Third Annual Report to
JPMorgan Chase Bank, N.A.
On Activities Related to
Securities Act
Rule 506 of Regulation D

December 12, 2018

Respectfully Submitted:
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Waterside Enterprises, LLC.
Waterside Enterprises, LLC, the Independent Compliance Consultant ("Waterside" or "ICC")
engaged pursuant to a waiver of disqualification granted by the Securities and Exchange
Commission ("SEC" or "Commission") in 2015, hereby submits the third annual review of the
JPMorgan Chase Bank, N.A. ("JPMCB" or "Bank") and its subsidiaries, the "Rule 506
Entities," activities with regard to transactions entered into in accordance with Rule 506 of
Regulation D under the Securities Act of 1933 ("Securities Act").

Waterside conducted the third annual comprehensive review of the JPMorgan Wealth
Management policies and procedures applicable to compliance with Rule 506, reviewing those
policies and procedures in place in 2017 and testing a statistically valid random sampling of
transactions conducted in 2017 in reliance on Rule 506 of Regulation D.

In order to accomplish the ICC work as required by the SEC Order, Waterside reviewed:

- Requirements of Regulation D;
- Business processes applicable to private placement activity relying on Rule 506 of
  Regulation D;
- Written policies and procedures pertaining to the requirements of Regulation D; and
- Offering and marketing documents for products within the scope of the Order.

The Rule 506 Entities act as investment manager, placement agent or issuer in offering hedge
funds, private equity funds and structured products that rely on the Rule 506 of Regulation D exemption from registration.

I. Background

Under the federal securities laws, a company or private fund may not offer or sell securities
unless the transaction has been registered with the SEC or an exemption from registration is
available. Rule 506 of Regulation D is such an exemption and is considered a safe harbor for the

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1 Securities Act of 1933, Release No. 9993, December 18, 2015 ("Order").
2 The "Rule 506 Entities" are JPMorgan Chase Bank, N.A. including the Singapore, Hong Kong and Paris Branches
and the following of its subsidiaries or affiliates: J.P. Morgan International Bank, Ltd., J.P. Morgan (Suisse) S.A.
and J.P. Morgan Securities (Far East) Limited, Seoul Branch. J.P. Morgan Securities LLC (a U.S. registered
broker/dealer) is not a Rule 506 Entity; therefore its Regulation D placements are out of scope for this review.
In addition, placements relying on an exemption from registration offered by Regulation S of the Securities Act are not
in scope for this review.
3 For additional background information on the Order and the ICC review, see Appendix A, attached.
4 Waterside conducted the third annual review of the Wealth Management platform business processes, written
policies and procedures and transactions closing in 2017. During the course of the review, the Asset Management
platform (specifically the J.P. Morgan Securities (Far East) Limited, Seoul Branch) identified one private equity
transaction that was also in scope for this review.
private offering exemption of Section 4(a)(2) of the Securities Act. Companies relying on the Rule 506 exemption from registration must satisfy the following five standards:

1. Companies must decide what information to give to "accredited investors," as long as the information does not violate the antifraud prohibitions of the federal securities laws; \(^5\)
2. The company may sell its securities to an unlimited number of accredited investors and up to 35 other purchasers; \(^6\)
3. The company may use general solicitation or advertising to market the securities only if, among other things, it takes reasonable steps to verify that investors meet accredited investor standards; \(^7\)
4. Companies relying on the Rule 506 exemption must file an electronic "Form D" with the SEC after they first sell their securities; \(^8\) and
5. Companies must disclose certain regulatory actions and exercise reasonable care that no "Bad Actor" is participating in the Rule 506 offering by, among other things, monitoring the level of client holdings in the offering. \(^9\)

II. Process of the Review

In 2018, Waterside met with members of Compliance, Legal and business department management in order to become aware of any changes to business processes or compliance procedures relevant to the private placement businesses of the Rule 506 Entities. The transactions in scope for the third annual review were private placement offerings relying on Rule 506 of Regulation D that closed in calendar year 2017 including: private equity funds, hedge funds, Global Access Portfolio or "GAP" funds and structured notes.

Waterside examined written policies and procedures relevant to the scope of the Order that were in effect during 2017 including guidelines, training materials, subscriber forms and "Frequently Asked Questions" relating to:

\(^5\) Unlike offerings registered with the SEC in which certain information is required to be disclosed, companies and private funds engaging in exempt offerings to "accredited investors" do not have to make prescribed disclosures. Clients in private placement offerings generally are made aware of information and risks through offering memoranda such as private placement memoranda and marketing documents. The company must be available to answer questions by prospective purchasers and must make financial statements available to potential investors.

