

## Standard & Poor's Indices Versus Active Funds (SPIVA) 2008 年末レポート

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- SPIVA は、米国籍のアクティブ運用型投資信託について、運用スタイルに関する一貫性を保ち、かつ生存者バイアスを考慮した手法で、均等ウェイト及び資産加重ウェイトでのパフォーマンス比較を行うものである。
- 分析に使用されたデータは、CRSP の生存者バイアスなしの米国ミューチュアル・ファンド・データベースである。CRSP のデータ更新頻度に合わせ、SPIVA は 14 週間遅れで年に 2 回発表される。
- 2004 年から 2008 年までの 5 年間について、S&P500 は 71.9%の大型株アクティブファンドをアウトパフォームし、S&P MidCap 400 は 79.1%の中型株アクティブファンドをアウトパフォームし、S&P SmallCap 600 は 85.5%の小型株アクティブファンドをアウトパフォームした。これらの結果は、1999 年から 2003 年までの 5 年間の結果と同様のものだった。
- ベア・マーケット(下落相場)においてはアクティブ運用が有利になるというのは神話である。米国株ファンドの 9 つのスタイル運用のうち 8 つにおいて、大多数のファンドはベンチマークを上回ることができなかった。2000 年から 2002 年までのベア・マーケットにおいても同様の結果となっている。
- 分析対象の 5 年間の全てのカテゴリーにおいて、債券ファンドの大多数はベンチマークを上回ることができなかった。地方債について年率 2-3%、社債については年率 1-5%の劣後が発生した。
- 非米国株式ファンドについても同様の結果となっており、大多数のアクティブファンドはベンチマークを上回ることができなかった。

## SPIVA について

SPIVA は、アクティブ運用型の投資信託とベンチマークのパフォーマンスを比較したものである。対象となるのは、米国株、世界株(除く米国)、債券を対象とするファンドである。SPIVA には、以下のような特徴がある。

- 生存者バイアスの修正: 分析対象となる期間中に多数のファンドが償還等されている。分析対象期間の当初において存在し、やがて消え去ったこれらのファンドも、投資家にとっては投資対象であったので、分析にはこれらのファンドを対象に加える必要がある。一般的にファンドを比較する場合、現在存在するファンドのみを対象に分析することがあるが、その場合、生き残ったファンドのみを対象とするため、生存者バイアスが発生する。このため、SPIVA では期間中に償還等されたファンドも含めて分析を行っている。
- りんごとりんごの比較: ファンドの成績は往々にしてメジャーな指数(例えば、米国株では S&P500)に対して比較される。しかし、本来はファンドの投資対象セグメントやスタイルに応じて、比較するベンチマークは変わらなければならない。
- 資産加重リターンの分析: ファンド・グループの平均的パフォーマンスは、通常、均等ウェイトで行われる。この場合、運用資産額が 1 兆米ドルのファンドと 1,000 万円のファンドが同程度の影響を与えることになる。より正確に、投資家が分析期間中にどのような成績を収めたかを見るためには、ファンドの資産額で加重したパフォーマンスを算定した方が良い。SPIVA では、均等ウェイトと資産加重ウェイトの両方のパフォーマンスを計測している。
- スタイルの一貫性: SPIVA では、ファンドの運用スタイルの一貫性を測定している。特定のファンドにスタイル・ドリフト(当初の運用手法や運用スタイルとは異なる運用に変化すること)が発生しているかどうかを分析することで、アセット・アロケーションに有効なデータを作成することができる。
- データの精査: SPIVA では、複数の種類の受益証券を発行しているファンドを二重計算することのないよう、運用資産の大きい受益証券のみを対象にしている。また、SPIVA はアクティブファンドの運用成績を分析するものなので、インデックスファンドやレバレッジのあるタイプのファンドは分析対象から除外されている。

以下のシートは、今回の SPIVA の分析内容である。(英文のみ)

## Bear Market Myths

Over a full market cycle, one expects a majority of active managers to under perform benchmarks. This is borne out by the table below, which shows the percentage of actively managed U.S. equity funds outperformed by benchmarks in two five-year market cycles – 1999 to 2003 and 2004 to 2008.

**Percent of active funds outperformed by benchmarks over market cycles**

Fund Category	Benchmark Index	2004 to 2008	1999 to 2003
All Domestic Funds	S&P Composite 1500	66.21	50.76
All Large-Cap Funds	S&P 500	71.90	53.41
All Mid-Cap Funds	S&P MidCap 400	79.06	91.36
All Small-Cap Funds	S&P SmallCap 600	85.45	69.38
Large-Cap Growth Funds	S&P 500 Growth	80.51	43.40
Large-Cap Core Funds	S&P 500	77.55	55.12
Large-Cap Value Funds	S&P 500 Value	53.19	54.96
Mid-Cap Growth Funds	S&P MidCap 400 Growth	76.58	95.50
Mid-Cap Core Funds	S&P MidCap 400	76.15	83.33
Mid-Cap Value Funds	S&P MidCap 400 Value	79.17	93.02
Small-Cap Growth Funds	S&P SmallCap 600 Growth	95.58	69.86
Small-Cap Core Funds	S&P SmallCap 600	81.36	62.94
Small-Cap Value Funds	S&P SmallCap 600 Value	69.51	61.95

However, one of the most enduring investment myths is the belief that active management has a distinct advantage in bear markets due to the ability to shift rapidly into cash or defensive securities. We [dispelled this myth](#) in 2003 using the case study of the 2000 to 2002 bear market. The downturn of 2008 provided another case study. The results are similar, with under performance across all nine style boxes.

