

# Asset Allocation

RetirementWorks® offers two different Asset Allocation models: a General Method model suitable for any situation, and a more sophisticated Needs-Based model usable when the client is seeking to withdraw specific amounts of money.

**The General Method model** is the easier of the two to use. It asks only five simple questions about the client's risk capacity. Risk capacity differs from risk tolerance. Risk toler*ance* is the client's emotional ability to deal with risk, and experience suggests that this cannot be defined with any precision, and that either clients don't really know how risk-tolerant they are or their risk tolerance changes as the market changes. By measuring risk *capacity* we avoid these problems. Instead, we measure the financial ability of the client to accept risk, based on the investment timeframe, the importance of the savings objective, and the likelihood that the objective could be achieved without the funds in question.

**The Needs-Based model** asks the user to indicate what the desired cash flows will be: how much money is there now, how much will probably be going in, and how much may be coming out for education funding, retirement funding, or lump sums. This model differs from others you may have seen. It ties the fund allocation directly to the intended goals for the money in question. Specifically:

- It asks the user to indicate what the desired cash flows will be: how much money is there now, how much will probably be going in, and how much may be coming out for education funding, retirement funding, or lump sums.
- An indefinitely large number of education funding periods, retirement funding periods, and/or lump sums may be specified.
- Retirement funds may be specified for a certain number of years, or until death. Lump sums may occur at a specific time, or at death. Death may be the client's death, the spouse's death, the first death, or the second death. The system then evaluates possible future scenarios involving different dates of death. You can specify sex, smoking status, and health impairments to help the system deal with mortality issues.
- All cash flows are in today's dollars. You don't have to guess what future inflation rates will be (the econometric modeling within the system takes care of that for you).
- You also indicate the degree to which the fund owner would be willing to risk falling short of the desired goals. This enables us to avoid asking abstract questions about risk tolerance, which research shows are often unreliable and are always imprecise in their results.



- The tax effects of different kinds of savings plans are taken into account.
- You can do a preliminary test to see if the requested cash flows are reasonable, based on the rate of return you would need to earn in order to achieve them.
- You can require the allocation process to include or exclude certain investment options, or to use a certain minimum and/or maximum for each option.
- The allocation is performed by testing fund performance under hundreds of possible future scenarios, based on Still River's proprietary econometric model.
- The asset allocation results can be previewed on the screen; if they are not acceptable (say, because, too much investment risk is involved), the system will recommend changes that can be made.
- A printed report is available that summarizes the results in a way that is easy for most people to understand.
- With one click of your mouse you can download the latest economic and investment data to make your suggested allocation as current as possible.

#### When to Use These Calculators

Asset Allocation should be a periodical event for anyone who participates in a retirement plan (such as a 401(k) or 403(b) plan), who owns a variable annuity or variable life insurance policy, or who privately invests in mutual funds. In addition, of course, it is a necessary event at the time someone enters into such a plan, product, or arrangement.

We recommend that asset allocation be reviewed at least twice a year on a regular basis, and on an *ad hoc* basis whenever major changes occur in the financial markets.

The General Model may be used at any time. The Needs-Based model provides a more sophisticated alternative in cases where future cash needs can be defined and it is important to meet them. Examples of such situations are funds being set aside for Education Funding, or Retirement Funds that are being re-allocated at or after someone's retirement.



#### How to Use These Calculators

Despite a lot of internal complexity (see How the Asset Allocation Models Work), the actual use of the models is not very complex.

The General model requires only that five easy questions be answered. Unlike the Needs-Based model (next page), it is not necessarily interactive, and does not require the client to be present when the model is being run.

Reset Allocation / General Method			×					
Name:		Investment data as	of: 5/30/03 Update NOW					
- Evaluating Your Risk Capacity -								
Your Investment Time Horizon:								
When do you expect to START withdrawing this money for other purposes?								
🔘 Within 2 years	🔘 2 to 5 years	🔘 5 to 10 years	🔘 Over 10 years					
How likely is it that you will a	actually need access to t © Somewhat likely	his money significant)	y sooner than that?					
When do you expect withdra	wals to STOP?							
🔘 Within 2 years	🔘 2 to 5 years	🔘 5 to 10 years	Over 10 years					
Your financial goals and resourc	<u>es:</u>							
How important to you is the	financial goal for which y	ou are saving these f	unds?					
🔘 Essential	Very important	Somewhat important	Not important					
In case of investment losses	in these funds, could yo	u achieve your goal s	ome other way?					
🔘 Not a chance	🔘 Maybe, but not likely	Probably	🔘 Definitely					
Ver. 4.26D expires 04/15/04	Set Constraints	Perfo	orm Allocation Close					

