Optimizing the Portfolio of the Institutional Investor

1. Introduction

Due to the prolonged deterioration of the economy and stock prices, institutional investors such as pension funds and life insurance companies have been suffering from the negative spread situation. In this chapter, we take the CAPM Theory and use optimization methods under the Mean - Variance approach, and by adding two refinements, we show that we can find a more efficient portfolio.

The two refinements are 1) the Asset mix by Currency Region – we break down foreign assets into smaller classes in optimizing an internationally diversified portfolio and 2) an institutional investor portfolio that reflects long-term fixed liability.

2. Input data

2.1 Benchmark indices

We listed the benchmark indices used in this Chapter in Table 4-1.

Table 4-1. Benchmark Indices

【Asset mix by asset type】	【The Fixed Weight Liability Approach】
Domestic Bond	NOMURA-Bond Performance Index （Whole Market）
Domestic Equities	NRI Japanese Equity Performance Index (TSE1)（Gross with Dividend）
Foreign Bonds	Salomon Smith Barney World Government Bond Index Ex.JP（￥, Unhedged）
Foreign Equities	MSCI KOKUSAI (Gross with Dividend, ￥, Unhedged)
Short Term Assets(￥)	CD3M (Daily Average)
Liabilities	SSB WGBI JAPAN over 15y (￥,Unhedged)

【Asset Mix by Currency Region】	
Domestic Bond	NOMURA-Bond Performance Index (Whole Market)
Domestic Equities	NRI Japanese Equity Performance Index (TSE1) （Gross with Dividend)
Foreign Bonds （US, UK, GERMANY,FRANCE）	SSB WGBI（US,UK,GERMANY,FRANCE）(￥, Unhedged)
Foreign Equities （US, UK, GERMANY,FRANCE）	MSCI（US,UK,GERMANY,FRANCE）(Gross with Dividend, ￥, Unhedged)
Short Term Assets(￥)	CD (3-Month, Daily Average)
Short Term Assets(US $, UK POUND, GERMAN MARK, FRENCH FRANC）	Eurocurrency Deposit Rate（US $, UK POUND, GERMAN MARK, FRENCH FRANC）(London Close, 1-Month Mid, Daily Average, ￥)

Notes 1) The exchange rate used to find yen equivalents were according to WM Reuters London 4pm middle rate at month-end.

Notes 2) NRI refers to Nomura Research Institute. MSCI refers to the Morgan Stanley Capital Index.

2.2 Actual returns, risk, correlation coefficients

In Tables 4-2 and 4-3, we show the actual returns on each asset used in this exercise (monthly geometric averages returns, annualized), the risks (standard deviations, annualized) and the coefficients of correlation. These are for the 16.5 years from January 1985 to June 2001, although the liabilities are from end of December 1986 to June 2001.

Table 4-2. Returns, Risks and Coefficients of Correlation by Asset (Jan. 1985 – June, 2001)

				Coefficients of Correlation					
	Returns (%, annualized)	Std. Dev. (%, annualized)	Sharpe Ratio	Domestic bonds	Domestic Equities	Foreign Bonds	Foreign Equities	Short-term assets	Liabilities
Domestic Bonds	6.0	3.9	0.7	1.00					
Domestic Equities	3.0	20.6	-0.0	0.06	1.00				
Foreign Bonds	4.2	11.5	0.1	0.03	-0.05	1.00			
Foreign Equities	10.5	18.0	0.4	-0.05	0.29	0.62	1.00		
Short-term Yen Assets	3.3	0.7	0.0	0.09	-0.02	-0.04	-0.07	1.00	
Liabilities	8.5	9.8	0.5	0.93	0.03	0.04	-0.08	-0.03	1.00

Table 4-3. Returns, Risks, and Coefficients of Correlation by Currency

(Jan. 1985 – June, 2001)

	Returns (%, Annualized)	Std. Dev. (%, Annualized)	Sharpe Ratio		Returns (%, Annualized)	Std. Dev. (%, Annualized)	Sharpe Ratio
Domestic Bonds	6.0	3.9	0.7	Short-term Yen	3.3	0.7	0.0
Domestic Equities	3.0	20.6	-0.0	Short-term Dollar	1.8	12.6	-0.1
US Bonds	4.5	22.4	0.1	Short-term Pound	5.8	12.3	0.2
UK Bonds	7.2	13.6	0.3	Short-term Mark	3.0	11.2	-0.0
German Bonds	4.5	11.6	0.1	Short-term Franc	4.1	11.2	0.1
French Bonds	6.4	11.6	0.3				
US Equities	11.2	19.8	0.4				
UK Equities	10.1	19.5	0.3				
German Equities	10.5	23.8	0.3				
French Equities	12.9	21.8	0.4				

