# Citi Prime Finance | Market Commentary

www.citigroupgcib.com | Report Date: January 2013

# **Hedge Fund Industry Snapshot**

# Data as of December 2012

Americas
New York:

+800 773-2889

San Francisco: +415 617-8554

**EMEA** 

EMEA: +44 0 207-986-0822

Asia Pac

Hong Kong: +852 2501-8356
Tokyo: +813 6270-3165
Singapore: +65 6432-1223
Australia: +612 8225-6424

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# Highlights

### Performance, AUM & Flows

- Composite hedge fund performance, equal-weighted across funds, was up in December 2012 with performance ranging from +0.92% to +1.26%. Returns were higher than the previous period (November 2012 +0.30% to +0.66%). 2012 performance gains range from +4.35% to +6.68% compared to -8.88% to -4.99% for 2011.
- Hedge fund strategy wise, top performing strategies for December 2012 include Emerging Markets +3.48%, Event Driven +2.14%, Equity Long/Short +1.92%, Multi Strategy +1.76% and Distressed at +1.74%. The lowest performing strategies include Dedicated Short -4.57%, Equity Market Neutral +0.34% and CTA/Managed Futures +0.81%,.
- According to eVestment|HFN, industry assets for December 2012 increased, finishing the month net positive at +\$11.33 billion. Gains were attributed to performance totaling +\$24.09 billion while net negative investor flows accounted for -\$12.76 billion. Industry AuM remains below its \$2.94 trillion June 2008 peak.
- Net negative investor flows of -\$12.76 billion for December 2012 marks the 6th period of net negative flows for 2012 and the first since Oct.12. December net flows were lower than the previous month, which experienced -\$11.92 billion over the same period. 2012 net investor flows were +\$25.93 billion compared to +\$26.46 billion for all of 2011.

### **Fund Profiles**

- Across the subset of hedge funds reporting performance and AUM, the monthly median performance for large single funds (>\$500 million) was +1.4%, medium single funds (\$100-\$500 million) +1.5% and small single funds (<\$100 million) +1.6%.
- Liquidity terms continued its consistent pattern from the recent reporting periods showing little changes to redemption notice periods with 66% of funds requiring 30 days or less notice for redemption. Across the entire subset of reporting funds, the majority (52%) required no lockup (42%) or less than 1 year lock up (10%).
- Consistent throughout recent reporting periods, large funds (>\$500 million AUM) continue to hold a large portion of industry AUM (71%) compared to medium funds (\$100–\$500 million) at 20% and small funds (<\$100 million) holding only 9%.

### Leverage, Shorts and Futures Market Positioning

- On a global basis, we calculate gross leverage (as measured on a mean basis) at 1.70x in December 2012 versus 1.70x in November, and 1.71x in October. For 2012, mean gross leverage was 1.81x compared to 1.78x for 2011.
- Looking across both long leverage and gross leverage, the following strategies showed the highest uses of leverage: Equity Market Neutral (4.50x), Global Macro (4.21x), Convertible Arbitrage (3.45x) and Multi Strategy (3.25x).
- Citi US short flows data included in this month's report show increased interest in the Information Technology and Financials sectors. These two sectors accounted for 29.69% of short executions and 27.29% of short covers in December versus 25.34 % of short executions and 27.04% of short covers in November 2012.
- Since late last year, a notable change in terms of large speculator net positioning (in Futures & Options) was in a reduction in the net short position in EuroFX contracts. In the last CFTC report for 2012 (as of 12/25/12) the large speculator net positioning came in at -0.2% of total open interest compared to a net short of -19% at the end of 2011. However, the move in positioning occurred in the context of a drop in total open interest of over 20% from the end of 2011. This suggests to us the move reflects short-covering, and leaves the market close to neutral as it reassesses 2013 trends. Large speculators remained net long gold at 11.8% of total open interest as of 12/25/12 versus 10.9% in late 2011 with total open interest little changed. They remain modestly net long both S&P (including large & mini S&P contracts) and 10-year T-note futures.

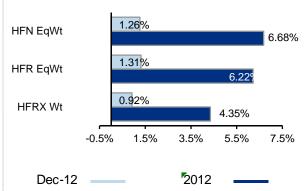


# Hedge Fund Industry: AUM, Performance

- Composite hedge fund performance, equal-weighted across funds, was up in December 2012 with performance ranging from +0.92% to +1.26%. Returns were higher than the previous period (November 2012 +0.30% to +0.66%). 2012 performance gains range from +4.35% to +6.68% compared to -8.88% to -4.99% for 2011.
- US equity markets posted broad based gains on the final trading day of 2012 in anticipation of legislation to avert the US fiscal cliff; these gains offset losses from earlier in December and pushed most US equity indices into positive territory for the month. Financials and Technology sectors led gains in December, with small cap equities also posting strong gains. Regionally equities across Asia, Europe & Emerging Markets posted gains led by China, Japan, Russia and Argentina. US yields rose across most maturities in anticipation of the fiscal cliff resolution, while high yield credit continued to tighten. The US dollar rose sharply against the Yen following Japanese elections and in anticipation of additional BoJ stimulus, while the US dollar fell against the Euro and British Pound on favorable mid-December developments with regard to the European banking & sovereign debt crisis. Gold and most Metals declined while Oil posted gains; Wheat, Corn & Cocoa posted sharp declines.
- Hedge fund strategy wise, top performing strategies in December 2012 include Emerging Markets +3.48%,
   Convertible Arbitrage +1.98%, Event Driven +2.14% and Equity Long/Short +1.92%, Equity Market Neutral +0.51% and FI Arbitrage at 0.48%. The lowest performing strategies include Dedicated Short -4.57%, Equity Market Neutral +0.34% and CTA/Managed Futures +0.81%.
- According to eVestment|HFN, the estimated industry assets increased for December 2012, finishing the month +\$11.33 billion. Increases were attributed to performance at +\$24.09 billion while net negative investor flows accounted for a decrease of +\$12.76 billion. Industry AuM remains below its \$2.94 trillion June 2008 peak.

## **Monthly Industry AUM and Performance** 2,650 2,600 Monthly Performance ( 1% 0% Industry AUM (\$bn) 2,550 2,500 2,450 2,400 -1% 2,350 Dec-11 Jan-12 Feb-12 Mar-12 Apr-12 May-12 Jun-12 Jul-12 Aug-12 Sep-12 Oct-12 Nov-12 Dec-12 AUM —HFN EaWt —HFR EaWt —HFRX Wt

### **Industry Performance: Dec-12 / 2012**



Source: HFR, eVestment|HFN.