**Percent of active funds outperformed by benchmarks in bear markets**

	2008	2000 to 2002
All Large-Cap Funds	54.3	53.5
All Mid-Cap Funds	74.7	77.3
All Small-Cap Funds	83.8	71.6
Large Growth	90.0	49.4
Large Core	52.0	53.4
Large Value	22.2	36.5
Mid Growth	89.0	82.4
Mid Core	62.3	70.2
Mid Value	67.1	82.8
Small Growth	95.5	87.5
Small Core	82.5	70.8
Small Value	72.6	58.3

**Report 1: Percentage of U.S. Equity Funds Outperformed by Benchmarks**

<b>Fund Category</b>	<b>Comparison Index</b>	<b>One Year</b>	<b>Three Year</b>	<b>Five Year</b>
<b>Domestic Equity</b>				
All Domestic Funds	S&P Composite 1500	64.23	70.21	66.21
All Large Cap Funds	S&P 500	54.34	64.76	71.90
All Mid Cap Funds	S&P MidCap 400	74.74	70.09	79.06
All Small Cap Funds	S&P SmallCap 600	83.77	78.03	85.45
All Multi Cap Funds	S&P Composite 1500	70.07	71.43	64.93
Large Cap Growth Funds	S&P 500 Growth	89.95	88.42	80.51
Large Cap Core Funds	S&P 500	52.03	67.05	77.55
Large Cap Value Funds	S&P 500 Value	22.17	35.80	53.19
Mid Cap Growth Funds	S&P MidCap 400 Growth	88.95	68.75	76.58
Mid Cap Core Funds	S&P MidCap 400	62.28	66.30	76.15
Mid Cap Value Funds	S&P MidCap 400 Value	67.06	78.26	79.17
Small Cap Growth Funds	S&P SmallCap 600 Growth	95.50	81.87	95.58
Small Cap Core Funds	S&P SmallCap 600	82.46	77.89	81.36
Small Cap Value Funds	S&P SmallCap 600 Value	72.55	63.16	69.51
MultiCap Growth Funds	S&P Composite 1500 Growth	89.29	83.33	60.98
MultiCap Core Funds	S&P Composite 1500	64.88	68.82	60.70
MultiCap Value Funds	S&P Composite 1500 Value	48.94	61.54	73.05
Real Estate Funds	S&P BMI United States REIT	61.86	60.94	51.67

Source: Standard & Poor's, CRSP. For periods ending December 31, 2008. Outperformance is based upon equal weighted fund counts.

**Report 2: Survivorship and Style Consistency of U.S. Equity Funds****One Year**

<b>Fund Category</b>	<b>No. of Funds at Start</b>	<b>Survivorship (%)</b>	<b>Style Consistency (%)</b>
All Domestic Funds	2175	94.62	85.33
All Large Cap Funds	657	94.37	88.89
All Mid Cap Funds	380	95.53	86.32
All Small Cap Funds	530	95.09	87.74
All Multi Cap Funds	608	93.91	78.78
Large Cap Growth Funds	199	93.97	89.95
Large Cap Blend Funds	246	93.09	83.74
Large Cap Value Funds	212	96.23	93.87
Mid Cap Growth Funds	181	93.92	88.95
Mid Cap Blend Funds	114	96.49	83.33
Mid Cap Value Funds	85	97.65	84.71
Small Cap Growth Funds	200	94.50	89.50
Small Cap Blend Funds	228	95.61	85.96
Small Cap Value Funds	102	95.10	88.24
Multi Cap Growth Funds	168	97.02	77.98
Multi Cap Core Funds	299	92.98	80.27
Multi Cap Value Funds	141	92.20	76.60
Real Estate Funds	97	92.78	59.79

**Three Year**

<b>Fund Category</b>	<b>No. of Funds at Start</b>	<b>Survivorship (%)</b>	<b>Style Consistency (%)</b>
All Domestic Funds	1920	83.59	66.88
All Large Cap Funds	630	78.73	65.71
All Mid Cap Funds	321	87.23	72.90
All Small Cap Funds	437	88.10	76.89
All Multi Cap Funds	532	83.46	56.39
Large Cap Growth Funds	190	74.21	66.84
Large Cap Blend Funds	264	75.00	54.92
Large Cap Value Funds	176	89.20	80.68
Mid Cap Growth Funds	160	85.00	77.50
Mid Cap Blend Funds	92	88.04	66.30
Mid Cap Value Funds	69	91.30	71.01
Small Cap Growth Funds	171	83.04	78.36
Small Cap Blend Funds	190	91.58	74.74
Small Cap Value Funds	76	90.79	78.95
Multi Cap Growth Funds	126	78.57	59.52
Multi Cap Core Funds	263	84.79	56.27
Multi Cap Value Funds	143	85.31	53.85
Real Estate Funds	64	92.19	76.56

Data: Standard &amp; Poor's, CRSP. For periods ending December 31, 2008.

Report continues in next page

**Report 2: Survivorship and Style Consistency of U.S. Equity Funds****Five Year**

<b>Fund Category</b>	<b>No. of Funds at Start</b>	<b>Survivorship (%)</b>	<b>Style Consistency (%)</b>
All Domestic Funds	2024	73.37	51.93
All Large Cap Funds	726	64.33	49.45
All Mid Cap Funds	339	78.76	55.16
All Small Cap Funds	440	79.77	63.18
All Multi Cap Funds	519	77.07	43.74
Large Cap Growth Funds	195	58.97	52.82
Large Cap Blend Funds	343	60.35	38.78
Large Cap Value Funds	188	77.13	65.43
Mid Cap Growth Funds	158	75.32	63.92
Mid Cap Blend Funds	109	79.82	42.20
Mid Cap Value Funds	72	84.72	55.56
Small Cap Growth Funds	181	71.82	66.30
Small Cap Blend Funds	177	83.05	59.89
Small Cap Value Funds	82	90.24	63.41
Multi Cap Growth Funds	123	69.92	48.78
Multi Cap Core Funds	229	77.73	45.41
Multi Cap Value Funds	167	81.44	37.72
Real Estate Funds	60	83.33	68.33

Data: Standard & Poor's, CRSP. For periods ending December 31, 2008.

