e

Equities - Overseas:

- iShares MSCI EAFE Index Fund (EFA)
- Vanguard European Stock Index (VGK)
- Vanguard Pacific Stock Index (VPL)
- Vanguard Emerging Markets Stock Index (VWO)
- iShares MSCI Emerging Market Index (EEM)
- CIBC International Index Fund [for clients with more than $150k at CIBC]
- TD MSCI EAFE Index - e

Costs matter[15]. Do not succumb to the siren song of marketing. Mutual fund companies tout last year's winners but neglect to mention the fees. Banks tout their portfolio managers but neglect to mention the fees. The fees are what will kill you in the end. The average mutual fund in Canada charges 2% a year, the average wrap account about 2.5%. It sounds so innocuous. Yet paying those fees for 30 years, the average working life, will result in half your retirement savings ending up in the hands of the mutual fund companies and the advisor they paid to sell you the products. That's hard to believe but you can check for yourself using the OSC's Mutual Fund Fee Calculator.[16]

These are your choices but you can pick only one. It's up to you.

- You can pay high fees.
- You can double your retirement savings.
- You can retire ten years earlier.

Estate[17]

Prepare a will. If you are in anything other than the simplest family and financial situation, pay a lawyer to do it right. Residents of Quebec should consult a notary.

You should have an enduring power of attorney for financial matters. If you are disabled and unable to look after your own finances, name someone you trust who can and will do the job. You must have a lawyer draft this.

You should also have an enduring power of attorney for personal care. (The name and format of this document varies from province to province.) If you become incompetent to make decisions about where you live and your health care needs, someone needs to make those decisions for you. Appoint someone you trust to do so. If you do none of these, the provincial government and/or the courts will step in and act in your stead. You may not get what you want and the costs may be high.

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15 See William Bernstein's article "Bequething Your Assets to Your Broker", attached as Appendix B, plus the quotes and references on the next page following the article.
16 http://www.investored.ca/IefCalculators/Calculators/MutualFundFeeImpact/default.aspx
17 The next presenter this morning, Ed Esposto, is a lawyer and much much more knowledgeable about 'estate' issues than I am (and more so than I ever will be) and thus I only list it here for the sake of 'completeness' as an important topic in an overview of financial planning. Ed will be presenting and discussing the details.

If you can’t or won’t DIY (Do It Yourself)

It doesn’t bother us to hire plumbers to fix a leak or to pay someone to change the oil in the car. Modern economies are built on Adam Smith’s division of labour and we are all better for it. There is no shame in paying a reasonable fee to have someone look after your finances. The shame only comes from letting yourself pay far too much.

If you have a small portfolio, say under $100,000, then the advice you’re getting - say a financial plan, not just “Buy this fund” at RRSP time each year - is reasonably balanced against the average mutual fund’s fees ($1,500-2,500 a year). But if you have a $400,000 RRSP, all invested in mutual funds or wrap accounts, you could be paying $10,000 a year. At a million dollars, $25,000 per year. It’s too much. And it is ongoing, year after year, and so over time accumulates to a sizable fraction of your total investment.

If you really don’t want to invest on your own, ...

Contact a professional[18] . You find a professional planner the same way that you find a plumber or a car mechanic, by word of mouth preferably or through the Yellow Pages. The industry provides search tools: Advocis’ consumer information[19] and Find a CFP Professional[20]. To help understand what financial planning entails, you should read the material on the Financial Planning Process[21] and 10 Questions To Ask Your Planner[22]. Working relationships are often improved when there is an Engagement & disclosure letter[23] and an Investment Policy Statement (see this[24], for a mythical retired widow, as a template.).

Try to avoid conflicted advice. Presumably most readers would agree that it would not be advisable to have your family doctor’s income wholly dependent on the commissions he or she receives from the drug companies whose drugs are being prescribed for you. One might suspect there could be a serious conflict of interest! But exactly this circumstance is normal practice in most of the financial advice and mutual fund industry. Thus we urge you to consider a qualified fee-for-service financial advisor who receives no commissions of any kind, nor any referral payments. This removes the sales commission conflict. You pay him or her an hourly fee. Unfortunately most consumers are averse to paying a visible up front fee of say $1,000 and opt instead for the hidden fees via expensive mutual funds which over time will cost much more than the $1,000 cheque you might write.

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[18] Unfortunately there are a bewildering plethora of designations for ‘financial advisors’: from **CA** (Chartered Accountants), **CFA** (Chartered Financial Analyst) and **FCIA** (Fellow of the Canadian Institute of Actuaries) to **CFP** (Certified Financial Planner), **RFP** (Registered Financial Planner, **ChFC** (Chartered Financial Consultants), **CIM** (Canadian Investment Manager), **FMA** (Financial Management Advisor), **FCSI** (Fellow of the Canadian Securities Institute) and probably others I have not encountered. Such designations may or may not mean much. Don’t be naively impressed by a string of them after a name.