### **Note Pad**

- MSCI World Index: +1.3%: +14.2% YTD
- MSCI EM Index: +1.3%; +14.1% YTD
- S&P 500: +0.6%; +14.5% YTD
- Citi US BIG Index: +0.12%: +4.2% YTD
- S&P GSCI: +1.5%; +2.4% YTD
- US Dollar Index: +0.3%; +0.8% YTD
- HFN Country Indices Dec/2012:
  - Brazil: +4.44%/+18.41%; Australia: +1.48%/-2.20%;China: +5.88%/+9.81%; Japan: +6.95%/+14.23%

Source: eVestment|HFN; Hedge Fund Research, Inc., © 2012.



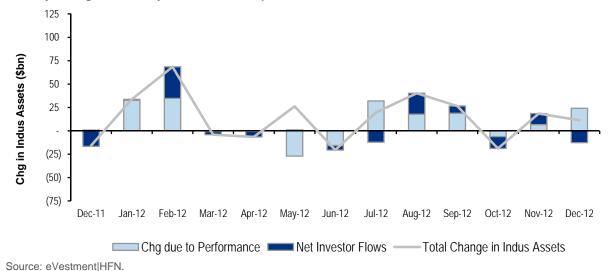
# Hedge Fund Industry: Change in Industry Assets

- According to eVestment|HFN, industry assets for December 2012 increased, finishing the month net positive at +\$11.33 billion. Gains were attributed to performance totaling +\$24.09 billion while net negative investor flows accounted for -\$12.76 billion.
- December 2012 marks the eight month in 2012 in which industry assets increased. December performance gains of +\$24.09 billion were higher than the previous month (Nov. 2012 +\$6.58 billion). 2012 performance gains totaled +\$116.12 billion compared to -\$31.92 billion for 2011.
- Net negative investor flows of -\$12.76 billion for December 2012 marks the 6th period of net negative flows for 2012 and the first since Oct.12. December net flows were lower than the previous month, which experienced -\$11.92 billion over the same period. 2012 net investor flows were +\$25.93 billion compared to +\$26.46 billion for all of 2011.
- Total industry AUM now stands at \$2.59 trillion for December 2012 flat from November 2012 and an increase of 4.2% from \$2.49 trillion in January 2012.

# Composition of Change in Assets Dec-12 Amounts in (\$ Billion) Chg due to Performance \$24.1 Net Investor Flows \$(12.8)

Source: eVestment|HFN.

### **Monthly Change in Industry Assets and Composition**



### **Note Pad**

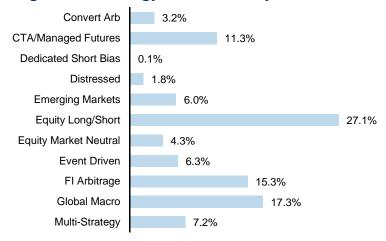
 The Citi Prime Finance calculation for gross leverage (as measured on a mean basis) 1.70x in December 2012 versus 1.70x in November, and 1.71x in October.

Gross leverage (mean): defined as sum of (LMV + abs SMV)/Net Equity



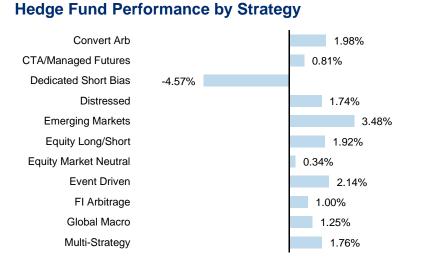
# Hedge Fund Stats by Strategy

### **Hedge Fund Strategy Breakdown by Assets**



Source: Citi Prime Finance.

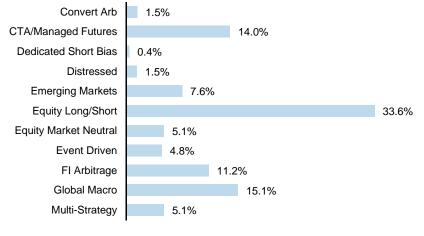
### Source. Citi Filme Finance.



Source: Citi Prime Finance.

Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.

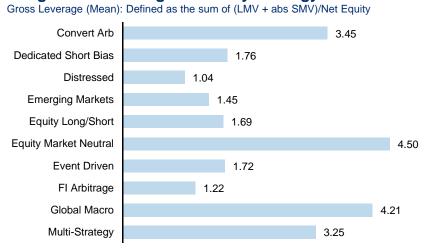
### **Hedge Fund Strategy Breakdown by Number of Funds**



Source: Citi Prime Finance.

Source: Citi Prime Finance.

### **Hedge Fund Leverage Ratios by Strategy**



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# Monthly Performance by Strategy



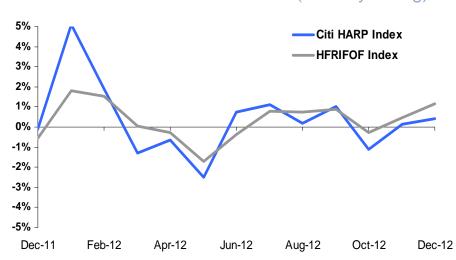
Source: Citi Prime Finance.

Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.



# Citi Liquid Hedge Fund Replicator (HARP)

Citi HARP Index vs. Benchmark (monthly rolling)



Annualized Performance: Last 12-Month	Citi HARP Index	HFRIFOF
Annualised Return	4.94%	4.81%
Annualised Volatility	6.59%	3.35%
Sharpe Ratio	0.74	1.41
Correlation	83%	-

Citi HARP is a liquid investable index, which aims at approximating the performance of the hedge fund sector

	Dec-12	Nov-12	Dec-12	YTD-12
Citi Harp	0.43%	0.13%	-0.08%	4.94%
HFRIFOF	1.17%	0.45%	-0.55%	4.81%

Source: Citi and Hedge Fund Research, Inc., © www.hedgefundresearch.com HFRIFOF Index is the HFRI Funds of Funds Composite Index

The purpose of the Index is to approximate in broad terms the performance of the hedge fund sector by achieving a similarity between the pattern of the returns of the Index and the pattern of the returns of a Benchmark - the HFRI Fund of Funds Composite Index.

