Global Portfolio Review

Software and Consulting for Brokers and Financial Planners

Joe Advisor: Asset Allocation & Suggested Portfolios

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June 14, 2006

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2 Introduction

Asset Allocation is probably the most important step in the investment process, not only from the perspective of providing your clients with good portfolios, but also from the perspective of creating an efficient way to operate your business.

2.1 Asset Allocation as a Portfolio Foundation

It is a well-known fact that the asset class in which you have your investment is the primary driver of the returns you will experience on your investment. Obviously, the way to earn the highest return comes from knowing in advance which asset class will perform best. Unfortunately, it is impossible to know which asset class will be best ahead of time, so the best course of action is to consider a broad range of asset classes, make reasonable assumptions about long-term performance, and allocate your investments across these asset classes in a systematic manner. In this way, an investor can capture the unknown returns of the various asset classes and reduce risk by not being overly-concentrated in a small number of asset classes.

At Global Portfolio Review Inc. we generally start with nine broad asset classes and tailor the optimization process to suit your specific needs and concerns. Using this approach, you will get a customized range of asset allocation specifically targeted to the way you want to run your business.

2.2 Asset Allocation as a Business Foundation

Asset allocation is not only the foundation for building portfolios for your clients, it also needs to be the foundation for how you operate your business. Two key points illustrate this concept:

1. **Streamlining & Systematizing Your Business:** Utilizing a standardized range of asset allocations will enable you to better manage your business by categorizing most of your clientele into one of the asset allocations. This simple, yet important, task will eliminate most of the work involved in maintaining your clients' accounts as your focus moves away from picking investments and moves toward keeping your clients on track with their chosen asset allocation. This one change in the approach you take to your business will pay enormous dividends as you can spend more on the specific needs of clients rather than worrying about the investments you need to put in their accounts.
2. **A Basis for Handling Compliance-Related Issues:** Most advisors are not too concerned with their compliance department, other than whether they will reject a KYC form or not. Unfortunately, there will likely be a time when a client complaint makes it way to your compliance department. Even worse, a complaint may make its way to your regulator or even the courts. In this event, having utilized a systematic, and well-documented, approach to asset allocation will go a long way in averting a compliance-related issue and provide a form of insurance for your business.

At Global Portfolio Review Inc. we understand that your time is extremely valuable. That is why we feel that a solid asset allocation will provide the foundation for streamlining your business and reducing compliance-related issues. When you combine these aspects with our account management software and quarterly portfolio reviews, you will be able to confidently take your business to a higher level.

3 Your Asset Allocation Methodology

3.1 Summary of Our Discussions

From the responses to the questionnaire and our discussions, here is what I understand your needs from different perspectives:

3.1.1 Overall Goal

Your overall goal appears to be to create some order out of all your thoughts. You have taken a lot of time to figure out what you want to achieve with your business and this process should enable you to articulate your desires utilizing a formal methodology. The result will ultimately be a solid foundation for you to build your business from the investment perspective.

3.1.2 Asset Classes

This is the information I used to clarify aspects of certain asset classes:

- **Cash** – You did not specifically wish to include cash in your asset allocations as it is not something you use regularly. Nevertheless, I convinced you that it is just another component of fixed income and would likely only be present in the most conservative of your portfolios. You agreed to include it in the asset allocation process.
- **Global Bonds** – You made no mention of any desire to use this asset class and I don't feel it is probably worth the effort given the present low yields and extra cost involved. This asset class was not included in the optimization process.
- **International Stocks** – You indicated that you like to use global funds to obtain your exposure to non-Canadian markets. I mentioned that the asset allocation and the investments that are used to achieve the asset allocation are different subjects. From an asset allocation perspective the different regional markets should be looked at separately. When investments are chosen, they could encompass a number of markets. You agreed to include US stocks, European Stocks, and Asia-Pacific stocks separately when performing the asset allocation.
- **Hedge Funds** – You mentioned that you feel that hedge funds should be included for clients with some tolerance for higher risk investments (Balanced/Moderate and up). To accomplish this, the asset allocation was broken into two sections – the lower risk section (6.0% annual standard deviation and lower) was calculated without hedge fund while the higher risk section (6.5% annual standard deviation and up) was calculated with hedge funds.
- **Real Estate** – This asset class was your major concern in that you were not sure it should be included in your asset allocations. I feel that it is a good diversifier because it operates on a different cycle than stocks. To decide whether it should be included, I ran the optimization process twice – once with real estate on once without.

3.1.3 Other Aspects

- **Canadian Content** – We had a brief discussion about Canadian content and it seemed that you wanted to keep the Canadian content to at least 50%.

3.2 Methodology

The methodology used in defining your asset allocation is a modified mean-variance framework. In this framework, the return, risk, and correlation of various asset classes are combined and optimized to produce the highest possible return for a given level of risk – the efficient frontier of asset classes.