【Coefficients of Correlation】

	Dom. Bonds	Dom. Eq.	US Bonds	UK Bonds	Ger. Bonds	Fre. Bonds	US Eq.	UK Eq.	Ger. Eq.	Fre. Eq.	S-T Yen	S-T Dollar	S-T Pound	S-T Mark	S-T Franc
Domestic Bonds	1.00														
Domestic Equities	0.06	1.00													
US Bonds	0.12	-0.10	1.00												
UK Bonds	0.12	0.05	0.22	1.00											
German Bonds	0.16	-0.12	0.27	0.64	1.00										
French Bonds	0.12	-0.09	0.26	0.66	0.95	1.00									
US Equities	-0.06	0.23	0.08	0.33	0.23	0.31	1.00								
UK Equities	0.00	0.29	0.11	0.62	0.34	0.40	0.69	1.00							
German Equities	-0.03	0.20	0.13	0.37	0.46	0.47	0.57	0.59	1.00						
French Equities	0.06	0.30	0.11	0.35	0.40	0.45	0.60	0.63	0.77	1.00					
Short-term Yen	0.09	-0.02	0.09	-0.02	0.05	0.07	-0.08	-0.01	0.00	-0.00	1.00				
Short-term Dollar	-0.16	-0.06	0.18	0.48	0.47	0.53	0.65	0.40	0.39	0.34	-0.12	1.00			
Short-term Pound	-0.02	0.01	0.21	0.88	0.69	0.71	0.35	0.54	0.40	0.33	0.00	0.59	1.00		
Short-term Mark	0.05	-0.14	0.25	0.60	0.96	0.92	0.25	0.33	0.44	0.35	0.07	0.53	0.75	1.00	
Short-term Franc	0.02	-0.13	0.26	0.61	0.93	0.93	0.28	0.37	0.43	0.36	0.08	0.57	0.76	0.98	1.00

Note: Foreign Assets in Tables 4-2, 4-3, are all yen-based.

Table 4-2 shows the data we used to find the optimized "Asset Mix by Asset" and " The Fixed Weight Liability Approach" as proposed later in this chapter. These past years are mostly made up of post-bubble years. Thus, reflecting the interest rates in the period, the return of domestic bonds has been 6% and quite high, while the return on domestic equities has been a very low 3% due to the stagnating economy and deflation. Moreover, the return on foreign equities was high at 10.5%.

Table 4-3 shows the returns, risks and coefficients of correlation that were input to find the optimized "asset mix by currency region" as proposed in this chapter. The returns on the UK and French bonds are particularly high among the foreign bonds.

2.3 Constraints

Besides the budget constraints that are common to all investors, we imposed three other constraints.

(1) Non-negative constraint

This is a constraint preventing each asset share not to fall below 0%. We will need to reconsider whether this constraint is necessary or not. Under the condition that the financial instruments such as futures, options and swaps have been developing and the security lending market has been expanding.

Yet, we should use these advanced financial instruments only after the investor understands his own position including derivatives and can effectively manage the risk.

(2) Long and short positions to be constrained to the amount of the principal invested

This constraint forces the investor to keep his long and short positions to within the total principal amount of the assets. This is a practical constraint that will prevent rampant losses, while recognising the long and short positions.

(3) Home bias

This is a measure to ensure that domestic assets are kept above a minimum share. Many investors as a constraint use this, and there are many reasons for this. First, in conducting the necessary research for investment, such as market analysis and stock selection, gathering information had always been more difficult for foreign than for domestic assets. Second, for investors of yen, holding a large share of yen-denominated assets allowed them to minimise the foreign exchange risk. Finally, there was also the psychological bias making it difficult to tolerate a large share of your assets invested overseas.

However, there is no longer much difference in the information that can be gathered domestically or from abroad, and this hurdle can be cleared with the active use of foreign offices of Japanese asset management companies or of foreign companies. Foreign exchange risk also can be hedged using forward contracts, and in order to finance Japanese liabilities it is more practical to reflect the existence of yen-denominated liabilities through optimization.