- 1. **Make sure you are not out of date.** The allocation reflects actual economic and market conditions, so it is best to be current. If your machine is connected to the internet, simply click the Update Now button to download the latest data.
- 2. Fill in the main input screen (five questions).
- 3. **Set constraints.** Click the Set Constraints button if you want to specify minimum or maximum amounts for any kind of investment. (We don't necessarily recommend this,



but it does give you, the system user, flexibility and control over the final result.)

4. **Preview or Print the results.** You can use the Preview Allocation button to get a quick screen preview of the results, or use the Print menu to generate a report or a report preview.

The Needs-Based model is designed to be interactive, and therefore is best used with the client or investor right there in front of the computer.

RetirementWorks®	l ×				
File Print Calculations Windows Help					
🔀 Asset Allocation / Goals and Limits 📉					
Name: Investment data as of: 4/2/02 Update NOW					
Date of birth (mm/dd/yyyy): Spouse date of birth (if applicable - mm/dd/yyyy):					
Current total asset balance: \$ Type: 401(k), 403(b), or other Tax Qualified 🔽					
Marginal tax rate (federal + state + local) before retirement: 28 % After retirement: 28 %					
Planned future contributions: \$ per contribution, paid 1 time(s) per year for					
years, with contributions increasing % per year above the normal inflation rate.					
- Goals and Limits - ALL ITEMS ARE IN TODAY'S DOLLLARS, PRE-TAX					
EDUCATION FUNDING: Number of children/periods: 3					
starting in year for years					
\$ starting in year for years					
starting in year         for         years         (enter year or age)					
RETIREMENT FUNDING: Number of retirement income periods: 2					
starting in year for C years (enter year or age; C=client death; S=spouse; F=first; L=last)					
\$ starting in year for C years					
LUMP SUMS AND LEGACIES: Number of items: 1					
in year C (enter year or age; C=client death; S=spouse; F=first death; L=last death)					
I am comfortable if I have a one in 5 chance of falling short of my goals by as much as 25 %					
and a one in 10 chance of falling short of this goal by MORE than 25%					
Ver. 3.16D expires 04/15/03 Life expectancy inputs Set Constraints Help Set Goals Perform Allocation Close					

We suggest the following steps:

1. Make sure you are not out of date. The allocation reflects actual economic and market conditions, so it is best to be current. If your machine is connected to the internet, simply click the Update Now button to download the latest data.



- 2. **Fill in the main input screen.** Also review the Life Expectancy Inputs.
- 3. **Set constraints.** Click the Set Constraints button if you want to specify minimum or maximum amounts for any kind of investment.
- 4. **Review goals.** Click the Help Set Goals button so see what kind of return would be needed to achieve the specified goals. If the answer is too high or involves too much risk, you can go back and change the goals now. When you do so, click the button again, and see what effect it has on the needed rate of return. Do this as often as necessary until you are comfortable with the results.
- 5. **Perform the allocation.** Click the Perform Allocation button to run the model and come up with a suggested allocation. A new screen showing the allocation and its risk characteristics will appear. Here again, if you don't like the results, you can change the goals and/or the constraints, and re-run the allocation.
- 6. **Print the report.** When you are satisfied, use the Print menu to generate a report or a report preview.



#### How the Models Work

The RetirementWorks® Asset Allocation models are the ERC ("Econometric Risk Capacity") model and the EMC ("Econometric Monte Carlo") model, new kinds of models originally created by Still River Retirement Planning Software, Inc. Instead of looking at investment options as if they were independent realities, it sees them as tied to economic performance.

The EMC method generates hundreds of future economic scenarios, ranging from frighteningly catastrophic to gloriously optimistic, but with the bulk of them closer to actual historical trends over the past several generations. It then uses historical relationships between various investment classes and the underlying economy to project how these investment classes might perform under the various economic scenarios in the model.

The ERC (General) model, by its nature, does not need to look at multiple scenarios, but only at the most likely (central) scenario to identify investments that are expected to perform better than others. In this model, the expected investment performance, which takes into account the cyclical nature of most investments, is balanced against the risk characteristics of the investments, and depending on the client's risk capacity, will recommend an allocation with higher risk/return or lower risk/return features.

