

Fund Custodians
League Tables

Global Funds and AUC

Reporting Period
Oct 2022 - Oct 2023



CONVERGENCE
OPTIMAL PERFORMANCE

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About this League Table Report

- Our League Tables leverage the most comprehensive database of active funds and advisers in the market. Convergence is the only firm to have a complete set of advisers and funds including:
 - SEC registered private and public funds and advisers
 - State registered private and public funds and advisers
 - Unregistered private funds and advisers
 - EU UCITS and private funds
 - Non-pooled investment entities
- This report includes all US and non-US funds and is divided into 3-Section
 - Funds that use one or more custodians
 - Funds that use a “single” custodians
 - Funds that use “multiple” custodians
- Additional Fund custodians League Tables for custodians Funds and AUC are available to Convergence Clients in the following cuts:
 - Private Funds, and within private funds, in the following sub-cuts
 - Hedge, Private Equity, Real Estate, Venture Capital, Securitized Assets, Hybrid and Liquidity Funds
 - Public Funds and within public funds, in the following sub-cuts
 - By fund strategy (30+)

Custodians League Table - Global Funds

Convergence - Oct 2023 League Tables - Custodians Market Segment - Fund Relationships										
All Custodians	Oct -23 #FR	Oct -22 #FR	22-23 Change	22-23 Change %	Market Share-23	Market Share-22	23-22 Change %	Oct -23 Rank	Oct -22 Rank	23-22 Change
JPMORGAN	30,633	17,987	12,646	70.3%	13.2%	7.9%	67.0%	1	1	0
BANK OF NEW YORK	16,995	15,978	1,017	6.4%	7.3%	7.0%	4.3%	2	2	0
STATE STREET IFS	15,526	14,807	719	4.9%	6.7%	6.5%	2.8%	3	3	0
FIRST CITIZENS BANK AND TRUST	12,680	800	11,880	1485.0%	5.4%	0.4%	1454.7%	4	35	31
BANK OF AMERICA	11,472	10,617	855	8.1%	4.9%	4.7%	6.0%	5	6	1
CITIBANK	8,804	8,157	647	7.9%	3.8%	3.6%	5.9%	6	7	1
NORTHERN TRUST	6,632	6,334	298	4.7%	2.8%	2.8%	2.7%	7	8	1
MORGAN STANLEY	6,240	5,926	314	5.3%	2.7%	2.6%	3.3%	8	9	1
BNP PARIBAS	5,883	5,883	0	0.0%	2.5%	2.6%	-1.9%	9	10	1
UNION BANK OF SWITZERLAND	5,825	3,509	2,316	66.0%	2.5%	1.5%	62.8%	10	17	7
GOLDMAN SACHS BANK USA	5,787	5,558	229	4.1%	2.5%	2.4%	2.1%	11	11	0
US BANCORP	5,662	5,114	548	10.7%	2.4%	2.2%	8.6%	12	12	0
CACEIS	4,882	4,085	797	19.5%	2.1%	1.8%	17.2%	13	15	2
HSBC FINANCIAL SERVICES	4,423	3,799	624	16.4%	1.9%	1.7%	14.2%	14	16	2
WELLS FARGO	4,335	4,331	4	0.1%	1.9%	1.9%	-1.8%	15	14	-1
BROWN BROTHER HARRIMAN	2,766	2,755	11	0.4%	1.2%	1.2%	-1.5%	16	18	2
SOCIETE GENERALE	2,358	2,265	93	4.1%	1.0%	1.0%	2.1%	17	20	3
DEUTSCHE BANK	2,046	2,083	-37	-1.8%	0.9%	0.9%	-3.7%	18	21	3
FIDELITY	1,973	1,857	116	6.2%	0.8%	0.8%	4.2%	19	22	3
CITCO FUNDS SERVICES	1,858	1,465	393	26.8%	0.8%	0.6%	24.4%	20	24	4
INTERACTIVE BROKERS	1,622	1,549	73	4.7%	0.7%	0.7%	2.7%	21	23	2
BARCLAYS	1,589	1,395	194	13.9%	0.7%	0.6%	11.7%	22	26	4
CANADIAN IMPERIAL BANK OF COMMERCE	1,522	1,335	187	14.0%	0.7%	0.6%	11.8%	23	27	4
ROYAL BANK OF CANADA	1,459	2,268	-809	-35.7%	0.6%	1.0%	-36.9%	24	19	-5
ESHARES	1,366	1,403	-37	-2.6%	0.6%	0.6%	-4.5%	25	25	0
TOP 25 CUSTODIANS FR - ALL	164,338	131,260	33,078	25.2%	70.6%	57.5%	22.8%			
ALL OTHER	68,428	97,049	-28,621	-29.5%	29.4%	42.5%	-30.8%			
TOTAL CUSTODIANS FR DISCLOSED	232,766	228,309	4,457	2.0%	73.2%	73.0%	0.2%			
NOT REPORTED	35,381	33,405	1,976	5.9%	11.1%	10.7%	4.1%			
ELIGIBLE FUNDS - NOT ATTRIBUTED	50,047	51,028	-981	-1.9%	15.7%	16.3%	-3.6%			
TOTAL FUNDS NOT DISCLOSING A CUSTODIANS FR	85,428	84,433	995	1.2%	26.8%	27.0%	-0.6%			
TOTAL FUNDS	318,194	312,742	5,452	1.7%	100.0%	100.0%	0.0%			

