

IPREO REGIONAL FLOW OF FUNDS SERIES

Western Europe
Semiconductors
Q1-2017

Market Overview

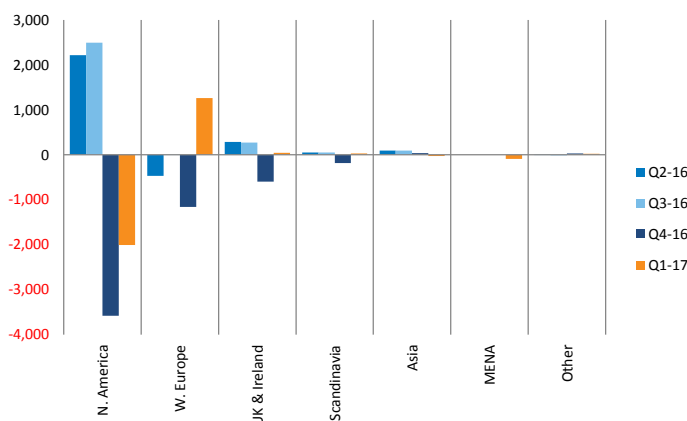
- This has been a good quarter for Equities across **Developed** and **Emerging** Markets, with inflows largely driven by **Index** Investors, with substantial inflows into **North America** (+\$68.0B), **WEU** (+\$20.0B), **Southern Europe** (+\$11.0B), **Emerging Europe** (+\$1.7B), **China** (+\$12.0B), **Japan** (+\$36.0B), **Latin America** (+\$5.0B).
- Western Europe (WEU)** has seen the highest level of equity inflows since Q1-16. "Thanks to the macro interventions from the central banks . . . a tipping point has been reached," said **Vinay Pande**, head of short-term investment opportunities at **UBS Wealth Management**. "What has clearly helped tip us over was the data, GDP numbers that were outperforming the US. Earnings growth in Europe has been even better than in the US. And the last thing was the political risk. With that out of the way, the law of gravity must take over." (FT 12 May 2017)
- Bulk of inflows into **WEU** were **North American** (\$13.0B out of \$20.0B) with **UK** being the second largest investor region +\$3.5B, then **Rest of World** +\$1.7B and only then local **WEU** investors +\$1.5B (and a lot of that went into **Southern Europe**).

WEU Semiconductors

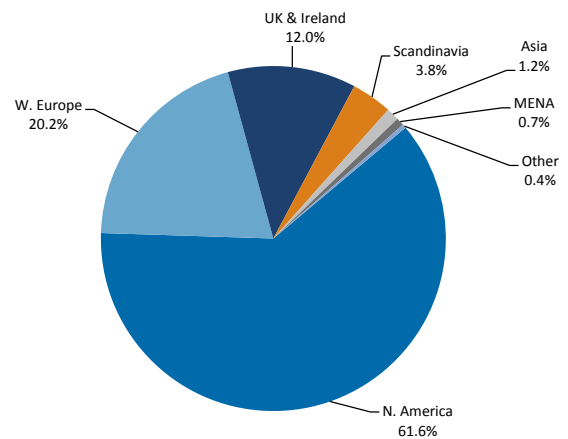
- Overall **WEU Technology** equities in general have seen net inflows of +\$3.1B in the last 12 months. Q1-17 saw net inflows (+\$2.8B) with the bulk of activity driven by combination buying of **WEU Telecommunications** (+\$2.3B) and **WEU Computer Software and Services** (+\$1.4B) equities. In contrast, **WEU Semiconductors** (-\$754M) and **WEU Technology Hardware and Equipment** (-\$56M) saw outflows.
- UK & Ireland** was mostly responsible for the **WEU Technology** outflows(-\$6.7B) over the last 4 quarters, while only having a net inflow (+\$367M) in the current quarter. **North America** claims the largest accumulated net inflow for the past year (+\$4.3B), even though it had net outflows of-\$2.8B for the last two quarters. **WEU** has provided for the most consistent quarterly net inflows (+\$3.0B) into the wider sector, **WEU Technology**.
- In line with **WEU Technology**, **Index** and **Alternative** style investors were net buyers of **WEU Semiconductors** for Q1-17, while **Growth** and **Value** investors divested from both sectors accordingly. **Growth** and **Value** sellers of **WEU Technology** included **North American** firms namely, **Capital World Investors** and **T. Rowe Price Associates** accounting for -\$5.0B, while **Alternative** buying firms included **HBK Investments**, **Pentwater Capital Management** and **Eminence Capital**.
- According to **John Neuffer**, president and CEO of **Semiconductor Industry Association** "Global market trends are favorable for continuing sales growth in the months ahead".
- In contrast, **WEU Semiconductors'** sector saw a smaller net outflows in Q1-17 (-\$754M), compared to the only other net outflow recorded in the preceding quarter (-\$5.5B); In total it saw an accumulated net outflow of-\$1.1B for the same four quarter period.
- WEU Semiconductor Equipment and Testing** accounted for net outflows of-\$1.1B while **WEU Semiconductors - Processors** moved in the other direction with +\$343M.

