MOODY'S
INVESTORS SERVICE

SECTOR IN-DEPTH
14 November 2017

Rate this Research

Contacts

Stephen Tu *VP-Senior Analyst* stephen.tu@moodys.com	+1.212.553.4935
Vincent Song *Associate Analyst* vincent.song@moodys.com	+1.212.553.2907
Nino Siu *VP-Senior Analyst* nino.siu@moodys.com	+852.3758.1667
Robert M. Callagy *Senior Vice President/ Manager* robert.callagy@moodys.com	+1.212.553.4374
Marc R. Pinto, CFA *MD-Financial Institutions* marc.pinto@moodys.com	+1.212.553.4352

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Asset Management – Global

The second wave of disruption will be digital

The first wave of disruption in asset management was the adoption of low-cost index funds, which have reduced active asset managers' fees and pressured their business models. The lack of a good response to this threat has weakened the industry and leaves it open to a second wave of disruption from new entrants – technology firms. Barriers to entry are also lower in asset management than in other areas of finance.

» **Lack of innovation, long-term underperformance leaves opening for digital entrants.** Increasing investor perception that traditional asset managers have not added value in excess of their cost has already driven fee compression and a shift to passive products. It also leaves the industry vulnerable to competition from technology-enabled new entrants, particularly with regards to distribution. Some market share has already been ceded to robo-advisers including Wealthfront, Acorns and Betterment. In fact, Wealthfront recently announced the launch of its own mutual fund.

» **Digital disruption has already occurred in asset management.** In 2013, an affiliate of Alibaba, one of the world's leading technology firms, launched Yu'e Bao, a money market fund for its digital payment ecosystem, Alipay. Yu'e Bao offers Alipay customers a native store of value, with no need to access outside banks or credit cards to fund payments. In just four years, the fund has grown to become the largest money market fund in the world. Though this growth has occurred in a digital payment-friendly country, it is likely to foreshadow events elsewhere.

» **Established technology brands could benefit from a move into asset management.** Offering a fund product that could store value would directly benefit the primary business of digital payment companies such as PayPal, which have large user bases and for which new revenue streams could be significant. US technology giants (Amazon, Apple, Google), on the other hand, are unlikely to enter asset management solely in pursuit of investment management fees, but would do so instead to facilitate data collection and to keep clients within their company ecosystems.

» **Some asset managers are better prepared for digital evolution than others.** Although most managers have recognized the threat of competition from technology companies with more advanced distribution channels, few firms have invested substantially in addressing the problem. Notable exceptions within the industry have been Fidelity (A2, stable) and BlackRock (A1, positive), which are making significant investments in technology in order to offer a wider range and better customization of products and services to clients.

Lack of innovation, structural underperformance leaves industry exposed to digital disruption

"Your margin is my opportunity" – Jeff Bezos

Asset management is a low-capital, high margin business, which makes it a target for new entrants. Unlike many financial services businesses that are protected by regulation – charters, capital requirements or licenses to operate – asset management has lower barriers to entry. Furthermore, industry dynamics characterized by low levels of innovation, investment underperformance and a lowered value proposition weaken the industry's ability to defend itself. The first wave of disruption, caused by two innovations, the index fund in 1976 and the ETF in 1993, have been hugely transformational; however, there have been few meaningful innovations since then. The shift to passive investment management has caused a large share of assets to shift away from traditional asset managers, in a trend that has sharply accelerated since 2008.

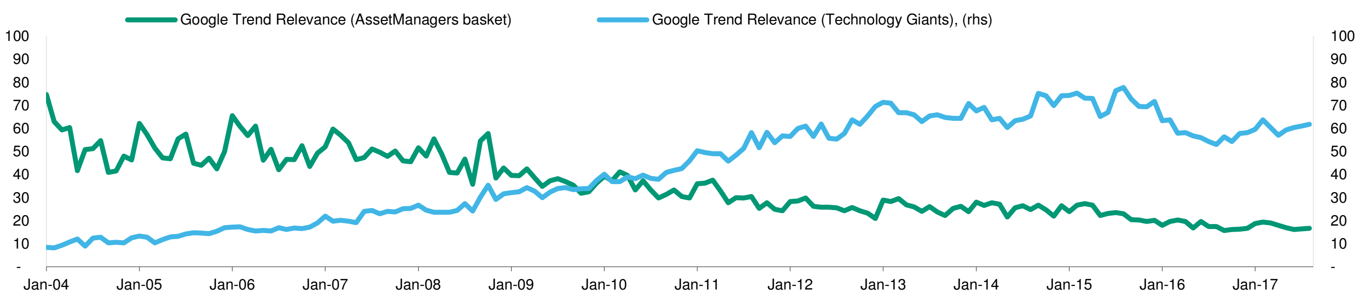
Generating industry-leading investment performance has already been 'open-sourced' via passive funds. Higher-fee traditional active mutual funds, which, in aggregate, consistently underperform their benchmarks, have ceded significant market share to lower-cost, more efficient passive funds. Given the zero-sum nature of investing, improvements on the manufacturing side beyond passive funds, on an industry-wide basis, are difficult to achieve. As a result, the growth of passive investment products will continue and therefore industry players are putting even more focus on distribution, service and branding to enhance their value proposition to clients.