Fund Custodians Peer Analysis – Global Funds - Growth and Market Share

Best and Worst Performing Peer Groups

- Custodians ranked 1-10 registered the highest growth in funds
 - Funds increased 34.10%, or 17.47x the market
 - Market share increased from 39.42% to 51.85%
 - An increase of 31.54%
- Custodians ranked >25 registered the lowest growth in funds
 - Funds decreased 29.49%, or -15.11x the market
 - Market share decreased from 42.51% to 29.40%
 - A decrease of 30.84%

Peer Group Performance by Fund Relationships						
Custodians Peer Group Analysis	Y-Y Growth	Growth vs-MKT	SOM 2023	SOM 2022	SOM Change	SOM Change %
Market Growth Funds	1.74%		100%	100%		
Market Growth Custodians Disclosed	1.95%	1.12	73.15%	73.00%	0.15%	0.21%
Custodians Ranked 1-10	34.10%	17.47	51.85%	39.42%	12.43%	31.54%
Custodians Ranked 11-25	5.78%	2.96	18.75%	18.07%	0.68%	3.76%
All Other Custodians	-29.49%	-15.11	29.40%	42.51%	-13.11%	-30.84%
Market Growth Custodians Not Disclosed	1.18%	0.68	26.85%	27.00%	-0.15%	-0.56%

Fund Custodians League Table – Global AUC

Convergence - Oct 2023 League Tables - Custodians Market Segment - Assets (in BN)

All Custodians	Oct -23 FR-AUC	Oct -22 FR-AUC	22-23 Change	22-23 Change %	Market Share-23	Market Share-22	23-22 Change %	Oct -23 Rank	Oct -22 Rank	23-22 Change
JPMORGAN	\$20,038.39	\$16,589.19	\$3,449.20	20.8%	14.3%	12.5%	14.4%	1	1	0
STATE STREET IFS	\$18,003.84	\$15,943.12	\$2,060.73	12.9%	12.9%	12.0%	6.9%	2	2	0
BANK OF NEW YORK	\$14,410.09	\$13,004.84	\$1,405.26	10.8%	10.3%	9.8%	4.9%	3	3	0
BANK OF AMERICA	\$7,375.05	\$7,055.97	\$319.09	4.5%	5.3%	5.3%	-1.0%	4	4	0
CITIBANK	\$6,300.40	\$5,634.31	\$666.10	11.8%	4.5%	4.3%	5.9%	5	5	0
UNION BANK OF SWITZERLAND	\$4,625.35	\$3,503.15	\$1,122.20	32.0%	3.3%	2.6%	25.0%	6	11	5
MORGAN STANLEY	\$4,468.15	\$4,751.26	-\$283.11	-6.0%	3.2%	3.6%	-10.9%	7	6	-1
GOLDMAN SACHS BANK USA	\$4,445.60	\$4,418.27	\$27.32	0.6%	3.2%	3.3%	-4.7%	8	8	0
NORTHERN TRUST	\$4,356.66	\$4,431.36	-\$74.70	-1.7%	3.1%	3.3%	-6.9%	9	7	-2
BNP PARIBAS	\$4,087.61	\$3,746.55	\$341.06	9.1%	2.9%	2.8%	3.3%	10	9	-1
BARCLAYS	\$3,864.53	\$3,530.61	\$333.92	9.5%	2.8%	2.7%	3.7%	11	10	-1
HSBC FINANCIAL SERVICES	\$2,807.27	\$2,484.94	\$322.34	13.0%	2.0%	1.9%	7.0%	12	14	2
WELLS FARGO	\$2,587.98	\$2,704.22	-\$116.23	-4.3%	1.8%	2.0%	-9.4%	13	13	0
BROWN BROTHER HARRIMAN	\$2,323.44	\$2,120.31	\$203.13	9.6%	1.7%	1.6%	3.8%	14	17	3
US BANCORP	\$2,306.82	\$2,085.84	\$220.98	10.6%	1.6%	1.6%	4.7%	15	18	3
DEUTSCHE BANK	\$2,126.58	\$2,132.76	-\$6.19	-0.3%	1.5%	1.6%	-5.6%	16	16	0
FIRST CITIZENS BANK AND TRUST	\$1,942.77	\$0.12	\$1,942.65	1633243.1%	1.4%	0.0%	1546581.2%	17	1037	1,020
SOCIETE GENERALE	\$1,724.91	\$1,672.23	\$52.68	3.2%	1.2%	1.3%	-2.3%	18	19	1
STANDARD CHARTERED BANK	\$1,479.86	\$1,359.13	\$120.73	8.9%	1.1%	1.0%	3.1%	19	21	2
CACEIS	\$1,213.73	\$977.47	\$236.26	24.2%	0.9%	0.7%	17.6%	20	24	4
BANK OF NOVA SCOTIA	\$1,042.19	\$892.24	\$149.94	16.8%	0.7%	0.7%	10.6%	21	25	4
ROYAL BANK OF CANADA	\$1,015.98	\$985.72	\$30.26	3.1%	0.7%	0.7%	-2.4%	22	23	1
FIDELITY	\$949.53	\$1,095.83	-\$146.31	-13.4%	0.7%	0.8%	-17.9%	23	22	-1
COMPUTERSHARE	\$917.93	\$757.25	\$160.68	21.2%	0.7%	0.6%	14.8%	24	26	2
SKANDINAVISKA SECURITIES	\$865.13	\$692.19	\$172.94	25.0%	0.6%	0.5%	18.4%	25	29	4
TOP 25 CUSTODIANS FR - ALL	\$115,279.80	\$102,568.85	\$12,710.95	12.4%	82.4%	77.4%	6.4%			
ALL OTHER	\$24,671.70	\$29,957.11	-\$5,285.41	-17.6%	17.6%	22.6%	-22.0%			
TOTAL CUSTODIANS FR AUC DISCLOSED	\$139,951.50	\$132,525.96	\$7,425.55	5.6%	95.0%	95.3%	-0.3%			
NOT REPORTED	\$4,729.51	\$4,641.42	\$88.09	1.9%	3.2%	3.3%	-3.8%			
ELIGIBLE FUNDS - NOT ATTRIBUTED	\$2,614.80	\$1,962.38	\$652.42	33.2%	1.8%	1.4%	25.9%			
TOTAL ASSETS NOT DISCLOSING A CUSTODIANS FR	\$7,344.31	\$6,603.80	\$740.51	11.2%	5.0%	4.7%	5.0%			
TOTAL FUND ASSETS	\$147,295.81	\$139,129.76	\$8,166.06	5.9%	100.0%	100.0%	0.0%			

