

# Performance Measurement of Mutual Funds and Risk Analysis

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## ABSTRACT

*In this study, the performance of mutual funds that are rapidly improving in Turkey because of their advantages such as professional management, risk distribution and ease of liquidity, are measured. The performance measures that are used in this study are all accepted in literature and they use funds' previous data in calculations. Type B mutual funds are examined and compared with the performance of market portfolio. In between 2002-2006, funds sometimes perform better than market portfolio, sometimes worse than it. Furthermore, to see the success of a fund in respect of others, the funds are classified into groups by clustering analysis.*

**Key Words:** *Performance of mutual funds, Parametric performance measures, Risk-Adjusted performance measures*

## **I. INTRODUCTION**

Mutual Funds have an increasing importance in financial markets, while they provide investors many advantages such as professional management, risk distribution and ease of liquidity. Turkish Capital Market met with mutual funds in 1987, but the rise in their numbers and portfolio size occurred in 1993. In respect of this time, the mutual fund market has improved with the rise in investors number and portfolio values. Although the portfolio value of Turkish mutual funds in 2001 was approximately 5 billion YTL, it reached 22 billion YTL at the end of 2006. In rapidly improving mutual funds market, the rise in fund numbers, investor numbers and portfolio values increase the need for the mutual funds performance measurement.

Professional management, the main advantage of mutual funds, is a very important subject for the investors. Professionals manage funds with the principle of maximum return and least possible amount of risk. Performance analysis provides investors to evaluate the professional management if they are successful or not. By this way, investors can have information about professional managers' skills, abilities and the accuracy of their management strategies .

## II. PERFORMANCE MEASUREMENT

The performance measurement of mutual funds has been a very important subject for the finance literature for 40 years. With Markowitz's portfolio theory and the developing of "Capital Asset Pricing Model" by Sharpe and Litner in 1965, performance measurement of funds became more important for the science of finance (Simons, 1998). The first comprehensive and systematic study for the performance measurement was done by Friend , Brown, Herman and Vickers in 1962. They measured performance of 152 mutual funds for the years between 1953 and 1958 (Ippolito, 1993).

Treynor (1965) developed a performance measure that uses portfolio's beta coefficient as the systematic risk measure. Treynor measure is the ratio of excess return to systematic risk. Investors prefer portfolios that have higher Treynor value means they prefer having higher excess return per systematic risk.

Sharpe (1966) developed a different performance measure that uses portfolio's total risk instead of systematic risk. Sharpe ratio divides the excess return of a portfolio by its standart deviation as total risk. The higher the Sharpe's ratio is the better the portfolio.

Jensen (1968), on the other hand, tried to measure portfolio's performance based on Capital Asset Pricing Model generating Jensen alpha. Jensen Alpha can be considered as the difference between actual return and expected return. So, positive Alpha means the success of portfolio manager.

The performance measure methods that are explained above can be considered as the tradional performance methods. Despite their acceptance in finance , Roll(1977) criticized Treynor and Jensen's methods because of their standing to market portfolio. Roll argue that although these methods based on the market portfolio, in real world , it is impossible to generate such a portfolio. Also , Friend and Blume (1970) criticized Sharpe and Treynor methods about the risk measurement technics.

Fama (1972), developed an alternative and detailed analysis method for the performance measurement. This method measures the "selectivity" and "timing" abilities of portfolio managers.

On the other hand, Modigliani and Modigliani (1997) generated a risk-adjusted performance measure. Known as  $M^2$  , their measure compares portfolios by leveraging or deleveraging them to the point where they have the same volatility. Then , the portfolios can be compared simply just looking at the resulting returns. The mutual fund that have the highest  $M^2$  will have the highest return for a given amount of risk.

## III. PERFORMANSC MEASURE METHODS

In this study, the performance of mutual funds is measured according to seven different performance measurement methods that are accepted in literature. Sharpe ratio measures funds' performance with total risk, while Treynor ratio measures it with systematical risk. If the portfolios are diversified properly, then Sharpe and Treynor ratios can give similar results.

$T^2$  performance measure convert Treynor ratio into percentage by adding risk-free asset into portfolio to adjust portfolio risk. Also,  $M^2$  performance measure aims to add risk-free asset into portfolio to equal the portfolio standart deviation with market portfolio. So, it becomes easy to compare returns of portfolios having same standart deviation (Bodie and Kane,2005).

Jensen performance ratio measures the difference between actual return and expected return. Positive alpha means the success of portfolio managers, while negative alpha means failure of managers.

Fama performance measure aims to measure portfolio manager's timing and selectivity ability using total risk.

The last performance measure used in this study is Sortino ratio which measures the volatility of returns below Minimum Acceptable Return. In this ratio, downside semi-standard deviation which measures only the volatility of returns below the MAR, is used as the measure of risk (Géhin, 2004). In this study, the risk-free return is used as the Minimum Acceptable Return.

#### **IV. RESEARCH METHODOLOGY**

The examined 80 Type B mutual funds' performance is measured according to seven different kinds of performance measurement ratios. These performance ratios are calculated for the years between 2002 and 2006. These mutual funds are selected from 3 different mutual fund kinds Variable, Liquid, Notes and Bonds. The data belong to these mutual funds are obtained from Capital Market Board of Turkey. Daily income of mutual funds are calculated as logarithmic income.

In this study, REPO ratio is used as risk-free asset ratio and ISE-100 Index is used as market portfolio. Standard deviations that are used in performance measure calculations are calculated for each mutual funds and market portfolio. Also, downside semi-standard deviation is calculated for each mutual funds accepting risk-free ratio as the minimum acceptable ratio. Another risk measure used in performance calculations, beta coefficients are measured for each fund with regression analysis.

After all the calculations of performance ratios, mutual funds are classified into groups by clustering analysis in SPSS. Funds are classified into clusters according to their 7 different performance results and each clusters are identified by stars. Funds that showed superior performance are put into 5 stars cluster, otherwise 1 star cluster. By this way, the classification of funds is managed.

#### **V. FINDINGS**

The performance analysis of Type B funds is done by clustering analysis Classification of Type B Variable Funds can be seen in Table 4.

Table 4: Type B Variable Funds

2002				
*****	****	***	**	*
IS INVEST	EKINCILER INVEST	AKBANK T.A.S	GLOBAL	ATA INVEST
	GEDIK INVEST	ALTERNATIFBANK	T.KALKINMA BANK	NUROL
	TEKSTIL BANK	GARANTI BANK	YAPI KREDI BANK	TAIB INVEST
		T.HALK BANK		
		T.IS BANK		

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		KOCBANK		
		T.C.ZIRAAT BANK		
		T.VAKIFLAR BANK		
2003				
*****	****	***	**	*
NUROL	T.HALK BANK	TAIB INVEST	AKBANK T.A.S.	GEDIK INVEST
	TEKSTIL BANK		ALTERNATIFBANK	GLOBAL
			ATA INVEST	HSBC INVEST
			ECZACIBASI	INTER INVEST
			EKINCILER INVEST	T.IS BANK
			GARANTI BANK	T.C.ZIRAAT BANK
			IS INVEST	TEKFENBANK
			KOCBANK	T.KALKINMA BANK
			T.VAKIFLAR BANK	YAPI KREDI BANK
				ZIRAAT INVEST
2004				
*****	****	***	**	*
TEKFENBANK	T.HALK BANK	HSBC INVEST	AKBANK T.A.S.	ANADOLUBANK
	KOCBANK		ALTERNATIFBANK	ATA INVEST
	TEKSTIL BANK		EKINCILER INVEST	ECZACIBASI
			GARANTI BANK	GEDIK INVEST
			IS INVEST	GLOBAL
			NUROL	INTER INVEST
			T.C.ZIRAAT BANK	T.IS BANK
			T.VAKIFLAR BANK	TAIB INVEST
				T.KALKINMA BANK
				YAPI KREDI BANK
				ZIRAAT INVEST
2005				
*****	****	***	**	*
ACAR INVEST	GEDIK INVEST	AKBANK T.A.S.	T.KALKINMA BANK	INTER INVEST

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	HSBC INVEST	ALTERNATIFBANK	YAPI KREDI BANK	
	IS INVEST	ANADOLUBANK		
	KOCBANK	ATA INVEST		
	TEKFENBANK	ECZACIBASI		
	ZIRAAT INVEST	EKINCILER INVEST		
		GARANTI BANK		
		GLOBAL		
		T.HALK BANK		
		T.IS BANK		
		NUROL		
		TAIB INVEST		
		T.C.ZIRAAT BANK		
		TEKSTIL BANK		
		T.VAKIFLAR BANK		
<b>2006</b>				
*****	****	***	**	*
EKINCILER INVEST	ACAR INVEST	ANADOLUBANK	TAIB INVEST	TEKFENBANK
T.C.ZIRAAT BANK	AKBANK T.A.S.	ECZACIBASI		
	ALTERNATIFBANK			
	ATA INVEST			
	DELTA, DENIZBANK			
	GARANTI BANK			
	GEDIK INVEST			
	GLOBAL			
	T.HALK BANK			
	HSBC,INTER INVEST			
	T. IS BANK			
	IS INVEST			
	KOCBANK			
	NUROL			
	TEKSTIL BANK			
	T.KALKINMA BANK			
	T.VAKIFLAR BANK			

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	YAPI KREDI BANK			
	ZIRAAT INVEST			

T. Halk Bank is said to be the most consistent fund between other Type B Variable Funds. Moreover , Tekstil Bank, Ekinciler Invest and HSBC Invest have continuity in their performance between all Type B variable funds.

Classification of Type B Liquid funds is placed in Table 5.

