REGISTRATION DOCUMENT **10 July 2019**

J.P.Morgan

J.P. Morgan AG

(*incorporated with limited liability in the Federal Republic of Germany*)

*This document (the "**Registration Document**") constitutes the registration document for the purpose of Section 12 paragraph 1 of the German Securities Prospectus Act in conjunction with Article 7 and Annex XI of the Commission Regulation (EC) No. 809/2004 of 29 April 2004, as amended (the "**Prospectus Regulation**") in relation to J.P. Morgan AG, Frankfurt am Main, Federal Republic of Germany ("**JPMAG**") which may, inter alia, act as guarantor for certain securities issued by J.P. Morgan Structured Products B.V., Amsterdam, The Netherlands (the "**Issuer**" or "**JPMSP**"). The competent authority for the approval of the Registration Document pursuant to Section 12 and Section 13 of the German Securities Prospectus Act (the "**WpPG**") that implements Directive 2003/71/EC, as amended from time to time, including by Directive 2010/73/EU (the "**Prospectus Directive**") into German law is the German Federal Supervisory Authority (the "**Competent Authority**").*

JPMSP in its capacity as an issuer, subject to compliance with all relevant laws, regulations and directives, may from time to time issue notes or other similar instruments ("**Notes**"), warrants or other similar instruments ("**Warrants**") and certificates or other similar instruments ("**Certificates**"). Notes, Warrants and Certificates shall be referred to collectively as "**Securities**".

Payment obligations of JPMSP in respect of certain Securities will be guaranteed by JPMAG. Further information on the respective guarantee (in each case a "**Guarantee**") and, in particular, the exact wording, the Securities and the terms and conditions thereof are set forth in the prospectuses for the relevant Securities (the "**Prospectus**").

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I. RISK FACTORS

J.P. Morgan AG ("**JPMAG**") is an indirect, wholly-owned subsidiary of JPMorgan Chase Bank, N.A. JPMorgan Chase Bank, N.A. is one of the principal bank subsidiaries of JPMorgan Chase & Co (the "**holding company**" and, JPMorgan Chase & Co. together with its consolidated subsidiaries "**JPMorgan Chase**").In relation to certain Securities (issued by JPMSP) JPMAG will act as guarantor (if so specified in the Prospectus or the applicable final terms) and investors in such Securities are exposed to the creditworthiness of JPMAG as guarantor of such Securities. On account of JPMAG being a subsidiary of JPMorgan Chase & Co., the risks that affect JPMorgan Chase can also affect JPMAG, either directly as an individual entity or indirectly as part of JPMorgan Chase.

JPMorgan Chase is a major, global financial services group and, as such, faces a variety of risks that are substantial and inherent in its businesses, and which may affect JPMAG's ability to fulfil its respective payment, delivery or other obligations under the Securities.

Purchase of Securities issued by JPMSP involves substantial risks: Investors should ensure that they understand the nature of the risks posed by, and the extent of their exposure under, the Securities. Investors should consider the suitability of the Securities as an investment in light of their own circumstances, investment objectives, tax position and financial condition.

Contents of the Risk Factors

1. Regulatory Risk

1.1 JPMorgan Chase's businesses are highly regulated, and the laws and regulations that apply to JPMorgan Chase have a significant impact on its business and operations.

JPMorgan Chase is a financial services firm with operations worldwide. JPMorgan Chase must comply with the laws and regulations that apply to its operations in all of the jurisdictions around the world in which it does business. The regulation of financial services is extensive and comprehensive.

JPMorgan Chase has experienced an extended period of significant change in laws and regulations affecting the financial services industry, both within and outside the U.S. The supervision of financial services firms also expanded significantly during this period. The wave of increased regulation and supervision of JPMorgan Chase has affected the way that it conducts its business and structures its operations. Existing and new laws and regulations and expanded supervision could require JPMorgan Chase to make further changes to its business and operations. These changes could result in JPMorgan Chase incurring additional costs for complying with laws and regulations, and could reduce JPMorgan Chase's profitability. More specifically, existing and new laws and regulations could require JPMorgan Chase to:

- limit the products and services that it offers;
- reduce the liquidity that it can provide through its market-making activities;
- stop or discourage it from engaging in business opportunities that it might otherwise pursue;
- recognise losses in the value of assets that it holds;
- pay higher assessments, levies or other governmental charges;
- dispose of certain assets, and do so at times or prices that are disadvantageous;
- impose restrictions on certain business activities, or
- increase the prices that it charges for products and services, which could reduce the demand for them.

1.2 Differences in financial services regulation can be disadvantageous for JPMorgan Chase's business.

The content and application of laws and regulations affecting financial services firms sometimes vary according to factors such as the size of the firm, the jurisdiction in which it is organised or operates, and other criteria. For example:

- larger firms are often subject to more stringent supervision and regulation;
- financial technology companies and other non-traditional competitors may not be subject to banking regulation, or may be supervised by a national or state regulatory agency that does not have the same resources or regulatory priorities as the regulatory agencies which supervise more diversified financial services firms; or
- the financial services regulatory framework in a particular jurisdiction may favour financial institutions that are based in that jurisdiction.

These types of differences in the regulatory framework can result in a firm such as JPMorgan Chase losing market share to competitors that are less regulated or not subject to regulation, especially with respect to unregulated financial products.

There can also be significant differences in the ways that similar regulatory initiatives affecting the financial services industry are implemented in the U.S. and in other countries and regions in which JPMorgan Chase does business. For example, when adopting rules that are intended to implement a global regulatory initiative or standard, a national regulator may introduce additional or more restrictive requirements, which can create competitive disadvantages for financial services firms, such as JPMorgan Chase, that may be subject to those enhanced regulations.

Legislative and regulatory initiatives outside the U.S. could require JPMorgan Chase to make significant modifications to its operations and legal entity structure in the relevant countries or regions in order to comply with those requirements. These include laws and regulations that have been adopted or proposed relating to:

- the resolution of financial institutions;
- the establishment of locally-based intermediate holding companies;
- the separation (or "ring fencing") of core banking products and services from market activities;
- requirements for executing or settling transactions on exchanges or through central counterparties ("**CCPs**");
- position limits and reporting rules for derivatives;
- governance and accountability regimes;
- conduct of business requirements; and
- restrictions on compensation.

These types of differences in financial services regulation, or inconsistencies or conflicts between laws and regulations between different jurisdictions, could require JPMorgan Chase to:

- divest assets or restructure its operations;
- absorb increased operational, capital and liquidity costs;
- change the prices that it charges for its products and services;
- curtail the products and services that it offers to its customers and clients; or
- incur higher costs for complying with different legal and regulatory frameworks.

Any or all of these factors could harm JPMorgan Chase's ability to compete against other firms that are not subject to the same laws and regulations or supervisory oversight, or harm JPMorgan Chase's businesses, results of operations and profitability.

Governments in some countries or regions in which JPMorgan Chase does business have adopted laws or regulations which require JPMorgan Chase subsidiaries that operate in those jurisdictions to maintain minimum amounts of capital or liquidity on a stand-alone basis. Some regulators outside the U.S. have also proposed that large banks which conduct certain businesses in their jurisdictions operate through separate subsidiaries located in those jurisdictions. These requirements, and any future laws or regulations that impose restrictions on the way JPMorgan Chase organises its businesses or increase the capital or liquidity requirements that would apply to JPMorgan Chase subsidiaries, could hinder JPMorgan Chase's ability to efficiently manage its operations, increase its funding and liquidity costs, and result in lower profitability.

1.3 **Heightened regulatory scrutiny of JPMorgan Chase's businesses has increased its compliance costs and could result in restrictions on its operations.**

JPMorgan Chase's operations are subject to heightened oversight and scrutiny from regulatory authorities in many jurisdictions where JPMorgan Chase does business. JPMorgan Chase has paid significant fines, provided other monetary relief, incurred other penalties and experienced other repercussions in connection with resolving several investigations and enforcement actions by governmental agencies. JPMorgan Chase could become subject to similar regulatory resolutions or other actions in the future, and addressing the requirements of any such resolutions or actions could result in JPMorgan Chase incurring higher operational and compliance costs or needing to comply with other restrictions.

In connection with resolving specific regulatory investigations or enforcement actions, certain regulators have required JPMorgan Chase and other financial institutions to admit wrongdoing with respect to the activities that gave rise to the resolution. These types of admissions can lead to:

- greater exposure in civil litigation;
- damage to reputation;
- disqualification from doing business with certain clients or customers, or in specific jurisdictions; or
- other direct and indirect adverse effects.

Furthermore, U.S. government officials have demonstrated a willingness to bring criminal actions against financial institutions and have demanded that institutions plead guilty to criminal offences or admit other wrongdoing in connection with resolving regulatory investigations or enforcement actions. Resolutions of this type can have significant collateral consequences for the subject financial institution, including:

- loss of clients, customers and business;
- restrictions on offering certain products or services; and
- losing permission to operate certain businesses, either temporarily or permanently.

JPMorgan Chase expects that it and other financial services firms will continue to be subject to heightened regulatory scrutiny and governmental investigations and enforcement actions. JPMorgan Chase also expects that regulators will continue to insist that financial institutions be penalised for actual or deemed violations of law with formal and punitive enforcement actions, including the imposition of significant monetary and other sanctions, rather than resolving these matters through informal supervisory actions. Furthermore, if JPMorgan Chase fails to meet the requirements of any resolution of a governmental investigation or enforcement action, or to maintain risk and control processes that meet the heightened standards established by its regulators, it could be required to:

- enter into further resolutions;
- pay additional regulatory fines, penalties or judgments; or
- accept material regulatory restrictions on, or changes in the management of, its businesses.

In these circumstances, JPMorgan Chase could also become subject to other sanctions, or to prosecution or civil litigation with respect to the conduct that gave rise to an investigation or enforcement action.

1.4 **The long-term impact of U.S. tax reform legislation is uncertain, and may be affected by regulatory implementation.**

The long-term impact of the Tax Cuts & Jobs Acts ("**TCJA**") on JPMorgan Chase and the U.S. economy remains uncertain. While the enactment of the TCJA has had, and should continue to have, a positive impact on JPMorgan Chase's net income, the competitive environment and other factors will influence the extent to which these benefits are retained by JPMorgan Chase over the longer term, and the specific impact on JPMorgan Chase's businesses, products and geographies may vary. In addition, the Treasury Regulations governing certain TCJA provisions have not been finalised and their ultimate impact on JPMorgan Chase is uncertain.

1.5 **Complying with economic sanctions and anti-corruption and anti-money laundering laws and regulations can increase JPMorgan Chase's operational and compliance costs and risks.**

JPMorgan Chase must comply with economic sanctions and embargo programmes administered by the Office of Foreign Assets Control ("**OFAC**") and similar national and multi-national bodies and governmental agencies outside the U.S., as well as anti-corruption and anti-money laundering laws and regulations throughout the world. JPMorgan Chase can incur higher costs and face greater compliance risks in structuring and operating its businesses to comply with these requirements. Furthermore, a violation of a sanction or embargo programme or anti-corruption or anti-money laundering laws and regulations could subject JPMorgan Chase, and individual employees, to regulatory enforcement actions as well as significant civil and criminal penalties.

1.6 **JPMorgan Chase's operations can be constrained in countries with less predictable legal and regulatory frameworks.**

If the legal and regulatory system in a particular country is less established or predictable, this can create a more difficult environment in which to conduct business. For example, any of the following could hamper JPMorgan Chase's operations and reduce its earnings in countries with less established or predictable legal and regulatory regimes:

- the absence of a statutory or regulatory basis or guidance for engaging in specific types of business or transactions;
- the adoption of conflicting or ambiguous laws and regulations, or the inconsistent application or interpretation of existing laws and regulations;
- uncertainty concerning the enforceability of contractual obligations;
- difficulty in competing in economies in which the government controls or protects all or a portion of the local economy or specific businesses, or where graft or corruption may be pervasive; and
- the threat of arbitrary regulatory investigations, civil litigations or criminal prosecutions, the termination of licences required to operate in the local market or the suspension of business relationships with governmental bodies.

Conducting business in countries with less-developed legal and regulatory regimes often requires JPMorgan Chase to devote significant additional resources to understanding, and monitoring changes in, local laws and regulations, as well as structuring its operations to comply with local laws and regulations and implementing and administering related internal policies and procedures. There can be no assurance that JPMorgan Chase will always be successful in its efforts to conduct its business in compliance with laws and regulations in countries with less predictable legal and regulatory systems or that JPMorgan Chase will be able to develop effective working relationships with local regulators.

1.7 **Requirements for the orderly resolution of JPMorgan Chase could result in JPMorgan Chase having to restructure or reorganise its businesses.**

JPMorgan Chase is required under Federal Reserve and the U.S. Federal Deposit Insurance Corporation (the "**FDIC**") rules to prepare and submit periodically to those agencies a detailed plan for rapid and orderly resolution in bankruptcy, without extraordinary government support, in the event of material financial distress or failure. The agencies' evaluation of JPMorgan Chase's resolution plan may change, and the requirements for resolution plans may be modified from time to time. Any such determinations or modifications could result in JPMorgan Chase needing to make changes to its legal entity structure or to certain internal or external activities, which could increase its funding or operational costs.

If the Federal Reserve and the FDIC were to determine that a resolution plan submitted by JPMorgan Chase has deficiencies, they could jointly impose more stringent capital, leverage or liquidity requirements or restrictions on JPMorgan Chase's growth, activities or operations. After two years, if the deficiencies are not cured, the agencies could also require that JPMorgan Chase restructure, reorganise or divest assets or businesses in ways that could materially and adversely affect JPMorgan Chase's operations and strategy. As a consequence, operations, business and assets of JPMAG could be transferred to other members of the group and JPMAG could be reorganised or liquidated.

2. **Political Risk**

2.1 **The expected departure of the U.K. from the EU could negatively affect JPMorgan Chase's business, results of operations and operating model.**

It remains highly uncertain how the expected departure of the U.K. from the EU, which is commonly referred to as "Brexit", will affect financial services firms such as JPMorgan Chase that conduct substantial operations in the EU from legal entities that are organised in or operating from the U.K. It is possible that the U.K. will depart from the EU on or before 31 October 2019 without any agreement having been reached between the U.K. and the EU concerning whether or to what extent U.K.-based firms may conduct financial services activities within the EU. It is also possible that any agreement reached between the U.K. and the EU may, depending on the final outcome of the ongoing negotiations and related legislative developments:

- impede the ability of U.K.-based financial services firms to conduct business in the EU;
- fail to address significant unresolved issues relating to the cross-border conduct of financial services activities; or
- apply only temporarily.

JPMorgan Chase has been making the necessary modifications to its legal entity structure and operations in the EU, the locations in which it operates and the staffing in those locations to address the expected departure of the U.K. from the EU, including the possibility that the U.K. may depart from the EU on or before 31 October 2019 without a withdrawal agreement in place. If the U.K. departs from the EU with no withdrawal agreement having been reached, the types of structural and operational changes that JPMorgan Chase is in the process of making to its European operations will result in JPMorgan Chase having to sustain a more fragmented operating model across its U.K., EU and other operating entities. Due to considerations such as operating expenses, liquidity, leverage and capital, the modified European operating framework will be more complex, less efficient and more costly than would otherwise have been the case. JPMorgan Chase may experience these types of inefficiencies in its business and operations even if a withdrawal agreement is reached, for example in the event that during the transition period contemplated by such an agreement, the U.K. and the EU fail to reach further agreement on future trade relationships between the U.K. and the EU, or if any other outcome persists that does not assure ongoing access for U.K.-based financial services firms to the EU market.

A disorderly departure of the U.K. from the EU, or the unexpected consequences of any departure, could have significant and immediate destabilising effects on cross-border financial services activities, depending on circumstances that may exist following such a withdrawal, including:

- the possibility that clients and counterparties of financial institutions are not positioned to continue to do business through EU-based legal entities;
- reduction or fragmentation of market liquidity that may be caused if trading venues or CCPs currently based in the U.K. have not completed arrangements to conduct operations from the EU either immediately or, if authorised to continue to operate from the U.K. on a transitional basis, after any transitional relief has expired;
- uncertainties concerning the application and interpretation of laws and regulations relating to cross-border financial services activities;
- inability to engage in certain capital markets activities through EU-based legal entities to the extent that licenses or temporary permission to engage in such activities have not been granted timely by local regulators; and
- lack of legal certainty concerning the treatment of existing transactions.

Any or all of the above factors could have an adverse effect on the overall operation of the European financial services market as well as JPMorgan Chase's business, operations and earnings in the U.K., the EU and globally.

2.2 **Economic uncertainty or instability caused by political developments can hurt JPMorgan Chase's businesses.**

The economic environment and market conditions in which JPMorgan Chase operates continue to be uncertain due to political developments in the U.S. and other countries. Certain policy initiatives and proposals could cause a contraction in U.S. and global economic growth and higher volatility in the financial markets, including:

- inability to reach political consensus to keep the U.S. government open and funded;
- isolationist foreign policies;
- the introduction of tariffs and other protectionist trade policies; or
- the possible withdrawal or reduction of government support for the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation (together, the "**GSEs**").

These types of political developments, and uncertainty about the possible outcomes of these developments, could:

- erode investor confidence in the U.S. economy and financial markets, which could potentially undermine the status of the U.S. dollar as a safe haven currency;
- provoke retaliatory countermeasures by other countries and otherwise heighten tensions in diplomatic relations;
- increase concerns about whether the U.S. government will be funded, and its outstanding debt serviced, at any particular time; and
- result in periodic shutdowns of the U.S. government or governments in other countries.

These factors could lead to:

- greater market volatility;

- large-scale sales of government debt and other debt and equity securities in the U.S. and other countries;
- the widening of credit spreads;
- inflationary pressures;
- lower investment growth; and
- other market dislocations.

Any of these potential outcomes could cause JPMorgan Chase to suffer losses on its market-making positions or in its investment securities portfolio, reduce its liquidity and capital levels, hamper its ability to deliver products and services to its clients and customers, and weaken its results of operations and financial condition.

3. **Market Risk**

3.1 **JPMorgan Chase's businesses are materially affected by economic and market events and conditions.**

JPMorgan Chase's results of operations can be negatively affected by adverse changes in any of the following:

- investor, consumer and business sentiment;
- events that reduce confidence in the financial markets;
- inflation or deflation;
- high unemployment or, conversely, a tightening labour market;
- the availability and cost of capital and credit;
- monetary and fiscal policies and actions taken by the Federal Reserve and other central banks or governmental authorities, including any suspension or reversal of large-scale asset purchases;
- trade policies implemented by governmental authorities;
- the economic effects of natural disasters, severe weather conditions, health emergencies or pandemics, cyberattacks, outbreaks of hostilities, terrorism or other geopolitical instabilities; and
- the health of the U.S. and global economies.

3.2 **JPMorgan Chase's consumer businesses can be negatively affected by adverse economic conditions.**

JPMorgan Chase's consumer businesses are particularly affected by U.S. and global economic conditions, including:

- interest rates;
- the rates of inflation and unemployment;
- housing prices;
- the level of consumer and small business confidence;
- changes in consumer spending or in the level of consumer debt; and

- the number of personal bankruptcies.

A rapid increase in interest rates could negatively affect consumer credit performance to the extent that consumers are less able to service their debts. Sustained low growth, inflationary pressures or recessionary conditions could diminish customer demand for the products and services offered by JPMorgan Chase's consumer businesses. These conditions could also increase the cost to provide those products and services. Adverse economic conditions could also lead to an increase in delinquencies and higher net charge-offs, which can reduce JPMorgan Chase's earnings. These consequences could be significantly worse in certain geographies where high levels of unemployment have resulted from declining industrial or manufacturing activity, or where high levels of consumer debt, such as outstanding student loans, impair the ability of customers to pay their other consumer loan obligations.

JPMorgan Chase's earnings from its consumer businesses could also be adversely affected by governmental policies and actions that affect consumers, including:

- policies and initiatives relating to medical insurance, education, immigration and employment status;

- the inability to reach political consensus to keep the U.S. government open and funded; and

- policies aimed at the economy more broadly, such as infrastructure spending and global trade, which could result in higher inflation or reductions in consumer disposable income.

In addition, governmental proposals to permit student loan obligations to be discharged in bankruptcy proceedings could, if enacted into law, encourage certain of JPMorgan Chase's customers to declare personal bankruptcy and thereby trigger defaults and charge-offs of credit card and other consumer loans extended to those customers.

3.3 **Unfavourable market and economic conditions can have an adverse effect on JPMorgan Chase's wholesale businesses.**

In JPMorgan Chase's wholesale businesses, market and economic factors can affect the volume of transactions that JPMorgan Chase executes for its clients or for which it advises clients, and, therefore, the revenue that JPMorgan Chase receives from those transactions. These factors can also influence the willingness of other financial institutions and investors to participate in capital markets transactions that JPMorgan Chase manages, such as loan syndications or securities underwritings. Furthermore, if a significant and sustained deterioration in market conditions were to occur, the profitability of JPMorgan Chase's capital markets businesses could be reduced to the extent that those businesses:

- earn less fee revenue due to lower transaction volumes, including when clients are unwilling or unable to refinance their outstanding debt obligations in unfavourable market conditions;

- dispose of portions of credit commitments, such as loan syndications or securities underwritings, at a loss; or

- hold larger residual positions in credit commitments that cannot be sold at favourable prices.

An adverse change in market conditions in particular segments of the economy, such as a sudden and severe downturn in oil and gas prices or an increase in commodity prices, could have a material adverse effect on clients of JPMorgan Chase whose operations or financial condition are directly or indirectly dependent on the health or stability of those market segments, as well as clients that are engaged in related businesses. JPMorgan Chase could incur losses on its loans and other credit commitments to clients that operate in, or are dependent on, any sector of the economy that is under stress.

The fees that JPMorgan Chase earns from managing client assets or holding assets under custody for clients could be diminished by declining asset values or other adverse macroeconomic conditions. For example, higher interest rates or a downturn in financial markets could affect the valuations of client assets that JPMorgan Chase manages or holds under custody, which, in turn, could affect JPMorgan Chase's revenue from fees that are based on the amount of assets under management or custody. Similarly, adverse macroeconomic or market conditions could prompt outflows from JPMorgan Chase funds or accounts, or cause clients to invest in products that generate lower revenue. Substantial and unexpected withdrawals from a JPMorgan Chase fund can also hamper the investment performance of the fund, particularly if the outflows create the need for the fund to dispose of fund assets at disadvantageous times or prices, and could lead to further withdrawals based on the weaker investment performance.

An economic downturn that results in lower consumer and business spending could also have a negative impact on certain of JPMorgan Chase's wholesale clients, and thereby diminish JPMorgan Chase's earnings from its wholesale operations. For example, the businesses of certain of JPMorgan Chase's wholesale clients are dependent on consistent streams of rental income from commercial real estate properties which are owned or being built by those clients. Severe and sustained adverse economic conditions could reduce the rental cash flows that owners or developers receive from those properties which, in turn, could depress the values of the properties and impair the ability of borrowers to service or refinance their commercial real estate loans. These consequences could result in JPMorgan Chase experiencing higher delinquencies, defaults and write-offs within its commercial real estate loan portfolio and incurring higher costs for servicing a larger volume of delinquent loans in that portfolio, thereby reducing JPMorgan Chase's earnings from its wholesale businesses.

3.4 **JPMorgan Chase's investment securities portfolio and market-making positions can suffer losses due to adverse economic, market and political events and conditions.**

JPMorgan Chase generally maintains positions in various fixed income instruments in its investment securities portfolio, and positions in various fixed income, currency, commodity, credit and equity instruments as part of its market-making activities. Market-making positions are intended to facilitate demand from JPMorgan Chase's clients for these instruments and to provide liquidity for clients. The value of the positions that JPMorgan Chase holds can be significantly affected by factors such as:

- JPMorgan Chase's ability to effectively hedge market and other risks on its positions;
- changes in the levels and volatility of interest rates, credit spreads, and market prices for currencies, equities and commodities, and the duration of any changes in levels or volatility; and
- the availability of liquidity in the capital markets.

All of these are affected by global economic, market and political events and conditions, as well as regulatory restrictions on market-making activities.

JPMorgan Chase's investment securities portfolio and market-making businesses can also suffer losses due to unanticipated market events, including:

- severe declines in asset values;
- unexpected credit events;
- unforeseen events or conditions that may cause previously uncorrelated factors to become correlated (and vice versa); or
- other market risks that may not have been appropriately taken into account in the development, structuring or pricing of a financial instrument.

If JPMorgan Chase experiences significant losses in its investment securities portfolio or from market-making activities, this could reduce JPMorgan Chase's profitability and its liquidity and capital levels, and thereby constrain the growth of its businesses.

3.5 **Changes in interest rates and credit spreads can adversely affect certain of JPMorgan Chase's revenue and income streams.**

JPMorgan Chase can generally be expected to earn higher net interest income when interest rates are increasing. However, higher interest rates can also lead to:

- fewer originations of commercial and residential real estate loans;
- losses on underwriting exposures;
- lower returns on JPMorgan Chase's investment securities portfolio;
- the loss of deposits to the extent that JPMorgan Chase makes incorrect assumptions about depositor behaviour;
- lower net interest income if central banks introduce interest rate increases more quickly than anticipated and this results in a misalignment in the pricing of short-term and long-term borrowings; and
- less liquidity in the financial markets and higher funding costs.

All of these outcomes could adversely affect JPMorgan Chase's revenues and its liquidity and capital levels. Higher interest rates can also negatively affect the payment performance on loans within JPMorgan Chase's consumer and wholesale loan portfolios that are linked to variable interest rates. If borrowers of variable rate loans are unable to afford higher interest payments, those borrowers may reduce or stop making payments, thereby causing JPMorgan Chase to incur losses and increased operational costs related to servicing a higher volume of delinquent loans.

On the other hand, a low interest rate environment may cause:

- net interest margins to be compressed, which could reduce the amounts that JPMorgan Chase earns on its investment securities portfolio to the extent that it is unable to reinvest contemporaneously in higher-yielding instruments; and
- a decrease in the value of JPMorgan Chase's mortgage servicing rights ("**MSRs**"), which may lead to decreasing revenues.

When credit spreads widen, it becomes more expensive for JPMorgan Chase to borrow. JPMorgan Chase's credit spreads may widen or narrow not only in response to events and circumstances that are specific to JPMorgan Chase but also as a result of general economic and geopolitical events and conditions. Changes in JPMorgan Chase's credit spreads will affect, positively or negatively, JPMorgan Chase's earnings on certain liabilities, such as derivatives, that are recorded at fair value.

3.6 **JPMorgan Chase's results may be materially affected by market fluctuations and significant changes in the value of financial instruments.**

The value of securities, derivatives and other financial instruments which JPMorgan Chase owns or in which it makes markets can be materially affected by market fluctuations. Market volatility, illiquid market conditions and other disruptions in the financial markets may make it extremely difficult to value certain financial instruments, particularly during periods of market displacement. Subsequent valuations of financial instruments in future periods, in light of factors then prevailing, may result in significant changes in the value of these instruments. In addition, at the time of any disposition of these financial instruments, the price that JPMorgan Chase ultimately realises will depend on the demand and liquidity in the market at that time and may be materially lower than their current fair value. Any of these factors could cause a decline in the value of financial instruments which JPMorgan Chase owns or in which it makes markets, which may have an adverse effect on JPMorgan Chase's results of operations.

Under extreme market conditions, hedging and other risk management strategies may not be as effective at mitigating losses as they would be under more normal market conditions. Furthermore, under these conditions, market participants are particularly exposed to trading strategies employed by many market participants simultaneously and on a large scale. JPMorgan Chase's risk management and monitoring processes seek to quantify and mitigate risk to more extreme market moves. However, severe market events have historically been difficult to predict and JPMorgan Chase could realise significant losses if extreme market events were to occur.

4. **Credit Risk**

4.1 **JPMorgan Chase can be adversely affected by the financial condition of its clients, counterparties, custodians and CCPs.**

JPMorgan Chase routinely executes transactions with brokers and dealers, commercial and investment banks, mutual and hedge funds, investment managers and other types of financial institutions. Many of these transactions expose JPMorgan Chase to the credit risk of its clients and counterparties, and can involve JPMorgan Chase in disputes and litigation in the event that a client or counterparty defaults. JPMorgan Chase can also be subject to losses or liability where a financial institution that it has appointed to provide custodial services for client assets or funds becomes insolvent as a result of fraud or the failure to abide by existing laws and obligations, including under the EU Alternative Investment Fund Managers Directive.

A default by a CCP through which JPMorgan Chase executes contracts would require JPMorgan Chase to replace those contracts, thereby increasing its operational costs and potentially resulting in losses. JPMorgan Chase can also be exposed to losses if a member of a CCP in which JPMorgan Chase is also a member defaults on its obligations to the CCP because of requirements that each member of the CCP absorb a portion of those losses.

Disputes may arise with counterparties to derivatives contracts with regard to the terms, the settlement procedures or the value of underlying collateral. The disposition of those disputes could cause JPMorgan Chase to incur unexpected transaction, operational and legal costs, or result in credit losses. These consequences can also impair JPMorgan Chase's ability to effectively manage its credit risk exposure from its market activities, or cause harm to JPMorgan Chase's reputation.

4.2 **JPMorgan Chase's businesses can be harmed by the insolvency of a significant market participant.**

The failure of a significant market participant, such as a major financial institution or a CCP, or concerns about the creditworthiness of such a market participant, can have a cascading effect within the financial markets. JPMorgan Chase's businesses could be significantly disrupted by such an event, particularly if it leads to other market participants incurring significant losses, experiencing liquidity issues or defaulting. These risks could be magnified in the event of the default, insolvency or resolution of a major global financial counterparty, as JPMorgan Chase is likely to have significant interrelationships with, and credit exposure to, such a counterparty, and would seek to unwind or hedge positions in securities, derivatives and other obligations in multiple jurisdictions during a period of heightened market volatility.

4.3 **JPMorgan Chase's clearing services business is exposed to the risk of client or counterparty default.**

As part of its clearing services activities, JPMorgan Chase is a member of several CCPs. In the event that another member of such an organisation defaults on its obligations to the CCP, JPMorgan Chase may be required to pay a portion of any losses incurred by the CCP as a result of that default. As a clearing member, JPMorgan Chase is also exposed to the risk of non-performance by its clients, which it seeks to mitigate by requiring clients to provide adequate collateral. JPMorgan Chase is exposed to intra-day credit risk of its clients in connection with providing cash management, clearing, custodial and other transaction services to those clients. If a client for which JPMorgan Chase provides these services becomes bankrupt or insolvent, JPMorgan Chase may incur losses, become involved in disputes and litigation with one or more CCPs, the client's bankruptcy estate and other creditors, or be subject to regulatory investigations. All of the foregoing events can increase JPMorgan Chase's operational and litigation costs, and JPMorgan Chase may suffer losses to the extent that any collateral that it has received is insufficient to cover those losses. JPMorgan Chase can also be subject to bearing its share of non-default losses incurred by a CCP due to a business or operational failure affecting the CCP, including due to a cyberattack, litigation, fraud or a systems failure.

4.4 **JPMorgan Chase may suffer losses if the value of collateral declines in stressed market conditions.**

During periods of market stress or illiquidity, JPMorgan Chase's credit risk may be further increased when JPMorgan Chase cannot realise the fair value of the collateral held by it or when collateral is liquidated at prices that are not sufficient to recover the full amount of the loan, derivative or other exposure due to it. Furthermore, disputes with counterparties concerning the valuation of collateral may increase in times of significant market stress, volatility or illiquidity, and JPMorgan Chase could suffer losses during these periods if it is unable to realise the fair value of collateral or to manage declines in the value of collateral.

4.5 **JPMorgan Chase could incur significant losses arising from concentrations of credit and market risk.**

JPMorgan Chase is exposed to greater credit and market risk to the extent that groupings of its clients or counterparties:

- engage in similar or related businesses, or in businesses in related industries;
- do business in the same geographic region; or
- have business profiles, models or strategies that could cause their ability to meet their obligations to be similarly affected by changes in economic conditions.

For example, a significant deterioration in the credit quality of one of JPMorgan Chase's borrowers or counterparties could lead to concerns about the creditworthiness of other borrowers or counterparties in similar, related or dependent industries. This type of interrelationship could exacerbate JPMorgan Chase's credit, liquidity and market risk exposure and potentially cause it to incur losses, including fair value losses in its market-making businesses.

Similarly, challenging economic conditions that affect a particular industry or geographic area could lead to concerns about the credit quality of JPMorgan Chase's borrowers or counterparties not only in that particular industry or geography but in related or dependent industries, wherever located. These conditions could also heighten concerns about the ability of customers of JPMorgan Chase's consumer businesses who live in those areas or work in those affected industries or related or dependent industries to meet their obligations to JPMorgan Chase. JPMorgan Chase regularly monitors various segments of its credit and market risk exposures to assess the potential risks of concentration or contagion, but its efforts to diversify or hedge its exposures against those risks may not be successful.

JPMorgan Chase's consumer businesses can also be harmed by an excessive expansion of consumer credit by bank or non-bank competitors. Heightened competition for certain types of consumer loans could prompt industry-wide reactions such as significant reductions in the pricing or margins of those loans or the making of loans to less-creditworthy borrowers. If large numbers of consumers subsequently default on their loans, whether due to weak credit profiles, an economic downturn or other factors, this could impair their ability to repay obligations owed to JPMorgan Chase and result in higher charge-offs and other credit-related losses. More broadly, widespread defaults on consumer debt could lead to recessionary conditions in the U.S. economy, and JPMorgan Chase's consumer businesses may earn lower revenues in such an environment.

Disruptions in the liquidity or transparency of the financial markets could cause JPMorgan Chase to be unable to sell, syndicate or realise the value of its positions in various debt instruments, loans, derivatives and other obligations, and thereby lead to increased risk concentrations. If JPMorgan Chase is unable to reduce positions effectively during a market dislocation, this can increase both the market and credit risks associated with those positions and the level of risk-weighted assets ("**RWA**") that JPMorgan Chase holds on its balance sheet. These factors could increase JPMorgan Chase's capital requirements and funding costs and adversely affect the profitability of JPMorgan Chase's businesses.

5. **Liquidity Risk**

5.1 **Liquidity is critical to JPMorgan Chase's ability to fund and operate its businesses.**

JPMorgan Chase's liquidity could be impaired at any given time by factors such as:

- market-wide illiquidity or disruption;
- unforeseen cash or capital requirements;
- inability to sell assets, or to sell assets at favourable times or prices;
- default by a CCP or other significant market participant;
- unanticipated outflows of cash or collateral;
- unexpected loss of consumer deposits caused by changes in consumer behaviour; and
- lack of market or customer confidence in JPMorgan Chase or financial institutions in general.

A diminution of JPMorgan Chase's liquidity may be caused by events over which it has little or no control. For example, during the 2008-2009 financial crisis, periods of low investor confidence and significant market illiquidity resulted in higher funding costs for JPMorgan Chase and limited its access to some of its traditional sources of liquidity, including securitised debt issuances. There is no assurance that severe conditions of this type will not occur in the future.

JPMorgan Chase may need to raise funding from alternative sources if its access to stable and lower-cost sources of funding, such as deposits and borrowings from Federal Home Loan Banks, is reduced. Alternative sources of funding could be more expensive or limited in availability. JPMorgan Chase's funding costs could also be negatively affected by actions that JPMorgan Chase may take in order to:

- satisfy applicable liquidity coverage ratio and net stable funding ratio requirements;
- address obligations under its resolution plan; or
- satisfy regulatory requirements in jurisdictions outside the U.S. relating to the pre-positioning of liquidity in subsidiaries that are material legal entities.

More generally, if JPMorgan Chase fails to effectively manage its liquidity, this could constrain its ability to fund or invest in its businesses, and thereby adversely affect its results of operations.

5.2 **JPMorgan Chase & Co. is a holding company and depends on the cash flows of its subsidiaries to make payments on its outstanding securities.**

JPMorgan Chase & Co. is a holding company that holds the stock of JPMorgan Chase Bank, N.A. and an intermediate holding company, JPMorgan Chase Holdings LLC (the "**IHC**"). The

IHC in turn holds the stock of substantially all of JPMorgan Chase's subsidiaries other than JPMorgan Chase Bank, N.A. and its subsidiaries. The IHC also owns other assets and intercompany indebtedness owing to the holding company.

The holding company is obligated to contribute to the IHC substantially all the net proceeds received from securities issuances (including issuances of senior and subordinated debt securities and of preferred and common stock).

The ability of JPMorgan Chase Bank, N.A. and the IHC to make payments to the holding company is also limited. JPMorgan Chase Bank, N.A. is subject to restrictions on its dividend distributions, as well as capital adequacy and liquidity requirements and other regulatory restrictions on its ability to make payments to the holding company. The IHC is prohibited from paying dividends or extending credit to the holding company if certain capital or liquidity "thresholds" are breached or if limits are otherwise imposed by JPMorgan Chase's management or Board of Directors.

As a result of these arrangements, the ability of the holding company to make various payments is dependent on its receiving dividends from JPMorgan Chase Bank, N.A. and dividends and extensions of credit from the IHC. These limitations could affect the holding company's ability to:

- pay interest on its debt securities;
- pay dividends on its equity securities;
- redeem or repurchase outstanding securities; and
- fulfil its other payment obligations.

These regulatory restrictions and limitations could also result in the holding company seeking protection under bankruptcy laws at a time earlier than would have been the case absent the existence of the capital and liquidity thresholds to which the IHC is subject.

5.3 **Reductions in JPMorgan Chase's credit ratings may adversely affect its liquidity and cost of funding.**

JPMorgan Chase & Co. and certain of its principal subsidiaries are rated by credit rating agencies. Rating agencies evaluate both general and firm-specific and industry-specific factors when determining credit ratings for a particular financial institution, including:

- expected future profitability;
- risk management practices;
- legal expenses;
- ratings differentials between bank holding companies and their bank and non-bank subsidiaries;
- regulatory developments;
- assumptions about government support; and
- economic and geopolitical trends.

JPMorgan Chase closely monitors and manages, to the extent that it is able, factors that could influence its credit ratings. However, there is no assurance that JPMorgan Chase's credit ratings will not be lowered in the future. Furthermore, any such downgrade could occur at times of broader market instability when JPMorgan Chase's options for responding to events may be more limited and general investor confidence is low.

A reduction in JPMorgan Chase's credit ratings could curtail JPMorgan Chase's business activities and reduce its profitability in a number of ways, including:

- reducing its access to capital markets;
- materially increasing the cost of issuing and servicing securities;
- triggering additional collateral or funding requirements; and
- decreasing the number of investors and counterparties that are willing or permitted to do business with or lend to JPMorgan Chase.

Any rating reduction could also increase the credit spreads charged by the market for taking credit risk on JPMorgan Chase & Co. and its subsidiaries. This could, in turn, adversely affect the value of debt and other obligations of JPMorgan Chase & Co. and its subsidiaries.

5.4 **The regulation, reform and replacement of benchmark rates could have adverse consequences on JPMorgan Chase's securities issuances and its capital markets and investment activities.**

Interest rate, equity, foreign exchange rate and other types of indices which are deemed to be "benchmarks", including those in widespread and long-standing use, have been the subject of ongoing international, national and other regulatory scrutiny and initiatives and proposals for reform. Some of these reforms are already effective while others are still to be implemented or are under consideration. These reforms may cause benchmarks to perform differently than in the past, or to disappear entirely, or have other consequences which cannot be fully anticipated.

Any of the benchmark reforms which have been proposed or implemented, or the general increased regulatory scrutiny of benchmarks, could also increase the costs and risks of administering or otherwise participating in the setting of benchmarks and complying with regulations or requirements relating to benchmarks. Such factors may have the effect of discouraging market participants from continuing to administer or contribute to certain benchmarks, trigger changes in the rules or methodologies used in certain benchmarks or lead to the disappearance of certain benchmarks.

Any of these developments, and any future initiatives to regulate, reform or change the administration of benchmarks, could result in adverse consequences to the return on, value of and market for loans, mortgages, securities, derivatives and other financial instruments whose returns are linked to any such benchmark, including those issued, funded or held by JPMorgan Chase.

