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GLOBAL CUSTODY SURVEY 2018

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Global Custody Awards 2018 – methodology

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METHODOLOGY:

The 2018 Global Investor Global Custody survey invited over 210 investment firms from around the world to rate the performance of their global custody providers.

They were asked to rate the overall performance of their global custodians based on client type, region, size of client and 15 sub-categories. The sub-categories are: cash management; class actions; client services; corporate actions; execution services; foreign exchange services; fund accounting; income collections; industry knowledge; network; relationship management; reporting; safety of client assets; settlements; and tax services.

Respondents were asked to rate their global custody providers from one (very poor) to seven (excellent) in each of these sub-categories.

In the tables below, the individual global custodians' results are presented in alphabetical order with the winning

score for each region or category in red. Tables contain global totals and global average scores for those firms that have been rated in more than one region. The tables also show the regional scores covering Europe, the Middle East and Africa (Emea), the Americas, and Asia-Pacific for each global custodian if applicable.

Where a global custodian was not appraised in a certain region the relevant field is blank. Where a custodian is ranked in only one region, the global totals and global averages are similarly left blank.

The results are also presented in a weighted and unweighted form.

The unweighted tables simply contain an average of the relevant scores of the category tables (which are themselves averages of the sub-category scores). Each category is assigned an equal weighting, regardless of how many sub-categories there are for that category or how important they are considered by respondents.

The weighted tables contain a two stage calculation process for the first time, combining stages that allow for the respondents AuM and the importance that the respondents attach to each service category.

The first stage attributes greater weight to the ratings of respondents with larger amount assets under management (AuM). Each respondent is put into a quartile depending on its AuM. The scores of the respondent are then given a weighting based on this quartile. As the boundaries of each quartile are determined by all the responses received in this year’s survey, the boundaries are unknown until the survey closes.

The respondents are asked to rank the service categories (not sub-categories) in order of importance. The core and value added categories are mingled in this list (i.e. some value added services may be considered more important than some core categories). An average is then created based on the rankings of all respondents. These weightings are then applied to the weighted (by AuM) service category tables to create the overall weighted tables.

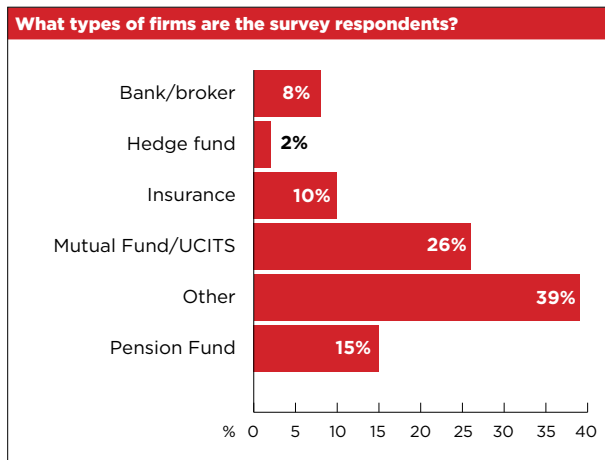
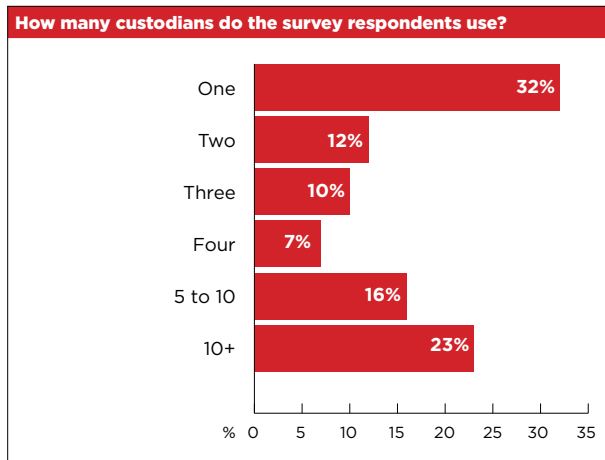
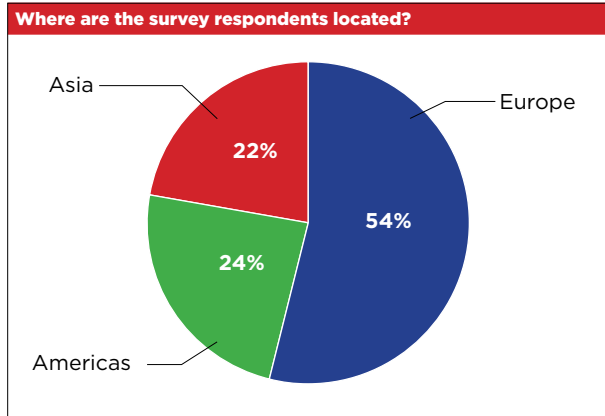
The more important a category is considered, on average by all respondents, the greater the weight is attached to that category (and by extension all the sub-category scores in that category). Weightings are normalised around 1 to preserve comparability with the raw data scores.

The weighting process explains how some firms have scored more than seven.

Of the 210 firms surveyed, over half were based in Emea with about a quarter in the Americas and Asia-Pacific.