Institutional Investment Flow Highlights

Net Change (\$M Value) by Region

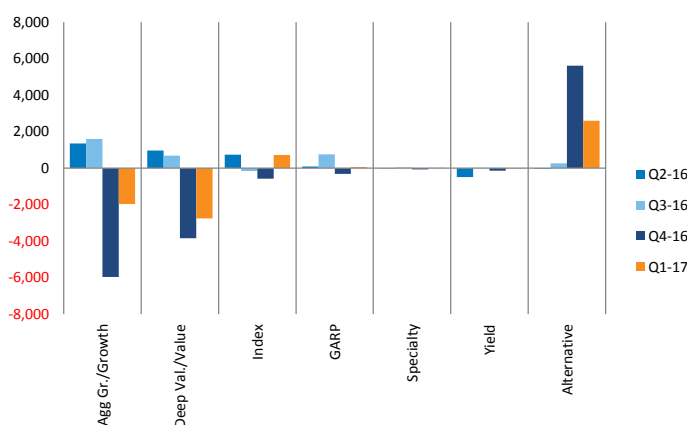


Ownership by Region

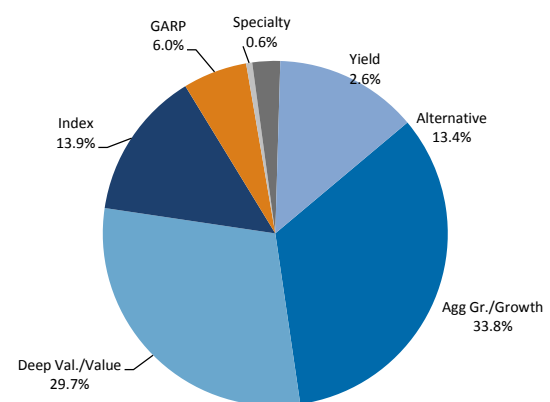


- In line with the wider sector, for Q1-17, **WEU** (+\$1.3B) were positive contributors to the flow change, though the region had divested from this sector in the previous quarter. **WEU** firms **Carmignac Gestion** and **Allianz Global Investors** led the buying, having mainly buying **ASML Holding**, **Siltronic AG** and **Infineon Technologi**, though **Allianz Global Investors** was also a top seller for **WEU** region in the preceding quarter.
- North America** have now had two successive quarters of the largest outflows. As with the wider sector, **Capital World Investors** and **T. Rowe Price Associates** account majority (-\$4.8B) of the selling for the sector at hand. They sold stocks of **Infineon Technologies**, **NXP Semiconductors**, **ASML Holding** and **VAT Group**. Despite the heavy selling, **North America** still holds 61.6% of the sector, led by **Capital World Investors**, **T. Rowe Price Associates** and **Fidelity Management & Research Company**. These firms holding positions in **ASML Holding**, **Infineon Technologies**, **NXP Semiconductors**, **Siltronic AG** and **VAT Group**.

