Fund Custodians League Tables

Global Funds and AUC

Reporting Period Nov 2023 - Nov 2024



OPTIMAL PERFORMANCE

Table of Contents – Custodians

Slide Description

Page#

	•
About this Report	3
Top 25 Fund Custodians League Tables – Global Funds	4
Fund Custodians Peer Groups – Global Fund Growth and Market Share	5
Top 25 Fund Custodians League Tables – Global AUC	6
Custodians Peer Groups – Global AUC Growth & Market Share	7
Top 25 Fund Custodians League Tables – Global Single Funds	8
Fund Custodians Peer Groups – Global Single Fund Growth and Market Share	9
Top 25 Fund Custodians League Tables – Global Single AUC	10
Custodians Peer Groups – Global Single AUC Growth & Market Share	11
Top 25 Fund Custodians League Tables – Global Multi Funds	12
Fund Custodians Peer Groups – Global Multi Fund Growth and Market Share	13
Top 25 Fund Custodians League Tables – Global Multi AUC	14
Custodians Peer Groups – Global Multi AUC Growth & Market Share	15
About Convergence	16
Additional Analytics available for Fund Custodians	17
Terms used in Our League Tables	18
Additional Analytics available for the Custodians Segment	19
Disclaimer	20
Convergence Leadership Team	21

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
 - o 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+)
- Effective with the publication of our May 2024 League Tables, Convergence considers Fund Reported GAV (as reported in the Regulatory filings) for the calculation of Assets Under Custody instead of Unique GAV which de-duplicates assets for cases such as Master-Feeder Fund structures.

Custodians League Table - Global Funds

Convergence - Nov 2024 I	League <u>Ta</u>	bles - C <u>us</u>	todian <u>s N</u>	/larket S <u>egn</u>	nent - F <u>un</u> o	l Relations	ships			
All		Nov -23		23-24	Market	Market	23-24	Nov -24	Nov -23	23-24
Custodians	#FR	#FR	Change	Change %	Share-24	Share-23	Change %	Rank	Rank	Change
JPMORGAN	33,043	31,750	1,293	4.1%	13.6%	13.4%	1.2%	1	1	0
BANK OF NEW YORK	17,421	16,973	448	2.6%	7.2%	7.2%	-0.2%	2	2	0
STATE STREET IFS	15,701	15,926	-225	-1.4%	6.5%	6.7%	-4.2%	3	3	0
FIRST CITIZENS BANK AND TRUST	12,970	12,813	157	1.2%	5.3%	5.4%	-1.6%	4	4	0
BANK OF AMERICA	12,781	11,729	1,052	9.0%	5.3%	5.0%	5.9%	5	5	0
CITIBANK	9,201	8,981	220	2.4%	3.8%	3.8%	-0.4%	6	6	0
NORTHERN TRUST	7,286	6,747	539	8.0%	3.0%	2.9%	5.0%	7	7	0
MORGAN STANLEY	6,500	6,332	168	2.7%	2.7%	2.7%	-0.2%	8	8	0
GOLDMAN SACHS BANK USA	6,153	5,910	243	4.1%	2.5%	2.5%	1.2%	9	10	1
BNP PARIBAS	5,949	6,017	-68	-1.1%	2.4%	2.5%	-3.9%	10	9	-1
US BANCORP	5,686	5,746	-60	-1.0%	2.3%	2.4%	-3.8%	11	12	1
UNION BANK OF SWITZERLAND	5,372	5,873	-501	-8.5%	2.2%	2.5%	-11.1%	12	11	-1
CACEIS	5,020	4,913	107	2.2%	2.1%	2.1%	-0.7%	13	13	0
HSBC FINANCIAL SERVICES	4,831	4,532	299	6.6%	2.0%	1.9%	3.6%	14	14	0
WELLS FARGO	4,627	4,520	107	2.4%	1.9%	1.9%	-0.5%	15	15	0
BROWN BROTHER HARRIMAN	2,518	2,712	-194	-7.2%	1.0%	1.1%	-9.7%	16	16	0
SOCIETE GENERALE	2,315	2,464	-149	-6.0%	1.0%	1.0%	-8.7%	17	17	0
FIDELITY	2,091	1,998	93	4.7%	0.9%	0.8%	1.7%	18	19	1
CITCO FUNDS SERVICES	1,872	1,902	-30	-1.6%	0.8%	0.8%	-4.3%	19	20	1
DEUTSCHE BANK	1,851	2,129	-278	-13.1%	0.8%	0.9%	-15.5%	20	18	-2
BARCLAYS	1,761	1,654	107	6.5%	0.7%	0.7%	3.5%	21	21	0
INTERACTIVE BROKERS	1,713	1,647	66	4.0%	0.7%	0.7%	1.1%	22	22	0
BELLTOWER FUND GROUP	1,624	127	1,497	1178.7%	0.7%	0.1%	1143.1%	23	137	114
CANADIAN IMPERIAL BANK OF COMMERCE	1,572	1,559	13	0.8%	0.6%	0.7%	-2.0%	24	23	-1
ESHARES	1,438	1,377	61	4.4%	0.6%	0.6%	1.5%	25	25	0
TOP 25 CUSTODIANS FR - ALL	171,296	166,331	4,965	3.0%	70.4%	70.3%	0.1%			
ALL OTHER	72,103	70,280	1,823	2.6%	29.6%	29.7%	-0.3%			
TOTAL CUSTODIANS FR DISCLOSED	243,399	236,611	6,788	2.9%	72.3%	72.7%	-0.5%			
NOT REPORTED	36,778	35,881	897	2.5%	10.9%	11.0%	-0.9%			
ELIGIBLE FUNDS - NOT ATTRIBUTED	56,323	52,888	3,435	6.5%	16.7%	16.3%	3.0%			
TOTAL FUNDS NOT DISCLOSING A CUSTODIANS FR	93,101	88,769	4,332	4.9%	27.7%	27.3%	1.4%			
TOTAL FUNDS	336,500	325,380	11,120	3.4%	100.0%	100.0%	0.0%			