<b>Report 3: Average U.S. Equity Fund Performance (Equal Weighted)</b>			
<b>Category</b>	<b>One Year (%)</b>	<b>Three Year (Annualized %)</b>	<b>Five Year (Annualized %)</b>
S&P Composite 1500	-36.72	-8.35	-1.89
All Domestic Funds	-38.67	-9.70	-2.47
<b>S&amp;P 500</b>	<b>-37.00</b>	<b>-8.36</b>	<b>-2.19</b>
All LargeCap Funds	-37.19	-8.81	-2.65
<b>S&amp;P MidCap 400</b>	<b>-36.37</b>	<b>-8.82</b>	<b>-0.13</b>
All MidCap Funds	-40.92	-10.25	-1.89
<b>S&amp;P SmallCap 600</b>	<b>-31.07</b>	<b>-7.51</b>	<b>0.88</b>
All SmallCap Funds	-38.25	-10.48	-2.54
<b>S&amp;P Composite 1500</b>	<b>-36.72</b>	<b>-8.35</b>	<b>-1.89</b>
All MultiCap Funds	-39.54	-9.86	-2.58
<b>Large Cap</b>			
<b>S&amp;P 500 Growth</b>	<b>-34.92</b>	<b>-7.62</b>	<b>-2.74</b>
LargeCap Growth Funds	-39.62	-9.92	-3.47
<b>S&amp;P 500</b>	<b>-37.00</b>	<b>-8.36</b>	<b>-2.19</b>
LargeCap Core Funds	-36.97	-8.88	-3.03
<b>S&amp;P 500 Value</b>	<b>-39.22</b>	<b>-9.19</b>	<b>-1.72</b>
LargeCap Value Funds	-35.13	-7.61	-1.25
<b>Mid Cap</b>			
<b>S&amp;P MidCap 400 Growth</b>	<b>-37.61</b>	<b>-9.18</b>	<b>-0.61</b>
MidCap Growth Funds	-43.92	-10.61	-2.44
<b>S&amp;P MidCap 400</b>	<b>-36.37</b>	<b>-8.82</b>	<b>-0.13</b>
MidCap Core Funds	-38.53	-10.41	-2.02
<b>S&amp;P MidCap 400 Value</b>	<b>-34.87</b>	<b>-8.49</b>	<b>0.32</b>
MidCap Value Funds	-37.64	-9.85	-0.96
<b>Small Cap</b>			
<b>S&amp;P SmallCap 600 Growth</b>	<b>-32.94</b>	<b>-7.84</b>	<b>0.85</b>
SmallCap Growth Funds	-42.04	-11.24	-3.93
<b>S&amp;P SmallCap 600</b>	<b>-31.07</b>	<b>-7.51</b>	<b>0.88</b>
SmallCap Core Funds	-37.07	-10.39	-2.00
<b>S&amp;P SmallCap 600 Value</b>	<b>-29.49</b>	<b>-7.31</b>	<b>0.83</b>
SmallCap Value Funds	-33.30	-9.34	-0.92
<b>Multi Cap</b>			
<b>S&amp;P Composite 1500 Growth</b>	<b>-35.03</b>	<b>-7.71</b>	<b>-2.70</b>
MultiCap Growth Funds	-41.98	-10.28	-2.81
<b>S&amp;P Composite 1500</b>	<b>-36.72</b>	<b>-8.35</b>	<b>-1.89</b>
MultiCap Core Funds	-38.28	-9.49	-2.62
<b>S&amp;P Composite 1500 Value</b>	<b>-38.51</b>	<b>-9.06</b>	<b>-1.12</b>
MultiCap Value Funds	-39.26	-10.63	-2.71
<b>Real Estate</b>			
<b>S&amp;P BMI U.S. REIT</b>	<b>-39.56</b>	<b>-11.85</b>	<b>0.25</b>
Real Estate Funds	-42.42	-13.30	-0.64

Source: Standard &amp; Poor's, CRSP. For periods ending December 31, 2008.

<b>Report 4: Average U.S. Equity Fund Performance (Asset Weighted)</b>			
<b>Category</b>	<b>One Year (%)</b>	<b>Three Year (Annualized %)</b>	<b>Five Year (Annualized %)</b>
S&P Composite 1500	-36.72	-8.35	-1.89
All Domestic Funds	-38.93	-9.37	-2.10
<b>Large Cap</b>			
S&P 500	-37.00	-8.36	-2.19
All LargeCap Funds	-38.62	-9.42	-2.93
S&P MidCap 400	-36.37	-8.82	-0.13
All MidCap Funds	-40.22	-9.35	-0.84
S&P SmallCap 600	-31.07	-7.51	0.88
All SmallCap Funds	-36.33	-9.31	-1.21
S&P Composite 1500	-36.72	-8.35	-1.89
All MultiCap Funds	-39.75	-9.47	-1.73
<b>Large Cap</b>			
S&P 500 Growth	-34.92	-7.62	-2.74
LargeCap Growth Funds	-42.40	-11.12	-4.06
S&P 500	-37.00	-8.36	-2.19
LargeCap Core Funds	-37.89	-9.59	-3.39
S&P 500 Value	-39.22	-9.19	-1.72
LargeCap Value Funds	-36.92	-8.45	-1.88
<b>Mid Cap</b>			
S&P MidCap 400 Growth	-37.61	-9.18	-0.61
MidCap Growth Funds	-43.07	-9.25	-1.04
S&P MidCap 400	-36.37	-8.82	-0.13
MidCap Core Funds	-38.39	-9.24	-0.80
S&P MidCap 400 Value	-34.87	-8.49	0.32
MidCap Value Funds	-38.43	-9.50	-0.63
<b>Small Cap</b>			
S&P SmallCap 600 Growth	-32.94	-7.84	0.85
SmallCap Growth Funds	-40.58	-10.34	-2.69
S&P SmallCap 600	-31.07	-7.51	0.88
SmallCap Core Funds	-34.90	-8.95	-0.47
S&P SmallCap 600 Value	-29.49	-7.31	0.83
SmallCap Value Funds	-32.60	-8.68	-0.61
<b>Multi Cap</b>			
S&P Composite 1500 Growth	-35.03	-7.71	-2.70
MultiCap Growth Funds	-40.75	-9.57	-1.39
S&P Composite 1500	-36.72	-8.35	-1.89
MultiCap Core Funds	-39.06	-9.51	-2.10
S&P Composite 1500 Value	-38.51	-9.06	-1.12
MultiCap Value Funds	-38.42	-10.34	-2.51
<b>Real Estate</b>			
S&P BMI U.S. REIT	-39.56	-11.85	0.25
Real Estate Funds	-40.99	-11.70	0.61

Source: Standard &amp; Poor's, CRSP. For periods ending December 31, 2008.