There was also a range of types of firms. About a quarter are mutual fund or UCITS firms, about one sixth of firms questioned are pension funds, one tenth are insurance firms and one in twelve is a bank or brokerage firm.

“ About a quarter are mutual fund or UCITS firms, about one sixth of firms questioned are pension funds, one tenth are insurance firms and one in twelve is a bank or brokerage firm. ”



OVERALL (Weighted)					
COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	4.13				
BNY Mellon	5.54	7.69	4.86	18.09	6.18
Citi	6.12	7.47	5.87	19.46	6.54
HSBC	6.91		7.50	14.41	7.18
JPMorgan	7.83				
Northern Trust	6.18	6.66	5.70	18.54	6.13
Pictet	5.95	5.78		11.73	5.85
RBC Investor & Treasury Services	5.34	5.24	5.20	15.78	5.27
Societe Generale	6.59				
State Street			6.57		

HSBC

HSBC claimed in 2018 the top prize, securing the top score for the global average in the weighted category where its 7.18 comfortably beat Citigroup (6.54), BNY Mellon (6.18) and Northern Trust (6.13).

The British bank also pushed RBC close in the unweighted section, scoring 6.15 which was narrowly behind the Canadian bank's 6.29.

In the weighted section, the firm managed a clean sweep in the functions it performs, winning client services, corporate actions, income collections, industry knowledge, network, relationship management, reporting, safety of client assets and settlements.

HSBC also scored well in the sub-categories where it pushed in the unweighted section RBC hard in corporate actions, industry knowledge, network, relationship management and the safety of client assets, and ran Pictet close in income collections.

The bank was top-rated in the weighted and unweighted multiple custodian category for the Asia-Pacific and came a close second to RBC in the single custodian unweighted list.

For mutual funds, HSBC was top in the weighted and unweighted list for Asia-Pacific and had the highest global total for those clients. For clients with more than \$3bn under management, HSBC was top-ranked for Emea and Asia Pacific and was the top-rated firm overall.

A client said: "HSBC has put a great deal of effort into developing its global custody product and client service delivery models. This has really paid off and they deserve all the sevens they have scored."

Another client said: "The strong balance sheet of HSBC assures clients safety of assets being held. This is particularly obvious in times of financial market turmoil such as Lehman."

One added: "HSBC provides excellent custodian service for our funds and could believe potential big growth in next 10 years."

RBC INVESTOR & TREASURY SERVICES

RBC differs from some of the other large custodians in this survey in that it is keen to service clients of all sizes including those at the smaller end of the range. This is reflected in the Canadian bank's rankings which are stronger in the unweighted categories.

RBC is the top-rated custodian globally, in Emea and the Asia Pacific in the unweighted section while it is also a close third to Pictet and Northern Trust in the Americas category.

The bank swept the board in the unweighted categories section, winning all the categories where it was eligible. These include: cash management; client services; corporate actions; execution services; fund accounting quality; industry knowledge; network; relationship management;

OVERALL (Unweighted)					
COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	5.86				
BNY Mellon	5.17	5.96	5.66	16.79	5.55
Citi	5.37	5.46	4.84	15.67	5.28
HSBC	6.28		5.99	12.27	6.15
JPMorgan	5.79				
Northern Trust	5.56	6.19	5.62	17.37	5.76
Pictet	6.00	6.23		12.23	6.10
RBC Investor & Treasury Services	6.52	6.09	6.28	18.89	6.29
Societe Generale	5.53				
State Street			5.61		

OVERALL SERVICE CATEGORIES (Weighted)						
COMPANY NAME	CASH MANAGEMENT	CLASS ACTIONS	CLIENT SERVICES	CORPORATE ACTIONS	EXECUTION SERVICES	FOREIGN EXCHANGE SERVICES
BNY Mellon	5.71	6.47	6.17	6.08	5.99	5.76
Citi	5.54		6.37	6.08		5.31
HSBC			7.01	7.03		
Northern Trust	5.76	5.81	6.08	6.06	6.23	6.00
Pictet	4.96	4.77	5.78	5.40	5.48	4.98
RBC Investor & Treasury Services	4.91		5.18	5.05	5.20	

OVERALL SERVICE CATEGORIES (Unweighted)						
COMPANY NAME	CASH MANAGEMENT	CLASS ACTIONS	CLIENT SERVICES	CORPORATE ACTIONS	EXECUTION SERVICES	FOREIGN EXCHANGE SERVICES
BNY Mellon	5.41	5.76	5.72	5.65	5.63	5.27
Citi	4.81		5.44	5.19		4.69
HSBC			6.17	6.12		
Northern Trust	5.52	5.92	5.85	5.79	5.98	5.58
Pictet	5.85	5.78	6.39	6.09	6.26	5.82
RBC Investor & Treasury Services	6.21		6.41	6.27	6.35	

reporting; safety of client assets; and settlements.

RBC was also the top provider in the multiple custodians Emea unweighted category and won in every region and globally in the unweighted single custodian section. The bank also won the Asia Pacific section in the single custodian weighted segment and scored the highest global total for that category.