\(^6\) According to the SEC, one principal purpose of the accredited investor concept is to identify persons who can bear the economic risk of investing in unregistered securities. An accredited investor, in the context of a natural person, includes: anyone who has earned income that exceeded $200,000 (or $300,000 together with a spouse) in each of the prior two years, and reasonably expects the same for the current year, or has a net worth over $1 million, either alone or together with a spouse (excluding the value of the person's primary residence).

\(^7\) In 2013, the SEC adopted amendments to Rule 506 of Regulation D (Release No. 33-9415; No. 34-69959; No. IA-3624; File No. S7-07-12) that, among other things, allows general solicitations of the private placement as long as the issuer takes reasonable steps to verify that the purchasers are accredited investors (Rule 506(c) of Regulation D). None of the funds within the scope of this review relied on Rule 506(c) of Regulation D.

\(^8\) Form D is a brief notice that includes the names and addresses of the company's promoters, executive officers and directors, and some details about the offering, but contains little other information about the company.

\(^9\) Adopted in 2013, this requirement is referred to as the "Bad Actor" provision of Regulation D. See, Release No. 33-9415; No. 34-69959; No. IA-3624; File No. S7-07-12.
• Marketing Guidelines and Review Procedures for Private Placements;
• Alternative Investment Procedures, including onboarding and offering funds;
• Middle Office Procedures, including processing and reconciling client transactions;
• Accredited Investor Attestations, including Subscriber Information Forms, Instructions to Subscribe and Accredited Investor/Qualified Purchaser forms for Discretionary Accounts;
• The Compliance Manual for Global Access Portfolio; and
• Procedures for Monitoring Compliance with the Bad Actor Rule.

During the course of the review, Waterside interviewed business management and supervisors as well as Compliance, Legal and audit personnel focusing on the Rule 506 of Regulation D private placement business. In their interviews, Waterside discussed the application of various middle office processes that included control points, review practices, and systems used. As we have done in the past two reviews, Waterside met with one of the outside law firms responsible for reviewing subscription documents for private equity funds and reviewed their internal procedures for reviewing transactions.

Waterside conducted testing, as required by the Order and described more fully in Appendix B, of a statistically valid random sample of private equity transactions and all hedge fund transactions in scope that closed in 2017 to help ascertain whether the policies and procedures were reasonably designed to achieve their stated purpose, namely, compliance with Rule 506 of Regulation D.

The private placements relying on Rule 506 of Regulation D in scope for this review include:

**Private Equity** – Waterside was provided a population of 1,338 Wealth Management private equity transactions in 22 different funds that closed in 2017 and for which the Rule 506 Entities served as Placement Agent. Waterside applied a statistically valid random sampling process, described in more detail in Appendix B, to the 1,338 private equity transactions. From that sampling methodology, Waterside requested 392 transaction files. Waterside reviewed an additional 13 private equity files (to include at least one transaction from each of the 22 fund families as well as the largest transactions) bringing the total reviewed to 405. Waterside also was made aware of one institutional placement from a Rule 506 Entity.\(^\text{10}\)

**Hedge Funds** – The hedge funds offered in 2017 within the scope of the Order were developed by non-affiliated hedge fund managers and offered by Rule 506 Entities serving as placement agents. During 2017, the Rule 506 Entities had two (2) hedge fund offerings that were made in

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\(^{10}\) The J.P. Morgan Securities (Far East) Limited, Seoul Branch conducted one transaction in scope for this review. Waterside reviewed a memorandum from management that stated the Korean branch had a reasonable belief that the investor had assets of at least $5 million, and therefore clearly exceeded the accredited investor requirements of Rule 506 of Regulation D. Waterside noted that although the transaction was an institutional trade, there should be policies and procedures in place for the Rule 506 Entities, in any jurisdiction where a fund is relying on the exemption from registration under Rule 506 of Regulation D and the Rule 506 Entities are participating in such an offering.
reliance on Rule 506 of Regulation D in which 65 client transactions closed.\textsuperscript{11} Due to the small number of transactions, Waterside reviewed information for each transaction file, which were in both brokerage accounts and managed accounts.

**Global Access Portfolio funds** – The GAP private placement offerings consist of a variety of hedge funds or funds of funds designed to meet broad investment criteria for accredited investors depending on their investment risk tolerance. In 2017, there were 20 offshore and 21 onshore transactions that closed in Global Access funds in reliance on Rule 506 of Regulation D. For these offerings, JPMCB served as Investment Manager, so Waterside reviewed policies and procedures as well as marketing documents, subscription agreements and placement agent agreements for compliance with the requirements of Regulation D. Since these offerings were made either to U.S. persons residing in the U.S. via J.P. Morgan Securities LLC, an entity outside the scope of the Order, or to non-U.S. persons outside the U.S. under Regulation S, no client transaction files were in scope for this review.