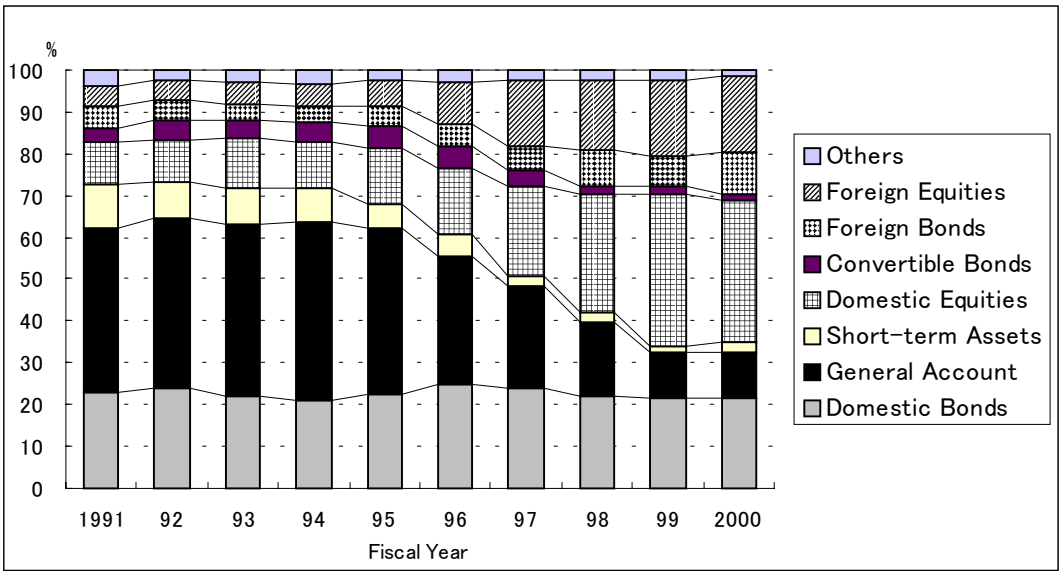
The psychological bias depends on the investor's preference, and is not something that other investors can deny. If the long-term economic development of the place you are residing is not likely to happen, then we can even say that it is contradictory to stay in business there. This being said, irrational constraints should be reduced as much as possible.

3. Asset mix by currency region

3.1 Asset composition of Employees' Pension Funds in Japan

Figure 4-1 shows the asset composition of the Employees' Pension Funds in Japan from 1991-2000 at the end of each fiscal year.

Figure 4-1. Asset Composition of Employees' Pension Fund (1991-2000)



Source: Employees' Pension Fund Association "Outline of Asset Investment"

First we see that the assets are made up of traditional assets -- bonds, equities and short-term assets. At fiscal year end 2000, the share of fixed interest assets was 35%, while that of risk assts was 65% and quite high. We see that risk assets have been increasing their weight every year since about 1995 and 1996. With no domestic market for inflation-linked bonds, pension funds for whom hedging against inflation is an important factor, will hold a good share of equities. However, these past few years, the decline in their investment returns has been due to the fact that they have over 30% of their investment in stocks, and the domestic stock market has been stagnant.

Moreover, foreign assets made up 28% of total assets at fiscal year end 2000. In fiscal 1999 the yen-dollar exchange rate saw an appreciation in the yen of 13% from the beginning of the fiscal year to the end. If, like many pension funds, they had not hedged for the foreign exchange risk, then their investment return would have deteriorated due to foreign exchange losses. Employees' pension funds and their parent organisation are judged at the fiscal year end. They need to build a diversified portfolio where actual returns outperform the expected returns after all assets are evaluated at their market value, and after converting into yen and thus putting the currency exposure into the equation.

3.2 Risk aversion

We use the average coefficient of Relative Risk Aversion(RRA). This was estimated by finding these historical data --- the expected assumed interest rate of the pension fund in the past of 5.5%, the actual asset allocation, the standard deviation and the correlation coefficient of the historical data. We also assume that the pension fund considers yen short-term assets as risk assets as this is the case in reality.

The average coefficient of risk aversion of the past ten years is 0.15. This has fallen gradually with time, and in the past three years, the average was about 0.05. As we can tell the reason of decreasing RRA from figure 4-1, they have reduced their general account and lending, and shifted their assets towards such risk assets as equities. Since many pension funds have begun to reallocate their assets

towards a policy asset mix, we use the figure of 0.05 – the average of the past three years.

3.3 Asset mix by currency region

In Figure 4-2, we reclassified the "asset mix by asset" from the classes "foreign bonds" "foreign equities" and "short term assets" to the classes "Dollar Region", "Euro Region", and "Pound Region" -- the "asset mix by currency region". What we had in the past bundled together as "foreign equities" and "foreign bonds" were likely made up of assets from different regions and countries that each had their own return profiles. Since the interest rates -- the major factors of price changes in securities -- tend to move together, and since yen investors evaluate their foreign-currency denominated assets after converting the assets back to yen, we divided these into "currency regions".

