

# **SURVIVOR-BIAS-FREE US MUTUAL FUND GUIDE**

For SAS and ASCII

---

**CRSP<sup>®</sup>**  
Center for Research in Security Prices

105 West Adams, Suite 1700  
Chicago, IL 60603  
Tel: 312.263.6400  
Fax: 312.263.6430  
Email: [Support@crsp.ChicagoBooth.edu](mailto:Support@crsp.ChicagoBooth.edu)

## TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION .....	1
CHAPTER 2: DATA DESCRIPTIONS.....	3
DATA MODEL .....	3
OVERVIEW AND TABLE LIST .....	4
VARIABLE LISTINGS WITHIN TABLES.....	5
APPENDIX A: DATA CODE LISTING.....	16
POLICY CODES.....	16
CRSP STYLE CODE.....	16
LIPPER OBJECTIVE AND CLASSIFICATION CODES .....	25
STRATEGIC INSIGHTS OBJECTIVE CODES .....	36
APPENDIX B: SAS SAMPLE PROGRAMS .....	40
PORTFOLIO.SAS	
SAS SAMPLE PROGRAM 1 .....	40
COMPANIES HELD BY GROWTH FUNDS.SAS	
SAS SAMPLE PROGRAM 2 .....	41
CLASS_OBJ_FREQ.SAS	
SAS SAMPLE PROGRAM 3 .....	43

# CHAPTER 1: INTRODUCTION

---

## INTRODUCTION TO THE CRSP SURVIVOR-BIAS-FREE US MUTUAL FUND DATABASE

The CRSP Mutual Fund Database is designed to facilitate research on the historical performance of open-ended mutual funds by using survivor-bias-free data.

The CRSP Survivor-Bias-Free US Mutual Fund Database includes a history of each mutual fund's name, investment style, fee structure, holdings, and asset allocation. Also included are monthly total returns, monthly total net assets, monthly/daily net asset values, and dividends. Additionally, schedules of rear and front load fees, asset class codes, and management company contact information are provided. All data items are for publicly traded open-end mutual funds and begin at varying times between 1962 and 2008 depending on availability. The database is updated quarterly and distributed with a monthly lag. It is delivered in ASCII and SAS formats.

### FILE OVERVIEW

#### DATA ACCURACY FOR THE CRSP SURVIVOR-BIAS-FREE MUTUAL FUND DATABASE

The CRSP Mutual Fund files are designed for research and educational use. CRSP expends considerable resources in the ongoing effort to check and improve data quality both historically, and in each current update. Data corrections to historical information are made as errors are identified and are detailed in the release notes that accompany each data cut.

Utilizing Lipper and other data as sources for the mutual fund database, CRSP is able to do extensive data cross-checking. Quality Assurance and Quality Control procedures have been used throughout the process of updating the CRSP mutual fund database with data from new sources. This included but was not limited to developing and carrying out testing plans based on process requirements and design and assuring that all steps of the process are documented and executed accordingly.

Results were independently verified by a dedicated group of database researchers which included random sample selection when appropriate.

#### KNOWN BIASES IN MUTUAL FUND DATA

The returns histories are sometimes duplicated in the database. For example, if a fund started in 1962 and split into four share classes in 1993, each new share class of the fund is permitted to inherit the entire return/performance history. This can create a bias when averaging returns across mutual funds.

A selection bias favoring the historical data files of the best past performing private funds that became public does exist. The SEC has recently begun permitting some funds (and eventually probably all funds) with prior returns histories as private funds to add these returns onto the beginning of their public histories. The effect of this is that only the successful private fund histories are included in the database.

#### FILE DEVELOPMENT AND DATA SOURCES

The CRSP Mutual Fund Database was created in 3 stages.

The original CRSP Mutual Fund Database contained open-end mutual fund data beginning December 1961 through December 1995. The database was developed by Mark M. Carhart for his 1995 dissertation submitted to the Graduate School of Business entitled, "Survivor Bias and Persistence in Mutual Fund Performance," to fill a need for lacking data coverage. Funding of the original project was provided by Eugene F. Fama and the Center for Research in Security Prices.

The Center for Research in Security Prices continued Mr. Carhart's work after his graduation. Historical data in the database were collected from printed sources, including the *Fund Scope Monthly Investment Company Magazine*, the *Investment Dealers Digest Mutual Fund Guide*, *Investor's Mutual Fund Guide*, the *United and Babson Mutual Fund Selector*, and the *Wiesenberger Investment Companies Annual Volumes*.

The data were compiled into an annual list of active mutual

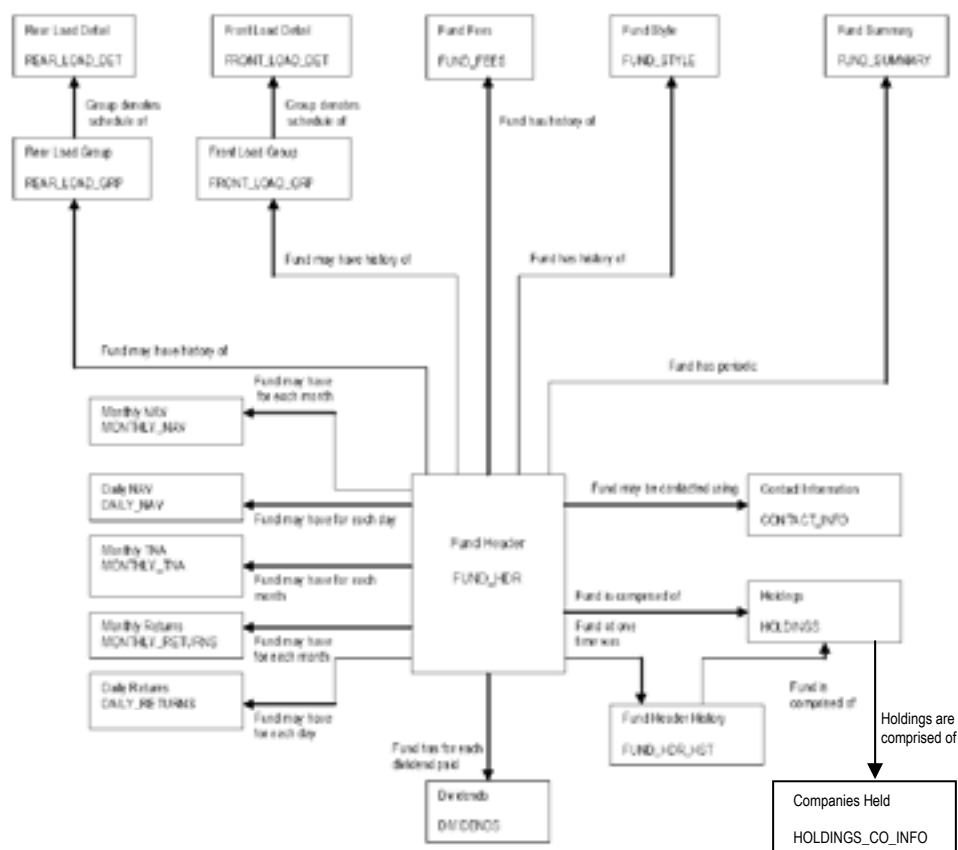
fund names and attributes, along with organizational history such as name changes, mergers, and liquidations. Monthly returns were calculated back to January 1962. Funds that were not in the *Wiesenberger Investment Companies Annual Volumes* or other printed materials were added, although instances of this were rare. As the last step in this second stage, the data were checked against original and secondary sources for any unusual entries and typographical errors.

Beginning with the December 2007 iteration of the database, current and historical data back to August of 1998 are provided electronically by Lipper and Thomson Reuters. New fund style data items have been added to the original database.

## CHAPTER 2: DATA DESCRIPTIONS

### DATA MODEL FOR THE CRSP SURVIVOR-BIAS-FREE US MUTUAL FUND DATABASE

The below data model represents the relationships between the tables found in the database. As depicted, the Fund Header table is the central table for the database. This table contains the most recent information for all funds, both currently active and delisted. From this table researchers may branch out to other tables where information is grouped into categories; for instance Fund Fees, Monthly NAV, Holdings, and so on.



## OVERVIEW AND TABLE LIST

The CRSP Survivor-Bias-Free US Mutual Fund Database provides open-ended mutual fund data beginning December 1961 for funds of all investment objectives, principally equity funds, taxable and municipal bond funds, international funds and money market funds.

The database consists of a group of tables listed in the Table Overview below. Following the Table Overview, a listing of variables and brief descriptions are provided for each individual table. Data availability differing from the December 1961 start date is noted where applicable.

### DATABASE TABLES OVERVIEW

TABLE	NAME	DEFINITION
contact_info	Contact Information	Current and historical contact information
daily_nav	Daily Net Asset Value	Net Asset Value for each trading day
daily_returns	Daily Returns	Returns for each trading day
dividends	Dividends	Fund dividends
front_load_det	Front Load Detail	Details of front load fees
front_load_grp	Front Load Group	Effective dates for front load fees
fund_fees	Fund Fees	Fees associated with each fund
fund_hdr	Fund Header	Most recent identification information for each fund
fund_hdr_hist	Historical Fund Header	Historical identification information for each fund
fund_style	Fund Style	Style attributes for each fund
fund_summary	Fund Summary	Summary data for each fund
holdings	Holdings	Portfolio holding information
holdings_co_info	Holdings Company Information	Information about companies held in portfolios
crsp_portno_map	CRSP PORTNO Map	Map to portfolio for security holdings info
monthly_nav	Monthly Net Asset Value	Net Asset Values as of the last trading day of each month
monthly_returns	Monthly Returns	Monthly holding period returns
monthly_tna	Monthly Total Net Assets	Total Net Assets as of the last trading day of each month
rear_load_det	Rear Load Detail	Details of rear load fees
rear_load_grp	Rear Load Group	Effective dates for rear load fees

## VARIABLE LISTINGS WITHIN TABLES

In the following tables, “\*” designates items on which to key.

### CONTACT INFORMATION “CONTACT\_INFO”

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
*crsp_fundno	INTEGER	Unique identifier for fund	
*chgmt	DATE	Change Date – beginning of range for contact information	
chgenddt	DATE	Change End Date- end of range for contact information	
address1	VARCHAR(40)	Management company address - Line 1	Begins January 2000
address2	VARCHAR(40)	Management company address - Line 2	Begins January 2000
city	VARCHAR(30)	Management company city	Begins January 2000
state	VARCHAR(2)	Management company state	Begins January 2000
zip	CHAR(5)	Management company zip code	Begins January 2000
phone_number	VARCHAR(12)	Management company phone number	Begins January 2000
fund_toll_free	VARCHAR(12)	Fund company toll free number	Begins January 2000
website	VARCHAR(256)	Website address of fund or management company	Begins January 2008

### DAILY NET ASSET VALUE “DAILY\_NAV”

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
*crsp_fundno	INTEGER	Unique identifier for fund	
*caldt	DATE	Calendar date for which daily NAV applies	
dnav	FLOAT	Daily value of the fund's underlying assets (including cash) minus its liabilities (fees, expenses, etc.) divided by the number of shares outstanding.	Begins September 2, 1998

### DAILY RETURNS “DAILY\_RETURNS”

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
*crsp_fundno	INTEGER	Unique identifier for fund	
*caldt	DATE	Calendar date for which return data applies	
dret	FLOAT	Total daily return per share associated with given date. See note below for more details.	Begins September 2, 1998



**NOTE ABOUT RETURNS:**

Daily and monthly returns values are calculated as a change in NAV including reinvested dividends from one period to the next. Navs are net of all management expenses and 12b-fees. Front and rear load fees are excluded.

Returns are calculated as follows:

$$R_t = \left[ \frac{Nav_t * cumfact}{Nav_{t-1}} \right] - 1$$

Where  $t-1$  may be up to 3 periods prior to  $t$ . The *cumfact* variable is calculated for the period in the following manner:

For each fund we calculate a total adjustment factor for each day the fund trades. The total adjustment factor starts out as 1 for a given day and then is modified depending on the types of dividends found for that fund and day.

Adjustment factors for each dividend on a given day are calculated as follows:

If first letter of *dis\_type* is either C or D then  $adj = dis\_amt / reinvest\_nav$

where from the Dividends table,

*adj* = Adjustment Factor

*dis\_amt* = Distribution amount

*reinvest\_nav* = Reinvestment amount of daily or monthly NAV

If the first letter of *dis\_type* is a S then  $adj = 1 / spl\_ratio$

where from the Dividends table,

*adj* = Adjustment Factor

*spl\_ratio* = Split Ratio

The total adjustment factor, *totadj*, for a given day is updated for each dividend as follows:

If the *dis\_type* = S then  $totadj = totadj * adj$

If the *dis\_type* = C or D then the  $totadj = totadj + adj$

The dividend file is sorted in distribution type order which implies that when splits and cash dividends occur on the same day, the cash dividends are processed first.

Finally *cumfact* starts with the value of 1 and is calculated for the period of the return in the following manner: For each day in the holding period,  $cumfact = cumfact * totadj$ .

## DIVIDENDS “DIVIDENDS”

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
*crsp_fundno	INTEGER	Unique identifier for fund	Begins December 1961
*caldt	DATE	Calendar date for which dividend applies	
*dis_type	VARCHAR(2)	<p><b>dis_type      Description</b></p> <p>C              Capital Gain No indication of term</p> <p>CB             Qualified Short Term Capital Gain</p> <p>CH             Non-Qualified Short Term Capital Gain</p> <p>CJ             Pre-JGTRAA (The Jobs and Growth Tax Relief Reconciliation Act of 2003) Long Term Capital Gain</p> <p>CL             Long-Term Capital Gain</p> <p>CM             Medium-Term Capital Gain (ends 199808)</p> <p>CO             Collectibles</p> <p>CP             Super-Long-Term Capital Gain (For securities held more than 5 years)</p> <p>CQ             Section 1202 Capital Gain (Small Business Stock Exclusion &amp; Rollover of Gain Exclusion)</p> <p>CR             Return of Capital</p> <p>CS             Short-Term Capital Gain</p> <p>CT             REIT Section 1250 Capital Gain</p> <p>CU             Undistributed Capital Gain</p> <p>Long-Term (CL), Short-Term (CS), and Mid-Term (CM) Capital Gain codes are defined by the tax code. Most often the short-term gain is for an investment sold at a profit that was held for less than a year. Mid-term capital gain is defined as an investment sold at a profit that was held for more than one year. Mid-term capital gain is effective for the period between July 29, 1997- December 31, 1997, for investments held for more than one year but less than 18 months. In this same period, long-term capital gain is declared on those investments held for more than 18 months.</p> <p><b>dis_type      Description</b></p> <p>D              Income Dividend (ends 199808)</p> <p>DD             Qualified Income Dividend</p> <p>DE             Exempt Income Dividend</p> <p>DG             Non-Qualified Income Dividend</p> <p>DT             Income Dividend</p> <p>DU             Untaxed dividends (ends 199808)</p> <p>DW             Sum of Daily Accrual Dividends</p> <p>DY             Interest Income Dividend</p> <p>S              Split dividend</p> <p>In some cases, a fund may have both Taxable (DT) and Untaxed (DU or DE) Dividends. Tax-exempt funds may have a small portion of a taxable dividend. For tax-exempt funds, most if not all income dividends are exempt from federal income tax. However, it is possible that a tax-exempt fund could earn taxable interest income that would be distributed to shareholders as taxable income dividends.</p>	
dis_amt	FLOAT	Distribution Amount If dis_type = S (Split), dis_amt = 0	
reinvest_nav	FLOAT	Reinvestment Price as reported by the fund. Represents the fund's NAV at which distributions are reinvested. If dis_type = S (Split), reinvest_nav=0	
spl_ratio	FLOAT	Split ratio	

**FRONT LOAD DETAIL “FRONT\_LOAD\_DET”**

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
*crsp_fundno	INTEGER	Unique identifier for fund	
*front_group_no	INTEGER	Front Group Number - Unique identifier for the front load group. This item allows a schedule of front load fees to be grouped together.	
*dollar_amt	INTEGER	Dollar Amount of sales charge. Represents a breakpoint in a schedule of generally declining front load fees. If missing, front_load is the maximum front load for the fund.	Begins 1992
front_load	FLOAT	Front load for investments represents maximum sales charge at breakpoint (represented in decimal format i.e. .075=7.5%)	

**FRONT LOAD GROUP “FRONT\_LOAD\_GRP”**

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
*crsp_fundno	INTEGER	Unique identifier for fund	
*front_group_no	INTEGER	Front Group Number – Unique identifier for the front load group. This item allows a schedule of front load fees to be grouped together.	
begdt	DATE	Load effective date range beginning and ending dates	
enddt	DATE		

**LOAD DETAIL AND LOAD GROUP DATA STRUCTURES:**

The data model uses a group and detail structure to allow efficiency in storing data and to allow the modeling of a schedule of fees. For instance, when a fund offers a schedule of different fees, front load fees often change with the level of investment, each breakpoint in that fee structure will have the same group identifier. A new group for a particular CRSP Fund Number is created only when the fees change. During each update, if the fund continues to charge the same fees, the only change is to the “end date” of the group.