Fund Custodians Peer Analysis – Global AUC - Growth & Market Share

Best and Worst Performing Peer Groups

- Custodians ranked 11-25 registered the highest AUC growth
 - AUC increased 15.66%, or 2.79x the market
 - Market share increased from 17.73% to 19.41%
 - An increase of 9.52%
- Custodians ranked >25 registered the lowest AUC growth
 - AUC decreased 17.64%, or -3.15x the market
 - Market share decreased from 22.60% to 17.63%
 - A decrease of 22.01%

Peer Group Performance by Fund Assets						
Custodians Peer Group Analysis	Y-Y Growth	Growth vs-MKT	SOM 2023	SOM 2022	SOM Change	SOM Change %
Market Growth Assets	5.87%		100%	100%		
Market Growth Custodians Disclosed	5.60%	0.95	95.01%	95.25%	-0.24%	-0.25%
Custodians Ranked 1-10	11.42%	2.04	62.96%	59.67%	3.29%	5.51%
Custodians Ranked 11-25	15.66%	2.79	19.41%	17.73%	1.69%	9.52%
All Other Custodians	-17.64%	-3.15	17.63%	22.60%	-4.98%	-22.01%
Market Growth Custodians Not Disclosed	11.21%	1.91	4.99%	4.75%	0.24%	5.05%

Single Fund Custodians League Table – Global Funds

Convergence - 2023 League Tables - Single Custodians Market Segment - Fund Relationships

Single Custodians	Oct -23 #FR	Oct -22 #FR	22-23 Change	22-23 Change %	Market Share-23	Market Share-22	23-22 Change %	Oct -23 Rank	Oct -22 Rank	23-22 Change
STATE STREET IFS	13,556	12,809	747	5.8%	12.1%	11.8%	2.0%	1	1	0
BANK OF NEW YORK	10,766	10,213	553	5.4%	9.6%	9.4%	1.6%	2	2	0
JPMORGAN	8,985	8,900	85	1.0%	8.0%	8.2%	-2.7%	3	3	0
CITIBANK	5,008	4,635	373	8.0%	4.5%	4.3%	4.2%	4	4	0
CACEIS	4,840	4,057	783	19.3%	4.3%	3.8%	15.0%	5	6	1
BNP PARIBAS	4,501	4,477	24	0.5%	4.0%	4.1%	-3.1%	6	5	-1
NORTHERN TRUST	3,810	3,655	155	4.2%	3.4%	3.4%	0.5%	7	7	0
US BANCORP	3,483	3,261	222	6.8%	3.1%	3.0%	3.0%	8	8	0
HSBC FINANCIAL SERVICES	3,279	2,724	555	20.4%	2.9%	2.5%	16.1%	9	10	1
BANK OF AMERICA	2,881	2,850	31	1.1%	2.6%	2.6%	-2.5%	10	9	-1
BROWN BROTHER HARRIMAN	2,540	2,524	16	0.6%	2.3%	2.3%	-3.0%	11	11	0
SOCIETE GENERALE	1,613	1,584	29	1.8%	1.4%	1.5%	-1.8%	12	13	1
WELLS FARGO	1,412	1,427	-15	-1.1%	1.3%	1.3%	-4.6%	13	14	1
CITCO FUNDS SERVICES	1,046	727	319	43.9%	0.9%	0.7%	38.7%	14	22	8
DZ BANK	1,024	1,023	1	0.1%	0.9%	0.9%	-3.5%	15	16	1
UNION BANK OF SWITZERLAND	1,011	1,089	-78	-7.2%	0.9%	1.0%	-10.5%	16	15	-1
SKANDINAVISKA SECURITIES	894	870	24	2.8%	0.8%	0.8%	-0.9%	17	17	0
ROYAL BANK OF CANADA	884	1,937	-1,053	-54.4%	0.8%	1.8%	-56.0%	18	12	-6
HAUCK & AUFHAEUSER	851	837	14	1.7%	0.8%	0.8%	-2.0%	19	18	-1
INTERACTIVE BROKERS	837	829	8	1.0%	0.7%	0.8%	-2.7%	20	19	-1
FIRST CITIZENS BANK AND TRUST	830	5	825	16500.0%	0.7%	0.0%	15904.0%	21	182	161
ROYAL BANK OF SCOTLAND	738	757	-19	-2.5%	0.7%	0.7%	-6.0%	22	20	-2
DEUTSCHE BANK	710	699	11	1.6%	0.6%	0.6%	-2.1%	23	23	0
CANADIAN IMPERIAL BANK OF COMMERCE	658	529	129	24.4%	0.6%	0.5%	19.9%	24	30	6
GOLDMAN SACHS BANK USA	650	609	41	6.7%	0.6%	0.6%	2.9%	25	27	2
TOP 25 SINGLE CUSTODIANS FR	76,807	73,027	3,780	5.2%	68.5%	67.6%	1.4%			
ALL OTHER	35,327	35,081	246	0.7%	31.5%	32.4%	-2.9%			
TOTAL SINGLE CUSTODIANS FR DISCLOSED	112,134	108,108	4,026	3.7%	35.2%	34.6%	1.9%			
NOT REPORTED	35,381	33,405	1,976	5.9%	11.1%	10.7%	4.1%			
ELIGIBLE FUNDS - NOT ATTRIBUTED	50,047	51,028	-981	-1.9%	15.7%	16.3%	-3.6%			
TOTAL FUNDS NOT DISCLOSING A CUSTODIANS FR	85,428	84,433	995	1.2%	26.8%	27.0%	-0.6%			
TOTAL FUNDS WITH MULTI-CUSTODIANS FR	120,632	120,201	431	0.4%	37.9%	38.4%	-1.4%			
TOTAL FUNDS	318,194	312,742	5,452	1.7%	100.0%	100.0%	0.0%			