**Structured Notes** – Generally, structured bank notes are securities whose returns are based on, among other things, an index or indices based on the market performance of equity securities, a basket of equity securities, interest rates, commodities, and/or foreign currencies. Each investment’s return is linked to the performance of selected set of reference assets or indices. In 2017, the Rule 506 Entities issued six (6) structured notes in reliance on Rule 506 of Regulation D. The notes were developed for and marketed by intermediaries that were not Rule 506 Entities.

For each of the six structured products in 2017, JPMCB served as Issuer. Waterside reviewed policies and procedures, marketing, product offering information as well as intermediary agreements, but did no review of client transaction information since the Rule 506 Entities did not act as placement agent for the products.

**III. Findings/Conclusions/Recommendations**

As discussed above, requirements of Rule 506 of Regulation D relevant to this review briefly include:

- Complying with the anti-fraud requirements of the Securities Act;
- Limiting sales of unregistered products to accredited investors;
- Not engaging in general solicitations of sales for the unregistered products;
- Filing a Form D when sales commence and periodically thereafter; and
- Complying with the Bad Actor provisions of the Rule.

\textsuperscript{11} Initially, Waterside was provided with a list of 95 hedge fund transactions that closed in 2017. During the review, management determined that one of the hedge fund vehicles was initially offered in reliance on Regulation S and the issuer changed the terms of the offering from Regulation S to the Regulation D exemption from registration in mid 2017. Accordingly, the transactions that closed in the first half of the year and subject to Regulation S were removed from our scope, leaving us with 65 hedge fund transactions to review.
A. Complying with the Anti-fraud Requirements of the Securities Act

Waterside reviewed Private Placement offering memoranda and marketing documents describing private equity, hedge funds, Global Access Portfolio funds and structured notes for compliance with the anti-fraud prohibitions of the Securities Act. The funds were routinely described as speculative with a high degree of risk, such as counter-party risk, credit risk, and market risk. Further, each subscription and marketing document made it clear there was no assurance that the investment objectives of the fund would be met. The offering documents also explained that the funds and structured notes had not been registered with the SEC and that they were being offered as unregistered private placements, in reliance on Regulation D.

We reviewed written policies, procedures and guidelines outlining requirements for marketing documents, as well as onboarding procedures. We met with structuring department management about any changes in on-boarding processes and procedures for the funds we were reviewing. Accordingly, Waterside was satisfied that marketing, onboarding and offering policies, procedures and guidelines were designed to ensure compliance with Rule 506 of Regulation D.

B. Limiting Sales of Unregistered Products to Accredited Investors

Key to compliance with the requirements of Rule 506 of Regulation D is developing and following procedures to establish a reasonable belief that clients subscribing to the unregistered offerings are accredited investors. For private equity funds, the Rule 506 Entities served as placement agent and Waterside reviewed 405 client transaction files of the 1,338 transactions that closed in 2017.

For private equity brokerage account transactions, policies generally require a valid Subscriber Information Form (“SIF”) or similar document and a Subscription Agreement that includes certain attestations, representations and warranties by authorized persons, whether individuals or authorized representatives of legal entities. In February 2017, the SIF was revamped to consolidate previous U.S. and non-U.S. person forms and in mid 2017, the paper-based SIF was transitioned in many jurisdictions to an Electronic SIF (“ESIF”). Waterside interviewed U.S. as well as international middle office personnel about the process of converting to the ESIF.

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12 The SIF is used to determine whether a client who is a prospective investor for an interest in a hedge fund, private equity fund or other private investment company is an accredited investor and is otherwise eligible to invest in a fund. By completing and signing the SIF, or other similar document, a prospective subscriber is representing and warranting that the information in the form is accurate and complete as of the date of the signature and that the subscriber will notify the Rule 506 Entity promptly of any change in information. Each SIF form is valid for a year following the first of the month after the date of the client’s signature, and a single signed SIF will suffice for all subscriptions entered into within the 12-month period. Part A of the SIF requires certain subscriber information (i.e., name, contact information, ownership type and tax information); Part B defines accredited investor status and requires subscribers to attest whether they meet the qualification requirements for natural persons or for entities. The SIF includes a signature page that represents, warrants and covenants that the information contained in the form is accurate and complete. An individual is required to print his/her name and the name of any joint subscriber and sign and date the form. An entity representative must print the name of the subscriber, sign and date the form as an authorized signatory, and print the name of the authorized signatory.
For the most part, Waterside found that the paperwork for the 405 private equity transactions reviewed was in good order, with signed and dated SIFs and Subscription Agreements in place for each transaction. Subscribers were required to attest in each document that they met the accredited investor monetary thresholds and to keep the issuer updated should their status change. Waterside noted 21 private equity transactions that required additional clarification from either the Rule 506 Entities or outside counsel that reviewed the transactions for the funds or the fund issuers, and our questions were answered satisfactorily.  