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

- Custodians ranked 1-10 registered the highest growth in funds
 - \circ Funds increased 3.11%, or 1.08x the market
 - Market share increased from 52.06% to 52.18%
 - \blacktriangleright An increase of 0.23%
- Custodians ranked >25 registered the lowest growth in funds
 - Funds increased 2.59%, or 0.90x the market
 - Market share decreased from 29.70% to 29.62%
 - \blacktriangleright A decrease of 0.27%

Peer (Group Perf	ormance by F	und Relationships			
Custodians	Y-Y	Growth	SOM	SOM	SOM	SOM
Peer Group Analysis	Growth	vs-MKT	2024	2023	Change	Change %
Market Growth Funds	3.42%		100%	100%		
Market Growth Custodians Disclosed	2.87%	0.84	72.33%	72.72%	-0.39%	-0.53%
Custodians Ranked 1-10	3.11%	1.08	52.18%	52.06%	0.12%	0.23%
Custodians Ranked 11-25	2.64%	0.92	18.20%	18.24%	-0.04%	-0.23%
All Other Custodians	2.59%	0.90	29.62%	29.70%	-0.08%	-0.27%
Market Growth Custodians Not Disclosed	4.88%	1.43	27.67%	27.28%	0.39%	1.41%

Fund Custodians League Table – Global AUC

Convergence - No	v 2024 <u>League</u>	e Table <u>s - Cus</u>	todians M <u>ar</u>	ket Se <u>gment</u>	t - Assets (i	n BN)				
All	Nov -24	Nov -23	23-24	23-24	Market	Market	23-24	Nov -24	Nov -23	23-24
Custodians	FR-AUC	FR-AUC	Change				Change %		Rank	Change
JPMORGAN	\$24,009.16	\$20,067.42	\$3,941.75	19.6%	15.0%	14.1%	6.2%	1	1	0
STATE STREET IFS	\$21,260.76	\$17,922.62	\$3,338.14	18.6%	13.3%	12.6%	5.3%	2	2	0
BANK OF NEW YORK	\$17,579.82	\$14,652.34	\$2,927.48	20.0%	11.0%	10.3%	6.5%	3	3	0
BANK OF AMERICA	\$8,865.58	\$7,812.02	\$1,053.56	13.5%	5.5%	5.5%	0.7%	4	4	0
CITIBANK	\$7,381.00	\$6,503.11	\$877.89	13.5%	4.6%	4.6%	0.7%	5	5	0
NORTHERN TRUST	\$5,741.96	\$4,443.63	\$1,298.33	29.2%	3.6%	3.1%	14.7%	6	9	3
GOLDMAN SACHS BANK USA	\$5,456.12	\$4,544.94	\$911.19	20.0%	3.4%	3.2%	6.5%	7	7	0
MORGAN STANLEY	\$5,213.53	\$4,539.52	\$674.01	14.8%	3.3%	3.2%	1.9%	8	8	0
UNION BANK OF SWITZERLAND	\$4,966.48	\$4,678.34	\$288.14	6.2%	3.1%	3.3%	-5.8%	9	6	-3
BARCLAYS	\$4,896.21	\$3,954.94	\$941.27	23.8%	3.1%	2.8%	9.9%	10	11	1
BNP PARIBAS	\$4,471.32	\$4,079.32	\$392.00	9.6%	2.8%	2.9%	-2.7%	11	10	-1
HSBC FINANCIAL SERVICES	\$3,134.63	\$2,849.25	\$285.37	10.0%	2.0%	2.0%	-2.4%	12	12	0
BROWN BROTHER HARRIMAN	\$3,133.58	\$2,249.22	\$884.36	39.3%	2.0%	1.6%	23.6%	13	16	3
WELLS FARGO	\$2,717.76	\$2,690.29	\$27.48	1.0%	1.7%	1.9%	-10.4%	14	13	-1
US BANCORP	\$2,476.17	\$2,364.41	\$111.76	4.7%	1.5%	1.7%	-7.1%	15	14	-1
FIRST CITIZENS BANK AND TRUST	\$2,163.87	\$2,073.43	\$90.44	4.4%	1.3%	1.5%	-7.4%	16	17	1
DEUTSCHE BANK	\$2,120.31	\$2,308.27	-\$187.96	-8.1%	1.3%	1.6%	-18.5%	17	15	-2
SOCIETE GENERALE	\$1,804.44	\$1,867.48	-\$63.04	-3.4%	1.1%	1.3%	-14.3%	18	18	0
CACEIS	\$1,475.34	\$1,231.21	\$244.14	19.8%	0.9%	0.9%	6.3%	19	20	1
STANDARD CHARTERED BANK	\$1,363.66	\$1,499.78	-\$136.12	-9.1%	0.9%	1.1%	-19.3%	20	19	-1
FIDELITY	\$1,278.16	\$952.93	\$325.23	34.1%	0.8%	0.7%	19.0%	21	23	2
BANK OF NOVA SCOTIA	\$1,077.89	\$1,049.02	\$28.87	2.8%	0.7%	0.7%	-8.8%	22	21	-1
SKANDINAVISKA SECURITIES	\$944.17	\$857.02	\$87.15	10.2%	0.6%	0.6%	-2.2%	23	25	2
SG HAMBROS TRUST	\$910.80	\$412.25	\$498.55	120.9%	0.6%	0.3%	96.0%	24	34	10
CITCO FUNDS SERVICES	\$885.20	\$824.21	\$61.00	7.4%	0.6%	0.6%	-4.7%	25	27	2
TOP 25 CUSTODIANS FR - ALL	\$135,327.95	\$116,426.96	\$18,900.99	16.2%	84.4%	81.9%	3.1%			
ALL OTHER	\$24,969.90	\$25,814.86	-\$844.96	-3.3%	15.6%	18.1%	-14.2%			
TOTAL CUSTODIANS FR AUC DISCLOSED	\$160,297.85	\$142,241.82	\$18,056.04	12.7%	95.1%	95.1%	0.1%			
NOT REPORTED	\$4,864.58	\$4,751.22	\$113.36	2.4%	2.9%	3.2%	-9.1%			
ELIGIBLE FUNDS - NOT ATTRIBUTED	\$3,312.22	\$2,607.70	\$704.51	27.0%	2.0%	1.7%	12.8%			
TOTAL ASSETS NOT DISCLOSING A CUSTODIANS FR	\$8,176.80	\$7,358.92	\$817.87	11.1%	4.9%	4.9%	-1.3%			
TOTAL FUND ASSETS	\$168,474.65	\$149,600.74	\$18,873.91	12.6%	100.0%	100.0%	0.0%			