The key competitive threat facing incumbent asset management firms is likely to stem from innovations in distribution through better client contact, relevance, identification, customization, and ultimately, client retention. Facing continued outflows and fee compression, asset managers have begun prioritizing client acquisition, increasing investments in new products and marketing. However, they face a client base that increasingly expects its digital needs to be met, and asset managers have not fully adapted their services to reflect shifting client preferences. Among high net worth individuals, 56.2% of respondents in a recent Capgemini survey stated that they would be open to using technology firms for wealth management if such a product was offered, citing better transparency, efficiency, and innovation as reasons.[1]

To asses asset managers' relevance – how tied to the public consciousness a given company is on a daily basis – we examined the frequency of Google searches for the names[2] of a number of publicly traded asset managers over the last 15 years. The results show a steady and significant decline in search relevance for the group. The same analysis on a number of large technology companies showed a clear trend of increasing relevance with consumers over the same period. The increase in search relevance among technology companies is even more compelling because we restricted our study to web searches related to finance, which shows how far these firms have ingrained themselves into the daily lives of an increasingly technology-savvy consumer base.

Exhibit 1

Asset managers' brand relevance on the steady decline



[1] Asset Management basket includes: BlackRock, Franklin Templeton Investments, Alliance Bernstein, Invesco, Eaton Vance, AMG, Janus Capital Group, Legg Mason, Waddell & Reed, and T. Rowe Price
[2] Technology giant basket includes: Facebook, Google, Apple, Amazon, and PayPal
[3] Search frequency over time is scaled from 0 to 100. Search parameters were limited to United States, 2004 - present, finance, and web search
Source: Google trends

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

Consumer-facing technology firms are themselves relatively capital light businesses, and it is core to their DNA to compete in scalable businesses. If these firms capitalize on their client relevance by offering investment management products and services within their ecosystems, it will reduce flows to traditional asset managers, a credit negative for the industry.

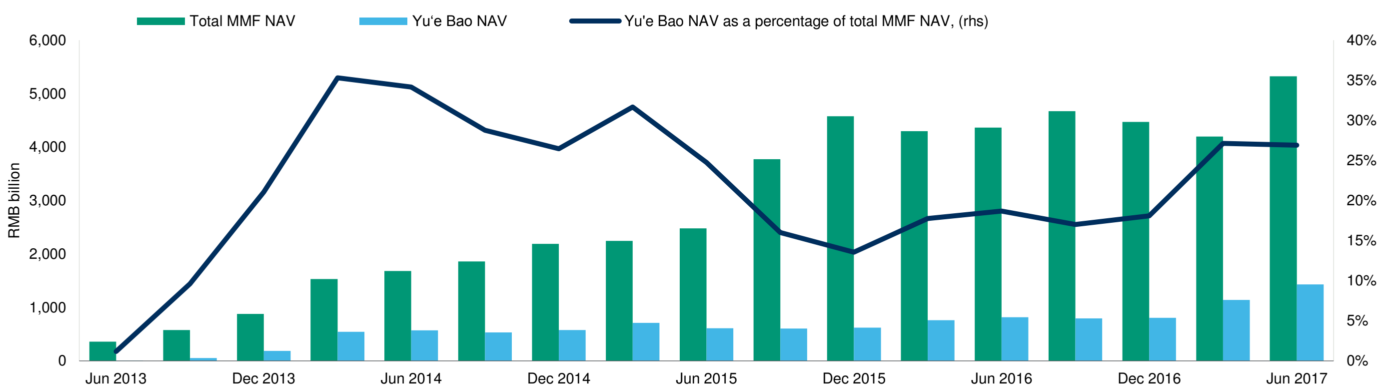
Digital disruption has already started in asset management