Tablo 5: Type B Liquid Funds

2002				
*****	****	***	**	*
TEKSTİL BANK	GLOBAL	AKBANK T.A.S.	ATA INVEST	EKINCILER INVEST
	T. IS BANK	ALTERNATIFBANK		
	SEKERBANK	DENIZBANK		
	T.VAKIFLAR BANK	ECZACIBASI		
	YATIRIM F.	FINANSBANK		
	YAPI KREDİ BANK	KOCBANK		
		MEKSA INVEST		
		T.C.ZIRAAT BANK		
		YAPI KREDİ INVEST		
2003				
*****	****	***	**	*
EKINCILER INVEST	ALTERNATIFBANK	AKBANK T.A.S.	YAPI KREDİ INVEST	ANADOLUBANK
	ATA INVEST	FINANSBANK		HSBC BANK
	DENIZBANK	HALK INVEST		
	ECZACIBASI	INTER INVEST		
	FINANS INVEST	T. IS BANK		
	GLOBAL	OYAKBANK		
	KOCBANK	SEKERBANK		
	KOC INVEST	T. KALKINMA BANK		
	MEKSA INVEST	T. VAKIFLAR BANK		
	T.C.ZIRAAT BANK	YAPI KREDİ BANK		
	TEKSTİL BANK	ZIRAAT INVEST		
	YATIRIM F.			
2004				
*****	****	***	**	*

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BANKEUROPA	AKBANK T.A.S.	EKINCILER INVEST	DENIZBANK	ANADOLUBANK
KOCBANK	ALTERNATIFBANK	FINANSBANK	HALK INVEST	
KOC INVEST	ATA INVEST	FINANS INVEST	MEKSA INVEST	
	ECZACIBASI	GLOBAL	ZIRAAT INVEST	
	HSBC BANK	OYAKBANK		
	INTER INVEST	T.C.ZIRAAT BANK		
	T.IS BANK	YATIRIM F.		
	SEKERBANK	YAPI KREDI BANK		
	TEKSTIL BANK			
	T.KALKINMA BANK			
	T.VAKIFLAR BANK			
2005				
*****	****	***	**	*
ANADOLUBANK	AKBANK T.A.S.	SEKERBANK	DENIZBANK	EKINCILER INVEST
GLOBAL	ALTERNATIFBANK		ZIRAAT INVEST	
T.KALKINMA BANK	ATA INVEST			
	BANKEUROPA			
	ECZACIBASI			
	FINANSBANK			
	FINANS INVEST			
	HALK INVEST			
	HSBC BANK			
	INTER INVEST			
	T.IS BANK			
	KOCBANK			
	KOC INVEST			
	MEKSA INVEST			
	OYAKBANK			
	T.C.ZIRAAT BANK			
	TEKSTIL BANK			
	T.VAKIFLAR BANK			
	YATIRIM F.			
	YAPI KREDI BANK			
	YAPI KREDI INVEST			

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2006				
*****	****	***	**	*
EKINCILER INVEST	MEKSA INVEST	ALTERNATIFBANK	AKBANK T.A.S	YATIRIM F.
	T. KALKINMA BANK	ATA INVEST	ANADOLUBANK	
		DELTA	BANKEUROPA	
		DENIZBANK	FINANS INVEST	
		ECZACIBASI	HALK INVEST	
		FINANSBANK	KOCBANK	
		GLOBAL	KOC INVEST	
		HSBC BANK	OYAKBANK	
		INTER INVEST	TEKSTIL BANK	
		T.IS BANK	YAPI KREDI BANK	
		SEKERBANK	YAPI KREDI INVEST	
		T.C.ZIRAAT BANK	ZIRAAT INVEST	
		T.VAKIFLAR BANK		

The funds that have continuity in their performance are T. Kalkınma Bank and Meksa Invest . Tekstil Bank has a better performance until the end of 2005, but it has a worse performance in 2006. Moreover, Global, T.Is Bank and Ata Invest have an average performance in respect of other mutual funds. Also, there are some funds that have fluctuations in their performance like Ekincler Invest and Andolubank. These funds are said to have best performance one year, but worst performance another year.

Classification of Type B Notes and Bonds mutual funds can be seen in Table 6.

Tablo 6: Type B Notes and Bonds Funds

2002				
*****	****	***	**	*
YAPI KREDI INVEST	KOC INVEST	AKBANK T.A.S.	GARANTI BANK	FINANSBANK
	T.VAKIFLAR BANK	ALTERNATIFBANK	T.HALK BANK	
		DENIZBANK	TEB INVEST	
		GARANTI INVEST	T.SINAI KALKINMA	
		T. IS BANK		
		KOCBANK		
		T.C.ZIRAAT BANK		

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		YATIRIM F.		
		YAPI KREDI BANK		
2003				
*****	****	***	**	*
FINANSBANK	AKBANK T.A.S.	ATA INVEST	YAPI KREDI INVEST	HSBC BANK
T. IS BANK	ALTERNATIFBANK	GARANTI INVEST		
	DENIZBANK	KOCBANK		
	GARANTI BANK	KOC INVEST		
	T.HALK BANK	T.VAKIFLAR BANK		
	OYAKBANK	YAPI KREDI BANK		
	T.C.ZIRAAT BANK	ZIRAAT INVEST		
	TEB INVEST			
	T.SINAI KALKINMA			
	YATIRIM F			
2004				
*****	****	***	**	*
DENIZBANK	T.HALK BANK	AKBANK T.A.S.	ALTERNATIFBANK	ATA INVEST
	T.IS BANK	GARANTI BANK	FINANSBANK	BANKEUROPA
		OYAKBANK	GARANTI INVEST	YAPI KREDI BANK
		T.C.ZIRAAT BANK	HSBC BANK	
		TEB INVEST	KOCBANK	
		T.SINAI KALKINMA	KOC INVEST	
		T.VAKIFLAR BANK	YAPI KREDI INVEST	
		YATIRIM F		
		ZIRAAT INVEST		
2005				
*****	****	***	**	*
DENIZBANK	GARANTI BANK	AKBANK T.A.S	FINANSBANK	T.C.ZIRAAT BANK
	T.IS BANK	ALTERNATIFBANK	OYAKBANK	TEB INVEST
	ZIRAAT INVEST	ATA INVEST	YAPI KREDI INVEST	
		BANKEUROPA	YATIRIM F	
		GARANTI INVEST	YAPI KREDI BANK	
		T.HALK BANK		
		HSBC BANK		

		KOCBANK		
		KOC INVEST		
		T.SINAI KALKINMA		
		T.VAKIFLAR BANK		
2006				
*****	****	***	**	*
T.C.ZIRAAT BANK	YATIRIM F	BANKEUROPA	ATA INVEST	GARANTI BANK
		KOCBANK	DENIZBANK	AKBANK T.A.S
		KOC INVEST	FINANSBANK	ALTERNATIFBANK
		YAPI KREDI BANK	GARANTI INVEST	T.HALK BANK
			T.VAKIFLAR BANK	HSBC BANK
			YAPI KREDI INVEST	T.IS BANK
			ZIRAAT INVEST	OYAKBANK
				TEB INVEST
				T.SINAI KALKINMA

Denizbank , T.Is Bank and Akbank T.A.S. Notes and Bonds funds are said to have the best performance in respect of other notes and bonds funds. For instance, Yapı Kredi Invest and Finansbank are seemed to have no consistency in their performance.

## VI. RESULT

Mutual funds that have the principles of risk distribution and fiduciary ownership , are preferred by investors in means of optimal risk-return combination, liquidity and professional management. The important point is that whether managers are successful to obtain optimal risk-return combination or not. The success of professional management is very important issue for investors because of extra payment for this management. Performance measurement shows investors how much successful the professionals are .In this study, the success of professional managers is tried to be shown by parametric performance measure methods.

When the used 7 performance measures are examined, it is seen that Sharpe and M<sup>2</sup> ratios have similar arranging for the mutual funds, so as Treynor and T<sup>2</sup> ratios have the same ranking. This is an expected result ,because Sharpe and M<sup>2</sup> ratios both use standart deviation as the risk measure, whereas Treynor and T<sup>2</sup> use beta coefficient as the risk measure. The condition for the Sharpe and Treynor ratios to have the similar ranking is the diversification of portfolio. Non-systematic risk can be reduced by a proper diversification, so two performance ratios Sharpe and Treynor can have closer results.

As a result of clustering analysis that separated funds into classes, although 7 different performance measures are taken into account to classify funds , especially Sharpe and Treynor performance measures be dominant to identify the funds' performance. So, it can be said that Sharpe and Treynor ratios are very determinative for the performance of funds.

During the performance analysis, the performance of mutual funds is compared to market portfolio ISE-100 Index. Mutual funds sometimes perform better than market portfolio, sometimes worse than it. The analysis shows that it is very difficult to find a fund that can have continuity in its performance for five years. But in every kind of fund, there are funds with better performance in response to others. Due to the fact that these performance measures are based on the previous data , these analysis inform the investors about the past performance of fund's managers, while they can provide a forecast about the future performance of funds.

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TYPE B VARIABLE FUNDS											
2002											
Fund Name	ri	beta	$\sigma_i$	DD	Sharpe	Treynor	Jensen	T2	M2	Sortino	Fama
AKBANK T.A.S	0.00166	-0.00355	0.00132	0.01233	1.95705	-0.72721	0.00258	-0.72691	0.05431	0.20931	0.00259
ALTERNATİFBANK	0.00174	-0.00261	0.00150	0.01232	1.76656	-1.01641	0.00266	-1.01611	0.04905	0.21581	0.00267
ATA INVEST	0.00169	-0.00351	0.00332	0.01247	0.78632	-0.74501	0.00261	-0.74471	0.02200	0.20943	0.00265
EKINCILER INVEST	0.00161	0.00290	0.00228	0.01267	1.11459	0.87369	0.00254	0.87399	0.03106	0.20020	0.00256
GARANTI BANK	0.00172	-0.00324	0.00132	0.01232	2.00535	-0.81579	0.00264	-0.81549	0.05564	0.21430	0.00265
GEDIK INVEST	0.00123	0.00127	0.00284	0.01295	0.75851	1.69260	0.00216	1.69290	0.02123	0.16636	0.00219
GLOBAL	0.00159	0.01356	0.00539	0.01326	0.46580	0.18515	0.00252	0.18545	0.01315	0.18931	0.00257
T.HALK BANK	0.00142	-0.00490	0.00133	0.01246	1.76123	-0.47799	0.00234	-0.47769	0.04890	0.18818	0.00236
T.IS BANK	0.00177	-0.00439	0.00135	0.01236	2.00058	-0.61347	0.00269	-0.61317	0.05551	0.21785	0.00271
IS INVEST	0.04004	1.26149	0.60770	0.01235	0.06740	0.03247	0.04134	0.03277	0.00216	3.31543	0.04757
KOCBANK	0.00165	-0.00478	0.00115	0.01232	2.22960	-0.53852	0.00257	-0.53822	0.06183	0.20893	0.00259
NUROL	0.00126	-0.00677	0.00257	0.01294	0.84863	-0.32248	0.00218	-0.32218	0.02372	0.16867	0.00221
TAIB INVEST	0.00199	-0.00760	0.00606	0.01262	0.48018	-0.38270	0.00291	-0.38240	0.01355	0.23050	0.00297
T.C.ZIRAAT BANK	0.00171	-0.00266	0.00198	0.01244	1.33025	-0.98941	0.00263	-0.98911	0.03701	0.21177	0.00266
TEKSTİL BANK	0.00122	0.00190	0.00164	0.01255	1.30795	1.12976	0.00215	1.13006	0.03640	0.17102	0.00216
T.KALKINMA BANK	0.00073	0.00913	0.00825	0.01511	0.20036	0.18092	0.00165	0.18122	0.00583	0.10934	0.00174
T.VAKIFLAR BANK	0.00162	-0.00163	0.00142	0.01237	1.78158	-1.55912	0.00254	-1.55882	0.04947	0.20521	0.00255
YAPI KREDİ BANK	0.00055	0.02108	0.00733	0.01468	0.20044	0.06975	0.00148	0.07005	0.00583	0.10013	0.00155
2003											
Fund Name	ri	beta	$\sigma_i$	DD	Sharpe	Treynor	Jensen	T2	M2	Sortino	Fama
AKBANK T.A.S.	0.00150	-0.01131	0.00213	0.01391	2.20750	-0.41549	0.00476	-0.42097	0.05109	0.33765	0.00424