The actual asset allocation that is recommended by the EMC (Needs-Based) model, is based on the ability of the various investments to meet the client's financial goals under the range of economic scenarios that we test.

- If the client's goals cannot be met the allocation will be solely or primarily to the investment that, by itself, comes closest to meeting the goals.
- If the client's goals can be met then there are usually a large number of different allocations that will meet them. The model chooses among these by looking not only at what allocation meets the goals most comfortably, but also at the volatility, diversification, and risks to loss of principal that are involved in different allocations, trying to keep those risks as modest as it can.

Although no perfect asset allocation can be determined for the future, and no asset allocation model can be perfect in its methods, the ERC and EMC models are advantageous because:

• They do not require the measurement of "risk tolerance," which studies show cannot in fact be measured with any precision, and often cannot be measured at all. (Lots of people are risk tolerant when the market is going up, but are extremely risk averse when it is going down!).



- Unlike other sophisticated mathematical models, they do not rely on the implicit assumption that the future is necessarily going to resemble the past.
- They recognize that there are risks other than market volatility.
- They recognize that hot markets cool down, and that out-of-favor markets come into favor. Therefore they tend to recommend moving out of hot markets the longer they stay hot. This tendency leads to buying low and selling high, rather than buying high with the hope of selling even higher. Yet neither model is a market timing model, and neither tends to recommend sudden major allocation shifts.
- Suggested allocations are relatively stable: they do not shift wildly with small changes in inputs, or from one day to the next as market conditions fluctuate normally. This inspires confidence and induces comfort, as well as eases the difficulty (and in some cases the cost) of keeping allocations current.



# **Detailed Input Instructions (General Model)**

#### Name

Enter the client's (principal fund owner's) name as it should appear on the printed report.

### **Risk Capacity Questions**

The General Asset Allocation method contrasts the investment and risk profiles of the investment options against the Risk Capacity of the client. The latter is measured using five questions that ask:

- When withdrawals from the fund are expected to begin (initial time horizon).
- The likelihood that earlier withdrawals will be needed (degree of certainty about initial time horizon).
- When withdrawals are expect to end (ultimate time horizon).
- How important the financial goal is (importance of ends).
- Availability of alternative funding means (importance of means).

#### **Setting Allocation Constraints**

The Asset Allocation Constraints screen appears when you click the "Set Constraints" button at the bottom of the Main Input screen. It enables you to set minimums and maximums for the allocation of each available investment fund or class. A simple version appears below – depending on what version of RetirementWorks<sup>®</sup> you are using, you may see a more detailed Constraints screen.



🔨 Asset Allocation Constraints				_	
		Minimum Allocation		Maximum Allocation	
Short-term Funds		5	%	100	%
Total U.S. Stocks		20	%	100	%
US Balanced Stocks		0	%	100	%
US Income Stocks		5	%	100	%
US Growth Stocks		10	%	50	%
US Value Stocks		0	%	75	%
Total U.S. Bonds		10	%	100	%
US High Quality Bonds		5	%	80	%
US High Yield Bonds		0	%	100	%
	Save as Defaults			Clos	e

- Minimums: Minimum allocation percentages appear in the first column. In most versions of the system, these values default to zero. Enter another number (from 0 to 99) in any line to indicate the minimum allocation percentage to that fund or category. If you specify a percentage in a broad category but not in any of the specific entries below it, the system will select the particular funds or classes that receive the allocation. Conversely, you may enter a minimum at the detail level without also entering the amount at the more general level.
- Maximums: Maximum allocation percentages appear in the second column. In most versions of the system, these values default to 100. Enter another number (from 0 to 100) in any line to indicate the maximum allocation percentage to be permitted in that fund or category. By entering "0" as the maximum in any line, you indicate that that investment or category is to be completely excluded from the allocation.

If you are an advisor and you want to impose the same constraints on all your cases, you can make your entries, then click the "Save as Defaults" button to save them as defaults for all future cases. But you can still make further changes in the constraints for individual cases, and when you save the case it will save those individual constraint specifications without changing your defaults.

It is advisable not to make the constraints too numerous and complex, since they affect one another. For example, if you specify a minimum allocation of 10% to one class of investments, that means that any other class has an effective maximum of 90%, whether you specify that or not. If you indicate too many constraints, these side effects will compound, and may even contradict one another, and you will then not always get what you want.