**FUND FEES “FUND\_FEES”**

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
*crsp_fundno	INTEGER	Unique identifier for fund	
*begdt	DATE	Beginning of date range for fee information. For annual data, information is valid for the year portion of the begin date.	
enddt	DATE	End of date range for fee information	
actual_12b1	FLOAT	Reported as the ratio of the total assets attributed to marketing and distribution costs. Represents the actual fee paid in the most recently completed fiscal year as reported in the Annual Report Statement of Operations. Represented in decimal format. <ul style="list-style-type: none"> <li>-99 &amp; 0 (prior to 1998) are used when no 12b-1 fee is reported.</li> </ul>	Begins 1992
max_12b1	FLOAT	Maximum contractual 12b-1 fee. Represented in decimal format. <ul style="list-style-type: none"> <li>A fund with an actual 12b-1 value of -99 may have a max_12b1 fee indicating the maximum even though none is currently being reported.</li> <li>Null values are used when no maximum value is reported.</li> </ul>	Begins 1998
exp_ratio	FLOAT	Expense Ratio as of the most recently completed fiscal year. Represented in decimal format. <p>Ratio of total investment that shareholders pay for the fund's operating expenses, which include 12b-1 fees</p> <p>exp_ratio may include waivers and reimbursements, causing it to appear to be less than the fund management fee.</p>	
mgmt_fee	FLOAT	Management fee (\$)/ Average Net Assets (\$)  The fee is calculated using ratios based on the line items reported in the Statement of Operations. The management fee can be offset by fee waivers and/or reimbursements which will make this value differ from the contractual fees found in the prospectus. Reimbursements can lead to negative Management Fees.	Begins 1998

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
turn_ratio	FLOAT	Fund Turnover Ratio. Minimum (of aggregated sales or aggregated purchases of securities), divided by the average 12-month Total Net Assets of the fund. If fiscal_yearend is present, turn_ratio is for the twelve months ending on fiscal_yearend. If fiscal_yearend is missing, then turn_ratio is for the twelve months ending on the begdt.	
fiscal_yearend	DATE	Effective date used for fees	

**FUND HEADER “FUND\_HDR”**

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
*crsp_fundno	INTEGER	Unique identifier for fund	
*crsp_portno	INTEGER	Portfolio Number  Unique identifier for a security or a group of securities held in the fund's portfolio. A portfolio may be held by one or many different funds.	
crsp_cl_grp	INTEGER	Code used to associate different classes of a fund. Class Codes begin with 2000000.  Codes are created through a name parsing and clean-up exercise and follow these rules: <ul style="list-style-type: none"> <li>If a group of funds have the same resulting base after parsing and cleanup, for any overlapping time period, then they are considered to be sub-classes of the same fund during the overlapping range. If there is no overlap of date ranges, the funds are not considered part of the same group.</li> <li>If two groups share one or more funds, then they are assigned the same CRSP Class Group code.</li> <li>If a group overlaps in time with another group with the same Class Group Code but a different base name, then one of the groups is assigned a different code. This accounts for cases where different funds with multiple subclasses are combined. Each fund will share the class group when they share a base name, but a different group when they do not.</li> </ul> Data available beginning August 31, 1998	CRSP Class
fund_name	VARCHAR(140)	The full name of the fund	
nasdaq	VARCHAR (5)	NASDAQ ticker symbol. Available for NASDAQ listed funds only.	
ncusip	VARCHAR(9)	Fund CUSIP. Available for internal use by client only. Go to <a href="http://www.crsp.ChicagoBooth.edu/crsp/policies/index.html">www.crsp.ChicagoBooth.edu/crsp/policies/index.html</a> for CUSIP licensing information.	
first_offer_dt	DATE	Date when the fund was first offered	
mgmt_name	VARCHAR(80)	Management Company Name	
mgmt_cd	VARCHAR(4)	Management Company Code. An identifier for the Management Company.	December 1999
mgr_name	VARCHAR(30)	Portfolio Manager Name	
mgr_dt	DATE	Date that the current portfolio manager assumed responsibility for the portfolio	
adv_name	VARCHAR(40)	Fund Advisor Name	December 1999
open_to_inv	VARCHAR(1)	Identifies if the fund is open to investors: Y = Yes N = No	December 1999
retail_fund	VARCHAR(1)	Identifies if a fund is a retail fund or not: Y = Yes N = No	December 1999
Inst_fund	VARCHAR(1)	Identifies if a fund is an institutional fund: Y = Yes N = No	December 1999

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
m_fund	VARCHAR(1)	Identifies if a fund was originally a “M” fund: Y = Yes N = No Note: “M” funds are “dead” funds that were introduced to the database when originally built by Mark Carhart in order to eliminate survivor bias.	
index_fund_flag	VARCHAR(3)	Identifies if a fund is an index fund: B = Index-based fund - utilizes indexes as its primary filter for the purchase and sale of securities. This is accomplished by investing in the components of one or more indexes, or by investing in a small percentage of securities within the index in an attempt to capture the best performers. In each case, the option to invest a portion of assets outside the securities held by the index is left open. D = Pure Index fund - objective is to match the total investment performance of a publicly recognized securities market index. The fund will hold virtually all securities in the noted index with weightings equal to those in the index. E = Index fund enhanced - objective is to exceed the total investment performance of a publicly recognized securities market. This is accomplished by investing primarily in derivatives based on the index itself and/or the securities within the index, or by utilizing different weightings for the securities held by the index	June 2008
vau_fund		Y = Fund is a variable annuity underlying fund N = Fund is not a variable annuity underlying fund	
et_flag	VARCHAR(1)	Identifies if a fund is an ETF or ETN: F = ETF N = ETN	
end_dt	DATE	Date of latest NAV data	
dead_flag	VARCHAR(1)	Identifies if a fund is dead or still active: Y = Yes N = No	
delist_cd	VARCHAR(3)	Identifies the reason for the fund delisting:  Delisting Codes (Post September 1998)  <div> <div>Code</div> <div>Description</div> </div> <div> <div>L</div> <div>Liquidation</div> </div> <div> <div>M</div> <div>Merged</div> </div> Delisting Codes(Prior to September 1998)  <div> <div>?</div> <div>Don't know what happened to this fund</div> </div> <div> <div>CE</div> <div>Converted to close-end</div> </div> <div> <div>CLO</div> <div>Closed to new investment – not currently reporting</div> </div> <div> <div>L</div> <div>Liquidated</div> </div> <div> <div>L?</div> <div>Probably Liquidated</div> </div> <div> <div>M</div> <div>Merged</div> </div> <div> <div>M?</div> <div>Probably Merged</div> </div> <div> <div>R</div> <div>Removed at fund request</div> </div> <div> <div>RTO</div> <div>Fund or data for this fund was removed from the database (Data should not have been included)</div> </div> <div> <div>TFE</div> <div>Tax Free Exchange Fund (data was from Wiesenberger)</div> </div> <div> <div>VAS</div> <div>Variable annuity vehicle</div> </div>	
merge_fundno	INTEGER	CRSP Fundno of the fund that acquired the assets of the delisted fund	

## FUND HEADER HISTORY “FUND\_HDR\_HIST”

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
*crsp_fundno	INTEGER	Unique identifier for fund	
*chgdt	DATE	Date that the header information was active	
chgenddt	DATE	Date that the header information became inactive	
*crsp_portno	INTEGER	Portfolio Number  Unique identifier for a security or a group of securities held in the fund's portfolio. A portfolio may be held by one or many different funds.	Available for funds active anytime since July 2003
crsp_cl_grp	INTEGER	Code used to associates different classes of a fund. Class Codes begin with 2000000.  Codes are created through a name parsing and clean-up exercise and follow these rules:  If a group of funds have the same resulting base after parsing and cleanup, for any overlapping time period, then they are considered to be sub-classes of the same fund during the overlapping range. If there is no overlap of date ranges, the funds are not considered part of the same group.  If two groups share one or more funds, then they are assigned the same CRSP Class Group code.  If a froup overlaps in time with another group with the same Class Group Code but a different base name, then one of the groups is assigned a different code. This accounts for cases where different funds with multiple subclasses are combined. Each fund will share the glass group when they share a base name, but a different group when they do not.  Data available beginning August 31, 1998	CRSP Class
fund_name	VARCHAR(140)	The full name of the fund	
nasdaq	VARCHAR (5)	NASDAQ ticker symbol. Available for NASDAQ listed funds only.	
ncusip	VARCHAR(9)	Fund CUSIP. Available for internal use by client only. Go to <a href="http://www.crsp.ChicagoBooth.edu/crsp/policies/index.html">www.crsp.ChicagoBooth.edu/crsp/policies/index.html</a> for CUSIP licensing information.	Begins 2001
first_offer_dt	DATE	Date when the fund was first offered.	
mgmt_name	VARCHAR(80)	Management Company Name	Begins 1993
mgmt_cd	VARCHAR(4)	Management Company Code. An identifier for the Management Company.	Begins December 1999
mgr_name	VARCHAR(30)	Portfolio Manager Name	Begins 1993
mgr_dt	DATE	Date that the current manager took control and assumed responsibility for the portfolio	Begins 1993
adv_name	VARCHAR(40)	Fund Advisor Name	December 1999
open_to_inv	VARCHAR(1)	Identifies if the fund is open to investors: Y = Yes N = No	December 1999
retail_fund	VARCHAR(1)	Identifies if a fund is a retail fund or not: Y = Yes N = No	December 1999
inst_fund	VARCHAR(1)	Identifies if a fund is an institutional fund: Y = Yes N = No	December 1999
m_fund	VARCHAR(1)	Identifies if a fund was originally a "M" fund: Y = Yes N = No	
index_fund_flag	VARCHAR(3)	Identifies if a fund is an index fund: B = Index-based fund D = Index fund E = Index fund enhanced	Begins 2003

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
vau_fund		Y = Fund is a variable annuity underlying fund N = Fund is not a variable annuity underlying fund	
et_flag	VARCHAR(1)	Identifies if a fund is an ETF or ETN: F = ETF N = ETN	

**FUND STYLE “FUND\_STYLE”**

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
*crsp_fundno	INTEGER	Unique identifier for fund	
*begdt	DATE	Beginning date in range for fund style information	
enddt	DATE	End date for range for fund style information	
crsp_obj_cd	VARCHAR(4)	CRSP mapping of Strategic Insights, Wiesenberger, and Lipper objective codes into a continuous series, providing continuity.	CRSPObj
si_obj_cd	VARCHAR(3)	Strategic Insight objective code	Begins 1993 Ends September 1998
accrual_fund	VARCHAR(1)	Yes or No flag identifying if fund is an accrual fund. Yes if there are daily accruals	Begins 1999
sales_restrict	VARCHAR(1)	Yes or No flag identifying if fund has sales restrictions. Yes if it is an affinity or employee-only fund	Begins 1999
wbrger_obj_cd	VARCHAR(5)	Wiesenberger Objective Code used to identify fund strategy. See Appendix A, page 15.	Available through 1993
policy	VARCHAR(6)	Types of securities held by the fund identified by character codes	Available through 1990
lipper_class	VARCHAR(4)	Lipper classification code	Begin December 31, 1999
lipper_class_name	VARCHAR(42)		Begin December 31, 1999
lipper_obj_cd	VARCHAR(3)	Lipper prospectus objective code	Begin June 30, 1998
lipper_obj_name	VARCHAR(42)		Begin June 30, 1998
lipper_asset_cd	VARCHAR(2)	2 character code EQ - Equity Funds TX - Taxable Fixed Income Funds MB - Tax Free Fixed Income Funds	Begin December 31, 1999
lipper_tax_cd	VARCHAR(10)	“Taxable” or “tax exempt”	Begin December 31, 1999

## FUND SUMMARY “FUND\_SUMMARY”

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
*crsp_fundno	INTEGER	Unique identifier for fund	
*caldt	DATE	Effective date for summary data	
summary_period	VARCHAR(1)	A = Annual Q = Quarterly M = Monthly	
nav_latest	FLOAT	Latest Month-end NAV	Begins 1961 with year-end values  Switches to quarterly values in 2000
nav_latest_dt	DATE	Latest Month-end NAV date	
tna_latest	FLOAT	Latest Month-end TNA  Reported in millions, by convention, .01 reflects all total net asset values <=\$100,000.	Begins 1961
tna_latest_dt	DATE	Latest Month-end TNA date	
yield	FLOAT	Income yield  Calculated as the ratio of income distributions and NAV at the end of the period	Begins 1961 with year-end values  Switches to quarterly values in 2000
div_ytd	FLOAT	Calendar year-to-date dividend sum	
cap_gains_ytd	FLOAT	Calendar year-to-date capital gains sum	
nav_52w_h	FLOAT	52 week high NAV	Begins 1998
nav_52w_h_dt	DATE	Date of 52 week high NAV	Begins 1998
nav_52w_l	FLOAT	52 week low NAV	Begins 1998
nav_52w_l_dt	DATE	Date of 52 week low NAV	Begins 1998
unrealized_app_dep	FLOAT	Unrealized appreciation/depreciation reported in thousands	Begins 1998
unrealized_app_dt	DATE	Effective date for unrealized appreciation/depreciation	Begins 1998
asset_dt	DATE	Effective date of the asset allocations	
per_com	FLOAT	Amount of fund invested in common stocks	
per_pref	FLOAT	Amount of fund invested in preferred stocks	
per_conv	FLOAT	Amount of fund invested in convertible bonds	
per_corp	FLOAT	Amount of fund invested in corporate bonds	
per_muni	FLOAT	Amount of fund invested in municipal bonds	
per_govt	FLOAT	Amount of fund invested in government bonds	
per_oth	FLOAT	Amount of fund invested in other securities	
per_cash	FLOAT	Amount of fund invested in cash	
per_bond	FLOAT	Amount of fund invested in all bonds. Field is zero when a more granular breakdown of bond investments is available. This is a legacy category and will remain empty.	
per_abs	FLOAT	Amount of fund invested in Asset-Backed Securities	Begins October, 2010
per_mbs	FLOAT	Amount of fund invested in Mortgage-Backed Securities	Begins October, 2010
per_eq_oth	FLOAT	Amount of fund invested in other equities	Begins October, 2010
per_fi_oth	FLOAT	Amount of fund invested in other fixed-income securities	Begins October, 2010
maturity	FLOAT	Weighted average maturity in years	
maturity_dt	DATE	Effective date of Weighted average maturity value	