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

- Custodians ranked 1-10 registered the highest AUC growth
 - AUC increased 18.24%, or 1.44x the market
 - Market share increased from 62.65% to 65.73%
 - \blacktriangleright An increase of 4.92%
- Custodians ranked >25 registered the lowest AUC growth
 - AUC decreased 3.27%, or -0.26x the market
 - Market share decreased from 18.15% to 15.58%
 - \blacktriangleright A decrease of 14.17%

Peer C	Group Perform	ance by Fund	Assets			
Custodians	Y-Y	Growth	SOM	SOM	SOM	SOM
Peer Group Analysis	Growth	vs-MKT	2024	2023	Change	Change %
Market Growth Assets	12.62%		100%	100%		
Market Growth Custodians Disclosed	12.69%	1.01	95.15%	95.08%	0.07%	0.07%
Custodians Ranked 1-10	18.24%	1.44	65.73%	62.65%	3.08%	4.92%
Custodians Ranked 11-25	9.70%	0.76	18.69%	19.20%	-0.51%	-2.66%
All Other Custodians	-3.27%	-0.26	15.58%	18.15%	-2.57%	-14.17%
Market Growth Custodians Not Disclosed	11.11%	0.88	4.85%	4.92%	-0.07%	-1.33%

Single Fund Custodians League Table – Global Funds

Convergence - Nov 2024 Lego	Convergence - Nov 2024 League Tables - Single Custodians Market Segment - Fund Relationships										
Single	í	Nov -23		23-24	Market	Market	23-24	Nov -24	Nov -23	23-24	
Custodians	#FR	#FR		Change %			-	Rank	Rank	Change	
JPMORGAN	16,678	16,194	484	3.0%	12.7%	12.6%	1.1%	1	1	0	
STATE STREET IFS	13,853	13,929	-76	-0.5%	10.6%	10.8%	-2.4%	2	2	0	
BANK OF NEW YORK	11,209	10,942	267	2.4%	8.5%	8.5%	0.5%	3	3	0	
FIRST CITIZENS BANK AND TRUST	5,441	6,183	-742	-12.0%	4.1%	4.8%	-13.6%	4	4	0	
CITIBANK	4,987	5,041	-54	-1.1%	3.8%	3.9%	-2.9%	5	5	0	
CACEIS	4,918	4,871	47	1.0%	3.8%	3.8%	-0.9%	6	6	0	
BNP PARIBAS	4,743	4,603	140	3.0%	3.6%	3.6%	1.1%	7	7	0	
NORTHERN TRUST	4,106	3,857	249	6.5%	3.1%	3.0%	4.5%	8	8	0	
US BANCORP	3,640	3,550	90	2.5%	2.8%	2.8%	0.6%	9	9	0	
HSBC FINANCIAL SERVICES	3,393	3,306	87	2.6%	2.6%	2.6%	0.7%	10	11	1	
UNION BANK OF SWITZERLAND	3,157	3,309	-152	-4.6%	2.4%	2.6%	-6.4%	11	10	-1	
BANK OF AMERICA	3,037	2,962	75	2.5%	2.3%	2.3%	0.6%	12	12	0	
BROWN BROTHER HARRIMAN	2,294	2,504	-210	-8.4%	1.7%	1.9%	-10.1%	13	13	0	
BELLTOWER FUND GROUP	1,613	125	1,488	1190.4%	1.2%	0.1%	1166.6%	14	98	84	
SOCIETE GENERALE	1,449	1,615	-166	-10.3%	1.1%	1.3%	-11.9%	15	14	-1	