For mutual funds, RBC was the top provider in Emea and overall in the unweighted section. RBC was also the winner in Emea and overall for the unweighted clients with assets of less than \$3bn category. RBC was also top-ranked for smaller clients in the Americas and overall, beating Pictet into second.

One client said: "RBC is able to provide excellent quality of service and we are happy with it."

Another said: "RBC provides constantly high quality services and still aims to improve. The relationship and co-operation are very constructive and solution-oriented. RBC IS understands completely our business needs."

One concluded: "RBC Investor & Treasury Services offers well run, comprehensive global services and has invested a great deal in technology over the past year. Their relationship management is second to none."

CITIGROUP

The US banking giant scored well in the global weighted section, coming a close second (7.47) to BNY Mellon (7.69) in the Americas and scoring the highest global total across the three main regions. Citi only came second to HSBC in the global averages because that bank does not provide custody services in the Americas.

Citi came second to HSBC in client services, corporate actions, industry knowledge, network, relationship management, safety of client assets and settlements in the weighted category.

The US bank was the top-rated provider overall in the single custodian category and the top-rated firm in the Americas.

A client commented: "Citibank provides quality custodial services, with excellent client service and relationship management."

Another customer said: "Excellent relationship management and client services makes this best in class. The reporting and the proprietary technology application are quality tools that are easy to use and reliable."

PICTET

Pictet extended in 2018 its reputation for custodial excellence. The Swiss firm typically scored better in the unweighted section than the weighted lists. In the unweighted category Pictet was the top ranked custodian in the Americas and scored well in the individual service categories where it won the foreign exchange services and income collection awards.

The firm also claimed the top prize for Emea in the weighted mutual fund custodian list where it scored 7.68, beating all-comers including HSBC and Societe Generale which shared second place.

Pictet was the top unweighted provider in the Americas for clients with less than \$3bn under management and ran RBC Investor and Treasury Services close for the overall category, finishing second with 12.52 compared to RBC's 12.60.

In the weighted list for smaller clients, Pictet also scored well, winning the Emea section and coming a close second to RBC in the overall category.

Pictet clients are complimentary about the specialist supplier. They commented: "Flawless execution of trades. Immediate rectification of any errors made. Excellent client service and high quality reporting."

Another said: "Very stable and risk-averse custodian. Excellent service, very knowledgeable and responsive partner. Very convenient cash management."

One added: "Of the 10+ custodians we deal with, Pictet are by far the best."

	FUND ACCOUNTING QUALITY	INCOME COLLECTIONS	INDUSTRY KNOWLEDGE	NETWORK	RELATIONSHIP MANAGEMENT	REPORTING	SAFETY OF CLIENT ASSETS	SETTLEMENTS	TAX SERVICE
	6.34	6.05	5.95	5.91	6.39	6.14	6.35	6.13	5.71
		5.85	6.06	6.40	6.46	6.00	6.73	6.26	
		7.01	7.11	7.03	7.23	6.92	7.29	6.97	
	6.22	6.32	6.01	6.02	6.23	6.07	6.57	6.20	5.98
	5.41	5.31	5.25		5.70	5.60	5.75	5.65	
	5.38		5.21	5.26	5.16	4.96	5.29	5.05	

	FUND ACCOUNTING QUALITY	INCOME COLLECTIONS	INDUSTRY KNOWLEDGE	NETWORK	RELATIONSHIP MANAGEMENT	REPORTING	SAFETY OF CLIENT ASSETS	SETTLEMENTS	TAX SERVICE
	5.54	5.52	5.54	5.56	5.89	5.64	5.97	5.74	5.25
		5.15	5.28	5.58	5.51	5.18	5.90	5.42	
		6.08	6.29	6.14	6.34	6.06	6.52	6.11	
	5.94	5.84	5.73	5.73	5.90	5.79	6.21	5.87	5.55
	6.14	6.10	6.03		6.33	6.11	6.41	6.17	
	6.45		6.40	6.35	6.41	6.13	6.58	6.26	

Accelerating the evolution of custody

HSBC is leveraging its network to create a custody structure that clients can better relate to, streamlining processes and highlighting where custody can add value.

Following several years of significant growth in its global custody franchise, HSBC Securities Services recently decided to implement a new structure and operating model to align itself more closely with its clients.

“We have historically been regional-centric with a mix of geographic, functional, product and client-based teams,” explains Alexis Meissner, Global Head of Banks and Broker Dealers for HSBC Securities Services. “The regional business model remains relevant, but our new structure will simplify the way we operate with a real emphasis on our clients.”

Specialist sector-based teams have been created to work with the key sectors of banks and broker dealers; asset owners and asset managers; and issuers.

This organisational model is designed to fulfil the vision of ensuring that clients are at the centre of everything HSBC does, providing a conduit directly from clients down through the organisation and its operational structures to ensure it is highly responsive to what is happening with clients, be they asset owners or banks and broker dealers.

Meissner describes HSBC’s broker outsourcing capabilities as falling squarely within the banks and broker-dealers client segment as part of a broader trend towards outsourcing of capabilities. “The reason we have such conviction around this strategy is that there is a clear growth trend around outsourcing in the clearing and custody space for broker dealers, particularly in relation to account operator and third party clearing. This phenomenon ties nicely into our end-to-end broker outsourcing proposition, which ultimately gives our clients a full post trade proposition in equities and fixed income, coupled with clearing opportunities.”