"The future is already here – it's just not evenly distributed" – William Gibson

A template for digital disruption of the asset management industry already exists in China. Yu'e Bao, a money market fund that is offered by Ant Financial, an affiliate of Alibaba, one of the world's largest technology firms, means "leftover treasure" in Chinese. It was originally launched in June 2013 to allow Alibaba customers to use money left over in their Alipay accounts, either for online shopping at Alibaba's marketplace, TaoBao, or for other payment services. Yu'e Bao has grown dramatically since its launch, to become the largest money market fund (MMF) in the world with more than 260 million registered users and RMB1.43 billion assets under management (AUM) as of June 30, 2017. Its AUM accounted for 27% of total AUM in China's MMF market (Exhibit 2).

Exhibit 2

Yu'e Bao dominates the MMF market in China



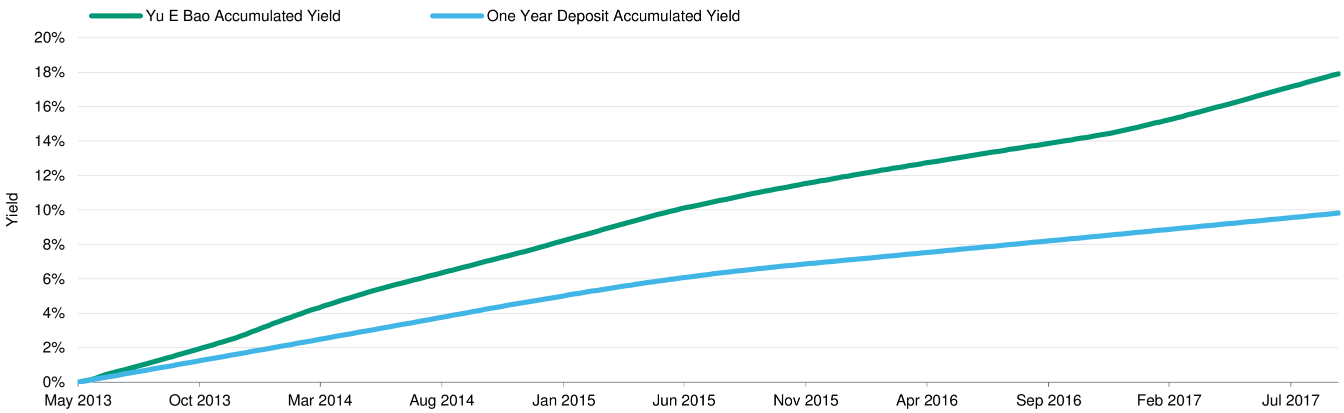
Source: Wind, Moody's Investors Service

Reshaping the fund market in China

By leveraging the success of Alibaba's ecosystem, which includes the world's largest online shopping platform, Taobao, and dominant digital payment channel Alipay, as well as using technologies such as big data analysis, Yu'e Bao successfully raised over RMB500 billion within 10 months of its launch.

Because it offers a native store of value within Alipay, Yu'e Bao is more convenient than going outside to invest cash balances, since Alipay users are able to transfer funds to and from Yu'e Bao with no minimum investment threshold, no increased costs and no time delay. Yu'e Bao also offers higher yields than bank deposits (Exhibit 3). As of today, Alipay has more than 520 million users. The advantages and conveniences Yu'e Bao provides allows Alipay to offer a better user experience, thereby increasing its relevance with clients.

Exhibit 3
Yu'e Bao offers more attractive yields than bank deposits



Source: Wind, Moody's Investors Service

To achieve this, Tianhong Asset Management, the asset manager for Yu'e Bao, manages liquidity risk and investment risk through advanced data analysis and proprietary prediction models to model fund inflows and outflows, and manages liquidity and duration risk. For example, Tianhong forecasts the amount of redemptions at specific time periods in order to optimize asset selection and duration matching. Yu'e Bao will likely continue to dominate the money fund market thanks to Alibaba's ecosystem, which has a large and growing trove of consumer data and an entrenched client network, features that are not easily replicable.