Various regulators, industry bodies and other market participants in the U.S. and other countries are engaged in initiatives to develop, introduce and encourage the use of alternative rates to replace certain benchmarks. There is no assurance that these new rates will be accepted or widely used by market participants, or that the characteristics of any of these new rates will be similar to, or produce the economic equivalent of, the benchmarks that they seek to replace. If a particular benchmark were to be discontinued and an alternative rate has not been successfully introduced to replace that benchmark, this could result in widespread dislocation in the financial markets, engender volatility in the pricing of securities, derivatives and other instruments, and suppress capital markets activities, all of which could have adverse effects on JPMorgan Chase's results of operations. In addition, the transition of a particular benchmark to a replacement rate could affect hedge accounting relationships between financial instruments linked to that benchmark and any related derivatives, which could adversely affect JPMorgan Chase's results.

On 27 July 2017, the Chief Executive of the U.K. Financial Conduct Authority (the "**FCA**"), which regulates the London interbank offered rate ("**LIBOR**"), announced that the FCA will no longer persuade or compel banks to submit rates for the calculation of the LIBOR benchmark after 2021. This announcement indicates that the continuation of LIBOR on the current basis cannot be guaranteed after 2021, and there is a substantial risk that LIBOR will be discontinued or modified by 2021. Vast amounts of loans, mortgages, securities, derivatives and other financial instruments are linked to the LIBOR benchmark, and any failure by market participants and regulators to successfully introduce benchmark rates to replace LIBOR and implement effective transitional arrangements to address the discontinuation of LIBOR could, as noted above, result in disruption in the financial markets, suppress capital markets activities and give rise to litigation claims, all of which could have a negative impact on JPMorgan Chase's results of operations and on LIBOR-linked securities or other instruments which are issued, funded or held by JPMorgan Chase.

6. Operational Risks

6.1 JPMorgan Chase's businesses are highly dependent on the effectiveness of its operational systems and those of other market participants.

JPMorgan Chase's businesses rely comprehensively on the ability of JPMorgan Chase's financial, accounting, transaction execution, data processing and other operational systems to process, record, monitor and report a large number of transactions on a continuous basis, and to do so accurately, quickly and securely. In addition to proper design, installation, maintenance and training, the effective functioning of JPMorgan Chase's operational systems depends on:

- the quality of the information contained in those systems, as inaccurate, outdated or corrupted data can significantly compromise the functionality or reliability of a particular system and other systems to which it transmits or from which it receives information; and
- JPMorgan Chase's ability to appropriately maintain and upgrade its systems on a regular basis, and to ensure that any changes introduced to its systems are managed carefully to ensure security and operational continuity and adhere to all applicable legal and regulatory requirements.

JPMorgan Chase also depends on its ability to access and use the operational systems of its vendors, custodians and other market participants, including clearing and payment systems, CCPs, securities exchanges and data processing, security and technology companies.

The ineffectiveness, failure or other disruption of operational systems upon which JPMorgan Chase depends, including due to a systems malfunction, cyberbreach or other systems failure, could result in unfavourable ripple effects in the financial markets and for JPMorgan Chase and its clients and customers, including:

- delays or other disruptions in providing information, services and liquidity to clients and customers;
- the inability to settle transactions or obtain access to funds and other assets;
- the possibility that funds transfers, capital markets trades or other transactions are executed erroneously, illegally or with unintended consequences;
- financial losses, including due to loss-sharing requirements of CCPs, payment systems or other market infrastructures, or as possible restitution to clients and customers;
- higher operational costs associated with replacing services provided by a system that is unavailable;
- client or customer dissatisfaction with JPMorgan Chase's products and services;
- loss of confidence in the ability of JPMorgan Chase, or financial institutions generally, to protect against and withstand operational disruptions; or
- harm to JPMorgan Chase's reputation.

As the speed, frequency, volume, interconnectivity and complexity of transactions continue to increase, it becomes more challenging to effectively maintain and upgrade JPMorgan Chase's operational systems and infrastructure, especially due to the heightened risks that:

- errors made by JPMorgan Chase or another market participant, whether inadvertent or malicious, cause widespread system disruption;
- isolated or seemingly insignificant errors in operational systems compound, or migrate to other systems over time, to become larger issues;
- failures in synchronisation or encryption software, or degraded performance of microprocessors due to design flaws, could cause disruptions in operational systems, or the inability of systems to communicate with each other; and
- third parties attempt to block the use of key technology solutions by claiming that the use infringes on their intellectual property rights.

If JPMorgan Chase's operational systems, or those of external parties on which JPMorgan Chase's businesses depend, are unable to meet the demanding standards of JPMorgan Chase's businesses and operations, or if they fail or have other significant shortcomings, JPMorgan Chase could be materially and adversely affected.

6.2 **JPMorgan Chase can be negatively affected if it fails to identify and address operational risks associated with the introduction of or changes to products, services and delivery platforms.**

When JPMorgan Chase launches a new product or service, introduces a new platform for the delivery or distribution of products or services (including mobile connectivity, electronic trading and cloud computing), or makes changes to an existing product, service or delivery platform, it may not fully appreciate or identify new operational risks that may arise from those changes, or may fail to implement adequate controls to mitigate the risks associated with those changes. For example, ineffective controls over newly-developed electronic trading platforms could inadvertently permit the rapid build-up of unexpected, abnormal or unusually large positions in securities or other financial instruments, or fail to anticipate or address a downturn in market liquidity which leads to sudden or severe changes in asset prices. Any significant failure to identify and mitigate operational risks associated with new products or services or new platforms for delivering or distributing products or services, or changes to existing products, services or delivery platforms, could diminish JPMorgan Chase's ability to operate one or more of its businesses or result in:

- potential liability to clients, counterparties and customers;
- increased operating expenses;
- higher litigation costs, including regulatory fines, penalties and other sanctions;
- damage to JPMorgan Chase's reputation;
- impairment of JPMorgan Chase's liquidity;
- regulatory intervention; or
- weaker competitive standing.

Any of the foregoing consequences could materially and adversely affect JPMorgan Chase's businesses and results of operations.

6.3 **JPMorgan Chase's connections to external operational systems expose it to greater operational risks.**

External operational systems with which JPMorgan is connected, whether directly or indirectly, can be sources of operational risk to JPMorgan Chase. JPMorgan Chase may be exposed not only to a systems failure that may be experienced by a vendor or market infrastructure with which JPMorgan Chase is directly connected, but also to a systems breakdown of another party to which such a vendor or infrastructure is connected. Similarly, retailers, data aggregators and other external parties with which JPMorgan Chase's customers do business can increase JPMorgan Chase's operational risk. This is particularly the case where activities of customers or those parties are beyond JPMorgan Chase's security and control systems, including through the use of the internet, personal smart phones and other mobile devices or services.

If an external party obtains access to customer account data on JPMorgan Chase's systems, and that party experiences a cyberbreach of its own systems or misappropriates that data, this could result in a variety of negative outcomes for JPMorgan Chase and its clients and customers, including:

- heightened risk that external parties will be able to execute fraudulent transactions using JPMorgan Chase's systems;
- losses from fraudulent transactions, as well as potential liability for losses that exceed thresholds established in consumer protection laws and regulations;
- increased operational costs to remediate the consequences of the external party's security breach; and
- harm to reputation arising from the perception that JPMorgan Chase's systems may not be secure.

As JPMorgan Chase's interconnectivity with clients, customers and other external parties expands, JPMorgan Chase increasingly faces the risk of operational failure with respect to the systems of those parties. Security breaches affecting JPMorgan Chase's clients or customers, or systems breakdowns or failures, security breaches or human error or misconduct affecting other external parties, may require JPMorgan Chase to take steps to protect the integrity of its own operational systems or to safeguard confidential information, including restricting the access of customers to their accounts. These actions can increase JPMorgan Chase's operational costs and potentially diminish customer satisfaction.

Furthermore , the widespread and expanding interconnectivity among financial institutions, central agents, CCPs, payment processors, securities exchanges, clearing houses and other financial market infrastructures increases the risk that an operational failure at one institution or entity may cause an industry-wide operational failure that could materially affect JPMorgan Chase's ability to conduct business.

6.4 **JPMorgan Chase's operations depend on the competence and integrity of its employees and those of external parties.**

JPMorgan Chase's ability to operate its businesses efficiently and profitably, and to offer products and services that meet the expectations of its clients and customers, is highly dependent on the competence and trustworthiness of its employees, as well as employees of other parties on which JPMorgan Chase's operations rely, including vendors, custodians and financial markets infrastructures. JPMorgan Chase's businesses could be materially and adversely affected by a significant operational breakdown or failure, theft, fraud or other unlawful conduct, or other negative outcomes caused by human error or misconduct by an employee of JPMorgan Chase or of another party on which JPMorgan Chase's operations depend.

6.5 JPMorgan Chase faces substantial legal and operational risks in safeguarding personal information.

JPMorgan Chase's businesses are subject to complex and evolving laws and regulations, both within and outside the U.S., governing the privacy and protection of personal information of individuals. The protected parties can include:

- JPMorgan Chase's clients and customers, and prospective clients and customers;
- clients and customers of JPMorgan Chase's clients and customers;
- employees and prospective employees; and
- employees of JPMorgan Chase's vendors, counterparties and other external parties.

Ensuring that JPMorgan Chase's collection, use, transfer and storage of personal information comply with all applicable laws and regulations in all relevant jurisdictions, including where the laws of different jurisdictions are in conflict, can:

- increase JPMorgan Chase's compliance and operating costs;
- hinder the development of new products or services, curtail the offering of existing products or services, or affect how products and services are offered to clients and customers;
- demand significant oversight by JPMorgan Chase's management; and
- require JPMorgan Chase to structure its businesses, operations and systems in less efficient ways.

Furthermore, JPMorgan Chase cannot ensure that all of its clients and customers, vendors, counterparties and other external parties have appropriate controls in place to protect the confidentiality of the information exchanged between them and JPMorgan Chase, particularly where information is transmitted by electronic means. JPMorgan Chase could be exposed to litigation or regulatory fines, penalties or other sanctions if personal, confidential or proprietary information of clients, customers, employees or others were to be mishandled or misused, such as situations where such information is:

- erroneously provided to parties who are not permitted to have the information; or
- intercepted or otherwise compromised by third parties.

Concerns regarding the effectiveness of JPMorgan Chase's measures to safeguard personal information, or even the perception that those measures are inadequate, could cause JPMorgan Chase to lose existing or potential clients and customers, and thereby reduce JPMorgan Chase's revenues. Furthermore, any failure or perceived failure by JPMorgan Chase to comply with applicable privacy or data protection laws and regulations may subject it to inquiries, examinations and investigations that could result in requirements to modify or cease certain operations or practices, significant liabilities or regulatory fines, penalties or other sanctions. Any of these could damage JPMorgan Chase's reputation and otherwise adversely affect its businesses.

Recent, well-publicised allegations involving the misuse or inappropriate sharing of personal information have led to expanded governmental scrutiny of practices relating to the safeguarding of personal information and the use or sharing of personal data by companies in the U.S. and other countries. That scrutiny has in some cases resulted in, and could in the future lead to, the adoption of stricter laws and regulations relating to the use and sharing of personal information. These types of laws and regulations could prohibit or significantly restrict financial services firms such as JPMorgan Chase from sharing information among affiliates or with third parties such as vendors, and thereby increase compliance costs, or could restrict JPMorgan Chase's use of personal data when developing or offering products or services to customers. These restrictions could inhibit JPMorgan Chase's development or marketing of certain products or services, or increase the costs of offering them to customers.

6.6 **A successful cyberattack against JPMorgan Chase could cause significant harm to JPMorgan Chase or its clients and customers.**

JPMorgan Chase experiences numerous cyberattacks on its computer systems, software, networks and other technology assets on a daily basis. These cyberattacks can take many forms, but a common objective of many of these attacks is to introduce computer viruses or malware into JPMorgan Chase's systems. These viruses or malicious code are typically designed to:

- obtain unauthorised access to confidential information belonging to JPMorgan Chase or its clients, customers, counterparties or employees;
- manipulate or destroy data;
- disrupt, sabotage or degrade service on JPMorgan Chase's systems; or
- steal money.

JPMorgan Chase has also experienced significant distributed denial-of-service attacks which are intended to disrupt online banking services.

JPMorgan Chase devotes significant resources to maintain and regularly upgrade its systems to protect them against cyberattacks. However, JPMorgan Chase has experienced security breaches due to cyberattacks in the past, and it is inevitable that additional breaches will occur in the future. Any such breach could result in serious and harmful consequences for JPMorgan Chase or its clients and customers.

A principal reason that JPMorgan Chase cannot provide absolute security against cyberattacks is that it may not always be possible to anticipate, detect or recognise threats to JPMorgan Chase's systems, or to implement effective preventive measures against all breaches. This is because:

- the techniques used in cyberattacks change frequently and may not be recognised until launched;
- cyberattacks can originate from a wide variety of sources, including third parties who are or may be involved in organised crime or linked to terrorist organisations or hostile countries, or whose objective is to disrupt the operations of financial institutions more generally; and
- third parties may seek to gain access to JPMorgan Chase's systems either directly or using equipment or security passwords belonging to employees, customers, third-party service providers or other users of JPMorgan Chase's systems.

The risk of a security breach due to a cyberattack could increase in the future as JPMorgan Chase continues to expand its mobile-payments and other internet-based product offerings and its internal use of web-based products and applications.

A successful penetration or circumvention of the security of JPMorgan Chase's systems or the systems of a vendor, governmental body or another market participant could cause serious negative consequences, including:

- significant disruption of JPMorgan Chase's operations and those of its clients, customers and counterparties, including losing access to operational systems;
- misappropriation of confidential information of JPMorgan Chase or that of its clients, customers, counterparties, employees or regulators;

- damage to computers or systems of JPMorgan Chase and those of its clients, customers and counterparties;
- inability to fully recover and restore data that has been stolen, manipulated or destroyed, or to prevent systems from processing fraudulent transactions;
- violations by JPMorgan Chase of applicable privacy and other laws;
- financial loss to JPMorgan Chase or to its clients, customers, counterparties or employees;
- loss of confidence in JPMorgan Chase's cybersecurity measures;
- dissatisfaction among JPMorgan Chase's clients, customers or counterparties;
- significant exposure to litigation and regulatory fines, penalties or other sanctions; and
- harm to JPMorgan Chase's reputation.

JPMorgan Chase could also suffer some of the above consequences if a third party were to misappropriate confidential information obtained by intercepting signals or communications from mobile devices used by JPMorgan Chase's employees.

6.7 **JPMorgan Chase may not be able to immediately address the consequences of a security breach due to a cyberattack.**

A successful breach of JPMorgan Chase's computer systems, software, networks or other technology assets due to a cyberattack could occur and persist for an extended period of time before being detected due to:

- the breadth of JPMorgan Chase's operations and the high volume of transactions that it processes;
- the large number of customers, counterparties and third-party service providers with which JPMorgan Chase does business;
- the proliferation and increasing sophistication of cyberattacks; and
- the possibility that a third party, after establishing a foothold on an internal network without being detected, might obtain access to other networks and systems.

The extent of a particular cyberattack and the steps that JPMorgan Chase may need to take to investigate the attack may not be immediately clear, and it may take a significant amount of time before such an investigation can be completed and full and reliable information about the attack is known. While such an investigation is ongoing, JPMorgan Chase may not necessarily know the full extent of the harm caused by the cyberattack, and that damage may continue to spread. Furthermore, it may not be clear how best to contain and remediate the harm caused by the cyberattack, and certain errors or actions could be repeated or compounded before they are discovered and remediated. Any or all of these factors could further increase the costs and consequences of a cyberattack.

6.8 **JPMorgan Chase's operations, results and reputation could be harmed by catastrophes or other events.**

JPMorgan Chase's business and operational systems could be seriously disrupted, and its reputation could be harmed, by events that are wholly or partially beyond its control, including:

- cyberbreaches or breaches of physical premises, including data centres;

- power, telecommunications or internet outages;
- failures of, or loss of access to, operational systems, including computer systems, servers, networks and other technology assets;
- damage to or loss of property or assets of JPMorgan Chase or third parties, and any consequent injuries, including in connection with any construction projects undertaken by JPMorgan Chase;
- natural disasters or severe weather conditions;
- health emergencies or pandemics; or
- events arising from local or larger-scale political events, including outbreaks of hostilities or terrorist acts.

JPMorgan Chase maintains a firm-wide resiliency and crisis management programme that is intended to ensure the ability to recover critical business functions and supporting assets, including staff, technology and facilities, in the event of a business interruption. There can be no assurance that JPMorgan Chase's resiliency plans will fully mitigate all potential business continuity risks to JPMorgan Chase or its clients and customers. Furthermore, should emergency or catastrophic events such as severe or abnormal weather conditions become more chronic, the disruptive effects of those events on JPMorgan Chase's business and operations, and on its clients, customers, counterparties and employees, could become more significant and long-lasting.

Any significant failure or disruption of JPMorgan Chase's operations or operational systems, or any catastrophic event, could:

- hinder JPMorgan Chase's ability to provide services to its clients and customers or to transact with its counterparties;
- require it to expend significant resources to correct the failure or disruption;
- cause it to incur losses or liabilities, including from loss of revenue, damage to or loss of property, or injuries;
- expose it to litigation or regulatory fines, penalties or other sanctions; and
- harm its reputation.

6.9 JPMorgan Chase's risk management framework and procedures may not be effective in identifying and mitigating every risk to JPMorgan Chase.

JPMorgan Chase's risk management framework is intended to mitigate risk and loss. The framework includes both the "first line of defence", consisting of each line of business and Treasury and the Chief Investment Office, including their aligned Operations, Technology and Control Management groups, and the "second line of defence", consisting of Independent Risk Management. JPMorgan Chase has established processes and procedures to identify, measure, monitor, report and analyse the types of risk to which it is subject. However, there are inherent limitations to risk management strategies because there may be existing or future risks that JPMorgan Chase has not appropriately anticipated or identified.

Any inadequacy or lapse in JPMorgan Chase's risk management framework, governance structure, procedures and practices, models or reporting systems could expose it to unexpected losses, and its financial condition or results of operations could be materially and adversely affected. In addition, any such inadequacy or lapse could:

- require significant resources to remediate;
- attract heightened regulatory scrutiny;

- expose JPMorgan Chase to regulatory investigations or legal proceedings;
- subject it to litigation or regulatory fines, penalties or other sanctions;
- harm its reputation; or
- diminish confidence in JPMorgan Chase.

JPMorgan Chase relies on data to assess its various risk exposures. Any deficiencies in the quality or effectiveness of JPMorgan Chase's data gathering and validation processes could result in ineffective risk management practices. These deficiencies could also result in inaccurate risk reporting.

JPMorgan Chase establishes allowances for probable credit losses that are inherent in its credit exposures. It then employs stress testing and other techniques to determine the capital and liquidity necessary in the event of adverse economic or market events. These processes are critical to JPMorgan Chase's results of operations and financial condition. They require difficult, subjective and complex judgments, including forecasts of how economic conditions might impair the ability of JPMorgan Chase's borrowers and counterparties to repay their loans or other obligations. It is possible that JPMorgan Chase will fail to identify the proper factors or that it will fail to accurately estimate the impact of factors that it identifies.

Many of JPMorgan Chase's risk management strategies and techniques consider historical market behaviour. These strategies and techniques are based to some degree on management's subjective judgment. For example, many models used by JPMorgan Chase are based on assumptions regarding historical correlations among prices of various asset classes or other market indicators. In times of market stress, including difficult or less liquid market environments, or in the event of other unforeseen circumstances, previously uncorrelated indicators may become correlated. Conversely, previously-correlated indicators may make unrelated movements at those times. Sudden market movements and unanticipated or unidentified market or economic movements could, in some circumstances, limit the effectiveness of JPMorgan Chase's risk management strategies, causing it to incur losses.

6.10 **JPMorgan Chase could incur significant losses, its capital levels could be reduced and it could face greater regulatory scrutiny if its models or estimations prove to be inadequate.**

JPMorgan Chase has developed and uses a variety of models and other analytical and judgment-based estimations to assess and implement mitigating controls over its market, credit, liquidity, operational and other risks. These models and estimations are based on a variety of assumptions and historical trends, and are periodically reviewed and modified as necessary. The models and estimations that JPMorgan Chase uses may not be effective in all cases to identify, observe and mitigate risk due to a variety of factors, such as:

- reliance on historical trends that may not accurately predict future events, including assumptions underlying the models and estimations which predict correlation among certain market indicators or asset prices;
- inherent limitations associated with forecasting uncertain economic and financial outcomes;
- historical trend information may be incomplete, or may not anticipate severely negative market conditions such as extreme volatility, dislocation or lack of liquidity;
- technology that is introduced to run models or estimations may not perform as expected, or may not be well understood by the personnel using the technology;
- models and estimations may contain erroneous data, valuations, formulas or algorithms; and
- review processes may fail to detect flaws in models and estimations.

Some of the models and other analytical and judgment-based estimations used by JPMorgan Chase in managing risks are subject to review by, and require the approval of, JPMorgan Chase's regulators. These reviews are required before JPMorgan Chase may use those models and estimations in connection with calculating market risk RWA, credit risk RWA and operational risk RWA under Basel III. If JPMorgan Chase's models or estimations are not approved by its regulators, it may be subject to higher capital charges, which could adversely affect its financial results or limit the ability to expand its businesses. JPMorgan Chase's capital actions could also be constrained if a Comprehensive Capital Analysis and Review ("**CCAR**") submission is not approved by its banking regulators due to the perceived inadequacy of its models or estimations.

6.11 **Enhanced standards for vendor risk management can result in higher costs and other potential exposures.**

JPMorgan Chase must comply with enhanced standards for the assessment and management of risks associated with doing business with vendors and other third-party service providers. These requirements are contained both in bank regulatory regulations and guidance and in certain consent orders to which JPMorgan Chase has been subject. JPMorgan Chase incurs significant costs and expenses in connection with its initiatives to address the risks associated with oversight of its third party relationships. JPMorgan Chase's failure to appropriately assess and manage third-party relationships, especially those involving significant banking functions, shared services or other critical activities, could materially adversely affect JPMorgan Chase. Specifically, any such failure could result in:

- potential liability to clients and customers;
- regulatory fines, penalties or other sanctions;
- increased operational costs; or
- harm to JPMorgan Chase's reputation.

6.12 **Requirements for physical settlement and delivery in trading agreements could expose JPMorgan Chase to operational and other risks.**

Certain of JPMorgan Chase's markets transactions require the physical settlement by delivery of securities or other obligations that JPMorgan Chase does not own. If JPMorgan Chase is unable to obtain the obligations within the required timeframe, JPMorgan Chase could forfeit payments otherwise due. Failures could also result in settlement delays, which could damage JPMorgan Chase's reputation and ability to transact business. Failure to timely settle and confirm transactions could also subject JPMorgan Chase to heightened credit and operational risk, and losses in the event of a default.

6.13 **JPMorgan Chase could incur unexpected losses if estimates and judgments underlying its financial statements are incorrect.**

Under U.S. generally accepted accounting principles ("**U.S. GAAP**"), JPMorgan Chase is required to use estimates and apply judgments in preparing its financial statements, including in determining allowances for credit losses and reserves related to litigation. Certain financial instruments require a determination of their fair value in order to prepare JPMorgan Chase's financial statements, including:

- trading assets and liabilities;
- instruments in the investment securities portfolio;
- certain loans;
- MSRs;
- structured notes; and

- certain repurchase and resale agreements.

Where quoted market prices are not available for these types of financial instruments, JPMorgan Chase may make fair value determinations based on internally developed models or other means which ultimately rely to some degree on management estimates and judgment. Sudden illiquidity in markets or declines in prices of certain loans and securities may make it more difficult to value certain financial instruments, which could lead to valuations being subsequently changed or adjusted. If estimates or judgments underlying JPMorgan Chase's financial statements prove to have been incorrect, JPMorgan Chase may experience material losses.

6.14 **Lapses in controls over disclosure or financial reporting could materially affect JPMorgan Chase's profitability or reputation.**

There can be no assurance that JPMorgan Chase's disclosure controls and procedures will be effective in every circumstance, or that a material weakness or significant deficiency in internal control over financial reporting will not occur. Any such lapses or deficiencies could:

- materially and adversely affect JPMorgan Chase's business and results of operations or financial condition;
- restrict its ability to access the capital markets;
- require it to expend significant resources to correct the lapses or deficiencies;
- expose it to litigation or regulatory fines, penalties or other sanctions;
- harm its reputation; or
- otherwise diminish investor confidence in JPMorgan Chase.

6.15 **JPMorgan Chase could be adversely affected by changes in accounting standards or policies.**

The preparation of JPMorgan Chase's financial statements is based on accounting standards established by the Financial Accounting Standards Board and the Securities and Exchange Commission, as well as more detailed accounting policies established by JPMorgan Chase's management. From time to time these accounting standards or accounting policies may change, and in some cases these changes could have a material effect on JPMorgan Chase's financial statements and may adversely affect its financial results or investor perceptions of those results.

For example, on 1 January 2020, JPMorgan Chase and other U.S. companies will be required to implement a new accounting standard, commonly referred to as the Current Expected Credit Losses ("**CECL**") framework, which will require earlier recognition of expected credit losses on loans and certain other instruments, replacing the incurred loss model that is currently in use. JPMorgan Chase expects that under CECL, it will need to, among other things, increase the allowance for credit losses related to its loans and other lending-related commitments, which may have a negative impact on its capital levels.

This new accounting standard may result in greater volatility of JPMorgan Chase's earnings and capital levels over economic cycles and could potentially affect JPMorgan Chase's capital distribution plans, depending upon final guidance from the regulators. In addition, JPMorgan Chase could be adversely impacted by associated changes in the competitive environment in which it operates, including changes in the availability or pricing of loan products, particularly during periods of economic stress, as well as changes related to non-U.S. financial institutions or other competitors that are not subject to this new accounting standard.

7. **Strategic Risk**

7.1 **If JPMorgan Chase's management fails to develop and execute effective business strategies, and to anticipate changes affecting those strategies, JPMorgan Chase's competitive standing and results could suffer.**

JPMorgan Chase's business strategies significantly affect its competitive standing and results of operations. These strategies relate to:

- the products and services that JPMorgan Chase offers;
- the geographies in which it operates;
- the types of clients and customers that it serves;
- the counterparties with which it does business; and
- the methods and distribution channels by which it offers products and services.

If management makes choices about these strategies and goals that prove to be incorrect, do not accurately assess the competitive landscape and industry trends, or fail to address changing regulatory and market environments, then the franchise values and growth prospects of JPMorgan Chase's businesses may suffer and its earnings could decline.

JPMorgan Chase's growth and prospects also depend on management's ability to develop and execute effective business plans to address these strategic priorities, both in the near term and over longer time horizons. Management's effectiveness in this regard will affect JPMorgan Chase's ability to develop and enhance its resources, control expenses and return capital to shareholders. Each of these objectives could be adversely affected by any failure on the part of management to:

- devise effective business plans and strategies;
- effectively implement business decisions, including by minimising bureaucratic processes;
- institute controls that appropriately address the risks associated with business activities and any changes in those activities;
- offer products and services that are appropriately priced, meet the changing expectations of clients and customers and are delivered in ways that enhance client and customer satisfaction;
- allocate capital in a manner that promotes long-term stability to enable JPMorgan Chase to build and invest in market-leading businesses, even in a highly stressed environment;
- allocate capital appropriately due to imprecise modelling or subjective judgments made in connection with those allocations;
- adequately respond to regulatory requirements;
- appropriately address shareholder concerns;
- react quickly to changes in market conditions or market structures; or
- develop and enhance the operational, technology, risk, financial and managerial resources necessary to grow and manage JPMorgan Chase's businesses.

Additionally, JPMorgan Chase's Board of Directors plays an important role in exercising appropriate oversight of management's strategic decisions, and a failure by the Board to perform this function could also impair JPMorgan Chase's results of operations.

8. Conduct Risks

8.1 Conduct failure by JPMorgan Chase employees can harm its clients and customers, impact market integrity, damage JPMorgan Chase's reputation and trigger litigation and regulatory action.

JPMorgan Chase's employees interact with clients, customers and counterparties, and with each other, every day. All employees are expected to demonstrate values and exhibit the behaviours that are an integral part of JPMorgan Chase's How We Do Business Principles, including JPMorgan Chase's commitment to "do first class business in a first class way." JPMorgan Chase endeavours to embed conduct risk management throughout an employee's life cycle, including recruiting, onboarding, training and development, and performance management. Conduct risk management is also an integral component of JPMorgan Chase's promotion and compensation processes.

Notwithstanding these expectations, policies and practices, certain employees have in the past engaged in improper or illegal conduct, and these instances of misconduct have resulted in litigation as well as resolutions of governmental investigations or enforcement actions involving consent orders, deferred prosecution agreements, non-prosecution agreements and other civil or criminal sanctions. There is no assurance that further inappropriate or unlawful actions by employees will not occur or that any such actions will always be detected, deterred or prevented.

JPMorgan Chase's reputation could be harmed, and collateral consequences could result, from a failure by one or more employees to act consistently with JPMorgan Chase's expectations, policies and practices, including by acting in ways that harm clients, customers, other market participants or other employees. Some examples of this include:

- improperly selling and marketing JPMorgan Chase's products or services;
- engaging in insider trading, market manipulation or unauthorised trading;
- facilitating illegal or aggressive tax-motivated transactions, or transactions designed to circumvent economic sanction programmes;
- failing to fulfil fiduciary obligations or other duties owed to clients or customers;
- violating anti-trust or anti-competition laws by colluding with other market participants to manipulate markets, prices or indices;
- engaging in discriminatory behaviour or harassment;
- making risk decisions in ways that subordinate JPMorgan Chase's risk appetite to employee compensation objectives; and
- misappropriating property, confidential or proprietary information or technology assets belonging to JPMorgan Chase, its clients and customers or third parties.

The consequences of any failure by employees to act consistently with JPMorgan Chase's expectations, policies or practices could include litigation, or regulatory or other governmental investigations or enforcement actions. Any of these proceedings or actions could result in judgments, settlements, fines, penalties or other sanctions, or lead to:

- financial losses;
- increased operational and compliance costs;

- greater regulatory scrutiny;
- regulatory actions that require JPMorgan Chase to restructure, curtail or cease certain of its activities;
- the need for significant oversight by JPMorgan Chase's management;
- loss of clients or customers; and
- harm to JPMorgan Chase's reputation.

9. Reputation Risks

9.1 Damage to JPMorgan Chase's reputation could harm its businesses.

Maintaining trust in JPMorgan Chase is critical to its ability to attract and retain clients, customers, investors and employees. Damage to JPMorgan Chase's reputation can therefore cause significant harm to JPMorgan Chase's business and prospects. Harm to JPMorgan Chase's reputation can arise from numerous sources, including:

- employee misconduct, including discriminatory behaviour or harassment;
- security breaches, including cyberattacks;
- failure to safeguard client or customer information;
- not appropriately managing social and environmental risk issues associated with its business activities or those of its clients;
- compliance or operational failures;
- litigation or regulatory fines, penalties or other sanctions; and
- regulatory investigations or enforcement actions, or resolutions of these matters.

JPMorgan Chase's reputation could also be harmed by the failure or perceived failure of certain third parties to comply with laws or regulations, including companies in which JPMorgan Chase has made principal investments, parties to joint ventures with JPMorgan Chase, and vendors and other third parties with which JPMorgan Chase does business.

JPMorgan Chase's reputation or prospects may be significantly damaged by adverse publicity or negative information regarding JPMorgan Chase, whether or not true, that may be posted on social media, non-mainstream news services or other parts of the internet, and this risk can be magnified by the speed and pervasiveness with which information is disseminated through those channels.

Social and environmental activists are increasingly targeting financial services firms such as JPMorgan Chase with public criticism for their relationships with clients that are engaged in certain sensitive industries, including businesses whose products are or are perceived to be harmful to the health of consumers, or whose activities negatively affect or are perceived to negatively affect the environment, workers' rights or communities. Activists have also engaged in public protests at JPMorgan Chase's headquarters and other properties. Activist criticism of JPMorgan Chase's relationships with clients in sensitive industries could potentially engender dissatisfaction among clients, customers, investors and employees with how JPMorgan Chase addresses social and environmental concerns in its business activities. Alternatively, yielding to activism targeted at certain sensitive industries could damage JPMorgan Chase's relationships with clients and customers, and with governmental bodies in jurisdictions in which JPMorgan Chase does business, whose views are not aligned with those of social and environmental activists. In either case, the resulting harm to JPMorgan Chase's reputation could:

- cause certain clients and customers to cease doing business with JPMorgan Chase;

- impair JPMorgan Chase's ability to attract new clients and customers, or to expand its relationships with existing clients and customers;
- diminish JPMorgan Chase's ability to hire or retain employees; or
- prompt JPMorgan Chase to cease doing business with certain clients.

Any of the above factors could negatively affect JPMorgan Chase's results of operations and its ability to maintain its competitive standing.

Actions by the financial services industry generally or by certain members of or individuals in the industry can also affect JPMorgan Chase's reputation. For example, concerns that consumers have been treated unfairly by a financial institution, or that a financial institution has acted inappropriately with respect to the methods used to offer products to customers, can damage the reputation of the industry as a whole. If JPMorgan Chase is perceived to have engaged in these types of behaviours, the measures needed to address the associated reputational issues could increase JPMorgan Chase's operational and compliance costs and negatively affect its earnings.

9.2 **Failure to effectively manage potential conflicts of interest can result in litigation and enforcement actions, as well as damage JPMorgan Chase's reputation.**

JPMorgan Chase's ability to manage potential conflicts of interest has become increasingly complex as its business activities encompass more transactions, obligations and interests with and among JPMorgan Chase's clients and customers. JPMorgan Chase can become subject to litigation and enforcement actions, and its reputation can be damaged, by the failure or perceived failure to:

- adequately address or appropriately disclose conflicts of interest;
- deliver appropriate standards of service and quality;
- treat clients and customers with the appropriate standard of care;
- use client and customer data responsibly and in a manner that meets legal requirements and regulatory expectations;
- provide fiduciary products or services in accordance with the applicable legal and regulatory standards; or
- handle or use confidential information of customers or clients appropriately or in compliance with applicable data protection and privacy laws and regulations.

In the future, a failure or perceived failure to appropriately address conflicts of interest or fiduciary obligations could result in customer dissatisfaction, litigation and regulatory fines, penalties or other sanctions, and heightened regulatory scrutiny and enforcement actions, all of which can lead to lost revenue and higher operating costs and cause serious harm to JPMorgan Chase's reputation.

10. **Country Risks**

10.1 **Adverse economic and political developments in a country or region, or globally, can have a negative impact on JPMorgan Chase's businesses.**

JPMorgan Chase's businesses and earnings can be affected by the monetary, fiscal and other policies adopted by regulatory authorities and agencies in the countries in which JPMorgan Chase operates. Changes in fiscal policies by central banks or regulatory authorities, and the manner in which those policies are executed, are beyond JPMorgan Chase's control and may be difficult to predict. Consequently, unanticipated changes in these policies or the ways in which they are implemented could have a negative impact on JPMorgan Chase's businesses and results of operations.

Some countries or regions in which JPMorgan Chase operates or invests, or in which JPMorgan Chase may do business in the future, have in the past experienced severe economic disruptions particular to those countries or regions. Concerns regarding the fiscal condition of one or more countries or the possibility that a particular country may decide to depart from a trade, monetary or political pact, can result in a deterioration of economic and market conditions within the affected countries or regions, including:

- slowing growth rates, rising inflation or recessionary economic conditions;
- a contraction of available credit;
- diminished investor and consumer confidence, including loss of confidence in local banking systems;
- increased market volatility;
- reduced commercial activity among trading partners; or
- the potential for currency redenomination or the dissolution of a political or economic alliance or treaty.

Any or all of these factors could have a negative impact on JPMorgan Chase's business and results of operations in the affected country or region.

These developments can also lead to a contagion which causes similar conditions to arise in other countries in the same region or beyond. Furthermore, governments in particular countries or regions in which JPMorgan Chase or its clients do business may choose to adopt protectionist economic or trade policies in response to concerns about domestic economic conditions or as countermeasures to policies or actions taken by other countries or regions. Any or all of these developments could lead to diminished cross-border trade and financing activity within that country or region, all of which could negatively affect JPMorgan Chase's business and earnings in those jurisdictions and increase its operational costs. If JPMorgan Chase takes steps to reduce its market and credit risk exposure within a particular country or region that is experiencing economic or political disruption, it may incur losses that are higher than expected because it will be disposing of assets when market conditions are likely to be highly unfavourable.

10.2 **An outbreak of hostilities between countries or within a country or region could have a material adverse effect on the global economy and on JPMorgan Chase's businesses within the affected region or globally.**

Aggressive actions by hostile governments or groups, including armed conflict or intensified cyberattacks, could expand in unpredictable ways by drawing in other countries or escalating into full-scale war with potentially catastrophic consequences, particularly if one or more of the combatants possess nuclear weapons. Depending on the scope of the conflict, the hostilities could result in:

- worldwide economic disruption;
- heightened volatility in financial markets;
- severe declines in asset values, accompanied by widespread sell-offs of investments;
- substantial depreciation of local currencies, potentially leading to defaults by borrowers and counterparties in the affected region;
- disruption of global trade; and
- diminished consumer, business and investor confidence.

Any of the above consequences could have significant negative effects on JPMorgan Chase's operations and earnings, both in the countries or region directly affected by the hostilities or globally. Further, if the U.S. were to become directly involved in such a conflict, this could lead to a curtailment of any operations that JPMorgan Chase may have in the affected countries or region, as well as in any nation that is aligned against the U.S. in the hostilities. JPMorgan Chase could also experience more numerous and aggressive cyberattacks launched by or under the sponsorship of one or more of the adversaries in such a conflict.

10.3 **JPMorgan Chase's business activities with governmental entities can pose an enhanced risk of loss.**

Several of JPMorgan Chase's businesses engage in transactions with, or trade in obligations of, governmental entities, including national, state, provincial, municipal and local authorities, both within and outside the U.S. These activities can expose JPMorgan Chase to enhanced sovereign, credit-related, operational and reputation risks, including the risks that a governmental entity may:

- default on or restructure its obligations;
- claim that actions taken by government officials were beyond the legal authority of those officials; or
- repudiate transactions authorised by a previous incumbent government.

Any or all of these actions could adversely affect JPMorgan Chase's financial condition and results of operations and could hurt its reputation, particularly if JPMorgan Chase pursues claims against a government obligor in a jurisdiction in which it has significant business relationships with clients or customers.

10.4 **JPMorgan Chase's business and revenues in emerging markets can be hampered by local economic, political, regulatory and social factors.**

Some of the countries in which JPMorgan Chase conducts business have economies or markets that are less developed and more volatile, and may have legal and regulatory regimes that are less established or predictable, than the U.S. and other developed markets in which JPMorgan Chase operates. Some of these countries have in the past experienced severe economic disruptions, including:

- extreme currency fluctuations;
- high inflation;
- low or negative growth; and
- defaults or potential defaults on sovereign debt.

The governments in these countries have sometimes reacted to these developments by imposing restrictive policies that adversely affect the local and regional business environment, including:

- price, capital or exchange controls, including imposition of punitive transfer and convertibility restrictions;
- expropriation or nationalisation of assets or confiscation of property, including intellectual property; and
- changes in laws and regulations.

The impact of these actions could be accentuated in trading markets that are smaller, less liquid and more volatile than more-developed markets. These types of government actions can negatively affect JPMorgan Chase's operations in the relevant country, either directly or by suppressing the business activities of local clients or multi-national clients that conduct business in the jurisdiction. For example, some or all of these governmental actions can result in funds belonging to JPMorgan Chase, or that it places with a local custodian on behalf of a client, being effectively trapped in a country. In addition to the ultimate risk of losing the funds entirely, JPMorgan Chase could be exposed for an extended period of time to the credit risk of a local custodian that is now operating in a deteriorating domestic economy.