“We have just finished implementing a new post-trade cash equities platform and capability across 54 markets in

Asia, Europe and the US for our global markets equities business under an outsourcing arrangement,” she says.

This project involved the complete replacement of a 20 year old settlements and finance infrastructure, removing nine internal platforms and implementing three new strategic lines.

“This move was critical for us in establishing credibility,” adds Meissner. “If a prospective client asked us what we do with our own broker infrastructure and we couldn’t say we provide middle and back office asset servicing and clearing provision to those businesses, it would undermine the credibility of the service.”

Based on extensive conversations with clients, Jane Karczewski, Head of Global Custody observes that while increasing profitability and reducing risk are key objectives, there has also been a major change in understanding of how custody – and all the products along the chain such as middle office, collateral management, collateral optimisation and fund accounting – adds value to the front end of the business.

“This can be significant for asset owners and asset managers. Creating transparency via client centric dialogue coupled with a better understanding of client risk and investment profiles, allows us to really fine tune the data analytics we provide. This in turn allows for potentially better profitability for our clients as they are able to make better execution decisions she explains.

“This is also relevant to the banks and broker dealer sector, as they are mandated on their execution and settlement capabilities. What we are looking to achieve via our system enhancements is key for them”

Efficient execution based on tighter settlement process and automation will increase liquidity across the market, adds Karczewski. “Liquidity (cash liquidity, but also market liquidity for example in the specific illiquid as-

“ We have just finished implementing a new post-trade cash equities platform and capability across 54 markets in Asia, Europe and the US for our global markets equities business under an outsourcing arrangement ”

Alexis Meissner,
Global Head of Banks and Broker Dealers for HSBC Securities Services

set classes such as credit and high yield assets) and risk management are at the top of the agenda for all clients. A custodian has valuable data that can assist in defining the depth of market in certain illiquid securities and the network reach to facilitate market entry."

In addition to reshaping the investment value chain, the change in operational focus should also have a significant impact on individual custodians' technology, client management and business models.

"Because of the way we have evolved as an organisation, we have a large number of internal systems, so we have to look at consolidation," continues Karczewski.

To achieve this objective, HSBC is focusing on the development of a new centralised system, which will accumulate transactions across all direct custody and clearing hubs into a single portal. This will potentially allow clients to have one book of records, the potential benefits of which include shorter settlement cycles; cost reduction; full straight-through processing; the removal of reconciliation processes; and fewer settlement failures.

"This sounds attractive as a must have, but there is a bigger potential upside," says Karczewski. "The entire matching process can take place within this closed community, turning settlements into an internal book transfer. This will support a shortening of the settlement cycle to T+1 or even T+0, which in turn would require a change in the funding of foreign currency and the FX model if it is needed to buy a security."

Data harmonisation also has a dedicated focus at HSBC. Digital integration will give clients live access to their data at any time, in a manner that allows for integration with their internal core processes. To this end a specific Data and Digital team has been created within Securities Services working in partnership with HSBC's group approach. A key focus will clearly be data security.

Karczewski suggests that custodians will continue to play a role in protecting client information from cyber threats and that asset safety will no longer just be about safekeeping, but will also include data protection against cybercrime.

"The rise of big data analytics plays to our strengths as a global custodian," she says. "Understanding investment patterns, foreign exchange fluctuations and liquidity based on an aggregated data set across a broad set of market participants is valuable to investment making decisions for our clients."

This should enable HSBC to help asset managers mine correlations and spot investment trends, moving it further up the value chain and closer to its clients' decision-making processes.

HSBC is already using APIs and robotics (there are a number of robots processing trades in its operational infrastructure) and will be increasing its use of these technologies over the next 12 months. It is also working on initiatives around credit liquidity providing data into a liquidity analytics platform

“ Because of the way we have evolved as an organisation, we have a large number of internal systems, so we have to look at consolidation ”

**Jane Karczewski,
Head of Global Custody**

In future, there is an expectation that digital workflow tools combined with robotics and self-learning technology (artificial intelligence) will be the basis for client service. Approximately two thirds of client queries are simple information requests and digital solutions will allow most of these requests to be handled instantly.

"Clients will be self-serving," says Karczewski. "However, for queries that cannot be handled automatically they will expect direct access to local staff with ready access to the required information."

Both Meissner and Karczewski are confident that over the next five years, HSBC Securities Services' investment plan will transform the custody operating model.

"Bringing our clients as close to the local market as possible is one of our primary objectives," says Meissner. "We are already known for our thought leadership as a global custodian – this is about fine tuning our position and finding more efficient mechanisms to deliver this insight to our clients."

One of Meissner's primary objectives as the sector head for banks and brokers is making sure that its global client base and their clients have the same experience with HSBC in every market.

"We have established a new client management team within the sector to deliver this high level service across the globe," she explains. "Being able to filter out noise for our clients is hugely important – we want to understand what our clients need to know right now and give them this insight at a global level. There are very few financial institutions that have a comparable breadth and depth of footprint and capability."