## Report 5: Quartile Breakpoints of U.S. Equity Funds

### One Year

Fund Category	Third Quartile	Second Quartile	First Quartile
Large Cap Growth Funds	-43.41	-40.45	-37.56
Large Cap Core Funds	-40.10	-36.79	-34.12
Large Cap Value Funds	-37.35	-35.43	-32.20
Mid Cap Growth Funds	-47.12	-44.36	-40.74
Mid Cap Core Funds	-41.67	-38.05	-34.12
Mid Cap Value Funds	-41.32	-36.87	-33.06
Small Cap Growth Funds	-45.77	-41.74	-38.88
Small Cap Core Funds	-40.01	-36.20	-32.31
Small Cap Value Funds	-38.58	-32.81	-28.21
Multi Cap Growth Funds	-44.86	-42.07	-38.32
Multi Cap Core Funds	-41.44	-38.40	-34.48
Multi Cap Value Funds	-42.12	-38.02	-34.79
Real Estate Funds	-46.04	-41.31	-38.09

### Three Year

Fund Category	Third Quartile	Second Quartile	First Quartile
Large Cap Growth Funds	-11.94	-10.65	-8.48
Large Cap Core Funds	-10.90	-8.81	-6.97
Large Cap Value Funds	-9.41	-7.58	-5.04
Mid Cap Growth Funds	-12.57	-10.52	-8.42
Mid Cap Core Funds	-11.98	-10.15	-7.25
Mid Cap Value Funds	-11.83	-10.13	-8.53
Small Cap Growth Funds	-12.99	-10.69	-8.14
Small Cap Core Funds	-12.56	-10.06	-7.70
Small Cap Value Funds	-12.09	-8.61	-6.08
Multi Cap Growth Funds	-12.55	-10.47	-7.92
Multi Cap Core Funds	-10.39	-9.14	-7.37
Multi Cap Value Funds	-11.98	-9.48	-7.50
Real Estate Funds	-13.81	-12.16	-10.49

### Five Year

Fund Category	Third Quartile	Second Quartile	First Quartile
Large Cap Growth Funds	-4.95	-3.55	-2.22
Large Cap Core Funds	-4.39	-2.78	-1.49
Large Cap Value Funds	-2.50	-1.19	0.53
Mid Cap Growth Funds	-4.17	-1.89	-0.34
Mid Cap Core Funds	-2.93	-1.04	0.34
Mid Cap Value Funds	-2.54	-1.29	0.22
Small Cap Growth Funds	-5.08	-3.24	-0.99
Small Cap Core Funds	-3.71	-1.49	0.39
Small Cap Value Funds	-3.41	-0.67	1.49
Multi Cap Growth Funds	-4.36	-2.55	-0.86
Multi Cap Core Funds	-3.35	-1.86	-0.38
Multi Cap Value Funds	-3.80	-2.21	-0.64
Real Estate Funds	-1.11	0.89	1.86

Source: Standard & Poor's, CRSP. All data as of December 31, 2008.

**Report 6: Percentage of International Equity Funds Outperformed by Benchmarks**

<b>Fund Category</b>	<b>Comparison Index</b>	<b>One Year</b>	<b>Three Year</b>	<b>Five Year</b>
Global Funds	S&P Global 1200	59.83	64.04	63.16
International Funds	S&P 700	63.96	76.52	83.52
International Small Cap Funds	S&P Developed Ex-U.S. SmallCap	50.00	48.84	58.82
Emerging Markets Funds	S&P/IFCI Composite	65.06	83.93	89.83

Source: Standard & Poor's, CRSP. For periods ending December 31, 2008. Outperformance is based upon equal weighted fund counts.

**Report 7: Survivorship and Style Consistency of International Equity Funds****One Year**

<b>Fund Category</b>	<b>No. of Funds at Start</b>	<b>Survivorship (%)</b>	<b>Style Consistency (%)</b>
Global Funds	117	97.44	96.58
International Funds	308	94.81	94.81
International Small Cap Funds	58	98.28	91.38
Emerging Markets Funds	83	96.39	96.39

**Three Year**

<b>Fund Category</b>	<b>No. of Funds at Start</b>	<b>Survivorship (%)</b>	<b>Style Consistency (%)</b>
Global Funds	89	89.89	85.39
International Funds	247	85.83	85.43
International Small Cap Funds	43	97.67	88.37
Emerging Markets Funds	56	94.64	94.64

**Five Year**

<b>Fund Category</b>	<b>No. of Funds at Start</b>	<b>Survivorship (%)</b>	<b>Style Consistency (%)</b>
Global Funds	95	80.00	69.47
International Funds	267	76.03	72.66
International Small Cap Funds	34	88.24	85.29
Emerging Markets Funds	59	88.14	88.14

Data: Standard & Poor's, CRSP. For periods ending December 31, 2008.

Standard Poor's Indices Versus Active Funds Scorecard

<b>Report 8: Average International Equity Fund Performance (Equal Weighted)</b>			
<b>Category</b>	<b>One Year (%)</b>	<b>Three Year (Annualized %)</b>	<b>Five Year (Annualized %)</b>
S&P Global 1200	-40.11	-7.09	0.31
Global Funds	-41.07	-7.82	-0.20
S&P 700	-42.82	-5.73	3.24
International Funds	-44.25	-7.70	1.28
S&P Developed Ex-U.S. SmallCap	-47.67	-10.09	2.71
International Small Cap Funds	-39.59	-5.67	5.32
S&P/IFCI Composite	-53.73	-4.29	8.71
Emerging Markets Funds	-57.20	-7.96	5.47

Source: Standard & Poor's, CRSP. For periods ending December 31, 2008.

Standard Poor's Indices Versus Active Funds Scorecard

<b>Report 9: Average International Equity Fund Performance (Asset Weighted)</b>			
<b>Category</b>	<b>One Year (%)</b>	<b>Three Year (Annualized %)</b>	<b>Five Year (Annualized %)</b>
S&P Global 1200	-40.11	-7.09	0.31
Global Funds	-38.39	-5.77	1.64
S&P 700	-42.82	-5.73	3.24
International Funds	-43.57	-6.82	2.26
S&P Developed Ex-U.S. SmallCap	-47.67	-10.09	2.71
International Small Cap Funds	-41.87	-6.62	4.68
S&P/IFCI Composite	-53.73	-4.29	8.71
Emerging Markets Funds	-53.07	-5.79	7.25

Source: Standard & Poor's, CRSP. For periods ending December 31, 2008.