In most optimizations of this nature, people generally use unaltered historical returns, risks, and correlations to generate the asset allocations. A simple procedure like this will lead to asset allocations that would have done well in the past but probably will not do well in the future. For example, T-Bills had an average annual compound rate of return of about 7.6% per year for the last 30 years. Unfortunately, this number is of no use when the current three month T-Bill rate is currently 4.15% (June 7, 2006). As well, many optimizations do not use reasonable constraints on the calculations, which may lead to very concentrated asset allocations and, ultimately, unnecessary or unforeseen risk going forward. For example, bonds have done very well over the last 20 to 25 years with fairly low risk and as such, many optimizations would allocate too much towards bonds especially now that interest rates are starting to edge up again.

Global Portfolio Review's optimization uses the following methodology, which we feel will provide better solutions and a better ride for clients, and you.

3.3 Asset Classes

The following asset classes/market indices were used in the optimization process. The data was modified as noted in the Comments column.

Asset Class	Market Index Used	Comments
Cash	T-Bill Index	No alterations.
Canadian Bonds	Canadian Bond Index	No alterations.
Canadian Stocks	Canadian Stock Index	No alterations.
US Stocks	US Stock Index	Converted to Canadian Dollars
European Stocks	European Stock Index	Converted to Canadian Dollars
Asia-Pacific Stocks	Asia-Pacific Stock Index	Converted to Canadian Dollars
Real Estate	Canadian Real Estate Index	The Canadian Real Estate Index only has data from March 1997. The US Real Estate Index, an index of US REITs, is used as a loose proxy for Canadian REITs prior to this due to lack of historical data in Canada. The US index was hedged into Canadian dollars to eliminate the exchange rate issue.
Hedge Funds	Hedge Fund Index	Hedged into Canadian – used as a proxy for Canadian hedge funds due to lack of historical data in Canada.

Equity style, market cap, and any specific sector allocations are not explicitly broken out in the asset classes; rather they will be handled within the appropriate asset class when the investments are chosen.

3.4 Returns

All returns used in the analysis are to April 30, 2006. As mentioned earlier, these historical returns are for guidance only as many adjustments have to be made in order to make them useful. For most of the asset classes, the 20 year average annual compound returns is used as the starting point, and adjusted for various reasons. 20 years was chosen as it encompasses a full bull market and a couple of crashes.

	Cash	Canadian Bond Index	Canadian Stock Index	US Stock Index	European Stock Index	Asia-Pacific Stock Index	Canadian Real Estate Index	Hedge Fund Index
1 Year	2.97%	2.64%	31.32%	2.88%	16.46%	26.23%	22.23%	15.50%
2 Years	2.63%	5.04%	23.93%	0.14%	12.63%	11.74%	24.59%	11.24%
3 Years	2.65%	5.95%	25.08%	5.63%	17.90%	22.96%	24.19%	12.75%
5 Years	2.78%	6.95%	10.95%	-3.58%	2.79%	3.02%	19.13%	10.18%
10 Years	3.62%	7.57%	10.88%	6.84%	8.83%	-0.25%	16.69%	11.37%
15 Years	4.51%	8.76%	11.01%	10.70%	11.19%	3.14%		
20 Years	5.92%	9.03%	9.72%	10.44%	10.15%	4.92%		
25 Years	7.09%	11.14%	9.84%	12.46%	13.44%	8.57%		
30 Years	7.60%	10.06%	11.76%	12.95%	14.14%	11.53%		
Use in Calculations	**4.20%**	**5.00%**	**8.74%**	**8.87%**	**8.63%**	**9.00%**	**8.50%**	**8.50%**
	expectation	expectation	20 yr avg less 10%	20 yr avg less 15%	20 yr avg less 15%	estimate	estimate	estimate

Adjustments:

- **Cash:** Current 3 month t-bill rate is about 4.15% and is expected to rise slightly over the next year.
- **Canadian Bond Index (Canadian Bonds):** The historical returns cannot occur when the current yield on 5 to 10 year Government of Canada bonds is presently 4.34% (June 12, 2006). If rates gradually rise, there will obviously be some shorter-term return problems, but a 5% return over the longer term is possible.
- **Canadian Stock Index (Canadian Stocks):** The 20 year return was reduced by 10% to better reflect the potential returns in today's market given that the Canadian market has shot up so much over the last few years.
- **US Stock Index (US Stocks):** The 20 year return was reduced by 15% to better reflect the potential returns in today's market.
- **European Stock Index (European Stocks):** The 20 year return was reduced by 15% to better reflect the potential returns in today's market.
- **Asia-Pacific Stock Index (Asia-Pacific Stocks):** A 9.00% return estimate was used here. The Japanese market had gone nowhere for almost 17 years, but is finally showing signs of life now that their economy is starting to pick up. It is likely that Japan, and Asia as a whole, will perform better in the future than they have in the past.
- **Canadian Real Estate Index (Real Estate/REITs):** Real estate & REITs have had quite a run recently and are still a useful part of a complete portfolio. Unfortunately, they seem pricey and rising interest rates will hurt performance. As such, an expectation of 8.5% was used – 6.0% current yield and 2.5% inflation.
- **Hedge Fund Index (Hedge Funds):** This index was hedged into Canadian dollars to eliminate the currency issue when using a US-based index. An estimate of 8.5% was used here as it is simply difficult to gauge what these funds will actually do.

3.5 Risk

All risk numbers used in the analysis are to April 30, 2006. The monthly standard deviations of the indices are calculated and then annualized to make them meaningful relative to the annual returns. For most of the asset classes, the 10 year standard deviation is used as the starting point, and adjusted for various reasons. The 10 year numbers were chosen as they give a more recent idea of the risk level of each asset class.