**HOLDINGS “HOLDINGS”**

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
*crsp_portno	INTEGER	Portfolio number is the unique identifier for a security or a group of securities held in a fund's portfolio	
*report_dt	DATE	Date of holdings as reported by CRSP's sources	Begins September 2003
*security_rank	INTEGER	Rank associated with the percentage of total net assets within the portfolio	
eff_dt	DATE	Date holdings information was received from CRSP's vendor. As a result, all effective dates are equal to or more current than report dates in the database.	
percent_tna	FLOAT	Security's percentage of the total net assets in the portfolio. Value on which the security rank is calculated.	
nbr_shares	INTEGER	Number of the security's shares held in the portfolio	
market_val	FLOAT	Market value of the security as of the report date shown on the record	
*crsp_company_key	INTEGER	Unique identifier for company information associated with holdings file	

**HOLDINGS COMPANY INFORMATION “HOLDINGS\_CO\_INFO”**

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
*crsp_company_key	INTEGER	Unique identifier for company information associated with holdings file	
security_name	VARCHAR(200)	Name of the security held	
cusip	VARCHAR(10)	CUSIP associated with the security	
permno	INTEGER	CRSP's permanent stock issue identifier. Available for issues covered in the CRSP universe.	
permco	INTEGER	CRSP's permanent company identifier. Available for companies covered in the CRSP universe.	
ticker	VARCHAR(6)	Ticker symbol given by the exchange	
coupon	FLOAT	Bond coupon rate	
maturity_dt	DATE	Date of bond maturity	

**CRSP PORTNO MAPPING “CRSP\_PORTNO\_MAP”**

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
*crsp_fundno	INTEGER	Unique identifier for fund	
*crsp_portno	INTEGER	Portfolio number is the unique identifier for a security or a group of securities held in a fund's portfolio	
begdt*	DATE	Beginning date for which the map is valid	
enddt	DATE	Ending date for which the map is valid	

**MONTHLY NET ASSET VALUE “MONTHLY\_NAV”**

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
*crsp_fundno	INTEGER	Unique identifier for fund	
*caldt	DATE	Calendar date for which monthly NAV applies	
mnav	FLOAT	Monthly value of the fund's underlying assets (including cash) minus its liabilities (fees, expenses, etc.) divided by the number of shares outstanding.	Begins December 1961

**MONTHLY RETURNS “MONTHLY\_RETURNS”**

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
*crsp_fundno	INTEGER	Unique identifier for fund	
*caldt	DATE	Calendar date for which monthly returns data apply	
mret	FLOAT	Total return per share as of month end. See note below for more details.	Begins December 1961
<b>NOTE ABOUT RETURNS:</b> Please see the note with Daily Returns on page 6.			

**MONTHLY TOTAL NET ASSETS “MONTHLY\_TNA”**

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
*crsp_fundno	INTEGER	Unique identifier for fund	
*caldt	DATE	Calendar date for which monthly TNA applies	
mtna	FLOAT	Monthly TNA is equal to total assets minus total liabilities as of month-end. Reported in millions of dollars.  Beginning in September 1998, 0.1 reflects all total net asset values <= \$100,000.	Begins December 1961, annual data points through 1969, Quarterly through 1990 then Monthly

**REAR LOAD DETAIL “REAR\_LOAD\_DET”**

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
*crsp_fundno	INTEGER	Unique identifier for fund	
*rear_group_no	INTEGER	Rear Group Number - Unique identifier for the rear load group. This item allows a schedule of rear load fees to be grouped together.	
*load_type	VARCHAR(1)	R = Redemption  C = Contingent Deferred Sales Charge (CDSC)  D = The time period for these records are in days and not months as with the other types  O = Historical records in which a distinction wasn't made between the R and C load types. The previous source simply referred to all these rear loads as “other load,” hence the “O.”	
inv_lvl	INTEGER	Dollar amount of investment level	Begins January 2008
*time_period	INTEGER	When investment is held this number of months or less, the associated rear-load fee applies	
rear_load	FLOAT	Fee charged when withdrawing funds	

**REAR LOAD GROUP “REAR\_LOAD\_GRP”**

NAME	DATATYPE	DEFINITION	DATA AVAILABILITY
*crsp_fundno	INTEGER	Unique identifier for fund	
*rear_group_no	INTEGER	Rear Group Number - Unique identifier for the rear load group. This item allows a schedule of rear load fees to be grouped together.	
begdt	DATE	Beginning date for which the group was active	
enddt	DATE	Date for which the group became inactive	

**LOAD DETAIL AND LOAD GROUP DATA STRUCTURES:**

The data model uses a group and detail structure to allow efficiency in storing data and to allow the modeling of a schedule of fees. For instance, when a fund offers a schedule of different fees, front load fees often change with the level of investment, each breakpoint in that fee structure will have the same group identifier. A new group for a particular CRSP Fund Number is created only when the fees change. During each update, if the fund continues to charge the same fees, the only change is to the “end date” of the group.

## APPENDIX A: DATA CODE LISTING

### POLICY CODES

(Fund Style Table. Variable Policy. Page 12)

CODE	DESCRIPTION
B&P	Bond and preferred stocks
Bal	Balanced fund
Bonds	Bonds
C & I	Canadian and international
CS	Common stocks
Flex	Flexible strategy
GS	Government securities
Hedge	Leverage and/or short-selling
I-S	Income fund
Leases	Holds equity in lease contracts
MF	Multi-manager fund
MM	Money market fund
Pfd	Preferred stocks
Spec	Sector or highly speculative fund
TF	Tax-free fund
TFE	Tax-free exchange fund
TFM	Tax-free money market fund

### CRSP STYLE CODE

The CRSP US Survivor-Bias-Free Mutual Funds database includes style and objective codes from three different sources over the life of the database. No single source exists for its full-time range.

- Wiesenberger Objective codes are populated between 1962 – 1993.
- Strategic Insight Objective codes are populated between 1993 – 1998.
- Lipper Objective codes begin 1998.

The CRSP Style Code builds continuity within the database by using the three afore mentioned codes as its base and provides consistency with those codes provided by our different sources.

The CRSP Style Code consists of up to four characters, with each position defined. Reading Left to Right, the four codes represent an increasing level of granularity. For example, a code for a particular mutual fund is EDYG, where:

*E = Equity, D = Domestic, Y = Style, G = Growth*

Codes with less than four characters exist, and it simply means that they are defined to a less granular level.

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LIPPER		STRATEGIC INSIGHTS		WIESENBERGER	
Equity (E)	Domestic (D)	Sector (S)	Gold (G)	AU	Gold Oriented Funds	GLD	Equity Gold	GPM	Gold and Precious Metals
			Health (H)	H	Health/Biotechnology Funds	HLT	Equity USA Health	HLT	Health Sector
			Financial (F)	FS	Financial Services Funds	FIN	Equity USA Financial Sector	FIN	Financial Sector
			Natural Resources (N)	NR	Natural Resources Funds	NTR	Equity Natural Resources & Energy	ENR	Energy/Natural Resources
			Real Estate (R)	RE	Real Estate Funds	RLE	Equity USA Real Estate		
			Technology (T)	TK	Science & Technology Funds	TEC	Equity USA Technology	TCH	Technology Sector
			Utilities (U)	UT	Utility Funds	UTI	Equity USA Utilities	UTL	Utilities
			Consumer Goods (G)	CG	CONSUMER GOODS FUNDS				
			Commodities (C)	CMD	COMMODITIES FUNDS				
			Consumer Services (S)	CS	CONSUMER SERVICES FUNDS				
			Industrials (I)	ID	INDUSTRIALS FUNDS				
			Materials (M)	BM	BASIC MATERIALS FUNDS				
			Telecom (A)	TL	Telecommunication Funds				
						SEC	Equity USA Misc Sectors		
		Cap-based (C)	Large Cap (L)	SP	S&P 500 Index Objective Funds				
			Mid Cap (M)	MC	Mid-Cap Funds	GMC	Equity USA Midcaps		
			Small Cap (S)	SG	Small-Cap Funds	SCG	Equity USA Small Companies	SCG	Small Capitalization Growth
			Micro Cap (I)	MR	Micro-Cap Funds				
		Style (Y)	Growth (G)	CA G	Capital Appreciation Funds Growth Funds	AGG GRO	Equity USA Aggressive Growth Equity USA Growth	G LTG MCG	Growth Long-Term Growth Maximum Capital Gains
			Growth & Income (B)	GI	Growth and Income Funds	GRI ING	Equity USA Growth & Income Equity USA Income & Growth	GCI	Growth and Current Income
			Hedged (H)	LSE EMN ABR DL	Long/Short Equity Funds Equity Market Neutral Funds ABSOLUTE RETURN FUNDS EQUITY LEVERAGE FUNDS				
			Short (S)	DSB	Dedicated Short Bias Funds				
			Income (I)	EI	Equity Income Funds	OPI	Option Income	IEQ	Equity Income
						ENV	Equity USA Environmental		
	Foreign (F)	Regional (R)	Canada (C)	CN	Canadian Funds	ECN	Equity Canada		
			China (Q)	CH	China Region Funds	ECH	Equity Greater China		
			Emerging Markets (M)	EM	Emerging Markets Funds	EID	Equity Global Emerging Markets		
			European (E)	EU	European Region Funds	ERP	Equity European		
			India (I)	INR	INDIA REGION FUNDS				
			Japan (J)	JA	Japanese Funds	EJP JPN	Equity Japan Japanese Equity		
			Latin America (L)	LT	Latin American Funds	ELT	Equity Latin America		
			Pacific (P)	PC	Pacific Region Funds	EPC PAC	Equity Asia Pacific Including Japan Pacific Equity		

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LIPPER	STRATEGIC INSIGHTS	WIESENBERGER
Equity (E)	Foreign (F)	Regional (R)	Pacific Ex Japan (X)	XJ Pacific Ex Japan Funds	EPX Equity Asia Pacific Excluding Japan	
					ESC Equity Single Country	
		Sector (S)	Gold (G)			
			Health (H)	GH GLOBAL HEALTH/ BIOTECHNOLOGY FUNDS		
			Financial (F)	GFS GLOBAL FINANCIAL SERVICES FUNDS		
			Natural Resources (N)	GNR GLOBAL NATURAL RESOURCES FUNDS		
			Real Estate (R)	GRE GLOBAL REAL ESTATE FUNDS IRE INTERNATIONAL REAL ESTATE FUNDS		
			Technology (T)	GTK GLOBAL SCIENCE/ TECHNOLOGY FUNDS		
			Utilities (U)			
			Consumer Goods (G)			
			Commodities (C)			
			Consumer Services (S)			
			Industrials (I)	GIF Global Infrastructure Funds		
			Materials (M)			
			Telecom (A)			
					EGX Equity Global Equity Sector	
		Cap-Based (C)	Large Cap (L)			
			Mid Cap (M)			
			Small Cap (S)	GS Global Small-Cap Funds IS International Small-Cap Funds	EGS Equity Global Small Company EIS Equity International Small Company	
			Micro Cap (I)			
		Style (Y)	Growth (G)		EGG Equity Global Growth EIG Equity International Growth	
			Total Return (T)		EGT Equity Global Total Return EIT Equity International Total Return	
				IF International Funds GL Global Funds	GLE Global Equity	INT International Equity
Fixed Income (I)	Muni (U)	Short Duration (S)	SMD	Short Municipal Debt Funds	LCA TxFr Bd Muni Short CA	
					LFL TxFr Bd Muni Short FL	
					LKY TxFr Bd Muni Short KY	
					LMA TxFr Bd Muni Short MA	
					LMD TxFr Bd Muni Short MD	
					LMI TxFr Bd Muni Short MI	
					LNC TxFr Bd Muni Short NC	
					LNY TxFr Bd Muni Short NY	
					LTN TxFr Bd Muni Short TN	
					LVA TxFr Bd Muni Short VA	
					MSM TxFr Bd Fed Muni Short	

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LIPPER	STRATEGIC INSIGHTS	WIESENBERGER
Fixed Income (I)	Muni (U)	Intermediate Duration (I)	CAT	California Intermdt Municipal Debt Funds	IAZ TxFr Bd Muni Intermediate AZ ICA TxFr Bd Muni Intermediate CA	
			FLT	Florida Intermediate Municipal Debt Fds	ICO TxFr Bd Muni Intermediate CO	
			IMD	Intermediate Municipal Debt Funds	ICT TxFr Bd Muni Intermediate CT IFL TxFr Bd Muni Intermediate FL	
			MAT	Massachusetts Intermediate Muni Debt Fds	IGA TxFr Bd Muni Intermediate GA IHI TxFr Bd Muni Intermediate HI	
			OHT	Ohio Intermediate Municipal Debt Fds	IKS TxFr Bd Muni Intermediate KS IKY TxFr Bd Muni Intermediate KY	
			OST	Other States Intermediate Muni Debt Fds	IMA TxFr Bd Muni Intermediate MA	
			PAT	Pennsylvania Intermediate Muni Debt Fds	IMD TxFr Bd Muni Intermediate MD	
			VAT	Virginia Intermediate Municipal Debt Funds	IMI TxFr Bd Muni Intermediate MI IMN TxFr Bd Muni Intermediate MN	
					IMT TxFr Bd Muni Intermediate MT	
					INC TxFr Bd Muni Intermediate NC	
					IND TxFr Bd Muni Intermediate ND	
					INJ TxFr Bd Muni Intermediate NJ INM TxFr Bd Muni Intermediate NM	
					INY TxFr Bd Muni Intermediate NY IOH TxFr Bd Muni Intermediate OH	
					IOR TxFr Bd Muni Intermediate OR	
					IPA TxFr Bd Muni Intermediate PA ISD TxFr Bd Muni Intermediate SD	
					ITN TxFr Bd Muni Intermediate TN ITX TxFr Bd Muni Intermediate TX	
					IVA TxFr Bd Muni Intermediate VA IVT TxFr Bd Muni Intermediate VT	
					IWA TxFr Bd Muni Intermediate WA	
					IWV TxFr Bd Muni Intermediate WV	
					MIM TxFr Bd Fed Muni Intermediate	
		High Yield (H)			MHY TxFr Bd Fed Muni High Yield	MHY Municipal High-Yield
			AL	Alabama Municipal Debt Funds	MAL TxFr Bd Muni AL MAR TxFr Bd Muni AR	MBD Municipal Bond
			AZ	Arizona Municipal Debt Funds	MAZ TxFr Bd Muni AZ MCA TxFr Bd Muni CA	MSS Municipal Single State
			CAG	California Municipal Debt Funds	MCO TxFr Bd Muni CO MCT TxFr Bd Muni CT	
			CAI	California Insured Municipal Debt Funds	MDE TxFr Bd Muni DE MFL TxFr Bd Muni FL	
			CAS	California Sh-Intmdt Municipal Debt Fds	MGA TxFr Bd Muni GA MGN TxFr Bd Fed Muni General	