In addition, emerging markets countries, as well as certain more developed countries, have been susceptible to unfavourable social developments arising from poor economic conditions and related governmental actions, including:

- social unrest;
- general strikes and demonstrations;
- crime and corruption;
- security and personal safety issues;
- outbreaks of hostilities;
- overthrow of incumbent governments;
- terrorist attacks; and
- other forms of internal discord.

These economic, political, regulatory and social developments have in the past resulted in, and in the future could lead to, conditions that can adversely affect JPMorgan Chase's operations in those countries and impair the revenues, growth and profitability of those operations. In addition, any of these events or circumstances in one country can affect JPMorgan Chase's operations and investments in another country or countries, including in the U.S.

11. Competition Risks

11.1 The financial services industry is highly competitive, and JPMorgan Chase's results of operations will suffer if it is not a strong, effective and forward-looking competitor.

JPMorgan Chase operates in a highly competitive environment and expects that competition in the U.S. and global financial services industry will continue to be intense. Competitors include:

- other banks and financial institutions;
- trading, advisory and investment management firms;
- finance companies and technology companies; and
- other nonbank firms that are engaged in providing similar products and services.

JPMorgan Chase cannot provide assurance that the significant competition in the financial services industry will not materially and adversely affect its future results of operations.

New competitors in the financial services industry continue to emerge. For example, technological advances and the growth of e-commerce have made it possible for non-depository institutions to offer products and services that traditionally were banking products. These advances have also allowed financial institutions and other companies to provide electronic and internet-based financial solutions, including electronic securities trading, payments processing and online automated algorithmic-based investment advice. Furthermore, both financial institutions and their non-banking competitors face the risk that payments processing and other services could be significantly disrupted by technologies, such as cryptocurrencies, that require no intermediation. New technologies have required and could require JPMorgan Chase to spend more to modify or adapt its products to attract and retain clients and customers or to match products and services offered by its competitors, including technology companies. In addition, new technologies may be used by customers, or breached or infiltrated by third parties, in unexpected ways, which can increase JPMorgan Chase's costs for complying with laws and regulations that apply to the offering of products and services through those technologies and reduce the income that JPMorgan Chase earns from providing products and services through those new technologies.

Ongoing or increased competition may put pressure on the pricing for JPMorgan Chase's products and services or may cause JPMorgan Chase to lose market share, particularly with respect to traditional banking products such as deposits and bank accounts. This competition may be on the basis of quality and variety of products and services offered, transaction execution, innovation, reputation and price. The failure of any of JPMorgan Chase's businesses to meet the expectations of clients and customers, whether due to general market conditions, under-performance, a decision not to offer a particular product or service, changes in client and customer expectations or other factors, could affect JPMorgan Chase's ability to attract or retain clients and customers. Any such impact could, in turn, reduce JPMorgan Chase's revenues. Increased competition also may require JPMorgan Chase to make additional capital investments in its businesses, or to extend more of its capital on behalf of its clients in order to remain competitive.

Non-U.S. competitors of JPMorgan Chase's wholesale businesses outside the U.S. are typically subject to different, and in some cases, less stringent, legislative and regulatory regimes. The more restrictive laws and regulations applicable to JPMorgan Chase and other U.S. financial services institutions can put JPMorgan Chase and those firms at a competitive disadvantage to non-U.S. competitors. This could reduce the revenue and profitability of JPMorgan Chase's wholesale businesses, resulting from:

- prohibitions on engaging in certain transactions;
- higher capital and liquidity requirements;
- making JPMorgan Chase's pricing of certain transactions more expensive for clients; and
- adversely affecting JPMorgan Chase's cost structure for providing certain products.

12. People Risk

12.1 JPMorgan Chase's ability to attract and retain qualified employees is critical to its success.

JPMorgan Chase's employees are its most important resource, and in many areas of the financial services industry, competition for qualified personnel is intense. JPMorgan Chase endeavours to attract talented and diverse new employees and retain and motivate its existing employees. If JPMorgan Chase were unable to continue to attract or retain qualified employees, including successors to the Chief Executive Officer or members of the Operating Committee, JPMorgan Chase's performance, including its competitive position, could be materially and adversely affected.

12.2 Unfavourable changes in immigration policies could adversely affect the quality of JPMorgan Chase's businesses and operations.

JPMorgan Chase relies on the skills, knowledge and expertise of employees located throughout the world. Changes in immigration policies in the U.S. and other countries that unduly restrict or otherwise make it more difficult for employees or their family members to work in, or transfer among, jurisdictions in which JPMorgan Chase has operations or conducts its business could inhibit JPMorgan Chase's ability to attract and retain qualified employees, and thereby dilute the quality of its workforce, or could prompt JPMorgan Chase to make structural changes to its worldwide operating model that are less efficient or more costly.

13. **Legal Risks**

13.1 **JPMorgan Chase faces significant legal risks from private actions and formal and informal regulatory and government investigations.**

JPMorgan Chase is named as a defendant or is otherwise involved in many legal proceedings, including class actions and other litigation or disputes with third parties. Actions currently pending against JPMorgan Chase may result in judgments, settlements, fines, penalties or other sanctions adverse to JPMorgan Chase. Any of these matters could materially and adversely affect JPMorgan Chase's business, financial condition or results of operations, or cause serious reputational harm. As a participant in the financial services industry, it is likely that JPMorgan Chase will continue to experience a high level of litigation and regulatory and government investigations related to its businesses and operations.

Regulators and other government agencies conduct examinations of JPMorgan Chase and its subsidiaries both on a routine basis and in targeted exams, and JPMorgan Chase's businesses and operations are subject to heightened regulatory oversight. This heightened regulatory scrutiny, or the results of such an investigation or examination, may lead to additional regulatory investigations or enforcement actions. There is no assurance that those actions will not result in resolutions or other enforcement actions against JPMorgan Chase. Furthermore, a single event involving a potential violation of law or regulation may give rise to numerous and overlapping investigations and proceedings, either by multiple federal, state or local agencies and officials in the U.S. or, in some instances, regulators and other governmental officials in non-U.S. jurisdictions.

If another financial institution violates a law or regulation relating to a particular business activity or practice, this will often give rise to an investigation by regulators and other governmental agencies of the same or similar activity or practice by JPMorgan Chase.

These and other initiatives by U.S. and non-U.S. governmental authorities may subject JPMorgan Chase to judgments, settlements, fines, penalties or other sanctions, and may require JPMorgan Chase to restructure its operations and activities or to cease offering certain products or services. All of these potential outcomes could harm JPMorgan Chase's reputation or lead to higher operational costs, thereby reducing JPMorgan Chase's profitability, or result in collateral consequences. In addition, the extent of JPMorgan Chase's exposure to legal and regulatory matters can be unpredictable and could, in some cases, exceed the amount of reserves that JPMorgan Chase has established for those matters.

14. **Risks particularly relating to JPMAG**

14.1 **Risks relating to JPMAG as individual entity.**

Information about risk factors relating to JPMAG can be found in the section "Risk Report" of JPMAG's Annual Report for the year ended 31 December 2017 which is contained on pages F-1 to F-70 of this Registration Document.

As per the risk inventory, the following risk categories are considered material for JPM AG:

- strategic risk including business risk, capital risk, group risk, liquidity risk and reputational risk,
- credit risk,
- market risk, including interest rate risks of the banking book,
- operational risks,
- and pension risk.

In particular the following key risks which are inherent to JPMAG's business activities should be taken into account (which are elaborated in more detail on JPMAG's Annual Report for the year ended 31 December 2017 as set out on page F-1 to F-70 of this Registration Document) that could affect the JPMAG's business and, as a consequence, may affect JPMAG's ability to fulfil its obligations under the Guarantee:

- Business Risk: JPMAG defines Business risk as any risk arising from changes in its business, including: the acute risk to earnings posed by falling or volatile income; and the broader risk of a firm’s business model or strategy proving inappropriate due to macroeconomic, geopolitical, industry, regulatory or other factors; or its remuneration policy. Regular plan monitoring and if necessary the appropriate adjustments ensure that these deviations are minimised.

- Liquidity Risk: Liquidity risk is the risk that JPMAG will be unable to meet its contractual and contingent financial obligations as they arise or that it does not have the appropriate amount, composition and tenor of funding and liquidity to support its assets and liabilities. The contractual and contingent obligations can be split into end-of-day ("**eoD"**) obligations and obligations required to be met prior to eoD. The management board of JPMAG has ultimate responsibility for the liquidity and risk within the entity. The management board reviews and establishes an appropriate level of liquidity risk appetite, and it also reviews and periodically approves relevant frameworks and policies that specify how liquidity risk is managed in relation to the entity.

- Reputation Risk: Reputation risk is the potential that an action, inaction, transaction, investment or event will reduce trust in JPMAG’s and JPMorgan Chase’s integrity or competence by our various constituents, including clients, customers, investors, regulators, employees or the broader public.

- Credit risk: Credit risk is the risk associated with the default or change in credit profile of a client, counterparty or customer. JPMAG provides credit through its operating services activities (such as custodian banking function and clearing activities), markets activity from the SPV derivatives business and cash placed with banks particularly in the context of Treasury activities.

- Market Risk: Market risk is the risk associated with the effect of changes in market factors such as interest and foreign exchange rates, equity and commodity prices, credit spreads or implied volatilities, on the value of assets and liabilities held for both the short and long term.

- Operational risk: Operational risk is the risk associated with inadequate or failed internal processes, people and systems, or from external events and includes compliance risk, conduct risk, legal risk, and estimations and model risk. Operational risk is inherent in the firms activities and can manifest itself in various ways, including fraudulent acts, business interruptions, cybersecurity attacks, inappropriate employee behaviour, failure to comply with applicable laws and regulations or failure of vendors to perform in accordance with their agreements. These events could result in financial losses, litigation and regulatory fines, as well as other damages to the firm.

- Employee risk: Human Resource risks are those associated with the employment of staff for example, the cost of employment, health and safety issues; over-reliance on key individuals and inadequate succession planning; the cost and reputational damage of litigation by employees and/ or arising from employee misconduct; and the risks associated with inappropriate compensation practices. JPMAG tries to minimize operational risks through established oversight and control processes and the implementation of key controls.

- IT risk: The systems used in JPMAG are part of JPMC's IT infrastructure. As such JPMAG utilizes a number of critical applications to access market infrastructure (e. g. for the Euro-Clearing) or to service internal and external clients. One of the core requirements for JPMAG's business is a functioning IT infrastructure. JPMAG tries to minimize operational risks through a standardized business continuity planning and testing, as well as the IT development are established firmwide processes.

- Process risk: Process risk means the risk of loss resulting from inadequate or failed internal processes. Core activities in JPMAG, such as payment services and custody services define the entity as a transactional bank, process risk is highly relevant. JPMAG tries to minimize operational risks through established oversight and control processes and the implementation of key controls. Losses may be incurred when a force of nature or an individual(s) causes damage or injury to JPMorgan Chase's employees, clients, and/ or physical assets.

- Legal risk: The risk of loss primarily caused by the actual or alleged failure to meet legal obligations that arise from the rule of law in jurisdictions in which JPMorgan Chase and JPMAG operate, agreements with clients and customers and products and services offered by JPMAG and JPMorgan Chase. For further information see also under section 13. above where such risk is described in more detail in relation to JPMorgan Chase.

- Pension Risk: JPMAG defines Pension risk as the risk caused by contractual or other liabilities to or with respect to a pension scheme (whether established for its employees or those of a related company or otherwise). Pension risk is driven by market and demographic risk where the pension scheme may be unable to meet future expected benefit payments. Pension risk is thus the potential necessity of increasing pension reserves.

14.2 **JPMAG is subject to particular risks in relation to European and German regulation of the financial service industry.**

JPMAG is subject to banking and financial services laws and government regulation in each of the jurisdictions in which it conducts business. Regulatory authorities have broad administrative surveillance and regulatory authorities over many aspects of the financial services business, which may include liquidity, capital adequacy and permitted investments, loan loss provisions, ethical issues, money laundering, privacy, record keeping, and marketing and selling practices. In this regard, regulatory authorities conduct control and monitoring measures on a regular basis. Regulatory authorities have, among other things, the power to bring administrative or judicial proceedings against JPMAG which could result, among other things, in suspension or revocation of JPMAG's licenses, cease and desist orders, conditions, fines, civil penalties, criminal penalties or other disciplinary action.

Such proceedings and/or other regulatory initiatives or enforcement actions could have a material adverse effect on the reputation, the business, results of operations or financial condition of JPMAG.

Banking and financial services laws, regulations and policies currently governing JPMAG may change at any time in ways which could have an adverse effect on their business. Furthermore, changes in existing banking and financial services laws and regulations may materially affect the reputation of JPMAG, the way in which they conduct business, the products or services they may offer and the value of their assets.

Among other things, as a result of regulators or private parties challenging JPMAG's compliance with laws and regulations, it could be fined, prohibited from engaging in certain business activities, subject to limitations or conditions on its business activities or subjected to new or substantially higher taxes or other governmental charges in connection with the conduct of its businesses or with respect to its employees. Such limitations or conditions may negatively impact JPMAG's profitability.

Separate and apart from the impact on the scope and profitability of JPMAG's business activities, day-to-day compliance with laws and regulations, in particular those laws and regulations adopted since 2008, has involved and will continue to involve significant amounts of time, including that of JPMAG's senior leaders and that of an increasing number of dedicated compliance and other reporting and operational personnel, all of which may negatively impact JPMAG's profitability.

If there are new laws or regulations or changes in the enforcement of existing laws or regulations applicable to JPMAG's businesses or those of JPMAG's clients, including capital, liquidity, leverage, loss absorbing capacity, position limits, registration and margin requirements, restrictions on other business practices, reporting requirements, requirements relating to the implementation of the EU Bank Recovery and Resolution Directive (the "**BRRD**"), tax burdens and compensation restrictions, that are imposed on a limited subset of financial institutions (either based on size, activities, geography or other criteria) which may include JPMAG, compliance with these new laws and regulations and amendments to such laws and regulations, or changes in the enforcement of existing laws or regulations, could adversely affect JPMAG's ability to compete effectively with other institutions that are not affected in the same way. In addition, regulation imposed on financial institutions or market participants generally, such as taxes on financial transactions, could adversely impact levels of market activity more broadly, and thus impact JPMAG's businesses.

There is an extensive and complex program of final and proposed regulatory enhancements which reflects, in part, the EU's commitment to the G20 policy framework. These proposed or adopted numerous market reforms that have impacted and may continue to impact JPMAG's businesses. These include stricter capital and liquidity requirements, including legislation (in the form of EU Directive 2013/36/EU, as amended or replaced from time to time, the "**CRD IV**" and a Regulation (EU) No 575/2013 of the European Parliament and of the Council on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 646/2012 (as amended, supplemented or replaced from time to time, the "**CRR**", together with the CRD IV, the "**CRD IV/CRR-package**")) to implement the Basel Committee's December 2010 final capital framework for strengthening international capital standards (the "**Basel III**" capital requirements) for JPMAG.

On 7 June 2019 the following regulations and directives amending the CRD IV/CRR-package and the BRRD have been published in the Office Journal of the European Union and each of these legal acts came into force on 27 June 2019: (i) Regulation (EU) 2019/876, amending, inter alia, the CRR, (ii) Regulation (EU) 2019/877, amending the SRM Regulation, (iii) Directive (EU) 2019/878, amending CRD IV and (iv) Directive (EU) 2019/879, amending, inter alia, the BRRD (so-called "**CRD-V/CRR-II/BRRD-II-Package**"). Most of the provisions of the CRD-V/CRR-II/BRRD-II-Package will become applicable and/or have to be transposed into national law until 28 December 2020 or 28 June 2021. The CRD-V/CRR-II/BRRD-II-Package includes, among others, (i) adjustments to the leverage ratio requirement, (ii) the introduction of a binding detailed net stable funding ratio which will require credit institutions to finance their long-term activities (assets and off-balance sheet items) with stable sources of funding (liabilities), (iii) a requirement to have more risk-sensitive own funds (i.e. capital requirements) for institutions that trade in securities and derivatives, following Basel's work on the 'fundamental review of the trading book', and (iv) the implementation of new standards on the total loss absorbing capacity by which the TLAC Standard of global systemically important institutions is being implemented into binding European law.

In addition, bank and investment firm recovery and resolution; bank structure; securities settlement; transparency and disclosure of securities financing transactions; benchmarks; restrictions on short selling and credit default swaps; additional obligations and restrictions on the management and marketing of funds in the EU; revisions to the laws on corporate governance; anti money-laundering controls; data security and privacy as well as significant reviews to law on corporate governance in financial firms, sanctions and market conduct rules. Furthermore, the Markets in Financial Instruments Regulation ("**MiFIR**") and a revision of the Markets in Financial Instruments Directive ("**MiFID II**", and collectively, "**MiFID II/R**") became effective in January 2018. MiFID II/R will be subject to review by the European Commission by March 2020.

These developments could impact JPMAG's profitability and competitive position in the affected jurisdictions, particularly if these requirements do not apply, or do not apply equally, to JPMAG's competitors or are not implemented uniformly across jurisdictions. They could even make it uneconomic to continue to conduct all or certain businesses in such jurisdictions, or could result in JPMAG incurring significant costs associated with changing business practices, restructuring businesses, moving certain businesses and employees to other locations or complying with applicable capital requirements, including liquidating assets or raising capital in a manner that adversely increases JPMAG's funding costs or otherwise adversely affects its shareholder and creditors.

Increasingly, regulators and courts have sought to hold financial institutions liable for the misconduct of their clients where such regulators and courts have determined that the financial institution should have detected that the client was engaged in wrongdoing, even though the financial institution had no direct knowledge of the activities engaged in by its client. Regulators and courts have also increasingly found liability as a "control person" for activities of entities in which financial institutions or funds controlled by financial institutions have an investment, but which they do not actively manage. In addition, regulators and courts continue to seek to establish "fiduciary" obligations to counterparties to which no such duty had been assumed to exist. To the extent that such efforts are successful, the cost of, and liabilities associated with, engaging in brokerage, clearing, market-making, prime brokerage, investing and other similar activities could increase significantly. To the extent that JPMAG has fiduciary obligations in connection with acting as a financial adviser, investment adviser or in other roles for individual, institutional, sovereign or investment fund clients, any breach, or even an alleged breach, of such obligations could have materially negative legal, regulatory and reputational consequences.

Trading and clearing legislation

In the EU, there have been significant regulatory reforms to give effect to the 2009 G20 policy agenda. This includes European Market Infrastructure Regulation ("**EMIR**"), which began in 2012 and MiFID II/R, which began on 3 January 2018.

EMIR requires, among other things, the central clearing of certain standardised derivatives and risk mitigation techniques for uncleared OTC ("**over-the-counter**") derivatives. EMIR was reviewed as part of the European Commission's EMIR Regulatory Fitness and Performance programme ("**REFIT**") legislative proposal, which proposed to introduce targeted changes to EMIR to streamline the rules and make them less burdensome for certain counterparties. Following trilogue negotiations a political agreement on the proposal was reached in February 2019 and the final text of EMIR REFIT has been published in the Office Journal of the European Union as Regulation (EU) 2019/834 on 28 May 2019 and has come into force on 17 June 2019.

MiFID II/R gives effect to the G20 commitment to move trading of standardised OTC derivatives to exchanges or electronic trading platforms as well as significantly enhances requirements for pre- and post-trade transparency, clearing, trade and transaction reporting and investor protection, and introduces a commodities position limits and reporting regime. MiFID II/R has introduced expanded requirements for a broad range of investment management activities within their investor protection requirements, including product governance, transparency on costs and charges, independent investment advice, inducements, record keeping and client reporting.

Brexit

Brexit (for further information on Brexit see under section "2.1 The expected departure of the U.K. from the EU could negatively affect JPMorgan Chase's business, results of operations and operating model." above) will have significant impact across JPMorgan Chase's European businesses, including business and legal entity reorganisation. However, the situation remains highly uncertain, including in relation to whether a transition period is secured and whether financial services will be included in any future free trade agreement.

The prospective withdrawal of the UK from the EU and any uncertainty associated with this process may potentially introduce significant new uncertainties and instability in UK and the EU. It may also increase market volatility and might lead to disruptions for the European and global financial markets. This may particularly affect the British and European financial markets. Overall, the prospective withdrawal of the UK from the EU may have a negative impact on the business, financial condition and results of operations of JPMAG.

14.3 **JPMAG could become subject to a potential exercise by a German resolution authority of its resolution powers and is required to provide contributions to a joint bank resolution fund which constitute a substantial financial burden for JPMAG.**

At European level, the EU institutions have enacted an EU Directive which defines a framework for the recovery and resolution of credit institutions and investment firms (the so-called Bank Recovery and Resolution Directive (BRRD)). The BRRD entered into force on 2 July 2014. EU Member states were required to adopt and publish the laws, regulations and administrative provisions necessary to comply with the BRRD by 31 December 2014 and to apply those with effect from 1 January 2015, except in relation to the bail-in provisions, which were to apply from 1 January 2016 at the latest. Its stated aim is to provide national "resolution authorities" with powers and tools to address banking crises pre-emptively in order to safeguard financial stability and minimise taxpayers' exposure to losses.

Additionally, Regulation (EU) No. 806/2014 of 15 July 2014 establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Resolution Fund and amending Regulation (EU) No 1093/2010 (the "**SRM Regulation**") introduced a single resolution mechanism (the "**SRM**") as a uniform procedure for the resolution of (groups of) credit institutions and certain other financial institutions. The SRM Regulation applies to all banks established in EU member states participating in the SSM (that is, all member states in the Eurozone and other member states participating in the SSM). For credit institutions that are not directly supervised by the European Central Bank ("**ECB**") (such as JPMAG), the effect of the SRM Regulation is confined to the obligation to contribute to a joint bank resolution fund ("**SRF**"). Otherwise the BRRD defines the framework for the recovery and resolution of JPMAG.

The BRRD has been implemented in the Federal Republic of Germany by the Restructuring and Resolution Act (*Sanierungs- und Abwicklungsgesetz* – "**SAG**"). The SAG came into force on 1 January 2015 and changes required by the CRD-V/CRR-II/BRRD-II-Package will have to be transposed into national law of EU member states by 28 December 2020. The SAG grants significant rights for intervention of BaFin and other competent authorities in the event of a crisis of credit institutions, including JPMAG or its group. The national resolution authority with respect to Germany is (provided that the institution is not supervised on European level) BaFin who assumed the duties of the *Bundesanstalt für Finanzmarktstabilisierung* ("**FMSA**") relating to the BRRD and SAG.

The SAG provides for a broad range of resolution measures, related effects and uncertainties. Such provides for resolution tools and powers can be applied if, *inter alia*, the continued existence of JPMAG or its group is at risk (*Bestandsgefährdung*) and a resolution action is necessary in the public interest (*Öffentliches Interesse*). The resolution tools include the bail-in tool and the write down or conversion of capital instruments tool (collectively referred to as "**Resolution Measures**"). It should be noted that Resolution Measures are subject to the non-availability of alternative measures, in particular measures of the private sector and in the case of the JPMAG the transfer of capital or funds by its shareholder.

The bail-in tool and the write down or conversion of capital instruments tool empower the competent resolution authorities (in particular currently, in Germany, BaFin) – besides other resolution powers and, under certain conditions and subject to certain exceptions – to permanently write down the value (including a write down to zero) of, in the case of the write down or conversion of capital instruments tool, own funds instruments and, in the case of the bail-in tool, unsubordinated liabilities and subordinated liabilities not qualifying as own funds instruments of the relevant financial institution, including bonds, or order their conversion into equity instruments (the "**Bail-in**") in order to recapitalise an institution that meets the requirements for resolution or to capitalise a bridge institution established to carry on parts of the business of the institution for a transitional period; the write down or conversion of capital instruments tool may also be applied if not JPMAG itself, but the group of JPMAG meets the resolution requirements. The application of the Resolution Measures may release JPMAG from its obligations under the terms and conditions of the guarantee issued in respect of Securities issued by JPMSP and may neither entitle the holder to demand early redemption of the Securities, nor to exercise any other rights in this respect.

Potential investors in Securities should therefore take into consideration that, if the continued existence of JPMAG or its group is at risk (*Bestandsgefährdung*) and thus already prior to any liquidation or insolvency or such procedures being instigated, they will to a particular extent be exposed to a risk of default and that it is likely that they will suffer a partial or full loss of their invested capital.

The SAG further provides for the resolution powers of (i) sale of business, (ii) transfer to a bridge institution and (iii) the separation of assets as well as certain other and ancillary power pursuant to which the competent national or European resolution authority is entitled to amend or alter Securities (including the maturity dates and other payment dates as well as the amount of interest payable). It is likely that the exercise of the sale of business tool, the bridge institution tool, and/or the asset separation tool, will result in a bank splitting into a "good bank" and a "bad bank". The remaining "bad bank" will usually go into liquidation/insolvency and/or may be subject to a moratorium. Investors in debt securities which vest with the "bad bank" may face a significant decrease in the market value of their investment and a partial or total loss of the invested capital. The creditworthiness of the "good bank" will depend – amongst other aspects – on how shares or other instruments of ownership, assets, rights, and liabilities will be split between the "good bank" and the "bad bank". Furthermore potentially applicable consideration payments (*Gegenleistung*) and/or compensation obligations (*Ausgleichsverbindlichkeiten*) will depend on how such split is affected.

Moreover, SAG introduces certain early intervention powers enabling supervisory authorities, in addition to their powers under the German Banking Act, to intervene in the institution's business and operations at an early stage to remedy the situation and to avoid a resolution of an institution.

Any such early intervention or resolution powers might significantly impact the market value or liquidity of Securities issued or guaranteed by the affected institution and their volatility. Holders of Securities may lose all or part of their invested capital, including the principal amount plus any accrued interest, and face the risk or that the obligations under the Securities are subject to any change or variation in the terms and conditions of the Securities (which change will be to the detriment of the Holder), or that the Securities would be transferred to another entity (which may lead to a detrimental credit exposure) or are subject to any other measure if Resolution Measures occur.

Investors should be aware that the exercise of any such resolution power or even the suggestion of any such potential exercise in respect of JPMAG (or any member of its group) could have a material adverse effect on the rights of holders of Securities, and could lead to a loss of some or all of the investment. The resolution regime is designed to be triggered prior to insolvency of the relevant institution, and holders of securities issued or guaranteed by such institution may not be able to anticipate the exercise of any resolution power (including exercise of the "bail-in" tool) by BaFin. Further, holders of securities issued or guaranteed by an institution which has been taken into a resolution regime will have very limited rights to challenge the exercise of powers by BaFin, even where such powers have resulted in the write down of the securities or conversion of the securities to equity.

The SRF may in certain circumstances and subject to various conditions provide medium term funding for potential resolution measures in respect of any bank that is subject to the SRM. Credit institutions such as JPMAG are required to provide contributions to the SRF, including annual contributions and ex-post contributions. These contributions constitute a substantial financial burden for JPMAG.

II. CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements in this Registration Document, including the documents incorporated by reference herein, are forward-looking statements. These statements can be identified by the fact that they do not relate strictly to historical or current facts. Forward-looking statements often use words such as "anticipate", "target", "expect", "intend", "plan" or "goal". Forward-looking statements provide JPMorgan Chase's (JPMorgan Chase being JPMorgan Chase & Co. together with its consolidated subsidiaries, including JPMAG) current expectations or forecasts of future events, circumstances, results or aspirations. JPMorgan Chase also may make forward-looking statements in its other documents filed or furnished with the SEC. In addition, JPMorgan Chase's senior management may make forward-looking statements orally to analysts, investors, representatives of the media and others.

All forward-looking statements are, by their nature, subject to risks and uncertainties, many of which are beyond JPMorgan Chase's control. JPMorgan Chase's actual future results may differ materially from those set forth in its forward-looking statements. While there is no assurance that any list of risks and uncertainties or risk factors is complete, below are certain factors which could cause actual results to differ from those in the forward-looking statements:

- local, regional and global business, economic and political conditions and geopolitical events;
- changes in laws and regulatory requirements, including capital and liquidity requirements affecting the businesses of JPMorgan Chase, and the ability of JPMorgan Chase to address those requirements;
- heightened regulatory and governmental oversight and scrutiny of JPMorgan Chase's business practices, including dealings with retail customers
- changes in trade, monetary and fiscal policies and laws;
- changes in income tax laws and regulations;
- securities and capital markets behaviour, including changes in market liquidity and volatility;
- changes in investor sentiment or consumer spending or savings behaviour;
- ability of JPMorgan Chase to manage effectively its capital and liquidity, including approval of its capital plans by banking regulators;
- changes in credit ratings assigned to JPMorgan Chase & Co. or its subsidiaries;
- damage to JPMorgan Chase's reputation;
- ability of JPMorgan Chase to appropriately address social and environmental concerns that may arise from its business activities
- ability of JPMorgan Chase to deal effectively with an economic slowdown or other economic or market disruption;
- technology changes instituted by JPMorgan Chase, its counterparties or competitors;
- the effectiveness of JPMorgan Chase's control agenda;
- ability of JPMorgan Chase to develop or discontinue products and services, and the extent to which products or services previously sold by JPMorgan Chase (including but not limited to mortgages and asset-backed securities) require JPMorgan Chase to incur liabilities or absorb losses not contemplated at their initiation or origination;
- acceptance of JPMorgan Chase's new and existing products and services by the marketplace and the ability of JPMorgan Chase to innovate and to increase market share;
- ability of JPMorgan Chase to attract and retain qualified employees;

- ability of JPMorgan Chase to control expenses;
- competitive pressures;
- changes in the credit quality of JPMorgan Chase's customers and counterparties;
- adequacy of JPMorgan Chase's risk management framework, disclosure controls and procedures and internal control over financial reporting;
- adverse judicial or regulatory proceedings;
- changes in applicable accounting policies, including the introduction of new accounting standards;
- ability of JPMorgan Chase to determine accurate values of certain assets and liabilities;
- occurrence of natural or man-made disasters or calamities or conflicts and JPMorgan Chase's ability to deal effectively with disruptions caused by the foregoing;
- ability of JPMorgan Chase to maintain the security of its financial, accounting, technology, data processing and other operational systems and facilities;
- ability of JPMorgan Chase to withstand disruptions that may be caused by any failure of its operational systems or those of third parties;
- ability of JPMorgan Chase to effectively defend itself against cyberattacks and other attempts by unauthorised parties to access information of JPMorgan Chase or its customers or to disrupt JPMorgan Chase's systems; and
- the other risks and uncertainties detailed in the section entitled "Risk Factors" of this Registration Document.

Any forward-looking statements made by or on behalf of JPMorgan Chase & Co. speak only as of the date they are made and JPMorgan Chase & Co. does not undertake to update forward-looking statements to reflect the impact of circumstances or events that arise after the date the forward-looking statements were made. In the future, investors should, consult any further disclosures of a forward-looking nature which JPMorgan Chase & Co. may make in any subsequent Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, or Current Reports on Form 8-K filed with the SEC. Those reports will be available on the SEC website at www.sec.gov. If those reports contain significant new information which is relevant for JPMAG then JPMAG will file a supplement to the Registration Document to the extent required pursuant to Section 16 of the WpPG.

III. RESPONSIBILITY STATEMENT

J.P. Morgan AG, Taunustor 1 (TaunusTurm), 60310 Frankfurt am Main, Germany accepts responsibility for the information given in this Registration Document. It furthermore declares that the information contained in this Registration Document is, to the best of its knowledge, in accordance with the facts and that no material circumstances have been omitted.

IV. J.P. MORGAN AG

1. History and Development

J.P. Morgan AG was incorporated as a stock corporation (*Aktiengesellschaft*) domiciled in Germany on 4 November 1977. JPMAG was and remains registered at the commercial register at the local court of Frankfurt am Main under registered number HRB 16861 and has its registered offices at Taunustor 1 (TaunusTurm), 60310 Frankfurt am Main, Germany (telephone number +49 69 7124 0). JPMAG has a full banking license in accordance with Section 1 paragraph 1 of the German Banking Act (*Kreditwesengesetz* – "**KWG**") and is supervised by the German Federal Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht* – "**BaFin**").

2. Principal Activities and Principal Markets

JPMAG is an indirect principal subsidiary of JPMorgan Chase & Co. in Germany which is within the European Economic Area ("**EEA**"). It has branches in Amsterdam, Brussels, Copenhagen, London Madrid, Milan, Oslo, Paris, Stockholm and Warsaw. It has outwards services and branch passport across the EEA.

Principal Activities

JPMAG conducts banking business with institutional clients, banks, corporate clients and clients from the public sector.

JPMAG is an integral component of JPMorgan Chase and constitutes the core of group activities in Germany. Embedding the bank in the global segments of JPMorgan Chase's global treasury services, securities services and front office of the corporate and investment bank of the group plays a major role in this, as it is only thanks to the international network of its services that JPMAG is able to live up to JPMorgan Chase's mission "First class business in a first class way". In 2018 JPMAG continued to focus on its core businesses, in order to fulfil the roles as the group's central bank for euro payment transactions, as well as custodian and global custodian for the German investment market, operating out of Frankfurt am Main.

JPMAG primarily engages in the area of (i) treasury services and (ii) securities services. The treasury services include euro-clearing operations and cash, treasury and trade finance management for corporate clients, insurance companies, asset managers, and financial institutions and the role of the central cash agent in Target2Securities (t2s) for selective sister companies within the group. Furthermore, JPMAG began in the fourth quarter 2018 expanding the product range in the treasury services division, including, in particular, additional currencies and an associated expanded product range relating to the multi-currency clearing area. Securities services include services as a fully-licensed and regulated custodian in Germany, providing global custody and custodian bank services to institutional clients, the performance of various control functions to protect the investment assets and the investor, in addition to the custody of assets, the maintenance of an up-to-date inventory list (with regard to non-custodial assets), as well as the settlement of orders. In addition to the regulatory monitoring requirements and obligations in connection with the safeguarding of assets and settlement of trades, the broader service offerings include a comprehensive range of products, additional services, and above all, client reporting.

Principal Markets

Since the enactment of the US and EU non-cleared margin rules phase II in March 2017, JPMAG has offered selected customers who do not want to contract with a US broker-dealer, the option of trading over the counter (OTC) derivatives for hedging purposes via JPMAG. In this case, JPMAG transfers the resulting market risk directly to the central risk management units of the group, totally in line with its conservative risk policy. During 2018, the transaction volume in this business area grew continuously, with the transaction volume posted in 2018 being significantly higher than expected due to the major restructuring of an individual customer on the one hand, and due to the expansion of customer segments compared to the prior year on the other hand. As part of the implementation of the group-wide Brexit strategy to establish JPMAG as the future central legal entity for the banking and markets business of the corporate and investment bank within the EU, JPMAG was able to start product operations for the following business activities in 2018:

- Since October 2018, JPMAG has started to migrate the existing memberships of European exchanges and central clearing counterparty houses ("**CCPs**") of the global clearing segment in J.P. Morgan Securities plc ("**JPMS plc**") based in London, and to carry out the execution and clearing of orders from exchange traded derivatives (futures & options) on behalf of JPMS plc. The transfer of all relevant memberships to JPMAG took place during the first half of 2019 and the subsequent migration of customers is ongoing but largely complete.

- In December 2018, the cash equities segment, which includes execution of stock orders on behalf of customers, started production operations. Here too, the memberships of European stock exchanges were transferred from JPMS plc to JPMAG and the first trades of JPMS plc were processed through JPMAG's newly established stock exchange memberships.

- In addition, in the lending segment in December 2018, an initial customer was added in preparation for the transfer of the credit portfolio from other JPM companies.

With regard to relationship management JPMAG is responsible for institutional clients, banks, corporate clients and public sector clients primarily based in Germany or Austria. This also includes subsidiary companies based in Germany or Austria whose parent companies have their headquarters in other countries. With the global responsibility for the euro-clearing operations area within the group JPMAG serves clients worldwide from countries in which the J.P. Morgan Chase is active. The securities services – segment predominantly serves open domestic special alternative investment funds which are governed by the German Capital Investment Act, and direct investments by institutional investors and global custody mandates.

JPMAG is a German bank and a credit institution within the meaning of the EU Directive 2013/13/EU ("**CRD IV**"), legally defined as an undertaking whose business is to receive deposits or other repayable funds from the public and to grant credits for its own account.

3. Organisational Structure

The shares of JPMAG are held directly by J.P. Morgan International Finance Limited with its registered office in Newark, United States of America. JPMAG is an indirect subsidiary undertaking of its ultimate parent company JPMorgan Chase & Co., a company incorporated in the United States of America. JPMAG is a principal subsidiary of JPMorgan Chase & Co. JPMorgan Chase is a financial holding company incorporated under Delaware law in 1968, is a leading global financial services firm and is one of the largest banking institutions in the U.S. with operations worldwide. As a consequence of the respective ownerships JPMAG is dependent on its sole shareholder J.P. Morgan International Finance Limited and its ultimate parent company JPMorgan Chase & Co. and thus on the business strategy for JPMorgan Chase.

4. Trend Information

There have been no material adverse change in the prospects of JPMAG since 31 December 2018.

The following statements are based on the current beliefs and expectations of JPMAG's management and are subject to significant risks and uncertainties. These risks and uncertainties could negatively affect JPMAG's actual results. See "Cautionary Note Regarding Forward-Looking Statements" and "Risk Factors" in this Registration Document.

Future outlook

With regard to economic development in Germany, for 2019 and 2020 JPMAG is assuming weaker growth in the gross domestic product compared to 2018. In particular, the trade disputes originating in the USA with China, and the upcoming exit of the UK from the European Union (Brexit) lead to a cooling off in sentiment. However, thanks to further falls in unemployment figures, private consumption has become an important support for growth in gross domestic product.

In terms of inflation rates, JPMAG is assuming that these will remain significantly below 2 % and will remain below the level of the previous year of 1.8 %. In December 2018, Mario Draghi confirmed once again as president of the European Central Bank that the recent low interest rate policy will continue through the summer of 2019 and for as long as necessary. JPMAG assumes that a change could occur in the ECB's interest policy at the end of 2019, which would lead to a phased increase in the leading interest rate in 2020.

For the banking sector in Europe, the political uncertainties from the UK leaving the European Union and the investment costs for preparations for Brexit and the related extensive organizational changes are some of the major challenges for 2019. This will not only lead to additional investment costs in the short term, but will also create an ongoing higher cost basis in the medium term, without delivering any tangible "value added" such as an adjustment or further development of the services offered by the banks to their customers. As a result, the ongoing price competition will be further accelerated given the increased willingness of customers to change providers. It will continue to be important to step up the dialogue with JPMAG's customers, and to do more to meet changed customer needs. JPMAG is of the view that investment in technology, adjustments to business processes, and the retention of experts and talented employees all play an important part in this, if it wishes to retain or even improve its competitive position.

JPMAG remains well positioned as a group-internal service provider in Euro payment handling. In 2018, JPMAG started with the expansion of its range of services for payment-related services, and have completed this stage of the expansion in the first half of 2019, while expecting this business to continue to grow by innovation. In addition to the Euro, JPMAG now also offers accounts in 37 foreign currencies with a large number of new services in low-value payment handling, and plans in 2019 to become the first subsidiary of an American bank in Germany to offer SEPA instant from within Germany. Thanks to its vast investments, JPMAG believes that it has created a good basis for successful new customer acquisition, the expansion of existing customer relationships at JPMAG, and the migration of existing customer relationships from J.P. Morgan Chase Bank, N.A., London Branch, to JPMAG in 2019 and the following years.

The trend of the large institutional investors toward adapting their investments to the changed picture of an increasingly globalised economy and the resulting demand for global custodian services will continue in 2019 as well. This will raise the price pressure considerably and increase the need to reduce our operating costs, on the one hand by implementing possible economies of scale from the group-wide infrastructure, and on the other hand by optimising the value creation chain. On the other hand, the task of JPMAG will be to work on intelligent solutions together with its customers, on how it can better match customer needs. In addition, plans to expand target segments over the next two years remain on the table.