	Cash	Canadian Bond Index	Canadian Stock Index	US Stock Index	European Stock Index	Asia-Pacific Stock Index	Canadian Real Estate Index	Hedge Fund Index
1 Year	0.13%	3.47%	11.51%	8.82%	9.05%	10.19%	11.81%	4.10%
2 Years	0.14%	3.01%	9.20%	8.63%	9.52%	11.37%	9.73%	3.98%
3 Years	0.13%	3.62%	9.38%	9.49%	10.61%	12.27%	11.51%	3.72%
5 Years	0.17%	3.78%	12.12%	13.11%	15.23%	14.00%	11.43%	3.42%
10 Years	0.31%	4.07%	16.48%	14.36%	14.67%	17.24%	16.14%	7.50%
15 Years	0.48%	5.07%	14.72%	13.30%	14.26%	18.46%		
20 Years	0.83%	5.48%	15.15%	14.55%	15.58%	21.02%		
25 Years	1.05%	6.74%	15.71%	14.40%	15.60%	20.89%		
30 Years	1.05%	6.68%	16.13%	14.19%	15.42%	20.15%		
Use in Calculations	0.00%	4.07%	14.01%	14.36%	14.67%	17.24%	12.00%	11.24%
	0 by def		less 15%				estimate	plus 50%

Adjustments:

- **Cash:** Cash is by definition zero risk, so the standard deviation is reduced to zero.
- **Canadian Bond Index (Canadian Bonds):** No change to the 10 year standard deviation.
- **Canadian Stock Index (Canadian Stocks):** The tech bubble of 1999/2000 was terribly concentrated in Canada through a few companies (e.g. Nortel, JDS Uniphase) which really distorted the risk level. A reasonably diversified portfolio would not have these concentrations and would not have the same volatility. As such, the standard deviation was reduced by 15%.
- **US Stock Index (US Stocks):** No change to the 10 year standard deviation.
- **European Stock Index (European Stocks):** No change to the 10 year standard deviation.
- **Asia-Pacific Stock Index (Asia-Pacific Stocks):** No change to the 10 year standard deviation.
- **Canadian Real Estate Index (Real Estate/REITs):** An estimate of 12.0% was used since the REIT market in Canada has grown and matured substantially since 1997, when the Canada index started.
- **Hedge Fund Index (Hedge Funds):** The risk level simply feels too low for hedge funds. Too be quite sure, the standard deviation was increased by 50%.

3.6 Correlation

All correlation numbers used in the analysis are to April 30, 2006. For all asset classes, the 10 year correlations are used without any changes. The 10 year numbers were chosen as they give a more recent idea of the correlations between asset classes.

	Cash	Canadian Bond Index	Canadian Stock Index	US Stock Index	European Stock Index	Asia-Pacific Stock Index	Canadian Real Estate Index	Hedge Fund Index
Cash	1.00	0.03	(0.07)	0.05	(0.03)	(0.05)	(0.10)	(0.04)
Canadian Bond Index		1.00	0.18	0.06	(0.00)	0.01	0.18	0.25
S&P/TSX Composite TRI			1.00	0.66	0.60	0.47	0.42	0.63
US Stock Index				1.00	0.75	0.47	0.27	0.39
European Stock Index					1.00	0.44	0.28	0.43
Asia-Pacific Stock Index						1.00	0.14	0.16
Canadian Real Estate Index							1.00	0.28
CSFB/Tremont Hedge Fund Index – Hedged C$								1.00

3.7 Constraints

Various constraints are used to ensure that proper diversification occurs. If constraints were not used, the asset allocation would probably be very simple – cash and hedge funds. While some people may actually want this, it really makes no sense to put all your eggs in only two baskets. As such, constraints are imposed to ensure better diversification and, ultimately, better risk reduction.

3.7.1 Asset Class Constraints

The following asset class constraints were used in the calculations. More mainstream asset classes have the potential for greater allocations, while real estate was limited to 10% and hedge funds were limited to a maximum of 15% each.

	Cash	Canadian Bond Index	Canadian Stock Index	US Stock Index	European Stock Index	Asia-Pacific Stock Index	Canadian Real Estate Index	Hedge Fund Index
Minimum	0%	0%	0%	0%	0%	0%	0%	0%
Maximum	100%	70%	70%	70%	50%	40%	10%	15%

3.7.2 Diversification Constraints

Further constraints were used to ensure proper diversification across asset classes. A Canadian content minimum is used to ensure that a reasonable portion of the investments are in Canada.

Constraint	Details
Canadian Content Minimum	**Canadian content must be at least 50%.** Canadian content includes Cash, Canadian Bond Index, Canadian Stock Index, and Canadian Real Estate Index.
Canadian Stocks Minimum	Canadian Stocks must be at least 25% of the stocks.
Diversification of Foreign Stocks 1	Europe and Asia combined can be a maximum of 105% of the US allocation.
Diversification of Foreign Stocks 2	European allocation cannot be greater than 3 times Asian allocation.
Diversification of Foreign Stocks 3	European allocation must be at least the same as Asian allocation.
Hedge & Real Estate vs. Stocks Constraint	Stocks must be at least equal to at least twice the Hedge & Real Estate allocation.