Single Fund Custodians Peer Analysis – Global Funds - Growth and Market Share

Best and Worst Performing Peer Groups

- Custodians ranked 1-10 registered the highest growth in funds
 - Funds increased 6.13%, or 1.65x the market
 - Market share increased from 53.26% to 54.50%
 - An increase of 2.32%
- Custodians ranked >25 registered the lowest growth in funds
 - Funds increased 0.70%, or 0.19x the market
 - Market share decreased from 32.45% to 31.50%
 - A decrease of 2.91%

Peer Group Performance by Fund Relationships						
Custodians Peer Group Analysis	Y-Y Growth	Growth vs-MKT	SOM 2023	SOM 2022	SOM Change	SOM Change %
Market Growth Funds	1.74%		100%	100%		
Market Growth Single Custodians Disclosed	3.72%	2.14	35.24%	34.57%	0.67%	1.95%
Custodians Ranked 1-10	6.13%	1.65	54.50%	53.26%	1.23%	2.32%
Custodians Ranked 11-25	1.63%	0.44	14.00%	14.29%	-0.29%	-2.02%
All Other Custodians	0.70%	0.19	31.50%	32.45%	-0.95%	-2.91%
Market Growth Multi Custodians Disclosed	0.36%	0.21	37.91%	38.43%	-0.52%	-1.36%
Market Growth Custodians Not Disclosed	1.18%	0.68	26.85%	27.00%	-0.15%	-0.56%

Single Fund Custodians League Table – Global AUC

Convergence - Oct 2023 League Tables - Single Custodians Market Segment - Assets (in BN)										
Single Custodians	Oct -23 FR-AUC	Oct -22 FR-AUC	22-23 Change	22-23 Change %	Market Share-23	Market Share-22	23-22 Change %	Oct -23 Rank	Oct -22 Rank	23-22 Change
STATE STREET IFS	\$14,948.20	\$12,790.58	\$2,157.62	16.9%	26.9%	26.3%	2.2%	1	1	0
JPMORGAN	\$11,994.56	\$10,247.01	\$1,747.55	17.1%	21.6%	21.1%	2.4%	2	2	0
BANK OF NEW YORK	\$8,693.39	\$7,747.64	\$945.75	12.2%	15.6%	15.9%	-1.9%	3	3	0
BROWN BROTHER HARRIMAN	\$2,186.85	\$1,980.92	\$205.93	10.4%	3.9%	4.1%	-3.4%	4	4	0
NORTHERN TRUST	\$1,874.81	\$1,926.32	-\$51.50	-2.7%	3.4%	4.0%	-14.9%	5	5	0
CITIBANK	\$1,686.23	\$1,314.84	\$371.39	28.2%	3.0%	2.7%	12.2%	6	7	1
BNP PARIBAS	\$1,502.68	\$1,298.40	\$204.28	15.7%	2.7%	2.7%	1.2%	7	8	1
US BANCORP	\$1,438.18	\$1,315.21	\$122.97	9.3%	2.6%	2.7%	-4.4%	8	6	-2
CACEIS	\$1,197.65	\$935.74	\$261.92	28.0%	2.2%	1.9%	12.0%	9	9	0
HSBC FINANCIAL SERVICES	\$1,124.74	\$816.67	\$308.07	37.7%	2.0%	1.7%	20.5%	10	11	1
BANK OF AMERICA	\$777.44	\$838.90	-\$61.46	-7.3%	1.4%	1.7%	-18.9%	11	10	-1
DZ BANK	\$506.08	\$453.81	\$52.28	11.5%	0.9%	0.9%	-2.5%	12	12	0
UNION BANK OF SWITZERLAND	\$446.45	\$421.05	\$25.39	6.0%	0.8%	0.9%	-7.3%	13	13	0
SOCIETE GENERALE	\$367.56	\$322.02	\$45.55	14.1%	0.7%	0.7%	-0.2%	14	16	2
WELLS FARGO	\$324.36	\$323.53	\$0.83	0.3%	0.6%	0.7%	-12.3%	15	15	0
SKANDINAVISKA SECURITIES	\$268.11	\$237.60	\$30.51	12.8%	0.5%	0.5%	-1.3%	16	17	1
PICTET CIE EUROPE	\$245.04	\$213.18	\$31.85	14.9%	0.4%	0.4%	0.5%	17	19	2
CITCO FUNDS SERVICES	\$242.31	\$236.66	\$5.66	2.4%	0.4%	0.5%	-10.4%	18	18	0
ROYAL BANK OF CANADA	\$223.73	\$360.78	-\$137.05	-38.0%	0.4%	0.7%	-45.8%	19	14	-5
DEKABANK	\$223.52	\$190.23	\$33.29	17.5%	0.4%	0.4%	2.8%	20	20	0
ZÜRCHER KANTONALBANK	\$191.16	\$145.23	\$45.93	31.6%	0.3%	0.3%	15.1%	21	22	1
CECA	\$176.71	\$143.65	\$33.06	23.0%	0.3%	0.3%	7.6%	22	23	1
SWEDBANK	\$168.19	\$140.28	\$27.91	19.9%	0.3%	0.3%	4.9%	23	24	1
ROYAL BANK OF SCOTLAND	\$164.23	\$149.97	\$14.26	9.5%	0.3%	0.3%	-4.2%	24	21	-3
DEUTSCHE BANK	\$138.52	\$135.97	\$2.55	1.9%	0.2%	0.3%	-10.9%	25	25	0
TOP 25 SINGLE CUSTODIANS FR ASSETS	\$51,110.71	\$44,686.18	\$6,424.54	14.4%	91.9%	91.8%	0.0%			
ALL OTHER	\$4,520.57	\$3,975.21	\$545.36	13.7%	8.1%	8.2%	-0.5%			
TOTAL SINGLE CUSTODIANS FR ASSETS DISCLOSED	\$55,631.28	\$48,661.39	\$6,969.89	14.3%	37.8%	35.0%	8.0%			
NOT REPORTED	\$4,729.51	\$4,641.42	\$88.09	1.9%	3.2%	3.3%	-3.8%			
ELIGIBLE FUNDS - NOT ATTRIBUTED	\$2,614.80	\$1,962.38	\$652.42	33.2%	1.8%	1.4%	25.9%			
TOTAL ASSETS NOT DISCLOSING A CUSTODIANS FR	\$7,344.31	\$6,603.80	\$740.51	11.2%	5.0%	4.7%	5.0%			
TOTAL ASSETS WITH MULTI-CUSTODIANS FR	\$84,320.21	\$83,864.57	\$455.63	0.5%	57.2%	60.3%	-5.0%			
TOTAL FUND ASSETS	\$147,295.80	\$139,129.76	\$8,166.04	5.9%	100.0%	100.0%	0.0%			

