CASE STUDY

from „Ethics, Quantitative Methods, Behavioral Finance, and Private Wealth Management", Session 5, Private Wealth Management, Stalla Review for the CFA Exams

Sally Smith is a CFA charterholder who is to construct and investment policy statement for Tom Thompson. Tom, age 50, is the president and founder of Fast Boats, a worldwide integrated manufacturer and seller of the high performance boats. Fast Boats now employs 500 people worldwide with sales of $500,000,000.

Notes regarding Tom Thompson:

Tom started the company at age 20 right out of high school doing all the work himself for the first 2 years. He is an avid reader and it is evident he has business skills and education to rival the best corporate executives and a thorough knowledge of boat manufacturing. Tom has signed a binding letter of intent to sell the business. Tom's net proceeds after taxes from share of the company will be $60,000,000. In addition he will continue to receive a salary of $1,500,000 for the next 3 years. At the end of these 3 years his relationship with the company will end and he will receive an additional bonus payout not to exceed $30,000,000 (taxable as ordinary income) subject to the company meeting certain goals. These goals are quite aggressive and the actual payout is uncertain (it could range from $0-$30,000,000). In addition, he and his wife will receive generous and comprehensive medical insurance for their lifetimes. Tom will be selling his current home within the next year and should realize approximately $2,000,000 after taxes. During the next 2 years he will need approximately $10,000,000 for construction of his dream home. Tom's wife is also 50 years old and both are in excellent health. They need a total income (after tax) of $3,000,000 per year (growing with expected inflation o 2% per year). They have no children but would like to gift each of their 5 nieces $1,000,000 each in 5 years. All remaining assets at their deaths will be given to charity, but Tom wants to see the amount gifted at least equal his current net worth of "about" $65,000,000 and adjusted upward for inflation. If possible, he would also like to begin a very large gifting program in the next couple of years. All of their income is subject to a 30% tax rate except net capital gains subject to 15%. Tom is prepared to let a professional manager assume responsibility for his assets but want to see at least 50% of the equities in international securities and within that 50% at least 20% of total equities in emerging markets. After much research he is convinced the markets will offer better returns despite their high yearly volatility. He also has accumulated a $10,000,000 on retirement account that he will aggressively manage himself. He specifically directs Sally to exclude this from all of her planning.

Financial Statement:

Net worth	
$10,000,000	Retirement account
2,000,000	Home
1,000,000	Savings
60,000,000	Proceeds from sale of Fast Boat

Cash flow projections

Year	**1**	**2**	**3**	**4**	**5**
Salary	$1,500,000	$1,500,000	$1,500,000	-----------	------------
Retirement account (not subject to taxes	50,000?	55,000	60,500	66,500	73,200
Earnings on $60,000,000	?	?	?	?	?
Home & Misc. Sale	2,050,000	55,000	60,500	66,500	73,200
Total Inflows	3,600,000	1,610,000	1,621,000	133,100	146,400
Income Taxes	465,000	466,500	468,150	19,965	21,960
Gifts					5,000,000
Home Construction	10,000,000*				
Living Expenses	3,000,000	3,060,000	3,121,200	3,183,624	3,247,296
Total Outflows	13,465,000	3,526,500	3,589,350	3,203,589	8,269,256

uncertain when the money will be needed so covered in year 1

Tom's Personality Profile: Individualist Investor

Investment Policy Statement

Background: Tom founded and built Fast Boats, Inc. into a worldwide corporation. He has completed the sale of the company for an after-tax price of $60,000,000 plus a possible bonus of up to $30,000,000 in three years. He will continue to draw a salary for three more years as he transitions into retirement. The Thompson's have no children but do have an extended family of 5 nieces.

Return Objectives: The Tompson's primary objective is to live comfortably off the portfolio for their lifetimes with an after-tax income of $3,000,000 growing with inflation o 2%. They also need cash flow to construct a new home and make sizable gifts to their nieces. Non-recurring cash flow during the next 5 years: + $ 3,500,000 (salary (after tax)) + $ 2, 000,000 (home sale) - $10,000,000 (home construction) - $ 5,000,000 (gifts)= - $ 9,500,000 (net outflows)

Setting this aside from the $60,000,000 there is $50,500,000 available to invest and generate $3,000,000 of living expenses for a required return of 5,9% plus expected inflation of 2% for a total required return of 7,9% after-tax. A somewhat higher return would be desirable because Tom would like to see an inflation-adjusted value of $65,000,000 go to charity at their deaths and the portfolio is starting out below this value.

There is a secondary objective to begin some significant gifting to charities during their lifetimes, but that is being deferred pending the bonus in the sale in 3 years.

Risk Objectives: Tom has a high willingness to bear risk as evidenced by his successful career as an entrepreneur and his personality profile as well as his informed desire to hold significant international assets and manage his own retirement account. His ability to bear risk is also relatively high given a remaining long life expectancy, good health, and significant assets. The risk objective could be described as moderately high (outside the liquidity portion). He has indicated the portfolio should not have an expected decline of more than 17% in a given years.

Liquidity: The significant non-recurring cash flows over the next 5 years can be met by setting aside $9,500,000 in cash equivalents and short-term bonds. In the longer term maintaining a cash reserve of up to one year's living expenses would be prudent.

Time Horizon: Young age and good health make for a long time horizon (25 years or more). There are multistage aspects in the horizon as well. They are addressed by the liquidity reserve and reconsidering the objective when the bonus becomes known.

Taxes:Subject to 30% income tax and 15% gains tax. Objectives should be measured on after- tax basis. Municipal bonds should be appropriate for the fixed-income portion of portfolio.

Legal/Regulatory: There are no specific issues beyond normal duty to the client.

Unique Needs and Circumstances: The bonus payout in 3 years and potential gifting program will have to be addressed; Significant assets are not addressed in the policy: the new home and the self managed retirement account, but both only increase the wealth of Thompson's; At least 50% of equity investments are to be in international assets including at least 20% in emerging markets.

Asset Allocation:

Asset class	Exp,total return	Income return	Stan. deviation	Asset mix1	Asset mix2	Asset mix3	Asset mix4
Cash equivalents	4,0%	4,0%	3,0%	25%	5%	0%	5%
Domestic bonds	6,0%	6,0%	10,0%	10%	0%	5%	5%
tax-exepmt bonds	7,0%	7,0%	10,0%	15%	10%	15%	25%
U.S.Equities	11,0%	2,0%	16,0%	30%	35%	50%	25%
Int. Equities	13,0%	1,0%	20,0%	10%	20%	20%	15%
Emerging markets	14,5%	0,1%	27,0%	0%	15%	0%	10%
Real estate	10,0%	4,0%	13,0%	5%	10%	5%	15%
Venture capital	20,0%	0,0%	50,0%	5%	5%	5%	0%

Port folio simulation:

Asset mix	1	2	3	4
Pre-tax tot.return	8,8%	11,5%	11,0%	9,9%
After-tax tot.return	6,9%	9,5%	8,9%	7,9%
After-tax income return	2,5%	1,6%	1,9%	2,5%
Stand.deviation	11,2%	13,6%	14,7%	11,8%
Sharpe ratio	0,39	0,55	0,48	0,50
Worst case return	-14%	-16%	-18%	-14%

Asset mix #2 would be suitable long-term strategic mix for the bulk of the portfolio that is not set aside for non-recurring liquidity. It emphasizes long-term growth including broadly diversified exposure to global equities and venture capital. It capture the diversification benefits of bonds, real estate and international equity. Its standard deviation and worst-case returns are consistent with risk objectives and the expected return in somewhat above the required return on 7,9%.