Net Change (\$M Value) by Style



Ownership by Style



- In line with **WEU Technology**, **Index** (+\$712M) and **Alternative** (+\$2.6B) investors were net buyers of the sector at hand. **North American** firms **HBK Investments**, **Pentwater Capital Management** and **Eminence Capital** were the top buyers of the **Alternative Investment** style, this style is the top buying style for the past year with an accumulated net inflow of +\$8.4B, their inflows mainly go to **NXP Semiconductors** and **ASM International** this quarter.
- Also in line with the **WEU Technology**, **Growth** and **Value** investors from **North America** made up the bulk of the selling of the sector, a trend that has continued from the previous quarter. That being said, **Growth** and **Value** investors still dominate the holdings of the sector. **Value** and **Growth** firms **Capital World Investors** and **T. Rowe Price Associates** were the main sellers.

Top Invested Cities

Country / City	Most Invested			
	Total Equity Assets (\$M)	Value (\$M)	Activity (\$M)	# Firms
United States (New York)	2,946,898	12,377	1,027	159
United States (Los Angeles)	1,080,516	10,377	-2,942	11
United Kingdom (London)	1,889,291	7,517	-11	120
United States (Boston)	2,126,900	4,461	162	35
Germany (Frankfurt)	293,010	3,759	346	36
United States (Baltimore)	624,997	3,562	-2,072	5
France (Paris)	374,086	3,497	195	92
Norway (Oslo)	644,697	2,347	95	18
United States (San Francisco)	475,160	2,295	223	26
United States (Dallas)	18,181	1,539	483	6
Excludes Passive/Index Investors		51,732	-2,493	508

Country / City	Most Investors			
	Total Equity Assets (\$M)	Value (\$M)	Activity (\$M)	# Firms
United States (New York)	2,946,898	12,377	1,027	159
United Kingdom (London)	1,889,291	7,517	-11	120
France (Paris)	374,086	3,497	195	92
Spain (Madrid)	51,419	240	-41	38
Germany (Frankfurt)	293,010	3,759	346	36
United States (Boston)	2,126,900	4,461	162	35
United States (Chicago)	397,895	764	59	31
Switzerland (Zürich)	255,352	1,129	22	30
United States (San Francisco)	475,160	2,295	223	26
Canada (Toronto)	584,266	914	81	25
Excludes Passive/Index Investors		36,955	2,064	592

Top Holders, Buyers & Sellers

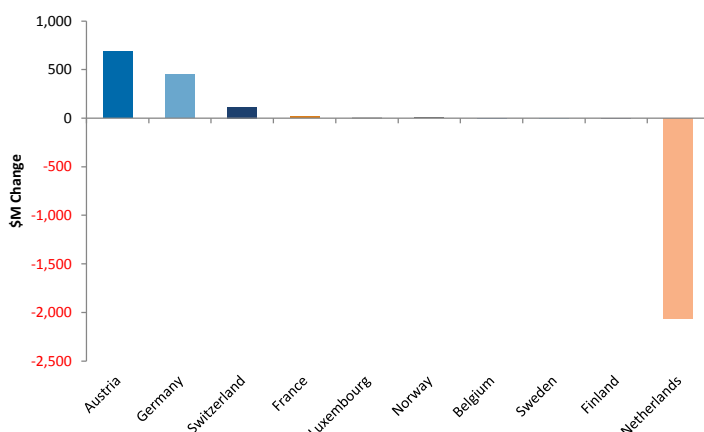
Top Holders	Country	Style	Turnover	Equity Assets (\$M)	Value (\$M)	Change (\$M)	% Port.	Chg
Capital World Investors (U.S.)	United States	Value	Low	610,973	8,865.2	-2,790.9	1.5	-23.9
T. Rowe Price Associates, Inc.	United States	Growth	Low	579,206	3,102.8	-2,031.3	0.5	-39.6
Fidelity Management & Research Company	United States	Growth	Low	842,171	2,302.3	430.3	0.3	23.0
Norges Bank Investment Management (Norway)	Norway	Value	Low	590,129	2,046.3	100.3	0.3	5.2
Allianz Global Investors GmbH	Germany	Growth	Medium	69,735	1,894.5	208.6	2.7	12.4
HBK Investments, L.P.	United States	Alternative	Very High	6,787	1,345.5	455.2	19.8	51.1
OppenheimerFunds, Inc	United States	Growth	Medium	147,090	1,306.2	200.3	0.9	18.1
Capital Research Global Investors (U.S.)	United States	GARP	Low	423,035	1,270.9	-277.0	0.3	-17.9
Pentwater Capital Management, L.P.	United States	Alternative	Very High	4,621	1,111.1	225.7	24.0	25.5
Soroban Capital Partners, L.P.	United States	Alternative	High	13,622	1,009.4	165.3	7.4	19.6
					18,211.1	-4,083.0		