Designing an organisation around the client experience is an innovative approach and it is HSBC's network that affords it this opportunity. The balance sheet and capital requirements to run a large markets transactional business are significant, but there is an appreciation that the HSBC Securities Services platform has considerable potential for growth.

The new structure ensures that HSBC Securities Services is informing the way it constructs products and provides services from a client-centric angle. "It is also a significant building block towards the 'one custody' concept," concludes Meissner. ■

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BNY MELLON

BNY Mellon was ranked the top custodian in the Americas in the weighted category, which tends to skew the result towards larger clients. BNY scored 7.69 in the Americas, beating Citi, Northern Trust, Pictet and RBC Investor & Treasury Services.

Globally, BNY Mellon came third in the weighted section behind HSBC and Citi.

BNY Mellon was also rated in the weighted section as the top provider globally for class actions (6.47) and fund accounting quality (6.34).

The US custodian was also the top ranked Americas provider in the weighted multiple custodian category, scoring 8.46 and beating Northern Trust, JP Morgan, State Street and Citi.

In the single custodian weighted category BNY came second to Citigroup in the Americas and globally. The weighted and unweighted categories specifically for mutual funds made BNY Mellon top in the Americas.

One client said: "BNY Mellon is a very strong custodian. We have used them for over 40 years. They are very strong on core operational custodian functions."

Another customer added: "Very good knowledge of the market and very positive and business oriented relationship management team."

“ BNY Mellon is a very strong custodian. We have used them for over 40 years. They are very strong on core operational custodian functions ”

NORTHERN TRUST

Northern Trust delivered another solid performance in 2018. The US custodian was voted the top custodian in the unweighted category for class actions and tax services. The bank did even better in the weighted section where it was ranked the top performer for cash management, execution services, foreign exchange and tax services.

In the unweighted multiple custodian category, Northern Trust was the top custodian in the Americas and scored the highest global average across the three regions. The bank also recorded the highest global average across all regions in the weighted list.

Northern Trust also won the weighted Americas and Asia-Pacific categories for customers with assets under management of more than \$3bn. The bank was also the highest scorer across all three regions in the unweighted list for large clients.

For clients with less than \$3bn under management, Northern Trust was voted the top custody provider in the Asia-Pacific in both the weighted and the unweighted list.

A Northern Trust client commented: "Great client servicing teams, very responsive and solves problems quickly. Both Singapore and HK teams are very helpful and friendly."

Another said: "We do see excellent settlement rate from Northern Trust and reactivity to manage the failure of trades. In terms of relationship manager, our relationship manager is always ready to listen. He comes from operational background that makes our life very easier to explain our business requirements."

A customer added: "Northern Trust real strength is the quality of the client service offering and dedicated team. They understand our business and work hard to keep us informed of any developments which may affect our operating model."

MUTUAL FUND/UCITS (Weighted)					
COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	4.17				
BNY Mellon	4.31	7.91		12.22	6.28
Citi	5.97	6.84		12.81	6.28
HSBC	7.41		8.86	16.27	8.03
Northern Trust	5.64		7.07	12.71	6.33
Pictet	7.68				
RBC Investor & Treasury Services	5.33	5.27		10.60	5.31
Societe Generale	7.41				

MUTUAL FUND/UCITS (Unweighted)					
COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	5.92				
BNY Mellon	5.37	6.37		11.74	5.81
Citi	5.41	5.13		10.54	5.18
HSBC	6.29		6.39	12.68	6.33
Northern Trust	5.87		5.02	10.89	5.52
Pictet	5.81				
RBC Investor & Treasury Services	6.50	6.06		12.56	6.34
Societe Generale	5.46				

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 **PICTET**
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JP MORGAN

The US bank's custody business did better in the weighted section than the unweighted section reflecting the fact that JP Morgan tends to deal with larger client firms. In the weighted section, JP Morgan was the top-rated provider in Emea, scoring an impressive 7.83 which was way ahead of its nearest competition (HSBC with 6.91).

JP Morgan was also top-rated in the multiple custodian weighted category overall and for Emea, and came out top in the single custodian weighted category for Emea. The US bank's custody business was also the top-rated provider in

the Emea weighted category for clients with more than \$3bn under management.

Client feedback was also good: "We gave no scores of four or below. In general JPMorgan is performing well, it's a very good custodian."

Another said: "JPMorgan delivers an outstanding proactive relationship. Their network department has a great knowledge on all the markets they support. They have a very strong Newsflash stream."

One client added: "They have very good client interaction - always available and take ownership of the issue for the client."