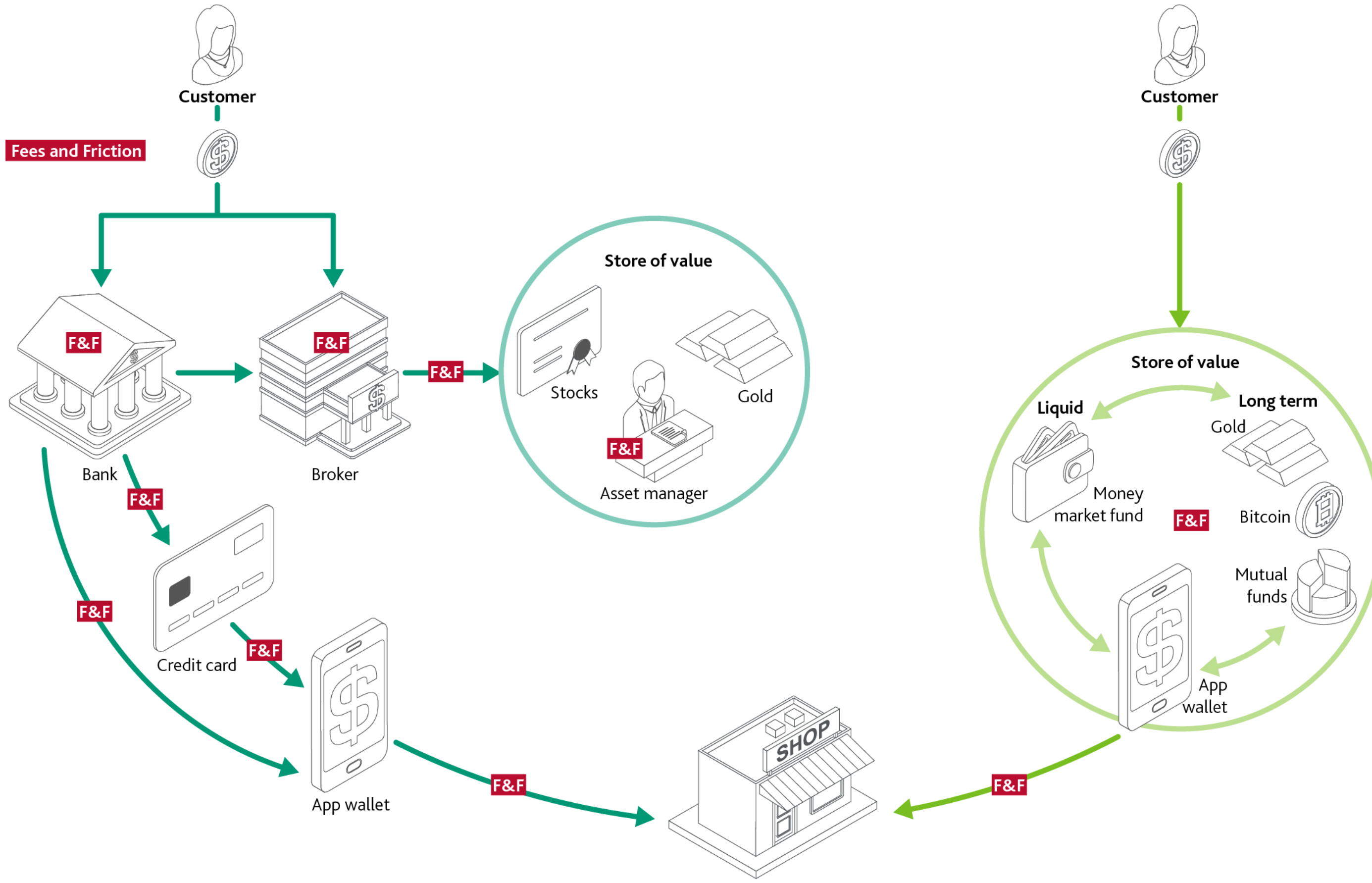
Following the wild success of Yu'e Bao, other Chinese technology firms have ventured into wealth management, including many of Alibaba's peers. Outside of China, the largest digital payment company in India, Paytm, has entered wealth management for the masses by first offering a gold account as a store of value, followed by its own money market fund. This year, its founder announced plans to invest $1.6 billion over the next five years to innovate in wealth management, lending and insurance. [3]

The MMF product is likely just the opening salvo for firms like Tianhong, just as the gold account was for Paytm. Technology firms are likely to enter asset management with simple products, and progressively offer a complete suite of investment funds.