WELLS FARGO	1,344	1,454	-110	-7.6%	1.0%	1.1%	-9.3%	16	15	-1	
CITCO FUNDS SERVICES	1,002	1,069	-67	-6.3%	0.8%	0.8%	-8.0%	17	16	-1	
DZ BANK	985	1,018	-33	-3.2%	0.8%	0.8%	-5.0%	18	17	-1	
SKANDINAVISKA SECURITIES	900	893	7	0.8%	0.7%	0.7%	-1.1%	19	18	-1	
HAUCK & AUFHAEUSER	847	840	7	0.8%	0.6%	0.7%	-1.0%	20	21	1	
INTERACTIVE BROKERS	789	853	-64	-7.5%	0.6%	0.7%	-9.2%	21	19	-2	
GOLDMAN SACHS BANK USA	760	681	79	11.6%	0.6%	0.5%	9.5%	22	24	2	
CANADIAN IMPERIAL BANK OF COMMERCE	740	679	61	9.0%	0.6%	0.5%	7.0%	23	25	2	
ROYAL BANK OF SCOTLAND	711	739	-28	-3.8%	0.5%	0.6%	-5.6%	24	22	-2	
FIDELITY	707	651	56	8.6%	0.5%	0.5%	6.6%	25	27	2	
TOP 25 SINGLE CUSTODIANS FR	93,303	91,868	1,435	1.6%	71.2%	71.4%	-0.3%				
ALL OTHER	37,831	36,844	987	2.7%	28.8%	28.6%	0.8%				
TOTAL SINGLE CUSTODIANS FR DISCLOSED	131,134	128,712	2,422	1.9%	39.0%	39.6%	-1.5%				
NOT REPORTED	36,778	35,881	897	2.5%	10.9%	11.0%	-0.9%				
ELIGIBLE FUNDS - NOT ATTRIBUTED	56,323	52,888	3,435	6.5%	16.7%	16.3%	3.0%				
TOTAL FUNDS NOT DISCLOSING A CUSTODIANS FR	93,101	88,769	4,332	4.9%	27.7%	27.3%	1.4%				
TOTAL FUNDS WITH MULTI-CUSTODIANS FR	112,265	107,899	4,366	4.0%	33.4%	33.2%	0.6%				
TOTAL FUNDS	336,500	325,380	11,120	3.4%	100.0%	100.0%	0.0%				

- Custodians ranked 11-25 registered the highest growth in funds
 - Funds increased 4.86%, or 2.58x the market
 - Market share increased from 15.07% to 15.51%
 - \blacktriangleright An increase of 2.93%
- Custodians ranked 1-10 registered the lowest growth in funds
 - Funds increased 0.68%, or 0.36x the market
 - Market share decreased from 56.31% to 55.64%
 - \blacktriangleright A decrease of 1.18%

Peer C	Group Per	formance by F	und Relationships			
Custodians	Y-Y	Growth	SOM	SOM	SOM	SOM
Peer Group Analysis	Growth	vs-MKT	2024	2023	Change	Change %
Market Growth Funds	3.42%		100%	100%		
Market Growth Single Custodians Disclosed	1.88%	0.55	38.97%	39.56%	-0.59%	-1.49%
Custodians Ranked 1-10	0.68%	0.36	55.64%	56.31%	-0.66%	-1.18%
Custodians Ranked 11-25	4.86%	2.58	15.51%	15.07%	0.44%	2.93%
All Other Custodians	2.68%	1.42	28.85%	28.63%	0.22%	0.78%
Market Growth Multi Custodians Disclosed	4.05%	1.18	33.36%	33.16%	0.20%	0.61%
Market Growth Custodians Not Disclosed	4.88%	1.43	27.67%	27.28%	0.39%	1.41%