The requirements for hedge fund transactions in brokerage accounts are similar to those for private equity – generally there must be a SIF (or other similar document) as well as a Subscription Agreement (or an “Instruction to Subscribe” document in EMEA jurisdictions [Europe, Middle East, Africa] including Switzerland) on file with attestations as to the accredited investor status of the client.  

With regard to hedge fund transactions in managed or discretionary accounts, the requirements are that each client must meet certain accredited investor and client suitability standards and must enter into an Investment Adviser agreement with the Rule 506 Entity to open a discretionary or managed account. Once a client has agreed to the terms of the fiduciary account, individual transactions in hedge funds are entered into at the direction and discretion of the Portfolio Manager. For specific private placements, the investment manager submits an Accredited Investor/Qualified Purchaser form attesting to the client's eligibility for the transaction. 

In this third annual review, Waterside reviewed all 65 hedge fund transactions and had questions or comments on six transactions. We asked for and promptly received additional documents and clarifications from the middle office and Waterside was satisfied with the responses provided. 

In conclusion, Waterside reviewed written policies and procedures related to the accredited investor status of prospective clients for private placements. We reviewed subscription documents, marketing materials and subscriber identification forms used by the Bank, and we tested sample transactions as required by the Order. Waterside believes that written policies and procedures are being followed and are reasonably designed to assure compliance with Rule 506 of Regulation D. 

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13 Generally, follow-up questions were related to indecipherable signatures, lack of printed names, or out of date forms. In one case, Waterside noted that the documents reviewed did not include the subscriber's attestation to their accredited investor status. Upon further inquiry, Waterside found that every other page of the agreement was missing from the file. Using this example, Waterside discussed with management the control processes used in approving Subscription Agreements. 

14 The Instruction to Subscribe form used in EMEA was replaced or supplemented in mid 2017 with a requirement to use a SIF or other similar document and a Subscription Agreement, which Waterside endorses as an improvement in cross-jurisdictional consistency. 

15 Using the statistically valid random sampling methodology and table found in Appendix B, sampling for the 2017 population of 65 hedge fund transactions within the scope of the Order for this review, Waterside could either sample 59 hedge fund transactions or review all files. We elected to review all transactions rather than use the sampling approach.
C. General Solicitations for Unregistered Products

Waterside found that marketing documents for private placements for private equity and hedge fund subscriptions routinely included language to make prospective subscribers aware that the funds were unregistered and were being offered only to known prospects without a general or public solicitation of sales. We also found that Subscription Agreements for private equity offerings included language that stated that the client had not been made aware of the offering through a general solicitation.¹⁶

In this third annual review, Waterside noted that the Global Access Portfolio funds’ Subscription Agreements contained appropriate language regarding subscribers being Accredited Investors, but the documents were silent with regard to the funds being marketed via a general solicitation. Since 2013, Rule 506(c) permits the use of general solicitation and advertising if all purchasers are accredited investors and the unregistered fund has taken reasonable steps to verify that all purchasers are accredited investors. None of the Issuers with relevant transactions in this review availed themselves of that particular subsection. Accordingly, Waterside recommends that the “no general solicitation” language be added to new GAP Subscription Agreements, as soon as is practicable.

D. Filing Form D with the SEC

With regard to filing the required Form D for the products within scope for this review, Waterside found that all required forms had been filed with the SEC, as required by Rule 506 of Regulation D and as required by the written policies and procedures of the Rule 506 Entities.

E. Compliance with the “Bad Actor” Provision of Regulation D

Waterside found that appropriate disclosures of the Rule 506 Entities regulatory actions had been included in marketing and subscription documents for private equity and hedge funds in 2017. The Bank, in 2017, adopted additional written policies and procedures to reflect the requirements of the “Bad Actor” provision of the SEC rules, and the policies and procedures appear to be reasonably designed and are being followed.