With reference to the United Kingdom's exit from the European Union ("**Brexit**"), and the associated need for banks to restructure in order to be able to continue to offer financial products and services in the internal market, JPMAG sees itself as well positioned to take on a greater role in the implementation of the group's Brexit strategy.

In future, JPMAG will take over business relationships with customers in the European Union for the "Banking" and "Markets" areas in the future – in the event of a "Hard Brexit". JPMAG also started back in October 2018 to apply to take over existing memberships of stock exchanges and CCPs within the European Union, and has implemented this in full in the first half of 2019. This means that JPMAG will not only be dealing with the transactions of its own customers, but also the customer transactions for the other group companies. Furthermore, by the end of March 2019, JPMAG has already opened nine branches in the EEA as well as a branch in London where employees from trading and sales will be located. This means that the number of employees at JPMAG can increase from average 305, to over 1,000 employees in 2019.

The first practical measures that JPMAG had already initiated in 2018, such as the expansion and therefore strengthening of the management board, the first capital increase of around EUR 1.7 billion, and the implementation of capital models, will continue to be rolled out in 2019. In line with this, a further capital increase of EUR 1.8 billion was made in February 2019 and the dialogue with the banking supervisory authority was intensified with the goal of an optimized calculation of capital utilization.

JPMAG continues to see risks for its business in the disproportional regulation of the financial markets, the political uncertainties of the ongoing Brexit negotiations, but above all the fundamental "execution risk" within the entire European banking sector, which could endanger the stability of the financial markets. In addition, JPMAG also sees, above all, a further burden through an intensification of the monitoring duties and reporting obligations – triggered by new regulations – that have to be offset by cost-cutting in the operative areas in order to not negatively impair JPMAG’s earning situation on a lasting basis.

5. Directors and Officers

The administrative, management and supervisory bodies of JPMAG comprise its Management Board and its Supervisory Board. Set forth below are the names and positions of JPMAG's Directors at the date of this Registration Document. The business address of each of the members of the Management Board and the Supervisory Board is Taunustor 1 (TaunusTurm), 60310 Frankfurt am Main, Germany.

Members of the Management Board

Name	Function	Principal Outside Activities
Stefan Behr	Managing Director	N/A
Dorothee Blessing	Chairperson of the Management Board, Managing Director	Executive management body J.P. Morgan Securities plc Frankfurt Branch, Supervisory body A.P. Møller Maersk Group
Nicholas Conron	Managing Director	N/A
Burkhard Kübel-Sorger	Managing Director	Management Board of Whiteshire Debt Solutions GmbH
Gunnar Regier	Managing Director	Executive management body J.P. Morgan Securities plc Frankfurt Branch

Members of the Supervisory Board

Name	Function	Principal Outside Activities
Mark S. Garvin	Chairperson of the Supervisory Board, Member of the Supervisory Board	Supervisory body J.P. Morgan Bank Luxembourg S.A. (Chairman of the Board); J.P. Morgan Europe Limited (Chairman of the Board); Euroclear Holding S.A.

Guy J. America	Deputy Chairperson of the Supervisory Board, Member of the Supervisory Board	N/A
Christoph Fickel	Member of the Supervisory Board (Employee Representative)	N/A
Thomas Freise	Member of the Supervisory Board (Employee Representative)	N/A
Elena Korablina	Member of the Supervisory Board	Managing Director, JPMorgan Chase Bank, N.A.
Olivier Vigneron	Member of the Supervisory Board	Managing Director, JPMorgan Chase Bank, N.A.

There are no material potential conflicts of interest between any duties owed to JPMAG by the members of the Management Board or the Supervisory Board of JPMAG identified above and their private interests and/or outside duties.

6. Financial information

Historical financial information

Financial information of JPMAG for the financial year 2018 prepared in accordance with rules laid down in the German Commercial Code (*HGB*), the Companies Act (*Aktiengesetz*) and the Accounting Regulation for Credit Institutions and Financial Service Institutions (*RechKredV*) can be found in Appendix I ("**JPMAG 2018 Annual Report**") of the Registration Document (pages F-1 to F-70).

Financial information of JPMAG for the financial year 2017 prepared in accordance with rules laid down in the German Commercial Code (*HGB*), the Companies Act (*Aktiengesetz*) and the Accounting Regulation for Credit Institutions and Financial Service Institutions (*RechKredV*) can be found in Appendix II ("**JPMAG 2017 Annual Report**") of the Registration Document (pages G-1 to G-70).

Interim financial information

JPMAG produces unaudited interim financial statements in respect of the period ended 30 June in each year.

Auditing of financial information

PricewaterhouseCoopers GmbH, statutory auditors (*Wirtschaftsprüfungsgesellschaft*), have audited without qualification JPMAG's audited financial statements. A copy of the auditor's report from the JPMAG 2018 Annual Report appears on pages F-1 to F-70 of Appendix I and from the JPMAG 2017 Annual Report at pages G-1 to G-70 of Appendix II to this Registration Document.

The address of PricewaterhouseCoopers GmbH is: Friedrich-Ebert-Anlage 35-37, 60327 Frankfurt am Main, Germany.

7. Major Shareholders

JPMAG is a wholly-owned subsidiary of J.P. Morgan International Finance Limited, a company incorporated in Newark/Delaware, USA.

8. **Legal and arbitration proceedings**

JPMAG is not and has not been involved in any governmental, legal or arbitration proceedings relating to claims or amounts that are material during the 12-month period ending on the date of this Registration Document which may have, or have had in the recent past, significant effects on the financial position or profitability of JPMAG nor, so far as JPMAG is aware, are any such governmental, legal or arbitration proceedings pending or threatened.

9. **No significant change in the JPMAG's financial position**

There have been no significant changes in the financial position of JPMAG since 31 December 2018.

V. DOCUMENTS ON DISPLAY

Throughout the life of this Registration Document and from the date hereof, the following documents, or copies thereof, will be available, during normal business hours on any weekday (Saturdays, Sundays and public holidays excepted), for inspection at the office of the Programme Agent (BNP Paribas Securities Services S.C.A., Frankfurt Branch, Europa-Allee 12, 60327 Frankfurt am Main, Germany) and in another form as may be required by law.

(i) JPMAG 2018 Annual Report and the JPMAG 2017 Annual Report;

(ii) the Articles of Association of the JPMAG as amended from time to time;

(iii) a copy of this Registration Document; and

(iv) a copy of any supplement to this Registration Document, including any document(s) incorporated by reference therein.

Furthermore, the documents mentioned under (iii) and (iv) above are published in electronic form on the website https://www.jpmorgan-zertifikate.de/Dokumente/Basisprospekte/ under the section "Basisprospekte".

APPENDIX I

Annual Report of
J.P. Morgan AG
for the financial year ended 2018

MANAGEMENT REPORT AS OF DECEMBER 31, 2018

Business and General Conditions

ORGANIZATION AND LEGAL STRUCTURE

J.P. Morgan AG with its registered office in Frankfurt am Main is a 100 % indirect subsidiary of JPMorgan Chase & Co. with its registered office in Columbus, Ohio, in the United States of America. The Bank has a full banking license in accordance with § 1 Para. 1 of the KWG [Kreditwesengesetz – German Banking Act] and conducts banking business with institutional clients, banks, corporate clients and clients from the public sector. The shares of J.P. Morgan AG are held directly by the J.P. Morgan International Finance Limited with its registered office in Newark, United States of America.

Until April 30, 2018, J.P. Morgan AG was managed by a two-member management board, Front Office and Back Office, which was expanded on May 1, 2018 by further two board members. It continues to be monitored by a six-member Supervisory Board. The Management Board generally meets monthly, while the Supervisory Board meets at least four times a year. In 2018, the Supervisory Board held six meetings – and three meetings have been held so far in 2019. The Risk Committee of the Supervisory Board met five times in 2018, and so far twice in 2019. The Internal Auditor also informs the Supervisory Board in writing on a quarterly basis concerning audits that have been conducted and their results. The names of the members of the Management Board and the Supervisory Board are listed in the Notes.

The Treasury Services, Securities Services and Markets divisions prepare a detailed presentation for the meetings of the Management Board, which covers all material events in the past month relating to the discussion of the course of business, as well as the trends in Key Performance Indicators (KPIs) and Key Risk Indicators (KRIs) for their business segments. In addition, the meeting covers the financial trends, a detailed risk report and a report from the Corporate Functions, especially Compliance and Internal Audit, for discussion, review and decision. In addition, sufficient time was set aside to discuss and review the individual new product initiatives and the implementation of the Group-wide Brexit strategy by J.P. Morgan AG. The minutes of the Management Board meetings are kept by an employee from the Legal Department.

The Supervisory Board receives an up-to-date summary of the topics discussed at the Management Board meetings in order to form its own opinion – for discussion, review and decision-making – of the course of business, planned new business activities, financial trends, risk-bearing capacity, communications with supervisory bodies, the status of current projects, in particular the implementation of the Group-wide Brexit strategy, as well as the work of the corporate functions.

The Supervisory Board's Risk Committee meets at least four times a year and forms an opinion of the risk-bearing capacity of J.P. Morgan AG and of the trends in the risk profiles in the various risk categories. In addition, the Risk Committee is also closely involved in defining the recovery scenarios and the analysis thereof.

The Supervisory Board's Audit Committee normally meets with the auditors twice a year to discuss the audit plan and the annual financial statements and audit opinion.

The Supervisory Board's Remuneration Committee and Nomination Committee met in 2018 when required.

Minutes of the meetings of the Supervisory Board and its committees are taken by an employee from the Legal Department or an external lawyer.

INTERNAL CONTROL SYSTEM

The Treasury Services, Securities Services and Markets business segments are managed by a member of the Management Board – Front Office – and reviewed by a member of the Management Board – Back Office. Since May 1, 2018 this has been performed by Nicholas Conron as Chief Risk Officer, who took over this role from Mr Burkhard Kübel-Sorger, who now focuses on the roles of Chief Financial Officer and Chief Operating Officer.

In addition to regular meetings of the Management Board and the Supervisory Board, the Local Operational Risk & Control Committee, which brings together Operations, all control functions and all Corporate Functions, and which is managed by the CFO, manages the day-to-day Corporate Governance on behalf of the Management Board. J.P. Morgan AG's corporate functions continue to support not only the Bank's business segments but also all other Group units in Frankfurt am Main. In addition, there is an Outsourcing Forum that evaluates planned outsourcing projects for their risk aspects to ensure a proper business organization, monitors compliance with regulatory requirements and serves as an escalation point in case of inadequate performance by the outsourcing companies. Furthermore, there is a regular forum for the identification of new legal regulations and requirements under the management of the MaRisk Compliance Officer. Finally, the Technology Forum was also introduced in 2018, in which compliance with BAIT regulations is monitored, potential system failures and resulting measures are assessed, audit opinions and their findings as well as new technology projects are discussed.

In addition to net interest income and net commission income as KPIs, a conservative risk policy that in particular limits the possible credit and counterparty risk, provides the basis for successful management of J.P. Morgan AG by the Management Board. The methods and procedures for evaluating the risk-bearing ability, the risk profile of J.P. Morgan AG, and individual risk events are discussed on the Management Board's instruction in the Risk Oversight Committee for J.P. Morgan AG.

In the monthly meetings of the Business Forums, in which Sales, Operations, and Control Functions including the international Business Control Manager all participate, the business process, KPIs and KRIs, feedback from our customers, strategic projects, industry trends and changes in the legal or regulatory environment and their impact on the respective business units are discussed. In addition, treasury activities are discussed and reviewed in the monthly European Asset & Liability Committee. The Management Board is thus enabled to identify changes or risks in the business performance in a timely manner and to make appropriate decisions and implement the necessary measures.

In addition to this, the Management Board receives daily detailed reports from the lending and financial division about draw-downs, overdrafts, the situation with regard to collateral, and the key COREP indicators. These reports are continuously being enhanced to meet the increasing regulatory requirements.

SEGMENTS AND ESSENTIAL PRODUCTS AND PROCESSES

J.P. Morgan AG is an integral component of the worldwide J.P. Morgan Group and constitutes the core of group activities in Germany. Embedding the bank in the global segments of

Treasury Services, Securities Services and Front Office of the Corporate & Investment Bank of the Group plays a major role in this, as it is only thanks to the international network of our services that we are able to live up to the J.P. Morgan Group mission: "First class business in a first class way". In 2018 as well, the bank continued to focus on its core business, in order to fulfil the roles as the group's central bank for euro payment transactions, as well as custodian and Global Custodian for the German investment market, operating out of Frankfurt am Main.

Again in 2018, customer satisfaction, increased efficiency and effective controls in our operational processes were in focus in order, on the one hand, to improve our residual risk profile and, on the other hand to also continue to improve our interactions with clients. The trends in our KPIs and KRIs encourage us to continue down this road in 2019, while continuing to maintain a strong focus on the quality of our outsourced processes.

Treasury Services

J.P. Morgan AG bears global responsibility within the Group for the area of euro-clearing operations. In view of the standardization of European payment transactions and our significant technology investments, we expect to deliver our payment handling products and services in the bulk payment markets centrally from J.P. Morgan AG, in cooperation with our sister companies in the next few years, to both corporate customers as well as financial institutions. We continue to expand our top position as euro clearer in TARGET2 and EBA with improved offerings for our multinational corporate clients and financial institutions domestically and abroad.

On the basis of these infrastructure services, our sales teams offer highly advanced solutions in the areas of cash, treasury and trade finance management for corporate clients, insurance companies, asset managers, and financial institutions. Advanced technology and expansion of the Group's locations within the scope of the Global Corporate Banking concept enable our sales teams to offer more comprehensive global cash management solutions that provide notable advantages in liquidity management, particularly for our international clients. Together with our highly developed service concept, this allowed us to continue to grow with selected, international target clients, above all in global cash management and in trade finance management.

J.P. Morgan AG also continues in its role of central cash agent in Target2Securities (T2S) for a number of sister companies within the Group. Furthermore, J.P. Morgan AG began expanding the product range in the Treasury Services division in Q4 2018. The expansion of the product range should be completed in the course of Q2 2019. This includes, in particular, additional currencies and an associated expanded product range relating to the multi-currency clearing area.

In the area of Payment Services, there have still not been any major structural competitive shifts, but our customers are already expecting banks to support global, professional cash management without accepting to make any compromises in local processing. In addition, our customers expect faster, more transparent and lower cost of settlement for international payments given extremely rapid technological changes. This requires a major investment effort, and increasingly a large international presence, which will lead to concentration in the market in the medium term.

Securities Services

In the global Securities Services business unit of the J.P. Morgan Group, J.P. Morgan AG acts as a regulated custodian in Germany and has been providing Global Custody and Custodian Services for institutional customers since 1995. In this role, J.P. Morgan AG currently manages a total volume of € 316 billion for its customers, and this year again is one of the largest custodians in Germany.

The custodian plays a special role in protecting both investors and fund assets in the investment triangle. In addition to the custody of assets and the maintenance of a current inventory list (with regard to non-custodial assets), as well as settlement of ordered transactions, one of the core functions of the custodian is the performance of various control functions to protect the relevant investment assets and the investor. Within the framework of its control functions, J.P. Morgan AG makes sure in its role of custodian to supervise the capital management company's day-to-day activity in a prompt manner with respect to the relevant details and check its compatibility with the statutory provisions, supervisory law standards, and contractual provisions.

In addition to regulatory control tasks and services relating to the custody of securities and settlement of trading transactions, we offer a comprehensive range of additional services, such as the reporting system, as part of the wider services on offer to customers.

In addition, in the last few years the German custodian market has been characterized by more and more new legal and regulatory requirements and continuously growing competition. For custodians, one of the challenges is to be able to handle and comply efficiently with the plethora of legal and regulatory requirements, which have been introduced in the recent past for the different types of funds and investor groups.

On the other hand, the risk appetite of institutional investors has increased in the last few years due to the low interest rate environment. In their search for returns it can be seen that institutional investors are highly flexible and will examine and implement alternative investment solutions. For a custodian, it is imperative to accept this strategic orientation and apply the resulting product-related and operational adjustments. A balancing act is needed between specialization and the demand for modelling all products.

As a custodian, J.P. Morgan AG has accepted this strategic focus and is implementing the resulting product-related and operational adjustments.

Markets

Since the enactment of the US and EU non-cleared margin rules (NCMR) Phase II in March 2017, J.P. Morgan AG has offered selected customers who do not want to contract with a US broker-dealer, the option of trading over the counter (OTC) derivatives for hedging purposes via J.P. Morgan AG. In this case, J.P. Morgan AG transfers the resulting market risk directly to the central risk management units of the Group, totally in line with its conservative risk policy. During 2018, the transaction volume in this business area grew continuously, with the transaction volume posted in 2018 being significantly higher than expected due to the major restructuring of an individual customer on the one hand, and due to the expansion of customer segments compared to the prior year on the other hand.

New Product Areas

As part of the implementation of the Group-wide Brexit strategy to establish J.P. Morgan AG as the future central legal entity for the Banking and Markets business of the Corporate & Investment Bank within the European Union, J.P. Morgan AG was able to start product operations for the following business activities in 2018.

Since October 2018, J.P. Morgan AG has started to migrate the existing memberships of European exchanges and Central Clearing Counterparty Houses ("CCPs") of the Global Clearing segment in J.P. Morgan Securities plc ("JPMS plc") based in London, and to carry out the execution and clearing of orders from exchange traded derivatives (futures & options) on behalf of JPMS plc. The transfer of all relevant memberships to J.P. Morgan AG along with the subsequent migration of customers will take place during the first half of 2019.

In December 2018, the Cash Equities segment, which includes execution of stock orders on behalf of customers, started production operations. Here too, the memberships of European stock exchanges were transferred from JPMS plc to J.P. Morgan AG and the first trades of JPMS plc were processed through J.P. Morgan AG's newly established stock exchange memberships.

In addition, in the Lending segment in December 2018, an initial customer was added in preparation for the transfer of the credit portfolio from other JPM companies.

MARKETS AND COMPETITIVE POSITION

In the Treasury Services segment, we need to distinguish between relationship management and the operational hub for euro-clearing operations. With regard to relationship management, J.P. Morgan AG covers institutional clients, banks, corporate clients and public sector clients primarily based in Germany or Austria. This also includes subsidiaries based in Germany or Austria whose parent companies have their headquarters in other countries.

With global responsibility for the euro-clearing operations area within the Group, which, in addition to the core team in Frankfurt am Main, also encompasses teams in sister companies of the Group in Mumbai (India) and Manila (Philippines), J.P. Morgan AG serves clients from different countries in which the J.P. Morgan Group is active. In its function as euro clearer in TARGET2 and EBA, and measured in terms of the value of the payments executed on a daily basis, J.P. Morgan AG is among the largest providers of payment services in Germany.

The segment Securities Services currently mainly focuses on open domestic special alternative investment funds (AIFs), which are legally subject to the capital investment act, as well as on direct investments by institutional customers, along with Global Custody mandates. J.P. Morgan Group's focus on client-oriented and innovative product solutions, while realizing economies of scale thanks to standardized processes, is being continuously reinforced. J.P. Morgan AG is again among the largest custodians in Germany this year.

Target customers in the Markets segment are a specific segment of Special Purpose Vehicles (SPVs) that want to use the relief under the EU NCMR compared to the US regulations.

With regard to the new business activities initiated in the 4th quarter in the area of Global Clearing and Cash Equities, our target customers are those customers who are located in the European Union and who will no longer be able to trade with J.P. Morgan units in the UK in future, due to the expected impact of a Hard Brexit. In addition, J.P. Morgan AG will also allow customers who have so far been able to access the continental European trading venues and CCPs through J.P. Morgan Securities plc with registered offices in London, to continue to do so.

KEY LEGAL AND ECONOMIC INFLUENCE FACTORS

The legal and supervisory environment was characterized in 2018 by a series of supervisory changes, particularly EU initiatives, whose implementation did not, however, have any substantial influence on the core business or client relationships of J.P. Morgan AG.

At the forefront of discussions with customers was, on the one hand, how to invest excess liquidity, the need to pass on the European Central Bank's negative interest rates, and on the other hand, our customers' expectation that improvements in internal efficiency would be passed on in reduced prices.

However, the number one topic of 2018 was the political process relating to the planned departure of the United Kingdom from the European Union, and all the associated, extensive preparatory measures within the financial sector. Due to the role planned for J.P. Morgan AG within the Group as a central booking location for customers with headquarters within the European Union, it was not only our existing customers who were interested in our preparatory measures, but we also developed an intensive dialogue with our future target customers.

Topics that have kept us busy in 2018, and are still keeping us busy when we look to the next few years, are increasing digitization and its impact on our business processes, IT security with an ever-growing threat from cybercrime, and finally the implementation of the new regulatory requirements.

PERSONNEL DEVELOPMENT

The number of employees of J.P. Morgan AG increased in 2018 compared to the previous year, from 275 to an average of 305[1]. The staff turnover rate rose from 9 % in 2018 to 12 %, so was within our target range of 8 % – 12 %. 26 % of all employees made use of flexible work arrangements, as in the previous year.

In line with our business concept, we continue to pay the greatest attention to the selection of quality in new hires, and to the continuous training and education programs for our staff.

The J.P. Morgan AG human resources policy is based on the highest quality and diversity of employees, and reflects our clear commitment to aligning to the needs of our employees.

The remuneration system of J.P. Morgan AG is integrated into the remuneration concept for employees in the EMEA region ("EMEA Remuneration Policy").

BUSINESS DEVELOPMENT

2018, for J.P. Morgan AG, was a year with a stable result compared to the previous year, however, the negative trend in earnings of our pension plans due to volatile equity markets, especially in the 4th quarter of 2018, cast a clear shadow.

We managed to stabilize our interest income, despite the continuing low-interest policy of central banks and it rose by 24 % – albeit from a low level – especially thanks to better investment opportunities for our liquidity surplus.

The trend for commission income was also very positive in 2018. After an increase of around 12 % in 2017, the commission earnings grew by another 6 % compared to the previous year, particularly in the Markets division. This increase was higher than our expectations and shows the willingness of our customers to entrust more business to us.

Taken overall, we judge 2018 to be a positive year. The business developments in all of our three core segments have met our expectations, especially in the field of Securities Services 2018 where the focus was on cost management. Business

[1] Employees that have been seconded or placed on leave or are on parental leave are not included herein.

development in the Markets sector likewise met and even exceeded our expectations.

As part of the implementation of the Group-wide Brexit strategy, J.P. Morgan AG began product sales in the 4th quarter of 2018 for a series of new business activities, but this has as yet had no significant influence on the business earnings of J.P. Morgan AG.

Earnings, Financial and Assets Position

EARNINGS

Thanks to the intensification of our activities with existing clients, J.P. Morgan AG managed to increase its commission income in 2018. For this financial year, commission income was 6 % above the previous year, with a total of € 90.6 million. Compared with the previous year, interest income has also shown a slightly positive trend, and at € 9.9 million is € 1.9 million higher than in the previous year. The material factor that influenced the interest income were first and foremost the improved investment opportunities for our liquidity surplus in securities. The budget figures for 2018 were slightly exceeded both in terms of net interest income and net commission income.

The trading result, totalling € 7.1 million, was significantly above that of the prior year, by € 5.3 million. The trading result essentially comprises debit valuation adjustments (DVA), funding valuation adjustments (FVA) and credit valuation adjustments (CVA). Our other operating income has continued to be relatively stable and only declined slightly by 1.3 % compared to the previous year.

Our total expenditure rose by around 22 % in spite of a slight decline in the recharging of intercompany project and management costs. The reason for this is on the one hand, additional resources as part of the implementation of the Brexit strategy and on the other hand a significantly worse pension result.

The earnings from normal business activity thus fell significantly from € 19.9 million to € 5.8 million. The annual result for the 2018 financial year is a loss totalling € 8.8 million.

This result means a Return on Equity of –0.4 % after 2.1 % in the prior year.

FINANCIAL POSITION

Principles and Objectives

The balance sheet at J.P. Morgan AG is shaped by the deposits of its institutional clients and banks as part of the euro-clearing business and the custodian business, and shows a markedly stable financial situation in 2018. We only generate exposure towards our clients in both business segments in the form of uncommitted intra-day lines and short-term overnight overdrafts in the event of cash management issues. Surplus liquidity generated by this deposit-driven business policy is invested mainly in reverse repo-transactions with JPMorgan Chase Bank, N.A.

The total assets as at December 31, 2018 rose significantly by 31 % compared to the balance sheet as of December 31, 2017. The fundamental drivers were on the one hand the completed capital increase totalling € 1.7 billion, and on the other hand an increase in intercompany balances, partly due to the new Global Clearing segment.

J.P. Morgan AG was supplied with sufficient liquidity at all times in 2018 as well. The bank manages liquidity conservatively. The liquidity coverage ratio was 155.4 %.

Capital Structure

In comparison to December 31, 2017, the liable equity capital had increased by the profit of the previous year, which was transferred to retained earnings, but above all by the capital increase completed in September 2018 in the form of a simple cash contribution by J.P. Morgan International Finance Limited as sole shareholder, totalling € 1.7 billion. On the balance sheet at December 31, 2018, this results in a Tier 1 capital ratio of 169.7 % and a total capital ratio of 183.1 %. This capital investment places J.P. Morgan AG in a very comfortable position when it comes to providing capital to comply with regulatory requirements both for current business and for the first new business activities that J.P. Morgan AG will take on as part of the implementation of the Group-wide Brexit strategy. J.P. Morgan AG's regulatory equity was made up of the following components as at the reporting date of December 31, 2018:

Tier 1:	€ 2,354	million	share capital, reserves and funds for general banking risks
Upper Tier 2:	€ 0	million	
Lower Tier 2:	€ 186	million	subordinated loans
Total Tier 2:	€ 186	million	

Off-Balance Sheet Business

Within the Trade Finance area, the credit risks assumed by J.P. Morgan AG itself in the form of contingent liabilities are, on an unchanged basis, collateralised for the most part directly on an intra-group basis. For the notes issued by J.P. Morgan AG, we signed a total return swap to secure the risk and concluded an interest-rate swap with JPMorgan Chase Bank, N.A., to secure the risks of changing interest rates arising from the securities portfolio. In addition, in the lending area there is an irrevocable loan commitment totalling € 12 million, which is associated with the transfer of an initial customer from the lending business of another JPM company, in connection with the transfer of additional customer portfolios.

ASSET SITUATION

The receivables from our customers reduced as a result of the lower use of short-term overdraft loans by € 88 million to € 172 million, while the deposits rose slightly by € 177 million to € 6,880 million as of the balance sheet date. Receivables from banks increased thanks to more treasury activities by € 3,697 million to € 18,648 million (of which, balances at central banks: € 11,766 million). Liabilities to banks increased at the same time by € 1,991 million to € 9,705 million at the balance sheet date. Other reasons for the expansion of the balance sheet included the initial recognition of trust assets and trust liabilities arising from the new Global Clearing activities totalling € 608 million. The securities portfolio with first-class bonds remained unchanged at a book value of € 51 million as of December 31, 2018.

The total assets of J.P. Morgan AG thus rose by around 31 % compared to the balance sheet date of the previous year, and stood at € 20,551 million as of December 31, 2018. The total capital ratio was 183.1 % as of December 31, 2018 with the average for 2018 being 114.04 %.

Financial and Non-financial Performance Indicators

FINANCIAL PERFORMANCE INDICATORS

Financial performance indicators, defined for internal control of J.P. Morgan AG, comprise in particular absolute KPIs (Key Performance Indicators) such as the net interest income, net commission income, and Income before Tax and extraordinary items. In addition, return on equity, cost-income ratio, and the pre-tax profit margin are used to measure performance. The KPIs are derived directly from the information on the balance sheet and income statement of the annual financial statement and are as follows for the current and previous financial years:

€ M	2018	2017
Net Revenue	146.8	135.0
Net interest income	9.9	7.9
Net commission income	90.6	85.6
Total expenses	141.0	115.2
Result from ordinary course of business	5.8	19.9
Net income	−8.8	13.7
Equity	**2,367**	**659**
Return on Equity (RoE) (Earnings after tax result/equity)	−0.4 %	2.1 %
Return on Investment (Net income/balance sheet total)	−0.04 %	0.09 %
Cost-Income Ratio (Total expenses/net earnings)	96.07 %	85.30 %
Pre-tax profit margin (Income from normal business activities/ Net revenue)	3.93 %	14.70 %
Core capital ratio	169.7 %	39.3 %
Total capital ratio	183.1 %	50.5 %

The positive trend in interest income compared to the previous year, despite the continuing low interest rate environment, and also positive movement in the net commission income are extremely pleasing, but this positive earnings position is not reflected in the overall result due to the effect of extraordinary items: on the one hand, the negative result of our pension plans due to volatile equity markets, and on the other hand the additional project and implementation costs of the Group-wide Brexit strategy. In addition, the capital increase effected in September 2018 when combined with the Group-wide Brexit strategy leads to a distortion of the financial performance indicators. The result after tax was negatively influenced by additional tax payments which relate to prior periods.

The cost-income ratio shifted from 85.3 % in the prior year, to around 96.1 %. The return on equity (RoE) fell from 2.1 % in the previous year to −0.4 %. These values would fall outside of the range of our original budgets, based on the extraordinary items mentioned above and the unanticipated result after tax.

NON-FINANCIAL PERFORMANCE INDICATORS

Non-financial performance indicators for 2018 are focused on the role of J.P. Morgan AG as a transactional bank working in euro payment processing, and also as a custodian. Along with the actual volumes settled by J.P. Morgan AG for its clients, we focus on the degree of automation and the actual losses from operational errors. In addition, we measure the fluctuation rate as an indicator of stability of our operating platform from the point of view of employees.

	2018	2017
Number of payment instructions – High Value (TARGET2 & EBA EURO1)	5.1 million	4.7 million
Number of payment instructions – Low Value (STEP2 only)	83 million	66 million
Straight-through processing rate	98.28 %	98.39 %
Assets under Custody (in € billion)	316	320
Customer satisfaction – Custodian (Internal Score)	100 %	100 %
Operational losses (in € million)	0.1	0.1
Fluctuation rate	12 %	9 %
Gender Diversity (VP-Level)	42 %	37 %

The non-financial performance indicators, which describe the volume of business at J.P. Morgan AG, show healthy growth in 2018 as well, for the euro payment processing, and a continued very low level of errors which is the result of a very high level of automation.

In the area of the custodian bank, we were able to maintain the extremely good result of our internal scoring model from the previous year with respect to client satisfaction thanks to the high level of reliability and quality of our customer service and operations function in the handling of client inquiries and instructions. We were able to maintain the high value of assets that our customers entrusted to us as custodian thanks to our Customer Focus and Operational Excellence, although we were not able to increase it.

From an operations perspective, the goal continues to be a higher degree of automation, which goes hand-in-hand with efficiency enhancement and cost savings, as well as with the reduction of sources of error.

The operational losses in 2018 stayed within a range that was below our already ambitious targets. "Operational excellence" remains our guiding principle, and is connected with our efforts to achieve constant improvement in our technology platform, the internal control systems and the ongoing training of our employees. It is important to us that we analyse operational errors in detail and draw the necessary consequences here for the future. It is for this reason that we have a particularly strong commitment to an open "risk and error culture".

The fluctuation rate was indeed significantly higher in 2018 compared to the previous year, but within our target ranges and expectations, as we are clearly facing intensified competition in recruiting talent in the financial sector in Frankfurt, given the Brexit plans of many our competitors to increase their presence in Frankfurt. We see this result as an affirmation of our efforts to continuously improve the working environment and our employees' development opportunities. One of our priorities will continue to be the decisive implementation of a "great team & winning culture". In addition to the Group-wide "Leadership Edge" training programme, the implementation of a revised employee evaluation system, which should significantly improve the feedback culture within the Group, there is a further focus on the subject of "diversity". Our intention here is to make a further effective step within our organization through the active support of the various business resource groups of the Group, in providing a platform to meet the individual needs of our employees and to enable improvements in balancing the private and professional environments.

For 2019, we expect – as in previous years – a moderate increase in the number of payment instructions in the high-value area and SEPA payments, and moderate growth in assets under custody. The straight-through processing rate for payment transactions should remain at the extremely high level of the previous year in 2019, while our goal is to improve the level of automation in custodian handling of client orders in 2019. In addition, it is important to continue to sustainably strengthen the quality and efficiency of our customer service. With respect to the fluctuation rate, we expect to be able to maintain the level of the previous year, because we are convinced that we will remain attractive to talented people as a result of the group's strong competitive position, outstanding career and development opportunities, inclusive work environment, and job flexibility.

BUSINESS PRINCIPLES "HOW WE DO BUSINESS"

J.P. Morgan AG is completely integrated into the corporate culture of JPMorgan Chase & Co, whose guiding principles are convincingly described by the four pillars of the Group-wide business principles:

- Exceptional Client Service
- Operational Excellence
- A Commitment to Integrity, Fairness and Responsibility
- A Great Team and Winning Culture

Relationships with Related Companies and Persons

We identified our parent company, J.P. Morgan International Finance Ltd., and also J.P. Morgan Securities plc and JPMorgan Chase Bank, N.A., as companies closely related to J.P. Morgan AG. We consider the members of the Management Board and the Supervisory Board of J.P. Morgan AG and their family members as related persons.

The following financial transactions are carried out with related companies:

- Money market transactions, investing and borrowing money
- Transactions in total return swaps and OTC derivatives
- Transactions in the Global Clearing and Cash Equity sector
- Reverse Repos
- Nostro accounts
- Provision of subordinated capital
- Purchasing and supplying corporate services

All transactions have been closed on normal market terms.

The Management Board hereby declares that JPM AG has received an appropriate consideration for each legal transaction in accordance with the circumstances that were known to it at the time when that individual legal transaction was entered into or the step undertaken or refrained from, and was not placed at a disadvantage due to the measure being taken or refrained from.

Outlook

SIGNIFICANT OPPORTUNITIES AND RISKS FOR THE UPCOMING FINANCIAL YEARS

With regard to economic development in Germany, for 2019 and 2020 we are assuming weaker growth in the gross domestic product compared to 2018. In particular, the trade disputes originating in the USA with China, and the upcoming exit of the UK from the European Union (Brexit) lead to a cooling off in sentiment. However, thanks to further falls in unemployment figures, private consumption has become an important support for growth in gross domestic product.

In terms of inflation rates, we are assuming that these will remain significantly below 2 % and will remain below the level of the previous year of 1.8 %. In December 2018, Mario Draghi confirmed once again as President of the European Central Bank that the recent low interest rate policy will continue through the summer of 2019 and for as long as necessary. We assume that a change could occur in the ECB's interest policy at the end of 2019, which would lead to a phased increase in the leading interest rate in 2020.

For the banking sector in Europe, the political uncertainties from the UK leaving the European Union and the investment costs for preparations for Brexit and the related extensive organizational changes are some of the major challenges for 2019. This will not only lead to additional investment costs in the short term, but will also create an ongoing higher cost basis in the medium term, without delivering any tangible "value added" such as an adjustment or further development of the services offered by the banks to their customers. As a result, the ongoing price competition will be further accelerated given the increased willingness of customers to change providers. It will continue to be important to step up the dialogue with our customers, and to do more to meet changed customer needs. Investment in technology, adjustments to business processes, and the retention of experts and talented employees all play an important part in this, if we wish to retain or even improve our competitive position.

J.P. Morgan AG remains well positioned as a Group-internal service provider in Euro payment handling. In 2018, we started with the expansion and therefore the completion of our range of services for payment-related services, and will have completed this in the first half of 2019. In addition to the Euro, J.P. Morgan AG now also offers accounts in 37 foreign currencies with a large number of new services in low-value payment handling, and plans in 2019 to become the first subsidiary of an American bank in Germany to offer SEPA Instant from within Germany. Thanks to our vast investments, we believe that we have created a good basis for successful new customer acquisition, the expansion of existing customer relationships at J.P. Morgan AG, and the migration of existing customer relationships from J.P. Morgan Chase Bank, N.A., London Branch, to J.P. Morgan AG in 2019 and the following years.

The trend of the large institutional investors toward adapting their investments to the changed picture of an increasingly globalised economy and the resulting demand for Global Custodian services will continue in 2019 as well. This will raise the price pressure considerably and increase the need to reduce our operating costs, on the one hand by implementing possible economies of scale from the Group-wide infrastructure, and on the other hand by optimising the value creation chain. On the other hand, our task will be to work on intelligent solutions together with our customers, on how we can better match our customer needs. In addition, plans to expand our target segments over the next two years remain on the table.

With reference to the United Kingdom's exit from the European Union ("Brexit"), and the associated need for banks to restructure in order to be able to continue to offer financial products and services in the internal market, J.P. Morgan AG sees itself as well positioned to take on a greater role in the implementation of the Group's Brexit strategy.

In future, J.P. Morgan AG will take over business relationships with customers in the European Union for the "Banking" and "Markets" areas in the future – in the event of a "Hard Brexit". J.P. Morgan AG also started back in October 2018 to apply to take over existing memberships of stock exchanges and CCPs within the European Union, and to implement this in full in the first half of 2019. This means that J.P. Morgan AG will not only be dealing with the transactions of its own customers, but also the customer transactions for the other JPM Group companies. Furthermore, by the end of March 2019, J.P. Morgan AG has already opened nine branches in the EEA as well as a branch in London where employees from trading and sales will be located. This means that the number of employees at J.P. Morgan AG can increase from average 305, to over 1,000 employees in 2019.

The first practical measures that J.P. Morgan AG had already initiated in 2018, such as the expansion and therefore strengthening of the Management Board, the first capital increase of around € 1.7 billion, and the implementation of capital models, will continue to be rolled out in 2019. In line with this, a further capital increase of € 1.8 billion was made in February 2019 and the dialogue with the banking supervisory authority was intensified with the goal of an optimized calculation of capital utilization.

We continue to see risks for our business in the disproportional regulation of the financial markets, the political uncertainties of the ongoing Brexit negotiations, but above all the fundamental "execution risk" within the entire European banking sector, which could endanger the stability of the financial markets. In addition, we also see, above all, a further burden through an intensification of the monitoring duties and reporting obligations – triggered by new regulations – that have to be offset by cost-cutting in the operative areas in order to not negatively impair J.P. Morgan AG's earning situation on a lasting basis.

We see further risks in the political destabilization of individual countries or regions that could lead to a significant worsening of the market situation which would negatively affect the creditworthiness of our customers and so lead to sustainable loss of earnings.

The sections "Expectations for the Bank's future performance", "Assumptions", "Development of Segments" and "Financial Solvency" have been deleted for the purpose of this Appendix I

Risk Report

Introduction
Risk is an inherent part of J.P. Morgan AG's business activities. When J.P. Morgan AG offers products or services, it takes on some degree of risk. J.P. Morgan AG's overall objective is to manage its business, and the associated risks, in a manner that balances serving the interest of its clients, customers and investors and protects the safety and soundness of J.P. Morgan AG.

RISK STRATEGY AND RISK MANAGEMENT

The risk strategy is derived directly from J.P. Morgan AG's business strategy. It defines the leading principles for risk management in J.P. Morgan AG and is defined by the Management Board of J.P. Morgan AG and is approved annually by the Supervisory Board. In line with its Business Strategy J.P. Morgan AG has developed a Risk Appetite Framework that sets out and operationalizes its Risk Strategy.

The risk strategy defines how J.P. Morgan AG will manage the risks it has taken as part of its business activities. By limiting and managing the risks, risk-bearing capacity and liquidity are ensured at all times. The risk strategy covers all main risks and is, if necessary, further specified for individual risk categories in the form of partial risk strategies and then made concrete and operational using policies, guidelines and operating procedures. The completeness and suitability of the risk strategy is reviewed annually. Basis for the review is the annual risk inventory (also completed on an ad-hoc basis if required). This ensures that the risk strategy takes into consideration all material risks faced by J.P. Morgan AG.

Risk Appetite is expressed in terms of both quantitative parameters and qualitative factors, and where applicable, a corresponding risk appetite is set for these parameters.

The classification of individual risk categories as a material risk is based on whether the occurrence of the risk could have a serious negative effect on J.P. Morgan AG's risk-bearing capacity, liquidity or capital situation.