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LIPPER	STRATEGIC INSIGHTS	WIESENBERGER
Fixed Income (I)	Muni (U)			CO Colorado Municipal Debt Funds	MHI TxFr Bd Muni HI MIA TxFr Bd Muni IA	
				CT Connecticut Municipal Debt Funds	MID TxFr Bd Muni ID MIL TxFr Bd Muni IL	
				FL Florida Municipal Debt Funds	MIN TxFr Bd Muni IN MIS TxFr Bd Fed Muni Insured	
				FLI Florida Insured Municipal Debt Funds	MKS TxFr Bd Muni KS MKY TxFr Bd Muni KY	
				GA Georgia Municipal Debt Funds	MLA TxFr Bd Muni LA MMA TxFr Bd Muni MA	
				GM General Municipal Debt Funds	MMD TxFr Bd Muni MD MME TxFr Bd Muni ME	
				HI Hawaii Municipal Debt Funds	MMI TxFr Bd Muni MI MMN TxFr Bd Muni MN	
				HM High Yield Municipal Debt Funds	MMO TxFr Bd Muni MO MMS TxFr Bd Muni MS	
				KS Kansas Municipal Debt Funds	MMT TxFr Bd Muni MT MNC TxFr Bd Muni NC	
				KY Kentucky Municipal Debt Funds	MND TxFr Bd Muni ND MNE TxFr Bd Muni NE	
				LA Louisiana Municipal Debt Funds	MNH TxFr Bd Muni NH MNJ TxFr Bd Muni NJ	
				MA Massachusetts Municipal Debt Funds	MNM TxFr Bd Muni NM MNY TxFr Bd Muni NY	
				MD Maryland Municipal Debt Funds	MOH TxFr Bd Muni OH MOK TxFr Bd Muni OK	
				MDI Insured Municipal Debt Funds	MOR TxFr Bd Muni OR MPA TxFr Bd Muni PA	
				MI Michigan Municipal Debt Funds	MPR TxFr Bd Muni PR MRI TxFr Bd Muni RI	
				MN Minnesota Municipal Debt Funds	MSC TxFr Bd Muni SC MSD TxFr Bd Muni SD	
				MO Missouri Municipal Debt Funds	MTN TxFr Bd Muni TN MTX TxFr Bd Muni TX	
				NC North Carolina Municipal Debt Funds	MUT TxFr Bd Muni UT MVA TxFr Bd Muni VA	
				NJ New Jersey Municipal Debt Funds	MVT TxFr Bd Muni VT MWA TxFr Bd Muni WA	
				NY New York Municipal Debt Funds	MWI TxFr Bd Muni WI MWV TxFr Bd Muni WV	
				NYI New York Insured Municipal Debt Funds		
				OH Ohio Municipal Debt Funds		
				OR Oregon Municipal Debt Funds		
				OSS Other States Short-Intmdt Muni Debt Fds		
				OTH Other States Municipal Debt Funds		
				PA Pennsylvania Municipal Debt Funds		
				SC South Carolina Municipal Debt Funds		
				SIM Short-Intmdt Municipal Debt Funds		
				TN Tennessee Municipal Debt Funds		

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LIPPER		STRATEGIC INSIGHTS		WIESENBERGER		
Fixed Income (I)	Muni (U)			TX	Texas Municipal Debt Funds					
				VA	Virginia Municipal Debt Funds					
				WA	Washington Municipal Debt Funds					
	Corporate (C)	Quality (Q)	High Quality (H)	A	Corporate Debt Funds A Rated	CHQ	Tx Bd Corp High Quality	CHY	Corporate High-Yield Bond	
			Medium Quality (M)			CMQ	Tx Bd Corp Medium Quality	CBD	Corporate Bond	
			High Yield (Y)	BBB	Corporate Debt Funds BBB-Rated	CHY	Tx Bd Corp High Yield			
		Duration (D)	Short (S)			CSM	Tx Bd Corp Short			
			Intermediate (I)			CIM	Tx Bd Corp Intermediate			
					CPB	Core Plus Bond Funds	CGN	Tx Bd Corp Bond General		
						CPR	Tx Bd Corp Prime Rate			
	Government (G)	TIPS (T)		IUT	Treasury Inflation Protected Securities					
		Duration (D)	Short (S)	SUS	Short U.S. Government Funds	GSM	Tx Bd USA Govt Short			
				SUT	Short U.S. Treasury Funds					
			Intermediate (I)	IUG	Intermediate U.S. Government Funds	GIM	Tx Bd USA Govt Intermediate			
				SIU	Short-Intermediate U.S. Government Funds					
					GUS	General U.S. Government Fds	GGN	Tx Bd USA Govt General	GOV	Government Securities
				GUT	General U.S. Treasury Funds					
	Money Market (M)	Muni (M)	CAM	California Tax-Exempt Money Market Funds	TAL	TxFr MM Muni AL				
					TAZ	TxFr MM Muni AZ				
			CTM	Connecticut Tax-Exempt Money Market Fds	TBG	TxFr MM Fed Muni Bank Managed				
MAM			Massachusetts Tax-Exempt Money Market Fd	TCA	TxFr MM Muni CA					
				TCT	TxFr MM Muni CT					
MIM			Michigan Tax-Exempt Money Market Funds	TFG	TxFr MM Fed Muni General					
				TFI	TxFr MM Fed Muni Instl					
NUM			New Jersey Tax-Exempt Money Market Funds	TFL	TxFr MM Muni FL					
				TGA	TxFr MM Muni GA					
NYM			New York Tax-Exempt Money Market Funds	TMA	TxFr MM Muni MA					
				TMD	TxFr MM Muni MD					
OHM			Ohio Tax-Exempt Money Market Funds	TMI	TxFr MM Muni MI					
				TMN	TxFr MM Muni MN					
OTM			Other States Tax-Exempt Money Market Fds	TNC	TxFr MM Muni NC					
				TNJ	TxFr MM Muni NJ					
PAM			Pennsylvania Tax-Exempt Money Market Fds	TNY	TxFr MM Muni NY					
				TOH	TxFr MM Muni OH					
				TPA	TxFr MM Muni PA					
		TTN	TxFr MM Muni TN							
		TTX	TxFr MM Muni TX							
		TVA	TxFr MM Muni VA							



LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LIPPER	STRATEGIC INSIGHTS	WIESENBERGER				
Fixed Income (I)	Money Market (M)			IMM	Instl Money Market Funds	SBA Tx MM Bank Govt & Agency	MMF	Money Market Fund		
				ITE	Instl Tax-Exempt Money Market Funds	SBP Tx MM Bank Prime	TFM	Tax-free Money Market		
				ITM	Instl U.S. Treasury Money Market Funds	SBT Tx MM Bank Govt	TMM	Taxable Money Market		
				IUS	Instl U.S. Government Money Market Funds	SCU Tx MM Currency Funds				
						SIA Tx MM Instl Govt & Agency				
						SIP Tx MM Instl Prime				
						SIT Tx MM Instl Govt				
						SPR Tx MM Prime				
						SUA Tx MM Govt & Agency				
						SUT Tx MM Govt				
			USS	U.S. Government Money Market Funds						
			UST	U.S. Treasury Money Market Funds						
	Foreign (F)		Money Market (M)			SBE Tx MM Bank Prime Euro				
						SBY Tx MM Bank Prime Euro Yank				
						SIE Tx MM Instl Prime Euro				
						SIY Tx MM Instl Prime Euro Yank				
						SPE Tx MM Prime Euro				
						SPY Tx MM Prime Euro Yank				
				EMD	Emerging Markets Debt Funds	BGA Tx Bd Pan Americas	IBD	International Bond		
						BGE Tx Bd Global Emerging Market	MTG	Government Mortgage-backed		
GLI				Global Income Funds	BGG Tx Bd Global Govt Bond					
INI				International Income Funds	BGN Tx Bd Global Bond General					
SWM				Short World Multi-Market Income Funds	BGS Tx Bd Global Bond Short					
					GBG Global Bond General					
					GBS Global Bond Short Maturity					
					BGC Global Corporation Fixed Income					
				FLX	Flexible Income Funds	CSI Tx Bd Strategic Income	IFL	Flexible Income		
				GB	General Bond Funds	CVR Convertibles	S	Stability		
			HY	High Current Yield Funds						
			IID	Intermediate Investment Grade Debt Funds						
			MSI	Multi-Sector Income Funds						
			SFI	SPECIALTY FIXED INCOME FUNDS						
			SID	Short Investment Grade Debt Funds						
			SII	Short-Intmdt Investment Grade Debt Funds						
			USO	Ultra-Short Obligations Funds						

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LIPPER		STRATEGIC INSIGHTS		WIESENBERGER									
Mixed FI & Equity (M)	Target Funds (T)			BT	Balanced Target Maturity Funds												
				TM	Target Maturity Funds												
				AGM	Alternative Global Macro Funds	BAL	Asset Allocation USA Balanced	I	Income								
				CV	Convertible Securities Funds	CPF	Asset Allocation USA Preferred	OTH	Other (not classified)								
				FX	Flexible Portfolio Funds			AAL	Asset Allocation								
				GX	Global Flexible Port Funds	EPR	Asset Allocation USA Principle Return	BAL	Balanced								
				I	Income Funds			G-I									
				S	Specialty/Miscellaneous Funds			G-I-S									
				B	Balanced Funds			FLG	Asset Allocation Global Flexible		G-S G-S-I						
													FLX	Asset Allocation USA Flexible	GS		
																BAL	Asset Allocation USA Balanced
IMX	Asset Allocation USA Income	I-S I-S-G S-G-I S-I S-I-G															
Other (O)	Mortgage-backed (M)			LP	Loan Participation Funds	GMA	Tx Bd USA Govt Mortgage Adj Returns										
				ARM	Adjustable Rate Mortgage Funds	GMB	Tx Bd USA Govt Mortgage Backed										
				GNM	GNMA Funds												
				USM	U.S. Mortgage Funds												
	Currency (C)			CRX	CURRENCY FUNDS												
				ACF	Alternative Credit Focus Funds												
				AED	Alternative Event Driven Funds												
				AMS	Alternative Multi-Strategy Funds												
				EMP	Energy MLP Funds												
				MFF	Alternative Managed Futures Fund												
				ALT	Alternative Other Funds												
				STB	Stable Value Funds												

**WIESENBERGER OBJECTIVE CODES**

(Annual Volumes 1962-1993)

(Fund Style Table. Variable fwbrger\_obj\_cd. Page 12)

CODE	DESCRIPTION
G	Growth
I	Income
S	Stability
<b>(ANNUAL VOLUMES 1991-93)</b>	
AAL	Asset allocation
BAL	Balanced
CBD	Corporate bond
CHY	Corporate high-yield bond
ENR	Energy/Natural resources
FIN	Financial sector
GCI	Growth and current income
GOV	Government securities
GPM	Gold and precious metals
HLT	Health sector
IBD	International bond
IEQ	Equity income
IFL	Flexible income
INT	International equity
LTG	Long-term growth
MBD	Municipal bond
MCG	Maximum capital gains
MHY	Municipal high-yield
MMF	Money market fund
MSS	Municipal single state
MTG	Government mortgage-backed
OTH	Other (not classified)
SCG	Small capitalization growth
TCH	Technology sector
TFM	Tax-free money market
TMM	Taxable money market
UTL	Utilities

## LIPPER OBJECTIVE AND CLASSIFICATION CODES

### LIPPER OBJECTIVE CODES

Lipper's objective codes are assigned based on the language that the fund uses in its prospectus to describe how it intends to invest.

### LIPPER FUND CLASSIFICATIONS

Classifications are assigned by Lipper to a specific population of equity funds and are based on how the fund invests. Lipper runs the actual holdings of the fund through an internal model to determine market cap and style versus a benchmark. They will look at U.S. Diversified Equity (USDE) funds and Global and International Equity (WEQ) funds, for example, and assign a classification such as large cap growth or small cap value. Classifications are based on scores for a specific set of portfolio characteristics (P/E, P/B, etc).

For many funds (including all fixed income, all money markets, and some equity funds) the Lipper objective code will equal the classification. This is because underlying holdings for these products are not run through Lipper's model to assign classifications. For USDE and WEQ funds, the classification will be different than the objective.

#### LIPPER OBJECTIVE AND CLASSIFICATION CODES

Fund Style Table. Variables lipper\_class, lipper\_class\_name, lipper\_obj\_cd, lipper\_obj\_name. Page 12)

CODE	OBJECTIVE CLASS NAME	DESCRIPTION
A	Corporate Debt Funds A Rated	Funds invest primarily in corporate debt issues rated A or better or government issues.
ABR	Absolute-Return Funds	Funds that aim for positive returns in all market conditions. The funds are not benchmarked against a traditional long-only market index but rather have the aim of outperforming a cash or risk-free benchmark.
ACF	Alternative Credit Focus Funds	Funds that, by prospectus language, invest in a wide-range of credit-structured vehicles by using either fundamental credit research analysis or quantitative credit portfolio modelling trying to benefit from any changes in credit quality, credit spreads, and market liquidity.
AED	Alternative Event Driven Funds	Funds that, by prospectus language, seek to exploit pricing inefficiencies that may occur before or after a corporate event, such as a bankruptcy, merger, acquisition, or spinoff. Event Driven funds can invest in equities, fixed income instruments (investment grade, high yield, bank debt, convertible debt and distressed), options and other derivatives.
AGM	Alternative Global Macro Funds	Funds that, by prospectus language, invest around the world using economic theory to justify the decision-making process. The strategy is typically based on forecasts and analysis about interest rate trends, the general flow of funds, political changes, government policies, intergovernmental relations, and other broad systemic factors. These funds generally trade a wide range of markets and geographic regions, employing a broad range of trading ideas and instruments.
AL	Alabama Municipal Debt Funds	Funds that limit assets to those securities that are exempt from taxation in Alabama, (double tax-exempt) or city, (triple tax-exempt).
ALT	Alternative Other Funds	Funds that, by prospectus language, seek total returns through the use of alternative investment strategies. These strategies include but are not limited to equity market neutral, long/short equity, global macro, event driven, credit focus or through the use of several different hedge-like strategies.
AMS	Alternative Multi-Strategy Funds	Funds that, by prospectus language, seek total returns through the management of several different hedge-like strategies. These funds are typically quantitatively driven to measure the existing relationship between instruments and in some cases to identify positions in which the risk-adjusted spread between these instruments represents an opportunity for the investment manager.
ARM	Adjustable Rate Mortgage Funds	Funds invest primarily in adjustable rate mortgage securities or other securities collateralized by or representing an interest in mortgages.
AU	Precious Metals Equity Funds	Funds invest primarily in shares of gold mines, gold-oriented mining finance houses, gold coins, or bullion.
AZ	Arizona Municipal Debt Funds	Funds that limit assets to those securities that are exempt from taxation in Arizona, (double tax-exempt) or city, (triple tax-exempt).
B	Balanced Funds	Funds whose primary objective is to conserve principal by maintaining at all times a balanced portfolio of both stocks and bonds. Typically, the stock/bond ratio ranges around 60%/40%.
BBB	Corporate Debt Funds BBB-Rated	Funds invest primarily in corporate and government debt issues rated in the top four grades.