Figure 4-2. Asset Mix by Assets, and Asset Mix by Currency Region

【Asset Mix by Assets (5 assets)】

Domestic bonds	Domestic	Foreign Bonds	Foreign	Yen short-term assets

* All on a yen basis

【Asset Mix by Currency Region (12 assets)】

Domestic Bonds	Domestic Equities	Yen short-term assets
Dollar Region Bonds	Dollar Region Equities	Dollar short-term assets
Euro Region Bonds	Euro Region Equities	Euro short-term assets
Pound Region Bonds	Pound Region Equities	Pound short-term assets

* All on a yen basis

Here, for the "Dollar Regions", "Pound Regions" "Mark Regions" and "Franc Regions", we simply say, "US" "England" "Germany" and "France". Moreover, we added foreign short-term assets as an investment option. If the investor is short on foreign short-term assets, we can have the yen-hedged position, then if since covered interest parity is attained, the effect is the same as if the risk were hedged using exchange rate forwards.

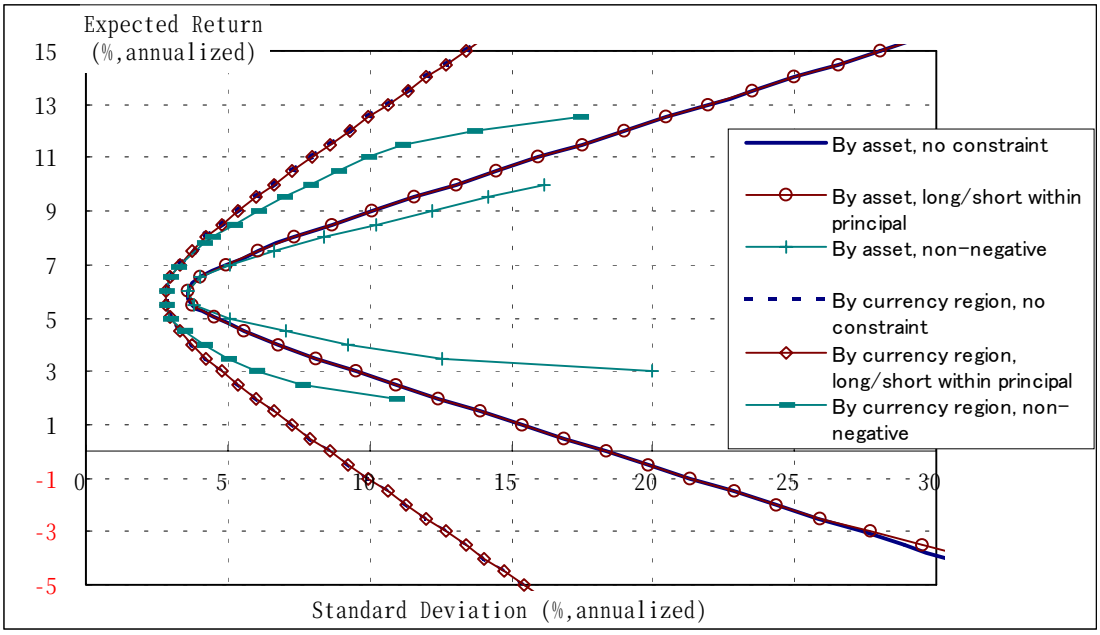
From an investment manager structure perspective, it is necessary to keep an eye on the active/ passive ratio based on the asset mix by currency region. There is a difference in added value from using an active manager in a market such as the US stock market -- where the market is quite efficient and selective dissemination of information must be disclosed by the analysts, etc., -- and the Japanese equities markets where the market is less efficient than other currency regions. In this case, an active/passive ratio by currency region must be established to monitor manager structure effectively.

Furthermore, although there are currently many pension funds that will have their investment companies to invest in the broad notion of "foreign equities". In fact, there are not many investment firms that can garner active returns from stock selection from such a global range of "foreign equities." It is considered easier to find an investment firm that can show its strength through the selection of stocks in a different currency region. Even in this case, the benchmarks given to the investment firm should also be by "currency region". Also, it is more desirable if these benchmarks are the same as the ones used for the policy asset mix. This is to control the deviation from the policy asset mix.