Single Fund Custodians League Table – Global AUC

Convergence - Nov 20	024 Leagu <u>e Ta</u>	ables - Single (Custodians N	/Jarket Segn	nent - Asset	ts (in BN)				
Single	Nov -24	Nov -23	23-24	23-24	Market	Market	23-24	Nov -24	Nov -23	23-24
Custodians	FR-AUC	FR-AUC	Change	Change %	Share-24	Share-23	Change %	Rank	Rank	Change
STATE STREET IFS	\$17,595.87	\$14,797.72	\$2,798.15	18.9%	25.8%	25.9%	-0.3%	1	1	0
JPMORGAN	\$14,909.91	\$12,379.52	\$2,530.40	20.4%	21.9%	21.6%	0.9%	2	2	0
BANK OF NEW YORK	\$10,727.09	\$8,694.26	\$2,032.83	23.4%	15.7%	15.2%	3.4%	3	3	0
BROWN BROTHER HARRIMAN	\$2,990.69	\$2,116.44	\$874.25	41.3%	4.4%	3.7%	18.4%	4	4	0
NORTHERN TRUST	\$2,636.45	\$1,913.65	\$722.81	37.8%	3.9%	3.3%	15.5%	5	5	0
CITIBANK	\$1,922.51	\$1,688.05	\$234.45	13.9%	2.8%	3.0%	-4.5%	6	6	0
BNP PARIBAS	\$1,804.45	\$1,490.59	\$313.86	21.1%	2.6%	2.6%	1.5%	7	7	0
US BANCORP	\$1,616.53	\$1,472.30	\$144.23	9.8%	2.4%	2.6%	-8.0%	8	8	0
CACEIS	\$1,395.70	\$1,215.13	\$180.56	14.9%	2.0%	2.1%	-3.7%	9	9	0
HSBC FINANCIAL SERVICES	\$1,316.73	\$1,100.92	\$215.81	19.6%	1.9%	1.9%	0.2%	10	11	1
UNION BANK OF SWITZERLAND	\$1,283.82	\$1,164.36	\$119.46	10.3%	1.9%	2.0%	-7.6%	11	10	-1
BANK OF AMERICA	\$850.81	\$847.08	\$3.73	0.4%	1.2%	1.5%	-15.8%	12	12	0
DZ BANK	\$500.16	\$495.04	\$5.12	1.0%	0.7%	0.9%	-15.3%	13	14	1
SOCIETE GENERALE	\$417.07	\$363.63	\$53.43	14.7%	0.6%	0.6%	-3.9%	14	16	2
FIRST CITIZENS BANK AND TRUST	\$375.61	\$586.48	-\$210.87	-36.0%	0.6%	1.0%	-46.3%	15	13	-2
CITCO FUNDS SERVICES	\$358.99	\$332.99	\$26.00	7.8%	0.5%	0.6%	-9.6%	16	17	1
WELLS FARGO	\$339.39	\$371.61	-\$32.22	-8.7%	0.5%	0.6%	-23.5%	17	15	-2
SKANDINAVISKA SECURITIES	\$319.59	\$259.15	\$60.44	23.3%	0.5%	0.5%	3.4%	18	18	0
PICTET CIE EUROPE	\$278.27	\$237.75	\$40.53	17.0%	0.4%	0.4%	-1.9%	19	19	0
DEKABANK	\$253.85	\$215.56	\$38.29	17.8%	0.4%	0.4%	-1.3%	20	20	0
ZÜRCHER KANTONALBANK	\$243.55	\$189.76	\$53.79	28.3%	0.4%	0.3%	7.6%	21	21	0
SWEDBANK	\$212.52	\$159.91	\$52.61	32.9%	0.3%	0.3%	11.4%	22	25	3
CECA	\$210.43	\$174.61	\$35.82	20.5%	0.3%	0.3%	1.0%	23	23	0
ROYAL BANK OF SCOTLAND	\$204.00	\$166.78	\$37.22	22.3%	0.3%	0.3%	2.5%	24	24	0
DEUTSCHE BANK	\$149.91	\$140.96	\$8.95	6.3%	0.2%	0.2%	-10.9%	25	26	1
TOP 25 SINGLE CUSTODIANS FR ASSETS	\$62,913.92	\$52,574.27	\$10,339.65	19.7%	92.2%	91.9%	0.3%			
ALL OTHER	\$5,308.88	\$4,607.41	\$701.47	15.2%	7.8%	8.1%	-3.4%			
TOTAL SINGLE CUSTODIANS FR ASSETS DISCLOSED	\$68,222.80	\$57,181.68	\$11,041.13	19.3%	40.5%	38.2%	5.9%			
NOT REPORTED	\$4,864.58	\$4,751.22	\$113.36	2.4%	2.9%	3.2%	-9.1%			
ELIGIBLE FUNDS - NOT ATTRIBUTED	\$3,312.22	\$2,607.70	\$704.51	27.0%	2.0%	1.7%	12.8%			
TOTAL ASSETS NOT DISCLOSING A CUSTODIANS FR	\$8,176.80	\$7,358.92	\$817.87	11.1%	4.9%	4.9%	-1.3%			
TOTAL ASSETS WITH MULTI-CUSTODIANS FR	\$92,075.05	\$85,060.14	\$7,014.91	8.2%	54.7%	56.9%	-3.9%			
TOTAL FUND ASSETS	\$168,474.65	\$149,600.74	\$18,873.91	12.6%	100.0%	100.0%	0.0%			

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

- Custodians ranked 1-10 registered the highest AUC growth
 - AUC increased 21.44%, or 1.11x the market
 - Market share increased from 81.96% to 83.43%
 - \blacktriangleright An increase of 1.78%
- Custodians ranked 11-25 registered the lowest AUC growth
 - AUC increased 5.12%, or 0.27x the market
 - Market share decreased from 9.98% to 8.79%
 - \blacktriangleright A decrease of 11.89%

Peer G	Froup Perform	ance by Fund	Assets			
Custodians	Y-Y	Growth	SOM	SOM	SOM	SOM
Peer Group Analysis	Growth	vs-MKT	2024	2023	Change	Change %
Market Growth Assets	12.62%		100%	100%		
Market Growth Single Custodians Disclosed	19.31%	1.53	40.49%	38.22%	2.27%	5.94%
Custodians Ranked 1-10	21.44%	1.11	83.43%	81.96%	1.46%	1.78%
Custodians Ranked 11-25	5.12%	0.27	8.79%	9.98%	-1.19%	-11.89%
All Other Custodians	15.22%	0.79	7.78%	8.06%	-0.28%	-3.42%
Market Growth Multi Custodians Disclosed	8.25%	0.65	54.65%	56.86%	-2.21%	-3.88%
Market Growth Custodians Not Disclosed	11.11%	0.88	4.85%	4.92%	-0.07%	-1.33%