**Report 10: Quartile Breakpoints of International Equity Funds****One Year**

<b>Fund Category</b>	<b>Third Quartile</b>	<b>Second Quartile</b>	<b>First Quartile</b>
Global Funds	-44.55	-41.16	-37.58
International Funds	-47.31	-44.27	-41.22
International Small Cap Funds	-51.82	-46.71	-43.77
Emerging Markets Funds	-59.07	-55.08	-51.65

**Three Year**

<b>Fund Category</b>	<b>Third Quartile</b>	<b>Second Quartile</b>	<b>First Quartile</b>
Global Funds	-10.1	-7.95	-5.74
International Funds	-9.54	-7.49	-5.52
International Small Cap Funds	-12.38	-9.67	-7.22
Emerging Markets Funds	-8.31	-6.55	-4.74

**Five Year**

<b>Fund Category</b>	<b>Third Quartile</b>	<b>Second Quartile</b>	<b>First Quartile</b>
Global Funds	-1.93	0.07	2
International Funds	-0.03	1.58	2.94
International Small Cap Funds	0.41	2.25	4.57
Emerging Markets Funds	5.21	6.12	7.45

Source: Standard & Poor's, CRSP. All data as of December 31, 2008.

**Report 11: Percentage of Fixed Income Funds Outperformed by Benchmarks**

<b>Fund Category</b>	<b>Comparison Index</b>	<b>One Year</b>	<b>Three Year</b>	<b>Five Year</b>
Government Long Funds	Barclays Long Government	89.80	93.33	92.68
Government Intermediate Funds	Barclays Intermediate Government	91.30	91.11	93.75
Government Short Funds	Barclays 1-3 Year Government	84.21	91.43	91.43
Investment-Grade Long Funds	Barclays Long Government/Credit	94.79	94.74	100.00
Investment-Grade Intermediate Funds	Barclays Intermediate Government/Credit	90.14	91.18	90.18
Investment-Grade Short Funds	Barclays 1-3 Year Government/Credit	98.72	100.00	100.00
High Yield Funds	Barclays High Yield	37.04	43.75	52.29
Mortgage-Backed Securities Funds	Barclays Mortgage-Backed Securities	93.75	100.00	100.00
Global Income Funds	Barclays Global Aggregate	78.13	86.36	79.07
Emerging Markets Debt Funds	Barclays Emerging Markets	65.22	68.75	62.50
General Municipal Debt Funds	S&P National Municipal Bond	80.56	84.72	95.89
California Municipal Debt Funds	S&P California Municipal Bond	94.74	94.74	100.00
New York Municipal Debt Funds	S&P New York Municipal Bond	88.24	88.24	100.00

Source: Standard & Poor's, CRSP. For periods ending December 31, 2008. Outperformance is based upon equal weighted fund counts.

**Report 12: Survivorship and Style Consistency of Fixed Income Funds****One Year**

<b>Fund Category</b>	<b>No. of Funds at Start</b>	<b>Survivorship (%)</b>	<b>Style Consistency (%)</b>
Government Long Funds	49	93.88	89.8
Government Intermediate Funds	46	97.83	89.13
Government Short Funds	38	97.37	97.37
Investment-Grade Long Funds	96	93.75	90.63
Investment-Grade Intermediate Funds	213	92.96	92.49
Investment-Grade Short Funds	78	96.15	96.15
High Yield Funds	135	98.52	97.04
Mortgage-Backed Securities Funds	48	97.92	97.92
Global Income Funds	64	96.88	92.19
Emerging Markets Debt Funds	23	100	95.65
General Municipal Debt Funds	72	95.83	95.83
California Municipal Debt Funds	38	97.37	97.37
New York Municipal Debt Funds	34	97.06	97.06

**Three Year**

<b>Fund Category</b>	<b>No. of Funds at Start</b>	<b>Survivorship (%)</b>	<b>Style Consistency (%)</b>
Government Long Funds	45.00	93.33	77.78
Government Intermediate Funds	45.00	97.78	77.78
Government Short Funds	35.00	97.14	88.57
Investment-Grade Long Funds	95.00	92.63	74.74
Investment-Grade Intermediate Funds	170.00	91.76	89.41
Investment-Grade Short Funds	65.00	96.92	92.31
High Yield Funds	112.00	98.21	95.54
Mortgage-Backed Securities Funds	47.00	97.87	91.49
Global Income Funds	44.00	97.73	90.91
Emerging Markets Debt Funds	16.00	100.00	93.75
General Municipal Debt Funds	72.00	95.83	90.28
California Municipal Debt Funds	38.00	100.00	94.74
New York Municipal Debt Funds	34.00	100.00	97.06

**Five Year**

<b>Fund Category</b>	<b>No. of Funds at Start</b>	<b>Survivorship (%)</b>	<b>Style Consistency (%)</b>
Government Long Funds	41	92.68	78.05
Government Intermediate Funds	48	97.92	75.00
Government Short Funds	35	97.14	85.71
Investment-Grade Long Funds	101	91.09	68.32
Investment-Grade Intermediate Funds	163	93.25	85.89
Investment-Grade Short Funds	50	96.00	94.00
High Yield Funds	109	97.25	94.50
Mortgage-Backed Securities Funds	48	95.83	89.58
Global Income Funds	43	97.67	90.70
Emerging Markets Debt Funds	16	100.00	93.75
General Municipal Debt Funds	73	95.89	89.04
California Municipal Debt Funds	38	100.00	94.74
New York Municipal Debt Funds	35	100.00	94.29

Data: Standard &amp; Poor's, CRSP. For periods ending December 31, 2008.