4 Your Asset Allocation Results

When all of this information is run through the optimization process, an efficient frontier of asset classes is generated that produces the highest return for a given level of risk. Results are generated in a preliminary form and then we streamline the results to produce the final modified asset allocations.

4.1 Asset Allocations Generated by the Optimizer

Below are the results of the optimization. Risk (standard deviation) ranges from 0% to 20% in 0.5% increments. The Hedge Fund Index is eliminated for asset allocations with a risk of 6.0% and below, which is where the more conservative portfolios would lie. The results are colour-coded as follows:

- (green) Asset allocation is suitable for a portfolio.
- (yellow) Asset allocation is theoretically efficient, but diversification is decreasing and return gain is minimal. Not recommended.
- (pink) Asset allocation is inefficient. Not used.

Risk	Return	Cash	Canadian Bond Index	Canadian Stock Index	US Stock Index	European Stock Index	Asia-Pacific Stock Index	Canadian Real Estate Index	Hedge Fund Index
0.00%	**4.20%**	100%	0%	0%	0%	0%	0%	0%	0%
0.50%	**4.43%**	92%	4%	1%	1%	1%	1%	1%	0%
1.00%	**4.66%**	84%	7%	1%	2%	1%	1%	3%	0%
1.50%	**4.89%**	76%	11%	2%	3%	2%	2%	4%	0%
2.00%	**5.12%**	67%	15%	3%	4%	2%	2%	6%	0%
2.50%	**5.35%**	59%	19%	4%	5%	3%	3%	7%	0%
3.00%	**5.58%**	51%	22%	4%	6%	3%	3%	9%	0%
3.50%	**5.81%**	41%	29%	5%	8%	4%	4%	10%	0%
4.00%	**6.02%**	32%	34%	6%	9%	5%	5%	10%	0%
4.50%	**6.23%**	23%	39%	7%	10%	5%	5%	10%	0%
5.00%	**6.44%**	14%	44%	8%	12%	6%	6%	10%	0%
5.50%	**6.65%**	5%	49%	9%	13%	7%	7%	10%	0%
6.00%	**6.86%**	0%	50%	10%	14%	8%	8%	10%	0%
6.50%	**7.21%**	0%	40%	10%	15%	8%	8%	10%	10%
7.00%	**7.42%**	0%	35%	11%	16%	8%	8%	10%	12%
7.50%	**7.63%**	0%	29%	12%	17%	9%	9%	10%	14%
8.00%	**7.82%**	0%	24%	16%	17%	9%	9%	10%	15%
8.50%	**7.98%**	0%	20%	20%	17%	9%	9%	10%	15%
9.00%	**8.14%**	0%	15%	25%	17%	9%	9%	10%	15%
9.50%	**8.29%**	0%	11%	29%	17%	9%	9%	10%	15%
10.00%	**8.45%**	0%	7%	33%	17%	9%	9%	10%	15%
10.50%	**8.60%**	0%	3%	37%	17%	9%	9%	10%	15%
11.00%	**8.73%**	0%	0%	40%	18%	10%	10%	10%	12%
11.50%	**8.76%**	0%	0%	40%	24%	12%	12%	10%	2%
12.00%	**8.78%**	0%	0%	44%	33%	8%	8%	6%	0%
12.50%	**8.80%**	0%	0%	49%	36%	7%	7%	1%	0%
13.00%	**8.81%**	0%	0%	50%	50%	0%	0%	0%	0%
13.50%	**8.81%**	0%	0%	50%	50%	0%	0%	0%	0%
14.00%	**8.81%**	0%	0%	50%	50%	0%	0%	0%	0%
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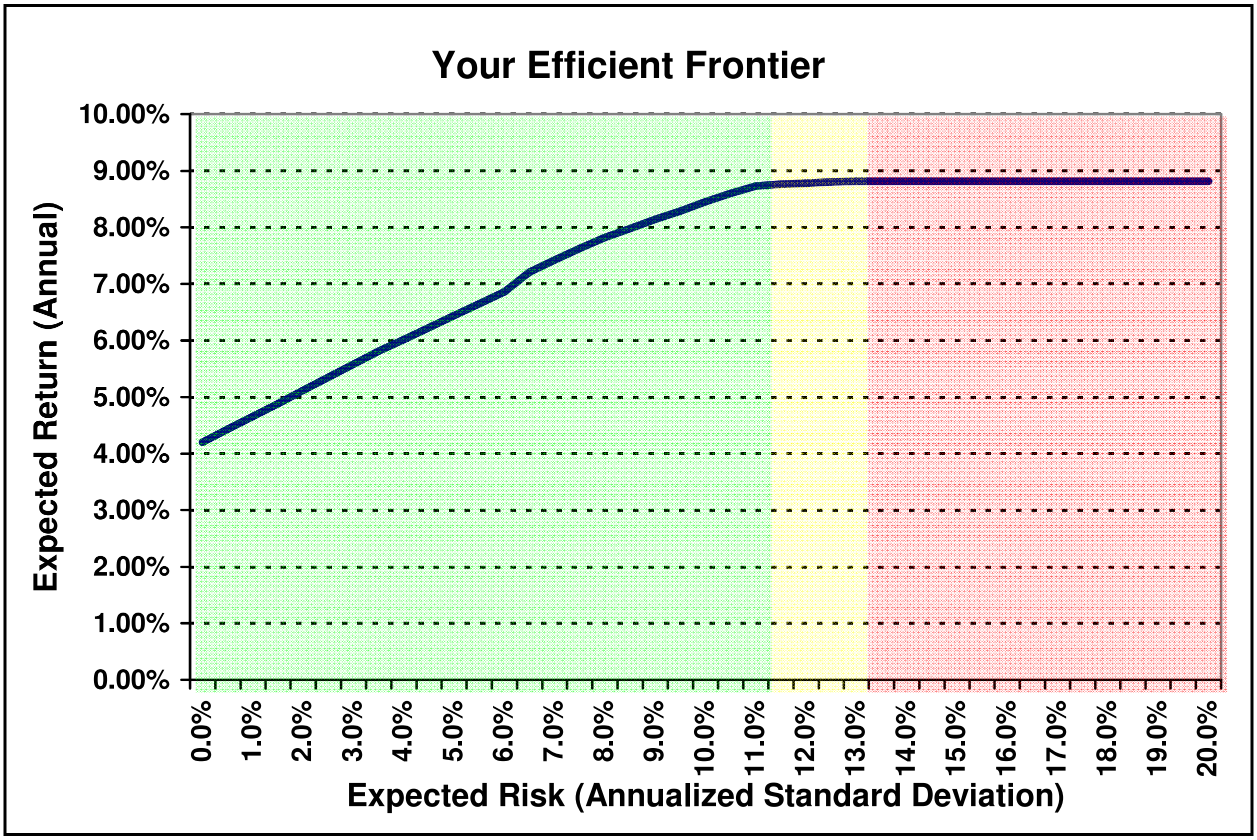
17.50%	**8.81%**	0%	0%	50%	50%	0%	0%	0%	0%
18.00%	**8.81%**	0%	0%	50%	50%	0%	0%	0%	0%
18.50%	**8.81%**	0%	0%	50%	50%	0%	0%	0%	0%
19.00%	**8.81%**	0%	0%	50%	50%	0%	0%	0%	0%
19.50%	**8.81%**	0%	0%	50%	50%	0%	0%	0%	0%
20.00%	**8.81%**	0%	0%	50%	50%	0%	0%	0%	0%