Multi-Fund Custodians League Table – Global Funds

Convergence - Nov 2024 Leas	gue Ta <u>bles</u>	s - Mul <u>ti (</u>	Custod <u>iar</u>	ıs Marke <u>t S</u>	egment <u>– F</u>	und Relati	ionships			
Multi		Nov -23		23-24	Market	Market	23-24	Nov -24	Nov -23	23-24
Custodians	#FR	#FR	Change	Change %	Share-24	Share-23	Change %	Rank	Rank	Change
JPMORGAN	16,365	15,556	809	5.2%	14.6%	14.4%	1.1%	1	1	0
BANK OF AMERICA	9,744	8,767	977	11.1%	8.7%	8.1%	6.8%	2	2	0
FIRST CITIZENS BANK AND TRUST	7,529	6,630	899	13.6%	6.7%	6.1%	9.1%	3	3	0
BANK OF NEW YORK	6,212	6,031	181	3.0%	5.5%	5.6%	-1.0%	4	4	0
MORGAN STANLEY	5,859	5,675	184	3.2%	5.2%	5.3%	-0.8%	5	5	0
GOLDMAN SACHS BANK USA	5,393	5,229	164	3.1%	4.8%	4.8%	-0.9%	6	6	0
CITIBANK	4,214	3,940	274	7.0%	3.8%	3.7%	2.8%	7	7	0
WELLS FARGO	3,283	3,066	217	7.1%	2.9%	2.8%	2.9%	8	8	0
NORTHERN TRUST	3,180	2,890	290	10.0%	2.8%	2.7%	5.8%	9	9	0
UNION BANK OF SWITZERLAND	2,215	2,564	-349	-13.6%	2.0%	2.4%	-17.0%	10	10	0
US BANCORP	2,046	2,196	-150	-6.8%	1.8%	2.0%	-10.5%	11	11	0
STATE STREET IFS	1,848	1,997	-149	-7.5%	1.6%	1.9%	-11.1%	12	12	0
BARCLAYS	1,554	1,466	88	6.0%	1.4%	1.4%	1.9%	13	13	0
HSBC FINANCIAL SERVICES	1,438	1,226	212	17.3%	1.3%	1.1%	12.7%	14	17	3
FIDELITY	1,384	1,347	37	2.7%	1.2%	1.2%	-1.2%	15	16	1
ESHARES	1,210	1,156	54	4.7%	1.1%	1.1%	0.6%	16	18	2
BNP PARIBAS	1,206	1,414	-208	-14.7%	1.1%	1.3%	-18.0%	17	14	-3
DEUTSCHE BANK	1,179	1,406	-227	-16.1%	1.1%	1.3%	-19.4%	18	15	-3
RAYMOND JAMES ASSOCIATES	1,103	1,116	-13	-1.2%	1.0%	1.0%	-5.0%	19	19	0
INTERACTIVE BROKERS	924	794	130	16.4%	0.8%	0.7%	11.8%	20	24	4
CITCO FUNDS SERVICES	870	833	37	4.4%	0.8%	0.8%	0.4%	21	22	1
SOCIETE GENERALE	866	849	17	2.0%	0.8%	0.8%	-2.0%	22	21	-1
BANK OF MONTREAL	846	647	199	30.8%	0.8%	0.6%	25.7%	23	26	3
CANADIAN IMPERIAL BANK OF COMMERCE	832	880	-48	-5.5%	0.7%	0.8%	-9.1%	24	20	-4
COINBASE	818	683	135	19.8%	0.7%	0.6%	15.1%	25	25	0
TOP 25 MULTI CUSTODIANS FR	82,118	78,358	3,760	4.8%	73.1%	72.6%	0.7%			
ALL OTHER	30,147	29,541	606	2.1%	26.9%	27.4%	-1.9%			
TOTAL MULTI CUSTODIANS FR	112,265	107,899	4,366	4.0%	33.4%	33.2%	0.6%			
NOT REPORTED	36,778	35,881	897	2.5%	10.9%	11.0%	-0.9%			
ELIGIBLE FUNDS - NOT ATTRIBUTED	56,323	52,888	3,435	6.5%	16.7%	16.3%	3.0%			
TOTAL FUNDS NOT DISCLOSING A CUSTODIANS FR	93,101	88,769	4,332	4.9%	27.7%	27.3%	1.4%			
TOTAL FUNDS WITH SINGLE CUSTODIANS FR	131,134	128,712	2,422	1.9%	39.0%	39.6%	-1.5%			
TOTAL FUNDS	336,500	325,380	11,120	3.4%	100.0%	100.0%	0.0%			