The Index contains weighted components. The components are a money market component and various index components. Each index component represents a class of asset in which the hedge fund sector is assumed to invest: bond, commodity, equity and foreign exchange.

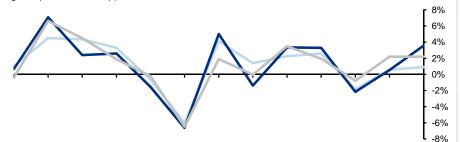
The weighting within the Index of each component is determined monthly. Every month, a multiple linear regression algorithm is used to identify the appropriate weighting.



# **Market Performance**

### **US Equities**

(Large Cap vs. Small Cap)

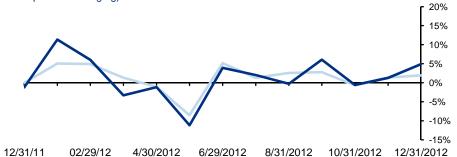


12/31/11 02/29/12 4/30/2012 6/29/2012 8/31/2012 10/31/2012 12/31/2012

	De c-12	Nov-12	De c-11	YTD-12
S&P 500	0.9%	0.6%	1.0%	15.4%
RUS 2000	3.6%	0.5%	0.7%	16.0%
S&P Mid	2.2%	2.2%	-0.4%	17.1%

### **Global Equities**

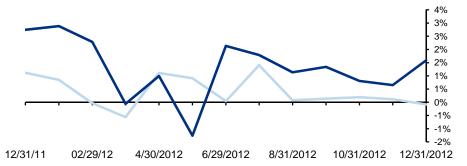
Developed vs. Emerging)



	Dec-12	Nov-12	Dec-11	YTD-12
MSCI World	1.9%	1.3%	0.0%	16.1%
MSCI EM	4.9%	1.3%	-1.2%	19.0%

### **Fixed Income**

(High-Grade vs. High-Yield)

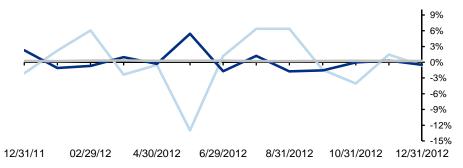


	De c-12	Nov-12	De c-11	YTD-12
Citi US BIG Index	-0.1%	0.1%	1.1%	4.2%
Citi HY Bond Index	1.6%	0.6%	2.7%	14.3%

Source: Citi Prime Finance; FactSet; Citigroup Index LLC.

### **Commodities**

(US\$ Performance)

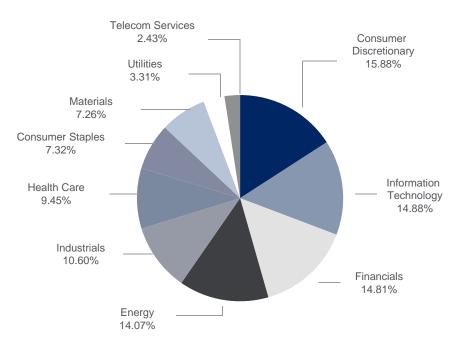


	De c-12	Nov-12	De c-11		YTD-12	
S&P GSCI	-0.6%	1.5%	-2.1%	-	1.7%	_
US-\$ Index	-0.5%	0.3%	2.3%		0.3%	
US 2yr Note	0.2%	0.3%	0.2%		3.2%	



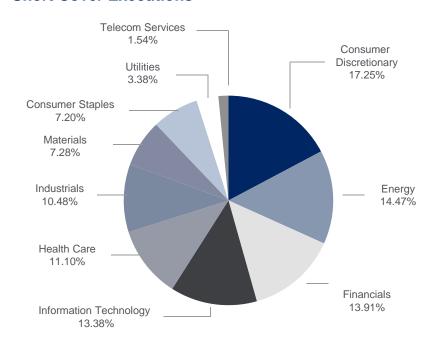
# **US Securities Lending Sector Short Flows**

### **Short Sale Executions**



Sector Short Flows	% Short Execution	% Previous Month Short Execution	% Change From Previous Month
Consumer Discretionary	15.88	15.08	5.31
Information Technology	14.88	12.91	15.26
Financials	14.81	12.43	19.15
Energy	14.07	13.81	1.88
Industrials	10.60	11.27	-5.94
Health Care	9.45	14.51	-34.87
Consumer Staples	7.32	7.84	-6.63
Materials	7.26	5.97	21.61
Utilities	3.31	3.89	-14.91
Telecom Services	2.43	2.29	6.11

### **Short Cover Executions**



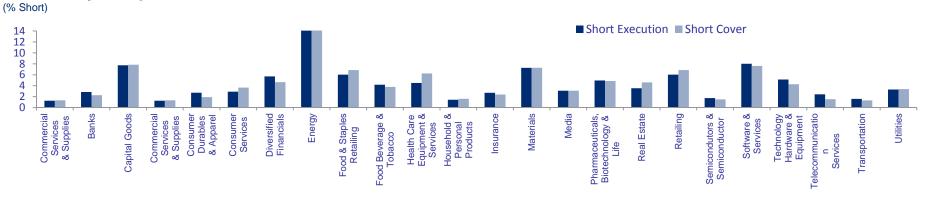
	% Previous Month	% Change From
% Cover Execution	<b>Short Cover</b>	<b>Previous Month</b>
17.25	14.74	17.03
14.47	14.43	0.28
13.91	13.90	0.07
13.38	13.14	1.83
11.10	12.69	-12.53
10.48	11.65	-10.04
7.28	5.14	41.63
7.20	8.83	-18.46
3.38	3.43	-1.46
1.54	2.05	-24.88
	17.25 14.47 13.91 13.38 11.10 10.48 7.28 7.20 3.38	% Cover Execution         Short Cover           17.25         14.74           14.47         14.43           13.91         13.90           13.38         13.14           11.10         12.69           10.48         11.65           7.28         5.14           7.20         8.83           3.38         3.43

Source: S&P (GICS); Citi US Securities Lending. Executions of shorts and short covers settled at Citi Prime Finance based on Market Value.