As per the risk inventory, in 2018 the following risk categories are considered material for J.P. Morgan AG:

- Strategic risk including Business risk, Capital risk, Group risk, Liquidity risk and Reputational risk,
- Credit risk,

– Market risk, including Interest rate risks of the Banking Book,
– Operational risks,
– and Pension risk

As a result of the analysis, the risk appetite for the individual risk types is also determined. Risk appetite is always defined to be below risk capacity which is the maximum level of risk J.P. Morgan AG could bear without breaching constraints imposed by regulatory capital or liquidity requirements, other regulatory restrictions, or obligations owed to third parties which impact capital.

Not all material risks have risk appetite parameters set on a quantitative level. These include:

– Business Risk: J.P. Morgan AG aims to minimize business risks through an oversight and control processes.
– Group Risk: J.P. Morgan AG manages group risk as part of its credit, market, liquidity and operational risk frameworks.
– Reputation Risk: J.P. Morgan AG is part of the firmwide reputation risk management.
– Operational Risk: J.P. Morgan AG aims to minimize operational risks through established oversight and control processes and the implementation of key controls. J.P. Morgan AG applies the Operational Risk Management Framework ("ORMF") of the firm which comprises governance oversight, risk assessment, capital measurement, and reporting and monitoring.
– Pension Risks: J.P. Morgan AG aims to minimize its exposure to Pension Risks. This is reflected in the dedicated pension risk governance set up for the Frankfurt location.

Where applicable, risk appetite quantitative parameters are expressed as losses under stress for individual risk stripes that can be used by those risk functions to propose more granular limits and policies that are calibrated to these risk appetite levels. Quantitative parameter are set for Market, Credit, Liquidity and Capital Risk and follow the following principles.

Market Risk: J.P. Morgan AG maintains an active Trading Book to facilitate the Markets business and support Treasury. Where possible positions are mostly traded back to back to other J.P. Morgan entities to remain flat market risk for the trading book.

Credit Risk: In line with the bank's above overall strategy, J.P. Morgan AG provides credit, where necessary, as part of building an overall successful and profitable relationship. J.P. Morgan AG extends credit where required to support the Treasury Services ("TS"), Securities Services, Trade or Markets business mainly through the provision of cash management lines ("Intraday Overdraft Lines" ["IDL"], "Line-Overdrafts" ("ODL")), derivative lines or trade lines/guarantees and loans. Being focused on TS and Securities Services historically the booking of loans/committed lines to J.P. Morgan AG have (re-) added in the end of 2018.

Liquidity Risk: The firm manages liquidity and funding using a centralized global approach in order to optimize liquidity sources and uses. Liquidity management is intended to ensure that J.P. Morgan AG has the appropriate amount, composition and tenor of funding and liquidity in support of its assets. The EU Treasurer is responsible for the liquidity management of J.P. Morgan AG.

Capital Risk: J.P. Morgan AG has the objective of holding sufficient capital (i.e. capital and eligible intercompany debt).

The following principles apply for overall risk management and monitoring:

- Clearly defined organzational structures and documented processes are in place for all risks and respective business, from which the responsibilities and competencies of all functions involved are derived.
- There is a clear segregation of duties between first ("Markt") and second line ("Marktfolge") of defence in order to avoid potential conflicts of interest.
- For the risk identification, measuring, aggregation, managing, monitoring and communicating of the risk categories, suitable procedures are defined and implemented in J.P. Morgan AG, including the Groupwide infrastructure.
- Appropriate limits for all significant risk categories have been adequately defined and are effectively controlled.

RISK ORGANIZATION

The Management Board member Chief Risk Officer ("CRO") is responsible for risk management at J.P. Morgan AG, with regular reporting to the general management, as well as to J.P. Morgan AG's Supervisory Board. J.P. Morgan AG classifies a risk as a potential loss or a failure to realize a profit due to internal or external factors, and manages these in the context of risk management.

Drivers of risk include, but are not limited to, the economic environment, regulatory or government policy, competitor or market evolution, business decisions, process or judgment error, deliberate wrongdoing, dysfunctional markets, and natural disasters. There may be many consequences of risks manifesting, including quantitative impacts such as reduction in earnings and capital, liquidity outflows, and fines or penalties, or qualitative impacts, such as reputation damage, loss of clients, and regulatory and enforcement actions.

The Independent Risk Management ("IRM") function, comprised of the Risk Management and Compliance functions in J.P. Morgan AG, is independent of the businesses. The IRM function sets and oversees various standards for the risk management governance framework, including risk policy, identification, measurement, assessment, testing, limit setting (e. g., risk appetite, thresholds, etc.), monitoring and reporting, and conducts independent challenge of adherence to such standards:

- J.P. Morgan AG places key reliance on each of its Lines Of Business ("LOBs") and other functional areas giving rise to risk. Each LOB is expected to operate within the parameters identified by the IRM function, and within their own management-identified risk and control standards. The LOBs are the "first line of defense" within the J.P. Morgan AG's risk governance framework in identifying and managing the risk in their activities, including but not limited to applicable laws, rules and regulations.
- The Location Control Manager that is part of the Firmwide Oversight and Control Group ("O&C") has a central oversight function. O&C is charged with enhancing the Firm's control environment by looking within and across the lines of business and corporate functions to help identify and remediate control issues. O&C enables the Firm to detect control problems more quickly, escalate issues promptly and engage other stakeholders to understand common themes and interdependencies among the various parts of the Firm.
- The IRM function is independent of the businesses and forms "the second line of defense" as independent control function.
- The Internal Audit function operates independently from other parts of the Firm and performs independent testing and evaluation of firmwide processes and controls across the entire enterprise as the Firm's "third line of defense" in managing risk.

The independent status of the IRM function is supported by a governance structure that provides for escalation of risk issues to senior management, the J.P. Morgan AG Risk Oversight Committee, or the J.P. Morgan AG Management Board.

Based on a delegation by the J.P. Morgan AG Management Board the J.P. Morgan AG Risk Oversight Committee reviews J.P. Morgan AG's overall risk situation on a monthly basis in the light of current market conditions and identifies and mitigates future risk concerns. The J.P. Morgan AG ROC provides oversight of any risk issues in relation to risk-bearing capacity and the J.P. Morgan AG ICAAP process, where appropriate or required.

If necessary the J.P. Morgan AG Risk Oversight Committee escalates issues to the EMEA Risk Committee ("ERC") and/or the J.P. Morgan AG Management Board and/or the Risk Committee of the J.P. Morgan AG Supervisory Board and/or the J.P. Morgan AG Supervisory Board. The J.P. Morgan AG Oversight Risk Committee feeds into the ERC in order to ensure that the J.P. Morgan AG governance structure is closely aligned to the firm-wide governance.

RISK MEASUREMENT AND REPORTING

Risk measurement and reporting take place in J.P. Morgan AG according to risk category on a daily (credit, market and liquidity risk), monthly (business risks) or quarterly cycle (operational and pension risks). The risk-bearing capacity is analysed on a monthly basis.

In addition to regulatory limits, the Management Board at J.P. Morgan AG defined a series of early-warning indicators, which are monitored daily and in a timely manner. Indicators and risk limits include, among others, recovery indicators, credit limits, concentration limits, investment limits, bidding limits, position limits as well as the minimum liquidity of J.P. Morgan AG, and are clearly documented. These also consider the concentration risk with respect to other J.P. Morgan entities.

For its monthly meetings, the Management Board receives a detailed overview of the development of the business areas, information on financial trends, a detailed risk report as well as a report from the Corporate Functions. The scope of the quarterly risk report extends considerably beyond the monthly reporting and presents the risk situation in more detail.

For its meetings, the Supervisory Board receives a current summary of the topics discussed in the meetings of the Management Board, including a summary of the risk report.

RISK-BEARING CAPABILITY AND STRESS TESTING

The risk-bearing capability analysis is a core component of the overall bank control of J.P. Morgan AG, with the goal of guaranteeing a suitable risk profile and adequate capital at all times. J.P. Morgan AG decided on a Going-Concern approach, whereby it could continue the core business activities even if all items of the defined risk covering potential were consumed through exposure to risks. The confidence level of 95 % corresponds to the underlying assumptions of the Going-Concern approach; risk coverage potential and the economic capital model are configured accordingly. The observation period lasts one year. As a secondary control circuit, a Gone-Concern approach is analysed in parallel, with a confidence level of 99.91 %.

Throughout the fiscal year 2019 the Going-Concern historically chosen as basis for its primary risk-bearing capacity model approach will be retired since the approaches to ICAAP will change to normative and economic perspective in line with updated regulatory requirements from the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and the European

			Regulatory			Economic Going-Concern
€M	12/31/2018	12/31/2017	12/31/2016	12/31/2018	12/31/2017	12/31/2016
Type of risk						
Credit risk	82.0	85.2	46.3	22.3	16.5	28.8
Operational risk	20.0	19.2	18.0	23.6	17.3	16.6
Market risk	6.7	7.5	7.7	0.0	0.0	2.9
CVA	2.3	20.4	–	–	–	–
IRRBB	**–**	**–**	**–**	**1.0**	**0.6**	**1.0**
Capital requirement	**182.2**	**169.5**	**90.3**	**46.9**	**34.4**	**49.2**
Risk coverage pool	2,539	835	840	136.7	122.8	125.3

Central Bank (ECB). Looking towards the implementation of the normative perspective this aligns closely to the Pillar 1 regulatory requirements and the current Gone-Concern approach is a good approximation for the economic perspective.

According to the risk inventory credit risks, market risks, operational risks, pension risks, business risks and interest rate risks in the banking book are quantified as relevant risk categories in the context of the risk-bearing capacity calculation. Liquidity risk (including intraday liquidity risk) is fully captured as part of the liquidity stress testing.

The risk bearing capital essentially consists of J.P. Morgan AG's retained earnings, the § 340g HGB reserve for general banking risks, as well as projected operating result before tax of the next twelve months. The quantification of the business risk, which is primarily meant to delineate planning uncertainty, is deducted from this capital as well as potential excesses of pension risk capital requirements over the defined benefit pension fund assets.

The quantification of the capital requirement for the occurring risks takes place through internal, institute-specific calculation approaches. The calculation of the risk-bearing capability takes place on a monthly basis.

The changes in going concern capital requirements are driven by the introduction of a scenario based approach for operational capital requirements. The Credit Risk Capital requirements increased in the end of 2018 due to the phase-in of Global Clearing activities and the associated establishment of limits.

With regard to regulatory capital requirements, the decrease in Credit Value Adjustment ("CVA") year-on-year is driven by a review and update of CVA exemptions based on the European Market Infrastructure Regulation ("EMIR") clearing thresholds for non-financial corporates (NFC+/NFC–) in Q4'18. Following this review, a good number of counterparties driving the CVA charge were certified as being NFC– (i.e. falling below the EMIR clearing threshold) and thus exempted from CVA. In addition overall increase is driven by increased capital buffers 2017 vs. 2018 (€ 37.2 mn to € 71.3 mn) which is mainly driven by the increase in Supervisory Review and Evaluation ("SREP") add-on from 1 % to 3.25 %. Furthermore, the capital conservation buffer was further phased-in and increased by 0.625 % to 1.875 %.

For the verification of the risk bearing capacity, a set of combined stress scenarios has been defined for as part of integrated macroeconomic stress scenarios encompassing different risk categories. They are calculated and analyzed on a monthly basis. As part of the integrated stress testing, the risk-bearing capability was guaranteed at any time.

The risk-bearing capability concept and the stress tests are validated annually, building on the risk inventory. In fiscal year 2018, we further developed the risk-bearing capacity concept of J.P. Morgan AG. This primarily concerns the introduction of a new interest-rate risk from the banking book framework and capitalization model as well as the further development of the quantification of operational risk.

The regulatory capital requirement for the individual risk categories is monitored by the Regulatory Reporting Team on a daily basis and is shown in the table above (all figures given in € million). The economic capital requirement pursuant to the Going-Concern and Gone-Concern approaches is additionally calculated by J.P. Morgan Legal Entity Risk ("LE Risk") on a monthly basis.

As per December 31, 2018 utilization of the Going-Concern approach stood at 34.3 %.

RISK CATEGORIES

Business Risk

J.P. Morgan AG defines Business risk as any risk arising from changes in its business, including: the acute risk to earnings posed by falling or volatile income; and the broader risk of a firm's business model or strategy proving inappropriate due to macroeconomic, geopolitical, industry, regulatory or other factors; or its remuneration policy. Regular plan monitoring and if necessary the appropriate adjustments ensure that these deviations are minimized. Business Risk is estimated by utilizing an adverse P&L estimation.

Liquidity Risk

Liquidity risk is the risk that J.P. Morgan AG will be unable to meet its contractual and contingent financial obligations as they arise or that it does not have the appropriate amount, composition and tenor of funding and liquidity to support its assets and liabilities. The Firm's contractual and contingent obligations can be split into end-of-day ("EOD") obligations and obligations required to be met prior to EOD (referred to as "intraday obligations").

The J.P. Morgan AG Board has ultimate responsibility for the liquidity and risk within the entity. The Board reviews and establishes an appropriate level of liquidity risk appetite, and it also reviews and periodically approves relevant frameworks and policies that specify how liquidity risk is managed in relation to the entity.

The risk mitigating instruments here include J.P. Morgan AG specific liquidity risk limits and indicators along with specific breach escalation protocol.

J.P. Morgan AG's primary source of liquidity is driven by customer deposits. The liquidity is mainly invested in JPMCB London Branch in the form of reverse repos or held at Central bank for liquidity management purposes. Majority of the reverse repos have an overnight maturity.

J.P. Morgan AG's liquidity and funding management is integrated into firmwide liquidity management framework. The primary objectives of effective liquidity management are to ensure that the Firm's core businesses and material legal entities are able to operate in support of client needs, meet contractual and contingent obligations, to manage an optimal funding mix, and availability of liquidity sources.

In the context of liquidity management for J.P. Morgan AG, the EU Treasurer is responsible for:

- Analysing and understanding the liquidity characteristics, lines of business and legal entities' assets and liabilities, taking into account legal, regulatory, and operational restrictions;
- Defining and monitoring firmwide and legal entity-specific liquidity strategies, policies, guidelines, reporting and contingency funding plans;
- Managing liquidity within approved liquidity risk appetite tolerances and limits; and
- Setting transfer pricing in accordance with underlying liquidity characteristics of balance sheet assets and liabilities as well as certain off-balance sheet items.

EBA LCR

From October 1, 2015, J.P. Morgan AG was expected to comply with the liquidity coverage ratio ("LCR") guidance set out in the Delegated Act (Commission delegated regulation [EU] 2015/61). The LCR is intended to measure the amount of "high quality liquid assets ("HQLA") held by the bank in relation to estimated net liquidity outflows within a 30 calendar day stress period. The LCR is required to be 80 %. In 2018, the J.P Morgan AG was compliant with the LCR requirements.

NSFR

The Basel Committee final standard for net stable funding ratio ("Basel NSFR") is intended to measure the "available" and "required" amounts of stable funding over a one-year horizon. On November 23, 2016, the European Commission introduced its legislative proposal for the NSFR ("EU NSFR+"). The proposal is subject to approval from the European Parliament and Council of the EU.

JPMAG complied in 2018 to all NSFR requirements given its current interpretation of the standard..

Key ratios monitored for liquidity risk are:

	12/31/2018	12/31/2017	12/31/2016
Liquidity Coverage Ratio	155 %	155 %	121 %
Net Stable Funding Ratio [1]	437 %	346 %	400 %

[1] As soon as the rules have been defined, the NSFR will be part of the liquidity and risk framework approved by the J.P. Morgan AG board of directors.

Liquidity Risk Oversight ("LRO")

J.P. Morgan AG has an independent liquidity risk oversight function whose primary objective is to provide assessment, measurement, monitoring, and control of liquidity risk, including intraday liquidity risk. Liquidity Risk Oversight's responsibilities include, but are not limited to:

- Establishing and monitoring limits and indicators, including liquidity risk appetite tolerances;
- Monitoring and reporting internal liquidity stress tests as well as regulatory defined liquidity stress tests;
- Monitoring liquidity positions, balance sheet variances and funding activities;
- Conducting ad hoc analysis to identify potential emerging liquidity risks; and
- Performing independent review of liquidity risk management processes.

Risk Governance and Measurement

The specific committees responsible for liquidity risk governance for these entities include the EU Asset and Liability

Committee ("EU ALCO") and J.P. Morgan AG Risk Oversight Committee ("ROC").

The EU ALCO is responsible for overseeing J.P. Morgan AG's asset and liability management activities and the management of liquidity risk, balance sheet and interest rate risk, the oversight of liquidity risk and interest rate risk of EU entities, including J.P. Morgan AG; with a specific focus on balance sheet and funding management considerations. The EU ALCO includes representatives of both first and second lines of defence and is chaired by the EU Treasurer.

Intraday Liquidity Risk Governance

Intraday Liquidity Risk is managed centrally using the Intraday Dashboard (IDL Dashboard).

The IDL Dashboard provides real time transparency into activity at key central banks, key financial market utilities and key correspondent banks. The IDL Dashboard provides real time views into credit extended at a Firmwide level and also at a detailed level for J.P. Morgan AG. The dashboard also provides various analytical capabilities on the historical data to help understand trends, averages, extremes and standard deviation activity.

The IDL Dashboard also provides automated alerting should balances exceed an agreed target balance or should the daily net movement exceed an agreed tolerance. The target balances and movement tolerances are defined by LRO as part of the Firmwide Limits and indicators policy.

Intraday liquidity alerts initiate a defined response involving collaboration from various teams representing at mainly EMEA hub cash management, EMEA Treasury front office, LRO, impacted lines of business, Intraday Liquidity team and correspondent J.P. Morgan AG functions. The response process is designed to quickly understand the drivers of the liquidity alert and guide management into what action should be taken (if any) to restore liquidity. There are some pre-approved actions to take in the event of limit breaches. The process has level indicators defined on different levels.

Internal Stress Testing

Liquidity stress tests are intended to ensure that the Company has sufficient liquidity under a variety of adverse scenarios, including scenarios analysed as part of the Firm's resolution and recovery planning. Stress scenarios are produced for the Company on a regular basis and ad hoc stress tests are performed, as needed, in response to specific market events or concerns.

Liquidity stress tests assume all of the Company's contractual financial obligations are met and take into consideration:

– Varying levels of access to unsecured and secured funding markets;
– Estimated non-contractual and contingent cash outflows;
– Potential impediments to the availability and transferability of liquidity between jurisdictions and material legal entities such as regulatory, legal or other restrictions; and
– Intraday Liquidity Stress Assumptions contemplate key risks to intraday sources and uses of funds.

Liquidity outflow assumptions are modelled across a range of time horizons and currency dimensions and contemplate both market and idiosyncratic stress.

Results of stress tests are considered in the formulation of the Company's funding plan and assessment of its liquidity position.

In all scenarios performed in 2018, J.P. Morgan AG had sufficient liquidity to meet regulatory requirements and support its assets and liabilities.

Reputation Risk
Reputation Risk is the potential that an action, inaction, transaction, investment or event will reduce trust in the firm's integrity or competence by its various constituents, including clients, customers, investors, regulators, employees or the broader public.

Risk Management
Maintaining the Company's reputation is the responsibility of each individual employee. The Firm's Reputation Risk Governance policy explicitly vests each employee with the responsibility to consider the reputation of the Firm when engaging in any activity.

Since the types of events that could harm the Firm's reputation are so varied across the Firm's lines of business, each line of business has a separate reputation risk governance infrastructure in place, which consists of three key elements:

- clear, documented escalation criteria appropriate to the business
- a designated primary discussion forum, in most cases, one or more dedicated reputation risk committees,
- a list of designated contacts, to whom questions relating to reputation risk should be referred.

For any reputational risk item impacting J.P. Morgan AG the CRO would be involved directly.

Line of business reputation risk governance is overseen by a Firmwide Reputation Risk Governance function, which provides oversight of the governance infrastructure and process to support the consistent identification, escalation, management and monitoring of reputation risk issues Firmwide.

Credit Risk
Credit risk is the risk associated with the default or change in credit profile of a client, counterparty or customer. J.P. Morgan AG provides credit through its operating services activities (such as custodian banking function and clearing activities), markets activity from the SPV derivatives business and cash placed with banks particularly in the context of Treasury activities.

Whilst J.P. Morgan has established a comprehensive Firmwide risk policy framework, this is supplemented as required by legal entity-specific risk policies. As such, J.P. Morgan AG's credit risk governance supplements the Firmwide risk policy framework and is approved by the J.P. Morgan AG Risk Oversight Committee ("ROC") and J.P. Morgan AG Management Board. The J.P. Morgan Credit Risk Framework defines, that credit decisions are made on the basis of the clearly defined separate responsibilities for "Front Office" ("Markt") and "Back Office" ("Marktfolge") as well as the process of assigning and managing credit authorities in connection with the approval of all credit exposure.

Risk Measurement
The Credit Risk Management function measures, limits, manages and monitors credit risk across the J.P Morgan AG's businesses. Credit risk measurement is based on the probability of default of an obligor or counterparty, the loss severity given a default event and the exposure at default.

J.P. Morgan AG uses an unexpected loss model with a confidence level of 95 % (99.91 % in Gone-Concern) to calculate the economic capital requirement. As the basis for the Exposure at Default (EAD), the client's drawing behaviour is estimated for the payment transactions accounts on the basis of historical data, or otherwise market value positions per the reporting date are taken into consideration. Concentration risks are quantified for all relevant portfolios on the basis of the Herfindahl Hirschman Index.

J.P. Morgan AG uses the credit risk standard approach for the regulatory quantification of the credit risk.

Stress Testing

Stress testing is important in measuring and managing credit risk in the J.P. Morgan AG's credit portfolio. The process assesses the potential impact of alternative economic and business scenarios on estimated credit losses for the J.P. Morgan AG.

A series of different scenarios are considered within the scope of the credit risk stress test that assume that client ratings, income from securities, drawing behaviour, portfolio concentrations or correlations could significantly worsen over the course of time. There is thus a regular validation of the stress tests and their results.

Risk Monitoring and Management

J.P. Morgan AG's credit risk governance establishes credit approval authorities, concentration limits, and guidelines for management of distressed exposures. In addition, certain models, assumptions and inputs used in evaluating and monitoring credit risk are independently validated by groups that are separate from the line of businesses.

Credit risk is monitored regularly at an aggregate portfolio, industry, and individual client and counterparty level with established concentration limits that are reviewed and revised as deemed appropriate by management, typically on an annual basis. Industry and counterparty limits, as measured in terms of exposure and economic risk appetite, are subject to stress-based loss constraints.

Daily monitoring of credit risk at the individual client level is done by Treasury & Credit Control, using the Group-wide credit limit control system, which records individual limits and utilization at account level and/or at the level of single borrower units. The system does not allow unauthorized intraday limits. In essence, the main focus is on the monitoring of so-called intraday lines of credit and overdraft facility usage.

Management of J.P. Morgan AG's credit risk exposure is accomplished through a number of means, including:

– Credit approval process
– Master netting agreements
– Collateral and other risk-reduction techniques

On the basis of J.P. Morgan AG's business model as a Group-wide service provider in € payment transactions, but also as a custodian bank with a focus on special funds, concentration risks exist that are likewise taken into account in J.P. Morgan AG's risk-bearing capacity concept.

J.P. Morgan AG has started to run an active trading book in 2017, however, due to the still limited nature of the business in 2018 issuer risk, replacement risk, and settlement risk are not considered as material.

Risk Reporting

Detailed portfolio reporting of industry; clients, counterparties and customers; product and geographic concentrations occurs monthly. Through the risk reporting and governance structure, credit risk trends and limit exceptions are provided regularly to, and discussed with J.P. Morgan AG CRO, ROC, and the Management Board as appropriate.

A corresponding report of daily exposures and all new accounts and lines and/or all changes of existing lines is being presented daily to J.P. Morgan AG Credit Officers. Moreover, compliance with the approved limit structure, the monitoring of the risk-bearing capability as well as the analysis of the portfolio structure (e.g., maturities, credit products, segments and countries) including concentration risk is summarized in monthly reports to the Management Board.

J.P. Morgan AG's credit risk profile changed significantly in 2017 through the inclusion of the SPV derivatives business in 2017. Further changes in 2018 include the implementation of CCP limits to support the Global Clearing activities from Q4 2018 onwards. Key values of the loan portfolio include:

€	12/31/2018	12/31/2017	12/31/2016
Lines of payment transaction (Intra-Day)	20.9 bn	20.6 bn	24.1 bn
Lines of payment transaction (Overnight)	1.3 bn	1.3 bn	4.2 bn
Lines for Derivative Transactions	1.3 bn	0.5 bn	–
Lines for CCPs	0.2 bn	–	–
RWA for credit risk	1,024.7 mn	1,065.3 mn	578.8 mn
RWA for CVAs	28.8 mn	254.6 mn	–
RTF Going-Concern	22.3 mn	16.5 mn	28.8 mn
RTF Gone-Concern	130.4 mn	149.3 mn	269.3 mn

Market Risk

The following sections detail the market risk management framework at both the Firmwide and J.P. Morgan AG level:

Market risk is the risk associated with the effect of changes in market factors such as interest and foreign exchange rates, equity and commodity prices, credit spreads or implied volatilities, on the value of assets and liabilities held for both the short and long term.

Market Risk Management

Market Risk Management monitors market risks throughout the Firm and defines market risk policies and procedures. The Market Risk Management function reports to the Firm's CRO, and seeks to manage risk, facilitate efficient risk/return decisions, reduce volatility in operating performance and provide transparency into the firm's market risk profile. J.P. Morgan AG's CRO appoints an Market Risk Officer ("MRO") who is responsible for establishing an effective market risk organization that measures, monitors and controls market risk.

Risk Governance & Policy Framework

J.P. Morgan AG's approach to market risk governance mirrors the Firmwide approach and is outlined in J.P. Morgan AG's Market Risk Framework. J.P. Morgan AG's Market Risk Framework outlines the following:

- Responsibilities of the J.P. Morgan AG CRO and MRO
- Market Risk measures utilized such as VaR, Stress and non-statistical measures
- Controls such as J.P. Morgan AG's market risk limit framework (limit levels, limit signatories, limit reviews and escalation)

The J.P. Morgan AG Market Risk Framework is subject to approval by the J.P. Morgan AG Management Board, at a minimum, annually, after recommendation from the J.P. Morgan AG ROC. The J.P. Morgan AG Management Board delegates approval of non-substantive changes to the J.P. Morgan AG Market Risk Framework to the J.P. Morgan AG ROC.

Risk Measurement

There is no single measure to capture market risk and therefore the Firm and J.P. Morgan AG use various metrics both statistical and non-statistical to assess risk. As the appropriate set of risk measures utilized for a given business activity depends on business mandate, risk horizon, materiality, market volatility and other factors, not all measures are used in all cases.

VaR

The Firm utilizes Value-at risk ("VaR"), a statistical risk measure, to estimate the potential loss from adverse market moves in the current market environment. The Firm has a single VaR framework used as a basis for calculating Risk Management VaR and Regulatory VaR.

The framework is employed across the Firm using historical simulation based on data for the previous twelve months. Risk Management VaR is calculated assuming a one-day holding period and an expected tail-loss methodology which approximates a 95% confidence level. J.P. Morgan AG utilizes Risk Management VaR, these results are reported to senior management.

J.P. Morgan AG applies the firmwide approach for Risk Management VaR as described above. For the risk-bearing capacity concept this is scaled to a ten day holding period using the square root of time (10). J.P. Morgan AG does not calculate Regulatory VaR for capital purposes since it uses the standardized approach to calculate capital.

The table below shows the result of J.P. Morgan AG's Risk Management VaR:

T$	12/31/2018
95% VaR	2

Stress Testing

Along with VaR, Stress Testing is an important tool in measuring and controlling risk. The Firmwide Stress Infrastructure ("FSI") is intended to capture the Firm's (including J.P. Morgan AG's) exposure to unlikely but plausible events in abnormal markets. The Firm and J.P. Morgan AG run weekly Stress Tests on market-related risks across the lines of business using multiple scenarios that assume significant changes in risk factors such as credit spreads, equity prices, interest rates, currency rates or commodity prices.

The Firm and J.P. Morgan AG use a number of standard scenarios that capture different risk factors across asset classes including geographical factors, specific idiosyncratic factors and extreme tail events. The stress testing framework calculates multiple magnitudes of potential Stress for both market rallies and market sell-offs for each risk factor and combines them in multiple ways to capture different market scenarios. The flexibility of the Stress Testing framework allows risk managers to construct new, specific scenarios that can be used to form decisions about future possible stress events.

Stress Testing complements VaR by allowing risk managers to shock current market prices to more extreme levels relative to those historically realized, and to stress test the relationships between market prices under extreme scenarios. Stress Test results, trends and qualitative explanations based on current market risk positions are reported to the respective LOB, Firm and J.P. Morgan AG senior management to allow them to better understand the sensitivity of positions to certain defined events and to enable them to manage their risks with more transparency.

Stress scenarios are defined and reviewed by Market Risk, and significant changes are reviewed by the relevant LOB Risk Committees and may be redefined on a periodic basis to reflect current market conditions.

The table below shows J.P. Morgan AG's Stress Testing results (Worst Case Stress Loss) at reporting date:

T$	12/31/2018
Worst Case Stress Loss	–21

Other Non-Statistical

Aside from VaR and stress testing, other specific risk measures are also utilized within specific market context and aggregated across businesses as required.

J.P. Morgan AG has risk monitoring capability across all the main benchmark market risk sensitivities (Equities, Credit, Rates, FX, Commodities).

Risk Monitoring and Control

Limits

Market risk limits are employed as the primary control to align the Firm's market risk with certain quantitative parameters within the firm's Risk Appetite framework.

Senior management, including the Firm's Chief Executive Officer ("CEO"), CRO and Market Risk Management are responsible for reviewing and approving limits on an ongoing basis. Limits that have not been reviewed within a specified time period by Market Risk Management are escalated to senior management.

Limit breaches are required to be reported in a timely manner to limit signatories. Market Risk Management and senior management as appropriate determine the course of action required to return to compliance, such as a reduction in risk or the granting a temporary increase in limits. Aged and significant limit breaches are escalated to the J.P. Morgan AG ROC and to the ERC.

Additional controls beyond market risk limits – including but not limited to Authorized Instruments, Pre-Trade Governance and E-Trading Control – are also employed as a means to control market risk.

J.P. Morgan AG limits include VaR and Stress limits defined both at the legal entity level and at the Business Area/Sub-Business Area level. Market Risk reviews all J.P. Morgan AG market risk limits at least semi-annually. Limit reviews appropriately consider the underlying trading, investing and hedging strategies of the business.

Market Risk limits are set in accordance with J.P. Morgan AG's Risk Appetite Framework. J.P. Morgan AG's Risk Framework leverages the Firm's Risk Appetite framework; differences in quantitative parameters, qualitative factors and/or governance structure are defined in the J.P. Morgan AG Risk Strategy. The J.P. Morgan AG Management Board is responsible for defining the J.P. Morgan AG Risk Appetite Framework.

Risk Reporting

J.P. Morgan AG has its own set of regular market risk reports and where applicable, comprises of granular market risk metrics which provide transparency into potential risk concentrations. Limit utilizations and notifications of market risk limit breaches are documented and sent to appropriate limit signatories daily.

Interest Rate Risk in the Banking Book

Interest Rate Risk in the Banking Book ("IRRBB") is defined as interest rate risk resulting from the firm's traditional banking activities (accrual accounted on and off-balance sheet positions) which includes extension of loans and credit facilities, taking deposits and issuing debt (collectively referred to as 'non-trading' activities); and also the impact from Treasury and Chief Investment Office ("T/CIO") investment portfolio and other related T/CIO activities. Interest Rate Risk ("IRR") from non-trading activities can occur due to a variety of factors, including but not limited to:

– difference in the timing of re-pricing of assets, liabilities and off-balance sheet instruments;
– differences in the balances of assets, liabilities and off-balance sheet instruments that re-price at the same time;
– differences in the amounts by which short-term and long-term market interest rates change;
– impact of changes in the duration of various assets, liabilities or off-balance sheet instruments as interest rates change

Risk Oversight and Governance

Governance for Firmwide IRR is defined in the IRR Management policy which is approved by Directors' Risk Policy Committee (DRPC). The CIO, Treasury and Other Corporate Risk Committee (CTC RC) is the governing committee with respect to IRRBB. It

– reviews the IRR Management policy;
– reviews the IRR profile of the Firm and compliance with IRR limits;
– provides Governance on legal entity related exposures; and
– reviews significant models and/or assumptions including the changes related to IRR management.

IRR exposures, significant models and/or assumptions including the changes are reviewed by ALCO. The ALCO provides a framework for overseeing the IRR of LOBs, foreign jurisdictions and key legal entities to appropriate local governance bodies. In the case of J.P. Morgan AG this is monitored through the EU ALCO.

In addition, oversight of IRRBB is managed through IRR Management, a dedicated risk function reporting to the CTC CRO IRR Management, is responsible for, but not limited to:

– measuring and monitoring IRR and establishing limits
– creating and maintaining governance over IRR assumptions

At J.P. Morgan AG level, oversight of IRRBB risk, risk governance and risk control framework is exercised through the J.P. Morgan AG ROC.

T/CIO manages IRRBB exposure on behalf of the Firm by identifying, measuring, modelling and monitoring IRR across the

Firm's balance sheet. T/CIO identifies and understands material balance sheet impacts of new initiatives and products and executes market transactions to manage IRR through T/CIO investment portfolio's positions. Execution by T/CIO will be based on parameters established by senior management, per the T/CIO Investment Policy. Lines of businesses are responsible for developing and monitoring the appropriateness of LOB specific IRR modelling assumptions.

More specifically at J.P. Morgan AG, EU Treasury (part of T/CIO) manages the IRRBB exposure of the EU entities including J.P. Morgan AG. EU Treasury responsibilities include:

– Monitoring of IRRBB exposure and execution of transactions to manage IRRBB
– Ensuring compliance with relevant regulations applicable to J.P. Morgan AG
– Review and sign-off of monthly IRRBB reports, as well as all IRRBB regulatory submissions

Risk Measurement
Measures to manage IRR include:

– Earnings-at-Risk ("EaR"): Primary metric used to gauge the firm's shorter term IRR exposure which measures the sensitivity of pre-tax income to changes in interest rates over a rolling twelve months compared to a base scenario.
– Economic Value Sensitivity ("EVS"): EVS is an additional Firmwide metric utilized to determine changes in asset/liability values due to changes in interest rates.

The impact of 200bps parallel rates increase and decrease on the EVS and EaR of J.P. Morgan AG has been calculated at December 31, 2018; the results are in the tables below.

€ MN		
Scenario	EVS	EAR
+200bps	165	95
–200bps[1]	–50	60

[1] –200bps EVS includes EBA zero rates floor.

Operational Risk
Operational risk is the risk associated with inadequate or failed internal processes, people and systems, or from external events and includes compliance risk, conduct risk, legal risk, and estimations and model risk. Operational risk is inherent in the Firm's activities and can manifest itself in various ways, including fraudulent acts, business interruptions, cybersecurity attacks, inappropriate employee behaviour, failure to comply with applicable laws, and regulations or failure of vendors to perform in accordance with their agreements. These events could result in financial losses, litigation and regulatory fines, as well as other damages to the Firm. The goal is to keep operational risk at appropriate levels in light of the Firm's financial position, the characteristics of its businesses, and the markets and regulatory environments in which it operates.

To monitor and control operational risk, J.P. Morgan AG utilizes the Firm's Operational Risk Management Framework ("ORMF") which is designed to maintain a sound and well-controlled operational environment. The ORMF has four main components: Governance, Operational Risk Identification and Assessment, Operational Risk Measurement, and Operational Risk Monitoring and Reporting.

Risk Governance
The lines of business and corporate functions are responsible for owning and managing their operational risks. The Firmwide Oversight and Control Group consists of control officers

within each line of business and corporate function, which also cover the business activities in J.P. Morgan AG. They are responsible for the day-to-day execution of the ORMF. Line of business and corporate function control committees oversee the operational risk and control environments of their respective businesses and functions. For this purpose, J.P. Morgan AG has installed the Frankfurt Location Operational Risk and Control Committee ("LORCC") with monthly reporting into the JPMAG Management Board and defined escalation routes into the regional governance committees in EMEA.

These committees escalate operational risk issues to the Firmwide Control Committee ("FCC"), as appropriate. The Firmwide Risk Executive for Operational Risk Governance ("ORG"), a direct report to the Chief Risk Officer of the Firm, is responsible for defining the ORMF and establishing minimum standards for its execution which have also been adopted by J.P. Morgan AG.

J.P. Morgan AG's Operational Risk Manual details the local application of the ORMF.

Operational Risk Identification and Assessment

The Firm utilizes a structured risk and control self-assessment process which is executed by the lines of business and Corporate in accordance with the minimum standards established by ORM, to identify, assess, mitigate and manage its operational risk. As part of this process, lines of business and Corporate identify key operational risks inherent in their activities, address gaps or deficiencies identified, and define actions to reduce residual risk. Action plans are developed for identified control issues and lines of business and Corporate are held accountable for tracking and resolving issues in a timely manner. Operational Risk Officers independently challenge the execution of the self-assessment and evaluate the appropriateness of the residual risk results.

In addition to the self-assessment process, the Firm tracks and monitors events that have led to or could lead to actual operational risk losses, including litigation-related events. Responsible lines of business and Corporate analyse their losses to evaluate the effectiveness of their control environment to assess where controls have failed, and to determine where targeted remediation efforts may be required. ORM provides oversight of these activities and may also perform independent assessments of significant operational risk events and areas of concentrated or emerging risk.

Operational Risk Measurement

J.P. Morgan AG calculates the Operational Risk Capital Requirement for Pillar 1 using the Basic Indicator Approach (BIA) as set out under Basel III. The BIA sets the required level of operational risk capital as 15 % of the bank's annual positive gross income averaged over the previous three years.

J.P. Morgan AG introduced in 2018 a scenario based model to calculate the economic capital requirement.

Operational risk scenarios focus on exceptional but plausible operational risk events which may or may not have previously impacted J.P. Morgan AG. Such operational risk events result from inadequate or failed internal processes or systems, human factors, or due to external events. They include legal risk and regulatory fines and exclude business strategy and reputational risk.

The probability of occurrence for each of these scenarios is considered to be rare. They can be assumed to be less likely than a one in twenty year event. This can then be considered an appropriate assessment of internal capital adequacy requirements for operational risk under a Going-Concern Approach.

Making the assumption that these scenarios are not significantly correlated, then the probability of the two largest scenarios occurring in the same year would represent at least a 1 in 400 year loss. This can then be considered an appropriate assessment of internal capital adequacy requirements for operational risk under a Gone-Concern Approach.

The scenario analysis process is an important tool for assessing the operational risk exposure, thereby providing a forward looking view to the Board and senior management of potential future losses based on the risk profile of J.P. Morgan AG.

Firmwide scenario analysis standards have been leveraged when creating and assessing the J.P. Morgan AG scenarios. The following stages are undertaken in order to build the inventory: Material Risk Identification, Scenario Segmentation, Scenario Quantification, Approval & Oversight and finally Inventory of Scenarios.

In 2018 five relevant scenarios (Large Value Transfer Fraud, Large Value Transfer Error, Data Availability, System Failure, Business Application Error) have been identified and quantified through the exceptional but plausible loss amount.

In addition to the level of actual operational risk losses, operational risk measurement includes operational risk-based capital and operational risk loss projections under both baseline and stressed conditions.

Risk Monitoring and Reporting

ORM has established standards for consistent operational risk monitoring and reporting. Operational risk reports are produced on a firmwide basis as well as by line of business and Corporate. Reporting includes the evaluation of key risk indicators against established thresholds as well as the assessment of different types of operational risk against stated risk appetite. The standards reinforce escalation protocols to senior management and to the Board of Directors. J.P. Morgan AG prepares operational risk reporting monthly and quarterly to the Management Board as described in section Risk Monitoring and Reporting above.