[19] http://www.advocis.ca/content/consumers.html

[20] http://www.cfp-ca.org/public/public_findaplanner.asp

[21] http://www.cfp-ca.org/public/public_financialplanningprocess.asp

[22] http://www.cfp-ca.org/public/public_10questions.asp

[23] http://www.advisor.ca/practice/special_report/article.jsp?content=20031016_145356_3324

[24] http://www.libra-investments.com/docs/Generic%20IPS.pdf

Fee-for-service financial planners and advisors exist but are scarce. I have interviewed some as candidates for the three hours of free counseling[25] specified in our Agreement on Ending Mandatory Retirement with the Administration. However, I only know of one investment counsel firm[26] that operates on a fee-for-service basis.

Further Reading

Books about personal finance and investing.

There are many, although finding the good ones among the hundreds or thousands of titles at the book store can be difficult. The following list is very short[27]. Most people have a limited appetite for such material and want something simple but not simplistic. All are commonly available at libraries. The first two can often be found in used book stores or on garage sale tables, not because they are only worth a quarter but because people don't recognize good value when they see it.

Financial planning

- *The Wealthy Barber*, David Chilton
- *Your Money or Your Life*, Joe Dominguez and Vicki Robin

Investing

- *Risk is Still a Four Letter Word*, George Hartman
- *The Four Pillars of Investing*, William Bernstein (Bernstein's Efficient Frontier[28] website is also highly recommended)
- *Winning the Loser's Game*, Charles D. Ellis

Insurance

- *Insurance Logic*, Moshe Milevsky

Articles

We highly recommend two very readable academic articles on investing, Nobel Prize winner Bill Sharpe's The Arithmetic of Active Management[29] and Brad Barber's Trading is Hazardous to Your Wealth[30]. Spend half an hour reading and absorbing the lessons of those two articles and you will be a better investor than most.

Good investing technique is not flashy and does not sell papers or magazines. The popular press exists as much to satisfy advertisers as it does to inform the public. The result is magazine covers that scream "10 Top Funds for Next Year" and the business section of the newspaper that tells

[25] Up to now T.E. Financial have provided this service for UofT. But they recently became part of Jovian Capital empire (JVN on the TSXV), and I am now concerned about TE's status. It seems to me there is a potential, if not real, conflict of interest. The point is you cannot both manage assets and at the same time provide unbiased advice as to where the client's assets should be best managed .

[26] Dan Hallett & Associates www.danhallett.com

[27] If the reader wishes additional reading recommendations, please contact me at luste@utfa.org

[28] http://www.efficientfrontier.com/

[29] http://www.stanford.edu/~wfsharpe/art/active/active.htm

[30] http://faculty.gsm.ucdavis.edu/~bmbarber/Individual_Investor_Performance_4-99.pdf

you what happened yesterday.

In Canada, three finance columnists worth reading regularly are Rob Carrick (Globe and Mail), Jon Chevreau (National Post), and James Daw (Toronto Star). In the U.S., consistently good information comes from the pens of Jonathan Clements (Wall Street Journal), Jason Zweig (Money), and Scott Burns (Dallas Morning News).

If you are interested in serious studies of financial matters, a very comprehensive list of worthwhile articles can be found at Altruist FA[31]. For recent and upcoming publications, check the links at Research Finance[32] occasionally.

Additional educational Web Links

None of these web sites sells a product or a service.

Their sole purpose is to educate and assist financial pilgrims such as you and I. ☺

- Financial Webring[33] (the Do-It-Yourself Financial Webring)
- Bylo's website for DIY Investors[34] (a retired software engineer and businessman)
- Bylo's Selected Books of Interest to Independent Investors[35]
- Shakespeare's Primer for Do-It-Yourself Investors[36] (written by a retired scientist)
- Gummy's Tutorials [37] (a retired U of Waterloo mathematics professor)
- Jack Bogle's website and articles[38] (retired founder of Vanguard Group of mutual funds)

31 http://altruistfa.com/readingroomarticles.htm
32 http://www.research-finance.com/
33 http://www.financialwebring.org/index.html
34 http://www.bylo.org/index.html
35 http://www.bylo.org/ieducate.html
36 http://www.shakesprimer.com/
37 http://www.gummy-stuff.org/
38 http://johncbogle.com/wordpress/

Part II - The University of Toronto Pension Plan

General Basics

The UofT pension plan is "Defined Benefit"[39] pension plan. The rules by which your pension is determined are defined via an official pension plan formula and document. The UTFA office has a copy of the document.

RPP and SRA. The Registered Retirement Plan (RPP) and the Supplemental Retirement Arrangement (SRA) together provide a pension based on your years of service and on your salary - up to $150,000 salary cut-off. (Any salary above $150,000 will not contribute to your pension.) Federal tax rules limit the RPP salary maximum. Currently (in 2006) this is about $115,700. The SRA (which is not registered and so has more risk) extends the salary limit to $150,000.