Waterside reviewed the Subscription Agreements drafted for the most part by three outside law firms for use by subscribers wishing to invest in relevant private equity vehicles. We noted that in every case where the Rule 506 Entities acted as placement agents, appropriate disclosures regarding the Rule 506 Entities regulatory actions had been appropriately disclosed. There was a difference in approach with regard to including language in the Subscription Agreements to put the subscriber on notice of the 20% threshold ownership level considered to be a “disqualifying event.” One law firm included the language regarding a disqualifying event and the other two did not include the language because in their experience, the event was extremely rare. There are

¹⁶ In the first annual review of policies and procedures from 2015, Waterside noted that there were slight discrepancies in wording and processes regarding inviting only “known prospects” to road shows or conference calls and we recommended reviewing the language and the procedures to make them more consistent where possible. The Bank agreed and amended the procedural language and the marketing processes.
written procedures and systemic checkpoints in place to monitor investors approaching a 20% ownership threshold in a private placement vehicle and to require disclosure by the investor, but Waterside recommends including language in the Subscription Agreement to put the client on notice of the requirement.

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In the first annual review of policies and procedures from 2015 and testing of transactions made in 2015, Waterside made recommendations for changes to existing policies and procedures, primarily regarding consistency across various jurisdictions. Bank management accepted all of the recommendations for changes to the policies and procedures, and acted to implement amendments prior to year-end 2016.

During the second annual review, Waterside recommended that the Bank enhance oversight of new business acceptance processes for private placement transactions to improve quality and consistency of transaction files. We also recommended enhancing processes to readily identify which private placement transactions had been done in reliance on Rule 506 of Regulation D. Management accepted our recommendations from the second review and enhanced its processes for signatures by implementing a new signatory template and holding training for U.S. and international trade order review teams. Additionally, JPMCB took steps to enhance its data identification and reconciliation processes.

In this third annual review, Waterside noted improvements in both new business acceptance processes and in identifying private placement transactions that were within the scope of our review as previously recommended. Waterside found that the 2017 Policies and Procedures continue to be current, relevant and consistent across international jurisdictions. Waterside also notes that the volume of questions to clarify file review of private equity and hedge fund transactions has been reduced year over year.

In this third annual review Waterside identified three areas for enhancement and accordingly, we make the following recommendations for change:

1. Enhance consistency in drafting new Subscription Agreements to include language describing a “disqualifying event” to give subscribers notice about the Bad Actor provision of Regulation D.

2. Develop policies and procedures for the Rule 506 Entities, with respect to institutional business, in any jurisdiction where a fund is relying on the exemption from registration under Rule 506 of Regulation D and the Rule 506 Entities are participating in such an offering.

3. Include “no general solicitation” language in GAP subscription agreements, similar to the language used in private equity and hedge fund offering subscription agreements.

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For this third Annual Report, Waterside conducted a comprehensive review of the policies and procedures relating to compliance with Rule 506 of Regulation D including but not limited to, policies and procedures relating to the Rule 506 Entities’ activities as investment manager and placement agent to private funds relying on Rule 506 of Regulation D for transactions that closed in 2017.

In this third Annual Report, Waterside states that we have tested the Rule 506 Entities policies and procedures relating to Rule 506 of Regulation D by conducting a statistically valid random sampling of transactions conducted in reliance on Rule 506 of Regulation D that closed in calendar year 2017.

Waterside hereby certifies that:

“JPMCB’s policies and procedures designed to ensure compliance by the Rule 506 Entities with their obligations under Rule 506 of Regulation D are reasonably designed to achieve their stated purpose.”
Appendix A

Background

On December 18, 2015, the Securities and Exchange Commission granted a waiver of disqualification under Rule 506(d)(2)(ii) of Regulation D under the Securities Act of 1933 at the request of JPMorgan Chase Bank, N.A.¹ The waiver of disqualification was requested because on the same date, the U.S. Commodity Futures Trading Commission (“CFTC”) instituted proceedings pursuant to Sections 6(c) and (d) of the Commodity Exchange Act making findings and imposing remedial sanctions as a result of JPMCB’s failure to adequately disclose certain conflicts of interest to clients.² Because of the CFTC proceedings, JPMCB requested and received a waiver of disqualification pursuant to Rule 506(d) of Regulation D by the SEC for JPMCB and its subsidiaries, the “Rule 506 Entities.”³

Rule 506(d)(2)(ii) of Regulation D provides that disqualification from certain regulated activities, in this instance, participation in private placements of select unregistered offerings, “shall not apply... upon a showing of good cause and without prejudice to any other action by the Commission, if the Commission determines that it is necessary under the circumstances that an exemption be denied.”