**LIPPER OBJECTIVE AND CLASSIFICATION CODES**

Fund Style Table. Variables lipper\_class, lipper\_class\_name, lipper\_obj\_cd, lipper\_obj\_name. Page 12)

CODE	OBJECTIVE CLASS NAME	DESCRIPTION
BBBL	Corporate BBB_Rated Debt Funds (Leveraged)	Funds that invest primarily in a basket of futures contracts with the aim of reduced volatility and positive returns in any market environment. Investment strategies are based on proprietary trading strategies that include the ability to go long and/or short.
BM	Basic Materials Funds	Funds that invest primarily in the equity securities of domestic and foreign companies engaged in manufacturing chemicals; construction materials; glass; paper; forest products, and related packaging products; and metals, minerals, and mining products including steel.
BT	Balanced Target Maturity Funds	Funds that invest to provide a guaranteed return of investment at maturity (targeted periods). A portion of the assets is invested in zero coupon U.S. Treasury securities, while the remainder is in equity securities for long-term growth of capital and income.
CA	Capital Appreciation Funds	Funds that aim at maximum capital appreciation, frequently by means of 100% or more portfolio turnover, leveraging, purchasing unregistered securities, purchasing options, etc. The funds may take large cash positions.
CAG	California Municipal Debt Funds	Funds that limit assets to those securities that are exempt from taxation in California (double tax-exempt) or city (triple tax-exempt).
CAI	California Insured Municipal Debt Funds	Funds invest primarily in those securities that are exempt from taxation in California, and are insured as to timely payment.
CAM	California Tax-Exempt Money Market Funds	Funds invest in municipal obligations of California, (double tax-exempt) or city, (triple tax-exempt) with dollar-weighted average maturities of less than 90 days. Intend to keep a constant NAV.
CAS	California Sh-Intmtd Municipal Debt Funds	Funds invest primarily in municipal debt issues that are exempt from taxation in California, with dollar-weighted average maturities of one to five years.
CAT	California Intermdt Municipal Debt Funds	Funds invest primarily in municipal debt issues that are exempt from taxation in California, with dollar-weighted average maturities of five to ten years.
CG	Consumer Goods Funds	Funds that invest primarily in the equity securities of domestic and foreign companies engaged in manufacturing and distributing consumer goods such as food, beverages, tobacco, and nondurable household goods and personal products.
CH	China Region Funds	Funds that concentrate investments in equity securities whose primary trading markets or operations are in the China region or in a single country within this region.
CMA	Commodities Agriculture Funds	Funds that invest primarily in agricultural commodity-linked derivative instruments or physicals.
CMD	Commodities Funds	Funds that invest primarily in the equity securities of domestic and foreign companies engaged in trading commodities such as food, grains, metals, foreign currencies, future contracts, and financial instruments, which can be interchangeable with another product of the same type.
CME	Commodities Energy Funds	Funds that invest primarily in energy-related commodity-linked derivative instruments or physicals.
CMG	Commodities General Funds	Funds that invest primarily in a blended basket of commodity-linked derivative instruments or physicals.
CMM	Commodities Base Metals Funds	Funds that invest primarily in base-metal commodity-linked derivative instruments or physicals.
CMP	Commodities Precious Metals Funds	Funds that invest primarily in precious-metal commodity-linked derivative instruments or physicals.
CMS	Commodities Specialty Funds	Funds that invest primarily in commodity-linked derivative instruments or physicals of sectors or strategies not previously mentioned. These include leveraged or short-biased offerings.
CN	Canadian Funds	Funds that concentrate investments in equity securities of Canadian companies.
CO	Colorado Municipal Debt Funds	Funds that limit assets to those securities that are exempt from taxation in Colorado, (double tax-exempt) or city, (triple tax-exempt).
CPB	Core Plus Bond Funds	Funds that invest at least 65% in domestic investment-grade debt issues (rated in the top four grades) with any remaining investment in non-benchmark sectors such as high-yield, global and emerging market debt. These funds maintain dollar-weighted average maturities of five to ten years.
CRX	Currency Funds	Funds that invest in US and foreign currencies. This is achieved through the use of short term money market instruments; derivatives (forwards, options, swaps) and cash deposits.
CS	Consumer Services Funds	Funds that invest primarily in the equity securities of domestic and foreign companies engaged in providing consumer services, including the services segment of hotels, restaurants, and other leisure facilities; media production and services; and consumer retail and services.
CT	Connecticut Municipal Debt Funds	Funds that limit assets to those securities that are exempt from taxation in Connecticut, (double tax-exempt) or city, (triple tax-exempt).

**LIPPER OBJECTIVE AND CLASSIFICATION CODES**

Fund Style Table. Variables lipper\_class, lipper\_class\_name, lipper\_obj\_cd, lipper\_obj\_name. Page 12)

CODE	OBJECTIVE CLASS NAME	DESCRIPTION
CTM	Connecticut Tax-Exempt Money Market Funds	Funds invest in municipal obligations of Connecticut state, (double tax-exempt) or city, (triple tax-exempt) with dollar-weighted average maturities of less than 90 days. Intend to keep a constant NAV.
CV	Convertible Securities Funds	Funds invest primarily in convertible bonds and/or convertible preferred stock.
DL	Equity Leverage Funds	Diversified and non-diversified equity funds that seek daily investment results of more than 100% of the daily performance of a stated benchmark through any combination of futures contracts, derivatives, and leverage.
DM	Developed Market Funds	Funds that invest primarily in equity securities whose primary trading markets or operations are in countries (or a single country) outside of the U.S. that are generally considered developed.
DSB	Dedicated Short Bias Funds	Funds that employ portfolio strategies that consistently create a net short exposure to the market. This objective also includes short only funds, i.e. funds that pursue short sales of stock or stock index options.
EI	Equity Income Funds	Funds that, by prospectus language and portfolio practice, seek relatively high current income and growth of income by investing primarily in dividend-paying equity securities. Funds' gross or net yield must be at least 125% of the average gross or net yield of the U.S. diversified equity fund universe.
EIEI	Equity Income Funds	Funds that, by prospectus language and portfolio practice, seek relatively high current income and growth of income by investing primarily in dividend-paying equity securities. This funds' gross or net yield must be at least 125% of the average gross or net yield of the U.S. diversified equity fund universe.
ELCC	Extended U.S. Large-Cap Core Funds	Funds that combine long and short stock selection to invest in a diversified portfolio of U.S. large-cap equities, with a target net exposure of 100% long. Typical strategies vary between 110% long and 10% short to 160% long and 60% short.
EM	Emerging Markets Funds	Funds that seek long-term capital appreciation by investing primarily in emerging market equity securities, where emerging market is defined by a country's GNP per capita or other economic measures.
EMD	Emerging Markets Debt Funds	Funds seek either current income or total return by investing primarily in emerging market debt securities, where emerging market is defined by a country's GNP per capita or other economic measures.
EML	Emerging Markets Local Currency Debt Funds	Funds that seek either current income or total return by investing at least 65% of total assets in emerging market debt issues denominated in the currency of their market of issuance.
EMN	Equity Market Neutral Funds	Funds that employ portfolio strategies that generate consistent returns in both up and down markets by selecting positions with a total net market exposure of zero.
EMP	Energy MLP Funds	Funds that invest primarily in Master Limited Partnerships (MLPs) engaged in the transportation, storage and processing of minerals and natural resources.
EU	European Region Funds	Funds that concentrate investments in equity securities whose primary trading markets or operations are concentrated in the European region or a single country within this region.
FL	Florida Municipal Debt Funds	Funds that limit assets to those securities that are exempt from taxation in Florida, (double tax-exempt) or city, (triple tax-exempt).
FLI	Florida Insured Municipal Debt Funds	In closed-End Funds: Funds that invests primarily in securities that are exempt from taxation in Florida and are insured as to timely payment. Florida insured municipal debt funds will be classified in Single-State Insured Municipal Debt Funds, with objective of Florida Insured Municipal Debt Funds (FLI)
FLT	Florida Intermediate Municipal Debt Funds	Funds invest primarily in municipal debt issues that are exempt from taxation in Florida, with dollar-weighted average maturities of five to ten years.
FLX	Flexible Income Funds	Funds emphasize income generation by investing at least 85% of assets in debt issues and preferred and convertible securities.
FS	Financial Services Funds	Funds invest primarily in equity securities of companies engaged in providing financial services, including but not limited to banks, finance companies, insurance companies, and securities/brokerage firms.
FX	Flexible Portfolio Funds	Funds that allocate investments across various asset classes, including domestic common stocks, bonds, and money market instruments with a focus on total return.
G	Growth Funds	Funds that normally invest in companies with long-term earnings expected to grow significantly faster than the earnings of the stocks represented in the major unmanaged stock indices.
GA	Georgia Municipal Debt Funds	Funds that limit assets to those securities that are exempt from taxation in Georgia, (double tax-exempt) or city, (triple tax-exempt).
GB	General Bond Funds	Funds do not have any quality or maturity restrictions. Intend to keep a bulk of their assets in corporate and government debt issues.

**LIPPER OBJECTIVE AND CLASSIFICATION CODES**

Fund Style Table. Variables lipper\_class, lipper\_class\_name, lipper\_obj\_cd, lipper\_obj\_name. Page 12)

CODE	OBJECTIVE CLASS NAME	DESCRIPTION
GEI	Global Equity Income Funds	Funds that, by prospectus language and portfolio practice, seek relatively high current income and growth of income by investing at least 65% or more of their portfolio in dividend-paying equity securities of domestic and foreign companies
GFS	Global Financial Service Funds	Funds that invest primarily in the equity securities of domestic and foreign companies engaged in providing financial services, including but not limited to banks, finance companies, insurance companies, and securities/brokerage firms.
GH	Global Health/Biotechnology Funds	Funds that invest primarily in the equity securities of domestic and foreign companies engaged in healthcare, medicine and biotechnology.
GI	Growth and Income Funds	Funds that combine a growth-of-earnings orientation and an income requirement for level and/or rising dividends.
GIF	Global Infrastructure Funds	Funds that invest primarily in equity securities of domestic and foreign companies engaged in an infrastructure industry, including but not limited to transportation, communication and waste management.
GL	Global Funds	Funds that invest at least 25% of their portfolio in securities traded outside of the United States and that may own U.S. securities as well.
GLCC	Global Large-Cap Core	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies both inside and outside of the U.S. with market capitalizations (on a three-year weighted basis) greater than 400% of the 75th market capitalization percentile of the S&P/Citigroup World Broad Market Index. Large-cap core funds typically have an average price-to-cash flow ratio, price-to-book ratio, and three-year sales-per-share growth value compared to the S&P/Citigroup World BMI.
GLCG	Global Large-Cap Growth	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies both inside and outside of the U.S. with market capitalizations (on a three-year weighted basis) greater than 400% of the 75th market capitalization percentile of the S&P/Citigroup World Broad Market Index. Large-cap growth funds typically have an above-average price-to-cash flow ratio, price-to-book ratio, and three-year sales-per-share growth value compared to the S&P/Citigroup World BMI.
GLCV	Global Large-Cap Value	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies both inside and outside of the U.S. with market capitalizations (on a three-year weighted basis) greater than 400% of the 75th market capitalization percentile of the S&P/Citigroup World Broad Market Index. Large-cap value funds typically have a below-average price-to-cash flow ratio, price-to-book ratio, and three-year sales-per-share growth value compared to the S&P/Citigroup World BMI.
GLI	Global Income Funds	Funds invest primarily in U.S. dollar and non-U.S. dollar debt securities of issuers located in at least three countries, one of which may be the United States.
GM	General & Insured Municipal Debt Funds	Funds invest primarily in municipal debt issues in the top four credit ratings.
GMLC	Global Multi-Cap Core	Funds that, by portfolio practice, invest in a variety of market capitalization ranges without concentrating 75% of their equity assets in any one market capitalization range over an extended period of time. Multi-cap funds typically have 25% to 75% of their assets invested in companies both inside and outside of the U.S. with market capitalizations (on a three-year weighted basis) above 400% of the 75th market capitalization percentile of the S&P/Citigroup World Broad Market Index. Multi-cap core funds typically have an average price-to-cash flow ratio, price-to-book ratio, and three-year sales-per-share growth value compared to the S&P/Citigroup BMI.
GMLG	Global Multi-Cap Growth	Funds that, by portfolio practice, invest in a variety of market capitalization ranges without concentrating 75% of their equity assets in any one market capitalization range over an extended period of time. Multi-cap funds typically have 25% to 75% of their assets invested in companies both inside and outside of the U.S. with market capitalizations (on a three-year weighted basis) above 400% of the 75th market capitalization percentile of the S&P/Citigroup World Broad Market Index. Multi-cap growth funds typically have an above-average price-to-cash flow ratio, price-to-book ratio, and three-year sales-per-share growth value compared to the S&P/Citigroup BMI.

**LIPPER OBJECTIVE AND CLASSIFICATION CODES**

Fund Style Table. Variables lipper\_class, lipper\_class\_name, lipper\_obj\_cd, lipper\_obj\_name. Page 12)

CODE	OBJECTIVE CLASS NAME	DESCRIPTION
GMLV	Global Multi-Cap Value	Funds that, by portfolio practice, invest in a variety of market capitalization ranges without concentrating 75% of their equity assets in any one market capitalization range over an extended period of time. Multi-cap funds typically have 25% to 75% of their assets invested in companies both inside and outside of the U.S. with market capitalizations (on a three-year weighted basis) above 400% of the 75th market capitalization percentile of the S&P/Citigroup World Broad Market Index. Multi-cap value funds typically have a below-average price-to-cash flow ratio, price-to-book ratio, and three-year sales-per-share growth value compared to the S&P/Citigroup BMI.
GNM	GNMA Funds	Funds invest primarily in Government National Mortgage Association securities.
GNR	Global Natural Resources Funds	Funds that invest primarily in the equity securities of domestic and foreign companies engaged in natural resources.
GRE	Global Real Estate Funds	Funds that invest at least 25% but less than 75% of their equity portfolio in shares of companies engaged in the real estate industry that are strictly outside of the U.S. or whose securities are principally traded outside of the U.S.
GS	Global Small-Cap Funds	Fund that invest at least 25% of their portfolio in securities with primary trading markets outside the United States, and that limits at least 65% of their investments to companies with market capitalizations less than US \$1 billion at the time of purchase.
GSMC	Global Small/Mid-Cap Core	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies both inside and outside of the U.S. with market capitalizations (on a three-year weighted basis) less than 400% of the 75th market capitalization percentile of the S&P/Citigroup World Broad Market Index. Small/mid-cap core funds typically have an average price-to-cash flow ratio, price-to-book ratio, and three-year sales-per-share growth value compared to the S&P/Citigroup World BMI.
GSME	Global Small-/Mid-Cap Funds	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies both inside and outside of the U.S. with market capitalizations (on a three-year weighted basis) below Lipper's global large-cap floor. Combines Global Small/Mid-Cap Value Funds, Global Small/Mid-Cap Core Funds and Global Small/Mid-Cap Growth Funds into a new classification.
GSMG	Global Small/Mid-Cap Growth	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies both inside and outside of the U.S. with market capitalizations (on a three-year weighted basis) less than 400% of the 75th market capitalization percentile of the S&P/Citigroup World Broad Market Index. Small/mid-cap growth funds typically have an above-average price-to-cash flow ratio, price-to-book ratio, and three-year sales-per-share growth value compared to the S&P/Citigroup World BMI.
GSMV	Global Small/Mid-Cap Value	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies both inside and outside of the U.S. with market capitalizations (on a three-year weighted basis) less than 400% of the 75th market capitalization percentile of the S&P/Citigroup World Broad Market Index. Small/mid-cap value funds typically have a below-average price-to-cash flow ratio, price-to-book ratio, and three-year sales-per-share growth value compared to the S&P/Citigroup World BMI.
GTK	Global Science/Technology Funds	Funds that invest primarily in the equity securities of domestic and foreign companies engaged in science and technology.
GUS	General U.S. Government Funds	Funds invest primarily in U.S. government and agency issues.
GUT	General U.S. Treasury Funds	Funds invest primarily in U.S. Treasury bills, notes, and bonds.
GX	Global Flexible Port Funds	Funds that allocate investments across various asset classes, including both domestic and foreign stocks, bonds, and money market instruments focused on total return. At least 25% of portfolio is invested in securities traded outside of the U.S.
H	Health/Biotechnology Funds	Funds invest primarily in shares of companies engaged in health care, medicine, and biotechnology.
HI	Hawaii Municipal Debt Funds	Funds that limit assets to those securities that are exempt from taxation in Hawaii, (double tax-exempt) or city, (triple tax-exempt).
HM	High Yield Funds	Funds invest at least 50% of assets in lower rated municipal debt issues.
HY	High Current Yield Funds	Funds aim at high (relative) current yield from fixed income securities, have no quality or maturity restrictions, and tend to invest in lower grade debt issues.
I	Income Funds	Funds that normally seek a high level of current income through investing in income-producing stocks, bonds, and money market instruments.