4.2 Your Efficient Frontier

Below is the Efficient Frontier of risk/return generated by the optimization. The kink in the efficient frontier at the 6.0% level is due to the exclusion of hedge funds below this risk level. The results are colour-coded as follows:

(green)	Asset allocation is suitable for a portfolio.
(yellow)	Asset allocation is theoretically efficient, but diversification is decreasing and return gain is minimal. Not recommended.
(pink)	Asset allocation is inefficient. Not used.



4.3 Preliminary Results

Given the possible efficient range of risks (0.0% to 13.0%) it is recommended that the following risk levels be used for your portfolios – 4.5%, 6.0%, 7.5%, 9.0%, and 11.0. It is not recommended that you use the 11.5% to 13.0% risk levels as there is little expected gain in returns and less diversification compared to the 11.0% risk level. The tables below show how these asset allocations would look from various perspectives.

By asset class:

	Cash	Canadian Bond Index	Canadian Stock Index	US Stock Index	European Stock Index	Asia-Pacific Stock Index	Canadian Real Estate Index	Hedge Fund Index
Conservative	23%	39%	7%	10%	5%	5%	10%	0%
Balanced	0%	50%	10%	14%	8%	8%	10%	0%
Growth	0%	29%	12%	17%	9%	9%	10%	14%
High Growth	0%	15%	25%	17%	9%	9%	10%	15%
All Equity	0%	0%	40%	18%	10%	10%	10%	12%

By investment type:

	Cash	Bonds	Stocks	Alternative Strategies
Conservative	23%	39%	28%	10%
Balanced	0%	50%	40%	10%
Growth	0%	29%	47%	24%
High Growth	0%	15%	60%	25%
All Equity	0%	0%	78%	22%

By risk & return:

	Expected Risk	Expected Return
Conservative	4.50%	6.23%
Balanced	6.00%	6.86%
Growth	7.50%	7.63%
High Growth	9.00%	8.14%
All Equity	11.00%	8.73%

4.4 Final Results

The preliminary results provide the precise allocations to each asset class, but the numbers generated (and some of the results) are a little unwieldy. As such, all the allocations are rounded to the nearest 5%. As well, the Hedge Fund Index has been eliminated from the more conservative portfolios as you indicated that this asset classes was not be appropriate for more conservative investors.

These allocations will provide the basis for the asset allocations used in your portfolios and guide the investments chosen in the next step.