Benefits. Your UofT benefits coverage (extended health care, semi-private hospital, dental and joint membership) remains the same in retirement as it was before retirement (with some exceptions like life insurance, LTD, etc) so long as you retire with a Uof T pension. Resigning in order to receive the commuted value of your pension will normally extinguish these benefits. More on the commuted option later.

Be assured that your pension and benefits cannot be reduced after you retire.

Inflation. Nobody knows with any certainty what future inflation will be like. Because UofT pensions are not 100% indexed your pension can slowly lose to inflation. Our pensions are indexed at 75% of inflation with a maximum inflation loss capped at 4%. In the recent past UTFA has been able to negotiate an annual make-up or augmentation to cover the missing 25% of inflation on a year by year basis. But this is not guaranteed going forward. Judging by the last round of negotiations, the UofT Administration seems determined to terminate this practice.

What is the worst case inflation scenario imaginable in our plan? If inflation is 13% or more per year => you could lose 4% of your pension's purchasing power each year (but no more than 4%). If this should persisted for a decade, it would represent a sizable 35% purchasing power loss. If one looks at the table in Appendix – A, the second column lists the inflation percentile since 1970. From 1973 to 1981, inflation was a substantial factor and at that time our pensioners lost considerable purchasing power. Presumably this could happen again.

[39] Excepting for the California state universities, I think that perhaps UofT may be the only other major large university in North America that only offers a defined benefit pension plan to its faculty. In the U.S., TIAA-CREF and defined contribution plans are the norm.

How much CPP pension and how much U ofT pension can you expect?

CPP pension. The maximum CPP pension at age 65 is currently about $10,365 per year, fully indexed going forward. Individual CPP pensions can vary and will depend on individual factors. CPP is currently (in 2007) funded via the deduction on the first $42,700 of salary. (This is called the YMPE, the Year's Maximum Pensionable Earnings for your CPP.)

UofT pension. How much pension can you expect from the Uof T's RPP (& SRA) as a 'normal' retiree?

For most full-time service individuals it will depend on two factors:

(i) the average salary from the best three years and

(ii) the number of pensionable service years.

Example to illustrate the calculation.

Lets assume 35 years of pensionable service with an average best salary of $120,000 (i.e. less than the $150k cap).

The simple three step process goes as follows

(1) If it was 2% for every year of service, then the annual pension would be
2% x 35 x $120k = $84,000

(2) But there is a reduction on the average YMPE part (assume $41,200) of the salary by 0.5% per year of pensionable service. This comes to
0.5% x 35 x $41,200 = $7,210.

(3) Thus (1) minus (2) is
$84,000 - $7,210 = $76,790 as your UofT pension after 35 years of service

In this example if CPP was the maximum $10,365, the total annual pension received would be $87,155, with the first $10,365 fully indexed to inflation and the remaining $76,790 indexed to about 75% of inflation (assuming inflation is less than 13%).

What are the advantages of the U of T defined benefit pension?

- No investment responsibility for the pensioner.
- No longevity concern - you will not be cut off if you live well beyond your life expectancy.
- It provides some pension indexing
- The option of continuing coverage of extended health care and dental benefits into retirement with a university subsidy.
- An unreduced early retirement option for academic staff and librarians age 60 and 10 or more years of pensionable service. There is no reduction for early commencement.

- The normal spousal survivor benefit is 60% of the pension.
- Defined benefit plans are a financial plus for incoming older faculty appointments.

What are the disadvantages of the U of T defined benefit pension plan?

- Pension portability and continuity may be a problem for a young faculty member who wishes to move to a different institution.
- After retirement, spousal benefits are limited to the spouse at the time of retirement. Should the member remarry after retirement, there are no benefits for the new spouse.
- Loss of RRSP room during the many prior years of pension contribution holidays.
- No bridging for missing years of employment.
- No actuarial pension increase after age 65 for late pension commencement.
- After retirement, there is no significant estate value. The normal minimum payout if the member dies shortly after retiring is 60 monthly pension payments (assuming there is no surviving spouse).
- Uncertainty whether pensions will keep up with inflation and living expenses.
- No say in the pension governance or pension investment policies.
- Concern regarding the equitable distribution of pension assets and the possibility of a deficit problem for future stakeholders.
- My own personal view and experience is that since 1971, when I first came to UofT, I would have been better served overall with a defined contribution pension plan rather than our defined benefit plan. (But that is a complicated tale[40] and should not be revisited today.)

The Commuted Value Option

'Commuted Value' means the present lump-sum actuarial value of a pension benefit under the Plan. The '*present lump-sum actuarial value*' will be largest when the present long term interest rates are the lowest. The lump sum will become smaller if the long term interest rates increase.