<b>Report 13: Average Fixed Income Fund Performance (Equal Weighted)</b>			
<b>Category</b>	<b>One Year (%)</b>	<b>Three Year (Annualized %)</b>	<b>Five Year (Annualized %)</b>
Barclays Long Government	22.67	11.15	9.58
Government Long Funds	9.72	6.66	5.34
Barclays Intermediate Government	10.43	7.53	5.29
Government Intermediate Funds	6.56	5.74	4.21
Barclays 1-3 Year Government	6.66	5.96	4.11
Government Short Funds	3.89	4.56	3.28
Barclays Long Government/Credit	8.45	5.90	6.31
Investment-Grade Long Funds	-5.05	1.53	2.28
Barclays Intermediate Government/Credit	5.07	5.51	4.21
Investment-Grade Intermediate Funds	-2.56	2.29	2.47
Barclays 1-3 Year Government/Credit	4.97	5.34	3.79
Investment-Grade Short Funds	-4.28	1.52	1.59
Barclays High Yield	-26.15	-5.58	-0.79
High Yield Funds	-25.36	-5.55	-0.93
Barclays Mortgage-Backed Securities	8.34	6.81	5.53
Mortgage-Backed Securities Funds	0.88	3.57	3.35
Barclays Global Aggregate	4.79	6.96	5.02
Global Income Funds	-2.47	3.29	3.22
Barclays Emerging Markets	-14.74	-0.48	4.36
Emerging Markets Debt Funds	-17.81	-1.11	4.22
S&P National Municipal Bond	-2.83	1.74	2.76
General Municipal Debt Funds	-8.12	-0.75	1.02
S&P California Municipal Bond	-2.77	1.75	3.03
California Municipal Debt Funds	-11.13	-2.01	0.51
S&P New York Municipal Bond	-2.55	1.84	2.74
New York Municipal Debt Funds	-8.19	-0.66	1.01

Source: Standard & Poor's, CRSP. For periods ending December 31, 2008.

<b>Report 14: Average Fixed Income Fund Performance (Asset Weighted)</b>			
<b>Category</b>	<b>One Year (%)</b>	<b>Three Year (Annualized %)</b>	<b>Five Year (Annualized %)</b>
Barclays Long Government	22.67	11.15	9.58
Government Long Funds	6.28	5.61	4.64
Barclays Intermediate Government	10.43	7.53	5.29
Government Intermediate Funds	5.04	5.21	4.01
Barclays 1-3 Year Government	6.66	5.96	4.11
Government Short Funds	4.45	4.97	3.49
Barclays Long Government/Credit	8.45	5.90	6.31
Investment-Grade Long Funds	-9.75	-0.11	1.46
Barclays Intermediate Government/Credit	5.07	5.51	4.21
Investment-Grade Intermediate Funds	-1.30	3.00	3.16
Barclays 1-3 Year Government/Credit	4.97	5.34	3.79
Investment-Grade Short Funds	-4.99	1.31	1.52
Barclays High Yield	-26.15	-5.58	-0.79
High Yield Funds	-27.16	-6.34	-1.45
Barclays Mortgage-Backed Securities	8.34	6.81	5.53
Mortgage-Backed Securities Funds	4.50	4.92	4.26
Barclays Global Aggregate	4.79	6.96	5.02
Global Income Funds	-0.19	5.04	4.60
Barclays Emerging Markets	-14.74	-0.48	4.36
Emerging Markets Debt Funds	-17.76	-0.68	4.92
S&P National Municipal Bond	-2.83	1.74	2.76
General Municipal Debt Funds	-10.06	-1.40	0.74
S&P California Municipal Bond	-2.77	1.75	3.03
California Municipal Debt Funds	-10.84	-1.75	0.78
S&P New York Municipal Bond	-2.55	1.84	2.74
New York Municipal Debt Funds	-14.59	-3.06	-0.01

Source: Standard & Poor's, CRSP. For periods ending December 31, 2008.

## Report 15: Quartile Breakpoints of Fixed Income Funds

### One Year

Fund Category	Third Quartile	Second Quartile	First Quartile
Government Long Funds	4.22	7.68	12.99
Government Intermediate Funds	4.96	7.37	8.68
Government Short Funds	3.48	5.15	6.47
Investment-Grade Long Funds	-11.00	-4.34	1.43
Investment-Grade Intermediate Funds	-6.95	-1.88	2.67
Investment-Grade Short Funds	-6.88	-2.34	0.76
High Yield Funds	-27.52	-23.91	-20.50
Mortgage-Backed Securities Funds	0.24	4.27	6.85
Global Income Funds	-5.21	-0.87	4.07
Emerging Markets Debt Funds	-21.63	-17.71	-14.10
General Municipal Debt Funds	-10.69	-6.83	-3.62
California Municipal Debt Funds	-12.53	-8.77	-6.18
New York Municipal Debt Funds	-9.13	-6.49	-3.62

### Three Year

Fund Category	Third Quartile	Second Quartile	First Quartile
Government Long Funds	3.82	5.96	8.20
Government Intermediate Funds	4.96	6.03	6.48
Government Short Funds	4.34	4.97	5.35
Investment-Grade Long Funds	-0.95	1.85	3.89
Investment-Grade Intermediate Funds	0.89	2.69	4.21
Investment-Grade Short Funds	0.85	2.53	3.47
High Yield Funds	-6.81	-5.22	-4.01
Mortgage-Backed Securities Funds	2.93	4.84	5.88
Global Income Funds	1.28	4.19	6.28
Emerging Markets Debt Funds	-3.15	-1.13	-0.37
General Municipal Debt Funds	-1.43	0.04	1.17
California Municipal Debt Funds	-2.52	-0.57	0.25
New York Municipal Debt Funds	-1.08	0.12	1.12

### Five Year

Fund Category	Third Quartile	Second Quartile	First Quartile
Government Long Funds	3.1	4.5	5.6
Government Intermediate Funds	3.5	4.2	4.9
Government Short Funds	3.4	3.5	3.7
Investment-Grade Long Funds	1.1	2.6	3.7
Investment-Grade Intermediate Funds	1.6	2.7	3.4
Investment-Grade Short Funds	1.1	2.1	2.8
High Yield Funds	-1.8	-0.8	-0.1
Mortgage-Backed Securities Funds	3.2	4.1	4.7
Global Income Funds	2.1	3.5	4.9
Emerging Markets Debt Funds	3.0	3.9	4.8
General Municipal Debt Funds	0.4	1.6	2.2
California Municipal Debt Funds	0.2	1.3	1.7
New York Municipal Debt Funds	0.7	1.5	2.0

Source: Standard & Poor's, CRSP. All data as of December 31, 2008.

## Appendix A

### SPIVA Styles and Lipper Fund Classifications

The CRSP Survivor-Bias-Free US Mutual Fund Database is the only complete database of both active and liquidated/merged mutual funds. It was created in 1995 and contains fund data from December 1961. Current and historical data from August 1998 has been supplied by Lipper and Thomson Reuters. The fund classifications are based upon the Lipper fund classification system. The SPIVA reports cover domestic equity, global equity and global fixed income categories.