“ JPMorgan delivers an outstanding proactive relationship. Their network department has a great knowledge on all the markets they support. ”

MULTIPLE CUSTODIAN (Weighted)					
COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	4.60				
BNY Mellon	6.10	8.46	5.15	19.71	6.64
Citi	5.99	7.28	5.87	19.14	6.35
HSBC	7.00		7.58	14.58	7.34
JPMorgan	8.21	7.61		15.82	8.00
Northern Trust	6.79	8.09	6.12	21.00	6.84
Pictet	6.45	5.93		12.38	6.23
RBC Investor & Treasury Services	5.73	5.21		10.94	5.26
Societe Generale	6.48				
State Street		7.38	7.49	14.87	6.95

MULTIPLE CUSTODIAN (Unweighted)					
COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	5.76				
BNY Mellon	5.04	5.88	5.76	16.68	5.51
Citi	5.46	5.36	4.84	15.66	5.23
HSBC	6.08		5.97	12.05	6.02
JPMorgan	5.75	4.74		10.49	5.44
Northern Trust	5.60	6.19	5.55	17.34	5.73
Pictet	6.04	6.18		12.22	6.10
RBC Investor & Treasury Services	6.51	5.69		12.20	5.95
Societe Generale	5.31				
State Street		5.27	5.57	10.84	5.24

SINGLE CUSTODIAN (Weighted)					
COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	3.01				
BNY Mellon	4.77	6.53		11.30	5.35
Citi	6.44	7.84		14.28	7.14
HSBC	6.80				
JPMorgan	6.95				
Northern Trust	4.67	3.80	3.87	12.34	4.14
Pictet	5.10				
RBC Investor & Treasury Services	5.09	5.26	5.82	16.17	5.28
Societe Generale	6.91				

SINGLE CUSTODIAN (Unweighted)					
COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	6.09				
BNY Mellon	5.35	6.07		11.42	
Citi	5.16	5.68		10.84	
HSBC	6.51				
JPMorgan	5.87				
Northern Trust	5.46	6.18	5.90	17.54	
Pictet	5.94				
RBC Investor & Treasury Services	6.53	6.44	6.86	19.83	
Societe Generale	6.15				

SOCIETE GENERALE:

The French bank scored well in the weighted category for Emea, reaching 6.59 which put it behind only JP Morgan and HSBC in that region. The bank also scored well in Emea in the weighted multiple and single custodian categories, where it scored 6.91 and finished narrowly behind ultimate winner JP Morgan with 6.95.

Societe Generale also scored well with mutual funds in Emea, coming joint second with HSBC on 7.41 and narrowly behind Pictet with 7.68.

One client said: "Safety is excellent so we have had no issue for many years now."

Another commented: "Very good service on requested processes. High level of experience"

STATE STREET

State Street had success in various regions. The US bank came second in the weighted Asia-Pacific category behind HSBC, and fourth in the Americas and second in Asia-Pacific in the weighted multiple custodian section.

One client said: "Excellent client support team, strong knowledge base, open and business minded staff."

Another said: "I think State Street is the number one custodian Bank. Their service is perfect."

BNP PARIBAS SECURITIES SERVICES

The French bank's custody division scores well in the European unweighted section where it scored 5.86 out of 7, which made it the fourth provider in that category behind RBC, HSBC and Pictet. The custodian did less well in the weighted category where it scored 4.13.

BNP scored more heavily in the unweighted categories across the board, scoring 5.92 for services to European mutual funds, which made that firm third behind RBC and HSBC. The French provider also came third in the category of firms servicing smaller firms, namely those with under \$3bn in assets under management.

BNP scored 5.87 out of 7 in the smaller client category which placed it third behind RBC and Pictet.

BNP clients were broadly complimentary. One said: "Client services is very reactive, proactive and the quality of the service is very high which explain the seven rate. As for the swift process. The tax service is also particularly efficient with a good customer care and follow up. Safety of the asset is also very high."

“ Client services is very reactive, proactive and the quality of the service is very high ”

ASSETS UNDER MANAGEMENT MORE THAN \$3BN (Weighted)					
COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNY Mellon	6.66	8.16		14.82	7.31
Citi	6.79	7.64	6.27	20.70	6.99
HSBC	6.92		7.50	14.42	7.20
JPMorgan	8.11				
Northern Trust	7.09	8.78	7.00	22.87	7.50
Pictet	7.49	7.90		15.39	7.61
Societe Generale	6.87				

ASSETS UNDER MANAGEMENT MORE THAN \$3BN (Unweighted)					
COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNY Mellon	5.25	5.91		11.16	5.55
Citi	5.34	5.46	4.74	15.54	5.24
HSBC	6.30		5.99	12.29	6.15
JPMorgan	5.82				
Northern Trust	5.72	6.19	5.52	17.43	5.77
Pictet	5.86	6.00		11.86	5.90
Societe Generale	5.64				

ASSETS UNDER MANAGEMENT LESS THAN \$3BN (Weighted)					
COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	3.72				
BNY Mellon	3.13				
Northern Trust		3.68	3.52	7.20	
Pictet	4.61	4.36		8.97	
RBC Investor & Treasury Services	4.51	4.61		9.12	

ASSETS UNDER MANAGEMENT LESS THAN \$3BN (Unweighted)					
COMPANY NAME	EMEA	AMERICAS	ASIA-PACIFIC	GLOBAL TOTAL	AVERAGE
BNP Paribas	5.87				
BNY Mellon	5.01				
Northern Trust		6.18	5.77	11.95	5.74
Pictet	6.13	6.39		12.52	6.25
RBC Investor & Treasury Services	6.50	6.10		12.60	6.33

Reaping the benefits from a multi-factor market-neutral equity ETF

With interest rates and bond yields at near-record lows, many investors are driven to the equity markets in search of potential higher returns. However, equities' inherent volatility may be too high for investors seeking a smoother return path. An innovative exposure from **Amundi ETF** has been recently developed as an answer to this conundrum.