In the last round of salary negotiations the Administration agreed to provide the lump-sum commuted value of our pensions in the annual blue book summarizing individual benefits.

[40] See the attached Appendix C, Notes for "The U of T Pension Abyss" presentation at the UTFA Annual General Meeting on April 24, 2007, for some inkling of this abysmal tale.

Because long term interest rates are presently at all time low, the commuted value of our pension is at all time high. My rough estimate is that the commuted value probably is over $1 million for faculty with 35 years of pensionable service and incomes over $125,000.

The commuted value decision is not to be taken lightly. Please seek good professional advice before committing yourself to it. Don't just accept the advice of a money manager who wants to invest your funds and collect annual fees. Once taken this decision is not reversible.

But it can be an important option if you become terminally ill while in active service, or if you need to leave an estate for a disabled adult son or daughter. I think it is also a good option in families were both partners are members of a defined benefit plan. One member can take the pension (which is in fact an annuity) while the other takes the commuted value lump-sum. This way you have the best of both.

If one terminates employment at UofT, there are four pension options. One of them provides for *"a transfer of the commuted value of the accrued benefit to a new employer's pension plan, or individual RRSP, or other prescribed vehicle, provided the funds are transferred on a 'locked-in' basis."* But in terminating your employment you do lose the other retiree benefits.

In addition the new early retirement option also has a provision which allows the participant to elect to take the lump-sum commuted value. In this case the participant is expected to pay the full cost of the monthly benefit premium. This is still a valuable benefit.

The Agreement on Retirement Matters

In the early morning hours of March 14, 2005, officers of the University of Toronto Faculty Associationand the senior Administration of the University of Toronto signed the Agreement on Retirement Matters[41] . It was a package agreement. In addition to ending mandatory retirement, it introduced a new early retirement program and a new phased retirement program. It also spoke to post-retirement issues. Very recently, on April 4, the Hewitt consultant, Allan Shapira, gave an information presentation on the UofT pension plan. A web cast[42] and copies of his slide presentation[43] are available.

Further Information and Assistance on Pensions

There are several sources for further information.

(i) UofT web site

http://www.provost.utoronto.ca/link/retirement.htm
For Retirement Information and Resources
This web site provides 13 links on a number of issues, such as

- the new retirement options

41 http://www.provost.utoronto.ca/Assets/provost/links/Retirement/AgreementRetirementMatters.pdf
42 http://hosting.epresence.tv/ic/website_archived.aspx?c=1
43 http://www.provost.utoronto.ca/Assets/PPT+Presentation+for+Retirement+Information+Session+2007.ppt

- obtaining pension estimates
- new financial counselling
- research and study leave arrangements
- phased retirement program

(ii) UofT Human Resources Department can provide further assistance

Pensions – Richard Ashmore – 416-978-5595- richard.ashmore@utoronto.ca

Benefits – Keithann Newton – 416 -978-4673- keithann.newton@utoronto.ca

My advice is to always start with an email stating the issue and question as clearly as possible. Then if there is no response follow it up with a repeat email and or a telephone call. If the email does not resolve the issue to your satisfaction it at least leaves a paper trail that could be helpful later.

(iii) UofT Pension Services at Hewitt

via 1-888-852-2559 Mon-Fri 8:30 to 5:00 p.m. or

www.resources.hewitt.com/utps (you will need a user ID and password)

(iv) General reference book on Canadian Pensions

The Pension Puzzle – 3rd edition (2007) by Bruce Cohen and Brian Fitzgerald
John Wiley Canada, ISBN 978-0-470-83953-9 $29.99
A good basic book on pensions for anyone with a pension plan.