Established consumer-facing technology companies could benefit from a shift into asset management

The synergies of offering a fund product would directly benefit the primary business of midsize digital finance companies such as PayPal, which already have large user bases. In fact, PayPal has already briefly ventured into the asset management industry. From 1999 to 2011, PayPal allowed users with idle account balances to invest in a money market fund, accumulating nearly half a billion in AUM. However, at the time, interest rates were so low that PayPal was subsidizing the fund in order to provide investors with zero to marginally positive yield, and shut the fund down. More recently, PayPal has been making numerous investments in the fintech space, purchasing Venmo, the dominant player in the expanding mobile payments market, and Acorns, a growing micro-investing app. A future strategy for payment operators could be to create a store of value – savings vehicles to hold customer balances within their application – instead of constantly transacting with a credit card or external bank, increasing frictional costs and lowering client experience. In this context, a payment operator could offer asset management as a complementary service through money market funds and index funds while simultaneously promoting the use of its own payment systems.

Exhibit 4
Current and future digital finance ecosystems



The "Prime" Prime MMF, Braeburn Liquid Reserves, D.E. Index+?

Large US technology firms are often cited as leading candidates to enter asset management. Amazon, Google, Apple and Facebook have an edge in distribution through their mindshare, life share, datasets, advanced analytics and predictive modeling skills in combination with their ability to target users. On the manufacturing side of asset management, many investment products can be easily replicated and possibly improved – either via improved performance or, more likely, reduced costs – using technology, quantitative modeling, machine learning and big data. Many technology firms have strong ties to asset management already – Amazon Chairman and Chief Executive Officer Jeff Bezos started his career as a hedge fund quant, Apple's Braeburn Capital manages $220 billion, and Eric Schmidt, chairman of Google's parent company, owns 20% of D.E. Shaw.

Firms such as Amazon, Square, and PayPal have already begun using their data analytics and distribution channels to start direct lending platforms. Both Amazon and Square have reportedly loaned over $1 billion to businesses on their platforms, and PayPal's small business lending has been growing at an estimated $4.5 million per day. Direct lending uses basic investment analysis – which could just as easily be used to create mutual funds or money market funds. One trait these consumer-facing technology firms share is their strong distribution channels and deep knowledge of their clients, which provide them with a clear advantage over traditional asset managers in establishing relevance with consumers of financial investment products. The largest of these companies have ingrained themselves into the daily lives of an increasingly technology-oriented consumer base by locking consumers into their ecosystems early on, incentivizing consumers to remain brand loyal for extended periods of time. One of their largest user bases, millennial consumers, are digital natives and will be the future holders of wealth either via earnings or inheritance.

To date, however, some issues have prevented technology firms from entering asset management. For example, given the zero sum nature of investing, the potential for growth within the asset management industry is much smaller than the other industries that tech companies are trying to disrupt, such as autos, healthcare, or energy. It is unlikely that the large technology giants will enter the asset management industry solely in pursuit of fee income. They would be more likely to enter the industry if they could offer asset management as a complementary service to their main business, as Amazon is beginning to do by lending to its merchants. More importantly, offering a store of value vehicle increases client stickiness in an ecosystem and can facilitate the collection of even more detailed and differentiated consumer behavior data.

Some asset managers are better prepared for the new competitive landscape than others

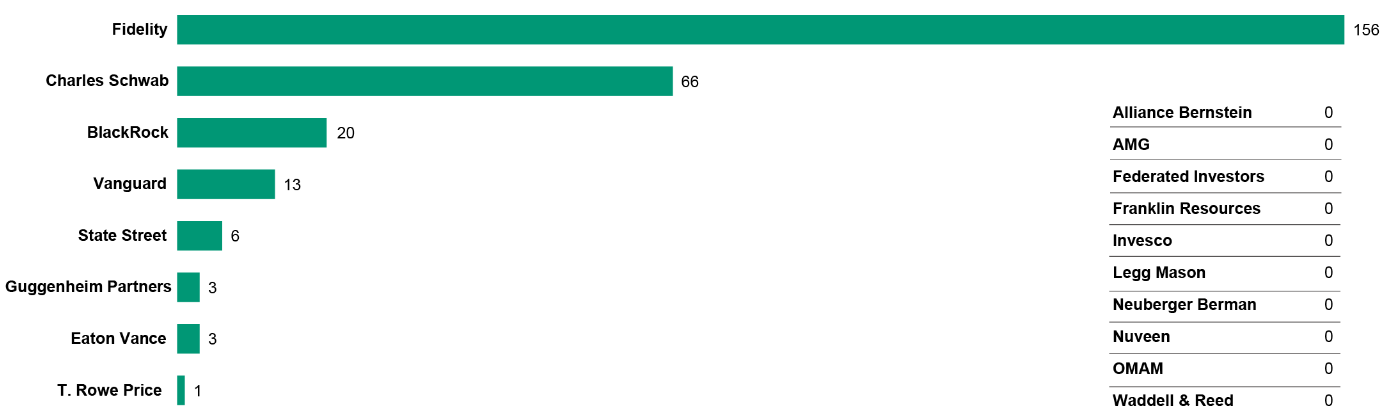
Though asset managers, as a whole, have been slow to adapt to technological advances, Fidelity and BlackRock have been making significant strides growing their technological presence in an increasingly digital landscape. Fidelity has invested heavily in improving its digital interaction and customization of services to clients via its web interface and apps. BlackRock, which has invested heavily in technology, developing its Aladdin risk management platform and making its fundamental investing more quantitative, has made several recent acquisitions and investments in the financial technology space, highlighting the importance technology will have in enhancing the firm's value proposition to clients in the future. Using patents as a proxy for technological innovation (Exhibit 6), we see that these two firms, Fidelity and BlackRock, have historically been more innovative than their peers, and, in this context, it is not surprising that they are at the forefront of an industry at a crossroads.