3.4 Comparison of Optimized Portfolios – Asset Mix by Asset, and by Currency Region

(1)Efficient frontier

Figure 4-3 Comparison of Efficient Frontiers



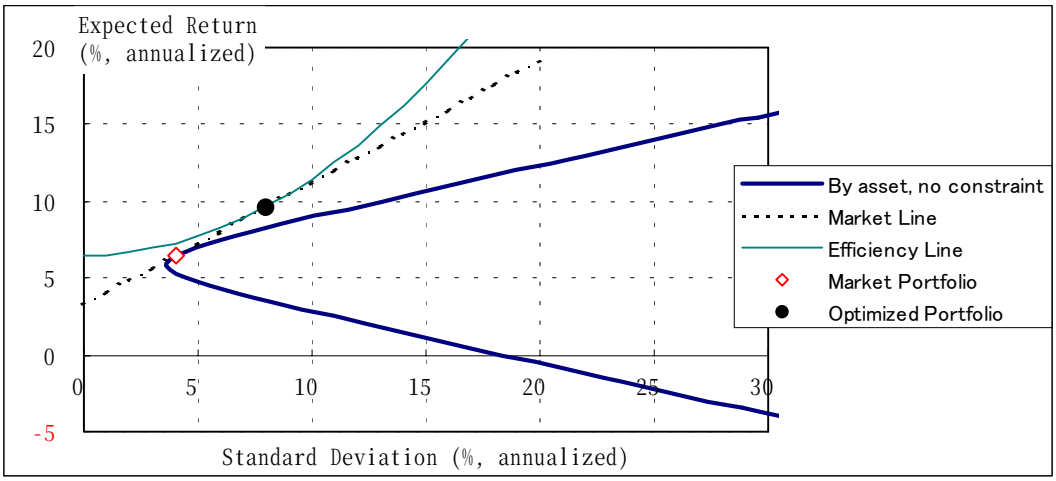
This is an optimization when "risk free" assets under the CAPM model (i.e., yen short term) has been introduced, and the portfolio on efficient frontiers is comprised only of risk assets. From Figure 4-4, we see that the "asset mix by currency region" is more efficient than the "asset mix by asset". For example, take the same expected return of 7%. For the "by asset" case, the risk would be 4.9% by standard deviation, while for "by currency" it would be only 3.3%. Furthermore, even if a non-negative constraint were imposed on the "by currency region" case, it still more efficient than if this constraint were not imposed on the "by asset" case. In addition, if we look at the efficiency after each constraint, it is in descending follows: no constraint > long-short principal within range > non-negative. We see that the stricter constraints imposed, the lower the efficiency.

(2)Capital market line, utility curves and optimized portfolio

In Figures 4-4, and 4-5, we show the no-constraint "asset mix by asset" and "asset mix by currency region" market portfolios and the optimized portfolios.The asset composition of the optimized portfolio "by asset" is as follows: go 98% short on the risk-free asset and buy 198% risk assets. "By currency region" go short 236% no-risk assets and buy 336% risk assets. The "by currency" example demands that more money be borrowed to invest in foreign equities. By breaking down "foreign bonds" and "foreign equities", French bonds and equities, and English bonds and equities were found to be attractive. Furthermore, the return on foreign short term assets that were incorporated into the "by currency" are positive, and since its correlation with other assets is low, this is seen as the reason that French and English assets were brought into the portfolio.

The Sharpe ratios for the optimized portfolios are 0.8 for the "by asset" portfolio and 1.1 for the "by currency region". The portfolio by currency region has the higher Sharpe ratio and is more efficient.

Figure 4-4. Optimized Portfolio (Asset mix by asset) No Constraints

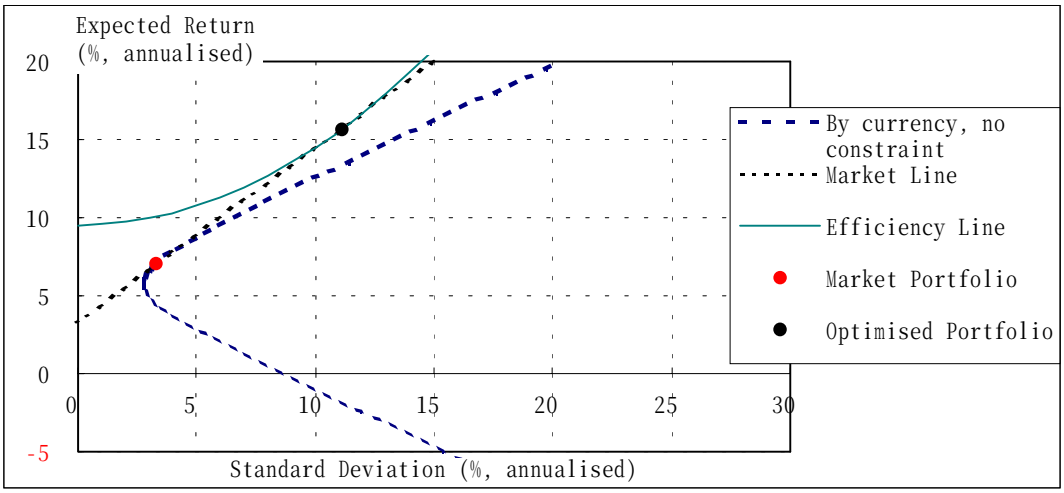


	Expected Return	Standard Deviation	Sharpe Ratio
1.Market Portfolio	6.5	4.0	—
2.Optimized Portfolio	9.6	7.9	0.80