By asset class:

	Cash	Canadian Bond Index	Canadian Stock Index	US Stock Index	European Stock Index	Asia-Pacific Stock Index	Canadian Real Estate Index	Hedge Fund Index
Conservative	25%	40%	5%	10%	5%	5%	10%	0%
Balanced	0%	50%	10%	15%	7.5%	7.5%	10%	0%
Growth	0%	30%	10%	15%	10%	10%	10%	15%
High Growth	0%	15%	25%	15%	10%	10%	10%	15%
All Equity	0%	0%	40%	15%	10%	10%	10%	15%

By investment type:

	Cash	Bonds	Stocks	Alternative Strategies
Conservative	25%	40%	25%	10%
Balanced	0%	50%	40%	10%
Growth	0%	30%	45%	25%
High Growth	0%	15%	60%	25%
All Equity	0%	0%	75%	25%

By risk & return:

	Expected Risk	Expected Return
Conservative	4.22%	6.13%
Balanced	6.04%	6.88%
Growth	7.32%	7.59%
High Growth	9.04%	8.15%
All Equity	10.88%	8.72%

5 Investments

5.1 Existing Investments

The following is listing of the major funds which you appear to use with your clients now which may have an impact on the suggested investments to use in your portfolios.

5.1.1 Fixed Income

- Global High Yield Bond Fund – This is a pretty good fund but global bonds were not included in the asset allocation, so this fund will not fit your new model.
- Canadian Bond Fund – Probably the best bond mutual fund available, so it will probably make the cut.
- Real Return Bond Fund – Probably the best real return bond fund, so it may make the cut for specific circumstances, but not for all portfolios.

5.1.2 Canadian Stocks

- Core Canadian Equity Fund – A good Canadian equity fund that also just squeaks into my Core rating. Does well in the bear markets but loses a little in the bulls. A keeper though.
- Canadian Equity Fund – Adds some value to the investment process, but is a bit random on its asset allocation and market cap. Would be suitable as a secondary holding.
- Growth-Oriented Canadian Equity Fund – Adds value but allocations are a little inconsistent. Growth bias. Would be suitable as a secondary holding.
- Dividend Fund – Definitely a large value fund. Added value during the bear market, but is still holding its own during the bull markets. Would be suitable as a secondary holding.

5.1.3 Global Stocks

- Global Equity Fund 1 – This fund has some problems. It has not added value since 2000 and has had a major style shift from pure growth to about a 50/50 split between growth and value. I don't think this fund makes the cut, which may be a problem since this is your largest single holding.
- Global Fund / US-GARP Bias – Has not exactly been a great performer recently, but it has not done too badly against its benchmark. Definite shift from value to growth, but this is not uncommon for GARP type funds. May be suitable as a secondary holding.
- Global Equity Fund 2 – This fund added quite a bit of value until 2002, but since then, it has seriously underperformed. Seems to be a shift from value to growth occurring, which makes it look more like a GARP fund than a value fund. I don't think this fund will make the cut.
- Health Care Fund – This fund had a stunning run of returns through to September 2001 but has underperformed since. I'm not too keen on sector funds and FundCo is also not on the list of companies you want to deal with, so this fund will not make the cut.
- Global Value Fund – Has just underperformed for a decade now. A new manager taking over at the end of the summer, but this probably won't change anything. This fund will not make the cut.

5.1.4 Real Estate

- No real estate investments to report.

5.1.5 Hedge

- Poor Performing Hedge Fund – There are three useful low risk hedge funds available in Canada and this is at the bottom of the pile. The fund was doing well a few years ago, but has done nothing for a few years now. I don't think this fund will make the cut.

5.2 Suggested Investments

The following investments are used in the construction of the portfolios. In general, these investments were chosen because they all add value (or hold their own) against the very tough measures used by our proprietary style analysis program. As mentioned previously, a number of the major investments you use are just fine, so I have tried to incorporate them as much as possible. Anyway, here are the investments I would suggest using:

5.2.1 Fixed Income

- **Cash** – Pick any investment (Money Market Fund, Cash, GIC, T-Bills, etc) that suits the needs of your clients. Smaller clients would be good in a fund or GIC while larger clients may be better served by rolling some T-Bills over. A good choice would be Dundee's new savings account which is currently paying 3.85%.
- **Canadian Bond Fund #1** – Has probably been the best performing regular Canadian bond fund that you can get. Has been able to eke out a little better return than other funds and in these low-interest rate days, every little bit helps.
- **Canadian Bond Fund #2** – A very good bond fund which makes a solid core for the income component of a portfolio. Holds up well with the index while taking less risk. Used in the portfolios for mid-sized and large clients.
- **Canadian Bond ETF** – An ETF traded on the TSX that mimicks the Canadian Bond Index with an MER of 0.30%. Hard to beat it at that price with the low yields we are seeing today.

5.2.2 Canadian Stocks

- **Canadian Equity Fund - Core –** A good Canadian equity fund that has held its own on the value-added front over the longer term. Since this was already your largest Canadian equity holding, it only makes sense to keep it as your primary holding.
- **Canadian Dividend Fund** – A Canadian dividend fund which has been adding value for over a decade. A good addition to your Core Canadian holding.
- **Canadian Small Cap Fund** – A solid Canadian small cap fund that was re-opened to purchases in early 2006. Management duties are split between two managers which should lead to better diversification. A good small-cap fund to add to your core Canadian investments.