#### U.S. Equity

SPIVA covers major capitalization levels (large-, mid-, small-, and multi-cap funds) and investment styles (growth, core and value). S&P uses the Lipper fund classifications, which determines a fund portfolio's capitalization and investment style assignments.

Lipper assigns a market-capitalization for each fund based upon the percentages of a fund's three-year weighted equity assets that fall into each of Lipper's three defined market-capitalization slices. The market capitalization breakpoints are calculated using all common stocks, excluding all non-US domiciled stocks and ADRs, trading on the NYSE, AMEX and NASDAQ. Funds are assigned to the capitalization level in which they have a 75% or higher weighting. Any fund that has less than 75% of their three-year weighted allocation in any of the three market capitalization ranges is classified as a multi-cap fund.

For investment style selection, the Lipper classification system uses three-year fundamental portfolio characteristics (price/earnings, price/book, and three-year sales-per-share growth) and, if necessary, confirming secondary characteristics (price-to-sales and price-to-operating cash flow). Fund statistics are compared to their relevant S&P capitalization-level index to determine the growth, core or value style.

In some cases, S&P combines closely-related Lipper fund classifications in one SPIVA category. Exhibit 1 maps the SPIVA U.S. Equity fund categories to Lipper classifications.

**Exhibit 1****U.S. Equity Category Mappings**

<b>SPIVA Category</b>	<b>Lipper Fund Classification</b>
Large-Cap Growth Funds	Large-Cap Growth Funds
Large-Cap Core Funds	Large-Cap Core Funds
Large-Cap Value Funds	Large-Cap Value Funds Equity Income Funds
Mid-Cap Growth Funds	Mid-Cap Growth Funds
Mid-Cap Core Funds	Mid-Cap Core Funds
Mid-Cap Value Funds	Mid-Cap Value Funds
Small-Cap Growth Funds	Small-Cap Growth Funds
Small-Cap Core Funds	Small-Cap Core Funds
Small-Cap Value Funds	Small-Cap Value Funds
Multi-Cap Growth Funds	Multi-Cap Growth Funds
Multi-Cap Core Funds	Multi-Cap Core Funds
Multi-Cap Value Funds	Multi-Cap Value Funds
Real Estate Funds	Real Estate Funds

**International Equity**

For International Equity, SPIVA reports on four major categories (Global, International, International Small Cap and Emerging Markets funds) of interest to global asset allocators. These categories also include multiple Lipper capitalization/style classifications.

**Exhibit 2**

**Global Equity Category Mappings**

<b>SPIVA Category</b>	<b>Lipper Fund Classification</b>
Global Funds	Global Large-Cap Growth Funds Global Large-Cap Core Funds Global Large-Cap Value Funds Global Multi-Cap Growth Funds Global Multi-Cap Core Funds Global Multi-Cap Value Funds
International Funds	International Large-Cap Growth Funds International Large-Cap Core Funds International Large-Cap Value Funds International Multi-Cap Growth Funds International Multi-Cap Core Funds International Multi-Cap Value Funds
International Small-Cap Funds	International Small/Mid-Cap Growth Funds International Small/Mid-Cap Core Funds International Small/Mid-Cap Value Funds
Emerging Markets Funds	Emerging Markets Funds

## Fixed Income

SPIVA reports on eight domestic, two global and three municipal fixed income categories. The Lipper domestic fixed income classifications are based upon maturity and credit quality. For maturity, long is 10+ years, intermediate is 5-10 years, short/intermediate is 1-5 years and short is 1-3.5 years. For credit quality, bonds are assigned to the U.S. Treasury, U.S. Government (includes Government and agency issues), A- or BBB-rated and High Yield classifications. Lipper also includes U.S. Mortgages and GNMA classifications.

In global fixed income, Lipper differentiates between global (including the U.S.) and international (excluding the U.S.) objectives. For municipal debt funds, we include the general (invests in the top four credit ratings) classification plus two state funds (California and New York).

### Exhibit 3

#### Fixed Income Category Mappings

<b>SPIVA Category</b>	<b>Lipper Fund Classification</b>
Government Long Funds	General U.S. Government Funds General U.S. Treasury Funds
Government Intermediate Funds	Intermediate U.S. Government Short-Intermediate U.S. Government
Government Short Funds	Short U.S. Government Funds Short U.S. Treasury
Investment-Grade Long Funds	Corporate Debt Funds A Rated Corporate Debt Funds BBB-Rated
Investment-Grade Intermediate Funds	Intermediate Investment-Grade Debt Funds Short-Intermediate Investment-Grade Debt Funds
Investment-Grade Short Funds	Short Investment-Grade Debt Funds
High Yield Funds	High Current Yield Funds
Mortgage-Backed Securities Funds	U.S. Mortgage Funds GNMA Funds
Global Income Funds	Global Income Funds International Income Funds
Emerging Market Debt Funds	Emerging Markets Debt Funds
General Municipal Debt Funds	General Municipal Debt Funds
California Municipal Debt Funds	California Municipal Debt Funds
New York Municipal Debt Funds	New York Municipal Debt Funds

## Appendix B Glossary - Reports

### **Percentage of Funds Outperformed by the Index**

To correct for survivorship bias, we use the opportunity set available at the beginning of the period as the denominator. We determine the count of funds that have survived and beat the index. We then report the index outperformance percentage.

### **Survivorship (%)**

This measure calculates the percentage of funds that are still active at the end of the time period as at the beginning of the time period.

### **Style Consistency (%)**

This calculation shows the percentage of funds that had the same style classification at the end of the time period as at the beginning of the time period.

### **Equal-Weighted Fund Performance**

Equal-weighted returns for a particular style category in a month are determined by calculating a simple average return of all active funds in that category in that particular month.

### **Asset-Weighted Fund Performance**

Asset-weighted returns for a particular style category in a month are determined by calculating a weighted average return of all funds in that category in that particular month, with each fund's return being weighted by its total net assets. Asset weighted returns are a better indicator of fund category performance measurement because they more accurately reflect the returns of the total money invested in that particular style category.

### **Quartiles Breakpoints**

The  $p$ th -percentile for a set of data is the value which is greater than or equal to  $p\%$  of the data, but is less than or equal to  $(100 - p)\%$  of the data. So, it is a value that divides the data into two parts: the lower  $p\%$  of the values and the upper  $(100-p)\%$  of the values. The first quartile is the 75th percentile, the value separating the elements of a population into the lower 75% and the upper 25%. The second quartile is the 50th percentile and the third quartile is the 25th percentile. For fund category quartiles in a particular time horizon, the data used is the return of the largest share class of the fund net of fees, but excluding loads.