In granting the waiver, the Commission determined that as part of the Rule 506(d)(2)(ii) showing of good cause, JPMCB would retain a qualified independent compliance consultant not unacceptable to Commission staff,⁴ to conduct a comprehensive review of the policies and procedures relating to compliance with Rule 506 of Regulation D. The ICC is required to complete its review and submit a written report to JPMCB on an annual basis for a period of five years following the Order.

² CFTC Docket No. 16-05, December 18, 2015.
³ The Rule 506 Entities are JPMorgan Chase Bank, N.A. including its Singapore, Hong Kong and Paris Branches and the following of its subsidiaries or affiliates: J.P. Morgan International Bank, Ltd., J.P. Morgan (Suisse) S.A. and J.P. Morgan Securities (Far East) Limited, Seoul Branch.
⁴ In addition, the Order requires the Consultant to enter into an agreement that provides for the period of the engagement and for a period of two years from completion of the agreement, the ICC shall not enter into any other professional relationship with the Rule 506 Entities.
The ICC is charged with reviewing policies and procedures by the Rule 506 Entities including but not limited to, activities as investment manager and placement agent to private funds relying on Rule 506 of Regulation D. According to the Order, JPMCB must require the ICC to test the Rule 506 Entities’ policies and procedures relating to compliance with Rule 506 of Regulation D by conducting a statistically valid random sampling of transactions conducted in reliance on Rule 506 of Regulation D. If the Consultant finds that Rule 506 Entities’ policies and procedures have been reasonably designed to achieve compliance with their obligations under Rule 506 of Regulation D, then the ICC shall certify annually to that finding.

Waterside Enterprises, LLC was engaged as the Independent Compliance Consultant in March 2016. Waterside is a Financial Services consulting firm established in 2003 by its two principals, Paul Bruce and Beth Weimer. Paul and Beth have over 60 years combined experience in the securities and insurance industries including working for regulators (SEC and FINRA [NASD]), and working as Chief Compliance Officers, corporate officers and regulatory and compliance consultants. For this engagement, Waterside also retained two experienced independent consultants (Michael Raney and Robert Arndt) who have many years of broad financial services experience and who have worked with Waterside on other engagements.

According to the terms of the Order, in 2016 Waterside conducted the first annual comprehensive review of the policies and procedures in place in 2015 applicable to compliance with Rule 506 of Regulation D by the Rule 506 Entities. The first annual report was submitted to JPMCB in December 2016 and after review and acceptance, JPMCB submitted the report to the SEC. The SEC published the first annual report on March 14, 2017.5

In 2017 Waterside conducted the second annual comprehensive review of policies and procedures applicable to compliance with Rule 506 of Regulation D. The second annual report was submitted to JPMCB in December 2017 and after review and acceptance, JPMCB submitted the report to the SEC. The SEC published the second annual report on March 20, 2018.6

For the third annual review, a description of the process of the review as well as findings and recommendations are presented in the body of the report.

Appendix B

Statistical Sampling Methodology for 2017 Private Equity Funds Transactions

Language in the Order states “JPMC B shall require that the Consultant test the Rule 506 Entities policies and procedures relating to Rule 506 of Regulation D by conducting a statistically valid random sampling of transactions conducted in reliance on Rule 506 of Regulation D.”

As discussed in the Report, JPMC prepared a list of all private equity fund offerings in 2017, for which the Rule 506 Entities acted as placement agent and relied on Rule 506 of Regulation D. From that population of client transactions that closed in 2017, Waterside applied the following statistical review approach to select a random sample.

The generally accepted purpose of utilizing a statistically valid random sampling process is to be able to review an abbreviated subset of a population and use the results of that review to draw conclusions about the entire population. To comply with the statistically valid random sampling requirements of the Order, Waterside used a methodology that was intended to optimize the sample size while maintaining statistical integrity. The approach we chose is based on a normal approximation to a binomial distribution and the Central Limit Theorem, adjusted for a finite population.

For any given population, a Central Limit Theorem approach states that regardless of the distribution of the underlying population, any set of sufficiently large samples reviewed will follow an approximately normal distribution. Even if we do not know the distribution of the underlying population, this approach should routinely produce a valid sample. The method used allows us to determine a sample size for a given population based on three key criteria:

- Confidence Level relative to the standard normal distribution;
- Population Proportion estimate; and
- Margin of Error.

I. Confidence Level

A confidence interval gives an estimated range of values that are likely to include an unknown population parameter, the estimated range being calculated from a given set of sample data. The confidence level is the probability value associated with a confidence interval. Relative to statistical sampling and sampling distributions of population proportions, a 95% confidence level

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1 Any number of statistical sampling approaches may be applied. Based on the education, training and experience of the Waterside review team, we selected a standard approach from a 1970 article by Krejcie and Morgan and documented in the Penn State University online course website under course 414/415: “Estimating a Proportion for a Small, Finite Population.”