- Custodians ranked 1-10 registered the highest growth in funds
 - Funds increased 6.04%, or 1.49x the market
 - Market share increased from 55.93% to 57.00%
 - \blacktriangleright An increase of 1.92%
- Custodians ranked 11-25 registered the smallest growth in funds
 - \circ Funds increased 0.63%, or 0.16x the market
 - Market share decreased from 16.69% to 16.14%
 - \blacktriangleright A decrease of 3.28%

Peer C	Group Perf	formance by F	und Relationships			
Custodians	Y-Y	Growth	SOM	SOM	SOM	SOM
Peer Group Analysis	Growth	vs-MKT	2024	2023	Change	Change %
Market Growth Funds	3.42%		100%	100%		
Market Growth Multi Custodians Disclosed	4.05%	1.18	33.36%	33.16%	0.20%	0.61%
Custodians Ranked 1-10	6.04%	1.49	57.00%	55.93%	1.07%	1.92%
Custodians Ranked 11-25	0.63%	0.16	16.14%	16.69%	-0.55%	-3.28%
All Other Custodians	2.05%	0.51	26.85%	27.38%	-0.52%	-1.92%
Market Growth Single Custodians Disclosed	1.88%	0.55	38.97%	39.56%	-0.59%	-1.49%
Market Growth Custodians Not Disclosed	4.88%	1.43	27.67%	27.28%	0.39%	1.41%

Multi-Fund Custodians League Table – Global AUC

Convergence - Nov 2	024 Leagu <u>e Ta</u>	ıbles - Mu <u>lti (</u>	Custodian <u>s N</u>	larket Se <u>gm</u>	ent - As <u>set</u>	s (in BN)				
Multi	Nov -24	Nov -23	23-24	23-24	Market	Market	23-24	Nov -24	Nov -23	23-24
Custodians	FR-AUC	FR-AUC	Change	Change %	Share-24	Share-23	Change %	Rank	Rank	Change
JPMORGAN	\$9,099.25	\$7,687.90	\$1,411.35	18.4%	9.9%	9.0%	9.3%	1	1	0
BANK OF AMERICA	\$8,014.77	\$6,964.94	\$1,049.83	15.1%	8.7%	8.2%	6.3%	2	2	0
BANK OF NEW YORK	\$6,852.72	\$5,958.07	\$894.65	15.0%	7.4%	7.0%	6.3%	3	3	0
CITIBANK	\$5,458.49	\$4,815.05	\$643.44	13.4%	5.9%	5.7%	4.7%	4	4	0
GOLDMAN SACHS BANK USA	\$5,345.60	\$4,452.44	\$893.16	20.1%	5.8%	5.2%	10.9%	5	5	0
MORGAN STANLEY	\$5,151.53	\$4,474.96	\$676.56	15.1%	5.6%	5.3%	6.3%	6	6	0
BARCLAYS	\$4,815.01	\$3,912.40	\$902.62	23.1%	5.2%	4.6%	13.7%	7	7	0
UNION BANK OF SWITZERLAND	\$3,682.66	\$3,513.97	\$168.69	4.8%	4.0%	4.1%	-3.2%	8	8	0
STATE STREET IFS	\$3,664.89	\$3,124.90	\$539.99	17.3%	4.0%	3.7%	8.3%	9	9	0
NORTHERN TRUST	\$3,105.51	\$2,529.98	\$575.53	22.7%	3.4%	3.0%	13.4%	10	10	0
BNP PARIBAS	\$2,666.87	\$2,588.73	\$78.14	3.0%	2.9%	3.0%	-4.8%	11	11	0
WELLS FARGO	\$2,378.37	\$2,318.67	\$59.70	2.6%	2.6%	2.7%	-5.2%	12	12	0
DEUTSCHE BANK	\$1,970.40	\$2,167.31	-\$196.91	-9.1%	2.1%	2.5%	-16.0%	13	13	0
HSBC FINANCIAL SERVICES	\$1,817.90	\$1,748.34	\$69.56	4.0%	2.0%	2.1%	-3.9%	14	17	3
FIRST CITIZENS BANK AND TRUST	\$1,788.26	\$1,486.95	\$301.31	20.3%	1.9%	1.7%	11.1%	15	16	1
SOCIETE GENERALE	\$1,387.37	\$1,503.85	-\$116.47	-7.7%	1.5%	1.8%	-14.8%	16	18	2
STANDARD CHARTERED BANK	\$1,347.87	\$1,484.48	-\$136.61	-9.2%	1.5%	1.7%	-16.1%	17	14	-3
FIDELITY	\$1,250.37	\$928.13	\$322.24	34.7%	1.4%	1.1%	24.5%	18	15	-3
BANK OF NOVA SCOTIA	\$1,067.67	\$1,036.27	\$31.40	3.0%	1.2%	1.2%	-4.8%	19	19	0
SG HAMBROS TRUST	\$910.67	\$412.09	\$498.58	121.0%	1.0%	0.5%	104.2%	20	24	4
US BANCORP	\$859.64	\$892.11	-\$32.47	-3.6%	0.9%	1.0%	-11.0%	21	22	1
SUMITOMO	\$656.86	\$538.77	\$118.09	21.9%	0.7%	0.6%	12.6%	22	21	-1
BANK OF MONTREAL	\$636.22	\$531.90	\$104.32	19.6%	0.7%	0.6%	10.5%	23	26	3
SKANDINAVISKA SECURITIES	\$624.58	\$597.87	\$26.71	4.5%	0.7%	0.7%	-3.5%	24	20	-4
COMPUTERSHARE	\$611.37	\$871.14	-\$259.77	-29.8%	0.7%	1.0%	-35.2%	25	25	0
TOP 25 MULTI CUSTODIANS FR ASSETS	\$75,164.86	\$66,541.24	\$8,623.63	13.0%	81.6%	78.2%	4.4%			
ALL OTHER	\$16,910.19	\$18,518.90	-\$1,608.72	-8.7%	18.4%	21.8%	-15.6%			
TOTAL MULTI CUSTODIANS FR ASSETS	\$92,075.05	\$85,060.14	\$7,014.91	8.2%	54.7%	56.9%	-3.9%			
NOT REPORTED	\$4,864.58	\$4,751.22	\$113.36	2.4%	2.9%	3.2%	-9.1%			
ELIGIBLE FUNDS - NOT ATTRIBUTED	\$3,312.22	\$2,607.70	\$704.51	27.0%	2.0%	1.7%	12.8%			
TOTAL ASSETS NOT DISCLOSING A CUSTODIANS FR	\$8,176.80	\$7,358.92	\$817.87	11.1%	4.9%	4.9%	-1.3%			
TOTAL ASSETS WITH SINGLE CUSTODIANS FR	\$68,222.80	\$57,181.68	\$11,041.13	19.3%	40.5%	38.2%	5.9%			
TOTAL FUND ASSETS	\$168,474.65	\$149,600.74	\$18,873.91	12.6%	100.0%	100.0%	0.0%			