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ALTERNATİFBANK	0.00157	-0.00682	0.00204	0.01401	2.33937	-0.69959	0.00481	-0.70507	0.05447	0.34084	0.00434
ATA INVEST	0.00153	-0.00749	0.00180	0.01395	2.63301	-0.63182	0.00478	-0.63730	0.06200	0.33934	0.00435
ECZACIBASI	0.00162	-0.00359	0.00326	0.01421	1.48206	-1.34299	0.00485	-1.34848	0.03250	0.33974	0.00413
EKINCILER INVEST	0.00126	-0.00600	0.00275	0.01418	1.62666	-0.74505	0.00450	-0.75054	0.03620	0.31493	0.00388
GARANTI BANK	0.00147	-0.01165	0.00225	0.01394	2.07136	-0.40081	0.00473	-0.40630	0.04760	0.33478	0.00419
GEDIK INVEST	0.00118	-0.02051	0.00266	0.01403	1.65071	-0.21373	0.00450	-0.21922	0.03682	0.31236	0.00382
GLOBAL	0.00126	-0.04049	0.00683	0.01483	0.65335	-0.11025	0.00469	-0.11573	0.01126	0.30092	0.00300
T.HALK BANK	0.00120	-0.00402	0.00092	0.01387	4.77794	-1.09598	0.00442	-1.10147	0.11697	0.31738	0.00421
HSBC INVEST	0.00133	-0.01139	0.00302	0.01407	1.49996	-0.39807	0.00460	-0.40355	0.03296	0.32233	0.00389
INTER INVEST	0.00163	-0.02871	0.00495	0.01446	0.97629	-0.16826	0.00499	-0.17375	0.01954	0.33417	0.00377
T.IS BANK	0.00168	-0.02518	0.00453	0.01420	1.07708	-0.19398	0.00502	-0.19947	0.02212	0.34396	0.00391
IS INVEST	0.00153	-0.00829	0.00195	0.01396	2.42566	-0.57149	0.00478	-0.57697	0.05668	0.33924	0.00432
KOCBANK	0.00137	-0.01050	0.00179	0.01394	2.55469	-0.43540	0.00463	-0.44088	0.05999	0.32785	0.00419
NUROL	0.00155	0.00058	0.00222	0.01402	2.14365	8.24071	0.00475	8.23523	0.04945	0.33888	0.00428
TAIB INVEST	0.00175	0.00210	0.00440	0.01460	1.12542	2.35925	0.00494	2.35377	0.02336	0.33886	0.00401
T.C.ZIRAAT BANK	0.00161	-0.01395	0.00296	0.01399	1.62599	-0.34479	0.00488	-0.35027	0.03619	0.34365	0.00418
TEKFENBANK	0.00107	-0.01971	0.00291	0.01423	1.46981	-0.21671	0.00438	-0.22219	0.03218	0.30017	0.00365
TEKSTİL BANK	0.00099	-0.00162	0.00112	0.01400	3.75373	-2.59173	0.00420	-2.59721	0.09072	0.29913	0.00395
T. KALKINMA BANK	0.00136	-0.03526	0.00901	0.01636	0.50661	-0.12940	0.00476	-0.13488	0.00750	0.27882	0.00264
T. VAKIFLAR BANK	0.00161	-0.00502	0.00208	0.01392	2.31400	-0.95908	0.00484	-0.96456	0.05382	0.34561	0.00437
YAPI KREDİ BANK	0.00141	-0.02424	0.00399	0.01445	1.15464	-0.19028	0.00475	-0.19576	0.02411	0.31927	0.00376
ZIRAAT INVEST	0.00155	-0.01723	0.00341	0.01408	1.39111	-0.27567	0.00484	-0.28115	0.03017	0.33738	0.00402
<b>2004</b>											
<b>Fund Name</b>	<b>ri</b>	<b>beta</b>	<b><math>\sigma_i</math></b>	<b>DD</b>	<b>Sharpe</b>	<b>Treynor</b>	<b>Jensen</b>	<b>T2</b>	<b>M2</b>	<b>Sortino</b>	<b>Fama</b>

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AKBANK T.A.S.	0.00082	0.03963	0.00239	0.01498	0.70813	0.04271	0.00162	0.04078	0.01055	0.11300	0.00143
ALTERNATİFBANK	0.00083	0.03535	0.00231	0.01481	0.73634	0.04806	0.00163	0.04612	0.01104	0.11470	0.00145
ANADOLUBANK	0.00096	0.03051	0.00421	0.01433	0.43515	0.06006	0.00177	0.05813	0.00573	0.12791	0.00137
ATA INVEST	0.00072	0.04312	0.00344	0.01503	0.46334	0.03699	0.00151	0.03505	0.00623	0.10611	0.00122
ECZACIBASI	0.00062	0.06539	0.00397	0.01541	0.37624	0.02282	0.00137	0.02088	0.00470	0.09681	0.00106
EKINCILER INVEST	0.00072	0.02132	0.00242	0.01488	0.65579	0.07459	0.00155	0.07265	0.00962	0.10687	0.00132
GARANTI BANK	0.00075	0.03816	0.00223	0.01491	0.72554	0.04244	0.00155	0.04050	0.01085	0.10865	0.00137
GEDIK INVEST	0.00055	0.06360	0.00331	0.01522	0.42979	0.02235	0.00130	0.02041	0.00564	0.09335	0.00106
GLOBAL	0.00063	0.06275	0.00389	0.01535	0.38716	0.02398	0.00138	0.02204	0.00489	0.09799	0.00108
T.HALK BANK	0.00073	0.01783	0.00116	0.01472	1.38617	0.08981	0.00157	0.08788	0.02250	0.10878	0.00147
HSBC INVEST	0.00071	0.01906	0.00150	0.01479	1.05517	0.08301	0.00154	0.08107	0.01666	0.10696	0.00142
INTER INVEST	0.00082	0.07433	0.00399	0.01560	0.42383	0.02272	0.00155	0.02079	0.00553	0.10826	0.00125
T.IS BANK	0.00076	0.05094	0.00290	0.01512	0.56370	0.03204	0.00153	0.03010	0.00800	0.10792	0.00131
IS INVEST	0.00083	0.03961	0.00239	0.01499	0.71138	0.04291	0.00162	0.04097	0.01060	0.11343	0.00144
KOCBANK	0.00072	0.01304	0.00109	0.01476	1.46577	0.12225	0.00157	0.12031	0.02390	0.10798	0.00147
NUROL	0.00063	0.02930	0.00180	0.01463	0.83255	0.05123	0.00144	0.04929	0.01274	0.10261	0.00130
TAIB INVEST	0.00045	0.03436	0.00305	0.01514	0.43242	0.03839	0.00125	0.03645	0.00569	0.08712	0.00098
T.C.ZIRAAT BANK	0.00078	0.03640	0.00213	0.01512	0.77261	0.04524	0.00158	0.04331	0.01168	0.10892	0.00141
TEKFENBANK	0.00067	0.01081	0.00088	0.01475	1.76379	0.14299	0.00152	0.14105	0.02916	0.10475	0.00145
TEKSTİL BANK	0.00084	0.01124	0.00125	0.01471	1.37024	0.15197	0.00169	0.15003	0.02222	0.11615	0.00157
T. KALKINMA BANK	0.00090	0.07669	0.00390	0.01545	0.45310	0.02306	0.00162	0.02113	0.00605	0.11452	0.00134
T. VAKIFLAR BANK	0.00076	0.03715	0.00218	0.01499	0.75115	0.04400	0.00156	0.04206	0.01130	0.10908	0.00140
YAPI KREDİ BANK	0.00082	0.06499	0.00335	0.01549	0.50364	0.02597	0.00156	0.02403	0.00694	0.10899	0.00132
ZIRAAT INVEST	0.00079	0.04679	0.00292	0.01497	0.56934	0.03559	0.00157	0.03366	0.00810	0.11127	0.00134