The new strategy developed by Amundi ETF combines two offsetting equity market positions in a single fund. The long leg of the "strategy" index iSTOXX Europe Multi-Factor Market Neutral consists of six "smart beta" factors from the European equity market. The short leg consists of sales of European equity futures.

Combining the two legs results in a market-neutral, hedged equity portfolio, offering superior potential long-term performance with fixed income-like levels of volatility. The index also targets low correlation to other asset classes, thereby offering significant diversification potential in a broader portfolio.

THE TIME IS RIGHT FOR A MARKET-NEUTRAL EQUITY APPROACH

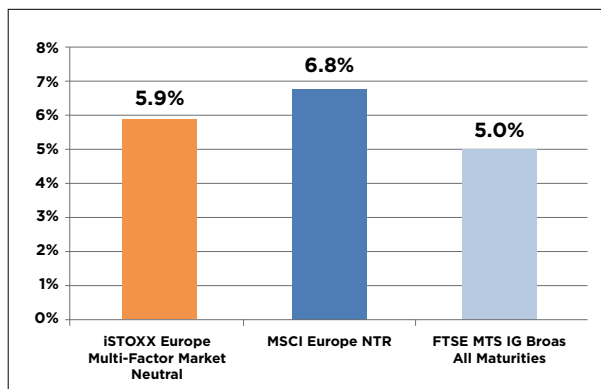
European equity markets have recovered handsomely

since the 2008/09 financial crisis. A broad measure of European equity market performance, the STOXX Europe 600 index, has risen by 149% since April 2009¹ and is now close to an all-time high.

The gross dividend yield of 3.4%² on European equities is also well above the yield on many regional bond markets: ten-year government bond yields in Germany, France, the UK, Spain and Italy currently range from 0.56%-1.78%³.

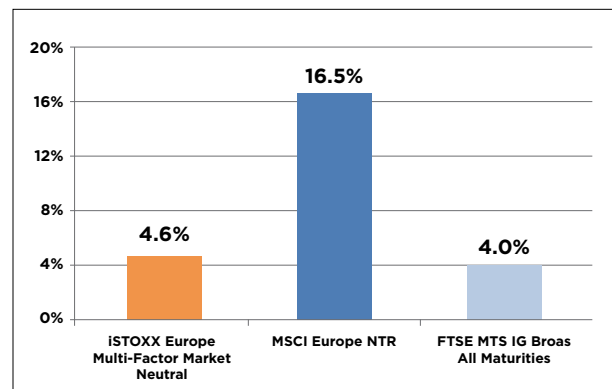
Unsurprisingly, many investors now choose equities both for the prospect of capital gains and for their income.

But even in the relatively benign market environment we've witnessed so far, investors must bear in mind the inherent volatility of the equity markets. And given the sustained recent increases in share prices, hedging



Performance of market-neutral strategy is between that of equities and bonds

Source: Bloomberg, Stoxx, return per annum from 30/12/2010 to 30/03/2018. Investors are reminded that past performance is not a reliable indicator of future results. MSCI Europe and FTSE MTS IG Broad All Maturities are used for illustration purposes only.



Volatility of market-neutral strategy is close to that of bonds

Source: Bloomberg, Stoxx, annualised daily volatility from 30/12/2010 to 30/03/2018. Investors are reminded that past performance is not a reliable indicator of future results. MSCI Europe and FTSE MTS IG Broad All Maturities are used for illustration purposes only.

“Based on historical data, the net result is a performance outcome that is somewhere between the returns on equities and bonds but with bond-like levels of volatility.”

equities’ downside risk seems like an increasingly attractive proposition.

An intelligent solution for investors wishing to reduce risk while retaining access to equities’ return potential is to construct a market-neutral portfolio. A market-neutral equity fund produces returns through stock selection while an accompanying hedge minimises exposure to overall movements in the equity market.

The Amundi ETF product achieves market neutrality by combining two offsetting positions. It offers long exposure to equity factors that aims at harvesting long-term premia. And it hedges this exposure via short sales of equity futures on a liquid, broad European stock index.

Based on historical data, the net result is a performance outcome that is somewhere between the returns on equities and bonds but with bond-like levels of volatility.

HARVESTING RISK PREMIA WITH A MARKET NEUTRAL STANCE

Combining six equity factors to capture risk premia

The Amundi ETF product generates its performance by tracking, as closely as possible, the performance of the iSTOXX Europe Multi-Factor Market Neutral strategy index that embeds six equity market factors: value, size, quality, carry, momentum and low risk. These factors are drawn from a broad universe of European stocks (the STOXX Europe 600 index).

The iSTOXX Europe Multi-Factor index, which forms part of the ETF’s benchmark, is calculated using a transparent procedure. For each of the constituent stocks of the STOXX Europe 600 index, a multi-factor score is calculated by averaging the six individual factor scores measured by specific screening criteria.