2 Definitions of confidence interval and confidence level are from Valerie J. Easton and John H. McColl's Statistics Glossary v 1.1. (Available at: http://www.stats.gla.ac.uk/steps/glossary/confidence_intervals.html).
means that 95% of confidence intervals constructed from samples of a given size (n), will contain the true population proportion parameter. This implies that only 5% of confidence intervals constructed with the specified criteria will not contain the true population proportion. This also equates to an assumption that the population parameter being tested falls within two standard deviations of the predicted value of the parameter.

II. Population Proportion

If we know nothing about the underlying population vis-a-vis the criteria for which we are sampling, we need to use a population proportion estimate, ("P") of .5. This is a common approach for situations such as election sampling where we anticipate about a 50/50 response for each of two candidates. Or, another example would be a coin toss, where we define a “heads” result as positive (“P”) and a “tails” result as negative. This P of .5 leads to the largest sample size, since for every sample data element, e.g., head or tail, selected we are unable to predict a positive result with a higher level of certainty than the negative result or vice versa.

If, however, we know or believe the population is skewed in one direction or another, in other words, we expect a clear majority of the items in the sample will be either positive or negative, we can select a more informed estimate of P and reduce the sample size while maintaining the accuracy and integrity of the sampling process. An example of this would be to roll a standard six-sided die and declare that rolling a “one” would be a negative result and all other results are positive. We now know that 5/6 of the time we would expect a positive result. In other words, the better we can predict the population parameter for which we are testing, the smaller the required sample size.

For our purposes and to meet the terms of the Order, we reviewed the firm’s policies and procedures, conducted interviews and observed control points applicable to the private placement business of Rule 506 Entities relying on Rule 506 of Regulation D within the scope of our review. We also applied our experience in brokerage and other client focused businesses in which we see that if policies and procedures are reasonably designed to achieve their stated purposes, we generally find files containing the appropriate documents, disclosures and signatures well in excess of 90% of the time.

Based on our review of the Rule 506 Entities policies, procedures and control points, including documents, interviews and observation, we concluded that those policies, procedures and processes would lead to similarly accurate and complete transaction files.

Using these inputs, we set our estimated sampling population proportion at 0.90. The ultimate test of that assumption is whether our sampling results demonstrate that at least 90% of the sampled files met criteria above. If so, it should indicate that our population proportion assumption was appropriate.

III. Margin of Error

The next key sampling criteria is Margin of Error. In other words, how predictive are our results? To refer again to election polling type sampling, we often see a result that is noted to be
accurate within “plus or minus” 2%, 3% or 4%. This is the margin of error for that poll.
Waterside decided to use a margin of error of 2.5%, which is a margin of error among a common
range of selection (2%-4%) that leads to a fairly conservative (larger) sample size. Thus, a
result of 95% of files in good order in a sample would be indicative of an assumed population
accuracy rate within the interval 92.5% to 97.5%.

IV. Using these criteria to set a sample size

Accordingly, for the purpose of this review, to test compliance with written policies and
procedures as they pertain to the requirements of Rule 506 of Regulation D, we predicted (based
on experience in the industry) that the required paperwork for at least 90% (Population
Proportion) of the client transactions reviewed would be “in good order” (defined here as signed
and dated by an appropriately authorized party and containing assertions that the client is an
accredited investor, and that appropriate relevant disclosures were made to each investor).
Additionally, we selected a Confidence Level for the population of “in good order” transactions
of 95% with a 2.5% Margin of Error.

V. The population and sampling results

Waterside was provided a population of 1,338 Wealth Management private equity transactions
that closed in 2017. Using that population of 1,338 transactions, we used the criteria described
above, and the following table, to reach a minimum sample size of 392.