<b>2005</b>											
<b>Fund Name</b>	<b>ri</b>	<b>beta</b>	<b><math>\sigma_i</math></b>	<b>DD</b>	<b>Sharpe</b>	<b>Treynor</b>	<b>Jensen</b>	<b>T2</b>	<b>M2</b>	<b>Sortino</b>	<b>Fama</b>
ACAR INVEST	0.00044	0.00010	0.00105	0.00763	1.87015	19.12325	0.00195	19.11997	0.02548	0.25638	0.00173
AKBANK T.A.S.	0.00064	-0.00371	0.00114	0.00759	1.89571	-0.58215	0.00217	-0.58544	0.02588	0.28418	0.00191
ALTERNATİFBANK	0.00051	-0.00459	0.00140	0.00766	1.44906	-0.44300	0.00205	-0.44629	0.01901	0.26539	0.00173
ANADOLUBANK	0.00064	0.00210	0.00133	0.00766	1.62053	1.02665	0.00215	1.02337	0.02164	0.28209	0.00188
ATA INVEST	0.00057	-0.00307	0.00091	0.00758	2.30008	-0.68070	0.00210	-0.68399	0.03210	0.27615	0.00190
ECZACIBASI	0.00062	-0.00732	0.00125	0.00755	1.70241	-0.29169	0.00216	-0.29497	0.02290	0.28292	0.00187
EKINCILER INVEST	0.00063	-0.00732	0.00144	0.08688	1.48797	-0.29354	0.00217	-0.29682	0.01961	0.02474	0.00184
GARANTI BANK	0.00057	-0.00472	0.00113	0.00762	1.84481	-0.44231	0.00210	-0.44560	0.02510	0.27397	0.00185
GEDIK INVEST	0.00037	-0.00236	0.00061	0.00768	3.09128	-0.80124	0.00190	-0.80452	0.04427	0.24581	0.00176
GLOBAL	0.00050	-0.00287	0.00125	0.00769	1.60933	-0.70231	0.00203	-0.70559	0.02147	0.26196	0.00175
T.HALK BANK	0.00062	-0.00464	0.00111	0.00757	1.92551	-0.46118	0.00216	-0.46447	0.02634	0.28267	0.00190
HSBC INVEST	0.00052	-0.00273	0.00052	0.00759	3.95551	-0.74835	0.00205	-0.75164	0.05757	0.26933	0.00193
INTER INVEST	0.00064	-0.00022	0.00239	0.00787	0.90515	-9.69716	0.00216	-9.70045	0.01064	0.27481	0.00165
T.IS BANK	0.00057	-0.00693	0.00130	0.00762	1.59778	-0.30073	0.00211	-0.30402	0.02129	0.27340	0.00181
IS INVEST	0.00054	-0.00196	0.00067	0.00760	3.08926	-1.05309	0.00207	-1.05637	0.04424	0.27141	0.00192
KOCBANK	0.00049	-0.00122	0.00044	0.00760	4.52725	-1.64661	0.00201	-1.64990	0.06636	0.26391	0.00191
NUROL	0.00027	0.34850	0.20473	0.14613	0.00874	0.00513	0.00064	0.00185	-0.00315	0.01224	-0.04193
TAIB INVEST	0.00108	0.00662	0.00212	0.00750	1.22152	0.39179	0.00257	0.38850	0.01551	0.34602	0.00214
T.C.ZIRAAT BANK	0.00059	-0.00450	0.00092	0.00760	2.28006	-0.46853	0.00212	-0.47181	0.03179	0.27719	0.00191
TEKFENBANK	0.00040	-0.00058	0.00040	0.00765	4.78631	-3.33506	0.00192	-3.33834	0.07035	0.25087	0.00183
TEKSTİL BANK	0.00062	-0.00621	0.00124	0.00758	1.72671	-0.34477	0.00216	-0.34806	0.02328	0.28247	0.00188
T. KALKINMA BANK	0.00040	-0.00085	0.00288	0.00826	0.66380	-2.24891	0.00192	-2.25220	0.00693	0.23197	0.00130

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T. VAKIFLAR BANK	0.00050	-0.00485	0.00112	0.00770	1.80487	-0.41592	0.00203	-0.41920	0.02448	0.26203	0.00178
YAPI KREDİ BANK	0.00063	-0.00088	0.00252	0.00795	0.85139	-2.43970	0.00215	-2.44299	0.00981	0.26974	0.00161
ZIRAAT INVEST	0.00058	-0.00175	0.00075	0.00763	2.78607	-1.19922	0.00210	-1.20250	0.03958	0.27490	0.00194
<b>2006</b>											
Fund Name	<b>r<sub>i</sub></b>	<b>beta</b>	<b>σ<sub>i</sub></b>	<b>DD</b>	<b>Sharpe</b>	<b>Treynor</b>	<b>Jensen</b>	<b>T2</b>	<b>M2</b>	<b>Sortino</b>	<b>Fama</b>
ACAR INVEST	0.00030	-0.00864	0.00430	0.01585	-0.48318	0.24041	-0.00210	0.24286	-0.00649	-0.13105	-0.00151
AKBANK T.A.S.	0.00043	-0.00430	0.00169	0.01533	-1.15259	0.45236	-0.00195	0.45480	-0.01886	-0.12682	-0.00172
ALTERNATİFBANK	0.00041	-0.00131	0.00165	0.01540	-1.18784	1.50299	-0.00197	1.50543	-0.01952	-0.12754	-0.00175
ANADOLUBANK	0.00023	0.00068	0.00291	0.01591	-0.73575	-3.14693	-0.00214	-3.14449	-0.01116	-0.13466	-0.00176
ATA INVEST	0.00038	-0.00105	0.00241	0.01543	-0.82420	1.89729	-0.00199	1.89974	-0.01279	-0.12895	-0.00167
ATA Y.M.K SPECIAL	0.00036	0.00639	0.00264	0.01558	-0.76469	-0.31545	-0.00200	-0.31300	-0.01169	-0.12945	-0.00167
DELTA	0.00019	-0.00476	0.00371	0.01582	-0.58861	0.45883	-0.00220	0.46127	-0.00844	-0.13820	-0.00170
DENİZBANK	0.00031	-0.01133	0.00296	0.01552	-0.69639	0.18222	-0.00209	0.18466	-0.01043	-0.13303	-0.00167
ECZACIBASI	0.00035	0.00071	0.00121	0.01535	-1.67941	-2.86656	-0.00203	-2.86412	-0.02860	-0.13213	-0.00187
EKINCILER INVEST	0.00037	-0.00046	0.00126	0.01524	-1.59140	4.35944	-0.00201	4.36188	-0.02698	-0.13160	-0.00184
GARANTI BANK	0.00029	-0.00524	0.00198	0.01544	-1.05026	0.39729	-0.00210	0.39973	-0.01697	-0.13488	-0.00182
GEDIK INVEST	0.00040	-0.00505	0.00071	0.01522	-2.78148	0.39083	-0.00199	0.39327	-0.04898	-0.12970	-0.00188
GLOBAL	0.00029	-0.00931	0.00371	0.01549	-0.56021	0.22318	-0.00210	0.22562	-0.00791	-0.13421	-0.00159
T.HALK BANK	0.00030	-0.00463	0.00173	0.01537	-1.19870	0.44682	-0.00208	0.44926	-0.01972	-0.13470	-0.00184
HSBC INVEST	0.00039	-0.00189	0.00132	0.01530	-1.49424	1.04728	-0.00198	1.04972	-0.02518	-0.12928	-0.00180
INTER INVEST	0.00034	-0.00527	0.00070	0.01523	-2.92685	0.38617	-0.00205	0.38861	-0.05166	-0.13367	-0.00194
T.IS BANK	0.00030	-0.00386	0.00251	0.01547	-0.82664	0.53651	-0.00208	0.53895	-0.01284	-0.13393	-0.00174
IS INVEST	0.00015	-0.00204	0.00295	0.01579	-0.75387	1.08990	-0.00223	1.09235	-0.01149	-0.14078	-0.00183
KOCBANK	0.00040	-0.00129	0.00121	0.01533	-1.62884	1.52659	-0.00198	1.52903	-0.02767	-0.12884	-0.00181

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NUROL	0.00026	-0.00627	0.00132	0.01530	-1.59666	0.33693	-0.00213	0.33938	-0.02707	-0.13799	-0.00194
TAIB INVEST	0.00012	0.00157	0.00038	0.01539	-5.92028	-1.43587	-0.00225	-1.43342	-0.10700	-0.14672	-0.00221
T.C.ZIRAAT BANK	0.00044	-0.00030	0.00114	0.01529	-1.70156	6.46974	-0.00194	6.47218	-0.02901	-0.12677	-0.00179
TEKFENBANK	0.00031	0.00009	0.00070	0.01527	-2.95400	-22.21360	-0.00206	-22.21116	-0.05217	-0.13507	-0.00197
TEKSTIL BANK	0.00036	-0.00278	0.00173	0.01540	-1.16165	0.72312	-0.00202	0.72556	-0.01903	-0.13046	-0.00178
T. KALKINMA BANK	0.00049	-0.00108	0.00256	0.01557	-0.73519	1.73745	-0.00188	1.73989	-0.01115	-0.12068	-0.00154
T. VAKIFLAR BANK	0.00025	-0.00369	0.00283	0.01570	-0.75149	0.57574	-0.00213	0.57818	-0.01145	-0.13538	-0.00175
YAPI KREDİ BANK	0.00021	-0.00287	0.00303	0.01564	-0.71222	0.75281	-0.00217	0.75525	-0.01072	-0.13806	-0.00176
ZIRAAT INVEST	0.00044	-0.00360	0.00084	0.01521	-2.31591	0.53822	-0.00195	0.54066	-0.04037	-0.12744	-0.00183

<b>TYPE B LIQUID FUNDS</b>											
<b>2002</b>											
<b>Fnd Name</b>	<b>ri</b>	<b>beta</b>	<b><math>\sigma_i</math></b>	<b>DD</b>	<b>Sharpe</b>	<b>Treynor</b>	<b>Jensen</b>	<b>T2</b>	<b>M2</b>	<b>Sortino</b>	<b>Fama</b>
AKBANK T.A.S.	0.00152	-0.00482	0.00093	0.01237	2.61827	-0.50568	0.00244	-0.50538	0.07256	0.19707	0.00245
ALTERNATIFBANK	0.00153	-0.00400	0.00095	0.01239	2.56723	-0.61250	0.00245	-0.61220	0.07115	0.19762	0.00246
ATA INVEST	0.00143	-0.00799	0.00402	0.01253	0.58615	-0.29485	0.00235	-0.29455	0.01648	0.18802	0.00240
DENIZBANK	0.00149	-0.00499	0.00094	0.01238	2.56246	-0.48299	0.00241	-0.48269	0.07102	0.19458	0.00242
ECZACIBASI	0.00150	-0.00471	0.00099	0.01237	2.44986	-0.51355	0.00242	-0.51325	0.06791	0.19550	0.00243
EKINCILER INVEST	0.00133	-0.00038	0.00086	0.01258	2.62575	-5.89232	0.00226	-5.89202	0.07276	0.17931	0.00226
FINANSBANK	0.00147	-0.00446	0.00090	0.01240	2.64888	-0.53683	0.00239	-0.53653	0.07340	0.19302	0.00240
GLOBAL	0.00132	-0.00458	0.00083	0.01245	2.69287	-0.48948	0.00224	-0.48918	0.07461	0.18011	0.00225
T.IS BANK	0.00141	-0.00428	0.00085	0.01242	2.73636	-0.54551	0.00233	-0.54521	0.07581	0.18793	0.00234
KOCBANK	0.00161	-0.00463	0.00097	0.01232	2.60034	-0.54681	0.00253	-0.54651	0.07206	0.20548	0.00254