The selection of 50 to 120 stocks is based on an optimisation process, subject to caps on individual stock weightings and maximum deviations for industry weights from the STOXX Europe 600 index. In the optimisation, turnover and liquidity constraints are applied to help achieve the best trade-off between the tradability of the index and its exposure to the desired factors.⁴

A short futures exposure to achieve market neutral position

In the Amundi ETF exposure, a long tracking position in the iSTOXX Europe Multi-Factor index is hedged

by a short position in STOXX Europe 600 futures roll index. This is a transparent benchmark based on a rolled position in highly liquid STOXX Europe 600 futures contracts, listed on the Eurex exchange.

By hedging the long exposure to the multi-factor ETF index in this way, the ETF aims to achieve an overall beta (sensitivity) to the European equity market of zero. In other words, the factors can continue generating potential outperformance but the index’s performance should be immune over time to upwards and downwards movements in the market.

To ensure that the index maintains a close to perfect hedged position, the short leg is adjusted weekly to the beta of the long leg.



$\beta_{\text{to market cap. index}} = 0$



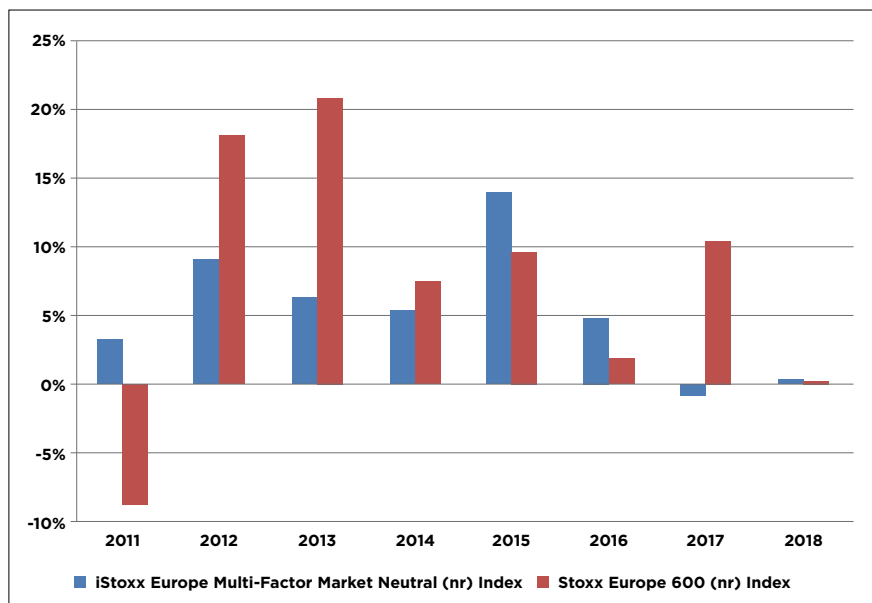
Offsetting long and short positions produce zero beta to market cap index

A SOURCE OF POTENTIAL PERFORMANCE AND DIVERSIFICATION

Combining a long, multi-factor performance engine and a short futures hedge in this way produces a significantly different result to a typical long position in the equities market. By removing the beta from the equity market exposure, the ETF provides only exposure to the targeted factors.

Based on a historical analysis of returns from end-2010 to April 2018, the iSTOXX Europe Multi-Factor Market Neutral index gave a much less volatile performance than the STOXX Europe 600 index, with greatly reduced drawdown risk.

For example, the worst quarterly drawdown during this period in the STOXX Europe 600 index was -20.5%,



Performance comparison between multi-factor market neutral index and STOXX Europe 600 index

Source: Bloomberg, Stoxx, return per annum from 30/12/2010 to 30/04/2018. Investors are reminded that past performance is not a reliable indicator of future results. MSCI Europe and FTSE MTS IG Broad All Maturities are used for illustration purposes only.

but only -3.1% for the iSTOXX Europe Multi-Factor Market Neutral index.⁵

Investors in the market-neutral strategy can therefore reasonably expect a potential performance outcome over time that is somewhere between the returns on equities and bonds but with volatility more akin to that of bonds than that of equities.

The historical returns of the strategy underlying the ETF also demonstrate low correlation to other asset classes. This means the Amundi ETF exposure offers significant diversification potential in a broader portfolio. ■

1 Source: STOXX Limited, STOXX Europe 600 price index from end-April 2009 to end-April 2018.

2 Source: STOXX Limited, STOXX Europe 600 index trailing dividend yield as at 30 April 2018.

3 Source: Financial Times market data, 30/04/2018.

4 For more details on the construction methodology of the iSTOXX Europe Multi-Factor index,

5 Source: Bloomberg, Stoxx, from 30/12/2010 to 30/04/2018. Investors are reminded that past performance is not a reliable indicator of future results. Stoxx Europe 600 index is used for illustration purposes only.

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The historical returns of the strategy underlying the ETF also demonstrate low correlation to other asset classes. This means the Amundi ETF exposure offers significant diversification potential in a broader portfolio.

FORENSYX

Resolving history,
enabling closure

Compliance data under review?

Regulators have signalled their intentions and stated “that there needs to be a line in the sand” and that they will “continue to take appropriate action against any firm that fails to meet requirements”

If your data is being reviewed, your first stop should be Forensyx.





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