Illustration of required minimum sample sizes based on: (1) Confidence Level,
(2) Population Proportion estimate and (3) Margin of Error:

<table>
<thead>
<tr>
<th>Estimated Population Proportion, ( \hat{P} = 90% )</th>
<th>( \hat{P} = 50% )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confidence Level = 95%</td>
<td>Margin of Error, ( E = 3.0% )</td>
</tr>
<tr>
<td>Population Size ( N = )</td>
<td>50</td>
</tr>
<tr>
<td>Margin of Error, ( E = 3.0% )</td>
<td>45</td>
</tr>
<tr>
<td>Margin of Error, ( E = 2.5% )</td>
<td>46</td>
</tr>
<tr>
<td>Margin of Error, ( E = 1.0% )</td>
<td>50</td>
</tr>
<tr>
<td>Margin of Error, ( E = 2.5% )</td>
<td>48</td>
</tr>
<tr>
<td>Margin of Error, ( E = 1.0% )</td>
<td>49</td>
</tr>
<tr>
<td>Margin of Error, ( E = 2.5% )</td>
<td>50</td>
</tr>
</tbody>
</table>
This table clearly illustrates that for very large population sizes we see the most optimum leveraging abilities of statistical sampling. However, a population of 1,338 still lends itself to providing all the benefits of random sampling.\(^3\)

We numbered the 1,338 private equity transaction files from 1 to 1,338 and to start the sample selection process, utilized a random number generator to select a number between 0 and 3.4133 (the ratio of 1338 to 392 which is the ratio of the population to the minimum sample size). The result of that selection was the number 2.72. To ensure we requested an adequate sample to test, we added 3.41 (slightly less than 3.4133) to that starting point repeatedly, and in each case, rounded the result to the nearest integer.

Accordingly, we selected file numbers (using standard rules of rounding):
- 3 (closest to 2.72),
- 6 (closest to 6.13),
- 10 (closest to 9.54),
- 13 (closest to 12.95),
- 16 (closest to 16.36), and so forth,

until we had identified a sample of 392, which is equal to the minimum sample size that our process requires for a statistically valid random sample.

Once we selected our random sample of 392, we reviewed that sample for adequate representation of the population. Through this process, we added eight transactions to the sample to ensure coverage of all fund families, including those with small transaction volumes. In each instance if we had a choice, we selected the largest previously unselected transaction. We also reviewed the transactions for coverage of large transaction amounts, adding five more transactions to ensure we had included all the transactions that were in excess of ten times the average transaction size.

Accordingly, we have a general population of 1,338 Wealth Management private equity transactions of which we reviewed 405:

<table>
<thead>
<tr>
<th>Beginning Population</th>
<th>Sample Selected</th>
<th>Additional Selections:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,338</td>
<td>392</td>
<td>Fund Family coverage</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Large Transaction coverage</td>
</tr>
<tr>
<td>Transactions Reviewed</td>
<td>405</td>
<td></td>
</tr>
</tbody>
</table>

We subsequently made the following observations regarding the sample set:

---

\(^3\) The table above also clearly illustrates that there is essentially no benefit to selecting a sample for a population of 65, which is the number of hedge funds in scope. Rather than “de-selecting” six transactions, we elected to review all 65 hedge fund transactions.
At the culmination of the transactional review of Private Equity files, we found 21 files (or about 5% of the files reviewed) for which we had questions or comments that required follow-up with JPMCB. We thus noted that using this criterium, over 90% of the files were in good order, i.e., complying with policies and procedures reflecting Regulation D control points. Further, the files for which we had questions have subsequently been resolved, clarified or discussed with JPMCB to Waterside's satisfaction, bringing the 'in good order' percentage to just slightly less than 100%.

Finding most of the files in the sample in good order allows us to make the same conclusion about the population from which the sample was drawn, i.e., that we would expect to find a statistically significant percentage of any files we might select to be in good order and thus we can extrapolate the same conclusion to the entire population.4

The conclusions of the review are discussed further in the body of the report.

4 Similarly, Waterside determined that questions from the 65 hedge funds reviewed, which were resolved via further discussion and documentation, indicated that the transactions supported an assumption of reasonably designed Regulation D policies and procedures.
CERTIFICATION

I am the principal legal officer of JPMorgan Chase Bank, N.A. Pursuant to Section III.E of the Order under Rule 506(d) of the Securities Act of 1933 Granting a Waiver of the Rule 506(d)(1)(iii) Disqualification Provision issued by the Securities and Exchange Commission on December 18, 2015, I certify that I have reviewed the written report of Waterside Enterprises LLC, dated December 12, 2018.

Stacey Friedman
General Counsel
JPMorgan Chase Bank, N.A.

Date: December 19, 2018
CERTIFICATION

I am the principal executive officer of JPMorgan Chase Bank, N.A. Pursuant to Section III.E of the Order under Rule 506(d) of the Securities Act of 1933 Granting a Waiver of the Rule 506(d)(1)(iii) Disqualification Provision issued by the Securities and Exchange Commission on December 18, 2015, I certify that I have reviewed the written report of Waterside Enterprises LLC, dated December 12, 2018.

James Dimon
Chief Executive Officer and President
JPMorgan Chase Bank, N.A.

Date: December 20, 2018