# **Preliminary Results**

When your data is all entered and you click the Perform Allocation button, you get a popup screen that shows a pie chart with the suggested allocation. If you do not like the allocation, you can either change the answers to the five Risk Capacity questions, or you can use the Constraints screen (above) to force a more conservative or more aggressive allocation. When you are content with the results, you can use the Print menu to preview and/or print the final report.



# **Detailed Input Instructions (Needs-Based Model)**

#### Name

Enter the client's (principal fund owner's) name as it should appear on the printed report.

### **Date of Birth**

Date of birth must be entered in m/d/yyyy format. The fund owner's date of birth is always required.

# Spouse Date of Birth

A birth date for a spouse is optional. However, if any of the retirement funding or lump sum withdrawals are connected with a spouse date of death, then the spouse birth date is required. If entered, it must be in m/d/yyyy format.

# Туре

This drop-down list appears near the upper right of the Main Input screen. Five options are available, each getting somewhat different tax treatment.

Since some situations may seem to fall into more than one category, please observe these rules:

- 401(k), 403(b) and other Tax Qualified: Use this category for any plans with pre-tax contributions: 401(k), 457, 403(b), traditional IRA, or any other such plans. Use this category (not the fourth category) even if the funds are invested in a variable annuity. For Roth accounts, use the second category.
- **Roth accounts:** This category covers Roth IRAs and, starting in 2006, Roth 401(k) and Roth 403(b) accounts. Use this category for all Roth accounts, even if the funds are invested in a variable annuity.
- Non tax-advantaged: This category is used for funds that are **not** invested in IRA plans, in employer-sponsored plans, or in annuities or life



insurance. In most cases, such monies are invested in mutual funds or in individual stocks, bonds or other securities.

- Variable annuities: Use this category for privately owned variable annuities that are **not** part of a 403(b), IRA or other tax-advantaged plan.
- **Variable life insurance:** This category applies to any variable life insurance situations.

# Marginal tax rates

By default, we assume that assets grow tax-deferred, but are taxable when they come out. When we ask about withdrawals, therefore, we assume that taxable withdrawals are being made. However, for certain plan types, we adjust these assumptions. For non-tax advantaged investments, we assume that taxes are paid annually as earnings occur, but that withdrawals are non-taxable. For Roth and life insurance accounts, we assume that neither annual earnings nor withdrawals are taxed. We make appropriate adjustments in the calculations to account for this.

In order to make plausible adjustments, we ask you to input the expected pre-retirement and post-retirement marginal tax rates - either or both, as needed. These fields appear toward the top of the Main Input screen, but are disabled in cases where they are not needed.

The marginal rate is the rate at which the **next** dollar of income will be taxed. The marginal rate is generally higher than the **average** rate at which income is taxed.

For your reference, a recent federal marginal tax rate table appears in the on-line Help for these fields.

### **Planned future contributions**

Four related input fields appear toward the top of the Main Input screen, where you can specify how ongoing contributions will be made.

- **the amount** of each periodic contribution (leave this blank if no future contributions are contemplated);
- the frequency of each periodic contribution (how many per year);
- the number of years such contributions will be made into the future;



• **the annual percentage increase** over and above inflation. **If you expect simply to increase contributions at an even pace with inflation, then leave this at zero.** If you expect your contributions to stay level as inflation increases, then you should enter a negative number (-2, or -3, perhaps, depending on what you think inflation will average during your working career).

# **Education Funding Data**

If you have one or more periods of education funding to finance from the assets being allocated (or if you have any other set of payments with a fixed beginning or end), you can use this section.

First, in the Number of Children/Periods field, enter the number of education funding periods to be taken into account. The number of periods is up to you. If you had a child who was going to go to a public university at \$15,000/year and then to graduate school at \$25,000/year, you could enter this as two separate funding periods. When you hit <ENTER> or move the cursor to another field, the screen will expand to allow you to input data for the number of periods you specified.

For each period, enter the **annual withdrawal amount in today's dollars** (i.e., you don't have to adjust for inflation). Specify when the withdrawals will begin, indicating the number of years from now, or a calendar year. Then indicate how many annual withdrawals of this amount are expected to occur

### **Retirement Funding data**

If you have one or more periods of retirement funding to finance from the assets being allocated (or if you have any other set of payments that end when you and/or your spouse die), you can use this section.