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MEKSA INVEST	0.00124	-0.00509	0.00082	0.01249	2.62499	-0.42373	0.00216	-0.42343	0.07274	0.17289	0.00217
SEKERBANK	0.00143	-0.00448	0.00087	0.01240	2.70248	-0.52519	0.00235	-0.52489	0.07488	0.18957	0.00236
T.C.ZIRAAT BANK	0.00142	-0.00457	0.00089	0.01241	2.62523	-0.51357	0.00235	-0.51327	0.07275	0.18914	0.00236
TEKSTİL BANK	0.00131	0.00114	0.00631	0.01308	0.35422	1.96882	0.00224	1.96912	0.01008	0.17099	0.00231
T.VAKIFLAR BANK	0.00155	-0.00493	0.00089	0.01235	2.79079	-0.50147	0.00247	-0.50117	0.07732	0.20039	0.00248
YATIRIM FINANCE	0.00149	-0.00479	0.00090	0.01237	2.69159	-0.50318	0.00241	-0.50288	0.07458	0.19506	0.00242
YAPI KREDİ BANK	0.00148	-0.00440	0.00089	0.01239	2.69350	-0.54714	0.00240	-0.54684	0.07463	0.19414	0.00241
YAPI KREDİ INVEST	0.00145	-0.00488	0.00090	0.01239	2.62477	-0.48575	0.00237	-0.48545	0.07273	0.19129	0.00238
<b>2003</b>											
<b>Fund Name</b>	<b>ri</b>	<b>beta</b>	<b><math>\sigma_i</math></b>	<b>DD</b>	<b>Sharpe</b>	<b>Treynor</b>	<b>Jensen</b>	<b>T2</b>	<b>M2</b>	<b>Sortino</b>	<b>Fama</b>
AKBANK T.A.S.	0.00110	-0.00217	0.00077	0.01390	5.60514	-1.98340	0.00431	-1.98888	0.13817	0.30927	0.00414
ALTERNATİFBANK	0.00111	-0.00265	0.00076	0.01392	5.69985	-1.62789	0.00432	-1.63338	0.14059	0.30971	0.00415
ANADOLUBANK	0.00116	-0.00116	0.00089	0.01397	4.89413	-3.76430	0.00437	-3.76978	0.11994	0.31265	0.00418
ATA INVEST	0.00102	-0.00239	0.00073	0.01393	5.81309	-1.76585	0.00424	-1.77133	0.14350	0.30333	0.00407
DENİZBANK	0.00113	-0.00272	0.00079	0.01390	5.50407	-1.59256	0.00434	-1.59804	0.13558	0.31148	0.00416
ECZACİBASI	0.00110	-0.00248	0.00082	0.01392	5.25831	-1.73194	0.00431	-1.73743	0.12928	0.30869	0.00412
EKINCILER INVEST	0.00080	0.00058	0.00068	0.01419	5.91730	6.94922	0.00399	6.94374	0.14617	0.28178	0.00385
FINANSBANK	0.00110	-0.00229	0.00074	0.01392	5.77480	-1.87837	0.00431	-1.88385	0.14251	0.30880	0.00414
FINANS INVEST	0.00119	-0.00257	0.00080	0.01388	5.46634	-1.70988	0.00441	-1.71537	0.13461	0.31673	0.00422
GLOBAL	0.00102	-0.00341	0.00072	0.01395	5.84704	-1.24099	0.00425	-1.24648	0.14437	0.30296	0.00407
HALK INVEST	0.00102	-0.00182	0.00078	0.01394	5.42085	-2.31586	0.00423	-2.32134	0.13344	0.30288	0.00406
HSBC BANK	0.00107	-0.00134	0.00097	0.01394	4.39709	-3.19754	0.00428	-3.20303	0.10721	0.30673	0.00407
INTER INVEST	0.00107	-0.00224	0.00074	0.01395	5.76144	-1.91074	0.00428	-1.91623	0.14217	0.30620	0.00411
T.IS BANK	0.00101	-0.00191	0.00071	0.01396	5.93651	-2.20437	0.00422	-2.20985	0.14666	0.30148	0.00406

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KOCBANK	0.00110	-0.00272	0.00076	0.01391	5.62162	-1.57863	0.00431	-1.58411	0.13859	0.30888	0.00413
KOC INVEST	0.00120	-0.00377	0.00085	0.01386	5.15286	-1.16494	0.00442	-1.17042	0.12658	0.31738	0.00421
MEKSA INVEST	0.00088	-0.00326	0.00074	0.01399	5.48600	-1.25029	0.00410	-1.25577	0.13511	0.29170	0.00392
OYAKBANK	0.00111	-0.00218	0.00076	0.01392	5.66769	-1.97999	0.00433	-1.98547	0.13977	0.30984	0.00415
SEKERBANK	0.00100	-0.00213	0.00070	0.01396	5.96828	-1.97211	0.00421	-1.97759	0.14747	0.30104	0.00405
T.C.ZIRAAT BANK	0.00104	-0.00249	0.00073	0.01393	5.81242	-1.70439	0.00426	-1.70988	0.14348	0.30458	0.00409
TEKSTIL BANK	0.00101	-0.00263	0.00073	0.01396	5.75106	-1.60547	0.00423	-1.61095	0.14191	0.30187	0.00406
T. KALKINMA BANK	0.00081	-0.00179	0.00058	0.01402	6.95536	-2.23914	0.00402	-2.24462	0.17277	0.28617	0.00389
T.VAKIFLAR BANK	0.00107	-0.00213	0.00071	0.01393	5.99235	-2.00318	0.00428	-2.00867	0.14809	0.30669	0.00412
YATIRIM FINANCE	0.00109	-0.00261	0.00072	0.01392	5.97099	-1.64000	0.00430	-1.64548	0.14754	0.30795	0.00413
YAPI KREDİ BANK	0.00112	-0.00223	0.00076	0.01392	5.72039	-1.93369	0.00433	-1.93917	0.14112	0.31041	0.00416
YAPI KREDİ INVEST	0.00107	-0.00189	0.00104	0.01396	4.12933	-2.26142	0.00429	-2.26691	0.10034	0.30629	0.00405
ZIRAAT INVEST	0.00106	-0.00231	0.00074	0.01395	5.72614	-1.84675	0.00427	-1.85224	0.14127	0.30537	0.00410
<b>2004</b>											
Fund Name	ri	beta	$\sigma_i$	DD	Sharpe	Treynor	Jensen	T2	M2	Sortino	Fama
AKBANK T.A.S.	0.00066	0.00062	0.00043	0.01465	3.55260	2.47962	0.00153	2.47768	0.06069	0.10472	0.00149
ALTERNATİFBANK	0.00067	0.00054	0.00043	0.01464	3.55947	2.84303	0.00154	2.84109	0.06081	0.10502	0.00149
ANADOLUBANK	0.00071	-0.00002	0.00046	0.01463	3.43669	-66.73708	0.00158	-66.73902	0.05865	0.10807	0.00153
ATA INVEST	0.00063	0.00041	0.00043	0.01467	3.47430	3.69754	0.00150	3.69561	0.05931	0.10206	0.00145
BANKEUROPA	0.00067	0.00014	0.00052	0.01466	2.96253	11.10593	0.00154	11.10399	0.05029	0.10497	0.00148
DENİZBANK	0.00067	-0.00043	0.00042	0.01465	3.66096	-3.60320	0.00154	-3.60514	0.06260	0.10516	0.00149
ECZACİBASI	0.00063	0.00031	0.00054	0.01468	2.77236	4.77627	0.00150	4.77433	0.04694	0.10209	0.00144
EKİNCİLER INVEST	0.00053	0.00171	0.00041	0.01469	3.40780	0.81778	0.00140	0.81585	0.05814	0.09546	0.00136
FINANSBANK	0.00067	0.00107	0.00040	0.01464	3.83205	1.44270	0.00154	1.44077	0.06562	0.10519	0.00150