Custodians Peer Groups – Global Multi AUC Growth & Market Share

- Custodians ranked 1-10 registered the highest AUC growth
 - AUC increased 16.35%, or 1.98x the market
 - Market share increased from 55.77% to 59.94%
 - \blacktriangleright An increase of 7.49%
- Custodians ranked >25 registered the lowest AUC growth
 - AUC decreased 8.69%, or -1.05x the market
 - Market share decreased from 21.77% to 18.37%
 - \blacktriangleright A decrease of 15.64%

Peer Group Performance by Fund Assets						
Custodians	Y-Y	Growth	SOM	SOM	SOM	SOM
Peer Group Analysis	Growth	vs-MKT	2024	2023	Change	Change %
Market Growth Assets	12.62%		100%	100%		
Market Growth Multi Custodians Disclosed	8.25%	0.65	54.65%	56.86%	-2.21%	-3.88%
Custodians Ranked 1-10	16.35%	1.98	59.94%	55.77%	4.17%	7.49%
Custodians Ranked 11-25	4.54%	0.55	21.69%	22.46%	-0.77%	-3.42%
All Other Custodians	-8.69%	-1.05	18.37%	21.77%	-3.41%	-15.64%
Market Growth Single Custodians Disclosed	19.31%	1.53	40.49%	38.22%	2.27%	5.94%
Market Growth Custodians Not Disclosed	11.11%	0.88	4.85%	4.92%	-0.07%	-1.33%

About Convergence

- Founded in 2013, Convergence provides independent <u>insights</u> 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 <u>insights</u> help clients grow revenue, <u>improve efficiency</u> and <u>identify and manage risks</u>.
- Our <u>clients</u> include Asset Managers, Institutional Investors and Service Providers.
- Our <u>founders</u>, 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.

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.

• 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/CEO email: jphinney@convergenceinc.com phone: 203-956-4824

John Phinney is Chairman and CEO of Convergence Inc. a Data as a Service (DaaS) company founded on the principals of industry transparency and risk mitigation.

John has spent his entire career working with the world's leading asset managers to increase revenues, improve efficiency and manage investment and non-investment risk. He is a proven thought leader who has designed and developed several first-ever initiatives, including being a named inventor for a patent for a Tier 1 multinational bank.

JPMorgan, Fidelity Investments, TRG Asset Management and Apollo Global Management pedigree.



George Evans President/Chief Revenue Officer email: <u>gevans@convergenceinc.com</u> phone: 215-704-7100

George Evans is responsible for business development and the delivery of Convergence methodology, solutions, and advisory services to Convergence clients. George has a long history of assisting firms with forward thinking, market leading and innovative techniques to capitalize on short term opportunities while staying focused on long term success.

He has over 40 years of experience in the financial services industry, primarily in the traditional asset management, hedge, private equity, banking, and insurance verticals.



Warren Master Chief Technology Officer email: <u>wmaster@convergenceinc.com</u> phone: 201-674-9175

Warren Master is responsible for all technology research and development at Convergence. He is an accomplished technology executive and hands on technology visionary with over 40 years experience in technology with 30 years specializing in the financial services. Warren has business experience on both the buy and sell side as well as the asset servicing side of the business.

Chemical Bank, Chase Manhattan Bank, JPMorgan and TRG Asset Management pedigree.



George Gainer Head of Client Management email: <u>ggainer@convergenceinc.com</u> phone: 203-956-4824

George's career spans buy and sell side firms including Gravitas where he was a Finance & Business Performance Analyst and Apollo [through Gravitas] where he was responsible for Business Analysis & Reporting.

Prior to Apollo, George was at Iron Mountain as an Acquisition Accounting Manager, KPMG as Transaction Services Manager, and Deloitte where he was part of Audit Senior Staff.