Key values for operational risk are:

€ M	12/31/2018	12/31/2017	12/31/2016
Losses arising from operational risks	0.1	0.1	0.1
Regulatory capital requirement	250	240	226
RTF Going-Concern	23.6	17.3	16.6
RTF Gone-Concern	47.4	32.4	31.2

In addition to the RCSA process references within the Risk Assessment section, an Operational Risk Inventory for J.P. Morgan AG is prepared annually involving the business, location subject matter experts and legal entity stakeholders.

Employee Risk

Human Resource risks are those associated with the employment of staff for example, the cost of employment, health and safety issues; over-reliance on key individuals and inadequate succession planning; the cost and reputational damage of litigation by employees and/or arising from employee misconduct; and the risks associated with inappropriate compensation practices. J.P. Morgan AG tries to minimize operational risks through established oversight and control processes and the implementation of key controls.

IT Risk

The systems used in J.P. Morgan AG are part of JPMC's IT infrastructure. As such J.P. Morgan AG utilizes a number of critical applications to access market infrastructure (e.g. for the Euro-Clearing) or to service internal and external clients. One of the core requirements for J.P. Morgan AG's business is a functioning IT infrastructure. J.P. Morgan AG tries to minimize operational risks through a standardized business continuity planning and testing, as well as the IT development are established firm-wide processes.

Process Risk

Process risk means the risk of loss resulting from inadequate or failed internal processes. Core activities in J.P. Morgan AG, such as payment services and custody services, define the entity as a transactional bank, process risk is highly relevant. J.P. Morgan AG tries to minimize operational risks through established oversight and control processes and the implementation of key controls.

Losses incurred when a force of nature or an individual(s) causes damage or injury to the Firm's employees, clients, and/or physical assets. J.P. Morgan AG manages this risk through extensive business continuity planning intended to guarantee the orderly operation of critical processes. The threat scenarios considered include the unavailability of employees, the breakdown of support systems, and the inability to use the building. The appropriate emergency plans were developed with the inclusion of Group-wide infrastructure and are regularly tested.

Legal Risk

Legal risk is the risk of loss primarily caused by the actual or alleged failure to meet legal obligations that arise from the rule of law in jurisdictions in which the Firm and the Company operates, agreements with clients and customers, and products and services offered by the Company and the Firm.

Legal is responsible for:

- Managing actual and potential litigation and enforcement matters, including internal reviews and investigations related to such matters;
- Advising on products and services, including contract negotiation and documentation;
- Advising on offering and marketing documents and new business initiatives;
- Managing dispute resolution;
- Interpreting existing laws, rules and regulations, and advising on changes thereto;
- Advising on advocacy in connection with contemplated and proposed laws, rules and regulations; and
- Providing legal advice to the LOBs, inclusive of LOB aligned Operations, Technology and Oversight & Controls (the "first line of defense"), Risk Management and Compliance (the "second line of defense"), and the Internal Audit function (the "third line of defense").

Legal selects, engages and manages outside counsel on all matters in which outside counsel is engaged. In addition, Legal advises the Firm's Conflicts Office which reviews the Firm's wholesale transactions that may have the potential to create conflicts of interest for the Firm.

Pension Risk

J.P. Morgan AG defines Pension risk as the risk caused by contractual or other liabilities to or with respect to a pension scheme (whether established for its employees or those of a related company or otherwise). Pension risk is driven by market and demographic risk where the pension scheme may be unable to meet future expected benefit payments.

Pension risk is thus the potential necessity of increasing pension reserves.

Risk Governance

J.P. Morgan AG manages Pension Risk with dedicated Pension governance. This includes regular reporting, a dedicated pension committee and a corresponding investment committee.

Risk Measurement

The pension risks are determined on the basis of a VaR model, annually evaluated by J.P. Morgan AG's pension administrator, but are considered in an additional calculation in the quantification of the risk-bearing capacity. If the VaR should exceed the excess of planned pension assets, this position would be deducted from the risk cover potential. Two different approaches to quantify pension risks are used: a deterministic and a stochastic approach at different confidence levels with a one year holding period.

Summarising Presentation

The conservative risk policy and the solid capital resources ensure the very comfortable risk position of J.P. Morgan AG going forward.

The quantification of the capital requirement for the occurring risks takes place through internal, institute-specific calculation approaches. The calculation of the risk bearing capability takes place on a monthly basis. As per December 31, 2018, utilization stood at 34 %. As part of the integrated stress testing, the risk bearing capability was guaranteed at any time.

The following key performance and risk indicators essentially represent the risk profile of J.P. Morgan AG:

€ M	2018	2017	2016
RWA Overall	**1,387**	**1,654**	**901**
Total capital	2,539	835	840
Tier 1 capital ratio	170 %	39 %	73 %
Total capital ratio	183 %	50 %	93 %
Leverage Ratio	9.9 %	4.2 %	2.9 %
Liquidity Coverage Ratio	155 %	155 %	121 %
Net Stable Funding Ratio	437 %	346 %	400 %
Risk capital requirement Going-Concern	46.9	34.4	49.2
Risk cover potential Going-Concern	136.7	122.8	125.3
Risk capital requirement Gone-Concern	257.8	183.1	327.3
Risk cover potential Gone-Concern	2,503.4	821.7	836.9

In 2018, as in previous years, J.P. Morgan AG did not observe any credit default.

RISK CONTROL AND MONITORING

Timely, independent and risk-based reporting the risk categories credit risk, market price risk, liquidity risk and operational risk is provided to the Management Board on a daily, weekly and monthly basis; Risk Management summarizes said reports as part of the monthly MaRisk report.

The various control functions at J.P. Morgan AG – mainly the Internal Audit, Compliance and Risk Management departments – create an annual review and audit plan based on the results of the risk assessment of the operational risks, particularly in order to ensure the effectiveness of the defined controlling measures.

The Internal Audit department of J.P. Morgan AG is an integral component of Group auditing and reports directly to the CFO of the Management Board. It is responsible for the review of the business operations at J.P. Morgan AG based on a risk-oriented audit approach, which covers all activities and processes at J.P. Morgan AG and thus the outsourced activities as well. The Group auditing department of JPMorgan Chase Bank, N.A., London, is generally involved when this type of audit is performed.

CHANGE PROCESSES

The introduction of new products and the expansion of business into new markets occurs in line with the Group-wide "New Business Initiative Policy". Under the responsibility of the CRO, an assessment takes place of the potential risks, and their impact on J.P. Morgan AG's risk bearing capacity. If the product involves an expansion of trading activities, the CRO shall also ensure there is a sufficient test phase prior to introduction in real production.

Integrating various functions such as Financial Control, Tax, Legal, Compliance Internal Review and the Risk functions coordinated by the CRO guarantees a review of the planned product launch independent of the trading function. Their findings and recommendations for approval along with pre and post go-live conditions are stored and maintained centrally. Following the functional review the initiative is then submitted for discussion to the Management Board. Only after approval and pre go-live condition completion is the initiative integrated into real production at J.P. Morgan AG.

Internal Control System

GENERAL REMARKS

Please refer to the explanations provided in the risk report for a presentation of the risks and the measures for limiting risks. The internal control system (ICS) and the risk management system, which cover the J.P. Morgan AG accounting process, focus on the guidelines, procedures and measures taken to ensure the efficacy, economic viability and orderliness of the accounting as well as guaranteeing adherence to the key statutory regulations. The internal control system consists of two areas, Control and Monitoring. In organizational terms, the Financial Control & Tax division is responsible for the control.

The monitoring measures consist of elements integrated into the process and external, independent elements. Among other things, the integrated measures include a monthly control process covering all the Bank's activities, during which the balance sheet as at that date and the income statement are examined to assess and confirm their correct presentation and risks. Moreover, in all instances the four-eye principle is applied, along with technical controls, mainly by software-controlled audit mechanisms. Furthermore, qualified staff members with due expertise and specialist functions such as Financial Control & Tax take part in the process-integrated monitoring and control functions.

The Management Board and the Supervisory Board (in particular the Audit Committee) as well as the internal audit department are involved in the internal monitoring system in the form of process-independent audit measures. The audit of the annual financial statements constitutes a key element of process-independent monitoring.

With a view to the accounting, the risk management system is geared to identify, evaluate and communicate risks from faulty bookkeeping, accounting, and reporting in a timely manner.

IT USE

The software used in the Bank to support accounting processes is made up of the IT applications used throughout the Group. The orderly functioning of the programs and interfaces utilized is regularly assessed and confirmed. As part of the examination of our IT, the group auditors check the due operation of the accounting-related applications at all computer centre locations. The complete IT system, including that for accounting, is secured against unauthorized access.

KEY REGULATIONS AND CONTROL ACTIVITIES TO ENSURE DUE, ORDERLY AND RELIABLE ACCOUNTING

The internal control system's structure and measures ensure that business transactions are entered swiftly and completely in line with the statutory and the internal regulations and that assets and liabilities are accurately calculated, valued and carried in the annual financial statements. The booking documentation provides a reliable information base and a clear paper trail.

The regulations of the Financial Accounting Standards Board are applied within the J.P. Morgan Group as uniform valuation and accounting principles according to US-GAAP, supplemented and commented on by the Group's "Accounting Policies" section. Here, again, stipulations are made with regard to the intra-Group settlement policies. As part of the preparation of the individual financial statements of J.P. Morgan AG, a reconciliation statement is prepared from US-GAAP to the annual financial statements in accordance with the German Commercial Code. Here, local work directives regulate in detail the formal requirements and material information in the annual financial statements.

Regarding the country-specific reporting under § 26a Para. 1 sentence 2 KWG, we refer to the annex: Country-by-Country Reporting 2018, in this annual report. The foreign branches registered in 2018 are listed there. J.P. Morgan AG has no subsidiaries in this respect.

Assurance by the Management Board

We hereby assure that, to the best of our knowledge and in line with the applicable accounting principles for financial reporting, this report offers a fair picture of the Bank's assets, its financial, liquidity and earnings situation that corresponds with the facts and that the course of business, the business results and the Bank's position are presented in such a way as to convey a true and fair picture, and that the material opportunities and risks of the Bank's presumable future performance for the remainder of the current business year are described.

Frankfurt am Main, April 9, 2019

J.P. Morgan AG
Frankfurt am Main
The Management Board

DOROTHEE BLESSING

STEFAN BEHR

NICHOLAS CONRON

BURKHARD KÜBEL-SORGER

ANNUAL BALANCE SHEET FOR THE PERIOD ENDED DECEMBER 31, 2018 OF J.P. MORGAN AG, FRANKFURT AM MAIN

ETS

€				Notes	2018 €	2017 T€
Cash reserves						
– Cash in hand			100			0
– Credits with central banks			11,766,110,687			7,822,448
incl.: with Deutsche Bundesbank	11,766,110,687					7,822,448
				3.1.	**11,766,110,787**	7,822,448
Receivables from credit institutions						
– due daily			6,864,950,540			7,099,858
– other receivables			16,768,904			28,178
				3.2.	**6,881,719,444**	**7,128,036**
Receivables from clients				**3.3.**	**172,362,776**	**260,071**
Bonds and other fixed-interest securities						
– bonds and debt securities						
from public issuers		50,636,007				50,636
incl.: eligible as collateral with Deutsche Bundesbank	50,636,007					50,636
			50,636,007			50,636
				3.4.	**50,636,007**	**50,636**
Trading portfolio				**3.5.**	**187,296,408**	**385,643**
Trust assets				**3.6.**	**607,595,109**	–
incl.: trust loans	–					–
Tangible assets				**3.7.**	**12,725,000**	**12,573**
Other assets				**3.8.**	**802,633,236**	**6,749**
Accrued and deferred expenses				**3.9.**	**2,580,423**	**3,078**
Excess of plan assets over pension liabilities				**3.10.**	**67,074,062**	**76,630**
Total assets					**20,550,733,252**	**15,745,865**

LIABILITIES

€				Notes	2018 €	2017 T€
Liabilities to credit institutions						
– due daily			6,081,664,184			4,743,375
– with agreed maturity or termination notice period			3,623,596,302			2,971,015
				3.11.	**9,705,260,486**	**7,714,390**
Liabilities to clients						
– other liabilities						
due daily			6,869,757,434			6,692,867
with agreed maturity or termination notice period			10,000,000			10,000
				3.12.	**6,879,757,434**	**6,702,867**
Trading portfolio				**3.5.**	**680,848,193**	**383,658**
Trust liabilities				**3.6.**	**607,595,109**	**–**
incl.: trust loans		–				–
Other liabilities				**3.13.**	**39,227,390**	**24,013**
Accrued and deferred expenses				**3.14.**	**985,822**	**58**
Provisions						
– tax provisions			12,728,065			8,116
– other provisions			14,265,014			12,453
				3.15.	**26,993,079**	**20,569**
Subordinated liabilities				**3.16.**	**185,822,070**	**184,888**
Fund for general banking risks				**3.17.**	**57,064,037**	**56,500**
Equity						
– Called-in capital						
Subscribed capital			160,000,000	**3.18.**		160,000
– Capital reserves			2,135,714,862			418,682
– Retained earnings						
Legal reserves		6,000,000				6,000
other revenue reserves		74,240,102				60,527
			80,240,102			66,527
– Balance Sheet profit/loss			–8,775,332			13,713
					2,367,179,632	**658,922**
Total liabilities					**20,550,733,252**	**15,745,865**
Contingent liabilities						
– Liabilities from guarantees and indemnity agreements			114,389,153			161,922
				3.22.	**114,389,153**	161,922
Other commitments						
– Irrevocable loan commitments				**3.23.**	**11,979,286**	**–**

INCOME STATEMENT
OF J.P. MORGAN AG, FRANKFURT AM MAIN

FOR THE PERIOD FROM JANUARY 1, 2018 TO DECEMBER 31, 2018

€				Notes	2018 €	2017 T€
Interest income from						
– lending and money-market transactions	26,147,885					
– less negative interest arising from lending and money-market transactions	−43,613,942	−17,446,057				−21,606
– fixed-interest securities and debt register claims	1,187,500					
– minus negative interest arising from debt register claims	–	1,187,500				1,538
– Total interest income			−16,278,557			−20,068
Interest expenses from						
– lending and money-market transactions	9,877,064					
– less positive interest arising from lending and money-market transactions	−37,110,222	−27,233,158				−28,361
– fixed-interest securities and debt register claims	1,097,616					
– minus positive claims arising from debt register claims	–	1,097,616				360
– Total interest expenses			−26,135,542			−28,001
				4.1.	**9,856,985**	**7,933**
Current income from						
– investments			–			2
					–	**2**
Commissions income			119,840,458			87,586
Commissions expenses			29,191,508			1,946
				4.2.	**90,648,950**	**85,640**
Net income from trading portfolio				**4.3.**	**7,121,459**	**1,798**
Other operating income				**4.4.**	**39,147,758**	**39,659**
General administrative expenses						
– Personnel expenses						
Wages and salaries		32,219,956				26,782
Social security contributions and expenses for pension provisions and benefits		8,343,023	40,562,979			4,879
incl.: for retirement benefits	4,877,922					1,549
– other administrative expenses			79,807,020			78,989
				4.5.	**120,369,999**	**110,650**

FOR THE PERIOD FROM JANUARY 1, 2018 TO DECEMBER 31, 2018 (CONTINUED)

€				Notes	2018 €	2017 T€
Depreciation, amortization and valuation adjustments of intangible and tangible fixed assets				**3.7.**	**2,194,259**	**2,218**
Other operating expenses				**4.6.**	**18,415,724**	**2,312**
Depreciation and impairments on receivables and specific securities and allocations to provisions for credit risks					**20,753**	**–**
Result from ordinary course of business					**5,774,417**	**19,852**
Taxes on income and revenue			14,548,796			6,126
of which deferred taxes:	–					–
Other taxes, not shown under other operating expenses			953			13
				4.7.	**–14,549,749**	**–6,139**
Annual net profit/annual net loss					**–8,775,332**	**13,713**
Profit/loss carried forward from previous year				**4.8.**	**0**	**0**
Balance sheet profit/loss					**–8,775,332**	**13,713**

J.P. MORGAN AG, FRANKFURT AM MAIN NOTES TO THE 2018 ANNUAL FINANCIAL STATEMENTS

1. General remarks

1.1. GENERAL PRINCIPLES

J.P. Morgan AG, with registered offices in Frankfurt am Main, is a public limited liability company under German Law registered in the Trade Register of the Frankfurt District Court under number HRB 16861, which is active in Germany in the main business segments of transactional banking, the securities custody business and depository and loan business, and the business with over-the-counter derivatives.

In the 4th quarter of 2018, the global clearing business, which includes the execution and clearing of exchange traded derivatives, as well as cash-equities business, including equity trading on behalf of customers, was started on a limited scale.

The annual financial statements for J.P. Morgan AG have been prepared under the rules laid down in the German Commercial Code (HGB), the Companies Act (Aktiengesetz) and the Accounting Regulation for Credit Institutions and Financial Service Institutions (RechKredV).

The structure of the balance sheet and the income statement is mainly unchanged as compared to the prior year. Only positions for trust assets and trust liabilities were added, to record both collateral received and provided for stock exchange transactions related to the global clearing business that was launched in the 4th quarter of 2018.

1.2. ADDENDUM REPORT

Significant changes after the balance sheet date arose from the ongoing preparations by J.P. Morgan AG for the exit of the United Kingdom from the European Union ("Brexit"). J.P. Morgan AG plays a major role in implementing the Group's Brexit strategy. This will result in the relationships with affiliated companies being strengthened in future.

In the event of a "Hard Brexit", J.P. Morgan AG will take over business relationships with customers in the European Union for the "Banking" and "Markets" areas in the future. J.P. Morgan AG also started back in October 2018 to apply to take over existing memberships of stock exchanges and CCPs within the European Union, and to implement this in full in the first half of 2019. This means that J.P. Morgan AG will not only be processing the transactions of its own customers, but also customer transactions for the other JPM group companies. Furthermore, J.P. Morgan AG has already opened nine branches in the EEA as well as a branch in London where employees from trade and sales will potentially be located.

In February 2019, another capital increase was made of € 1.8 billion. In addition, the global clearing and cash equities business, which were both started last year, were further expanded. Furthermore, a number of loans and irrevocable credit commitments from JPM affiliates to J.P. Morgan AG were transferred to J.P. Morgan AG, and steps were taken in other areas of "Banking" and "Markets" to start the client migration from JPM affiliate companies to J.P. Morgan AG.

2. Accounting and valuation principles

2.1. CHANGED ACCOUNTING AND VALUATION METHODS

The accounting and valuation methods of the annual financial statements in 2018 were maintained unchanged to the previous year, except for the following points.

Offsetting positive and negative fair values of financial instruments in the trading portfolio has been applied for the first time in the reporting year due to the increase in business volume.

Trust assets and liabilities are recognized at market value and are related to collateral for stock exchange transactions.

Commission income and expenses in the Depository Services area are reported on a gross basis for the first time in this financial year.

2.2. OTHER ACCOUNTING AND VALUATION METHODS

Liquid funds are reported at nominal value. Receivables from banks are reported at the nominal value plus accrued interest. Receivables from customers are in principle reported at nominal value or if lower, cost of acquisition plus accrued interest. Receivables from customers transferred from J.P. Morgan affiliates to J.P. Morgan AG are shown at acquisition cost. Should the difference in the amount between the nominal value and the acquisition costs of the receivable be related to interest, this is deducted from the acquisition costs and accrued as deferred item. It is amortized to the income statement over the term of the contract. Specific and general bad debt provisions are calculated based on generally accepted calculation methods, and shown in the HGB accounts, and deducted from the nominal value/cost of acquisition.

Bonds and other fixed-interest securities are valued on purchase at acquisition cost and are assigned to the liquidity reserve. Therefore, they are valued using the strict lower-of-cost-or-market value principle as defined in § 253 Para. 4 HGB. Depreciation and write-ups of the securities in the liquidity reserve are reported in the income statement under "Depreciation and value adjustments in respect of receivables and specific securities" and "Allocations to provisions in connection with lending business interests" or "Income from write-ups to receivables and specific securities" as well as "amortization of provisions in connection with lending business interests".

Interest driven business, in the banking book, was valued using the periodical approach (P&L based method) for loss free valuation. In accordance with this method, it was not required to record a provision for contingent losses.

The financial instruments in the trading portfolio are valued at fair value minus a risk discount under § 340e Para. 3 HGB. In accordance with § 255 Para. 4 HGB, fair value means mark-to-market price. The fair value is defined as the amount for which a financial instrument could be traded between knowledgable and independent business partners seeking to trade, at the closing date of the financial statement as a normal transaction not requiring a mandatory sale or an emergency settlement. Where available, fair value is based on observable market prices or derived from observable prices or parameters. The availability of observable data varies according to product and market and may change over time. If no observable stock market prices or information are available, valuation models that correspond to market standards are used. As part of the valuation of financial instruments at fair value, adjustments are included for settlement costs, liquidity risks and counterparty risks, as well as the financing costs for unsecured trading derivatives. The value-at-risk is determined for financial instruments in the trading book and deducted in the balance sheet from the trading assets or added to the trading liabilities, depending which side has the higher balance. The calculation of the value-at-risk discount is based on a holding period of ten days and a confidence level of 99 %. The observation period is 264 trading days. An allocation under § 340e Para. 4 HGB is charged against the net income from the trading portfolio, and increases the item for Fund for general banking risks.

Offsetting positive and negative fair values for financial instruments in the trading portfolio for the same counterparty has been applied in this financial year by offsetting the positive and negative fair values and their related compensation payments (cash security deposits) against each other. As a first step, positive fair values from derivative financial instruments are offset against negative fair values. In a second step, the collateral payments recorded as liabilities to banks are offset with the positive fair values from derivative financial instruments. The prerequisite for offsetting is a framework contract with an enforceable collateral appendix and a daily exchange of cash collateral which leaves only an insignificant credit or liquidity risk remaining.

Within the financial year, no changes were made to the criteria laid down by the institution for allocation to the trading portfolio.

Margin payments received and margin payments provided for stock exchange transactions are reported as trust assets and trust liabilities. They were related to the global clearing business started in the 4th quarter of 2018.

Tangible fixed assets are valued at acquisition cost and depreciated on a straight-line basis as scheduled over the expected useful life. The useful life of tangible assets is based on the official depreciation tables of the tax administration. Low-value assets are fully written off in the year of purchase.

Other assets are valued at acquisition cost (nominal value) in compliance with the strict lower-of-cost-or-market value principle.

Deferred taxes are calculated for temporary differences between the commercial valuations of assets, liabilities and deferred income and their taxable value and tax loss. The underlying temporary differences are mainly due to different valuations of securities, pension liabilities and the valuation of plan assets and provisions and lead to a net deferred tax asset (surplus). For the calculation of deferred taxes, a corporate income tax rate including solidarity surcharge of 15.825 % and a trade tax rate of 16.10 % were assumed. The deferred tax assets amount to € 22.6 million (prior year: € 19.5 million) and deferred tax liabilities total € 8.0 million (prior year: € 11.6 million). The right available under § 274, Para. 1, S. 2, HGB, to capitalize deferred taxes is not applied.

In line with § 246 Para. 2 S. 2 HGB, assets that serve to cover debts arising from pension commitments and similar long-term obligations were netted off against the liabilities. If the fair value of the assets exceeds the amount of the debts arising from retirement benefit commitments and similar long-term obligations, the excess amount is shown in the item "Excess of plan assets over pension liabilities." The actuarial report was calculated based on the guidelines of Prof. Dr. Klaus Heubeck 2018 G. The assessment was carried out following recognized actuarial principles using the so-called "Projected Unit Credit Method" (PUC method).

The accounts payable are recognized at fulfilment amounts.

The provisions that are shown cover all identifiable obligations as of the balance sheet closing date that are based on past business transactions or past events and are valued in accordance with § 253 Para. 2 HGB. Provisions were valued at the settlement amount, factoring in expected increases in prices and costs. Provisions with a remaining term of more than one year were discounted/compounded using the average market interest rates determined and published by the German Bundesbank (based on 10-year averages) (§ 253 Para. 2 HGB). This applies in particular to pension provisions, for which a flat-rate remaining term of 15 years is applied. Income and expenses arising from the discounting or compounding are recorded, with no offsetting, depending on whether provisions were related to the lending business or to non-banking business, as either interest income/interest expense (§ 277 Para. 5 HGB) or as other operating income/expense (§ 340a Para. 2 combined with § 277 Para. 5 HGB). Provisions for work anniversaries contained in the figure were calculated using an actuarial report, and on the basis of the mortality tables of Prof. Dr. Klaus Heubeck 2018 G, and in line with the valuation method as per § 253 Para. 1 HGB.

Accruals for expenses and income have been created and allocated to the respective balance sheet items. No significant costs or income relating to other periods were recorded.

2.3. VALUATION UNITS

A valuation unit was created for an issued promissory note, which is hedged against market price risks using a Total Return Swap (TRS). In addition, a fixed-interest security was combined with an interest-rate swap as hedging instrument into another valuation unit. The TRS and the interest-rate swap were combined with the underlying transactions on individual transaction level to a distinct hedge relationship and tested for their hedge effectiveness. Owing to the clear hedging relationship, the transactions involved are Micro-Hedges that represent an efficient and perfect hedging relationship for the entire term. To calculate the market values the Total Return Swap was compared to its underlying liability, and the interest-rate swap to the promissory note. In particular, the freeze-method is applied to report the effective parts of the valuation units on the balance sheet. Effectiveness is measured by using the dollar offset method, or with the use of suitable statistical procedures such as regression analysis.

The fair values of the swaps are calculated based on internal valuation procedures. The Group uses valuation procedures to establish the fair value of financial instruments in cases where no prices are available on active markets. Therefore, where possible, parameter inputs to the valuation procedures are based on observable data derived from prices of relevant financial instruments traded in an active market. The use of these models involves some level of management estimation and judgment, the degree of which will depend on the price transparency for the financial instrument and its market and the instrument's complexity.

Interest income from the fixed-interest security and the interest expense from the interest swap are shown gross in the income statement.

2.4. FOREIGN CURRENCY CONVERSION

Foreign-currency receivables and liabilities have been converted using the European Central Bank reference rates applicable at the reporting date. Transactions denominated in foreign currency are translated at the end-of-month rate for the month in which the business was transacted. Exchange gains/losses are reported in profit or loss under other operating income. Losses arising from foreign currency conversion in 2018 totalling T€ 193 are shown in the other operating result.

3. Notes to individual items of the balance sheet

3.1. CASH RESERVES

T€	12/31/2018	12/31/2017
Cash reserves	**11,766,111**	**7,822,448**
Cash in hand	0	0
Credit with central banks	11,766,111	7,822,448
incl.: with Deutsche Bundesbank	11,766,111	7,822,448

On the closing date there was € 100 in liquid assets in the cash on hand.

3.2. RECEIVABLES FROM CREDIT INSTITUTIONS

T€	12/31/2018	12/31/2017
Receivables from credit institutions	**6,881,719**	**7,128,036**
incl.: receivables from affiliated companies	6,388,299	7,013,400
Breakdown by remaining maturity:		
a) due daily	6,864,951	7,099,858
b) other receivables	16,769	28,178
up to three months	16,769	28,178

The majority of the receivables totalling € 5,298 million is made up of intra-group reverse repo transactions.

3.3. RECEIVABLES FROM CLIENTS

T€	12/31/2018	12/31/2017
Receivables from clients	**172,363**	**260,071**
incl.: receivables from affiliated companies	218	20,861
Breakdown by remaining maturity:		
a) due daily	0	16,859
b) undefined maturity	172,363	243,212

The majority of the receivables totalling € 170 million consists of allowed overdrafts of customers in the Securities Services division.

3.4. BONDS AND OTHER FIXED-INTEREST SECURITIES

T€	12/31/2018	12/31/2017
Bonds and other fixed-interest securities	**50,636**	**50,636**
Bonds and debt securities		
from public issuers	50,636	50,636
incl.: eligible as collateral with Deutsche Bundesbank	50,636	50,636
including marketable securities	50,636	50,636
listed on the stock exchange	50,636	50,636

This position includes only listed bonds.

To hedge interest rate risks, a security was combined with an interest-rate swap for a nominal value of € 50 million into a micro-valuation unit. The fair value of the interest rate swap was € −5.1 million as of December 31, 2018, and the hedged interest-induced market price change was € −4.5 million. Monthly effectiveness tests show that this is an effective relationship. The valuation unit terminates on the maturity date of the security in 2024.

As of December 31, 2018, the securities in the liquidity reserve, including the existing valuation units, included hidden reserves totalling € 1.3 million. As a result of the allocation of all securities to the liquidity reserve there are no hidden losses.

3.5. TRADING PORTFOLIO

Only financial derivative instruments are listed as financial instruments of the trading portfolio.

T€	12/31/2018	12/31/2017
Trading portfolio assets		
Derivative financial instruments	187,296	385,648
Risk discount	–	–5
In total	**187,296**	**385,643**
Trading portfolio liabilities		
Derivative financial instruments	680,842	383,658
Risk discount	6	–
In total	**680,848**	**383,658**

The amount, timing and certainty of future cash flows are mainly influenced by the interest rate environment, developments on the equity and bond markets, and developments in spreads, and default probabilities.

In this financial year positive and negative market values totalling € 845 million were offset. In addition, positive market values and related liabilities from collateral totalling € 503 million were offset.

The following table breaks out the nominal amount and the fair value of the derivative financial instruments according to type and scope before risk discount and before credit valuation adjustments (CVA), funding valuation adjustments (FVA) and debit valuation adjustments (DVA).

T€ 12/31/2018	Nominal amount	Positive market values	Negative market values
Products traded over the counter			
Interest-rate related transactions	11,525,644	124,673	61,867
Exchange-rate related transactions	15,254,178	54,729	43,155
Credit derivatives	6,369,230	5,163	578,959
Equity-related transactions	540,172	3,113	7,698
In total	**33,689,224**	**187,678**	**691,679**

3.6. TRUST BUSINESS

T€	12/31/2018	12/31/2017
Trust assets	**607,595**	**0**
Receivables from credit institutions	352,184	0
Other assets	255,411	0
Trust liabilities	**607,595**	**0**
Liabilities to credit institutions	603,956	0
Liabilities to clients	3,639	0

Securities received and provided for stock exchange transactions related to the new Global Clearing business started in the 4th quarter of 2018 are recognized as trust assets and liabilities.

3.7. CHANGE IN FIXED ASSETS

T€	Other equipment and office equipment	Hardware	Total
Cumulative acquisition costs as of 01/01/2018	**17,803**	**2,109**	**19,912**
Additions	2,321	41	2,362
Disposals	–17	0	–17
Transfers	0	0	0
Cumulative acquisition costs as of 12/31/2018	**20,107**	**2,150**	**22,257**
Cumulative depreciation as of 01/01/2018	**5,681**	**1,657**	**7,338**
Scheduled depreciation in the current year	1,934	153	2,087
Additions	44	64	108
Disposals	0	0	0
Transfers	0	0	0
Cumulative depreciation as of 12/31/2018	7,658	1,874	9,533
Residual value as of 12/31/2018	**12,449**	**276**	**12,725**
Residual value as of 12/31/2017	**12,122**	**452**	**12,573**

The value of leasehold improvements amounts to € 9.3 million, and the value of the operating and business fixtures and fittings is € 3.4 million.

3.8. OTHER ASSETS

T€	12/31/2018	12/31/2017
Other assets	**802,633**	**6,749**

Other assets amounting to € 786.9 million of contributions to default funds and margin collateral for stock exchange transactions to central counterparties, which relate to the new Global Clearing business started in the 4th quarter of 2018.

3.9. ACCRUED AND DEFERRED EXPENSES

T€	12/31/2018	12/31/2017
Accrued and deferred expenses	**2,580**	**3,078**

Accrued and deferred expenses include € 2.57 million for pension payments that were paid out in advance for reasons of timing in 2018.

3.10. EXCESS OF PLAN ASSETS OVER PENSION LIABILITY

T€	12/31/2018	12/31/2017
Valuation parameters (BilMoG [Bilanzrechtsmodernisierungs-gesetz – German Accounting Law Modernization Act])		
Pension obligations:		
Actuarial interest rate	3.21 %	3.68 %
Future increase of benefits	3.00 %	3.00 %
Increase of pension	1.75 %	1.75 %
In order to provide for staff turnover, age-specific and gender-specific turnover probabilities were used	Mercer Standard	Mercer Standard
Partial retirement:		
Actuarial interest rate	2.32 %	2.80 %
Future increase of benefits	3.00 %	3.00 %
Increase of pension	0.00 %	0.00 %

€		2018
Pension and partial retirement obligations	**1/1/2018**	**139,021,753**
Expenses from the contributions for pension and partial retirement obligations		3,274,685
Interest expense from the discounting of pension and partial retirement obligations		3,216,338
Contribution from effects of change in actuarial interest rate		5,238,514
Consumption (pension payments)		−8,622,711
Pension and partial retirement obligations	**12/31/2018**	**142,128,578**
Assets	**1/1/2018**	**215,651,680**
Additions		951,112
Disposals		0
Reversal of impairment on recovered partial value		0
Market valuation above acquisition cost (shown under other operating expenses)		−7,400,152
Assets	**12/31/2018**	**209,202,640**
Excess of plan assets over pension liabilities	**1/1/2018**	**76,629,927**
Excess of plan assets over pension liabilities	**12/31/2018**	**67,074,062**
Acquisition costs of assets	**1/1/2018**	**122,162,513**
Acquisition costs of assets	**12/31/2018**	**123,115,579**
Expenses arising from the contributions to pension and partial retirement obligations		**11,729,537**
Disclosure of contributions to pension and partial retirement obligations under "Social contributions and expenses for pension and other benefits"		8,454,852
Disclosure of the change in the discount rate and the compounding/discounting of the pension and partial retirement obligations under other operating result		3,274,685

	2018
Asset investment measures under HGB § 285 no. 26	
Special Institutional Funds	**JPMC I Universal Fund**
Legal basis:	Risk management approach:
Basis of the calculation:	Market value (NAV) of assets
Reinvestment:	Capitalization funds
§ 253 Para. 3 S. 4:	No depreciation because valued in accordance with § 246 Para. 2 HGB
Term:	No restriction on the daily return
Value determined in accordance with §§ 168, 278 KAGB [Capital Investment Act] or comparable foreign law as of balance sheet date:	T€ 152,522; Shares 903,193
Capital assets:	not eligible for listing on a stock exchange/unlisted
– Mutual funds	**JPMorgan Funds – Global Unconstrained Equity**
Legal basis:	Luxembourg law
Basis of the calculation:	Market value (NAV) of assets
Reinvestment:	Capitalization funds
§ 253 Para. 3 S. 4:	No depreciation because valued in accordance with § 246 Para. 2 HGB
Term:	No restriction on the daily return
Value determined in accordance with §§ 168, 278 KAGB [Capital Investment Act] or comparable foreign law as of balance sheet date:	T€ 1,576; shares 195,570
Capital assets:	not eligible for listing on a stock exchange/unlisted

Only investment fund units are held as pension assets and all pension assets are held to hedge pension benefits granted to employees. The primary investment target of the funds is to cover the financial obligations on the long term. The duration of the commitments under all the plans combined is 10.2 years. The fair value of the covering assets is based on the number of shares held and their price at the balance sheet date.

The fund unit prices are calculated as follows: A net asset value (NAV) is allocated to each unit class – this is the value of the assets of a unit class minus the liabilities for that class. The NAV is then divided by the total number of current units belonging to that unit class to arrive at the unit price.

3.11. LIABILITIES TO CREDIT INSTITUTIONS

T€	12/31/2018	12/31/2017
Liabilities to credit institutions	**9,705,260**	**7,714,390**
incl.: liabilities to affiliated companies	6,799,828	5,572,194
Breakdown by remaining maturity:		
a) due daily	6,081,664	4,743,375
b) with agreed maturity or notice period	3,623,596	2,971,015
1. up to three months,	3,523,596	2,871,015
2. more than three months to one year,	–	–
3. more than one year to five years,	–	–
4. more than five years	100,000	100,000

The majority of the liabilities totalling € 6,800 million are due to group companies. This includes cash collateral from JPMorgan Chase Bank, N.A., London branch, totalling € 500 million as collateral for credit lines granted, and € 100 million to hedge transactions with derivatives. The remaining liabilities are essentially due to the Treasury Services division.

3.12. LIABILITIES TO CLIENTS

T€	12/31/2018	12/31/2017
Liabilities to clients	**6,879,757**	**6,702,867**
incl.: liabilities to affiliated companies	38,160	126,567
Breakdown by remaining maturity:		
a) due daily	6,869,757	6,692,867
b) with agreed maturity or notice period	10,000	10,000
1. up to three months,	–	–
2. more than three months to one year,	–	–
3. more than one year to five years,	10,000	–
4. more than five years	–	10,000

The majority of the liabilities totalling € 4,999 million consists of customer deposits in the Securities Services division. The remaining part is related to the Treasury Services division.

An issued promissory note forms part of a valuation unit in which a total return swap totalling € 10 million is the hedging element. The fair value of the swap was € 2.4 million as of December 31, 2018. The valuation unit ends with the maturity of the promissory note in 2022.

3.13. OTHER LIABILITIES

T€	12/31/2018	12/31/2017
Other liabilities	**39,227**	**24,013**
consisting of:		
– Value added tax	11,891	8,365
– Liabilities from deliveries and services	21,086	10,782
– other liabilities	6,250	4,866

3.14. ACCRUED AND DEFERRED EXPENSES

T€	12/31/2018	12/31/2017
Accrued and deferred expenses	**986**	**58**

For the first time, a deferred expense was recorded that related to a cash payment from the landlord of the rented office space totalling T€ 986.

3.15. PROVISIONS

T€	12/31/2018	12/31/2017
Provisions	**26,993**	**20,569**
incl.:		
– tax provisions	12,728	8,116
– other provisions	14,265	12,453

Other provisions consist for the most part of provisions regarding personnel expenditure and asset retirement obligations for the leased office building.

3.16. SUBORDINATED LIABILITIES

T€	12/31/2018	12/31/2017
Subordinated liabilities	**185,822**	**184,888**
incl.: Subordinated liabilities to associated companies	185,822	184,888

The subordinated capital shown for 2018 comprises a subordinate loan totalling € 150,000,000 taken out on December 21, 2009, as well as another subordinate loan of € 35,790,432, which was transferred to J.P. Morgan AG in the course of the merger between J.P. Morgan Beteiligungs- und Verwaltungsgesellschaft mbH and J.P. Morgan AG.

Interest payments are made quarterly starting on December 21, 2009 or for the capital gained within the context of the merger, on a semi-annual basis. The interest payable is calculated using the relevant three-month EURIBOR (European InterBank Offered Rate) or six month LIBOR interest rate (London InterBank Offered Rate). The expenses incurred for subordinated liabilities total T€ 83 for the financial year.

The subordinated capital to the totalling T€ 150,000 is due on December 21, 2039. The subordinated loan totalling T€ 35,790 has an unlimited term. Both subordinated loans can be terminated by J.P. Morgan AG after prior approval by the competent supervisory authority in whole or in part with one month's notice at the end of any month from March 31, 2020 onwards. In addition, there is a right of termination by J.P. Morgan AG of the entire loan at the time, provided that either its application as regulatory equity or the tax treatment change.

In the event of insolvency, all other lenders will be serviced with priority. There are no early repayment obligations.

If the competent supervisory authorities so decide ("regulatory bail-in"), both subordinated loans can either be reduced in whole or in part of their nominal value, or converted into core capital instruments of J.P. Morgan AG. In this case, all claims by the Lender and obligations on J.P. Morgan AG arising from the loan contracts expire, to the extent of the reduction or conversion.

The subordinated liabilities meet the requirements of § 10 Para. 5a of KWG [Kreditwesengesetz – German Banking Act].

3.17. FUND FOR GENERAL BANKING RISKS

T€	2018	2017
Status as at 01/01	**56,500**	**56,300**
Additions	564	200
Disposals	–	–
Status as at 12/31	**57,064**	**56,500**

The additions to the fund for general bank risks were carried out according to § 340e Para. 4 HGB.