Asset composition of Optimized Portfolio %

Risk Free Asset	Risk Asset			
	Domestic Bonds	Domestic Equities	Foreign Bonds	Foreign Equities
-97.8	171.5	-1.8	4.6	23.5

Figure 4-5. Optimized Portfolio (Asset Mix by Currency Region) No Constraints



	Expected Return (%)	Standard Deviation	Sharpe Ratio
1.Market Portfolio	7.0	3.3	—
2.Optimized Portfolio	15.7	11.1	1.1

Asset composition of Optimized Portfolio %

Risk Free Asset	Risk Asset													
	Dom. Bonds	Dom. Eq.	US Bonds	UK Bonds	Ger. Bonds	French Bonds	US Eq.	UK Eq.	Ger. Eq.	French Eq.	US dollar	Pound	Mark	Franc
-235.9	185.6	0.6	3.1	20.8	11.7	23.3	18.4	16.6	11.7	18.2	-4.3	17.8	2.3	10.0
-235.9	185.6	0.6	Foreign Bonds 58.9				Foreign Equities 64.9				Foreign short-term 25.8			

In the asset mix by asset type with the "long/short within principal" constraint, we come to exactly

the same portfolio as the one with no constraints. We were unable to find the optimized portfolio under the non-negative constraint. This is probably because we have imposed a constraint disallowing unlimited short-selling.

Also, we were unable to find the optimized portfolio in the asset mix by currency region portfolio with the long-short position constraint, nor were we able to find it for the non-negative constraint.

3.5 Further issues

Here we have shown that instead of optimizing for the conventional asset breakdown of "asset mix by asset type", it is more efficient to optimize for "asset mix by currency region".

In this chapter, we assume perfect foresight, and so it is not the case that the investor can invest exactly according to this portfolio. When we actually design a policy asset mix, the risk aversion coefficient is determined by the individual situation of the investor. Moreover, the investor's personal views and his handling costs will be reflected in the input, and he may see the risk in terms of surplus and downside risk. In classifying the assets, they can be divided by term left to maturity on bonds, by capital size, or style of assets, and can include alternative investments. They may also impose a constraint on the liabilities as explained in the next section. What is important is that investors try to improve the current methods of optimization, and we introduced the "asset mix by currency region" as an example of this. Furthermore, it should be noted that optimization does not give us an absolutely correct answer, but the answer can change greatly depending on the estimated error of the input. The optimization should be considered an important reinforcing measure when the investor decides on his long-term portfolio.

The asset mix by currency region will need to be optimized reflecting the UK's relationship with EMU, and the analysis of the market integration.

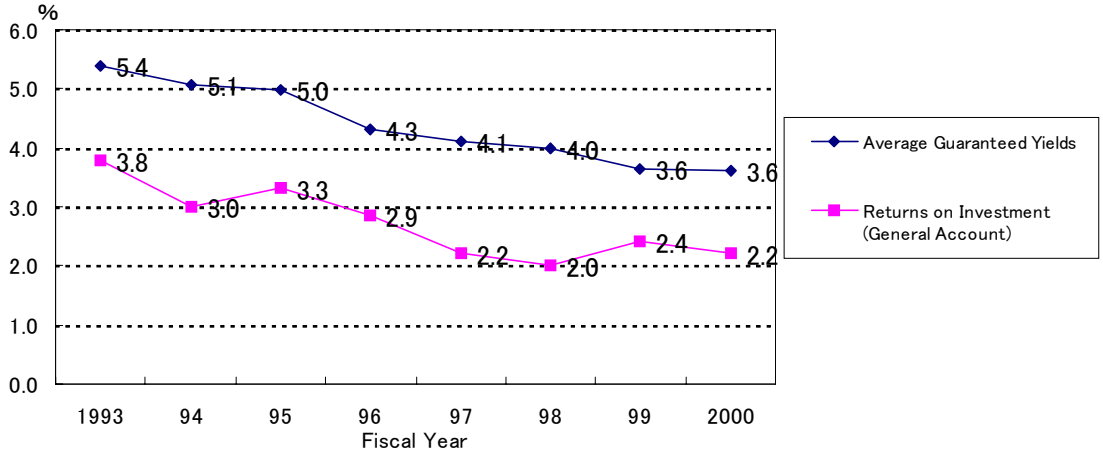
4. The institutional investor's portfolio reflecting the long-term fixed liability

4.1 Present condition of life insurance companies

In this section, we verify the example of life insurance companies. Figure 4-6 is a graph showing the average guaranteed yield (paid out to the policyholder) and the investment return on the policy reserves over a period of eight years. We see that every year, the returns on investments have been falling below the average guaranteed yields by 1-2%, and that a massive investment loss (negative spread) has been taking place.