5.2.3 Global Stocks

- **US Equity Fund** – A good US large-cap equity fund managed by a good manager. Fund provides the US exposure for your asset allocation models.
- **European Equity Fund** - Simply the best European fund available. The fund will provide the European exposure for your large portfolios. According to our style analysis program, the fund has been adding value over the years while maintaining a little better style stability than other European funds.
- **Asia-Pacific Equity Fund** – A fairly new Asian fund but one that has managed to add value according to our style analysis program. The fund will be used to obtain Asia-Pacific exposure for the large portfolios.
- **International Equity Fund** – One of the better International funds. It will be used to compliment US Equity Fund as a way to get European & Asia-Pacific exposure for mid-sized clients.

5.2.4 Real Estate

- **Real Estate Fund - Core** – The best real estate-oriented mutual fund available from a larger fund company. The fund invests in REITs and common stock of real estate companies.

5.2.5 Hedge

- **Hedge Fund - Conservative** – As the name says, a multi-strategy fund with the objective of obtaining returns in the order of 300 to 500 basis points (3 to 5%) above LIBOR (i.e. money market rates) with the volatility of the bond market and little correlation to anything else. The fund has been around for about four years and they are doing exactly what they claim.
- **Hedge Fund - Aggressive** – A hedge fund run out of Vancouver by some folks who used to work for MK Wong. They run an opportunistic kind of fund – looking for good deals where they can find them. Great returns with a volatility similar to an equity fund.

6 Suggested Portfolios

In general, I have tried to construct portfolios with a good solid Core that does not stray too far from the market and then add on some more unique funds to generate extra returns or modify the risk in beneficial ways. I have managed to keep the Core investments to at least 25% for the all-equity portfolios and somewhat higher for the more conservative portfolios. My definition of Core is pretty strict, so investments like the Canadian Dividend Fund do not qualify as Core

As well, I have tried to keep the portfolios fairly style neutral and towards a larger market capitalization. The growth/value split does tend to shift a little more value as the risk level increases, but there is always a good proportion of growth stocks. More small cap stocks are introduced for the larger clients as they likely have the ability to assume a bit more risk. The small portfolios are a little more random since they have been designed by someone else.

When constructing the portfolios, I tried to keep the number of investments limited to a reasonable number of funds in order to keep things more cost/time effective.

6.1 Large Portfolios

6.1.1 Conservative

25.0% Cash
40.0% Canadian Bond ETF
5.0% Canadian Equity Fund F - Core
10.0% US Equity Fund F
5.0% European Equity Fund F
5.0% Asia-Pacific Equity Fund F
10.0% Real Estate Fund - Core

6.1.2 Moderately-Conservative

50.0% Canadian Bond ETF
10.0% Canadian Equity Fund F - Core
15.0% US Equity Fund F
7.5% European Equity Fund F
7.5% Asia-Pacific Equity Fund F
10.0% Real Estate Fund - Core

6.1.3 Moderate

30.0% Canadian Bond ETF
10.0% Canadian Equity Fund F - Core
15.0% US Equity Fund F
10.0% European Equity Fund F
10.0% Asia-Pacific Equity Fund F
10.0% Real Estate Fund - Core
15.0% Hedge Fund - Conservative

6.1.4 Moderately-Aggressive

15.0% Canadian Bond ETF
10.0% Canadian Dividend Fund F
10.0% Canadian Equity Fund F - Core
5.0% Canadian Small Cap Fund F
15.0% US Equity Fund F
10.0% European Equity Fund F
10.0% Asia-Pacific Equity Fund F
10.0% Real Estate Fund - Core
7.5% Hedge Fund - Aggressive
7.5% Hedge Fund - Conservative

6.1.5 Aggressive

15.0% Canadian Dividend Fund F
15.0% Canadian Equity Fund F - Core
10.0% Canadian Small Cap Fund F
15.0% US Equity Fund F
10.0% European Equity Fund F
10.0% Asia-Pacific Equity Fund F
10.0% Real Estate Fund - Core
15.0% Hedge Fund - Aggressive

6.2 Mid-Sized Portfolios

6.2.1 Conservative

25.0% Cash
20.0% Canadian Bond Fund #1
20.0% Canadian Bond Fund #2
5.0% Canadian Equity Fund - Core
10.0% US Equity Fund
10.0% International Equity Fund
10.0% Real Estate Fund - Core

6.2.2 Moderately-Conservative

25.0% Canadian Bond Fund #1
25.0% Canadian Bond Fund #2
10.0% Canadian Equity Fund - Core
15.0% US Equity Fund
15.0% International Equity Fund
10.0% Real Estate Fund - Core

6.2.3 Moderate

15.0% Canadian Bond Fund #2
15.0% Canadian Bond Fund #1
10.0% Canadian Equity Fund - Core
15.0% US Equity Fund
20.0% International Equity Fund
10.0% Real Estate Fund - Core
15.0% Hedge Fund - Conservative

6.2.4 Moderately-Aggressive

15.0% Canadian Bond Fund #1
10.0% Canadian Dividend Fund
15.0% Canadian Equity Fund - Core
15.0% US Equity Fund
20.0% International Equity Fund
10.0% Real Estate Fund - Core
15.0% Hedge Fund - Conservative