3.18. SUBSCRIBED CAPITAL RESERVE AND RETAINED EARNINGS

The share capital amounts to € 160,000,000 and is divided into 160,000,000 shares (€ 1 per share).

The shares are paid up 100 % and are held directly by J.P. Morgan International Finance Limited, with headquarters in Newark in the United States of America. The capital reserve was increased by € 1.7 billion through a payment by J.P. Morgan International Finance Limited in September 2018. The profit shown on the Balance Sheet in the prior year of totalling € 13.7 million, was transferred by the Annual General Meeting to the retained earnings reserves.

3.19. AMOUNTS UNAVAILABLE FOR DISTRIBUTION

The amount that may not be disbursed as dividends under § 268 Para. 8 S. 3 HGB totalled € 86.1 million at December 31, 2018 (prior year: € 93.5 million). This is the difference between the fair value and the purchase costs of the plan assets. Another item that is barred from disbursement is a part of the difference in the retirement pension commitments from applying the 7-year average interest rate, § 253 Para. 6 S. 2 HGB, totalling € 11.3 million (prior year: € 10.5 million). There were free reserves in the meaning of § 268 Para. 8 HGB totalling € 2,201 million (prior year: € 492.9 million).

3.20. OTHER ITEMS DUE TO AFFILIATED COMPANIES

T€	12/31/2018	12/31/2017
Other items due to affiliated companies		
Other liabilities	4,214	1,771

3.21. FOREIGN CURRENCY ASSETS AND LIABILITIES

T€	12/31/2018	12/31/2017
Foreign currency assets and liabilities		
Assets	3,859,500	1,450,612
Liabilities	3,862,308	1,451,620

3.22. CONTINGENT LIABILITIES

T€	12/31/2018	12/31/2017
Contingent liabilities		
Liabilities from guarantees and indemnity agreements	114,389	161,922

The total amount of contingent liabilities from securities and warranty contracts consists essentially of € 51 million for guarantees and € 33 million for securities. Liabilities from securities and warranty contracts exist in relation to affiliated companies totalling € 58 million.

The contingent liabilities shown are mainly covered by corresponding collateral.

The likelihood of a claim, based on past experience, must be assessed as very low. Information in accordance with § 35 Para. 5 RechKredV [Credit Institution Accounting Regulations] does not have to be provided in this context, since J.P. Morgan AG has not transferred any collateral to others.

3.23. OTHER COMMITMENTS

Irrevocable loan commitments shown under other commitments totalling € 12 million relate to the obligation to grant loans to customers and are reported at the nominal value of the agreed amount minus associated provisions. In the normal course of business it is generally likely that loan commitments would be drawn by the clients. If they are drawn, the loan commitment is reversed and a receivable from the customers is posted, both in the amount drawn. Any credit risks arising from the exercise of irrevocable credit commitments are taken into account when assessing of credit risks. If a credit risk is identified, then this is taken into account by creating the appropriate provisions. The amount of the provision is determined using generally accepted calculation methods. Therefore the credit risk is estimated as very low as of the balance sheet date.

4. Explanatory Notes to the Income Statement

4.1. NET INTEREST INCOME

T€	1/1/–12/31/2018	1/1/–12/31/2017
Interest income (net)	**9,857**	**7,933**
Interest income from:	**–16,279**	**–20,068**
a) Lending and money-market transactions	26,148	23,632
less negative interest arising from lending and money-market transactions	–43,614	–45,238
b) Fixed-income securities and debt register claims	1,188	1,538
Interest expenses:	**–26,136**	**–28,001**
a) Lending and money-market transactions	9,877	1,695
less negative interest arising from lending and money-market transactions	–37,110	–30,055
b) Fixed-income securities and debt register claims	1,098	360

Interest income has increased by 24 % over the comparison period. This increase is primarily attributable to reverse repo transactions.

The positive balance of interest received and paid on bonds fell by T€ 1,088 compared to the prior year.

4.2. NET COMMISSION INCOME

T€	1/1/–12/31/2018	1/1/–12/31/2017
Commission income (net)	**90,649**	**85,640**

Net commission income increased by 5.8 % in comparison to the previous year. In particular, increasing commission income from the OTC derivative business contributed to this increase.

4.3. NET INCOME FROM TRADING PORTFOLIO

T€	1/1/–12/31/2018	1/1/–12/31/2017
Net income from trading portfolio	**7,121**	**1,798**

The net income from the trading portfolio totals T€ 7,121. The increase results from the significant increase in activities in the OTC derivative business.

4.4. OTHER OPERATING INCOME

T€	1/1/–12/31/2018	1/1/–12/31/2017
Other operating income	**39,148**	**39,659**
including:		
– Services rendered for Group entities	32,797	29,765
– Miscellaneous other operating income	6,350	9,895

Other operating income is almost unchanged compared to the previous year. Miscellaneous other operating income includes € 2.8 million from the release of provisions.

4.5. GENERAL ADMINISTRATIVE EXPENSES

T€	1/1/–12/31/2018	1/1/–12/31/2017
General administrative expenses	**120,370**	**110,650**
incl.:		
Personnel expenses	40,563	31,661
– Wages and salaries	32,220	26,782
– Social security contributions and expenses for pension provisions and benefits	8,343	4,879
• of which for retirement	4,878	1,549
other administrative expenses	79,807	78,988

The increase in general administrative expenses essentially results from the increase in the number of employees and higher expenditures for the provision of services by group companies.

4.6. OTHER OPERATING EXPENSES

T€	1/1/–12/31/2018	1/1/–12/31/2017
Other operating expenses	**18,416**	**2,312**

Other operating expenses include T€ 15,857 interest expense from the changes in pension obligations. The pension obligations include the effects arising in the valuation from the changes in the present value of the cover assets, the change in the discount rate and the effects from the compounding or discounting of the pension commitments.

4.7. TAX ON INCOME AND REVENUE AND OTHER TAXES

T€	1/1/–12/31/2018	1/1/–12/31/2017
Taxes	**14,549**	**6,139**
Industrial tax	8,698	4,073
Corporate tax	5,851	3,839
Other	–	–1,771

4.8. PROPOSED ALLOCATION OF EARNINGS

No statement is required on the proposed allocation of the earnings from the Executive Board under § 170 Para. 2 AktG, because the company has not made a balance sheet profit in this financial year.

5. Other data

5.1. PENDING FUTURES CONTRACTS

T€	Market value on 12/31/2018 positive	Market value on 12/31/2018 negative	Market value on 12/31/2017 positive	Market value on 12/31/2017 negative	Market value on 12/31/2016 positive	Market value on 12/31/2016 negative
Total Return Swap	2,432	–	3,696	–	4,071	–
Interest Rate Swaps	–	5,105	–	5,145	–	6,353

Forward transactions which were not yet settled at the reporting date consisted of Total Return Swaps and Interest Rate Swaps. The Total Return Swaps and Interest Rate Swaps were concluded to hedge against market risks, or change of interest rate risks.

5.2. RELATIONS WITH AFFILIATED COMPANIES

The sole shareholder of J.P. Morgan AG is J.P. Morgan International Finance Limited, Newark/ Delaware, USA. A dependency report under § 312 AktG [Aktiengesetz – German Stock Corporations Act] is issued at the end of each financial year.

J.P. Morgan Chase & Co. and J.P. Morgan Chase Bank, National Association, have informed us by letter dated January 11, 2019 that an indirect equity interest exists totalling 100 %. J.P. Morgan International Finance Limited informed us in writing on January 11, 2019 that a direct holding exists totalling 100 %.

The group financial statements for the smallest and the largest scope of included companies are prepared by JPMorgan Chase & Co., New York, whose shares are quoted on the New York Stock Exchange as well as on certain European and Asian stock markets. The consolidated annual financial statements can be obtained on request from J.P. Morgan AG, Frankfurt am Main.

The Bank is a member of the Deposit Protection Fund of the Association of German Banks.

5.3. NUMBER OF EMPLOYEES

On average for the year there were 305 employees, distributed as follows:

Number	12/31/2018	12/31/2017
Yearly average	**305**	**275**
Distribution of employees		
Authorized signatories	8	9
Authorized officers	146	135
Commercial employees	151	131

Employees who are seconded, released from duties and on parental leave are not included in these figures.

5.4. TOTAL REMUNERATION OF THE ACTIVE MEMBERS OF THE BOARDS

The remuneration paid to members of the Management Board totalled T€ 9,243. A portion of this came from 43,061 restricted stock units with a fair value on their grant date of T€ 3,575.

The remuneration paid to members of the Supervisory Board totalled T€ 10 in 2018.

No loans were granted to Board members during the business year.

5.5. TOTAL PAYMENTS TO FORMER BOARD MEMBERS AND THEIR DEPENDENTS

Pension provisions for these persons totalled T€ 16,674 as of December 31, 2018. The total remuneration paid to former members of the Management Board and their dependants amounted to T€ 3,364 as at December 31, 2018.

5.6. FEE EXPENSES[1]

T€	1/1/–12/31/2018	1/1/–12/31/2017
Total auditors' fees billed for the financial year for	**564**	**445**
financial statements auditing services	**444**	**365**
of which, for the previous year	10	5
of which, expenses in the current financial year	0	0
of which, expenses for creating provisions	434	360
Other confirmation services	**120**	**80**
of which, for the previous year	0	0
of which, expenses in the current financial year	0	0
of which, expenses for creating provisions	120	80
Other services	**0**	**0**
of which, for the previous year	0	0
of which, expenses in the current financial year	0	0
of which, expenses for creating provisions	0	0

[1] Net expenses, excluding VAT

The fee for auditing services reflects the annual statements audit services. Other confirmation services essentially include audits under § 89 WpHG and legally prescribed, contractually agreed and voluntary confirmation services (e.g. deposit protection). No tax consultancy services were provided.

5.7. EXPLANATORY NOTES ON OTHER FINANCIAL COMMITMENTS

The Company utilizes services from various Group member companies as part of its outsourcing functions. The business procurement contracts have a notice period of three months.

The lease agreement for the business premises has a term until August 1, 2028. The future rent payments amount to € 48 million as at December 31, 2018.

5.8. INFORMATION ON CORPORATE BODIES

Management Board
Dorothee Blessing (from May 1, 2018) Chairperson of the Management Board, Managing Director, J.P. Morgan AG
Stefan Behr Managing Director, J.P. Morgan AG
Nicholas Conron (from May 1, 2018) Managing Director, J.P. Morgan AG
Burkhard Kübel-Sorger Managing Director, J.P. Morgan AG
Supervisory Board
Mark S. Garvin Chairperson, Managing Director, J.P. Morgan Europe Limited
Guy America (since April 26, 2018) Deputy Chairperson, Managing Director, J.P. Morgan Securities plc
Elena Korablina (since April 26, 2018) Managing Director, JPMorgan Chase Bank N.A., London Branch
Olivier Vigneron (since April 26, 2018) Managing Director, JPMorgan Chase Bank N.A., London Branch
Thomas Freise Employee Representative, J.P. Morgan AG
Christoph Fickel Employee Representative, J.P. Morgan AG
Dorothee Blessing (until April 26, 2018) Managing Director, Regional Head Germany/Austria/Switzerland & Vice Chairperson Investment Banking EMEA
Frédéric P. Mouchel (until April 26, 2018) Deputy Chairperson, Managing Director and Chief Executive Officer, JPMorgan Bank Luxembourg, S.A.
Melanie Martin (until April 26, 2018) Managing Director, JPMorgan Chase Bank N.A., London Branch

Directorships or seats on supervisory boards

Management Board
Dorothee Blessing (from May 1, 2018) Management body: J.P. Morgan Securities plc Frankfurt Branch; Supervisory body: A.P. Møller Maersk Group
Stefan Behr; no further mandates
Nicholas Conron; no further mandates
Burkhard Kübel-Sorger Management Board of Whiteshire Debt Solutions GmbH
Supervisory Board
Mark S. Garvin Executive management body J.P. Morgan Securities plc, supervisory body J.P. Morgan Bank Luxembourg S.A. (Chairman of the Board); J.P. Morgan Europe Limited; Euroclear Holding S.A. (no longer Euroclear plc since November 12, 2018)
Dorothee Blessing (until April 26, 2018) Management body: J.P. Morgan Securities plc Frankfurt Branch; Supervisory body: A.P. Møller Maersk Group
Guy America; no further mandates
Elena Korablina (until February 26, 2019) Management Body J.P. Morgan Securities plc
Olivier Vigneron; no further mandates
Thomas Freise; no further mandates
Christoph Fickel; no further mandates

Frankfurt am Main, April 9, 2019

J.P. Morgan AG
Frankfurt am Main
The Management Board

DOROTHEE BLESSING

STEFAN BEHR

NICHOLAS CONRON

BURKHARD KÜBEL-SORGER

INDEPENDENT AUDITOR'S REPORT [1]

To J.P. Morgan, Frankfurt am Main

Report on the Audit of the Annual Financial Statements and of the Management Report

AUDIT OPINIONS

We have audited the annual financial statements of J.P. Morgan, Frankfurt am Main, which comprise the balance sheet as at 31 December 2018, and the statement of profit and loss for the financial year from 1 January to 31 December 2018 and notes to the financial statements, including the presentation of the recognition and measurement policies. In addition, we have audited the management report of J.P. Morgan for the financial year from 1 January to 31 December 2018.

In our opinion, on the basis of the knowledge obtained in the audit,

– the accompanying annual financial statements comply, in all material respects, with the requirements of German commercial law and give a true and fair view of the assets, liabilities and financial position of the Company as at 31 December 2018 and of its financial performance for the financial year from 1 January to 31 December 2018 in compliance with German Legally Required Accounting Principles, and
– the accompanying management report as a whole provides an appropriate view of the Company's position. In all material respects, this management report is consistent with the annual financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development.

Pursuant to § [Article] 322 Abs. [paragraph] 3 Satz [sentence] 1 HGB [Handelsgesetzbuch: German Commercial Code], we declare that our audit has not led to any reservations relating to the legal compliance of the annual financial statements and of the management report.

BASIS FOR THE AUDIT OPINIONS

We conducted our audit of the annual financial statements and of the management report in accordance with § 317 HGB and the EU Audit Regulation (No. 537/2014, referred to subsequently as "EU Audit Regulation") in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Annual Financial Statements and of the Management Report" section of our auditor's report. We are independent of the Company in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the

[1] Translation of the auditor's report issued in German language on the annual financial statements prepared in German language by the management of J.P. Morgan AG

EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the annual financial statements and on the management report.

KEY AUDIT MATTERS IN THE AUDIT OF THE ANNUAL FINANCIAL STATEMENTS

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the annual financial statements for the financial year from 1 January to 31 December 2018. These matters were addressed in the context of our audit of the annual financial statements as a whole, and in forming our audit opinion thereon; we do not provide a separate audit opinion on these matters.

In our view, the matter of most significance in our audit was as follows:

1 Accounting treatment of business activities transferred as a result of Brexit

Our presentation of this key audit matter has been structured as follows:

1 Matter and issue

2 Audit approach and findings

3 Reference to further information

Hereinafter we present the key audit matter:

1 Accounting treatment of business activities transferred as a result of Brexit

1 As part of the implementation of the group-wide Brexit strategy and the new role of J.P. Morgan AG as the central office for the Banking and Markets divisions of the Corporate & Investment Bank of the JP Morgan Chase & Co. group within the European Union, during financial year 2018, the Company activated product operations in the following business activities: Futures & Options Execution and Clearing as well as Equity Trading. In the course of 2018, the Company became a member of European exchanges and Central Clearing Counterparty Houses ("CCP") in order to be able to execute and clear orders for exchange-traded derivatives (futures & options) on behalf of customers or on its own account through J.P. Morgan Securities plc ("JPMS plc"), London, United Kingdom, and J.P. Morgan Securities LLC ("JPMS"), New York, USA. Starting in mid-December 2018, initial orders were carried out for a direct non-group customer relationship. In addition, since July 2018, J.P. Morgan AG has established memberships in European stock exchanges and other trading locations for equity trading. As part of a comprehensive test program, various orders were executed as part of proprietary trading with the sister company JPMS plc and trading on own behalf

on various stock exchanges ("Riskless Principal"). The business activity in equity trading had only a very minor impact on the annual financial statements in the 2018 financial year. Business activity in exchange-traded derivatives led to a significant increase in the balance sheet items for loans and advances to banks, loans and advances to customers, liabilities to banks and liabilities to customers as well as other assets and other liabilities. In addition, the Company reports trust assets and liabilities due to segregated customer portfolios (from initial and variation margin) for the first time. Net interest and commission income were positively influenced by the start of new business activities in the fourth quarter of 2018. Due to the particular significance of the new business activities, the volume of the transactions, and the complexity and impact on earnings, these matters were of particular importance for our audit.

2 As part of the audit of the annual financial statements, we analysed the effects of the new business activities on the annual financial statements and assessed the Company's approach to the recognition and measurement of transactions.

We have assessed the appropriateness and effectiveness of the relevant internal control system of J.P. Morgan AG with regard to the accounting of business transactions in the new business activities. In doing so, we have focused on those control activities which are related to the recording of relevant master data and transactions, the reconciliation of portfolios with the relevant nostro banks, stock exchanges and CCPs and the validation of the resulting earnings components.

In addition, we have evaluated the contractual terms with nostro banks, stock exchanges, CCPs, administrators and customers. In particular, we have verified the requirements for the segregation of customer portfolios and checked whether the segregation of customer confirmations has been carried out in accordance with the contractual agreements.

In addition, we have tracked and assessed the accounting and valuation of open positions at balance sheet date and the effects of these transactions on the earnings components of the statement of profit and loss. In our opinion, the valuation methods and assumptions applied by the Company's legal representatives, taking into account the available information, are generally suitable for carrying out a proper valuation of the open positions as of balance sheet date. On the basis of our audit, we were able to satisfy ourselves that the presentation in the balance sheet and statement of profit and loss was generally carried out in a proper manner and adequately justified and documented in the context of the transfer of business activities as a result of Brexit.

3 The Company's information on the balance sheet presentation of the business activities being transferred as a result of Brexit are included in the Notes, in particular in the Notes to the

Balance Sheet and Accounting and Valuation Principles as well as in sections 3.2., 3.3., 3.6., 3.8., 3.11., 3.12., 3.13., 4.1., 4.2. of the Notes.

OTHER INFORMATION

The executive directors are responsible for the other information. The other information comprises the annual report – excluding cross-references to external information – with the exception of the audited annual financial statements, the audited management report and our auditor's report.

Our audit opinions on the annual financial statements and on the management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the annual financial statements, with the management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

RESPONSIBILITIES OF THE EXECUTIVE DIRECTORS AND THE SUPERVISORY BOARD FOR THE ANNUAL FINANCIAL STATEMENTS AND THE MANAGEMENT REPORT

The executive directors are responsible for the preparation of the annual financial statements that comply, in all material respects, with the requirements of German commercial law, and that the annual financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Company in compliance with German Legally Required Accounting Principles. In addition, the executive directors are responsible for such internal control as they, in accordance with German Legally Required Accounting Principles, have determined necessary to enable the preparation of annual financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the annual financial statements, the executive directors are responsible for assessing the Company's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting, provided no actual or legal circumstances conflict therewith.

Furthermore, the executive directors are responsible for the preparation of the management report that as a whole provides an appropriate view of the Company's position and is, in all material respects, consistent with the annual financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the management report.

The supervisory board is responsible for overseeing the Company's financial reporting process for the preparation of the annual financial statements and of the management report.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE ANNUAL FINANCIAL STATEMENTS AND OF THE MANAGEMENT REPORT

Our objectives are to obtain reasonable assurance about whether the annual financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the management report as a whole provides an appropriate view of the Company's position and, in all material respects, is consistent with the annual financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the annual financial statements and on the management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual financial statements and this management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the annual financial statements and of the management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
- Obtain an understanding of internal control relevant to the audit of the annual financial statements and of arrangements and measures (systems) relevant to the audit of the management report in order to design audit procedures that are appropriate in the circumstances, but not

for the purpose of expressing an audit opinion on the effectiveness of these systems of the Company.
- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.
- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the annual financial statements and in the management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to be able to continue as a going concern.
- Evaluate the overall presentation, structure and content of the annual financial statements, including the disclosures, and whether the annual financial statements present the underlying transactions and events in a manner that the annual financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Company in compliance with German Legally Required Accounting Principles.
- Evaluate the consistency of the management report with the annual financial statements, its conformity with German law, and the view of the Company's position it provides.
- Perform audit procedures on the prospective information presented by the executive directors in the management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the annual financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other Legal and Regulatory Requirements

Further information pursuant to Article 10 of the EU Audit Regulation

We were elected as auditor by the annual general meeting on 26 April 2018. We were engaged by the supervisory board on 31 July 2018. We have been the auditor of the J.P. Morgan, Frankfurt am Main, without interruption since the financial year 1983.

We declare that the audit opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

German Public Auditor Responsible for the Engagement

The German Public Auditor responsible for the engagement is Christoph Lehmann.

Frankfurt am Main, April 11, 2019

sgd. Christoph Lehmann
Wirtschaftsprüfer
(German Public Auditor)

sgd. ppa. Kerstin Voeller
Wirtschaftsprüfer
(German Public Auditor)

APPENDIX II

Annual Report of
J.P. Morgan AG
for the financial year ended 2017

MANAGEMENT REPORT AS OF DECEMBER 31, 2017

Business and General Conditions

ORGANISATION AND LEGAL STRUCTURE

J.P. Morgan AG with its registered office in Frankfurt am Main is a 100% indirect subsidiary of JPMorgan Chase & Co. with its registered office in Columbus, Ohio, in the United States of America. The Bank has a full banking license in accordance with § 1 par. 1 of the KWG [Kreditwesengesetz – German Banking Act] (Nos. 1 to 5 and 7 to 9) and conducts banking business with institutional clients, banks, corporate clients and clients from the public sector. The shares of J.P. Morgan AG are held directly by the J.P. Morgan International Finance Limited with its registered office in Newark, United States of America.

J.P. Morgan AG is run by a two-member Management Board, front and back office, and controlled by a six-member Supervisory Board. In principle, the Management Board meets monthly, while the Supervisory Board meets at least four times a year; the Supervisory Board held five meetings in 2017 – and two meetings in the course of the year to date. The Risk Committee of the Supervisory Board met four times in 2017 and thus far twice in 2018. The Internal Auditor also informs the Supervisory Board in writing on a quarterly basis concerning audits that have been conducted and their results. The names of the members of the Management Board and the Supervisory Board are listed in the Notes.

For the meetings of the Management Board, a thorough presentation is created by the two business units Treasury Services and Investor Services – and, since April 2017, the Markets business segment as well – that contains all of the events of the preceding month that are important with respect to the discussion of the course of business. It also contains the development of Key Performance Indicators (KPIs) and Key Risk Indicators (KRIs). In addition, the meeting is provided with information on the financial trends, a detailed risk report and a report from the Corporate Functions, especially Compliance and Internal Audit, for discussion, review and decision. The minutes of the Management Board meetings are kept by an employee from the Legal Department.

For its meetings, the Supervisory Board receives a current summary of the topics discussed at the Management Board meetings, in order to gain a detailed overview – for discussion, debate, and resolution adoption – with respect to the course of business, new planned business activities, the financial development, the risk-bearing capacity, the dialogue with regulators, the status of current projects, and the work of Corporate Functions.

The Supervisory Board's Risk Committee meets at least four times a year and forms an assessment on the risk-bearing capacity of J.P. Morgan AG and the development of the risk profiles in the various risk categories. In addition, the Risk Committee is also closely involved in defining the recovery scenarios and their analysis thereof.

The Supervisory Board's Audit Committee normally meets with the statutory auditor twice a year to discuss the audit plan as well as the annual financial statements and audit report.

The Supervisory Board's Remuneration Committee and Nomination Committee met in 2017 when the occasion arose.

Minutes of meetings of the Supervisory Board and its committees and meetings of the Management Board are taken by an employee from the Legal Department or an external lawyer.

INTERNAL CONTROL SYSTEM

The Treasury Services and Investor Services business segments are each managed by a member of the Management Board (Front Office) and controlled by a Member of the Management Board (Back Office). Since March 2017, Mr. Stefan Behr has also been responsible for the newly defined Markets business segment in addition to the Treasury Services business segment. With the departure of Ms. Michelle Grundmann at the end of October 16, 2017, Mr. Stefan Behr has also taken on the Investor Services business segment on an interim basis.

In addition to the regular meetings of the Management Board and the Supervisory Board, the Local Operational Risk & Control Committee, representing all functions subordinated to the CFO/COO Management Board, manages corporate governance in everyday business on behalf of the Management Board. J.P. Morgan AG's Corporate Functions continue to support not only the Bank's business segments but also all other Group units in Frankfurt am Main. In addition, there is an Outsourcing Committee, which evaluates planned outsourcing projects from risk standpoint in terms of their adequate organisational set-up, monitors compliance with regulatory requirements, and serves as the escalation instance in case of poor performance by the service provider. In addition, a regular forum for identifying new legal provisions and standards was introduced under the leadership of the MaRisk Compliance Officer.

In addition to the primary management variables of net interest income and net commission income, a conservative risk policy that limits the possible credit and counterparty risk provides the basis for successful management of J.P. Morgan AG by the Management Board. Under the sub-delegation of the Management Board, the Risk Oversight Committee of J.P. Morgan AG discusses methodologies for assessing the riskbearing capacity, the risk profile of J.P. Morgan AG, and individual risk events.

The course of business, KPIs and KRIs, feedback from our clients, strategic projects, industry trends, and changes in the legal and regulatory environment and their impact on the respective business segments are discussed at monthly meetings of the Business Forums, at which Sales, Operations, and Control functions meet and which the international Business Control Officers also attend. In addition, treasury activities are discussed and reviewed each month at the European Asset & Liability Committee. The Management Board is thus enabled to identify changes or risks in business performance in a timely manner and to make appropriate decisions and take necessary actions.

In addition to this, the Management Board receives daily detailed reports from the Credit as well as from the Finance department about draw-downs, overdrafts, the collateral position, and the key COREP indicators. These reports are continuously being enhanced to meet the increasing regulatory requirements.

SEGMENTS AND ESSENTIAL PRODUCTS AND PROCESSES

J.P. Morgan AG is an integral part of the worldwide J.P. Morgan Group and constitutes the core of group activities in Germany. The full integration of the Bank into J.P. Morgan's global Treasury Services and Investor Services segments of the Group's Corporate & Investment Bank plays a crucial role, as it provides us with the necessary international network to deliver client services that do justice to J.P. Morgan's mission

"First class business in a first class way". In 2017 the Bank continued to focus on its core activities, in order to fulfil the roles as the Group's central clearer for euro payment transactions, as well as custodian and Global Custodian for the German investment market, operating out of Frankfurt am Main.

Again in 2017, customer satisfaction, increased efficiency and effective controls in our operational processes were in focus, in order to improve our residual risk profile as well as to also further improve our interactions with our clients. The trends in our KPIs and KRIs, together with individual feedback from clients, encourage us, so that we will continue to pursue these objectives in 2018, while also placing an increased focus on the quality of our outsourced processes.

Treasury Services

Within the Group J.P. Morgan AG is globally responsible for the area of euro-clearing operations. Given the standardisation of European payment processing and our high level of investment in technology, we expect over the next few years to roll out our world-leading technology and our customer service in the area of low-value payments, to both wholesale corporate clients and also to other financial institutions, both centrally through J.P. Morgan AG, as well as in close collaboration with our sister companies. We continue to expand our top position as euro clearer in TARGET2 and EBA with improved offerings for our multinational corporate clients and financial institutions domestically and abroad.

With these transactional services as our backbone, our sales teams offer highly advanced solutions in the area of cash and treasury management as well as trade finance for corporates, insurances, asset managers, and financial institutions. Advanced technology and geographical expansion of the Group as part of the Global Corporate Banking strategy enable our sales teams to offer more comprehensive global cash management solutions that provide notable advantages in the management of liquidity, particularly for our international clients. Together with our highly developed service concept, this allowed us to continue to grow with selected, international target clients, above all in global cash management and in trade finance management.

Since January 23, 2017, J.P. Morgan AG has also taken on the role of the central cash agent in Target2Securities (T2S) for selective sister companies within the Group. The scope of activities was limited to a few selected markets in 2017, but will further expand in 2018. This development underlines the global role of J.P. Morgan AG within the Group.

Investor Services

In the J.P. Morgan Group's global Investor Services – Custody & Fund Services (CFS) business segment, J.P. Morgan AG of Frankfurt am Main acts as a fully-licensed and regulated custodian in Germany, providing global custody and custodian bank services to institutional clients since 1995. In this function, J.P. Morgan AG currently manages a total volume of € 320 billion for its clients.

One of the core functions as custodian is the performance of various control functions to protect the investment assets and the investor, in addition to the custody of assets, the maintenance of an up-to-date inventory list (with regard to non-custodial assets), as well as the settlement of orders. Within the framework of its control functions as regulated custodian, J.P. Morgan AG ensures an effective supervision of the capital management company's day-to-day activities in a timely manner with respect to the relevant details and checks its compliance with the statutory provisions, regulatory obligations, and contractual provisions.

In addition to the regulatory monitoring requirements and obligations in connection with the safeguarding of assets and settlement of trades, the broader service offerings include a comprehensive range of products, additional services, and above all, client reporting.

It can be stated that institutional investors are highly flexible in their search for returns and will examine and implement alternative investment solutions. This trend is intensified by the current low-interest rate environment. As a custodian, J.P. Morgan AG is supporting this strategic direction and subsequent challenges by adjusting its product offerings as well as operational processes.

Markets

With the enactment of the US and EU Non-Cleared Margin Rules (NCMR) Phase II, J.P. Morgan AG entered a new business segment in March 2017, in which it acts as booking unit for selected client segments for over-the-counter (OTC) derivatives for hedging purposes. Completely in the spirit of its conservative risk policy, J.P. Morgan AG transfers the resulting market risk and counterparty credit risk directly to the Group's central risk management units. These activities were able to be expanded on a continuing basis in the course of 2017.

MARKETS AND COMPETITIVE POSITION

When it comes to Treasury Services, it is necessary to distinguish between client relationship management and the operational hub for euro-clearing operations. In relationship management, J.P. Morgan AG is responsible for institutional clients, banks, corporate clients and public sector clients primarily based in Germany or Austria. This also includes subsidiary companies based in Germany or Austria whose parent companies have their headquarters in other countries.

With the global responsibility for the euro-clearing operations area within the Group, which, in addition to the core team in Frankfurt am Main, also encompasses teams in sister companies of the Group in Mumbai (India) and Manila (Philippines), J.P. Morgan AG serves clients worldwide from countries in which the J.P. Morgan Group is active. In its function as euro clearer in TARGET2 and EBA, and measured in terms of the amount of the payments executed on a daily basis, J.P. Morgan AG is among the largest providers of payment services in Germany.

The Investor Services – CFS segment predominantly serves open domestic special alternative investment funds (AIF) which are governed by the Capital Investment Act, and direct investments by institutional investors and global custody mandates. The J.P. Morgan Group's focus on client-oriented and innovative product solutions utilising economies of scale of standardised processes is being strengthened on an ongoing basis. J.P. Morgan AG is among the largest custodians in Germany this year as well.

Target clients in the Markets area are a specific segment of Special Purpose Vehicles (SPVs) that aim to utilise the relief under the EU NCMR compared to the US regulations.

KEY LEGAL AND ECONOMIC INFLUENCE FACTORS

In 2017 the legal and regulatory environment was characterised by a series of regulatory changes, particularly EU initiatives. Their implementation did not, however, have any material influence on the core business or client relationships of J.P. Morgan AG. With the enactment of the US and EU Non-Cleared Margin Rules (NCMR) Phase II, however, J.P. Morgan AG was able – as already mentioned – to open up a new business segment in March 2017 within the framework of the Group strategy.

Discussions with clients focussed, on the one hand, on the question how to invest excess liquidity in the light of growing pressure to pass on the European Central Bank's negative interest rates, and on the other hand, on our clients' expectation of further price reductions by J.P. Morgan AG passing on the benefits of internal efficiency improvements.

Topics that we are looking at now with an eye to the near future are increasing digitalisation and its effects on our business processes, IT security because of the growing threats from cyber crime, the impact of Brexit on the business models of the Group and, last but not least, the implementation of new regulatory requirements.

PERSONNEL DEVELOPMENT

The number of employees of J.P. Morgan AG increased in 2017 from 269 to an average of 275[1] compared to the previous year. The fluctuation rate rose from 6.6% in 2016 to 9% and was thus at the lower end of our target corridor of 8% – 12%. Of the total number of employees, 26% had contractually agreed flexible working time arrangements; in the previous year it was 27%.

In line with our business concept, we continue to put the highest emphasis on the qualitative selection of new hires and continued training and education programs for our staff.

The J.P. Morgan AG human resources policy focuses on the highest level of quality and diversity among employees, and is simultaneously committed to adjusting to the needs of our employees.

The remuneration system of J.P. Morgan AG is integrated into the remuneration system for employees in the EMEA region ("EMEA Remuneration Policy"). A summary of this remuneration system can be found in the most current publication of the "EU Remuneration Disclosure" at http://investor.shareholder.com/jpmorganchase/basel.cfm. Additional J.P. Morgan AG-specific information concerning the remuneration system is also contained in the "J.P. Morgan AG Disclosure" that is also published there.

BUSINESS DEVELOPMENT

2017 was a year for J.P. Morgan AG with a stable result compared to the previous year.

Our net interest income continued to suffer from the policy of the European Central Bank of ongoing low interest rates and fell substantially compared to the previous year. This devlopment is, firstly, a result of the sales of securities of the liquidity reserve conducted in 2016 and 2017 and, secondly, a result of the decreased opportunities to invest our liquidity surplus in securities via so-called reverse repos.

The development of net commission income was highly pleasing in the light of an increase by about 11% in total

[1] Employees that have been seconded or placed on leave or are on parental leave are not included herein.

compared to 2016; the new Markets business segment was able to contribute about 3%. The overall increase was higher than our prudent expectations and shows the confidence our clients have in entrusting more business to us.

As a result of the sale of securities of the liquidity reserve, we had extraordinary income in 2017 in the amount of € 9.4 million, which was posted in the other operating result.

Our other operating income fell by 7.6% in 2017 compared to the previous year. A series of effects was responsible for this, primarily: (a) clearly lower level of services billed to other J.P. Morgan companies and (b) the loss of the one-time effect from 2016 as a result of the statutory change of the calculation basis for the discount factor for the valuation of pension liabilities.

In spite of disciplined cost management, we had not been able to keep the intra-group project and administrative costs at previous year's level, but instead costs rose by about 7% compared to 2016. This is due to increased project-related costs for the implementation of new regulatory requirements as well as for new systems and applications.

On December 31, 2017 the balance sheet total fell substantially by 30% in comparison to the December 31, 2016 closing date. The key driver was the repayment of Euro-denominated liquidity to the Group, which had been left at Bundesbank.

From an overall perspective, we consider the year 2017 as cautiously positive. The business developments of our core activities in Treasury Services and Investor Services met our expectations; the focus in 2018, particularly in the Investor Services segment, will be on cost management. The business development in Markets has also been in line with our expectations.

Earnings, Financial and Assets Position

EARNINGS

Thanks to the intensification of our activities with existing clients, J.P. Morgan AG managed to increase its net commission income in 2017. During the fiscal year, net commission income was 11.2% above the previous year's value, with a total of € 85.6 million. Net interest income fell back compared to the prior year and was at € 7.9 million, being € 6.9 million lower than in 2016. The significant factor that influenced the interest income is first and foremost the lack of investment opportunities in securities in the form of reverse repos for our liquidity surplus. The target figures for 2017 were slightly exceeded both in terms of net interest income and net commission income. Other operating income rose by 7.6% to € 39.7 million for 2017. In particular, the positive effect of the sale of securities of the liquidity reserve in the amount of € 9.4 million made a positive contribution to this development.

Personnel and administrative expenditures increased by 6.7 % compared to 2016. The increase is primarily due to greater expenditures for the rendering of service of other Group companies. The result of ordinary business activity thus declined by 8.0 % to € 19.9 million. The annual profit for the 2017 fiscal year is € 13.7 million after taxes.

The result translates into a return on equity of 2.1 % after 2.4 % in the previous year.

FINANCIAL POSITION

Principles and Objectives

The balance sheet of J.P. Morgan AG is driven by deposits of its institutional clients and banks in the Treasury Services and Investor Services segments and shows a markedly stable financial situation in 2017. J.P. Morgan AG is solely extending credit in the form of intra-day lines and short-term overnight overdrafts in the event of settlement gaps in both business segments. Excess liquidity which is generated as result of this deposit-driven business model, is invested mainly in reverse repo-transactions with JPMorgan Chase Bank, N.A. The bond portfolio, consisting of securities of first-class issuers, was further reduced in the course of 2017, such that only one security remained in the portfolio at the end of the fiscal year.

J.P. Morgan AG held sufficient liquidity at all times in 2017. The Bank manages liquidity conservatively. The liquidity ratio reached 1.79 as of December 31, 2017 and averaged 1.87, while the liquidity coverage ratio was 154.5 %.

Capital Structure

In comparison to December 31, 2016, the liable equity capital grew by the 2016 profit carried forward. On the balance sheet as of December 31, 2017, this results in a Tier 1 capital ratio of 39.3 % and a total capital ratio of 50.5 %. With this amount of capital available, J.P. Morgan AG remains in a comfortable position to support existing business activities, as well as the planned business growth as required.

J.P. Morgan AG's regulatory equity capital was composed of the following components as at the reporting date of December 31, 2017:

Tier 1:	€ 649	million share capital, reserves and funds for general banking risks
Upper Tier 2:	€ 0	million
Lower Tier 2:	€ 186	million subordinated loans
Total Tier 2:	€ 186	million

Off-Balance Sheet Business

Within the segment of Trade Finance, credit risks which J.P. Morgan AG took on itself in the form of contingent liabilities, are, on an unchanged basis, collateralised for the most part directly on an intra-group basis. For the note issued by J.P. Morgan AG, we hold a total return swap to cover the risk. In addition we hold an interest swap with JPMorgan Chase Bank N.A. to cover the risks of changing interest rates arising from the securities portfolio.

ASSET SITUATION

With respect to our clients, receivables increased on the closing date by € 55.4 million to € 260 million as a result of greater use of short-term overdraft facilities. Deposits rose by € 614 million to € 6,703 million on the balance sheet closing date. With respect to credit institutions, receivables declined as a result of reduced treasury activities by € 7,079 million to € 14,950 million (portion thereof consisting of balances with Bundesbank: € 7,822 million). The liabilities to credit institutions declined by € 7,844 million to € 7,714 million on the balance sheet closing date. The balance sheet total of J.P. Morgan AG thus declined substantially and was at a level of € 15,746 million on the balance sheet closing date. The total capital ratio on December 31, 2017 was 50.5% and totalled 81.69% on average for 2017.

The securities portfolio with first-class bonds was further reduced in the course of the year and has shrunk by € 197 million to a book value of € 51 million compared to December 31, 2016.

Financial and Non-financial Performance Indicators

FINANCIAL PERFORMANCE INDICATORS

Financial performance indicators, defined for internal control of J.P. Morgan AG, comprise in particular absolute KPIs (Key Performance Indicators) such as the net interest income, net commission income, and income before tax and extraordinary items. In addition, return on equity, cost-income ratio, and the pre-tax profit margin are used to measure performance. The KPIs are derived directly from the information on the balance sheet and income statement of the annual financial statement and are as follows for the current and previous financial years:

€ M	2017	2016
Net Revenue	135.0	128.7
Net interest income	7.9	14.9
Net commission income	85.6	77.0
Total expenses	115.2	107.1
Income before Tax and extraordinary items	19.9	21.6
Net income	13.7	15.5
Equity	**659**	**645**
Return on Equity (RoE) (Net income/average equity)	2.1 %	2.4 %
Return on Investment (Net income/balance sheet total)	0.09 %	0.07 %
Cost-income ratio (Total expenses/Net revenue)	85.30 %	83.25 %
Pre-tax profit margin (Result of ordinary business activity/Net income)	14.70 %	16.77 %
Tier 1 capital ratio	39.3 %	72.6 %
Total capital ratio	50.5 %	93.3 %

The decline in interest earnings of slightly over 45 % compared to the prior year is explainable mainly as a result of the reduction of the bond portfolio and the lack of investment opportunities in reverse repo transactions.