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FINANS INVEST	0.00072	0.00089	0.00043	0.01461	3.71676	1.79596	0.00159	1.79402	0.06359	0.10878	0.00154
GLOBAL	0.00057	0.00101	0.00040	0.01470	3.63528	1.42416	0.00144	1.42222	0.06215	0.09829	0.00140
HALK INVEST	0.00061	-0.00290	0.00085	0.01474	1.73631	-0.50961	0.00148	-0.51154	0.02867	0.10010	0.00138
HSBC BANK	0.00063	0.00033	0.00042	0.01465	3.57469	4.53323	0.00150	4.53130	0.06108	0.10230	0.00145
INTER INVEST	0.00061	0.00031	0.00041	0.01467	3.62108	4.86493	0.00148	4.86299	0.06190	0.10119	0.00144
T.IS BANK	0.00056	0.00028	0.00036	0.01469	4.02370	5.12907	0.00143	5.12714	0.06900	0.09754	0.00139
KOCBANK	0.00066	0.00015	0.00043	0.01466	3.55734	10.06395	0.00153	10.06202	0.06078	0.10413	0.00148
KOC INVEST	0.00067	0.00010	0.00043	0.01465	3.56519	14.68776	0.00154	14.68582	0.06091	0.10519	0.00149
MEKSA INVEST	0.00042	-0.00098	0.00030	0.01475	4.33232	-1.31064	0.00129	-1.31257	0.07444	0.08741	0.00126
OYAKBANK	0.00065	0.00124	0.00043	0.01466	3.55461	1.22668	0.00152	1.22474	0.06073	0.10355	0.00147
SEKERBANK	0.00056	0.00039	0.00037	0.01469	3.86883	3.64519	0.00143	3.64325	0.06627	0.09719	0.00139
T.C.ZIRAAT BANK	0.00062	0.00076	0.00040	0.01468	3.71507	1.96643	0.00149	1.96449	0.06356	0.10144	0.00144
TEKSTIL BANK	0.00059	0.00045	0.00038	0.01469	3.82415	3.24295	0.00146	3.24101	0.06548	0.09957	0.00142
T. KALKINMA BANK	0.00054	0.00033	0.00036	0.01472	3.89726	4.21901	0.00141	4.21707	0.06677	0.09561	0.00137
T.VAKIFLAR BANK	0.00058	0.00052	0.00039	0.01470	3.71868	2.79032	0.00145	2.78838	0.06362	0.09885	0.00141
YATIRIM FINANCE	0.00064	0.00078	0.00040	0.01466	3.78717	1.93745	0.00151	1.93551	0.06483	0.10318	0.00147
YAPI KREDİ BANK	0.00066	0.00087	0.00043	0.01465	3.54416	1.77100	0.00153	1.76907	0.06054	0.10472	0.00149
YAPI KREDİ INVEST	0.00065	0.00050	0.00044	0.01466	3.47475	3.06744	0.00152	3.06551	0.05932	0.10367	0.00147
ZIRAAT INVEST	0.00065	-0.00053	0.00042	0.01466	3.64058	-2.84264	0.00152	-2.84458	0.06224	0.10352	0.00147
<b>2005</b>											
<b>Fund Name</b>	<b>ri</b>	<b>beta</b>	<b><math>\sigma_i</math></b>	<b>DD</b>	<b>Sharpe</b>	<b>Treynor</b>	<b>Jensen</b>	<b>T2</b>	<b>M2</b>	<b>Sortino</b>	<b>Fama</b>
AKBANK T.A.S.	0.00041	-0.00043	0.00025	0.00763	7.85594	-4.51892	0.00193	-4.52221	0.11757	0.25222	0.00187
ALTERNATİFBANK	0.00040	-0.00034	0.00025	0.00763	7.70917	-5.61929	0.00192	-5.62258	0.11531	0.25189	0.00187
ANADOLUBANK	0.00043	0.00077	0.00028	0.00762	7.05348	2.52584	0.00195	2.52256	0.10522	0.25601	0.00189

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ATA INVEST	0.00038	-0.00047	0.00025	0.00764	7.54209	-4.06446	0.00190	-4.06775	0.11274	0.24875	0.00185
BANKEUROPA	0.00041	-0.00071	0.00030	0.00763	6.48643	-2.71583	0.00194	-2.71911	0.09650	0.25336	0.00187
DENIZBANK	0.00043	-0.00008	0.00026	0.00762	7.44181	-24.41423	0.00195	-24.41752	0.11120	0.25581	0.00189
ECZACIBASI	0.00039	-0.00101	0.00032	0.00763	6.00805	-1.89249	0.00191	-1.89577	0.08914	0.25047	0.00184
EKINCILER INVEST	0.00027	-0.00004	0.00017	0.00770	10.60090	-40.30852	0.00179	-40.31181	0.15980	0.23243	0.00175
FINANSBANK	0.00041	-0.00050	0.00024	0.00763	8.02900	-3.82285	0.00193	-3.82613	0.12023	0.25246	0.00187
FINANS INVEST	0.00044	-0.00033	0.00026	0.00761	7.49645	-5.87892	0.00196	-5.88221	0.11204	0.25761	0.00190
GLOBAL	0.00042	0.00031	0.00026	0.00763	7.46544	6.24257	0.00194	6.23929	0.11156	0.25380	0.00188
HALK INVEST	0.00042	-0.00027	0.00026	0.00762	7.42952	-7.14355	0.00194	-7.14683	0.11101	0.25406	0.00188
HSBC BANK	0.00040	-0.00055	0.00024	0.00763	7.97625	-3.47455	0.00192	-3.47784	0.11942	0.25157	0.00187
INTER INVEST	0.00038	-0.00087	0.00027	0.00763	6.95919	-2.19254	0.00190	-2.19582	0.10377	0.24936	0.00184
T.IS BANK	0.00031	-0.00064	0.00019	0.00768	9.48765	-2.84434	0.00183	-2.84762	0.14267	0.23770	0.00178
KOCBANK	0.00040	-0.00049	0.00024	0.00763	7.84921	-3.94908	0.00192	-3.95237	0.11746	0.25136	0.00187
KOC INVEST	0.00041	-0.00055	0.00025	0.00762	7.70873	-3.49995	0.00193	-3.50323	0.11530	0.25338	0.00188
MEKSA INVEST	0.00022	-0.00043	0.00015	0.00772	11.21554	-4.05955	0.00174	-4.06284	0.16925	0.22471	0.00170
OYAKBANK	0.00040	-0.00046	0.00025	0.00763	7.66983	-4.19282	0.00192	-4.19610	0.11470	0.25201	0.00187
SEKERBANK	0.00039	0.01967	0.00206	0.00779	0.92807	0.09697	0.00184	0.09368	0.01099	0.24497	0.00147
T.C.ZIRAAT BANK	0.00040	-0.00044	0.00025	0.00763	7.75429	-4.36946	0.00192	-4.37274	0.11600	0.25100	0.00186
TEKSTIL BANK	0.00040	-0.00048	0.00024	0.00763	8.05073	-4.02496	0.00192	-4.02825	0.12056	0.25095	0.00186
T. KALKINMA BANK	0.00036	0.00029	0.00024	0.00766	7.66491	6.51961	0.00188	6.51632	0.11463	0.24520	0.00183
T.VAKIFLAR BANK	0.00033	-0.00038	0.00021	0.00767	8.83904	-4.84858	0.00185	-4.85186	0.13269	0.24177	0.00181
YATIRIM FINANCE	0.00039	-0.00055	0.00023	0.00764	8.42230	-3.49141	0.00191	-3.49470	0.12628	0.25037	0.00186
YAPI KREDI BANK	0.00041	-0.00072	0.00025	0.00763	7.74205	-2.65833	0.00193	-2.66161	0.11582	0.25252	0.00187
YAPI KREDI INVEST	0.00040	-0.00073	0.00025	0.00763	7.54864	-2.63377	0.00192	-2.63705	0.11284	0.25081	0.00186

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ZIRAAT INVEST	0.00043	-0.00011	0.00027	0.00762	7.22973	-17.02966	0.00195	-17.03295	0.10793	0.25616	0.00189
<b>2006</b>											
Fund Name	ri	beta	σi	DD	Sharpe	Treynor	Jensen	T2	M2	Sortino	Fama
AKBANK T.A.S.	0.00042	-0.00096	0.00030	0.01521	-6.49885	2.03265	-0.00196	2.03509	-0.11770	-0.12876	-0.00192
ALTERNATİFBANK	0.00044	-0.00068	0.00031	0.01519	-6.19968	2.86236	-0.00193	2.86481	-0.11217	-0.12722	-0.00189
ANADOLUBANK	0.00043	-0.00091	0.00032	0.01520	-6.15743	2.14310	-0.00195	2.14555	-0.11138	-0.12817	-0.00191
ATA INVEST	0.00043	-0.00073	0.00032	0.01518	-6.10962	2.65005	-0.00194	2.65249	-0.11050	-0.12773	-0.00190
BANKEUROPA	0.00045	-0.00103	0.00033	0.01519	-5.91616	1.86262	-0.00193	1.86506	-0.10692	-0.12671	-0.00188
DELTA	0.00047	-0.00063	0.00037	0.01520	-5.21323	3.04405	-0.00191	3.04650	-0.09393	-0.12543	-0.00186
DENİZBANK	0.00046	-0.00059	0.00031	0.01520	-6.12142	3.23552	-0.00192	3.23796	-0.11072	-0.12612	-0.00188
ECZACIBASI	0.00042	-0.00045	0.00030	0.01521	-6.46055	4.38242	-0.00195	4.38486	-0.11699	-0.12828	-0.00191
EKINCILER INVEST	0.00036	-0.00017	0.00026	0.01524	-7.85329	11.73074	-0.00201	11.73318	-0.14273	-0.13207	-0.00198
FINANSBANK	0.00045	-0.00073	0.00030	0.01520	-6.40628	2.62437	-0.00193	2.62681	-0.11598	-0.12666	-0.00189
FINANS INVEST	0.00047	-0.00085	0.00032	0.01519	-5.87591	2.23258	-0.00190	2.23502	-0.10618	-0.12505	-0.00186
GLOBAL	0.00051	-0.00069	0.00036	0.01517	-5.23302	2.69424	-0.00187	2.69669	-0.09430	-0.12295	-0.00182
HALK INVEST	0.00047	-0.00093	0.00033	0.01519	-5.69726	2.04050	-0.00191	2.04294	-0.10288	-0.12549	-0.00186
HSBC BANK	0.00040	-0.00059	0.00029	0.01522	-6.77405	3.36584	-0.00197	3.36828	-0.12278	-0.12941	-0.00193
INTER INVEST	0.00041	-0.00071	0.00030	0.01521	-6.57196	2.78462	-0.00196	2.78707	-0.11905	-0.12907	-0.00192
T.I.S BANK	0.00037	-0.00068	0.00028	0.01523	-7.20790	2.92276	-0.00200	2.92520	-0.13080	-0.13127	-0.00196
KOCBANK	0.00041	-0.00091	0.00029	0.01520	-6.74216	2.16318	-0.00197	2.16562	-0.12219	-0.12937	-0.00193
KOC INVEST	0.00044	-0.00098	0.00032	0.01519	-6.11500	1.97938	-0.00193	1.98183	-0.11060	-0.12712	-0.00189
MEKSA INVEST	0.00031	-0.00025	0.00023	0.01526	-8.94662	8.12684	-0.00207	8.12928	-0.16294	-0.13540	-0.00204
OYAKBANK	0.00043	-0.00094	0.00031	0.01521	-6.25594	2.06844	-0.00195	2.07088	-0.11321	-0.12810	-0.00191
SEKERBANK	0.00041	-0.00065	0.00031	0.01521	-6.41791	3.03242	-0.00196	3.03486	-0.11620	-0.12906	-0.00192