# US Securities Lending Industry Group Short Flows

# **Citi Industry Group Short Flows**



Industry	% Short Execution	% Previous Month Short Execution	% Change From Previous Month
Energy	14.07	13.81	1.88
Software & Services	8.01	7.54	6.23
Capital Goods	7.74	7.83	-1.15
Materials	7.26	5.97	21.61
Retailing	6.03	6.11	-1.31
Diversified Financials	5.70	3.47	64.27
Technology Hardware and Equipment	5.13	3.80	35.00
Pharmaceuticals, Biotechnology & Life	4.95	6.39	-22.54
Health Care Equipment & Services	4.50	8.12	-44.58
Food Beverage & Tobacco	4.18	4.49	-6.90
Real Estate	3.54	4.34	-18.43
Utilities	3.31	3.89	-14.91
Media	3.09	2.67	15.73
Consumer Services	2.91	3.08	-5.52
Banks	2.85	2.11	35.07
Consumer Durables & Apparel	2.72	2.49	9.24
Insurance	2.71	2.50	8.40
Telecom Services	2.43	2.29	6.11
Semiconductors & Semiconductor	1.74	1.57	10.83
Food & Staples Retailing	1.70	2.10	-19.05
Transportation	1.60	2.19	-26.94
Household & Personal Products	1.44	1.24	16.13
Commercial Services & Supplies	1.26	1.24	1.61
Automobiles & Components	1.13	0.74	52.70

		% Previous Month	% Change From
Industry	% Cover Execution	Short Cover	Previous Month
Energy	14.47	14.43	0.28
Capital Goods	7.84	8.23	-4.74
Software & Services	7.61	7.11	7.03
Materials	7.28	5.14	41.63
Retailing	6.85	6.24	9.78
Health Care Equipment & Services	6.25	6.99	-10.59
Pharmaceuticals, Biotechnology & Life	4.86	5.70	-14.74
Diversified Financials	4.65	3.66	27.05
Real Estate	4.61	5.79	-20.38
Technology Hardware and Equipment	4.27	4.46	-4.26
Food Beverage & Tobacco	3.79	5.02	-24.50
Consumer Services	3.65	2.93	24.57
Utilities	3.38	3.43	-1.46
Media	3.08	2.60	18.46
Insurance	2.39	2.46	-2.85
Banks	2.26	1.98	14.14
Consumer Durables & Apparel	1.92	2.11	-9.00
Food & Staples Retailing	1.80	2.21	-18.55
Automobiles & Components	1.74	0.85	104.71
Household & Personal Products	1.61	1.60	0.63
Telecom Services	1.54	2.05	-24.88
Semiconductors & Semiconductor	1.51	1.58	-4.43
Commercial Services & Supplies	1.33	1.48	-10.14
Transportation	1.31	1.94	-32.47

Source: S&P (GICS); Citi US Securities Lending. Executions of shorts and short covers settled at Citi Prime Finance based on Market Value.



# **US Securities Lending Short Flows Summary**

Citi Short Flows: December 2012

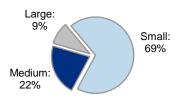
		% Short Executions	% Short Executions	% Change From	% Short Cover	% Short Cover
GICS Code	Description	This Month	From Last Month	Last Month	This Month	From Last Month
Sector	Sector					
10	Energy	14.07	13.81	1.88	14.47	14.43
15	Materials	7.26	5.97	21.61	7.28	5.14
20	Industrials	10.60	11.27	-5.94	10.48	11.65
25	Consumer Discretionary	15.88	15.08	5.31	17.25	14.74
30	Consumer Staples	7.32	7.84	-6.63	7.20	8.83
35	Health Care	9.45	14.51	-34.87	11.10	12.69
40	Financials	14.81	12.43	19.15	13.91	13.90
45	Information Technology	14.88	12.91	15.26	13.38	13.14
50	Telecommunication Services	2.43	2.29	6.11	1.54	2.05
55	Utilities	3.31	3.89	-14.91	3.38	3.43
Industry Group	Industry Group					
1010	Energy	14.07	13.81	1.88	14.47	14.43
1510	Materials	7.26	5.97	21.61	7.28	5.14
2010	Capital Goods	7.74	7.83	-1.15	7.84	8.23
2020	Commercial Services & Supplies	1.26	1.24	1.61	1.33	1.48
2030	Transportation	1.60	2.19	-26.94	1.31	1.94
2510	Automobiles & Components	1.13	0.74	52.70	1.74	0.85
2520	Consumer Durables & Apparel	2.72	2.49	9.24	1.92	2.11
2530	Consumer Services	2.91	3.08	-5.52	3.65	2.93
2540	Media	3.09	2.67	15.73	3.08	2.60
2550	Retailing	6.03	6.11	-1.31	6.85	6.24
3010	Food & Staples Retailing	1.70	2.10	-19.05	1.80	2.21
3020	Food Beverage & Tobacco	4.18	4.49	-6.90	3.79	5.02
3030	Household & Personal Products	1.44	1.24	16.13	1.61	1.60
3510	Health Care Equipment & Services	4.50	8.12	-44.58	6.25	6.99
3520	Pharmaceuticals, Biotechnology & Life Sciences	4.95	6.39	-22.54	4.86	5.70
4010	Banks	2.85	2.11	35.07	2.26	1.98
4020	Diversified Financials	5.70	3.47	64.27	4.65	3.66
4030	Insurance	2.71	2.50	8.40	2.39	2.46
4040	Real Estate	3.54	4.34	-18.43	4.61	5.79
4510	Software & Services	8.01	7.54	6.23	7.61	7.11
4520	Technology Hardware & Equipment	5.13	3.80	35.00	4.27	4.46
4530	Semiconductors & Semiconductor Equipment	1.74	1.57	10.83	1.51	1.58
5010	Telecommunication Services	2.43	2.29	6.11	1.54	2.05
5510	Utilities	3.31	3.89	-14.91	3.38	3.43

Source: S&P (GICS); Citi US Securities Lending. Executions of shorts and short covers settled at Citi Prime Finance based on Market Value.

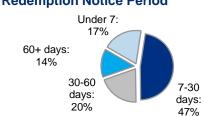


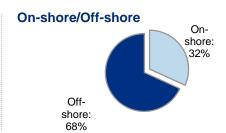
# Hedge Fund (Fund Level) Profiles

### By Fund Size—No. of Funds

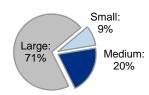


### **Redemption Notice Period**

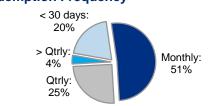




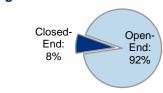
### By Fund Size—\$ AUM



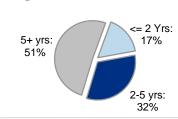
### **Redemption Frequency**



### **Legal Status**



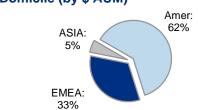
### By Fund Age—No. of Funds





< 1 yr:

10%



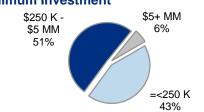
### By Fund Age—\$ AUM



### **Minimum Investment**

2+ yrs:

2%



1 -2 yrs:

46%

Source: Citi Prime Finance.

Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.



# Hedge Fund (Fund Level) Profiles

### **Hedge Funds: Large (>\$500 Million)**

Hedge Fund Age	% of Total	Median AUM (\$MM)	Median Monthly Perform	Median YTD Perform	Domicile: Americas Region	Off- Shore	Preferred Lock-Up / % of Total	Preferred Redemption Notice/ % of Total	Preferred Redemption Frequency/ % of Total
Under 2 yrs	4%	\$1,085	0.2%	6.1%	72%	98%	1-2 yrs / 76%	7-30 days / 69%	Monthly / 56%
2-5 yrs	19%	\$1,385	1.2%	8.0%	70%	63%	1-2 yrs / 79%	60+ days / 31%	Monthly / 40%
Over 5 yrs	77%	\$1,970	1.4%	7.8%	66%	72%	1-2 yrs / 41%	7-30 days / 32%	Monthly / 47%
Total	100%	\$1,698	1.4%	7.8%	68%	69%	1-2 years / 51%	7-30 days / 34%	Monthly / 48%

## Hedge Funds: Medium (\$100-\$500 Million)

							<b>.</b>	Preferred	Preferred
		Median AUM	Median Monthly	Median YTD	Domicile: Americas	Off-	Preferred Lock-Up /	Redemption Notice/	Redemption Frequency/
Hedge Fund Age	% of Total	(\$MM)	Perform	Perform	Region	Shore	% of Total	% of Total	% of Total
Under 2 yrs	3%	\$232	1.1%	9.7%	71%	84%	1-2 yrs / 75%	7-30 days / 52%	Under 30 / 51%
2-5 yrs	24%	\$364	1.2%	9.4%	70%	73%	1-2 yrs / 66%	7-30 days / 41%	Monthly / 49%
Over 5 yrs	73%	\$236	1.7%	7.3%	70%	65%	No / 52%	7-30 days / 48%	Under 30 / 57%
Total	100%	\$223	1.5%	8.0%	71%	68%	No / 44%	7-30 days / 46%	Monthly / 52%

# **Hedge Funds: Small (<\$100 Million)**

Hedge Fund Age	% of Total	Median AUM (\$MM)	Median Monthly Perform	Median YTD Perform	Domicile: Americas Region	Off- Shore	Preferred Lock-Up / % of Total	Redemption Notice/ % of Total	Redemption Frequency/ % of Total
Under 2 yrs	6%	\$67	1.0%	9.3%	87%	79%	1-2 yrs / 71%	7-30 days / 32%	Monthly / 44%
2-5 yrs	32%	\$77	1.8%	8.1%	64%	78%	1-2 yrs / 63%	7-30 days / 43%	Monthly / 52%
Over 5 yrs	62%	\$44	1.5%	6.6%	68%	65%	No / 42%	7-30 days / 55%	Monthly / 54%
Total	100%	\$42	1.6%	7.2%	67%	73%	1-2 yrs / 46%	7-30 days / 50%	Monthly / 52%

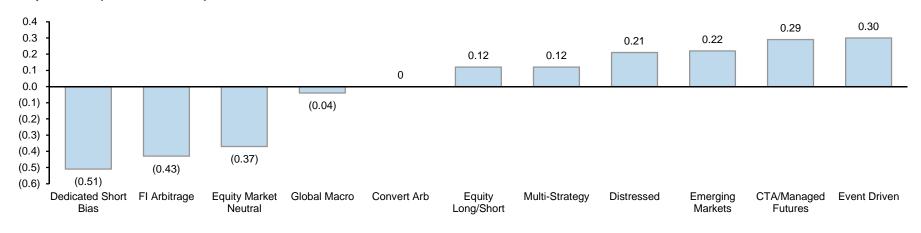
Source: Citi Prime Finance.

Note: Domiciles, lock-up and redemption metrics updated quarterly. Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period. Median YTD performance is calculated from funds reporting for all underlying periods. "n/m" = Not Meaningful.



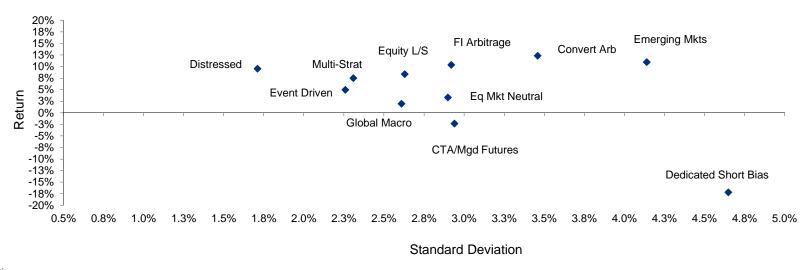
# Risk and Return Metrics

### **Sharpe Ratios (Oct-04 - Dec-12)**



Source: Credit Suisse Tremont.

### Risk vs. Return (Dec 11 - Dec 12)



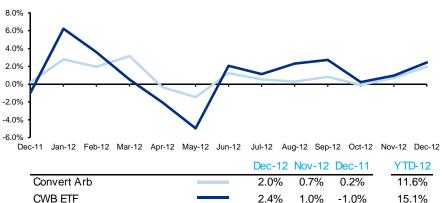
Source: Citi



# Convertible Arbitrage

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	YTD
Citi-derived Median	2.8%	2.0%	3.2%	-0.3%	-1.5%	1.2%	0.5%	0.3%	0.8%	-0.1%	0.7%	2.0%	11.6%

# Hedge Fund Performance vs. Benchmark (Monthly, LTM)

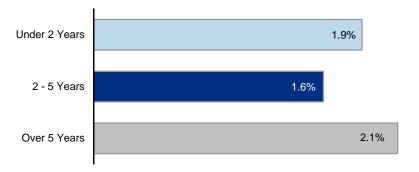


Source: Citi ICG Analytics; FactSet.