Single Custodians Peer Analysis – Global AUC - Growth & Market Share

Best and Worst Performing Peer Groups

- Custodians ranked 1-10 registered the highest AUC growth
 - AUC increased 15.54%, or 1.08x the market
 - Market share increased from 82.97% to 83.85%
 - An increase of 1.06%
- Custodians ranked 11-25 registered the lowest AUC growth
 - AUC increased 3.49%, or 0.24x the market
 - Market share decreased from 8.86% to 8.02%
 - A decrease of 9.48%

Peer Group Performance by Fund Assets						
Custodians Peer Group Analysis	Y-Y Growth	Growth vs-MKT	SOM 2023	SOM 2022	SOM Change	SOM Change %
Market Growth Assets	5.87%		100%	100%		
Market Growth Single Custodians Disclosed	14.32%	2.44	37.77%	34.98%	2.79%	7.99%
Custodians Ranked 1-10	15.54%	1.08	83.85%	82.97%	0.88%	1.06%
Custodians Ranked 11-25	3.49%	0.24	8.02%	8.86%	-0.84%	-9.48%
All Other Custodians	13.72%	0.96	8.13%	8.17%	-0.04%	-0.53%
Market Growth Multi Custodians Disclosed	0.54%	0.09	57.25%	60.28%	-3.03%	-5.03%
Market Growth Custodians Not Disclosed	11.21%	1.91	4.99%	4.75%	0.24%	5.05%