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T.C.ZIRAAT BANK	0.00042	-0.00068	0.00031	0.01521	-6.37775	2.87040	-0.00195	2.87284	-0.11546	-0.12824	-0.00191
TEKSTIL BANK	0.00041	-0.00092	0.00029	0.01521	-6.88993	2.12838	-0.00197	2.13083	-0.12492	-0.12940	-0.00193
T. KALKINMA BANK	0.00042	-0.00022	0.00031	0.01521	-6.26962	8.73666	-0.00196	8.73910	-0.11346	-0.12866	-0.00192
T.VAKIFLAR BANK	0.00039	-0.00060	0.00029	0.01522	-6.77399	3.29260	-0.00198	3.29504	-0.12278	-0.13003	-0.00194
YATIRIM FINANCE	0.00042	0.00016	0.00028	0.01522	-6.86175	-12.50072	-0.00195	-12.49828	-0.12440	-0.12837	-0.00192
YAPI KREDİ BANK	0.00042	-0.00085	0.00029	0.01521	-6.71573	2.31587	-0.00196	2.31831	-0.12170	-0.12877	-0.00192
YAPI KREDİ INVEST	0.00045	-0.00084	0.00032	0.01519	-6.00430	2.29270	-0.00192	2.29515	-0.10855	-0.12654	-0.00188
ZIRAAT INVEST	0.00046	-0.00119	0.00033	0.01518	-5.70861	1.59975	-0.00191	1.60219	-0.10309	-0.12586	-0.00187

**TYPE B NOTES and BONDS FUNDS**

<b>2002</b>											
<b>Fund Name</b>	<b>ri</b>	<b>beta</b>	<b><math>\sigma_i</math></b>	<b>DD</b>	<b>Sharpe</b>	<b>Treynor</b>	<b>Jensen</b>	<b>T2</b>	<b>M2</b>	<b>Sortino</b>	<b>Fama</b>
AKBANK T.A.S	0.00184	-0.00315	0.00155	0.01234	1.77728	-0.87816	0.00276	-0.87786	0.04935	0.22386	0.00278
ALTERNATIFBANK	0.00180	-0.00289	0.00186	0.01231	1.46530	-0.94042	0.00272	-0.94012	0.04074	0.22077	0.00274
DENIZBANK	0.00170	-0.00200	0.00155	0.01244	1.68905	-1.30981	0.00262	-1.30951	0.04691	0.21037	0.00263
FINANSBANK	0.00161	-0.00002	0.00253	0.01274	0.99769	-109.41506	0.00253	-109.41476	0.02783	0.19835	0.00256
GARANTI BANK	0.00176	0.04710	0.02639	0.02319	0.10164	0.05694	0.00270	0.05724	0.00310	0.11568	0.00297
GARANTI INVEST	0.00169	-0.00179	0.00188	0.01246	1.38949	-1.45817	0.00261	-1.45787	0.03865	0.20942	0.00263
T.HALK BANK	0.00140	-0.12101	0.06899	0.05026	0.03372	-0.01923	0.00229	-0.01893	0.00123	0.04629	0.00308
T.IS BANK	0.00177	-0.00274	0.00133	0.01232	2.02375	-0.98456	0.00269	-0.98426	0.05615	0.21850	0.00271
KOCBANK	0.00182	-0.00237	0.00227	0.01248	1.20679	-1.15550	0.00274	-1.15520	0.03360	0.21970	0.00277
KOC INVEST	0.00125	0.00152	0.00465	0.01296	0.46766	1.42607	0.00217	1.42637	0.01321	0.16776	0.00222
T.C.ZIRAAT BANK	0.00180	-0.00279	0.00191	0.01240	1.42800	-0.97442	0.00272	-0.97412	0.03971	0.21938	0.00274
TEB INVET	0.00172	-0.01205	0.01541	0.01647	0.17152	-0.21940	0.00264	-0.21910	0.00503	0.16045	0.00281
T.SINAI KALKINMA BANK	0.00158	0.29773	0.20555	0.14574	0.01220	0.00842	0.00260	0.00872	0.00064	0.01721	0.00474

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T.VAKIFLAR BANK	0.00167	0.00181	0.00274	0.01260	0.94630	1.43139	0.00259	1.43169	0.02641	0.20591	0.00262
YAPI KREDI INVEST	0.00172	0.00069	0.00236	0.01247	1.12224	3.83072	0.00264	3.83102	0.03127	0.21214	0.00267
YATIRIM FINANCE	0.00171	-0.00215	0.00158	0.01244	1.66280	-1.22258	0.00263	-1.22228	0.04619	0.21178	0.00265
YAPI KREDI BANK	0.00180	-0.00196	0.00205	0.01241	1.32663	-1.38575	0.00272	-1.38545	0.03691	0.21921	0.00274
<b>2003</b>											
Fund Name	<b>r<sub>i</sub></b>	<b>beta</b>	<b>σ<sub>i</sub></b>	<b>DD</b>	<b>Sharpe</b>	<b>Treynor</b>	<b>Jensen</b>	<b>T2</b>	<b>M2</b>	<b>Sortino</b>	<b>Fama</b>
AKBANK T.A.S.	0.00163	-0.01298	0.00285	0.01401	1.69359	-0.37226	0.00490	-0.37774	0.03792	0.34481	0.00422
ALTERNATIFBANK.	0.00157	-0.01075	0.00270	0.01408	1.76963	-0.44394	0.00483	-0.44942	0.03987	0.33888	0.00420
ATA INVEST	0.00177	-0.01025	0.00336	0.01415	1.48175	-0.48490	0.00503	-0.49038	0.03249	0.35133	0.00425
DENIZBANK	0.00149	-0.01135	0.00256	0.01434	1.83323	-0.41315	0.00475	-0.41863	0.04150	0.32718	0.00414
FINANSBANK	0.00151	-0.00887	0.00208	0.01400	2.25941	-0.53071	0.00476	-0.53620	0.05242	0.33639	0.00426
GARANTI BANK	0.00162	-0.01584	0.00305	0.01401	1.58434	-0.30469	0.00491	-0.31018	0.03512	0.34464	0.00417
GARANTI INVEST	0.00170	-0.01078	0.00324	0.01419	1.51466	-0.45464	0.00496	-0.46012	0.03333	0.34544	0.00421
T.HALK BANK	0.00143	-0.01450	0.00259	0.01402	1.78884	-0.31976	0.00472	-0.32524	0.04036	0.33061	0.00408
HSBC BANK	0.00160	-0.06891	0.05033	0.03692	0.09534	-0.06963	0.00518	-0.07511	-0.00304	0.12996	-0.00597
T.IS BANK	0.00139	-0.00968	0.00173	0.01391	2.66096	-0.47441	0.00465	-0.47990	0.06271	0.33024	0.00422
KOCBANK	0.00170	-0.01088	0.00303	0.01406	1.61639	-0.45081	0.00496	-0.45629	0.03594	0.34879	0.00426
KOC INVEST	0.00179	-0.01224	0.00341	0.01407	1.46435	-0.40832	0.00506	-0.41380	0.03204	0.35509	0.00427
OYAKBANK	0.00166	-0.01332	0.00302	0.01407	1.61302	-0.36517	0.00494	-0.37066	0.03585	0.34568	0.00422
T.C.ZIRAAT BANK	0.00163	-0.00705	0.00260	0.01413	1.86223	-0.68633	0.00488	-0.69182	0.04224	0.34223	0.00428
TEB INVET	0.00152	-0.01525	0.00265	0.01403	1.78218	-0.30932	0.00480	-0.31480	0.04019	0.33619	0.00415
T.SINAI KALKINMA BANK	0.00156	-0.01473	0.00285	0.01419	1.67082	-0.32295	0.00484	-0.32843	0.03734	0.33520	0.00415
T.VAKIFLAR BANK	0.00174	-0.00967	0.00360	0.01410	1.37347	-0.51114	0.00500	-0.51662	0.02972	0.35064	0.00417
YAPI KREDI INVEST	0.00167	-0.01101	0.00808	0.01539	0.60260	-0.44254	0.00493	-0.44803	0.00996	0.31656	0.00314

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YATIRIM FINANCE	0.00158	-0.01217	0.00252	0.01404	1.90097	-0.39326	0.00485	-0.39875	0.04323	0.34062	0.00425
YAPI KREDI BANK	0.00165	-0.02018	0.00378	0.01422	1.28282	-0.24052	0.00496	-0.24600	0.02739	0.34127	0.00404
ZIRAAT INVEST	0.00158	-0.01584	0.00357	0.01418	1.33953	-0.30211	0.00487	-0.30760	0.02885	0.33755	0.00402
<b>2004</b>											
Fund Name	<b>ri</b>	<b>beta</b>	<b><math>\sigma_i</math></b>	<b>DD</b>	<b>Sharpe</b>	<b>Treynor</b>	<b>Jensen</b>	<b>T2</b>	<b>M2</b>	<b>Sortino</b>	<b>Fama</b>
AKBANK T.A.S.	0.00076	0.03714	0.00243	0.01498	0.67332	0.04398	0.00156	0.04205	0.00993	0.10901	0.00137
ALTERNATIFBANK.	0.00076	0.04227	0.00277	0.01502	0.59029	0.03864	0.00155	0.03670	0.00847	0.10876	0.00133
ATA INVEST	0.00061	0.05624	0.00395	0.01568	0.37436	0.02632	0.00137	0.02438	0.00466	0.09444	0.00105
BANKEUROPA	0.00070	0.06487	0.00403	0.01538	0.39009	0.02424	0.00145	0.02230	0.00494	0.10227	0.00113
DENIZBANK	0.00071	-0.00164	0.00064	0.01463	2.46589	-0.96259	0.00158	-0.96453	0.04153	0.10804	0.00151
FINANSBANK	0.00073	0.03726	0.00258	0.01487	0.62047	0.04290	0.00153	0.04096	0.00900	0.10752	0.00132
GARANTI BANK	0.00073	0.03288	0.00223	0.01485	0.71647	0.04853	0.00153	0.04659	0.01069	0.10743	0.00135
GARANTI INVEST	0.00071	0.05533	0.00339	0.01516	0.46752	0.02863	0.00148	0.02670	0.00630	0.10451	0.00121
T.HALK BANK	0.00080	0.02365	0.00160	0.01474	1.03934	0.07048	0.00162	0.06854	0.01639	0.11309	0.00149
HSBC BANK	0.00065	0.03928	0.00276	0.01502	0.54982	0.03864	0.00144	0.03671	0.00776	0.10107	0.00121
T.IS BANK	0.00075	0.01711	0.00144	0.01482	1.12909	0.09496	0.00159	0.09303	0.01797	0.10967	0.00147
KOCBANK	0.00073	0.04754	0.00308	0.01504	0.51942	0.03371	0.00151	0.03177	0.00722	0.10654	0.00126
KOC INVEST	0.00077	0.04737	0.00309	0.01500	0.53019	0.03461	0.00155	0.03268	0.00741	0.10934	0.00130
OYAKBANK	0.00070	0.03313	0.00188	0.01496	0.83487	0.04735	0.00150	0.04541	0.01278	0.10484	0.00136
T.C.ZIRAAT BANK	0.00077	0.02825	0.00197	0.01487	0.83466	0.05811	0.00159	0.05618	0.01278	0.11039	0.00143
TEB INVET	0.00065	0.04262	0.00216	0.01502	0.70193	0.03565	0.00144	0.03371	0.01044	0.10117	0.00128
T.SINAI KALKINMA BANK	0.00070	0.03273	0.00214	0.01512	0.73481	0.04809	0.00151	0.04615	0.01102	0.10412	0.00134
T.VAKIFLAR BANK	0.00074	0.03795	0.00232	0.01496	0.69430	0.04247	0.00154	0.04054	0.01030	0.10773	0.00136
YAPI KREDI INVEST	0.00074	0.04851	0.00293	0.01504	0.54993	0.03317	0.00151	0.03123	0.00776	0.10701	0.00129