6.2.5 Aggressive

20.0% Canadian Dividend Fund
20.0% Canadian Equity Fund - Core
15.0% US Equity Fund
20.0% International Equity Fund
10.0% Real Estate Fund - Core
15.0% Hedge Fund - Aggressive

6.3 Radiant Portfolios

6.3.1 Conservative

100.0% Portfolio Fund - Conservative

6.3.2 Moderately-Conservative

100.0% Portfolio Fund - Moderately-Conservative

6.3.3 Moderate

100.0% Portfolio Fund - Moderate

6.3.4 Moderately-Aggressive

100.0% Portfolio Fund - Moderately-Aggressive

6.3.5 Aggressive

100.0% Portfolio Fund - Aggressive

7 MERs

7.1 MERs for Your Funds

Here are the MERs for the suggested funds:

	Regular	F-Class
Fixed Income Funds		
Cash	0.00%	0.00%
Canadian Bond Fund #1	1.39%	0.59%
Canadian Bond Fund #2	1.27%	0.89%
Canadian Bond ETF	n/a	0.30%
Canadian Equity Funds		
Canadian Equity Fund - Core	2.62%	1.24%
Canadian Dividend Fund	1.71%	0.91%
Canadian Small Cap Fund	n/a	1.93%
Global Equity Funds		
US Equity Fund	2.35%	1.45%
European Equity Fund	n/a	1.78%
Asia-Pacific Equity Fund	n/a	1.57%
International Equity Fund	3.12%	n/a
Real Estate Funds		
Real Estate Fund - Core	2.66%+Bonus	n/a
Hedge Funds		
Hedge Fund - Conservative	2.5%+Bonus	1.7%+Bonus
Hedge Fund - Aggressive	2.5%+Bonus	1.5%+Bonus
Portfolio Funds		
Portfolio Fund - Conservative	2.55%	n/a
Portfolio Fund - Moderately-Conservative	2.60%	n/a
Portfolio Fund - Moderate	2.65%	n/a
Portfolio Fund - Moderately-Aggressive	2.70%	n/a
Portfolio Fund - Aggressive	2.80%	n/a

7.2 MERs for Your Portfolios

7.2.1 Large Clients

Below are the portfolio allocations for the large clients. A performance bonus is also paid for those portfolios which hold the Real Estate Fund - Core, Hedge Fund - Conservative and Hedge Fund - Aggressive.

	MER	Conservative	Balanced	Growth	High Growth	All Equity
Cash	0.00%	25.0%				
Canadian Bond ETF	0.30%	40.0%	50.0%	30.0%	15.0%	
Canadian Equity Fund - Core	1.24%	5.0%	10.0%	10.0%	10.0%	15.0%
Canadian Dividend Fund	0.91%				10.0%	15.0%
Canadian Small Cap Fund	1.93%				5.0%	10.0%
US Equity Fund	1.45%	10.0%	15.0%	15.0%	15.0%	15.0%
European Equity Fund	1.78%	5.0%	7.5%	10.0%	10.0%	10.0%
Asia-Pacific Equity Fund	1.57%	5.0%	7.5%	10.0%	10.0%	10.0%
Real Estate Fund - Core	2.66%	10.0%	10.0%	10.0%	10.0%	10.0%
Hedge Fund - Conservative	1.70%			15.0%	7.5%	
Hedge Fund - Aggressive	1.50%				7.5%	15.0%
Weighted Average MER		**0.76%**	**1.01%**	**1.29%**	**1.42%**	**1.56%**

7.2.2 Mid-Sized Clients

Below are the portfolio allocations for the mid-sized clients. A performance bonus is also paid for those portfolios which hold the Real Estate Fund - Core, Hedge Fund - Conservative and Hedge Fund - Aggressive.

	MER	Conservative	Balanced	Growth	High Growth	All Equity
Cash	0.00%	25.0%				
Canadian Bond Fund #1	1.39%	20.0%	25.0%	15.0%	15.0%	
Canadian Bond Fund #2	1.27%	20.0%	25.0%	15.0%		
Canadian Equity Fund - Core	2.62%	5.0%	10.0%	10.0%	15.0%	20.0%
Canadian Dividend Fund	1.72%				10.0%	20.0%
US Equity Fund	2.35%	10.0%	15.0%	15.0%	15.0%	15.0%
International Equity Fund	3.12%	10.0%	15.0%	20.0%	20.0%	20.0%
Real Estate Fund - Core	2.66%	10.0%	10.0%	10.0%	10.0%	10.0%
Hedge Fund - Conservative	2.50%			15.0%	15.0%	
Hedge Fund - Aggressive	2.50%					15.0%
Weighted Average MER		**1.48%**	**2.01%**	**2.28%**	**2.39%**	**2.49%**

7.2.3 Small Clients

Below are the portfolio allocations for the Small clients.

	MER	Conservative	Balanced	Growth	High Growth	All Equity
Portfolio Fund - Conservative	2.55%	100%				
Portfolio Fund - Moderately-Conservative	2.60%		100%			
Portfolio Fund - Moderate	2.65%			100%		
Portfolio Fund - Moderately-Aggressive	2.70%				100%	
Portfolio Fund - Aggressive	2.80%					100%
Weighted Average MER		**2.55%**	**2.60%**	**2.65%**	**2.70%**	**2.80%**