**LIPPER OBJECTIVE AND CLASSIFICATION CODES**

Fund Style Table. Variables lipper\_class, lipper\_class\_name, lipper\_obj\_cd, lipper\_obj\_name. Page 12)

CODE	OBJECTIVE CLASS NAME	DESCRIPTION
ID	Industrial Funds	Funds that invest primarily in the equity securities of domestic and foreign companies engaged in manufacturing and distributing capital goods including aerospace and defense, construction, engineering, and building products; electrical equipment; industrial machinery; commercial services and supplies including printing, employment, environmental, and office services; transportation services including airlines and couriers; and marine, road and rail, and transportation infrastructure.
IEI	International Equity Income Funds	Funds that, by prospectus language and portfolio practice, seek relatively high current income and growth of income by investing at least 65% or more of their portfolio in dividend-paying equity securities of foreign companies.
IF	International Funds	Funds that invest their assets in securities with primary trading markets outside of the United States.
IID	Intermediate Investment Grade Debt Funds	Funds invest primarily in investment grade debt issues (rated in top four grades) with dollar-weighted average maturities of five to ten years.
ILCC	International Large-Cap Core	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies strictly outside of the U.S. with market capitalizations (on a three-year weighted basis) greater than 400% of the 75th market capitalization percentile of the S&P/Citigroup World ex-U.S. Broad Market Index. Large-cap core funds typically have an average price-to-cash flow ratio, price-to-book ratio, and three-year sales-per-share growth value compared to the S&P/Citigroup World ex-U.S. BMI.
ILCG	International Large-Cap Growth	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies strictly outside of the U.S. with market capitalizations (on a three-year weighted basis) greater than 400% of the 75th market capitalization percentile of the S&P/Citigroup World ex-U.S. Broad Market Index. Large-cap growth funds typically have an above-average price-to-cash flow ratio, price-to-book ratio, and three-year sales-per-share growth value compared to the S&P/Citigroup World ex-U.S. BMI.
ILCV	International Large-Cap Value	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies strictly outside of the U.S. with market capitalizations (on a three-year weighted basis) greater than 400% of the 75th market capitalization percentile of the S&P/Citigroup World ex-U.S. Broad Market Index. Large-cap value funds typically have a below-average price-to-cash flow ratio, price-to-book ratio, and three-year sales-per-share growth value compared to the S&P/Citigroup World ex-U.S. BMI.
IMD	Intermediate Municipal Debt Funds	Funds invest in municipal debt issues with dollar-weighted average maturities of five to ten years.
IMLC	International Multi-Cap Core	Funds that, by portfolio practice, invest in a variety of market capitalization ranges without concentrating 75% of their equity assets in any one market capitalization range over an extended period of time. Multi-cap funds typically have 25% to 75% of their assets invested in companies strictly outside of the U.S. with market capitalizations (on a three-year weighted basis) above 400% of the 75th market capitalization percentile of the S&P/Citigroup World ex-U.S. Broad Market Index. Multi-cap core funds typically have an average price-to-cash flow ratio, price-to-book ratio, and three-year sales-per-share growth value compared to the S&P/Citigroup World ex-U.S. BMI.
IMLG	International Multi-Cap Growth	Funds that, by portfolio practice, invest in a variety of market capitalization ranges without concentrating 75% of their equity assets in any one market capitalization range over an extended period of time. Multi-cap funds typically have 25% to 75% of their assets invested in companies strictly outside of the U.S. with market capitalizations (on a three-year weighted basis) above 400% of the 75th market capitalization percentile of the S&P/Citigroup World ex-U.S. Broad Market Index. Multi-cap growth funds typically have an above-average price-to-cash flow ratio, price-to-book ratio, and three-year sales-per-share growth value compared to the S&P/Citigroup World ex-U.S. BMI.
IMLV	International Multi-Cap Value	Funds that, by portfolio practice, invest in a variety of market capitalization ranges without concentrating 75% of their equity assets in any one market capitalization range over an extended period of time. Multi-cap funds typically have 25% to 75% of their assets invested in companies strictly outside of the U.S. with market capitalizations (on a three-year weighted basis) above 400% of the 75th market capitalization percentile of the S&P/Citigroup World ex-U.S. Broad Market Index. Multi-cap value funds typically have a below-average price-to-cash flow ratio, price-to-book ratio, and three-year sales-per-share growth value compared to the S&P/Citigroup World ex-U.S. BMI.
IMM	Instl Money Market Funds	Funds invest in high quality financial instruments rated in top 2 grades w/ dollar-weighted average maturities < 90 days. Require high minimum investments & have lower total expense ratios relative to other MM funds. Intend to keep a constant NAV.

**LIPPER OBJECTIVE AND CLASSIFICATION CODES**

Fund Style Table. Variables lipper\_class, lipper\_class\_name, lipper\_obj\_cd, lipper\_obj\_name. Page 12)

CODE	OBJECTIVE CLASS NAME	DESCRIPTION
INI	International Income Funds	Funds invest primarily in non-U.S. dollar and U.S. dollar debt securities of issuers located in at least three countries, excluding the U.S., except in periods of market weakness.
INR	India Region Funds	Funds that concentrate their investments in equity securities with primary trading markets or operations concentrated in the India region.
IRE	International Real Estate Funds	Funds that invest at least 75% of their equity portfolio in shares of companies engaged in the real estate industry that are strictly outside of the U.S. or whose securities are principally traded outside of the U.S.
IS	International Small-Cap Funds	Funds that invest at least 65% of their assets in equity securities of non-United States companies with market capitalizations less than US \$1 billion at time of purchase.
ISMC	International Small/Mid-Cap Core	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies strictly outside of the U.S. with market capitalizations (on a three-year weighted basis) less than 400% of the 75th market capitalization percentile of the S&P/Citigroup World ex-U.S. Broad Market Index. Small/mid-cap core funds typically have an average price-to-cash flow ratio, price-to-book ratio, and three-year sales-per-share growth value compared to the S&P/Citigroup World ex-U.S. BMI.
ISMG	International Small/Mid-Cap Growth	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies strictly outside of the U.S. with market capitalizations (on a three-year weighted basis) less than 400% of the 75th market capitalization percentile of the S&P/Citigroup World ex-U.S. Broad Market Index. Small/mid-cap growth funds typically have an above-average price-to-cash flow ratio, price-to-book ratio, and three-year sales-per-share growth value compared to the S&P/Citigroup World ex-U.S. BMI.
ISMV	International Small/Mid-Cap Value	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies strictly outside of the U.S. with market capitalizations (on a three-year weighted basis) less than 400% of the 75th market capitalization percentile of the S&P/Citigroup World ex-U.S. Broad Market Index. Small/mid-cap value funds typically have a below-average price-to-cash flow ratio, price-to-book ratio, and three-year sales-per-share growth value compared to the S&P/Citigroup World ex-U.S. BMI.
ITE	Instl Tax-Exempt Money Market Funds	Funds invest in municipal obligations w/ dollar-weighted average maturities of less than 90 days. Funds require high minimum investments, have lower total expense ratios relative to other money market funds, intend to keep a constant NAV.
ITM	Instl U.S. Treasury Money Market Funds	Funds invest principally in U.S. Treasury obligations with dollar-weighted average maturities of < 90 days. Funds require high minimum investments and have lower total expense ratios relative to other money market funds. Intend to keep a constant NAV.
IUG	Intermediate U.S. Government Funds	Funds invest primarily in securities issued or guaranteed by the U.S. government, its agencies, or its instrumentalities, with dollar-weighted average maturities of five to ten years.
IUS	Instl U.S. Government Money Market Funds	Funds invest principally in financial instruments issued or guaranteed by the U.S. government, its agencies, or instrumentalities with dollar-weighted average maturities of < 90 days. Require high minimum investments, have lower total expense ratios relative to other MM funds. Intend to keep a constant NAV.
IUT	Inflation Protected Bond Funds	Funds that invest primarily in inflation-indexed fixed income securities. Inflation-linked bonds are fixed income securities that are structured to provide protection against inflation.
JA	Japanese Funds	Funds that concentrate investments in equity securities of Japanese companies.
KS	Kansas Municipal Debt Funds	Funds that limit assets to those securities that are exempt from taxation in Kansas, (double tax-exempt) or city, (triple tax-exempt).
KY	Kentucky Municipal Debt Funds	Funds that limit assets to those securities that are exempt from taxation in Kentucky, (double tax-exempt) or city, (triple tax-exempt).
LA	Louisiana Municipal Debt Funds	Funds limit assets to those securities that are exempt from taxation in Louisiana, (double tax-exempt) or city, (triple tax-exempt).
LCCE	Large-Cap Core Funds	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies with market capitalizations (on a three-year weighted basis) greater than 300% of the dollar-weighted median market capitalization of the middle 1,000 securities of the S&P SuperComposite 1500 Index. Large-cap core funds have more latitude in the companies in which they invest. These funds typically have an average price-to-earnings ratio, price-to-book ratio, and three-year sales-per-share growth value, compared to the S&P 500 Index.

**LIPPER OBJECTIVE AND CLASSIFICATION CODES**

Fund Style Table. Variables lipper\_class, lipper\_class\_name, lipper\_obj\_cd, lipper\_obj\_name. Page 12)

CODE	OBJECTIVE CLASS NAME	DESCRIPTION
LCGE	Large-Cap Growth Funds	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies with market capitalizations (on a three-year weighted basis) greater than 300% of the dollar-weighted median market capitalization of the middle 1,000 securities of the S&P SuperComposite 1500 Index. Large-cap growth funds typically have an above-average price-to-earnings ratio, price-to-book ratio, and three-year sales-per-share growth value, compared to the S&P 500 Index.
LCVE	Large-Cap Value Funds	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies with market capitalizations (on a three-year weighted basis) greater than 300% of the dollar-weighted median market capitalization of the middle 1,000 securities of the S&P SuperComposite 1500 Index. Large-cap value funds typically have a below-average price-to-earnings ratio, price-to-book ratio, and three-year sales-per-share growth value, compared to the S&P 500 Index.
LP	Loan Participation Funds	Funds that invest primarily in participation interests in collateralized senior corporate loans which have floating or variable rates.
LSE	Long/Short Equity Funds	Funds that employ portfolio strategies that combine long holdings of equities with short sales of equity, equity options, or equity index options, the fund may be either net long or net short depending on the portfolio manager's view of the market.
LT	Latin American Funds	Funds that concentrate investments in equity securities with primary trading markets or operations concentrated in the Latin American region or in a single country within this region.
MA	Massachusetts Municipal Debt Funds	Funds that limit assets to those securities that are exempt from taxation in Massachusetts, (double tax-exempt) or city, (triple tax-exempt).
MAM	Massachusetts Tax-Exempt Money Market Fd	Funds invest in municipal obligations of Massachusetts state, (double tax-exempt) or city, (triple tax-exempt) with dollar-weighted average maturities of less than 90 days. Intend to keep a constant NAV.
MAT	Massachusetts Intermediate Muni Debt Funds	Funds invest primarily in municipal debt issues that are exempt from taxation in Massachusetts, with dollar-weighted average maturities of five to ten years.
MATA	Mixed-Asset Target 2010 Funds	Funds that seek to maximize assets for retirement or other purposes with an expected time horizon not to exceed the year 2010.
MATB	Mixed-Asset Target 2020 Funds	Funds that seek to maximize assets for retirement or other purposes with an expected time horizon from January 1, 2016 to December 31,2020.
MATC	Mixed-Asset Target 2030 Funds	Funds that seek to maximize assets for retirement or other purposes with an expected time horizon from January 1, 2026 to December 31,2030.
MATD	Mixed-Asset Target 2035 Funds	Funds that seek to maximize assets for retirement or other purposes with an expected time horizon from January 1, 2031 to December 31,2035.
MATE	Mixed-Asset Target 2050+ Funds	Funds that seek to maximize assets for retirement or other purposes with an expected time horizon exceeding the year 2045.
MATF	Mixed-Asset Target 2015 Funds	Funds that seek to maximize assets for retirement or other purposes with an expected time horizon from January 1, 2011 to December 31,2015.
MATG	Mixed-Asset Target 2025 Funds	Funds that seek to maximize assets for retirement or other purposes with an expected time horizon from January 1, 2021 to December 31,2025.
MATH	Mixed-Asset Target 2040 Funds	Funds that seek to maximize assets for retirement or other purposes with an expected time horizon from January 1, 2036 to December 31,2040.
MATI	Mixed-Asset Target 2045 Funds	Funds that seek to maximize assets for retirement or other purposes with an expected time horizon from January 1, 2041 to December 31,2045.
MATJ	Mixed-Asset Target Today Funds	Funds that, by portfolio practice, maintain a conservative mix of equity, bonds, cash, and cash equivalents designed to provide income to investors who are in or close to retirement.
MATK	Mixed-Asset Target 2055+	Funds that seek to maximize assets for retirement or other purposes with an expected time horizon exceeding December 31, 2050.
MC	Mid-Cap Funds	Funds that by prospectus or portfolio practice invest primarily in companies with market capitalizations less than \$5 billion at the time of purchase.

**LIPPER OBJECTIVE AND CLASSIFICATION CODES**

Fund Style Table. Variables lipper\_class, lipper\_class\_name, lipper\_obj\_cd, lipper\_obj\_name. Page 12)

CODE	OBJECTIVE CLASS NAME	DESCRIPTION
MCCE	Mid-Cap Core Funds	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies with market capitalizations (on a three-year weighted basis) less than 300% of the dollar-weighted median market capitalization of the middle 1,000 securities of the S&P SuperComposite 1500 Index. Mid-cap core funds have more latitude in the companies in which they invest. These funds typically have an average price-to-earnings ratio, price-to-book ratio, and three-year sales-per-share growth value, compared to the S&P MidCap 400 Index.
MCGE	Mid-Cap Growth Funds	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies with market capitalizations (on a three-year weighted basis) less than 300% of the dollar-weighted median market capitalization of the middle 1,000 securities of the S&P SuperComposite 1500 Index. Mid-cap growth funds typically have an above-average price-to-earnings ratio, price-to-book ratio, and three-year sales-per-share growth value, compared to the S&P MidCap 400 Index.
MCVE	Mid-Cap Value Funds	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies with market capitalizations (on a three-year weighted basis) less than 300% of the dollar-weighted median market capitalization of the middle 1,000 securities of the S&P SuperComposite 1500 Index. Mid-cap value funds typically have a below-average price-to-earnings ratio, price-to-book ratio, and three-year sales-per-share growth value, compared to the S&P MidCap 400 Index.
MD	Maryland Municipal Debt Funds	Funds that limit assets to those securities that are exempt from taxation in Maryland, (double tax-exempt) or city, (triple tax-exempt).
MDI	Insured Municipal Debt Funds	Funds invest primarily in municipal debt issues insured as to timely payment.
MFF	Alternative Managed Futures Funds	Funds that invest primarily in a basket of futures contracts with the aim of reduced volatility and positive returns in any market environment. Investment strategies are based on proprietary trading strategies that include the ability to go long and/or short.
MI	Michigan Municipal Debt Funds	Funds that limit assets to those securities that are exempt from taxation in Michigan, (double tax-exempt) or city, (triple tax-exempt).
MIM	Michigan Tax-Exempt Money Market Funds	Funds invest in municipal obligations of Michigan state (double tax-exempt) or city (triple tax-exempt) with dollar-weighted average maturities of less than 90 days. Intend to keep a constant NAV.
MLCE	Multi-Cap Core Funds	Funds that, by portfolio practice, invest in a variety of market capitalization ranges without concentrating 75% of their equity assets in any one market capitalization range over an extended period of time. Multi-cap funds typically have between 25% to 75% of their assets invested in companies with market capitalizations (on a three-year weighted basis) above 300% of the dollar-weighted median market capitalization of the middle 1,000 securities of the S&P SuperComposite 1500 Index. Multi-cap core funds have more latitude in the companies in which they invest. These funds typically have an average price-to-earnings ratio, price-to-book ratio, and three-year sales-per-share growth value, compared to the S&P SuperComposite 1500 Index.
MLGE	Multi-Cap Growth Funds	Funds that, by portfolio practice, invest in a variety of market capitalization ranges without concentrating 75% of their equity assets in any one market capitalization range over an extended period of time. Multi-cap funds typically have between 25% to 75% of their assets invested in companies with market capitalizations (on a three-year weighted basis) above 300% of the dollar-weighted median market capitalization of the middle 1,000 securities of the S&P SuperComposite 1500 Index. Multi-cap growth funds typically have an above-average price-to-earnings ratio, price-to-book ratio, and three-year sales-per-share growth value, compared to the S&P SuperComposite 1500 Index.
MLVE	Multi-Cap Value Funds	Funds that, by portfolio practice, invest in a variety of market capitalization ranges without concentrating 75% of their equity assets in any one market capitalization range over an extended period of time. Multi-cap funds typically have between 25% to 75% of their assets invested in companies with market capitalizations (on a three-year weighted basis) above 300% of the dollar-weighted median market capitalization of the middle 1,000 securities of the S&P SuperComposite 1500 Index. Multi-cap value funds typically have a below-average price-to-earnings ratio, price-to-book ratio, and three-year sales-per-share growth value, compared to the S&P SuperComposite 1500 Index.
MM	Money Market Funds	Funds invest in high quality financial instruments rated in top two grades with dollar-weighted average maturities of less than 90 days. Intend to keep a constant NAV.
MN	Minnesota Municipal Debt Funds	Funds that limit assets to those securities that are exempt from taxation in Minnesota, (double tax-exempt) or city, (triple tax-exempt).