Appendix - A

Index (Passive) Annual Real (above inflation) Return Table

Real (not nominal) annual pretax returns in Canadian dollars

Year	Annual Canadian Inflation	3 month T-bills	Short Canadian Bonds	Long Canadian Bonds	All Canadian Bonds	Real Return Bonds	TSX Composite	S&P 500	Wilshire 5000	MSCI EAFE	MSCI Emerging Markets	Gold Bullion	Year
1970	1.3%	5.4%		14.7%			-4.8%	-3.7%		-17.1%		-1.4%	1970
1971	5.0%	-1.1%		9.3%			2.9%	7.9%		23.8%		9.6%	1971
1972	5.1%	-1.5%		2.8%			21.2%	12.4%		30.0%		38.9%	1972
1973	9.4%	-3.8%		-6.7%			-8.3%	-22.0%		-21.5%		52.7%	1973
1974	12.3%	-3.9%		-15.1%			-34.1%	-34.8%		-31.0%		52.7%	1974
1975	9.5%	-1.8%		-1.3%			8.3%	28.6%	29.8%	28.5%		-28.5%	1975
1976	5.8%	3.3%		16.8%			4.9%	16.2%	18.7%	-2.7%		-10.1%	1976
1977	9.5%	-1.5%		-0.3%			1.1%	-8.0%	-3.5%	18.3%		21.5%	1977
1978	8.4%	0.1%		-4.0%			19.7%	6.6%	9.2%	34.3%		37.0%	1978
1979	9.8%	1.9%		-11.4%			31.9%	6.4%	12.7%	-4.7%		103.2%	1979
1980	11.1%	2.1%	-1.8%	-8.1%	-4.1%		17.1%	21.9%	23.0%	14.5%		6.0%	1980
1981	12.2%	6.4%	-3.4%	-12.7%	-7.1%		-20.0%	-15.8%	-14.8%	-12.4%		-40.3%	1981
1982	9.2%	5.8%	17.9%	33.6%	23.9%		-3.4%	15.3%	12.6%	-5.9%		9.1%	1982
1983	4.6%	5.1%	9.9%	4.8%	6.6%		29.5%	18.6%	19.5%	20.6%		-19.0%	1983
1984	3.7%	7.7%	8.8%	12.7%	10.6%		-5.9%	8.8%	5.6%	10.5%		-17.2%	1984
1985	4.4%	5.5%	10.2%	21.4%	16.1%		19.8%	33.5%	34.4%	58.9%		7.1%	1985
1986	4.2%	5.1%	6.9%	12.5%	10.1%		4.6%	12.5%	10.0%	61.1%		15.0%	1986
1987	4.2%	4.2%	2.7%	-2.3%	-0.1%		1.7%	-4.9%	-7.5%	12.9%		10.5%	1987
1988	4.0%	5.4%	4.2%	7.0%	5.6%		6.8%	2.9%	4.0%	13.4%	23.9%	-25.2%	1988
1989	5.2%	7.0%	5.0%	9.4%	7.2%		15.3%	21.5%	19.2%	2.2%	52.2%	-10.4%	1989
1990	5.0%	8.3%	5.3%	-0.6%	2.4%		-18.8%	-7.5%	-10.4%	-26.7%	-14.6%	-5.9%	1990
1991	3.8%	5.8%	13.6%	20.7%	17.7%		7.9%	25.2%	28.8%	7.9%	53.4%	-13.7%	1991
1992	2.1%	4.5%	6.3%	9.2%	7.6%	1.8%	-3.5%	15.9%	17.4%	-5.1%	20.0%	1.5%	1992
1993	1.7%	3.7%	11.4%	20.1%	16.2%	16.8%	30.3%	12.6%	13.8%	35.9%	78.8%	20.3%	1993
1994	0.2%	5.1%	-1.2%	-7.5%	-4.5%	-13.9%	-0.4%	7.3%	5.8%	14.4%	-1.9%	3.6%	1994
1995	1.8%	5.4%	13.5%	24.2%	18.6%	14.7%	12.6%	31.6%	30.5%	6.7%	-9.4%	-3.4%	1995
1996	2.2%	2.6%	8.4%	11.7%	9.8%	9.3%	25.6%	20.9%	19.2%	4.6%	4.3%	-6.2%	1996
1997	0.7%	2.3%	4.1%	17.6%	8.8%	3.9%	14.1%	38.2%	36.0%	5.7%	-8.4%	-18.6%	1997
1998	1.0%	3.7%	5.6%	11.7%	8.1%	4.9%	-2.6%	36.4%	31.0%	27.7%	-20.8%	5.2%	1998
1999	2.6%	2.2%	-0.3%	-8.3%	-3.6%	5.3%	28.4%	11.1%	13.4%	16.8%	52.7%	-7.5%	1999
2000	3.2%	2.2%	4.9%	9.4%	6.8%	13.0%	4.0%	-8.5%	-10.3%	-13.4%	-30.2%	-4.8%	2000
2001	0.7%	3.7%	8.6%	5.3%	7.3%	-0.1%	-13.2%	-7.0%	-6.1%	-16.9%	3.0%	6.3%	2001
2002	3.9%	-1.3%	2.3%	6.9%	4.7%	11.0%	-15.7%	-25.7%	-24.5%	-19.6%	-10.4%	19.7%	2002
2003	2.0%	0.9%	3.1%	6.9%	4.6%	11.0%	24.2%	3.7%	6.1%	12.1%	25.9%	-3.4%	2003
2004	2.1%	0.2%	2.9%	8.0%	4.9%	15.1%	12.1%	0.7%	2.3%	9.6%	14.4%	-5.0%	2004
2005	2.2%	0.5%	0.2%	11.4%	4.2%	12.8%	21.5%	-0.6%	0.7%	8.0%	27.4%	11.5%	2005
2006	**1.6%**	**2.3%**	**2.3%**	**2.4%**	**2.4%**	**-4.5%**	**15.4%**	**14.2%**	**14.2%**	**25.1%**	**30.7%**	**21.5%**	**2006**
Average	**4.7%**	**2.8%**	**5.6%**	**6.3%**	**6.8%**	**6.7%**	**6.8%**	**7.9%**	**10.7%**	**8.8%**	**15.3%**	**6.3%**	**Average**
St Dev	**3.6%**	**3.1%**	**5.1%**	**11.5%**	**7.4%**	**8.4%**	**16.1%**	**17.7%**	**15.1%**	**21.3%**	**29.3%**	**26.8%**	**St Dev**