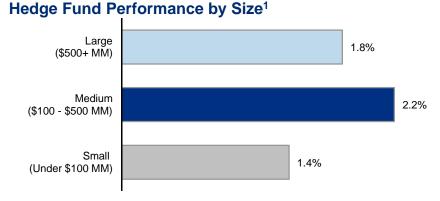
# Leverage Profile (Monthly, LTM) 4.0 3.5 3.0 2.5 2.0 1.5 1.0 Dec-11 Jan-12 Feb-12 Mar-12 Apr-12 May-12 Jun-12 Jul-12 Aug-12 Sep-12 Oct-12 Nov-12 Dec-12 Gross Leverage (Mean): Defined as the sum of (LMV + abs SMV) / Net Equity LMV Leverage (Mean): Defined as Long Market Value / Net Equity

Source: Citi Prime Finance.

## Hedge Fund Performance by Age<sup>1</sup>



Source: Citi Prime Finance.



Source: Citi Prime Finance.

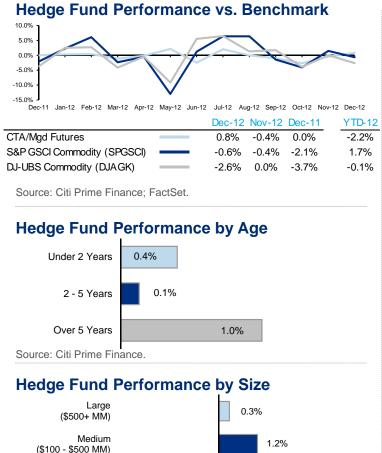
Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.

1. Universe and sample sizes may be small.



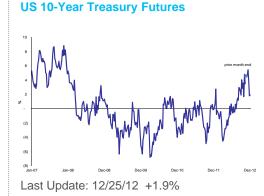
# CTA/Managed Futures

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	YTD
Citi-derived Median	0.3%	0.4%	-1.1%	-0.2%	2.1%	-2.5%	2.0%	0.0%	-1.0%	-2.7%	-0.4%	0.8%	-2.2%

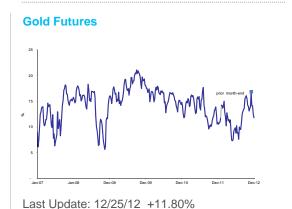












Source: CFTC, Bloomberg, Citi Futures Perspective.

Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.

1.8%

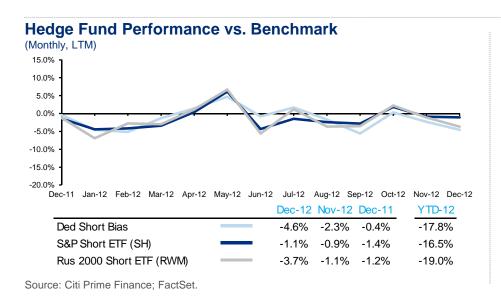
1. Universe and sample sizes may be small.

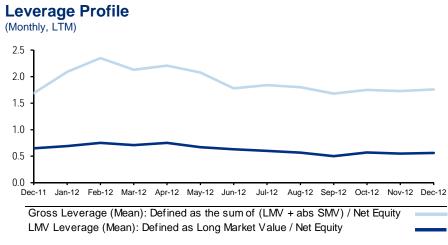
(Under \$100 MM) Source: Citi Prime Finance.



# **Dedicated Short Bias**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	YTD
Citi-derived Median	-4.5%	-5.2%	-1.3%	1.4%	4.7%	-0.8%	1.7%	-1.7%	-5.6%	0.3%	-2.3%	-4.6%	-17.8%



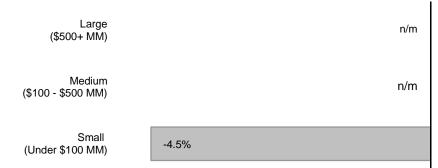


Hedge Fund Performance by Age<sup>1</sup>



Source: Citi Prime Finance.

Hedge Fund Performance by Size<sup>1</sup>



Source: Citi Prime Finance.

Source: Citi Prime Finance.

Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.

1. Universe and sample sizes may be small.

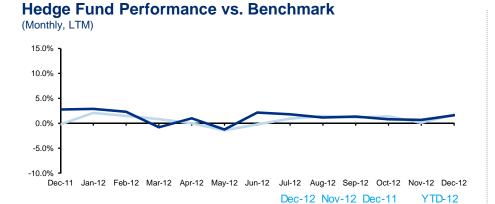


# **Distressed**

Distressed

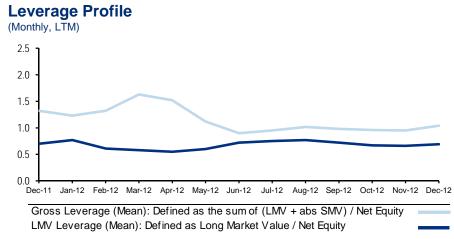
Citi HY Bond Index

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	YTD
Citi-derived Median	2.1%	1.5%	0.8%	0.0%	-1.4%	-0.2%	0.9%	1.4%	1.2%	1.4%	0.1%	1.7%	9.4%



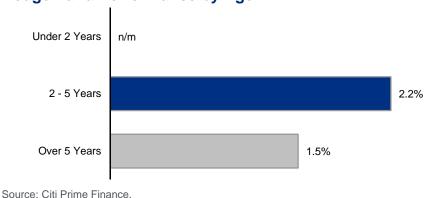
1.6%

Source: Citi Prime Finance; Citigroup Index LLC; Altman-NYU Salomon Center.



Source: Citi Prime Finance.

# Hedge Fund Performance by Age<sup>1</sup>



Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.

1. Universe and sample sizes may be small.

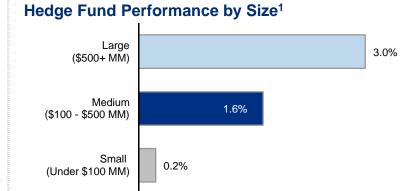
-0.2%

2.7%

0.6%

9.4%

13.5%

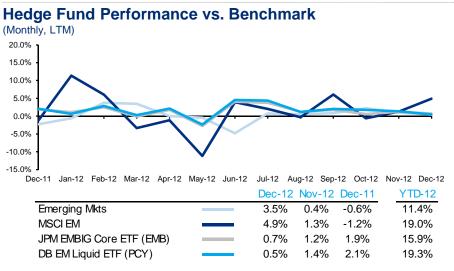


Source: Citi Prime Finance.