**LIPPER OBJECTIVE AND CLASSIFICATION CODES**

Fund Style Table. Variables lipper\_class, lipper\_class\_name, lipper\_obj\_cd, lipper\_obj\_name. Page 12)

CODE	OBJECTIVE CLASS NAME	DESCRIPTION
MO	Missouri Municipal Debt Funds	Funds that limit assets to those securities that are exempt from taxation in Missouri, (double tax-exempt) or city, (triple tax-exempt).
MR	Micro-Cap Funds	Funds that by prospectus or portfolio practice invest primarily in companies with market capitalizations less than \$300 million at the time of purchase.
MSI	Multi-Sector Income Funds	Funds seek current income by allocating assets among different fixed income securities sectors, (not primarily in one sector except for defensive purposes), including U.S. & foreign governments, with a significant portion rated below investment grade.
MTAA	Mixed-Asset Target Allocation Aggressive Growth Funds	Fund of funds that, by portfolio practice, maintain at least 80% of assets in equity securities, with the remainder invested in bonds, cash, and cash equivalents.
MTAC	Mixed-Asset Target Alloc Conserv Funds	Funds that by portfolio practice maintain a mix of between 20%-40% equity securities, with the remainder invested in bonds, cash, and cash equivalents.
MTAG	Mixed-Asset Target Alloc Growth Funds	Funds that by portfolio practice maintain a mix of between 60%-80% equity securities, with the remainder invested in bonds, cash, and cash equivalents.
MTAM	Mixed-Asset Target Alloc Moderate Funds	Funds that by portfolio practice maintain a mix of between 40%-60% equity securities, with the remainder invested in bonds, cash, and cash equivalents.
NC	North Carolina Municipal Debt Funds	Funds that limit assets to those securities that are exempt from taxation in North Carolina, (double tax-exempt) or city, (triple tax-exempt).
NJ	New Jersey Municipal Debt Funds	Funds that limit assets to those securities that are exempt from taxation in New Jersey, (double tax-exempt) or city, (triple tax-exempt).
NJM	New Jersey Tax-Exempt Money Market Funds	Funds invest in municipal obligations of New Jersey, (double tax-exempt) or city, (triple tax-exempt) with dollar-weighted average maturities of less than 90 days. Intend to keep a constant NAV.
NR	Natural Resources Funds	Funds invest primarily in natural resources stocks.
NY	New York Municipal Debt Funds	Funds that limit their assets to those securities that are exempt from taxation in New York, (double tax-exempt) or city, (triple tax-exempt).
NYI	New York Insured Municipal Debt Funds	Funds that invest at least 65% of their assets in those securities that are exempt from taxation in New York, and are insured as to timely payment.
NYM	New York Tax-Exempt Money Market Funds	Funds invest in municipal obligations of New York state, (double tax-exempt) or city, (triple tax-exempt) with dollar-weighted average maturities of less than 90 days. Intend to keep constant net asset value.
NYT	New York Intermdt Municipal Debt Funds	Funds invest primarily in municipal debt issues that are exempt from taxation in New York, with dollar-weighted average maturities of five to ten years.
OH	Ohio Municipal Debt Funds	Funds that limit assets to those securities that are exempt from taxation in Ohio, (double tax-exempt) or city, (triple tax-exempt).
OHM	Ohio Tax-Exempt Money Market Funds	Funds invest in municipal obligations of Ohio state, (double tax-exempt) or city, (triple tax-exempt) with dollar-weighted average maturities of less than 90 days. Intend to keep a constant NAV.
OHT	Ohio Intermediate Municipal Debt Funds	Funds invest primarily in municipal debt issues that are exempt from taxation in Ohio, with dollar-weighted average maturities of five to ten years.
OR	Oregon Municipal Debt Funds	Funds that limit assets to those securities that are exempt from taxation in Oregon, (double tax-exempt) or city, (triple tax-exempt).
OSS	Other States Short-Intmdt Muni Debt Funds	Funds invest in municipal debt issues with dollar-weighted average maturities of one to five years and are exempt from taxation on a specified city or state basis.
OST	Other States Intermediate Muni Debt Funds	Funds invest in municipal debt issues with dollar-weighted average maturities of five to ten years and are exempt from taxation on a specified city or state basis.
OTH	Other States Municipal Debt Funds	Funds invest in municipal debt issues with dollar-weighted average maturities of five to ten years and are exempt from taxation on a specified city or state basis.
OTM	Other States Tax-Exempt Money Market Funds	Funds invest in municipal obligations of other states, (double tax-exempt) or city, (triple tax-exempt) with dollar-weighted average maturities of less than 90 days. Intend to keep constant net asset value.
PA	Pennsylvania Municipal Debt Funds	Funds that limit assets to those securities that are exempt from taxation in Pennsylvania, (double tax-exempt) or city, (triple tax-exempt).

**LIPPER OBJECTIVE AND CLASSIFICATION CODES**

Fund Style Table. Variables lipper\_class, lipper\_class\_name, lipper\_obj\_cd, lipper\_obj\_name. Page 12)

CODE	OBJECTIVE CLASS NAME	DESCRIPTION
PAM	Pennsylvania Tax-Exempt Money Market Funds	Funds invest in municipal obligations of Pennsylvania state, (double tax-exempt) or city, (triple tax-exempt) with dollar-weighted average maturities of less than 90 days. Intend to keep constant net asset value.
PAT	Pennsylvania Intermediate Muni Debt Funds	Funds invest primarily in municipal debt issues that are exempt from taxation in Pennsylvania, with dollar-weighted average maturities of five to ten years.
PC	Pacific Region Funds	Funds that concentrate investments in equity securities with primary trading markets or operations concentrated in the Western Pacific Basin region or a single country within this region.
RE	Real Estate Funds	Funds invest primarily in equity securities of domestic and foreign companies engaged in the real estate industry.
S	Specialty/Miscellaneous Funds	Funds that limit fund investments to a specific industry (e.g., transportation, retailing, or paper, etc.) or one that has not been classified into an existing investment objective.
SC	South Carolina Municipal Debt Funds	Funds that limit their assets to those securities that are exempt from taxation in South Carolina (double tax-exempt) or city (triple tax-exempt).
SCCE	Small-Cap Core Funds	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies with market capitalizations (on a three-year weighted basis) less than 250% of the dollar-weighted median of the smallest 500 of the middle 1,000 securities of the S&P SuperComposite 1500 Index. Small-cap core funds have more latitude in the companies in which they invest. These funds typically have an average price-to-earnings ratio, price-to-book ratio, and three-year sales-per-share growth value, compared to the S&P SmallCap 600 Index.
SCGE	Small-Cap Growth Funds	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies with market capitalizations (on a three-year weighted basis) less than 250% of the dollar-weighted median of the smallest 500 of the middle 1,000 securities of the S&P SuperComposite 1500 Index. Small-cap growth funds typically have an above-average price-to-earnings ratio, price-to-book ratio, and three-year sales-per-share growth value, compared to the S&P SmallCap 600 Index.
SCVE	Small-Cap Value Funds	Funds that, by portfolio practice, invest at least 75% of their equity assets in companies with market capitalizations (on a three-year weighted basis) less than 250% of the dollar-weighted median of the smallest 500 of the middle 1,000 securities of S&P SuperComposite 1500 Index. Small-cap value funds typically have a below-average price-to-earnings ratio, price-to-book ratio, and three-year sales-per-share growth value, compared to the S&P SmallCap 600 Index.
SESE	Specialty Diversified Equity Funds	Funds that, by portfolio practice, invest in all market capitalization ranges without restriction. These funds typically have distinctly different strategies and performance, resulting in a low coefficient of determination (r-squared) compared to other U.S. diversified equity funds. Examples of specialty diversified equity funds include enhanced index funds and market short funds.
SFI	Specialty Fixed Income	Funds that by portfolio practice invest in fixed income strategies that are outside Lipper's other fixed income classifications. These funds typically have distinctly different performance and strategies, including the use of short positions and leverage.
SG	Small-Cap Funds	Funds that by prospectus or portfolio practice invest primarily in companies with market capitalizations less than \$1 billion at the time of purchase.
SID	Short Investment Grade Debt Funds	Funds invest primarily in investment grade debt issues (rated in top four grades) with dollar-weighted average maturities of less than three years.
SII	Short-Intmtd Investment Grade Debt Funds	Funds invest primarily in investment grade debt issues (rated in top four grades) with dollar-weighted average maturities of one to five years.
SIM	Short-Intmtd Municipal Debt Funds	Funds invest in municipal debt issues with dollar-weighted average maturities of one to five years.
SIU	Short-Intermediate U.S. Government Funds	Funds invest primarily in securities issued or guaranteed by the U.S. government, its agencies, or its instrumentalities, with dollar-weighted average maturities of one to five years.
SMD	Short Municipal Debt Funds	Funds invest in municipal debt issues with dollar-weighted average maturities of less than three years.
SP	S&P 500 Index Objective Funds	Funds that are passively managed and commit by prospectus language to replicate the performance of the S&P 500 Index, including reinvested dividends. In addition, S&P 500 Index funds have limited expenses (advisor fee no higher than 0.50%).

**LIPPER OBJECTIVE AND CLASSIFICATION CODES**

Fund Style Table. Variables lipper\_class, lipper\_class\_name, lipper\_obj\_cd, lipper\_obj\_name. Page 12)

CODE	OBJECTIVE CLASS NAME	DESCRIPTION
SPSP	S&P 500 Index Objective Funds	Funds that are passively managed and commit by prospectus language to replicate the performance of the S&P 500 Index, including reinvested dividends. In addition, S&P 500 Index funds have limited expenses (advisor fee no higher than 0.50%).
SSIM	Single-State Insured Municipal Debt Funds	In Open-End and Closed-End Funds; Funds that limit assets to those securities exempt from taxation in a specified state (double tax-exempt) or city (triple tax-exempt) and are insured as to timely payment. Due to the introduction of the Single-State Insured Municipal Debt Funds (SSIM) classification, the New York Insured Municipal Debt FUNDS (NYI) and California Insured Municipal Debt Funds (CAI) classifications will not be available after May 23, 2008. These classifications will be collapsed into the Single-State Insured Municipal Debt Funds classification; however, Lipper will continue to maintain the NYI and CAI objectives.
STB	Stable Value Funds	Funds that aim to provide income while limiting price fluctuations by investing primarily in guaranteed investment contracts (GICs) or wrapped bonds (synthetic GICs).
SUS	Short U.S. Government Funds	Funds invest primarily in securities issued or guaranteed by the U.S. government, its agencies, or its instrumentalities, with dollar-weighted average maturities of less than three years.
SUT	Short U.S. Treasury Funds	Fund invests primarily in U.S. Treasury bills, notes and bonds with dollar-weighted average maturities of less than three years.
SWM	Short World Multit-Market Income Funds	Funds that invest in non-U.S. dollar and U.S. dollar debt instruments and, by policy, keep a dollar-weighted average maturity of less than five years.
TEM	Tax-Exempt Money Market Funds	Funds invest in high quality municipal obligations with dollar-weighted average maturities of less than 90 days. Intend to keep a constant net asset value.
TK	Science & Technology Funds	Funds invest primarily in science and technology stocks.
TL	Telecommunication Funds	Funds invest primarily in equity securities of domestic and foreign companies engaged in the development, manufacture, or sales of telecommunications services or equipment.
TM	Target Maturity Funds	Funds invest principally in zero-coupon U.S. Treasury securities or in coupon-bearing U.S. government securities targeted to mature in a specific year.
TN	Tennessee Municipal Debt Funds	Funds that limit its assets to those securities that are exempt from taxation in Tennessee, (double tax-exempt) or city, (triple tax-exempt).
TX	Texas Municipal Debt Funds	Funds that limit their assets to those securities that are exempt from taxation in Texas (double tax-exempt) or city (triple tax-exempt).
USM	U.S. Mortgage Funds	Funds invest primarily in mortgages/securities issued or guaranteed as to principal and interest by the U.S. government and certain federal agencies.
USO	Ultra-Short Obligations Funds	Funds invest primarily in investment grade debt issues, or better, and maintains a portfolio dollar-weighted average maturity between 91 days and 365 days.
USS	U.S. Government Money Market Funds	Funds invest principally in financial instruments issued or guaranteed by the U.S. government, its agencies, or its instrumentalities, with dollar-weighted average maturities of less than 90 days. Intend to keep a constant NAV.
UST	U.S. Treasury Money Market Funds	Funds invest principally in U.S. Treasury obligations with dollar-weighted average maturities of less than 90 days. Intend to keep a constant net asset value.
UT	Utility Funds	Funds invest primarily in utility shares.
VA	Virginia Municipal Debt Funds	Funds that limit their assets to those securities that are exempt from taxation in Virginia, (double tax-exempt) or city, (triple tax-exempt).
VAT	Virginia Intermediate Municipal Debt Funds	Funds that invest at least 65% of its assets in municipal debt issues that are exempt from taxation in Virginia, with dollar-weighted average maturities of five to ten years.
WA	Washington Municipal Debt Funds	Funds that limit their assets to those securities that are exempt from taxation in Washington (double tax-exempt) or city (triple tax-exempt).
XJ	Pacific Ex Japan Funds	Funds that concentrate investments in equity securities with primary trading markets or operations concentrated in the Pacific region (including Asian countries) and that specifically does not invest in Japan.