Table - A

Sources for Table -A

The enclosed worksheets show the annual total returns (income plus price changes) for a representative array of investable asset classes, per well-accepted indexes. One worksheet shows nominal returns by year, the other real returns (net of inflation). All returns are in terms of Canadian dollars. Foreign asset class returns are adjusted for year-end to year-end foreign exchange fluctuations to put them in Canadian dollar terms.

Data for these series was obtained or derived from public websites wherever possible. Data whose source is listed as the Globe & Mail or Financial Post were obtained or derived from public library stacks or microfilm.

Exchange rates	1970	Globe & Mail
	1971-1992	Prof. Werner Antweiler, UBC
	1993-date	Bank of Canada
Inflation	1970-1988	Statistics Canada, Table 326-0001
	1989-date	BC Government Statistics
3 month T-bills	1970-date	Libra Investment Management Inc.
Short Canadian bonds (SCM Short)	1980-1992	Financial Post
	1993-2002	Globe & Mail
	2003-date	Scotia Capital
Long Canadian bonds (SCM Long)	1970-1992	Digitized from http://www.globefund.com
	1993-2002	Globe & Mail
	2003-date	Scotia Capital
All Canadian bonds (SCM Universe)	1980-1992	Financial Post
	1993-2002	Globe & Mail
	2003-date	Scotia Capital
Real return bonds	1992-2002	Derived from pension plan reports by Libra
	2003-date	Scotia Capital
S&P/TSX Composite	1970-date	Canadian Institute of Actuaries
S&P 500	1970-2002	Economagic.com
	2003-date	Standard & Poors
Wilshire 5000	1975-date	Wilshire Associates
MSCI EAFE	1970-date	MSCI
MSCI Emerging Markets	1988-date	MSCI
Gold bullion	1970-date	Kitco

Appendix - B

Bequeathing Your Assets to Your Broker[44]

William J. Bernstein

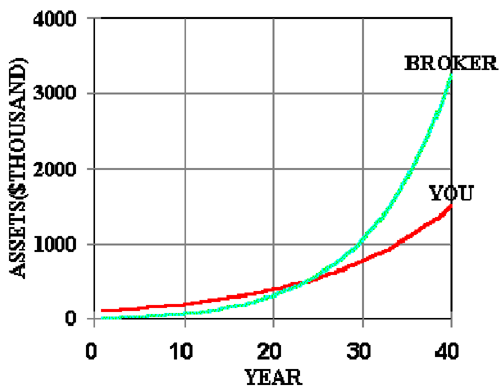
A hoary piece of stockbroker lore has a young broker asking a senior partner at the firm about his proudest accomplishment. The reply:

"Over the years I've gradually transferred the assets of my clients to my own name."

Awareness of investing expense has heightened in recent years, and it is instructive to examine the truth of this old joke. Imagine for a moment that you inherited $100,000 at age 25. Not long after an enterprising broker at a "full service" firm calls and offers you his services. He is quite personable and always seems to have a snappy explanation for the behavior of the market; you engage his services. Considering your conservatism, he invests your portfolio in a 50/50 mix of common stocks and bonds. What can you expect in the way of long term return? What will become of his commission stream? The first question is easy to answer. Assuming that he is of average ability, this mix will produce a long term return of about 8%. (The long term return of common stocks is about 10%-11%, of long term corporates about 5%-6%.).

Unfortunately, your return will not be that high. Whether you use a "wrap" account or employ a straight commission basis, fees will reduce your returns by approximately 3% per year -- to about 5%. This is only 2% greater than the long term inflation rate of 3%.

This is discouraging enough. Now consider what the broker accomplishes with your commissions. He now has a steady income stream, consisting of 3% of your assets each and every year, to invest. He should also earn the same 8% return, but his investment return will not be substantially reduced by commissions and fees.



The above graph shows that in 24 years the brokerage will have parlayed your commissions into a sum equal to your own. When you retire at 65 you will have amassed $704,000. Your broker has done far better; he has produced $1,542,000 with the commissions from your account.

The above calculation is somewhat artificial. The grim reality is actually much worse. Since your broker will be turning over the assets in your account with some regularity to earn commissions and/or justify their fees, this will generate significant capital gains. Taxes on these gains, as well as your bond coupons, will reduce your investment yield about 3%, just keeping up with inflation. In contrast the broker will most likely manage his assets with little or no turnover, further widening his asset advantage.