Traditional asset managers must adapt their businesses to reflect the technology-oriented preferences of their client base. Otherwise, technology firms will more easily be able to capitalize on their own strong distribution channels and begin expanding their existing ecosystems by cross-selling financial products to their clients.

Exhibit 5

Fidelity committed to technological innovation

Patent activity as a proxy for innovation among asset managers



Patent activity reflects all recorded Patent Assignment information from August 1980 to the present.
Source: United States Patent and Trademark Office

Ultimately, we envision a future where technology companies increasingly enter financial services, and within asset management, offer an electronic store of value vehicle, be it money market, index or digital asset funds. These vehicles would allow for holding reserves of purchasing power and would facilitate closer financial interactions with clients. Customers could, for example, perform direct deposits into these vehicles, which could then be linked to a payment app, potentially with social media features. This would create a closer engagement with the client and reduce frictional costs encountered when transferring balances with the traditional sources of dollar balances such as banks and credit card companies. Perhaps most importantly, the ‘financial health’ of a client could then be monitored and analyzed, allowing for more sophisticated, customized and targeted services.

Moody's Related Research

Sector In-depths:

» Passive Market Share to Overtake Active in the US No Later than 2024, February 2017 (1057026)

» Industry Flows Actively Moving to Passive, July 2016 (1035250)

» Smart Beta 2.0: The Next Battleground for Asset Management Dollars Heats Up, September 2015 (1008161)

» Digital Adaptation Shapes Tomorrow's Asset Managers, May 2016 (1027563)

Outlook:

» 2017 Outlook - Active Managers' Struggles Underpin Negative Outlook, December 2016 (1052650)

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

Endnotes

1 "Capgemini World Wealth Report 2017: High Net Worth Individual population and wealth hits new all-time high." *Capgemini UK*, 29 Sept. 2017, www.capgemini.com/gb-en/news/capgemini-world-wealth-report-2017-high-net-worth-individual-population-and-wealth-hits-new-all-time-high/.

2 For the publicly traded asset managers, we included BlackRock, Franklin Templeton Investments, Alliance Bernstein, Invesco, Eaton Vance, AMG, Janus Capital Group, Legg Mason, Waddell & Reed, and T. Rowe Price. For the large technology companies, we included Amazon, Facebook, Apple, Google, and PayPal.

3 http://www.livemint.com/Companies/hCIqhMJdYKHnPI9uaA0yqJ/Paytm-said-to-seek-licence-to-offer-money-market-fund-repor.html

© 2017 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MOODY'S PUBLICATIONS MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL, FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER. ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing the Moody's publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY SUCH RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any rating, agreed to pay to Moody's Investors Service, Inc. for appraisal and rating services rendered by it fees ranging from $1,500 to approximately $2,500,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors. It would be reckless and inappropriate for retail investors to use MOODY'S credit ratings or publications when making an investment decision. If in doubt you should contact your financial or other professional adviser.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJKK or MSFJ (as applicable) for appraisal and rating services rendered by it fees ranging from JPY200,000 to approximately JPY350,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

REPORT NUMBER 1096356

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Moody's
INVESTORS SERVICE