In order to control this situation appropriately, the portfolio should be optimized in consideration of this liability condition, and the guaranteed yield for new policies and dividends should be determined in consideration of this portfolio.

Figure 4-6. Average Guaranteed Yields and Returns on Investment (General Account)



Notes:1)Average of seven major life insurance companies

2)Yasuda Life did not publicize their average guaranteed yields in 1995 and 1996, and so they are not included in the calculation of the average.

Source: Returns on investment are from their disclosure materials, the average guaranteed yields are from the weekly "Toyo Keizai" special edition on Life Insurance Companies.

4.2 Estimate and comparison the portfolio

(1)The Fixed Weight Liability Approach.

Here, we optimized the portfolio by taking an approach similar to the surplus approach (The Fixed Weight Liability Approach: FWLA).

FWLA, like the CAPM model solves the quadratic programming problem of "minimizing the variance of the portfolio under the expected return demanded by the portfolio" and then determines efficient frontiers and portfolios by varying demanded expected returns. However, it differs in that we consider liabilities as negative assets, so the expected return and variance will reflect the liabilities, and we add the constraint that the weight of the liabilities will be fixed.

(2)Premise

We use six assets to be optimized, and used the indexes from Table 4-1. The returns, risks and correlation coefficients by asset are as in Table 4-2. Moreover, although this will differ from the CAPM model, we did not use risk free asset because there is the possibility that short-term assets will not be risk free asset in optimizing by reflecting liabilities.

We based on the following premise and substituted the liabilities data for SSB WGBI JAPAN over-15 y ear (yen-based, unhedged).

・The fluctuations in the market value of liabilities are similar to that of the ultra long-term bond.

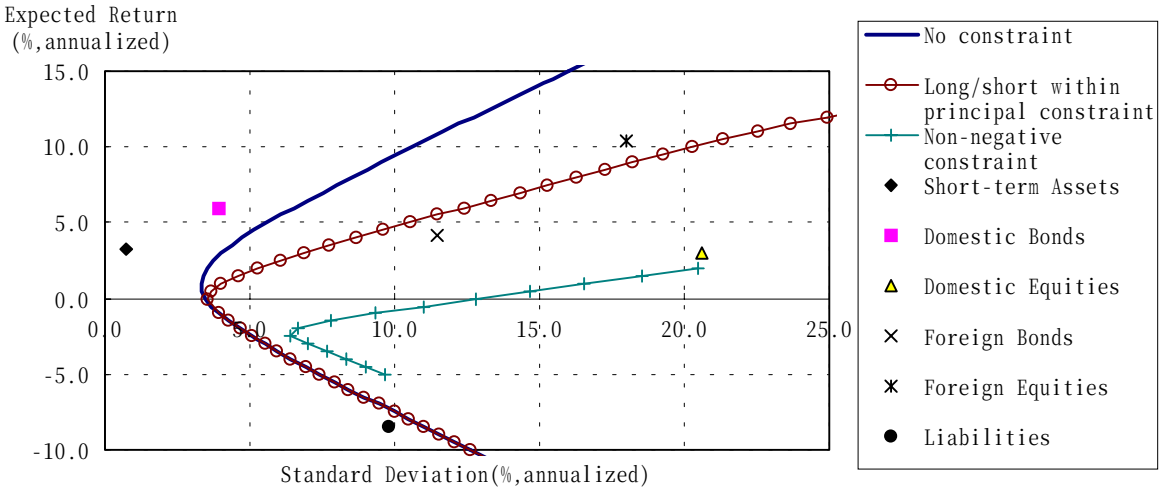
・We set the liabilities duration at about 15 years under the consideration that the insurance terms on new policies at about 30 years on average are gradually being accumulated.

Then, we determined the weight of the liabilities to be 98% since the capital assets ratio of the life insurance companies is about 2%.

(3)The Efficient frontier and the portfolio by FWLA

With the above premise, we found the efficient frontier as shown in Figure 4-7. The expected return here show the surplus return (return on assets – return on liabilities).

Figure 4-7. The Efficient Frontier by FWLA



The efficient frontiers differed between the no constraint and non-negative constraint. With no constraint, the expected return was above 0% for the minimum variance portfolio, while with the non-negative constraint, the expected return was below 0%. Efficiency was highest in this order: no constraint > long/short within principal range > non-negative.