First, in the Number of Retirement Income Periods field, enter the number of withdrawal streams to be taken into account. This number is up to you, although usually one or two suffices. If you are single, or if you are married but want the same income as long as either spouse is alive, one withdrawal stream should cover it. Or if you expect expenses to go down significantly when one spouse dies, you could input, say, two-thirds of your expected retirement income need to be funded until the later death, and one-third to be funded only until the first death. Or any other structure that works for you. Be creative! The system will open up the screen sufficiently to allow the number of withdrawal streams you request.



For each period, enter the **annual withdrawal amount in today's dollars** (i.e., you don't have to adjust for inflation). Specify when the withdrawals will begin, indicating the number of years from now, an age, or a calendar year (numbers under 50 are interpreted as a number of years, higher numbers are interpreted as ages, with numbers over 2000 interpreted as calendar years). Then input how many annual withdrawals of this amount are expected to occur. You may specify the stopping point as:

- Number of years: Any reasonably integer is OK.
- **C** indicates until the death of the client (fund owner).
- **S** indicates until the death of the spouse.
- **F** indicates until the first of the client or spouse dies.
- L indicates until the later of the client or spouse dies.

By using C, S, F, or L you avoid having to guess when death will occur. The system will use mortality tables to evaluate the probability of death at different ages and adjust the asset allocation suggestions appropriately. By clicking the Life Expectancy Inputs button at the bottom of the Main Input screen, you will be able to input information about sex, smoking status and/or health impairments that may affect lifespan.

### Lump Sums and Legacies

If you expect to make lump sum withdrawals for any purpose at all, or if you anticipate lump sum payments at the time of death (for extra medical expenses, for estate tax payments, for bequests to heirs, etc), use this section.

First, in the Number of Items field, enter the number of lump sum items to be taken into account. This number is up to you, and the screen will expand to accommodate what you request.

For each item, enter the **lump sum amount in today's dollars** (i.e., you don't have to adjust for inflation). Then specify when the withdrawals will occur:

- Number of years: numbers under 50 are interpreted as a number of years, higher numbers are interpreted as ages, with numbers over 2000 interpreted as calendar years.
- **C** indicates at the death of the client (fund owner).
- **S** indicates at the death of the spouse.



- **F** indicates at the first of the client or spouse death.
- L indicates at the later of the client or spouse death.

By using C, S, F, or L you avoid having to guess when death will occur. The system will use mortality tables to evaluate the probability of death at different ages and adjust the asset allocation suggestions appropriately. By clicking the Life Expectancy Inputs button at the bottom of the Main Input screen, you will be able to input information about sex, smoking status and/or health impairments that may affect lifespan.

### **Comfort Zone entries**

Near the bottom of the input section of the Main Input screen, there are three fields that ask you to specify your comfort level with the possibility of falling short of your goals. We ask for two specifications.

- In what proportion of situations you would be willing to fall short of your goal **within a specified amount**?
- In what proportion of situations you would be willing to fall short of your goal **beyond the same specified amount**?

These inputs are important, because they help the system figure out how much investment risk needs to be taken to meet the goals. In very few situations can any investor be assured of meeting his or her goals no matter what happens. In real life, there is always some risk of falling short.

**Falling short is not necessarily catastrophic.** The stated goals may reflect what is desired, but considerably more than what is absolutely needed. Or, if funds are a little short, small adjustments may cover the difference. Even in the event of a large shortfall, people often find ways to live comfortable and happy lives. And in the worst cases, help can generally be found from family, charitable and/or government sources. Hardly anyone in America actually ends up on the street due just to lack of funds. We strive to avoid the worst cases, of course, but at the same time we can usually accept some minimal risk of their occurrence.

**The best way to answer the comfort level questions** is to think about how much you could fall short before it starts to hurt significantly. Typically, this amount falls in the 10-50% range - sometimes more, if the investments under consideration are "mad money" of some kind.

Then think about what chance you are willing to take of falling somewhere between the stated goal and the shortfall percentage: 1 in 2 (i.e., in half of the future economic scenarios)?, 1 in 3



( in a third of the scenarios?), etc. Similarly, think about how often you would be willing to do worse than the shortfall percentage specified: 1 in 5, one in 10, one in 20? 1 in 100?

It can be a bit hard to put numbers on these notions, but it gives the system something to aim for, and when the calculations are done you will find out whether your specifications are met, or not. Either way, you can go back and adjust them.

# Life Expectancy Inputs

A button appears at the bottom left of the Main Input screen that says "Life Expectancy Inputs." If you click this button, a new window will appear over the main input screen, asking for information that will help determine the life expectancy of the principal fund owner and/or spouse.