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YATIRIM FINANCE	0.00081	0.02942	0.00202	0.01489	0.83467	0.05721	0.00163	0.05528	0.01278	0.11308	0.00146
YAPI KREDI BANK	0.00078	0.03112	0.00617	0.01576	0.26698	0.05297	0.00159	0.05103	0.00277	0.10462	0.00097
ZIRAAT INVEST	0.00077	0.03619	0.00240	0.01490	0.68395	0.04531	0.00157	0.04337	0.01012	0.11007	0.00138
<b>2005</b>											
Fund Name	<b>ri</b>	<b>beta</b>	<b><math>\sigma_i</math></b>	<b>DD</b>	<b>Sharpe</b>	<b>Treynor</b>	<b>Jensen</b>	<b>T2</b>	<b>M2</b>	<b>Sortino</b>	<b>Fama</b>
AKBANK T.A.S.	0.00067	-0.00451	0.00129	0.00759	1.69186	-0.48620	0.00221	-0.48949	0.02274	0.28861	0.00191
ALTERNATIFBANK.	0.00053	-0.00491	0.00121	0.00764	1.69214	-0.41772	0.00207	-0.42101	0.02275	0.26856	0.00179
ATA INVEST	0.00057	-0.00770	0.00149	0.00760	1.40167	-0.27140	0.00212	-0.27468	0.01828	0.27529	0.00177
BANKEUROPA	0.00066	-0.00616	0.00140	0.00758	1.55892	-0.35390	0.00220	-0.35718	0.02070	0.28750	0.00188
DENIZBANK	0.00070	0.00329	0.00145	0.00754	1.53028	0.67343	0.00220	0.67015	0.02026	0.29364	0.00191
FINANSBANK	0.00058	-0.00276	0.00108	0.00760	1.95171	-0.76094	0.00211	-0.76423	0.02674	0.27654	0.00187
GARANTI BANK	0.00055	-0.00317	0.00078	0.00760	2.63149	-0.65053	0.00207	-0.65381	0.03720	0.27166	0.00190
GARANTI INVEST	0.00060	-0.00494	0.00142	0.00762	1.49211	-0.42926	0.00214	-0.43255	0.01967	0.27830	0.00182
T.HALK BANK	0.00063	-0.00616	0.00138	0.00763	1.55045	-0.34805	0.00217	-0.35133	0.02057	0.28107	0.00185
HSBC BANK	0.00065	-0.00540	0.00114	0.00758	1.89851	-0.40181	0.00219	-0.40510	0.02592	0.28600	0.00192
T.IS BANK	0.00055	-0.00315	0.00069	0.00758	3.01784	-0.65782	0.00208	-0.66111	0.04314	0.27302	0.00192
KOCBANK	0.00061	-0.00562	0.00116	0.00757	1.83432	-0.37848	0.00215	-0.38176	0.02493	0.28079	0.00188
KOC INVEST	0.00067	-0.00558	0.00133	0.00757	1.64788	-0.39183	0.00220	-0.39511	0.02207	0.28856	0.00190
OYAKBANK	0.00061	-0.00302	0.00098	0.00760	2.16470	-0.70633	0.00214	-0.70962	0.03002	0.28029	0.00192
T.C.ZIRAAT BANK	0.00064	-0.00116	0.00127	0.00760	1.70441	-1.85759	0.00216	-1.86087	0.02294	0.28421	0.00189
TEB INVET	0.00053	-0.00095	0.00078	0.00761	2.62980	-2.16137	0.00205	-2.16466	0.03717	0.26915	0.00188
T.SINAI KALKINMA BANK	0.00067	-0.00515	0.00125	0.00756	1.75578	-0.42543	0.00221	-0.42871	0.02373	0.28994	0.00192
T.VAKIFLAR BANK	0.00052	-0.00451	0.00105	0.00765	1.93509	-0.45181	0.00205	-0.45510	0.02648	0.26615	0.00181
YAPI KREDI INVEST	0.00060	-0.00236	0.00109	0.00758	1.94415	-0.89824	0.00213	-0.90152	0.02662	0.27999	0.00189

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YATIRIM FINANCE	0.00057	-0.00321	0.00118	0.00763	1.77319	-0.65159	0.00210	-0.65487	0.02399	0.27413	0.00184
YAPI KREDI BANK	0.00068	-0.00218	0.00119	0.00754	1.84948	-1.01024	0.00221	-1.01352	0.02517	0.29186	0.00195
ZIRAAT INVEST	0.00057	-0.00205	0.00067	0.00759	3.10330	-1.01888	0.00209	-1.02216	0.04446	0.27487	0.00194
<b>2006</b>											
Fund Name	<b>ri</b>	<b>beta</b>	<b><math>\sigma_i</math></b>	<b>DD</b>	<b>Sharpe</b>	<b>Treynor</b>	<b>Jensen</b>	<b>T2</b>	<b>M2</b>	<b>Sortino</b>	<b>Fama</b>
AKBANK T.A.S.	0.00041	-0.00450	0.00157	0.01529	-1.24692	0.43597	-0.00197	0.43842	-0.02061	-0.12817	-0.00175
ALTERNATIFBANK.	0.00038	-0.00422	0.00176	0.01535	-1.13086	0.47248	-0.00201	0.47492	-0.01846	-0.12993	-0.00176
ATA INVEST	0.00030	-0.00888	0.00378	0.01571	-0.55006	0.23390	-0.00210	0.23634	-0.00773	-0.13226	-0.00158
BANKEUROPA	0.00020	-0.00317	0.00309	0.01585	-0.70290	0.68545	-0.00218	0.68789	-0.01055	-0.13714	-0.00176
DENIZBANK	0.00017	-0.00438	0.00249	0.01556	-0.88457	0.50318	-0.00222	0.50562	-0.01391	-0.14164	-0.00188
FINANSBANK	0.00036	-0.00450	0.00204	0.01538	-0.98947	0.44804	-0.00203	0.45048	-0.01585	-0.13100	-0.00175
GARANTI BANK	0.00035	-0.00438	0.00176	0.01539	-1.14765	0.46263	-0.00204	0.46507	-0.01877	-0.13158	-0.00179
GARANTI INVEST	0.00023	-0.00735	0.00249	0.01553	-0.85870	0.29136	-0.00216	0.29380	-0.01343	-0.13792	-0.00181
T.HALK BANK	0.00035	-0.00522	0.00152	0.01535	-1.33019	0.38743	-0.00203	0.38987	-0.02215	-0.13170	-0.00182
HSBC BANK	0.00032	-0.00386	0.00192	0.01545	-1.06965	0.53208	-0.00207	0.53452	-0.01733	-0.13303	-0.00180
T.IS BANK	0.00043	-0.00269	0.00106	0.01529	-1.83472	0.72214	-0.00195	0.72459	-0.03147	-0.12720	-0.00180
KOCBANK	0.00031	-0.00301	0.00220	0.01553	-0.93494	0.68430	-0.00207	0.68674	-0.01484	-0.13266	-0.00177
KOC INVEST	0.00028	-0.00274	0.00263	0.01563	-0.79624	0.76319	-0.00210	0.76564	-0.01228	-0.13385	-0.00175
OYAKBANK	0.00037	-0.00315	0.00162	0.01527	-1.23848	0.63561	-0.00201	0.63805	-0.02045	-0.13107	-0.00179
T.C.ZIRAAT BANK	0.00043	-0.00004	0.00181	0.01536	-1.07576	50.77513	-0.00195	50.77758	-0.01744	-0.12678	-0.00171
TEB INVET	0.00032	-0.00306	0.00150	0.01537	-1.37116	0.67042	-0.00206	0.67286	-0.02291	-0.13341	-0.00185
T.SINAI KALKINMA BANK	0.00032	-0.00404	0.00195	0.01544	-1.05093	0.50724	-0.00206	0.50968	-0.01699	-0.13285	-0.00179
T.VAKIFLAR BANK	0.00030	-0.00595	0.00268	0.01556	-0.77347	0.34893	-0.00209	0.35137	-0.01186	-0.13339	-0.00172
YAPI KREDI INVEST	0.00036	-0.00603	0.00392	0.01565	-0.51307	0.33348	-0.00202	0.33592	-0.00704	-0.12843	-0.00149

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YATIRIM FINANCE	0.00034	-0.00125	0.00139	0.01536	-1.46271	1.63317	-0.00204	1.63561	-0.02460	-0.13263	-0.00185
YAPI KREDİ BANK	0.00030	-0.00305	0.00243	0.01559	-0.85484	0.68087	-0.00208	0.68331	-0.01336	-0.13321	-0.00176
ZIRAAT INVEST	0.00035	-0.00475	0.00233	0.01547	-0.86961	0.42632	-0.00204	0.42876	-0.01363	-0.13090	-0.00172