Table 4-4. Content of Portfolio Using FWLA

Portfolio		Expected Return (%, annualized)	Standard Deviation (%, annualized)	Composition of Assets (%)					
				Short-term Assets	Domestic Bonds	Domestic Equities	Foreign Bonds	Foreign Equities	Liabilities
No constraint	Surplus 0%	0.0	3.5	-110.7	208.9	1.7	9.3	-9.1	-98.0
Long/short within principal range	Surplus 0%	0.0	3.5	-100.0	200.0	0.2	5.1	-5.4	-98.0
Non-negative constraint	Surplus 0%	0.0	12.8	0.0	48.0	0.0	0.0	52.0	-98.0

The no constraints' portfolio at 0% expected return resulted that short-term assets' position is minus 110.7% and domestic bonds' position is 208.9% (Table 4-4). Compared to this, the non-negative constraint's portfolio at 0% expected return resulted that the weight of the foreign securities was higher and the standard deviation was greater at 12.8%. From this estimate, we found that for the most efficient portfolio, large amounts of short-term assets should be borrowed and large amounts of domestic bonds should be held.

(4)Comparison with the portfolio of life insurance companies

We cannot simply compare the portfolio of FWLA with that of life insurance companies because

we estimated it using historical data and if we do so this would assume perfect foresight. Here, we can do only a rough comparison.

Table 4-5 shows a comparison of the portfolios of life insurance companies and FWLA. We chose the portfolio of FWLA at 0% expected return (surplus return). (Table 4-4)

Table 4-5. The Portfolios of Life Insurance Companies and FWLA

%

	Fixed Income Assets			Fluctuating Price Assets			Others	Total
		Domestic bonds, etc.	Short-term assets		Domestic equities etc.	Foreign Securities		
Life Insurance companies	62.4	58.1	4.3	31.9	22.2	9.7	6.1	100.0
No constraint	98.2	208.9	-110.7	1.9	1.7	0.2	0.0	100.0
Long/Short within principal	100.0	200.0	-100.0	0.0	0.2	-0.3	0.0	100.0
Non-negative	48.0	48.0	0.0	52.0	0.0	52.0	0.0	100.0

Notes:1) For the portfolio of the life insurance companies, we included the weight of loans into domestic bonds etc., and that of real estate into domestic equities, etc. Included in the "Others" category are: Money held in trust, Monetary Receivables Purchased, Deferred Tax Assets, etc.

2) For FWLA, we included the weights of foreign bonds and foreign equities into foreign securities.

Source: The portfolio of life insurance companies is from their disclosure materials.

In order to attain at 0% expected return efficiently, it was necessary that life insurance companies increased the weights of their fixed income assets – their domestic bonds, loans such as in the case of the no-constraint or the long/short within principal range constraint portfolios. However, there is the issue that to build this portfolio, life insurance companies had to borrow large amounts of short-term assets.

To procure short-term assets, life insurance companies were limited to meet their temporary funding needs such as overdraft, and it would be difficult to borrow short-term assets for a long-term such as assumed in the no-constraint and the long/short within principal range portfolios. As a substitute for this, they could engage in interest rate swaps that have long-term fixed interest rate payable position with short-term floating interest receivable position. In this way, they could create a similar position to borrow short-term assets, and in principle, this should be effective to use as a hedge.

4.3 Further study

In this section, we verified that using FWLA we could build an efficient portfolio. However, we would like to confirm again that we are premising that the market value and the fluctuation of the liabilities are about the same as that of ultra-long term government bonds. Essentially, it is necessary that we should estimate a portfolio after analyzing in detail and grasping better the market value and the fluctuation of liabilities. This we will leave for another time.

5. Conclusion

In this chapter we verified to build a more efficient portfolio using two other methods, "Asset mix by Currency Region" and "The Fixed Weight Liability Approach" than that using the conventional method of optimizing a portfolio with the "Asset mix by asset type".

The methods we introduced here were only examples that institutional investors might use to

consider a more efficient portfolio management. Some other methods used by institutional investors might include more refined asset classification, calculating the risk with some other measure and using some other ALM approach. It is important that institutional investors try various methods to find a more efficient portfolio and to attain the expected return. By doing this, we can enhance the certainty of pensioners and insurance policyholders of receiving their pensions and insurance claims, and alleviate some of the anxiety in society.

It is a sure thing that the role of the institutional investor will be greater than it is today. We hope that the institutional investors that may have lost their confidence become more active, and play a major role in the capital markets.