Top Buyers	Country	Style	Turnover	Equity Assets (\$M)	Value (\$M)	Change (\$M)	% Port.	Chg
UBS Financial Services, Inc. (Investment Advisor)	United States	GARP	Low	150,667	545.6	517.1	0.4	1,814.6
Deutsche Bank Trust Company Americas	United States	Value	High	55,610	573.6	462.3	1.0	415.2
HBK Investments, L.P.	United States	Alternative	Very High	6,787	1,345.5	455.2	19.8	51.1
Fidelity Management & Research Company	United States	Growth	Low	842,171	2,302.3	430.3	0.3	23.0
Carmignac Gestion	France	Growth	Medium	22,848	388.2	336.0	1.7	644.0
Waddell & Reed Investment Management Company	United States	Aggressive Gro	Medium	55,414	363.0	266.6	0.7	276.3
Pentwater Capital Management, L.P.	United States	Alternative	Very High	4,621	1,111.1	225.7	24.0	25.5
Eminence Capital, L.P.	United States	Alternative	Medium	5,895	322.2	214.8	5.5	200.0
Allianz Global Investors GmbH	Germany	Growth	Medium	69,735	1,894.5	208.6	2.7	12.4
OppenheimerFunds, Inc	United States	Growth	Medium	147,090	1,306.2	200.3	0.9	18.1
					10,152.3	3,317.0		

Top Sellers	Country	Style	Turnover	Equity Assets (\$M)	Value (\$M)	Change (\$M)	% Port.	Chg
Capital World Investors (U.S.)	United States	Value	Low	610,973	8,865.2	-2,790.9	1.5	-23.9
T. Rowe Price Associates, Inc.	United States	Growth	Low	579,206	3,102.8	-2,031.3	0.5	-39.6
J.P. Morgan Investment Management, Inc.	United States	Growth	Medium	254,855	142.9	-351.9	0.1	-71.1
Jennison Associates, LLC	United States	Growth	Medium	96,523	463.6	-279.3	0.5	-37.6
Capital Research Global Investors (U.S.)	United States	GARP	Low	423,035	1,270.9	-277.0	0.3	-17.9
Wellington Management Company, LLP	United States	Value	Low	463,357	90.2	-224.4	0.0	-71.3
Fred Alger Management, Inc.	United States	Aggressive Gro	Medium	20,340	26.8	-168.1	0.1	-86.2
Eton Park Capital Management, L.P. (U.S.)	United States	Alternative	Very High	1,440	209.5	-139.4	14.5	-40.0
Columbia Threadneedle Investments (U.K.)	United Kingdom	Growth	Medium	55,413	110.6	-126.5	0.2	-53.3
Bessemer Investment Management, LLC	United States	Value	Medium	24,702	0.3	-124.8	0.0	-99.8
					14,282.9	-6,513.7		

- **Netherlands** accounted for all of the sector's outflows (-\$2.1B) with **NXP Semiconductors** and **ASML Holding** being the source. **NXP Semiconductors** is rumored to be amidst a +\$38.0B buyout by **Qualcomm**. **Netherlands** as a region also saw net outflows, with the **Technology** and **Energy** sector being hit the most this quarter.

Most Bought & Sold Countries



Most Bought & Sold Stocks

BOUGHT Securities	Country	Change (\$M)
Ams AG	Austria	694.7
Siltronic AG	Germany	317.2
ASM International N.V.	Netherlands	245.1
STMicroelectronics N.V.	Switzerland	143.9
Infineon Technologies AG	Germany	117.0

SOLD Securities	Country	Change (\$M)
ASML Holding N.V.	Netherlands	-1,326.6
NXP Semiconductors N.V.	Netherlands	-1,015.9
VAT Group AG	Switzerland	-44.6
Inside Secure SA	France	-6.7
AT&S Austria Technologie & Sy:	Austria	-4.6

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