# **Emerging Markets**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	YTD
Citi-derived Median	3.8%	3.5%	0.0%	-0.4%	-4.8%	0.8%	0.5%	0.9%	2.2%	1.0%	0.4%	3.5%	11.4%

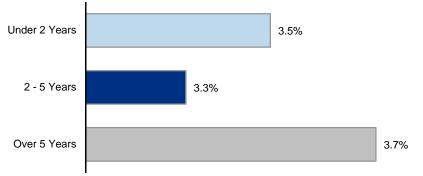


Source: Citi Prime Finance: FactSet.

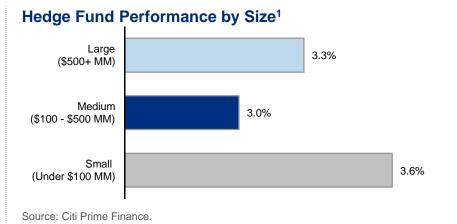
# **Leverage Profile** (Monthly, LTM) 2.0 1.5 1.0 0.5 Dec-11 Jan-12 Feb-12 Mar-12 Apr-12 May-12 Jun-12 Jul-12 Aug-12 Sep-12 Oct-12 Nov-12 Dec-12 Gross Leverage (Mean): Defined as the sum of (LMV + abs SMV) / Net Equity LMV Leverage (Mean): Defined as Long Market Value / Net Equity

Source: Citi Prime Finance.

# Hedge Fund Performance by Age<sup>1</sup>



Source: Citi Prime Finance.



Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period. 1. Universe and sample sizes may be small.



# **Equity Long/Short**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	YTD
Citi-derived Median	3.1%	2.5%	0.5%	-0.8%	-4.2%	0.9%	0.4%	1.1%	2.2%	0.3%	0.7%	1.9%	8.5%



Source: Citi Prime Finance; FactSet.

### **Leverage Profile** (Monthly, LTM) 2.9 2.6 2.4 2.1 1.9 1.6 1.4 1.1 0.9 Dec-11 Jan-12 Feb-12 Mar-12 Apr-12 May-12 Jun-12 Jul-12 Aug-12 Sep-12 Oct-12 Nov-12 Dec-12 Gross Leverage (Mean): Defined as the sum of (LMV + abs SMV) / Net Equity LMV Leverage (Mean): Defined as Long Market Value / Net Equity

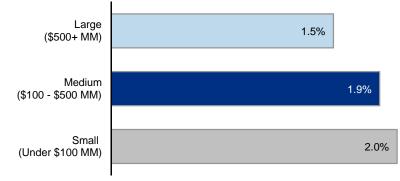
Source: Citi Prime Finance.

# Hedge Fund Performance by Age<sup>1</sup>



Source: Citi Prime Finance.





Source: Citi Prime Finance.

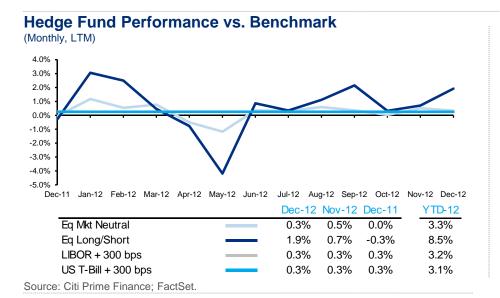
Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.

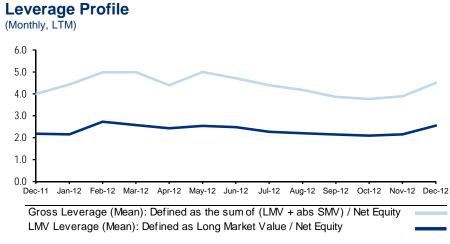
1. Universe and sample sizes may be small.



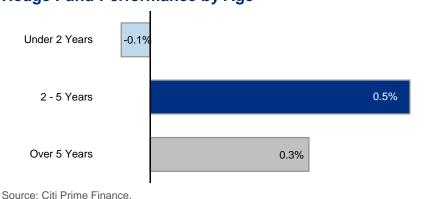
# **Equity Market Neutral**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	YTD
Citi-derived Median	1.2%	0.5%	0.8%	-0.5%	-1.2%	0.4%	0.3%	0.6%	0.4%	0.0%	0.5%	0.3%	3.3%

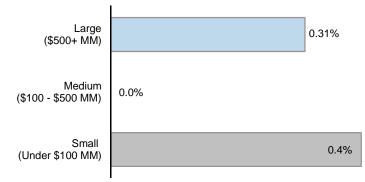




Hedge Fund Performance by Age<sup>1</sup>







Source: Citi Prime Finance.

Source: Citi Prime Finance.

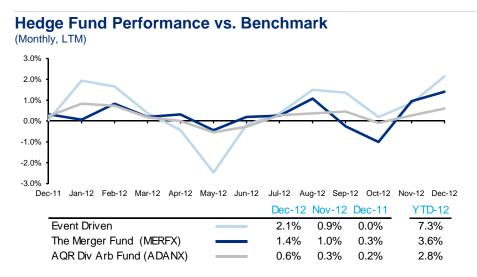
Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.

1. Universe and sample sizes may be small.



# **Event Driven**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	YTD
Citi-derived Median	1.9%	1.7%	0.4%	-0.4%	-2.5%	-0.2%	0.4%	1.5%	1.4%	0.2%	0.9%	2.1%	7.3%

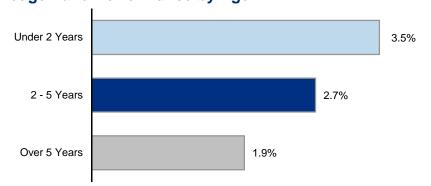


Source: Citi Prime Finance; FactSet.

# Leverage Profile (Monthly, LTM) 6.0 5.0 4.0 3.0 2.0 1.0 Dec-11 Jan-12 Feb-12 Mar-12 Apr-12 May-12 Jun-12 Jul-12 Aug-12 Sep-12 Oct-12 Nov-12 Dec-12 Gross Leverage (Mean): Defined as the sum of (LMV + abs SMV) / Net Equity LMV Leverage (Mean): Defined as Long Market Value / Net Equity

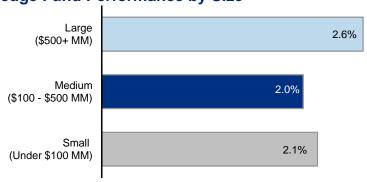
Source: Citi Prime Finance.