Multi-Fund Custodians League Table – Global Funds

Convergence - 2023 League Tables - Multi Custodians Market Segment - Fund Relationships										
Multi Custodians	Oct -23 #FR	Oct -22 #FR	22-23 Change	22-23 Change %	Market Share-23	Market Share-22	23-22 Change %	Oct -23 Rank	Oct -22 Rank	23-22 Change
JPMORGAN	21,648	9,087	12,561	138.2%	17.9%	7.6%	137.4%	1	3	2
FIRST CITIZENS BANK AND TRUST	11,850	795	11,055	1390.6%	9.8%	0.7%	1385.2%	2	24	22
BANK OF AMERICA	8,591	7,767	824	10.6%	7.1%	6.5%	10.2%	3	4	1
BANK OF NEW YORK	6,229	5,765	464	8.0%	5.2%	4.8%	7.7%	4	5	1
MORGAN STANLEY	5,597	5,316	281	5.3%	4.6%	4.4%	4.9%	5	6	1
GOLDMAN SACHS BANK USA	5,137	4,949	188	3.8%	4.3%	4.1%	3.4%	6	7	1
UNION BANK OF SWITZERLAND	4,814	2,420	2,394	98.9%	4.0%	2.0%	98.2%	7	12	5
CITIBANK	3,796	3,522	274	7.8%	3.1%	2.9%	7.4%	8	9	1
WELLS FARGO	2,923	2,904	19	0.7%	2.4%	2.4%	0.3%	9	10	1
NORTHERN TRUST	2,822	2,679	143	5.3%	2.3%	2.2%	5.0%	10	11	1
US BANCORP	2,179	1,853	326	17.6%	1.8%	1.5%	17.2%	11	14	3
STATE STREET IFS	1,970	1,998	-28	-1.4%	1.6%	1.7%	-1.8%	12	13	1
BARCLAYS	1,402	1,263	139	11.0%	1.2%	1.1%	10.6%	13	17	4
BNP PARIBAS	1,382	1,406	-24	-1.7%	1.1%	1.2%	-2.1%	14	15	1
DEUTSCHE BANK	1,336	1,384	-48	-3.5%	1.1%	1.2%	-3.8%	15	16	1
FIDELITY	1,330	1,196	134	11.2%	1.1%	1.0%	10.8%	16	18	2
RAYMOND JAMES ASSOCIATES	1,262	1,195	67	5.6%	1.0%	1.0%	5.2%	17	19	2
ESHARES	1,147	1,085	62	5.7%	1.0%	0.9%	5.3%	18	20	2
HSBC FINANCIAL SERVICES	1,144	1,075	69	6.4%	0.9%	0.9%	6.0%	19	21	2
NEW YORK COMMUNITY BANK	1,069	180	889	493.9%	0.9%	0.1%	491.8%	20	68	48
CANADIAN IMPERIAL BANK OF COMMERCE	864	806	58	7.2%	0.7%	0.7%	6.8%	21	23	2
COMPUTERSHARE	818	488	330	67.6%	0.7%	0.4%	67.0%	22	31	9
CITCO FUNDS SERVICES	812	738	74	10.0%	0.7%	0.6%	9.6%	23	25	2
INTERACTIVE BROKERS	785	720	65	9.0%	0.7%	0.6%	8.6%	24	26	2
SOCIETE GENERALE	745	681	64	9.4%	0.6%	0.6%	9.0%	25	27	2
TOP 25 MULTI CUSTODIANS FR	91,652	61,272	30,380	49.6%	76.0%	51.0%	49.0%			
ALL OTHER	28,980	58,929	-29,949	-50.8%	24.0%	49.0%	-51.0%			
TOTAL MULTI CUSTODIANS FR	120,632	120,201	431	0.4%	37.9%	38.4%	-1.4%			
NOT REPORTED	35,381	33,405	1,976	5.9%	11.1%	10.7%	4.1%			
ELIGIBLE FUNDS - NOT ATTRIBUTED	50,047	51,028	-981	-1.9%	15.7%	16.3%	-3.6%			
TOTAL FUNDS NOT DISCLOSING A CUSTODIANS FR	85,428	84,433	995	1.2%	26.8%	27.0%	-0.6%			
TOTAL FUNDS WITH SINGLE CUSTODIANS FR	112,134	108,108	4,026	3.7%	35.2%	34.6%	1.9%			
TOTAL FUNDS	318,194	312,742	5,452	1.7%	100.0%	100.0%	0.0%			

Best and Worst Performing Peer Groups

- Custodians ranked 1-10 registered the highest growth in funds
 - Funds increased 62.39%, or 174.00x the market
 - Market share increased from 37.61% to 60.85%
 - An increase of 61.81%
- Custodians ranked >25 registered the smallest growth in funds
 - Funds decreased 50.82%, or -141.74x the market
 - Market share decreased from 49.03% to 24.02%
 - A decrease of 51.00%

Peer Group Performance by Fund Relationships						
Custodians Peer Group Analysis	Y-Y Growth	Growth vs-MKT	SOM 2023	SOM 2022	SOM Change	SOM Change %
Market Growth Funds	1.74%		100%	100%		
Market Growth Multi Custodians Disclosed	0.36%	0.21	37.91%	38.43%	-0.52%	-1.36%
Custodians Ranked 1-10	62.39%	174.00	60.85%	37.61%	23.25%	61.81%
Custodians Ranked 11-25	13.55%	37.79	15.12%	13.37%	1.76%	13.14%
All Other Custodians	-50.82%	-141.74	24.02%	49.03%	-25.00%	-51.00%
Market Growth Single Custodians Disclosed	3.72%	2.14	35.24%	34.57%	0.67%	1.95%
Market Growth Custodians Not Disclosed	1.18%	0.68	26.85%	27.00%	-0.15%	-0.56%