## STRATEGIC INSIGHTS OBJECTIVE CODES

STRATEGIC INSIGHTS OBJECTIVE CODES - DETAILED	
(Fund Style Table. Variable: si_obj_cd. Page 12)	
CODE	CODE NAME
AGG	Equity USA Aggressive Growth
BAL	Asset Allocation USA Balanced
BGA	Tx Bd Pan Americas
BGC	Global Corporation Fixed Income
BGE	Tx Bd Global Emerging Market
BGG	Tx Bd Global Govt Bond
BGN	Tx Bd Global Bond General
BGS	Tx Bd Global Bond Short
CGN	Tx Bd Corp Bond General
CHQ	Tx Bd Corp High Quality
CHY	Tx Bd Corp High Yield
CIM	Tx Bd Corp Intermediate
CMQ	Tx Bd Corp Medium Quality
CPF	Asset Allocation USA Preferred
CPR	Tx Bd Corp Prime Rate
CSI	Tx Bd Strategic Income
CSM	Tx Bd Corp Short
CVR	Convertibles
ECH	Equity Greater China
ECN	Equity Canada
EGG	Equity Global Growth
EGS	Equity Global Small Company
EGT	Equity Global Total Return
EGX	Equity Global Equity Sector
EID	Equity Global Emerging Markets
EIG	Equity International Growth
EIS	Equity International Small Company
EIT	Equity International Total Return
EJP	Equity Japan
ELT	Equity Latin America
ENV	Equity USA Environmental
EPC	Equity Asia Pacific Including Japan
EPR	Asset Allocation USA Principle Return
EPX	Equity Asia Pacific Excluding Japan
ERP	Equity European
ESC	Equity Single Country
FIN	Equity USA Financial Sector
FLG	Asset Allocation Global Flexible
FLX	Asset Allocation USA Flexible
GBG	Global Bond General
GBS	Global Bond Short Maturity
GGN	Tx Bd USA Govt General
GIM	Tx Bd USA Govt Intermediate

## STRATEGIC INSIGHTS OBJECTIVE CODES - DETAILED

(Fund Style Table. Variable: si\_obj\_cd. Page 12)

CODE	CODE NAME
GLD	Equity Gold
GLE	Global Equity
GMA	Tx Bd USA Govt Mortgage Adj Returns
GMB	Tx Bd USA Govt Mortgage Backed
GMC	Equity USA Midcaps
GRI	Equity USA Growth & Income
GRO	Equity USA Growth
GSM	Tx Bd USA Govt Short
HLT	Equity USA Health
IAZ	TxFr Bd Muni Intermediate AZ
ICA	TxFr Bd Muni Intermediate CA
ICO	TxFr Bd Muni Intermediate CO
ICT	TxFr Bd Muni Intermediate CT
IFL	TxFr Bd Muni Intermediate FL
IGA	TxFr Bd Muni Intermediate GA
IHI	TxFr Bd Muni Intermediate HI
IKS	TxFr Bd Muni Intermediate KS
IKY	TxFr Bd Muni Intermediate KY
IMA	TxFr Bd Muni Intermediate MA
IMD	TxFr Bd Muni Intermediate MD
IMI	TxFr Bd Muni Intermediate MI
IMN	TxFr Bd Muni Intermediate MN
IMT	TxFr Bd Muni Intermediate MT
IMX	Asset Allocation USA Income
INC	TxFr Bd Muni Intermediate NC
IND	TxFr Bd Muni Intermediate ND
ING	Equity USA Income & Growth
INJ	TxFr Bd Muni Intermediate NJ
INM	TxFr Bd Muni Intermediate NM
INY	TxFr Bd Muni Intermediate NY
IOH	TxFr Bd Muni Intermediate OH
IOR	TxFr Bd Muni Intermediate OR
IPA	TxFr Bd Muni Intermediate PA
ISC	TxFr Bd Muni Intermediate SC
ISD	TxFr Bd Muni Intermediate SD
ITN	TxFr Bd Muni Intermediate TN
ITX	TxFr Bd Muni Intermediate TX
IVA	TxFr Bd Muni Intermediate VA
IVT	TxFr Bd Muni Intermediate VT
IWA	TxFr Bd Muni Intermediate WA
IWV	TxFr Bd Muni Intermediate WV
JPN	Japanese Equity
LCA	TxFr Bd Muni Short CA



**STRATEGIC INSIGHTS OBJECTIVE CODES - DETAILED**

(Fund Style Table. Variable: si\_obj\_cd. Page 12)

CODE	CODE NAME
LFL	TxFr Bd Muni Short FL
LKY	TxFr Bd Muni Short KY
LMA	TxFr Bd Muni Short MA
LMD	TxFr Bd Muni Short MD
LMI	TxFr Bd Muni Short MI
LNC	TxFr Bd Muni Short NC
LNY	TxFr Bd Muni Short NY
LTN	TxFr Bd Muni Short TN
LVA	TxFr Bd Muni Short VA
MAL	TxFr Bd Muni AL
MAR	TxFr Bd Muni AR
MAZ	TxFr Bd Muni AZ
MCA	TxFr Bd Muni CA
MCO	TxFr Bd Muni CO
MCT	TxFr Bd Muni CT
MDE	TxFr Bd Muni DE
MFL	TxFr Bd Muni FL
MGA	TxFr Bd Muni GA
MGN	TxFr Bd Fed Muni General
MHI	TxFr Bd Muni HI
MHY	TxFr Bd Fed Muni High Yield
MIA	TxFr Bd Muni IA
MID	TxFr Bd Muni ID
MIL	TxFr Bd Muni IL
MIM	TxFr Bd Fed Muni Intermediate
MIN	TxFr Bd Muni IN
MIS	TxFr Bd Fed Muni Insured
MKS	TxFr Bd Muni KS
MKY	TxFr Bd Muni KY
MLA	TxFr Bd Muni LA
MMA	TxFr Bd Muni MA
MMD	TxFr Bd Muni MD
MME	TxFr Bd Muni ME
MMI	TxFr Bd Muni MI
MMN	TxFr Bd Muni MN
MMO	TxFr Bd Muni MO
MMS	TxFr Bd Muni MS
MMT	TxFr Bd Muni MT
MNC	TxFr Bd Muni NC
MND	TxFr Bd Muni ND
MNE	TxFr Bd Muni NE
MNH	TxFr Bd Muni NH
MNJ	TxFr Bd Muni NJ

**STRATEGIC INSIGHTS OBJECTIVE CODES - DETAILED**

(Fund Style Table. Variable: si\_obj\_cd. Page 12)

CODE	CODE NAME
MNM	TxFr Bd Muni NM
MNY	TxFr Bd Muni NY
MOH	TxFr Bd Muni OH
MOK	TxFr Bd Muni OK
MOR	TxFr Bd Muni OR
MPA	TxFr Bd Muni PA
MPR	TxFr Bd Muni PR
MRI	TxFr Bd Muni RI
MSC	TxFr Bd Muni SC
MSD	TxFr Bd Muni SD
MSM	TxFr Bd Fed Muni Short
MTN	TxFr Bd Muni TN
MTX	TxFr Bd Muni TX
MUT	TxFr Bd Muni UT
MVA	TxFr Bd Muni VA
MVT	TxFr Bd Muni VT
MWA	TxFr Bd Muni WA
MWI	TxFr Bd Muni WI
MWV	TxFr Bd Muni WV
NTR	Equity Natural Resources & Energy
OPI	Option Income
PAC	Pacific Equity
RLE	Equity USA Real Estate
SBA	Tx MM Bank Govt & Agency
SBE	Tx MM Bank Prime Euro
SBP	Tx MM Bank Prime
SBT	Tx MM Bank Govt
SBY	Tx MM Bank Prime Euro Yank
SCG	Equity USA Small Companies
SCU	Tx MM Currency Funds
SEC	Equity USA Misc Sectors
SIA	Tx MM Instl Govt & Agency
SIE	Tx MM Instl Prime Euro
SIP	Tx MM Instl Prime
SIT	Tx MM Instl Govt
SIY	Tx MM Instl Prime Euro Yank
SPE	Tx MM Prime Euro
SPR	Tx MM Prime
SPY	Tx MM Prime Euro Yank
SUA	Tx MM Govt & Agency
SUT	Tx MM Govt
TAL	TxFr MM Muni AL
TAZ	TxFr MM Muni AZ

**STRATEGIC INSIGHTS OBJECTIVE CODES - DETAILED**

(Fund Style Table. Variable: si\_obj\_cd. Page 12)

CODE	CODE NAME
TBG	TxFr MM Fed Muni Bank Managed
TCA	TxFr MM Muni CA
TCT	TxFr MM Muni CT
TEC	Equity USA Technology
TFG	TxFr MM Fed Muni General
TFI	TxFr MM Fed Muni Instl
TFL	TxFr MM Muni FL
TGA	TxFr MM Muni GA
TMA	TxFr MM Muni MA
TMD	TxFr MM Muni MD
TMI	TxFr MM Muni MI
TMN	TxFr MM Muni MN
TNC	TxFr MM Muni NC
TNJ	TxFr MM Muni NJ
TNY	TxFr MM Muni NY
TOH	TxFr MM Muni OH
TPA	TxFr MM Muni PA
TTN	TxFr MM Muni TN
TTX	TxFr MM Muni TX
TVA	TxFr MM Muni VA
UTI	Equity USA Utilities

## APPENDIX B: SAS SAMPLE PROGRAMS

---

The intent of the following sample programs is to demonstrate usage of mutual fund data with SAS.

### PORTFOLIO.SAS SAS SAMPLE PROGRAM 1

---

The intent of this sample program is to demonstrate the relationship between CRSP\_FUNDNO, CRSP\_PORTNO, and crsp\_company\_key using the Holdings, CRSP\_PORTNO Map, and CRSP Company Info tables. Holdings are extracted for a specified fund, but the program may be modified to extract holdings for a group of funds.

```
/*This sample program will retrieve the most recent Holdings information for CRSP_Fundno 002761.
```

```
    An output SAS dataset called portfolio.sas7bdat and an output file in EXCEL called portfolio.xls are created */
```

```
/*Define the libname. The first libname points to the directory where the Mutual Fund database is located.
```

```
The second libname points to the directory where the output files will be saved.*/
```

```
libname mfdb 'C:\crspdata\MFZ200803\sas\data\';
```

```
libname mfdbOut 'C:\Temp\mfdb\';
```

```
/* Retrieve the associated CRSP_portno from crsp_portno_map dataset and retrieve the most recent holdings data from Holdings dataset. */
```

```
proc sql;
```

```
create table temp1 as
```

```
select b.crsp_fundno, a.crsp_portno, a.report_dt, a.security_rank, a.eff_dt, a.percent_tna, a.nbr_shares, a.market_val, a.crsp_company_key
```

```
from mfdb.holdings as a, mfdb.crsp_portno_map as b
```

```
where a.crsp_portno=b.crsp_portno
```

```
and b.crsp_fundno=002761
```

```
group by a.crsp_portno
```

```
having report_dt eq max(report_dt);
```

```
quit;
```

```
/* Retrieve the holdings company information from Holdings_co_info dataset. */
```

```
proc sort data=temp1 out=temp1_order; by crsp_company_key; run;
```

```
data temp2;
```

```
merge temp1_order(in=in1) mfdb.holdings_co_info(in=in2);
```

```
by crsp_company_key;
```

```
if in1 and in2;
```

```
run;
```

```
proc sort data=temp2 out=mfdbOut.portfolio; by security_rank; run;
```

```
/*Delete all temporary datasets.*/
```

```
proc datasets; delete temp1 temp1_order temp2;quit; run;
```

```
/*Export to EXCEL*/
```

```
proc export data=mfdbOut.portfolio
    outfile='c:\temp\mfdb\portfolio.xls'
    dbms=excel
    replace;
run;
```

crso_fundno	crso_portno	report_dt	security_rank	eff_dt	percent_tna	nbr_shares	market_val	crsp_co_key	security_name
2761	1000396	12/31/2007	1	12/31/2007	4.93166861	1014900	99835713	12193	SCHLUMBERGER LTD
2761	1000396	12/31/2007	2	12/31/2007	4.72399866	138300	95631684	5965	GOOGLE INC

---

## COMPANIES HELD BY GROWTH FUNDS.SAS

### SAS SAMPLE PROGRAM 2

---

Users may wish to identify securities held in a fund type and count the number of portfolios within that fund type that hold each of the funds' holdings.

In this sample, using the Lipper Objective Code, Growth funds are selected. Using CRSP\_FUNDNO and CRSP\_PORTNO, portfolios are identified for the funds that are included, and companies within the portfolios are identified by linking CRSP\_PORTNO and crsp\_company\_key. The number of times each company is in a used portfolio is counted and sorted.

```
/* Find the companies most widely held by growth fund portfolios */
/* select funds with portfolio numbers and have "Growth" as their Lipper
Objective Code */
```

```
libname sample 'C:\crspdata\MFX200803\data';
```

```
data funds_w_port (keep = crsp_fundno crsp_portno);
set sample.fund_hdr;
if crsp_portno > ' ';
run;
```

```
data Gfunds_w_port (keep = crsp_fundno crsp_portno lipper_obj_cd);
merge funds_w_port (in=wport) sample.fund_style;
by crsp_fundno;
if wport;
if lipper_obj_cd = 'G';
run;
```

```
proc sql;
```

```
create table Growth_ports as
select unique crsp_portno from gfunfs_w_port;
quit;

/* find and count the companies held be growth portfolios */

data growth_port_companies (keep = crsp_portno crsp_company_key);
merge growth_ports(in = growth) sample.holdings;
by crsp_portno;
if growth;
run;

proc sql;
create table ugrowth_port_companies as
select unique crsp_portno, crsp_company_key
from growth_port_companies;
quit;

proc sql;
create table comp_port_cnt as
select crsp_company_key, count(*) as port_cnt
from ugrowth_port_companies
group by crsp_company_key;

/* merge with company info table to obtain company name, then sort in descending
order*/

data companies_in_growth (keep = security_name port_cnt);
merge comp_port_cnt (in=growcomp) sample.holdings_co_info;
by crsp_company_key;
if growcomp;
run;

/* show the number of portfolios that hold a particular company */

proc sort data = companies_in_growth;
by descending port_cnt;
run;
```

---

## CLASS\_OBJ\_FREQ.SAS

### SAS SAMPLE PROGRAM 3

---

An Objective Frequency table is created that indicates the number and percentage of portfolios each security is held.

```
/* For each Lipper objective code and Class code count the number of portfolios
that hold a given security. */

libname mfdb 'c:\crspdata\MFX200803\data\';

proc sql;

/* Merge Fund style Fund Header and Holdings Tables, assigning the related CRSP_
PORTNO, and lipper_class to each holdings observation */
create table merge as
select distinct lipper_class, lipper_obj_cd, Fund_hdr.crsp_portno, Holdings.crsp_
company_key, Holdings_co_info.security_name
from mfdb.Fund_style, mfdb.Fund_hdr, mfdb.Holdings, mfdb.Holdings_co_info
where lipper_class ne '' AND Fund_style.crsp_fundno = Fund_hdr.crsp_fundno AND
Fund_hdr.crsp_portno = Holdings.crsp_portno AND Holdings.crsp_company_key =
Holdings_co_info.crsp_company_key
order by lipper_class
;
quit;

/* create a frequency report for each lipper class and objective code*/

proc freq data=merge order=freq noprint;
by lipper_class;
tables crsp_company_key / nocum out=classfreq;
quit;

/* re-sort the merge dataset by lipper objective code before creating the
frequency report */

proc sort data=merge;
by lipper_obj_cd;
run;

proc freq data = merge order=freq noprint;
by lipper_obj_cd;
tables crsp_company_key / nocum out=objfreq;
quit;
```