For the full service brokerage customer, then, the old broker's remark is no joke -- eventually, your broker will wind up with more of your own assets than you do. For the no load fund investor, things are a little brighter, but still fairly grim. Assume Fidelity charges you 1% in expenses to manage your portfolio. Under the above 40 year scenario, this leaves you with $1,479,000, but Uncle Ned still earns $722,000 for himself. Vanguard should be able to invest your assets in their index funds for about 0.25% -- the numbers here are $1,980,000 for you, $169,000 for them.

Obviously, Paine Weber, Fidelity, and Vanguard do not get to keep all of their expenses. Fidelity will use a large part of their management fees for advertising, enabling them to manage an even greater portion of the wealth of Western Civilization. Vanguard's expenses are so low that it is doubtful that there is much profit margin. In any case, Vanguard is actually owned by its funds' shareholders; John Bogle is not getting terribly rich at your expense.

So, keep an eye on those expenses. Thank you, Paine Weber (Merrill Lynch, Smith Barney, etc., etc.).

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[44] This article, which is from the September 1996 issue of the Efficient Frontier Journal (at http://www.efficientfrontier.com/index.shtml). It is reproduced here with the permission of the author. William J. Bernstein is the author of "The Birth of Plenty" and "The Four Pillars of Investing".

Related quotes with footnotes, references and web links for further reading.

- In the aggregate, the tens of millions of our citizens who have entrusted their hard-earned trillions to the care of mutual fund managers have not been well served by the myriad changes that have taken place in mutual funds during the past 60 years.[45]
John C. Bogle[46]

- But the truth is, 'complexity,' 'sophistication,' and 'exclusivity' are usually excuses for Wall Street to charge fat fees.[47]
Jonathan Clements[48]

- One of the most common myths in the fund business is that 'you get what you pay for'.[49] **Jason Zweig**[50]

- There are only three kinds of financial prognosticators: those who don't know, those who don't know they don't know, and those who know they don't know but who get paid big bucks to pretend they know.
....
- I have become increasingly convinced that the past records of mutual-fund managers are essentially worthless in predicting future success.[51] **Burton Malkiel**[52]

- Thousands upon thousands of professionally managed funds routinely fall short of producing even market-matching results.
.....
- An examination of the abuses perpetrated throughout the life of the mutual-fund industry unequivocally shows an investor-friendly mask covering the true, venal face of the industry.[53] **David F Swensen**[54]

- It is interesting to note that the financial industry employs only 6% of the people but accounts for 20% of GDP and, 50% of profits. …(and) … nothing is being created by these so-called 'productive' workers whose sole mission is to ding you with exorbitant fees.[55] **Eric Sprott**[56]

- The lower cost of managing an index fund gives it a huge advantage over active funds.[57] **Ted Cadsby**[58]

and in closing, a quip from Woody Allen …

"A stockbroker is someone who invests other people's money until it is all gone

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45 The Mutual Fund Industry 60 Years Later: For Better or Worse, John C. Bogle, January/February 2005 issue of the Financial Analysts Journal.
46 John Bogle is the Founder and Former Chairman of the Vanguard Group. In 1999, Fortune magazine named Mr. Bogle one of the four financial giants of the 20th century. His published books include; John Bogle on Investing, Common Sense on Mutual Funds, and Bogle on Mutual Funds. The Battle for the Soul of Capitalism is coming out this fall (Yale University Press). His speeches can be viewed on the web at http://www.vanguard.com/bogle_site/bogle_speeches.html

47 You've Lost It, Now What?, Jonathan Clements. 2003, Portfolio Publishers
48 Jonathan Clements is a regular columnist for the Wall Street Journal. His WSJ articles can be viewed via http://online.wsj.com/public/page/0,,sundayjournal_index,00.html (type "Jonathan Clements" in the archive search box). His other books include; - 25 Myths You've Got to Avoid, and Funding Your Future.

49 The Intelligent Investor (new revised edition), Benjamin Graham, updated with new commentary by Jason Zweig. Preface and Appendix by Warren E. Buffett. 2003, Harper Collins Publishers.
50 Jason Zweig is a senior writer at Money magazine. Formerly a senior editor at Forbes, he has written about investing since 1987.

51 A Random Walk Guide to Investing, Burton Malkiel, 2003 W.W. Norton Publishers.
52 Burton Malkiel holds the Chemical Bank Chairman's Professorship at Princeton University. His classic book, A Random Walk Down Wall Street has gone through numerous editions.

53 Unconventional Success: A Fundamental Approach to Personal Investment, David F. Swensen. 2005, Free Press.
54 Swensen is the Chief Investment Officer of Yale University and is considered the *dean* of institutional money managers. His earlier book was Pioneering Portfolio Management: An Unconventional Approach to Institutional Investment

55 Too Much Finance (Markets at a Glance), March 16, 2005 Newsletter (full text at http://www.sprott.com/pdf/marketsataglance/03-16-2005.pdf)
56 Eric Sprott is the CEO and Chief Investment Officer of Sprott Asset Management (based in Toronto).