Multi-Fund Custodians League Table – Global AUC

Convergence - Oct 2023 League Tables - Multi Custodians Market Segment - Assets (in BN)										
Multi Custodians	Oct -23 FR-AUC	Oct -22 FR-AUC	22-23 Change	22-23 Change %	Market Share-23	Market Share-22	23-22 Change %	Oct -23 Rank	Oct -22 Rank	23-22 Change
JPMORGAN	\$8,043.83	\$6,342.18	\$1,701.65	26.8%	9.5%	7.6%	26.1%	1	3	2
BANK OF AMERICA	\$6,597.62	\$6,217.07	\$380.55	6.1%	7.8%	7.4%	5.5%	2	24	22
BANK OF NEW YORK	\$5,716.70	\$5,257.20	\$459.51	8.7%	6.8%	6.3%	8.2%	3	4	1
CITIBANK	\$4,614.17	\$4,319.47	\$294.71	6.8%	5.5%	5.2%	6.2%	4	5	1
MORGAN STANLEY	\$4,407.26	\$4,668.99	-\$261.73	-5.6%	5.2%	5.6%	-6.1%	5	6	1
GOLDMAN SACHS BANK USA	\$4,370.18	\$4,352.86	\$17.31	0.4%	5.2%	5.2%	-0.1%	6	7	1
UNION BANK OF SWITZERLAND	\$4,178.90	\$3,082.09	\$1,096.81	35.6%	5.0%	3.7%	34.9%	7	12	5
BARCLAYS	\$3,822.32	\$3,507.77	\$314.55	9.0%	4.5%	4.2%	8.4%	8	9	1
STATE STREET IFS	\$3,055.65	\$3,152.54	-\$96.89	-3.1%	3.6%	3.8%	-3.6%	9	10	1
BNP PARIBAS	\$2,584.93	\$2,448.15	\$136.78	5.6%	3.1%	2.9%	5.0%	10	11	1
NORTHERN TRUST	\$2,481.84	\$2,505.04	-\$23.20	-0.9%	2.9%	3.0%	-1.5%	11	14	3
WELLS FARGO	\$2,263.62	\$2,380.68	-\$117.06	-4.9%	2.7%	2.8%	-5.4%	12	13	1
DEUTSCHE BANK	\$1,988.06	\$1,996.79	-\$8.73	-0.4%	2.4%	2.4%	-1.0%	13	17	4
FIRST CITIZENS BANK AND TRUST	\$1,824.41	\$0.11	\$1,824.30	1638393.1%	2.2%	0.0%	1629539.3%	14	15	1
HSBC FINANCIAL SERVICES	\$1,682.53	\$1,668.27	\$14.26	0.9%	2.0%	2.0%	0.3%	15	16	1
STANDARD CHARTERED BANK	\$1,464.51	\$1,344.66	\$119.85	8.9%	1.7%	1.6%	8.3%	16	18	2
SOCIETE GENERALE	\$1,357.35	\$1,350.21	\$7.13	0.5%	1.6%	1.6%	0.0%	17	19	2
BANK OF NOVA SCOTIA	\$1,035.86	\$887.82	\$148.04	16.7%	1.2%	1.1%	16.0%	18	20	2
FIDELITY	\$925.06	\$1,053.85	-\$128.79	-12.2%	1.1%	1.3%	-12.7%	19	21	2
US BANCORP	\$868.63	\$770.63	\$98.01	12.7%	1.0%	0.9%	12.1%	20	68	48
COMPUTERSHARE	\$855.92	\$715.89	\$140.03	19.6%	1.0%	0.9%	18.9%	21	23	2
NOMURA BANK LUXEMBOURG SA	\$832.68	\$725.45	\$107.23	14.8%	1.0%	0.9%	14.2%	22	31	9
ROYAL BANK OF CANADA	\$792.25	\$624.94	\$167.31	26.8%	0.9%	0.7%	26.1%	23	25	2
CANADIAN IMPERIAL BANK OF COMMERCE	\$603.52	\$423.49	\$180.03	42.5%	0.7%	0.5%	41.7%	24	26	2
SKANDINAVISKA SECURITIES	\$597.02	\$454.58	\$142.44	31.3%	0.7%	0.5%	30.6%	25	27	2
TOP 25 MULTI CUSTODIANS FR ASSETS	\$66,964.81	\$60,250.73	\$6,714.08	11.1%	79.4%	71.8%	10.5%			
ALL OTHER	\$17,355.39	\$23,613.84	-\$6,258.45	-26.5%	20.6%	28.2%	-26.9%			
TOTAL MULTI CUSTODIANS FR ASSETS	\$84,320.21	\$83,864.57	\$455.63	0.5%	57.2%	60.3%	-5.0%			
NOT REPORTED	\$4,729.51	\$4,641.42	\$88.09	1.9%	3.2%	3.3%	-3.8%			
ELIGIBLE FUNDS - NOT ATTRIBUTED	\$2,614.80	\$1,962.38	\$652.42	33.2%	1.8%	1.4%	25.9%			
TOTAL ASSETS NOT DISCLOSING A CUSTODIANS FR	\$7,344.31	\$6,603.80	\$740.51	11.2%	5.0%	4.7%	5.0%			
TOTAL ASSETS WITH SINGLE CUSTODIANS FR	\$55,631.28	\$48,661.39	\$6,969.89	14.3%	37.8%	35.0%	8.0%			
TOTAL FUND ASSETS	\$147,295.80	\$139,129.76	\$8,166.04	5.9%	100.0%	100.0%	0.0%			

Custodians Peer Groups – Global Multi AUC Growth & Market Share

Best and Worst Performing Peer Groups

- Custodians ranked 11-25 registered the highest AUC growth
 - AUC increased 15.80%, or 29.08x the market
 - Market share increased from 20.15% to 23.21%
 - An increase of 15.18%
- Custodians ranked >25 registered the lowest AUC growth
 - AUC decreased 26.50%, or -48.78x the market
 - Market share decreased from 28.16% to 20.58%
 - A decrease of 26.90%

Peer Group Performance by Fund Assets						
Custodians Peer Group Analysis	Y-Y Growth	Growth vs-MKT	SOM 2023	SOM 2022	SOM Change	SOM Change %
Market Growth Assets	5.87%		100%	100%		
Market Growth Multi Custodians Disclosed	0.54%	0.09	57.25%	60.28%	-3.03%	-5.03%
Custodians Ranked 1-10	9.33%	17.17	56.20%	51.69%	4.52%	8.74%
Custodians Ranked 11-25	15.80%	29.08	23.21%	20.15%	3.06%	15.18%
All Other Custodians	-26.50%	-48.78	20.58%	28.16%	-7.57%	-26.90%
Market Growth Single Custodians Disclosed	14.32%	2.44	37.77%	34.98%	2.79%	7.99%
Market Growth Custodians Not Disclosed	11.21%	1.91	4.99%	4.75%	0.24%	5.05%

About Convergence

- Founded in 2013, Convergence provides independent insights into important trends and challenges facing our clients in the fast-growing and dynamic asset management industry by using alternative data and data science analytics.
- Our insights help clients grow revenue, improve efficiency and identify and manage risks.
- Our clients include Asset Managers, Institutional Investors and Service Providers.
- Our founders, are former C-Suite executives in hedge funds, private equity funds, broker-dealers and securities exchanges.
- We are headquartered in South Norwalk, CT and operate in New Jersey and Hyderabad, India.
- For additional information please contact John Phinney @ 203-956-4824 or George Gainer @ 203-956-4824 or to learn more about how Convergence can help you.