This information is needed so that the system can take into account the probability of different lifespans when it is evaluating the probability of meeting the specified financial goals.

When you are done with this pop-up window, click the "Close Life Expectancy Detail" button at the bottom of it.

The underwriting information requested is, for each person, their sex, smoking status, and overall mortality rating. Sex is self-explanatory. Smoking status should be considered to be their general past practice. If someone has just recently quit after a long period of smoking, you should still enter him or her as a smoker.

The mortality percentages to the right of the smoking status indicate how much more likely to die a medically impaired person is, compared to normal. A normally healthy person has a 100% mortality rating. Someone twice as likely to die in the next year has 200% mortality, someone three times as likely has 300% mortality, and so on. (For people in the insurance business, these last two would be Table D and Table H respectively.) If you don't do this for a living — and even if you do — it's hard to estimate a mortality percentage. In order to assist you with this, the on-line Help contains extensive notes about how to translate many common conditions into mortality percentages.



Factors for e	valuating life	enan noesihilitige				
Fund Owner / Participant:	Male     Female	O Non-Smoker O Smoker O Unknown	100 <sup>®</sup> Percentage unhealthine normal (100 health migh	<ul> <li>(s) indicate each person's level of ss, expressed as a percentage of %). Someone in relatively poor t have twice as great a chance of given user compared to an</li> </ul>		
Spouse:	O Male ⊙ Female	<ul> <li>Non-Smoker</li> <li>Smoker</li> <li>Unknown</li> </ul>	average pe 100 <sup>®</sup> "200" would <f1> key fo examples.</f1>	given year compared to an rson the same age, in which case d be a suitable entry. Press the r further help and specific		
Close Life Expectancy Detail						

# **Setting Allocation Constraints**

The Asset Allocation Constraints screen appears when you click the "Set Constraints" button at the bottom of the Main Input screen. It enables you to set minimums and maximums for the allocation of each available investment fund or class. A simple version appears below – depending on what version of RetirementWorks<sup>®</sup> you are using, you may see a more detailed Constraints screen.

🔨 Asset Allocation Constraints				_		
		Minimum Max Allocation Allo		Maximu Allocati	aximum ocation	
Short-term Funds		5	%	100	%	
Total U.S. Stocks		20	%	100	%	
US Balanced Stocks		0	%	100	%	
US Income Stocks		5	%	100	%	
US Growth Stocks		10	%	50	%	
US Value Stocks		0	%	75	%	
Total U.S. Bonds		10	%	100	%	
US High Quality Bonds		5	%	80	%	
US High Yield Bonds		0	%	100	%	
	Save as Defaults			Clos	e	

• **Minimums:** Minimum allocation percentages appear in the first column. In most versions of the system, these values default to zero. Enter another number (from 0 to 99) in any line to indicate the minimum allocation percentage to that fund or category. If you specify a percentage in a broad category but not in any of the specific entries below it, the system will select the particular funds or classes that receive the allocation. Conversely, you may enter a minimum at the detail level



without also entering the amount at the more general level.

Maximums: Maximum allocation percentages appear in the second column. In most versions of the system, these values default to 100. Enter another number (from 0 to 100) in any line to indicate the maximum allocation percentage to be permitted in that fund or category. By entering "0" as the maximum in any line, you indicate that that investment or category is to be completely excluded from the allocation.

If you are an advisor and you want to impose the same constraints on all your cases, you can make your entries, then click the "Save as Defaults" button to save them as defaults for all future cases. But you can still make further changes in the constraints for individual cases, and when you save the case it will save those individual constraint specifications without changing your defaults.

It is advisable not to make the constraints too numerous and complex, since they affect one another. For example, if you specify a minimum allocation of 10% to one class of investments, that means that any other class has an effective maximum of 90%, whether you specify that or not. If you indicate too many constraints, these side effects will compound, and may even contradict one another, and you will then not always get what you want.



## **Preliminary Results**

When your data is all entered and you click the Help Set Goals button, you get a screen that resembles the one shown below. It is not necessary to go to this screen before running the allocation model, but it can be a good idea, so that you have a preview of whether the requested cash flows may be overly ambitious or not.



# **Asset Allocation Results**

When your data is all entered and you click the Perform Allocation button, you get a screen that



resembles this one. For a printed report that explains more about the allocation, what it means, how it was done, and what else the client needs to know, use the Print menu.