57 The Power of Index Funds. – Canada's Best-Kept Investment Secret, Ted Cadsby, 1999, Stoddartt Publishing
58 Ted Cadsby is a "senior executive of the CIBC group of companies" . His other book is The Ten Biggest Investment Mistakes Canadians Make: And How to Avoid Them

Appendix - C

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Telephone: (416) 978-3351
Fax: (416) 978-7061
E-mail: faculty@utfa.org
Website: www.utfa.org

Date: April 24, 2007

To: UTFA Members

From: George Luste

Re: **Notes for "The U of T Pension Abyss" presentation at the AGM**

Historical background.

(i) Pre 1987
Prior to 1987 there was a fixed employer to employee contribution ratio of $2.55 (employer) to $1.00 (employee) to the pension plan for all current and future pension liabilities. The actuarial assumptions in the plan at the time were quite conservative and so, with hindsight, in 1987 the pension plan was at minimum "well funded" and probably more accurately "over funded".

(ii) Post 1987
The 1987 SB&P settlement changed the above shared risk agreement. The UofT plan now became a true "defined benefit plan". In exchange for a more attractive indexation of pensions (set at CPI minus 4% or 60% of CPI, whichever is greater), the administration now had an unrestricted access to any existing or future pension surpluses. The participant contribution rate was fixed at 2.5% up to the CPP maximum and 5.0% of the salary beyond CPP. And the administration thus took responsibility for all liabilities beyond what the participant's contribution covered. They assumed the funding "risk". But what in truth does this mean?

Who assumes the risk in our DB pension plan?

The conventional mantra that one hears repeatedly is that in a defined benefit pension plan it is the employer who assumes the financial risk of funding the defined pension obligations and that the participant bears no risk. I don't agree with this statement in the context of a non-profit public institution like the university. How would any pension shortfall be covered at UofT? Given that UofT cannot 'print' money (like the federal government can if it has a shortfall) or reduce dividend payments (like a Ford or a Bell Canada can), any shortfall has to be gotten from the participants, either via reduced salaries or via increased workload with fewer replacements of retiring faculty. Thus in my view at a university the participants do bear the 'risk' of a shortfall.

It’s all about the actuarial assumptions

In a defined benefit plan such as ours there are numerous actuarial assumptions such as:

(i) the mortality rate before and after retirement
(ii) inflation rates (for the next 20 to 50 years)
(iii) **interest or investment return rates (for the next 20 to 50 years)**
(iv) salary scale increases until retirement
(v) other assumptions, such as retirement age, percentage married, increases in CPP maximum, withdrawal rates, increased starting salaries, administrative costs, etc

All these assumptions plus the age profile of the participants determines the actuarial best estimate of the overall pension plan liabilities at a specific date.

In addition the actuaries can determine the “annual service cost” for the pension plan, bearing in mind the above assumptions for the current or forthcoming twelve months.

After the fact, actual experience for the current or forthcoming twelve months may differ from the above assumptions, thus generating a net surplus or deficit for the year. (The annual actuarial reports document this annual net surplus or deficit.)
For example, the plan may assume a nominal investment return of 6.5% (annually for the next 20 to 50 years) but in 2006 if the actual realized return was 13.0% then it creates a “surplus” of x millions of dollars. But what investments “giveth” in one year they can also “taketh” away and in 2007 the return could less than 6.5%.

Have the actuarial assumptions been changed?

Most definitely yes!
Let’s examine the assumed real interest or investment return assumptions. (The ‘real’ means above inflation and thus represents assumption (iii) minus assumption (ii) in the above tabulation.)

2.25% was the assumed real return rate prior to 1987

2.50% 1987 assumed real return rate

3.00% 1990 assumed real return rate

3.50% 1996 assumed real return rate

4.00 1998 to present assumed real return rate

Increasing the assumed rate of return reduced our pension plan liability for the future. Thus current assets can exceeded the now reduced liabilities. Thus the administration can gave itself **contribution holidays**, because the federal government does not wish to have DB pension assets exceed DB plan liabilities by more than 10%

<u>What is the cumulative value, in today's dollars, of all the contribution holidays since 1987?</u>

$1,258 million (almost $1.3 billion!) for the administration

$165 million for the participants (faculty and support staff)

<u>What would it cost today to return the pension plan assumption back to the 2.5% real return that was in place in 1987?</u>

As the November 9, 2006 memo to Business Board of Governing Council shows, the approximate cost in today's dollars is about $840 million (this covers all members of the pension plan, both faculty and support staff).

This is the pension abyss that I refer to in my title.