### **Survivorship Bias**

Many funds might liquidate or merge during a period of study. Most of these occur because of continued poor performance by the fund. Therefore, if index returns are compared to fund returns using only surviving funds, the comparison would be biased in favor of the fund category. These reports remove this bias by (a) taking all available funds in that particular category as the investment opportunity set as the denominator for outperformance calculations, (b) explicitly showing the survivorship rate in each category, and (c) constructing peer average return series for each category based on all available funds at that period of time.

### **Fees**

The fund returns used are net of fees, excluding loads.

## Appendix B Glossary – Indices

### Indices<sup>1</sup>

A benchmark index provides an investment vehicle to compare and assess fund performance.

### U.S. Equity:

#### *S&P 500 Index*

Widely regarded as the best single gauge of the U.S. equities market, this market capitalization-weighted index includes a representative sample of 500 leading companies in leading industries of the U.S. economy and provides over 80% coverage of U.S. equities.

#### *S&P MidCap 400 Index*

This index consists of 400 mid-sized companies and covers approximately 7% of the U.S. equities market.

#### *S&P SmallCap 600 Index*

This index consists of 600 small-cap stocks and covers approximately 3% of the U.S. equities market.

#### *S&P Composite 1500 Index*

This is a broad market, capitalization-weighted index of 1500 stocks. This index is comprised of three size-based indices: the S&P 500 Index, the S&P MidCap 400 Index, and the S&P SmallCap 600 Index, which measures the performance of large-, mid- and small-cap stocks respectively. This index represents 90% of U.S. equities.

#### *S&P 500 Growth and Value Indices*

These indices are an exhaustive, multi-factor style series covering the entire market capitalization of the S&P 500. Constituents, weighted according to market cap, are classified as growth, value or a mix of growth and value.

#### *S&P MidCap 400 Growth and Value Indices*

These indices are an exhaustive, multi-factor style series covering the entire market capitalization of the S&P MidCap 400.

#### *S&P SmallCap 600 Growth and Value Indices*

These indices are an exhaustive, multi-factor style series covering the entire market capitalization of the S&P SmallCap 600.

#### *S&P Composite 1500 Growth and Value Indices*

These indices are an exhaustive, multi-factor style series covering the entire market capitalization of the S&P Composite 1500.

#### *S&P United States REIT Index*

This index measures the investable universe of publicly traded real estate investment trusts.

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<sup>1</sup> For more information on Standard & Poor's indices, please visit the Indices section of [www.indices.standardandpoors.com](http://www.indices.standardandpoors.com).

## Appendix B Glossary Indices (Cont'd)

### International Equity

#### *S&P Global 1200*

This index captures approximately 70% of the world's capital markets, the S&P Global 1200 is a composite of seven headline indices, many of which are accepted leaders in their regions. It includes the S&P 500 (United States), S&P Europe 350 (Europe), S&P/Topix 150 (Japan), S&P/TSX 60 (Canada), S&P/ASX All Australian 50 (Australia), S&P Asia 50 (Asia Ex-Japan) and the S&P Latin America 40 (Latin America).

#### *S&P 700*

This index measures the non-United States component of the global equity markets. The index covers all of the regions included in the S&P Global 1200 except for the United States (S&P 500).

#### *S&P Developed Ex-U.S. Small Cap*

This index represents the small-capitalization segment, the bottom 15% of the world's universe of institutionally investable securities excluding the U.S.

#### *S&P/IFCI Composite Index*

This index is widely recognized as a comprehensive and reliable measure of the world's emerging markets. It measures the returns of stocks that are legally and practically available to foreign investors.

### Fixed Income<sup>2</sup>

#### *Barclays Capital Long Government Bond Index*

This index consists of U.S. Treasury and U.S. Government agency bonds with maturities greater than 10 years.

#### *Barclays Capital Intermediate Government Bond Index*

This index consists of U.S. Treasury and U.S. Government agency bonds with maturities from one to 10 years.

#### *Barclays Capital 1-3 Year Government Bond Index*

This index consists of U.S. Treasury and U.S. Government agency bonds with maturities from one to three years.

#### *Barclays Capital Long Government/Credit Bond Index*

This index covers corporate and non-corporate fixed-income securities that are rated investment grade and have maturities greater than 10 years.

#### *Barclays Capital Intermediate Government/Credit Bond Index*

This index covers corporate and non-corporate fixed-income securities that are rated investment grade with maturities from one to 10 years.

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<sup>2</sup> Barclays Capital Fixed Income Indices were formerly the Lehman Brothers Indices.

## Appendix B Glossary Indices (Cont'd)

### Fixed Income (Cont'd)

*Barclays Capital 1-3 Year  
Government/Credit Bond Index*

This index covers corporate and non-corporate fixed-income securities that are rated investment grade and have 1-3 years to final maturity.

*Barclays Capital High Yield Bond Index*

This index includes all fixed income securities with a maximum quality rating of Ba1/BB+ (including defaulted issues), a minimum amount outstanding of \$100 million and at least 1 year to maturity.

*Barclays Capital Brothers Mortgage-  
Backed Securities Index*

This index includes 15- and 30-year fixed-rate securities backed by Mortgage pools of the Government National Mortgage Association (GNMA), Federal Home Loan Mortgage Corporation (FHLMC), and Federal National Mortgage Association (FNMA).

*Barclays Capital Global Aggregate Bond  
Index*

This index covers the most liquid portion of the global investment grade fixed-rate bond market, including government, credit and collateralized securities.

*Barclays Capital Emerging Markets  
Index*

This index includes fixed and floating rate USD-denominated debt from emerging markets.

*S&P National Municipal Bond Index*

This index is a broad, comprehensive, market value-weighted index designed to measure the performance of the investment –grade U.S. municipal bond market.

*S&P California Municipal Bond Index*

This index is designed to measure the performance of the investment –grade California municipal bond market

*S&P New York Municipal Bond Index*

This index is designed to measure the performance of the investment –grade New York municipal bond market.

For more information, please go to [www.spiva.standardandpoors.com](http://www.spiva.standardandpoors.com).

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