# Hedge Fund Performance by Age<sup>1</sup>



Source: Citi Prime Finance.





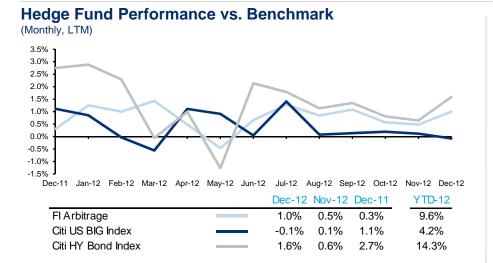
Source: Citi Prime Finance.

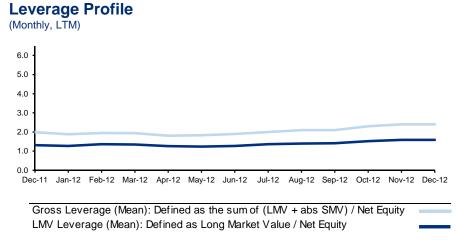
Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period. 1. Universe and sample sizes may be small.



# FI Arbitrage

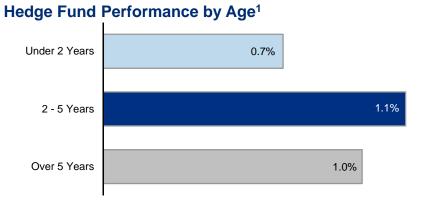
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	YTD
Citi-derived Median	1.3%	1.0%	1.4%	0.5%	-0.5%	0.7%	1.3%	0.8%	1.1%	0.6%	0.5%	1.0%	9.6%

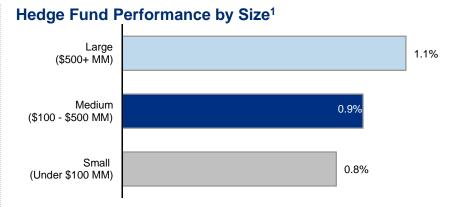




Source: Citi Prime Finance; Citigroup Index LLC.

Source: Citi Prime Finance.





Source: Citi Prime Finance.

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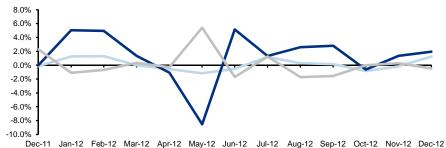


# Global Macro

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	YTD
Citi-derived Median	1.3%	1.3%	0.0%	-0.6%	-1.2%	-0.5%	1.2%	0.3%	0.1%	-0.9%	-0.2%	1.3%	2.1%

# **Hedge Fund Performance vs. Benchmark**

(Monthly, LTM)

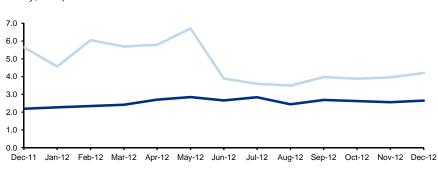


	Dec-12	Nov-12	Dec-11	YTD-12
Global Macro	1.3%	-0.2%	-0.2%	2.1%
MSCI World	1.9%	1.3%	0.0%	16.2%
US\$-Index	-0.5%	0.3%	2.3%	-0.3%

Source: Citi Prime Finance; FactSet.

# **Leverage Profile**

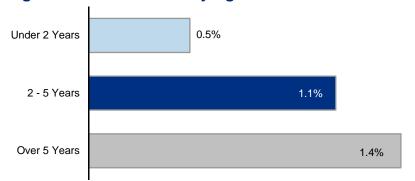
(Monthly, LTM)



Gross Leverage (Mean): Defined as the sum of (LMV + abs SMV) / Net Equity LMV Leverage (Mean): Defined as Long Market Value / Net Equity

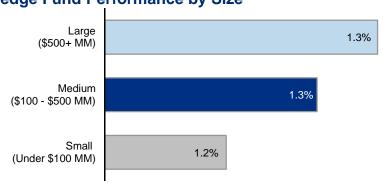
Source: Citi Prime Finance; FactSet.

### Hedge Fund Performance by Age<sup>1</sup>



Source: Citi Prime Finance.

# Hedge Fund Performance by Size<sup>1</sup>



Source: Citi Prime Finance; FactSet.

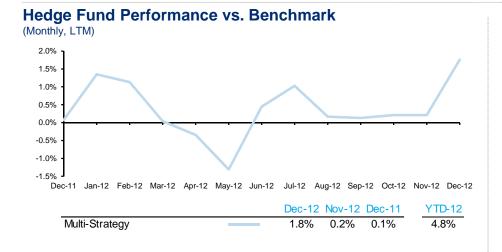
Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.





# Multi-Strategy

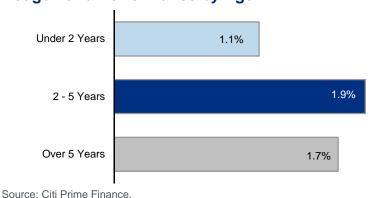
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	YTD
Citi-derived Median	1.4%	1.1%	0.0%	-0.3%	-1.3%	0.5%	1.0%	0.2%	0.1%	0.2%	0.2%	1.8%	4.8%

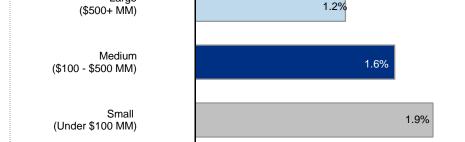


Source: Citi Prime Finance.

# Leverage Profile (Monthly, LTM) 6.0 5.0 4.0 3.0 2.0 Dec-11 Jan-12 Feb-12 Mar-12 Apr-12 May-12 Jun-12 Jul-12 Aug-12 Sep-12 Oct-12 Nov-12 Dec-12 Gross Leverage (Mean): Defined as the sum of (LMV + abs SMV) / Net Equity LMV Leverage (Mean): Defined as Long Market Value / Net Equity

# Hedge Fund Performance by Age<sup>1</sup>





Source: Citi Prime Finance.

Source: Citi Prime Finance.

Hedge Fund Performance by Size<sup>1</sup>

Note: Hedge fund data is self-reported; each calculation is based on the respective data from funds who have reported for the current period.

1. Universe and sample sizes may be small.



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