Terms Used in Our Fund Custodians League Tables

- **Global Funds and Assets**
 - Measures public and private funds and assets domiciled in US and non-US locations that Convergence can attribute to one or more Fund Custodians.
- **US Funds and Assets**
 - Measures public and private funds and assets domiciled in the US that Convergence can attribute to one or more Fund Custodians.
- **Non-US Funds and Assets**
 - Measures public and private funds and assets domiciled outside the United States that Convergence can attribute to one or more Fund Custodians.
- **Not Reported – Global – US – Non-US Funds and Assets**
 - Measures public and private funds and assets domiciled in US and non-US locations that are being serviced by the investment adviser or a controlled affiliate.
- **Not Applicable – Global – US – Non-US Funds and Assets**
 - Measures public and private funds and assets domiciled in US and non-US locations that are being serviced by the investment adviser or a controlled affiliate.
- **Unattributed Funds and Assets – Global – US – Non-US Funds and Assets**
 - Measures public and private funds and assets domiciled in US and non-US locations that Convergence cannot attribute to one or more Fund Custodians.
- **All Other Custodians**
 - Is a measure of funds and assets attributed to Fund Custodians ranked outside the Top 25.

Terms Used in Our Fund Custodians League Tables

- **Single/Multiple Relationship**
 - A “**Single**” Custodians relationship exists at the fund level when the adviser discloses one Custodians to their fund and a “**Multiple**” Custodians exists when more than one Custodians is named.
- **Total Fund/Asset Custodians Relationships**
 - Total Funds refer to an overall number of funds available in the market and Total Assets refer to the overall assets available in the market.
- **Total Fund/Asset Custodians Single Relationships**
 - Total Funds in single relationships means, total funds in the market for those who have only single-Custodians relationship and Total Assets in single relationship means total assets in the market for those who have only single-Custodians relationship.
- **Total Fund/Asset Custodians Multiple Relationships**
 - Total Funds in multiple relationships means, total assets in the market for those who have multi-Custodians relationship and Total Assets in multiple relationship means total assets in the market for those who have multi-Custodians relationship.
- **Unique Fund/Asset Custodians Single Relationships**
 - Measures unique Funds in single relationships means, unique funds in the market for those who have only single Custodians relationship .
- **Unique Fund/Asset Custodians Multiple Relationships**
 - Measures unique Funds in multiple relationships means, unique funds in the market for those who have multi-Custodians relationship.
- **Total Fund/Asset Market**
 - Total Fund includes all the funds in the market plus all the unique funds. Similarly, Total Asset Market means all the assets in the market plus all the unique assets.

Additional Analytics available for the Custodians Segment

Convergence offers several additional datasets and analytical tools that can be used to support business development and client and risk management efforts...

- **Competitive Analysis (Business Development)**
 - Compare your growth and market share to a defined peer group in multiple fund type segments
 - Growth is broken down in up to 9 growth factors, each which reveals a story
- **Client New Fund Flow Analytics (Business Development)**
 - Identify new flows into client funds
 - Allows you to determine if you are getting your fair share of the change
- **Clients at Risk (Client Management)**
 - Convergence predictive analytics can identify clients likely to move their business to a competitor in full, or partially through diversification
- **Client Operational Risk Profiles (Risk Management)**
 - Convergence proprietary risk factors can identify high-risk business conditions in your prospective or existing clients
- **ESG Business Profiles**
 - Convergence measures the ESG sensitivity of investment advisers. This differs from ESG investing measurement and complements your work on ESG investing.

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The Convergence Leadership Team



John Phinney, Chairman and CEO

Career History

- ❖ Apollo Global Management-Fund Group: CFO/COO, Rohatyn Group: CFO/COO, JPMorgan [Various Divisions]: CFO, Fidelity Alternative Investments: Director of Operations

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George Evans, Co-President and Chief Revenue Officer

Career History

- ❖ Gladstone Associates: Managing Director, GlobeOp Financial, Outsource Partners International, BISYS Financial Services: Global Head of Business Development, JPMorgan Investor Services: Senior Vice President, The Prudential: Assistant Treasurer

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Eileen Cleary, President, Convergence Talent Management

Career History

- ❖ Executive Management Consultant, Atlas Data: Chief Executive Officer and Co-founder, J. & W. Seligman & Co. Incorporated: V.P. Human Resources, UJB-Financial: V.P. Employee Benefits

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George Gainer, CPA Global Head – Client Management

Career History

- ❖ Gravitas: Finance & Business Performance Analyst, Apollo [through Gravitas]: Business Analysis & Reporting, Iron Mountain: Acquisition Accounting Manager, KPMG: Transaction Services Manager, Deloitte: Audit Senior Staff

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Vidya Minukuri, Global Head of Data Science & Research

Career History

- ❖ Tata Consultancy Services: Assistant Business Consultant & Project Manager, British Telecom [through TCS]: Lead Business Analyst & Solution Architect, Ericsson [through TCS]: IT Systems Engineer and IT development team leader

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David Etzbach, Managing Director, Custodians and Allocators

Career History

- ❖ Nod Hill Investment Partners, Founder, Steinberg Asset Management, Managing Director, Fidelity Investments / Pyramis Global Advisors, Senior Vice President, Credit Suisse Asset Management, Director, Citigroup Asset Management / Legg Mason, Director / Vice President, JP Morgan - Global Investor Services, Vice President, Bankers Trust

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