The development of net commission income, on the other hand, was very positive with an increase of around 11 %. The Treasury Services and Investor Services segments each contributed to this positive development. In addition, the first-time commissions earned from the Markets segment also had a positive effect on commission income. Additional earnings from new client acquisition did not play a significant role in either segment in 2017.

Despite the unsatisfactory trend in net interest income, the net earnings target of € 124 million was surpassed with € 135.0 million.

In spite of this increase, the operating result declined by about 8 % to € 19.9 million compared to the previous year. Personnel and administrative costs, which rose by 6.7 %, had a significant influence on this reduction.

The cost-income ratio increased slightly from 83.25 % to 85.30 %.

The return on equity (RoE) declined from 2.4 % in the previous period to 2.1 % and is nevertheless above the forecasted plan value of below 2 %. The Tier 1 and total equity capital ratios fell as expected in comparison with December 31, 2016 as a result of the changes, but remained in a comfortable range.

NON-FINANCIAL PERFORMANCE INDICATORS

Non-financial performance indicators focus on the role of J.P. Morgan AG as a transactional bank in euro payment clearer as well as a custodian. Along with the actual volumes settled by J.P. Morgan AG for its clients, we focus on the degree of automation and the actual losses from operational errors. In addition, we measure the fluctuation rate as an indicator of stability of our operational platform from an employees' perspective.

	2017	2016
Number of payment instructions – High Value (TARGET2 & EBA EURO1)	4.7 million	4.5 million
Number of payment instructions – Low Value (STEP2 only)	66 million	63 million
Straight-through processing rate	98.39 %	98.34 %
Assets under Custody (in € billion)	320	309
Customer satisfaction – Custodian bank (Internal Score)	100 %	100 %
Operative losses (in € million)	0.1	0.1
Fluctuation rate	9 %	5 %
Gender Diversity (VP-Level)	37 %	35 %

The non-financial performance indicators that describe the business volume of J.P. Morgan AG show a stable environment with slight growth in all core areas and further improvement of the level of automation in payment transactions at an already extremely high level.

In the area of the custodian, we were able to maintain the extraordinay result of our internal scoring model from the previous year with respect to client satisfaction thanks to the high level of reliability and quality of our client service and operations function in handling client inquiries and instructions. This constant positive trend is also reflected in the increased value of assets that our clients in the custodian entrusted to us in 2017.

From an operations perspective, we continue to aim for greater automation, which goes hand-in-hand with efficiency enhancement, cost savings as well as with the reduction of sources of error.

The operational losses in 2017 stayed within a range that was below our already ambitious targets. "Operational excellence" remains our guiding principle, and is connected with our efforts to achieve constant improvements in our technology platforms, the internal control systems and the ongoing training of our employees. It is important to us that we analyse operational errors in detail and draw the necessary consequences for the future. It is for this reason that we have a particularly strong commitment to an open "risk and error culture".

The fluctuation rate rose in 2017 compared to the previous year, but within the range of our target corridor. With an intensified competition for "talent" at the Frankfurt financial centre, we see this low rate as an affirmation of our efforts to steadily improve the work environment and our employees' development opportunities. One of our priorities remains to decisively work towards a "great team & winning culture". In addition to the Group-wide "Leadership Edge" training programme, which was already implemented at the Frankfurt location in 2016, the focus in 2017 was on the overhaul of the staff appraisal system and further training of managers. In addition, we are proud that we were able to take additional steps towards the active support of our "Diversity" agenda through the business resource groups in the location.

For 2018, we expect – as in the previous years as well – a moderate increase in the number of payment instructions in the high-value area, SEPA payments, and transactions with OTC derivatives, and moderate growth in assets under custody. The Straight-Through-Processing-Rate in payment transactions should remain at the extremely high level of the previous year in 2018, while it is our objective to improve the level of automation when it comes to the handling of client orders in the Investor Services segment. In addition, it is important to us to continue to strengthen the quality and efficiency of our client service on a sustainable basis. With respect to the fluctuation rate, we expect to be able to maintain the 2017 level, since we are convinced that we will remain attractive to talented people as a result of the Group's strong competitive position, outstanding career and development opportunities, inclusive work environment, and job flexibility.

BUSINESS PRINCIPLES "HOW WE DO BUSINESS"

J.P. Morgan AG is completely integrated into the corporate culture of JPMorgan Chase & Co., whose guiding principles are convincingly described by the four pillars of the Group-wide business principles:

- Exceptional Client Service
- Operational Excellence
- A Commitment to Integrity, Fairness and Responsibility
- A Great Team and Winning Culture

For further details please visit the website of JPMorgan Chase & Co.:
https://www.jpmorganchase.com/corporate/About-JPMC/ab-business-principles.htm

Relationships with related enterprises and persons

We have identified our parent company J.P. Morgan International Finance Ltd. and JPMorgan Chase Bank, N.A., as affiliated companies of J.P. Morgan AG. We consider the members of the Management Board and the Supervisory Board of J.P. Morgan AG and their family members as related persons.

The following financial transactions are carried out with related companies:

– Money market transactions, investing and borrowing money
– Transactions in total return swaps and OTC derivatives
– Reverse Repos
– Nostro accounts
– Provision of subordinated capital
– Purchasing and supplying corporate services

All transactions have been closed on normal market terms. J.P. Morgan AG received appropriate compensation for every legal transaction with associated companies that were known to J.P. Morgan AG at the time at which the legal transactions were undertaken. There are no transactions conducted with related persons.

Outlook

SIGNIFICANT OPPORTUNITIES AND RISKS FOR THE UPCOMING FINANCIAL YEARS

Our outlook from recent years substantially retains its validity for the coming year:

With reference to economic trends in Germany, we are assuming continued positive growth in the 2018 Gross Domestic Product in comparison to 2017; the outlook for 2019 is also pleasantly positive. This means that we expect the economy in Germany to remain buoyant for the foreseeable future. We see the European economy continuing on a path of solid growth, with falling unemployment figures and an inflation rate well below 2 %. Thus, the pressure on inflation is not yet great enough for a key interest rate increase by the European Central Bank in 2018. However, this picture can change in 2019. The long-term consequences of Brexit and the current uncertainty with respect to the British government's negotiations with the European Union, the political tendency toward national protectionism, which weakens the European Union as a stabilising force in the political canon, and the simmering trade conflict between the United States and China, which would also negatively affect the European Union, involve possible risks.

Also over the next years we expect to see a continuation of the trend towards professionalising cash management in companies, pension funds and insurers, with the goal of further integration of the value-added chain in the liquidity management of a company for continued income optimisation. In light of the negative rate interest environment, which, in our opinion, will not substantially change in 2018, the focus of the dialogue between banks and clients will continue to be the banks' opportunity to raise "non-operating liquidity" of clients, as well as our clients' earnings and risk goals.

For the banking sector in Germany, but also more widely, implementation of the legal regulations and optimisation of overall bank controlling remain the greatest challenges. In addition, there are the consequences of Brexit, which will lead in the short term to additional investment costs, but also a sustained higher cost base in the medium term, without having achieved a tangible "value added" through an adjustment or further development of our service offerings for our clients. In addition, there is a sustained price competition with respect to standard products in an extremely unfavourable negative interest rate environment. The increased willingness of clients to switch shows how important it is, in spite of the multitude of internal bank projects, to continue to intensify the dialogue with our clients and continue to address changed client needs. In this regard, investments in technology and adaptation of business processes, but also the retention of specialists and talented people, will play an important role, in order to maintain or even strengthen our own competitive position.

As an intra-group service provider, J.P. Morgan AG is well positioned as a euro payment clearer and was able to further strengthen its position through the new role as cash agent in Target2Securities. For 2018 we also plan an expansion, and thus the completion, of our range of services in payment transactions, in order to thereby create the basis for the acquisition of new clients in later years.

The trend of the large institutional investors toward adapting their investments to the changed picture of an increasingly globalised economy and the resulting demand for Global Custodian services will continue in 2018 as well. This could lead to opportunities for growth in the custodial business, which could be up to 10 % in assets under custody. In order to be able to better profit from the potential economies of scale of our highly complex platform, an expansion of our target segments in the coming two years is thoroughly conceivable.

As a result of the decision in March 2017 to also act in the future as a booking unit for OTC derivatives for selected client segments and thereby take over existing activities from other J.P. Morgan units in Great Britain – and thanks to an outstanding rating by Moody's (A1/P-1), Standard & Poor's (A+/A-1) and Fitch (AA–/F1+) – we also see opportunities to further expand this new business sector.

With reference to the United Kingdom's exit from the European Union ("Brexit") and the associated necessity of banks to restructure in order to be able to continue to offer financial products and services in the EU market, J.P. Morgan AG sees itself as well positioned to take on a greater role here in the implementation of the Group's Brexit strategy. J.P. Morgan AG has already initiated some concrete steps. This includes, among other things, an expansion and associated strengthening of the Management Board, preparation of a capital increase, registration of stock exchange memberships, and planned implementation of capital models.

We continue to see risks for our business in the disproportional regulation of the financial markets, the political uncertainties of the ongoing Brexit negotiations, but above all the fundamental "execution risk" within the entire European banking sector, which could endanger the stability of the financial markets. In addition, we also see, above all, a further burden through an intensification of the monitoring duties and reporting obligations – triggered by new regulations – that have to be offset by cost-cutting in the operative areas in order to not negatively impair J.P. Morgan AG's earning situation on a lasting basis.

Opportunities to pass these costs on to our clients are only possible on a highly limited basis in light of the increasing pressure on prices in a transaction business with many competitors. Even if we were able to pass on the liquidity costs to our customers for the most part, this step would not increase the dwindling interest income that arises from the lack of investment opportunities that match our risk profile.

We see further risks in the political destabilisation of some countries or regions, which could lead to a clear deterioration of the market situation, with potential negative effects on the solvency of our clients, and resulting sustained losses.

The sections "Expectations for the Bank's future performance", "Assumptions", "Development of Segments" and "Financial Solvency" have been deleted for the purpose of this Appendix II

Risk Report

Introduction

Risk is an inherent part of J.P. Morgan AG's business activities. When J.P. Morgan AG offers products or services, it takes on some degree of risk. J.P. Morgan AG's overall objective is to manage its business, and the associated risks, in a manner that balances serving the interest of its clients, customers and investors and protects the safety and soundness of J.P. Morgan AG.

RISK STRATEGY AND RISK MANAGEMENT

The risk strategy is derived directly from J.P. Morgan AG's business strategy. It defines the leading principles for risk management in J.P. Morgan AG and is defined by the Management Board of J.P. Morgan AG and is approved annually by the Supervisory Board.

The risk strategy defines how J.P. Morgan AG will manage the risks it has taken as part of its business activities. By limiting and managing the risks, risk-bearing capacity and liquidity are ensured at all times. The risk strategy covers all main risks and is, if necessary, further specified for individual risk categories in the form of partial risk strategies and then made concrete and operational using policies, guidelines and operating procedures. The completeness and suitability of the risk strategy is reviewed annually. Basis for the review is the annual risk inventory (also completed on an ad-hoc basis if required). This ensures that the risk strategy takes into consideration all material risks faced by J.P. Morgan AG.

The classification of individual risk categories as a material risk is based on whether the occurrence of the risk could have a serious negative effect on J.P. Morgan AG's risk-bearing capacity, liquidity or capital situation.

As per the risk inventory, in 2017 the following risk categories are considered material for J.P. Morgan AG:

– Strategic Risk including Liquidity risk and Business risk,
– Credit risk,
– Market risk, including Interest rate risks of the banking book,
– Operational risks,
– and Pension risk.

Risk appetite was defined by allocating the available risk covering potential to the individual risk categories. This facilitates compliance with the limits and allows for the monitoring of that compliance throughout the financial year.

The following principles apply for risk management and monitoring:

– Clearly defined organisational structures and documented processes are in place for all risks and respective business, from which the responsibilities and competencies of all functions involved are derived.
– There is a clear segregation of duties between first (front office) and second line (back office) of defence in order to avoid potential conflicts of interest.
– For the risk identification, measuring, aggregation, managing, monitoring and communicating of the risk categories, suitable procedures are defined and implemented in J.P. Morgan AG, including the Groupwide infrastructure.
– Appropriate limits for all significant risk categories have been adequately defined and are effectively controlled.

No major changes to the risk management system in J.P. Morgan AG have taken place in 2017.

RISK ORGANISATION

The Management Board member "Back Office" is responsible for risk management at J.P. Morgan AG, with regular reporting to the general management, as well as to J.P. Morgan AG's Supervisory Board. J.P. Morgan AG classifies a risk as a potential loss or a failure to realise a profit due to internal or external factors, and manages these in the context of risk management.

Drivers of risk include, but are not limited to, the economic environment, regulatory or government policy, competitor or market evolution, business decisions, process or judgment error, deliberate wrongdoing, dysfunctional markets, and natural disasters. There may be many consequences of risks manifesting, including quantitative impacts such as reduction in earnings and capital, liquidity outflows, and fines or penalties, or qualitative impacts, such as reputation damage, loss of clients, and regulatory and enforcement actions.

The Independent Risk Management ("IRM") function, comprised of the Risk Management and Compliance functions in J.P. Morgan AG, is independent of the businesses. The IRM function sets and oversees various standards for the risk management governance framework, including risk policy, identification, measurement, assessment, testing, limit setting (e.g., risk appetite, thresholds, etc.), monitoring and reporting, and conducts independent challenge of adherence to such standards.

– J.P. Morgan AG places key reliance on each of its LOBs and other functional areas giving rise to risk. Each LOB or other functional area giving rise to risk. Each LOB is expected to operate within the parameters identified by the IRM function, and within their own management-identified risk and control standards. The LOBs are the "first line of defense" within the J.P. Morgan AG's risk governance framework in identifying and managing the risk in their activities, including but not limited to applicable laws, rules and regulations.
– The Location Control Officer that is part of the Firmwide Oversight and Control Group ("O&C") has a central oversight function. O&C is charged with enhancing the Firm's control environment by looking within and across the lines of business and corporate functions to help identify and remediate control issues. O&C enables the Firm to detect control problems more quickly, escalate issues promptly and engage other stakeholders to understand common themes and interdependencies among the various parts of the Firm.

– The IRM function is independent of the businesses and forms "the second line of defense" as independent control function.
– The Internal Audit function operates independently from other parts of the Firm and performs independent testing and evaluation of firmwide processes and controls across the entire enterprise as the Firm's "third line of defense" in managing risk.

The independent status of the IRM function is supported by a governance structure that provides for escalation of risk issues to senior management, the J.P. Morgan AG Risk Oversight Committee, or the Management Board.

The IRM functions report directly to the Management Board member "Back Office" as the Chief Risk Officer (CRO). These include, in particular, the Market and Credit Risk Officer for the risk monitoring of credit and market price risks, the Risk Governance Officer as risk controller, the Legal Entity Risk Reporting for the monitoring of credit, liquidity and market price risks, and the Location Control Officer for monitoring the operational risks.

RISK MEASUREMENT AND REPORTING

Risk measurement and reporting take place in J.P. Morgan AG according to risk category on a daily (credit, market and liquidity risk), monthly (operational and earnings risks) or quarterly cycle (pension risks). The risk-bearing capacity is analysed on a monthly basis.

In addition to regulatory limits, the Management Board at J.P. Morgan AG defined a series of early-warning indicators, which are monitored daily and in a timely manner. Indicators and risk limits include, among others, recovery indicators, credit limits, investment limits, bidding limits, position limits as well as the minimum liquidity of J.P. Morgan AG, and are clearly documented. These also consider the concentration risk with respect to other J.P. Morgan entities.

For its monthly meetings, the Management Board receives a detailed overview of the development of the business areas, information on financial trends, a detailed risk report as well as a report from the Corporate Functions. The scope of the quarterly risk report extends considerably beyond the monthly reporting and presents the risk situation in more detail.

For its meetings, the Supervisory Board receives a current summary of the topics discussed in the meetings of the Management Board, including a summary of the risk report.

RISK-BEARING CAPABILITY AND STRESS TESTING

The risk-bearing capability analysis is a core component of the overall bank control of J.P. Morgan AG, with the goal of guaranteeing a suitable risk profile and adequate capital at all times. J.P. Morgan AG decided on a Going-Concern approach, whereby it could continue the core business activities even if all items of the defined risk covering potential were consumed through exposure to risks. The confidence level of 95 % corresponds to the underlying assumptions of the Going-Concern approach; risk coverage potential and the economic capital model are configured accordingly. The observation period lasts one year. As a secondary control circuit, a Gone-Concern approach is analysed in parallel, with a confidence level of 99.91 %.

According to the risk inventory credit risks, market risks, operational risks, pension risks, business risks and interest rate risks in the banking book are quantified as relevant risk

€ M	Regulatory 12/31/2015	Regulatory 12/31/2016	Regulatory 12/31/2017	Economic 12/31/2015	Economic 12/31/2016	Economic 12/31/2017
Type of risk						
Credit risk	35.7	49.3	109.2	12.6	28.8	16.5
Operational risk	16.2	19.2	24.6	15.0	16.6	17.3
Market risk	3.6	8.2	9.6	5.3	2.9	0
CVA	–	–	26.1	–	–	–
IRBB	**–**	**–**	**–**	**27.8**	**1.0**	**0.6**
Capital requirement	**55.5**	**72.0**	**169.5**	**60.7**	**49.2**	**34.4**
Risk coverage pool	834.2	840.0	835.0	99.2	125.3	122.8

categories in the context of the risk-bearing capacity calculation. Liquidity risk is full captured as part of the liquidity stress testing.

The risk bearing capital essentially consists of J.P. Morgan AG's retained earnings, the § 340g HGB reserve for general banking risks, accumulated profits and the profits achieved in the financial year as well as the planned retained profits of the following years. The quantification of the business risk, which is primarily meant to delineate planning uncertainty, is deducted from this capital. The quantification of the capital requirement for the occurring risks takes place through internal, institute-specific calculation approaches. The calculation of the risk-bearing capability takes place on a monthly basis.

For the verification of the risk bearing capacity, a set of combined stress scenarios has been defined for as part of integrated macroeconomic stress scenarios encompassing different risk categories. They are calculated and analyzed on a monthly basis. As part of the integrated stress testing, the risk-bearing capability was guaranteed at any time.

The risk-bearing capability concept and the stress tests are validated annually, building on the risk inventory. In fiscal year 2017, we further developed the risk-bearing capacity concept of J.P. Morgan AG. This primarily concerns the introduction of a new interest-rate risk from the banking book framework, the further development of the quantification of operational risk. Both initiatives will impact the risk bearing capacity concept in 2018.

The regulatory capital requirement for the individual risk categories is monitored by the Regulatory Reporting Team on a daily basis and is shown in the table above (all figures given in million €). The economic capital requirement pursuant to the Going-Concern and Gone-Concern approaches is additionally calculated by Risk Governance on a monthly basis.

As per December 31, 2017 utilisation of the Going-Concern approach stood at 39.3 %.

RISK CATEGORIES

Credit Risk

Credit risk is the risk associated with the default or change in credit profile of a client, counterparty or customer. J.P.

Morgan AG provides credit through its operating services activities (such as custodian banking function and clearing activities), markets activity from the SPV derivatives business and cash placed with banks particularly in the context of Treasury activities.

Credit risk management is overseen by the Credit Officer and implemented within the lines of business. JPMAG's credit risk management consists of:

- A comprehensive credit risk policy framework. By means of its credit risk strategy, which is derived from the general business and risk strategy, the Management Board defines the risk profile in regard to its clients and credit products. Moreover, structural organisation and processes for risk steering, potential measures to minimise risk and risk reporting are defined more closely in the Group-wide policies and in the J.P. Morgan AG MaRisk Guidelines. The Management Board makes credit decisions on the basis of the clearly defined separate responsibilities for "Front Office" and "Back Office".
- Monitoring and managing credit risk across all portfolio segments, including transaction and line approval
- Assigning and managing credit authorities in connection with the approval of all credit exposure

The Credit Risk Strategy aims to protect JPMAG from losses due to credit risk through:

- A conservative and well-defined approval process for intraday and overdraft lines
- A defined process of exposure reduction in case of excessive overdrafts of high-risk counterparties
- An ongoing analysis of unwanted concentration risks for certain counterparty groups
- Procedures for intensified loan management as well as the treatment of problematic loans exist but continued not to require application during the financial year 2017. In line with previous years we expect no defaults for 2018 due to the lack of a traditional credit portfolio, in line with that no loan loss provisions are booked.

Risk Measurement

The Credit Risk Management function measures, limits, manages and monitors credit risk across the J.P Morgan AG's businesses. Credit risk measurement is based on the probability of default of an obligor or counterparty, the loss severity given a default event and the exposure at default.

J.P. Morgan AG uses an unexpected loss model with a confidence level of 95 % (99.91 % in Gone-Concern) to calculate the economic capital requirement. As the basis for the Exposure at Default (EAD), the client's drawing behaviour is estimated for the payment transactions accounts on the basis of historical data, or otherwise market value positions per the reporting date are taken into consideration. Concentration risks are quantified for all relevant portfolios on the basis of the Herfindahl Hirschman Index.

J.P. Morgan AG uses the credit risk standard approach (KSA) for the regulatory quantification of the credit risk.

Stress Testing

Stress testing is important in measuring and managing credit risk in the J.P. Morgan AG's credit portfolio. The process assesses the potential impact of alternative economic and business scenarios on estimated credit losses for the J.P. Morgan AG.

A series of different scenarios are considered within the scope of the credit risk stress test that assume that client ratings, income from securities, drawing behaviour, portfolio concentrations or correlations could significantly worsen over the course of time. There is thus a regular validation of the stress tests and their results.

Risk Monitoring and Management
Daily monitoring of credit risk at the individual client level is done by Treasury & Credit Control, using the Group-wide credit limit control system, which records individual limits and utilisation at account level and/or at the level of single borrower units. The system does not allow unauthorised intraday limits. In essence, the main focus is on the monitoring of so-called intraday lines of credit and overdraft facility usage.

Management of J.P. Morgan AG's credit risk exposure is accomplished through a number of means, including:

– Credit approval process
– Collateral

Within Trade Finance, the credit risks in the form of contingent liabilities taken on J.P. Morgan AG's own books are for the most part directly collateralised within the Group. There are no significant call risks.

Risk reduction strategies are deployed in the same way with respect to other JPM Group companies.

On the basis of J.P. Morgan AG's business model as a Group-wide service provider in € payment transactions, but also as a custodian bank with a focus on special funds, concentration risks exist that are likewise taken into account in J.P. Morgan AG's risk-bearing capacity concept. Here, we expect no significant changes in the coming year.

J.P. Morgan AG has started to run an active trading book in 2017, however, due to the limited nature of the business issuer risk, replacement risk, and settlement risk are not material.

Risk Reporting
A corresponding report of daily exposures and all new accounts and lines and/or all changes of existing lines is being presented daily for approval to the Credit Officer and if required additional approvers. Moreover, compliance with the approved limit structure, the monitoring of the risk-bearing capability as well as the analysis of the portfolio structure (e.g., maturities, credit products, segments and countries) including concentration risk is summarised in monthly reports to the Management Board.

J.P. Morgan AG's credit risk profile changed significantly in 2017 through the inclusion of the SPV derivatives business. Key values of the loan portfolio include:

€ M	12/31/2017	12/31/2016	12/31/2015
Lines of payment transaction (Intra-Day)	20.6bn	24.1bn	25.9bn
Lines of payment transaction (Overnight-Day)	1.3bn	4.2bn	4.2bn
Lines for Derivative Transactions	0.5bn	–	–
RWA for credit risk	1,065.3	579	446
RWA for CVAs	254.6	–	–
RTF Going-Concern	16.5	28.8	12.6
RTF Gone-Concern	149.3	269.3	119.5

Operational Risk

Operational risk is the risk of loss resulting from inadequate or failed processes or systems, human factors or due to external events that are neither market- nor credit-related. Operational risk is an inherent part of the activity of J.P. Morgan AG and its LOBs, and can manifest itself in various ways, including fraudulent acts, business interruptions, inappropriate employee behavior, failure to comply with applicable laws and regulations or failure of vendors to perform in accordance with their arrangements. These events could result in financial losses, litigation and regulatory fines, as well as other damage. The goal is to keep operational risk at appropriate levels in light of J.P. Morgan AG's financial strength and the characteristics of its businesses.

To monitor and control operational risk J.P. Morgan AG utilizes the Firm's Operational Risk Management Framework ("ORMF") which is designed to maintain a sound and well-controlled operational environment. The ORMF is comprised of four main components: Governance, Risk Assessment, Measurement, and Monitoring and Reporting.

Risk Governance

The lines of business and corporate functions are responsible for owning and managing their operational risks. The Firmwide Oversight and Control Group consists of control officers within each line of business and corporate function, which also cover the business activities in J.P. Morgan AG. They are responsible for the day-to-day execution of the ORMF. Line of business and corporate function control committees oversee the operational risk and control environments of their respective businesses and functions. For this purpose, J.P. Morgan AG has installed the Frankfurt Location Operational Risk and Control Committee ("LORCC") with monthly reporting into the JPMAG Management Board and defined escalation routes into the regional governance committees in EMEA.

These committees escalate operational risk issues to the Firmwide Control Committee ("FCC"), as appropriate. The Firmwide Risk Executive for Operational Risk Governance ("ORG"), a direct report to the Chief Risk Officer of the Firm, is responsible for defining the ORMF and establishing minimum standards for its execution which have also been adopted by J.P. Morgan AG.

The Risk Governance and Location Control Officer, as direct reports to the CRO of J.P. Morgan AG, are jointly responsible for the J.P. Morgan AG's Operational Risk Manual which details the local application of the ORMF.

Risk Identification and Assessment

The Firm utilizes several tools to identify, assess, mitigate and manage its operational risk. One such tool is the RCSA program which is executed by LOBs and corporate functions in accordance with the minimum standards established by ORG. As part of the RCSA program, lines of business and corporate functions identify key operational risks inherent in their activities, evaluate the effectiveness of relevant controls in place to mitigate identified risks, and define actions to reduce residual risk. Action plans are developed for identified control issues and businesses are held accountable for tracking and resolving issues in a timely manner. Operational Risk Officers independently challenge the execution of the RCSA program and evaluate the appropriateness of the residual risk results.

In addition to the RCSA program, the Firm tracks and monitors events that have or could lead to actual operational risk losses, including litigation-related events. Responsible businesses and corporate functions analyze their losses to evaluate the efficacy of their control environment to assess where controls have failed, and to determine where targeted remediation efforts may be required. ORG provides oversight of these activities and may also perform independent assessments of significant operational risk events and areas of concentrated or emerging risk.

Measurement

In addition to the level of actual operational risk losses, operational risk measurement includes operational risk based capital and operational risk losses under both baseline and stressed conditions.

The primary component of the operational risk capital estimate is the Loss Distribution Approach ("LDA") statistical model, which simulates the frequency and severity of future operational risk loss projections based on historical data. The LDA model is used to estimate an aggregate operational risk loss over a one-year time horizon, at a 99.9% confidence level. The LDA model incorporates actual internal operational risk losses in the quarter following the period in which those losses were realized, and the calculation generally continues to reflect such losses even after the issues or business activities giving rise to the losses have been remediated or reduced.

As required under the Basel III capital framework, the Firm's operational risk-based capital methodology, which uses the Advanced Measurement Approach, incorporates internal and external losses as well as management's view of tail risk captured through operational risk scenario analysis, and evaluation of key business environment and internal control metrics.

The Firm considers the impact of stressed economic conditions on operational risk losses and develops a forward looking view of material operational risk events that may occur in a stressed environment. The Firm's operational risk stress testing framework is utilized in calculating results for the Firm's Comprehensive Capital Analysis and Review ("CCAR") framework and Internal Capital Adequacy Assessment Processes ("ICAAP").

Risk Monitoring and Reporting

ORG has established standards for consistent operational risk reporting. The standards also reinforce escalation protocols to senior management and to the Management Board. Operational risk reports are produced on a firmwide basis as well as by line of business and corporate function. For JPMAG Operational Risk reporting is part of the monthly Management Board reporting.

Key values for operational risk are:

€M	12/31/2017	12/31/2016	12/31/2015
Losses arising from operational risks	0.1	0.1	0.6
Regulatory capital requirement	240	226	203
RTF Going-Concern	17.3	16.6	15.0
RTF Gone-Concern	32.4	31.2	28.2

In addition to the RCSA process references within the Risk Assessment section, an Operational Risk Inventory for J.P. Morgan AG is prepared annually involving the business, location subject matter experts and legal entity stakeholders.

Legal Risk Management

Legal risk is the risk of loss primarily caused by the actual or alleged failure to meet legal obligations that arise from the rule of law in jurisdictions in which the Firm and the Company operates, agreements with clients and customers, and products and services offered by the Company and the Firm.

The global Legal function ("Legal") provides legal services and advice to the Company and the Firm. Legal is responsible for:

- Managing actual and potential litigation and enforcement matters, including internal reviews and investigations related to such matters;
- Advising on products and services, including contract negotiation and documentation;
- Advising on offering and marketing documents and new business initiatives;
- Managing dispute resolution;
- Interpreting existing laws, rules and regulations, and advising on changes thereto;
- Advising on advocacy in connection with contemplated and proposed laws, rules and regulations; and
- Providing legal advice to the LOBs, inclusive of LOB aligned Operations, Technology and Oversight & Controls (the "first line of defense"), Risk Management and Compliance (the "second line of defense"), and the Internal Audit function (the "third line of defense").

Legal selects, engages and manages outside counsel on all matters in which outside counsel is engaged. In addition, Legal advises the Firm's Conflicts Office which reviews the Firm's wholesale transactions that may have the potential to create conflicts of interest for the Firm.

Employee Risk

Human Resource risks are those associated with the employment of staff for example, the cost of employment, health and safety issues; over-reliance on key individuals and inadequate succession planning; the cost and reputational damage of litigation by employees and/or arising from employee misconduct; and the risks associated with inappropriate compensation practices. JPMAG tries to minimize operational risks through established oversight and control processes and the implementation of key controls.

IT Risk

The systems used in JPMAG are part of JPMC's IT Infrastructure. As such JPMAG utilizes a number of critical applications to access market infrastructure (e. g. for the Euro-Clearing) or to service internal and external clients. One of the core requirements for JPMAG's business is a functioning

IT infrastructure. JPMAG tries to minimize operational risks through a standardized business continuity planning and testing, as well as the IT development are established firm-wide processes.

Process Risk

Process risk means the risk of loss resulting from inadequate or failed internal processes. Core activities in JPMAG, such as payment services and custody services define the entity as a transactional bank, process risk is highly relevant. JPMAG tries to minimize operational risks through established oversight and control processes and the implementation of key controls.

Losses incurred when a force of nature or an individual(s) causes damage or injury to the Firm's employees, clients, and/or physical assets. JPMAG manages this risk through extensive business continuity planning intended to guarantee the orderly operation of critical processes. The threat scenarios considered include the unavailability of employees, the breakdown of support systems, and the inability to use the building. The appropriate emergency plans were developed with the inclusion of Group-wide infrastructure and are regularly tested.

Liquidity Risk

Liquidity risk is the risk that J.P. Morgan AG will be unable to meet its contractual and contingent financial obligations as they arise or that it does not have the appropriate amount, composition and tenor of funding and liquidity to support its assets and liabilities. The JPMAG Board has ultimate responsibility for the liquidity and risk within the entity. The Board reviews and establishes an appropriate level of liquidity risk appetite, and it also reviews and periodically approves relevant frameworks and policies that specify how liquidity risk is managed in relation to the entity.

The risk mitigating instruments here include JPMAG specific liquidity risk limits and indicators along with LE specific breach escalation protocol. J.P. Morgan AG's primary source of liquidity is driven by customer deposits. The liquidity is mainly invested in JPMCB London Branch in the form of reverse repos. Majority of the reverse repos have an overnight maturity.

JPMAG's liquidity and funding management is integrated into JPMorgan Chase & Co.'s (the Firm's) liquidity management framework. The primary objectives of effective liquidity management are to ensure that the Firm's core businesses and material legal entities are able to operate in support of client needs, meet contractual and contingent obligations through normal economic cycles as well as during stress events, to manage an optimal funding mix, and availability of liquidity sources.

The Firm manages liquidity and funding using a centralised, global approach across its entities, taking into consideration both their current liquidity profile and any potential changes over time, in order to optimise liquidity sources and uses. In the context of liquidity management for JPMAG, EMEA Corporate Treasury is responsible for:

– Analysing and understanding the liquidity characteristics, lines of business and legal entities' assets and liabilities, taking into account legal, regulatory, and operational restrictions;

– Defining and monitoring firmwide and legal entity-specific liquidity strategies, policies, guidelines, reporting and contingency funding plans;
– Managing liquidity within approved liquidity risk appetite tolerances and limits; and
– Setting transfer pricing in accordance with underlying liquidity characteristics of balance sheet assets and liabilities as well as certain off-balance sheet items.

EBA LCR

From 1 October 2015, JPMAG was expected to comply with the liquidity coverage ratio ("LCR") guidance set out in the Delegated Act (Commission delegated regulation [EU] 2015/61). The LCR is intended to measure the amount of "high quality liquid assets ("HQLA") held by the Company in relation to estimated net liquidity outflows within a 30 calendar day stress period. The LCR was required to be 80 % at 1 October 2015, rising to 90 % on 1 January 2017 until reaching the 100 % minimum by 1 January 2018. In 2017, the Company was compliant with the fully phased-in LCR.

NSFR

The Basel Committee final standard for net stable funding ratio ("Basel NSFR") is intended to measure the "available" and "required" amounts of stable funding over a one-year horizon. On 23 November 2016, the European Commission introduced its legislative proposal for the NSFR ("EU NSFR"), amending Regulation (EU) No 575/2013. The proposal is subject to approval from the European Parliament and Council of the EU. The Company is expected to comply with the EU NSFR at a level of 100 % two years after the date of entry into force of the proposed regulation, as is permitted.

Key ratios monitored for liquidity risk are:

	12/31/2017	12/31/2016	12/31/2015
BaFin Liquidity Ratio	1.79	1.48	1.91
Liquidity Coverage Ratio	155 %	121 %	149 %
Net Stable Funding Ratio [1]	346 %	400 %	161 %

[1] As soon as the rules have been defined, the NSFR will be part of the liquidity and risk framework approved by the JPMAG board of directors.

Liquidity Risk Oversight

The Firm has an independent liquidity risk oversight function whose primary objective is to provide assessment, measurement, monitoring, and control of liquidity risk across the Firm. Liquidity Risk Oversight's responsibilities include, but are not limited to:

– Establishing and monitoring limits and indicators, including liquidity risk appetite;
– Defining and monitoring internal firmwide and material legal entity stress tests and monitoring and reporting regulatory defined liquidity stress testing;
– Monitoring and reporting liquidity positions, balance sheet variances and funding activities;
– Conducting ad hoc analysis to identify potential emerging liquidity risks.

Risk Governance and Measurement

The specific committees responsible for liquidity risk governance for these entities include the EMEA ALCO and JPMAG Risk Oversight Committee.

Internal Stress Testing

Liquidity stress tests are intended to ensure that the Company has sufficient liquidity under a variety of adverse scenarios, including scenarios analysed as part of the Firm's resolution and recovery planning. Stress scenarios are produced for the Company on a regular basis and ad hoc stress tests are performed, as needed, in response to specific market events or concerns. Liquidity stress tests assume all of the Company's contractual financial obligations are met and take into consideration:

– Varying levels of access to unsecured and secured funding markets;
– Estimated non-contractual and contingent cash outflows; and
– Potential impediments to the availability and transferability of liquidity between jurisdictions and material legal entities such as regulatory, legal or other restrictions.

Liquidity outflow assumptions are modelled across a range of time horizons and currency dimensions and contemplate both market and idiosyncratic stress.

Results of stress tests are considered in the formulation of the Company's funding plan and assessment of its liquidity position.

In all scenarios performed in 2017, JPMAG had sufficient liquidity to meet regulatory requirements and support its assets and liabilities.

Market Risk

Market risk is the exposure to an adverse change in the market value of financial instruments caused by a change in market parameters. The primary categories of market parameters are:

– Interest Rates: Interest rate risks primarily result from exposures to changes in the level, slope and curvature of the yield curve, the volatility of interest rates, and mortgage prepayment rates;
– Foreign Exchange Rate: Foreign exchange rate risks result from exposures to changes in prices and volatility of currency rates;
– Equity Prices: Equity price risks result from exposures to changes in prices and volatility of individual equities, equity baskets and equity indices;
– Credit Spreads: Credit spreads are the difference between yields on corporate debt subject to default risk and government bonds;
– Commodity Prices: Commodity price risks result from exposures to changes in prices and volatility of commodities, such as natural gas, crude oil, petroleum products, precious and base metals and electricity;
– Market risk management in J.P. Morgan AG is fully embedded into the Market Risk Management framework of the Firm, when it comes to risk measurement, stress testing, risk monitoring and limit control.

Market Risk Management

As per the Firmwide Market Risk Management Policy framework, the Market Risk Firmwide Risk Executive (FRE) and Line Of Business Chief Risk Officers (LOB CROs) are responsible for establishing an effective market risk organization. The FRE, LOB Heads of Market Risk establish the framework to measure, monitor and control market risk.

The Market Risk function is scaled and organised according to the amount and complexity of market risk arising from the business activity. Market risk management may be the responsibility of a dedicated Market Risk group or may be performed as part of the broader Risk Management function.

In addition to the Risk Governance framework detailed in the Risk Governance policy, additional senior Market Risk management risk oversight is provided via two Forums, which typically convene monthly:

Firmwide Market Risk Forum:
Platform for discussion of strategic market risk initiatives, market risk measurement and methodology changes (e.g., stress test shocks), policy and procedures and other matters as appropriate. The Firmwide Market Risk Forum is not intended to discuss current market risk events or positions, as these are discussed at LOB Risk Committees, as well as various business as usual MR meetings, as appropriate.

Market Risk Control Forum:
Platform for discussion of operational control issues impacting the end-to-end Market Risk organization. The Market Risk Control Forum provides appropriate governance, transparency and escalation of material control issues.

Risk Measurement
Multiple measures are used to capture market risk and set limits as appropriate. These measures include, but are not limited to, VaR, Stress Testing, Non-statistical measures, Profit & Loss (P&L) Drawdowns/Loss Advisories, Single Name Position Risk (SNPR). As the appropriate set of risk measures utilized for a given business activity depends on business mandate, risk horizon, materiality, market volatility and other factors, not all measures are used in all cases.

VaR
The Firm utilises VaR, a statistical risk measure, to estimate the potential loss from adverse market moves in the current market environment. The Firm has a single VaR framework used as a basis for calculating Risk Management VaR and Regulatory VaR.

The framework is employed across the Firm using historical simulation based on data for the previous 12 months. The framework's approach assumes that historical changes in market values are representative of the distribution of potential outcomes in the immediate future. The Firm believes the use of Risk Management VaR provides a stable measure of VaR that closely aligns to the day-to-day risk management decisions made by the lines of business, and provides the necessary and appropriate information needed to respond to risk events on a daily basis.

Risk Management VaR is calculated assuming a one-day holding period and an expected tail-loss methodology which approximates a 95 % confidence level. VaR provides a consistent framework to measure risk profiles and levels of diversification across product types and is used for aggregating risks across businesses and monitoring limits. These VaR results are reported to senior management, the Board of Directors and regulators.

The Firm's VaR model calculations are periodically evaluated and enhanced in response to changes in the composition of the Firm's portfolios, changes in market conditions, improvements in the Firm's modelling techniques and other factors. Such changes may also affect historical comparisons of VaR results. Model changes undergo a review and approval process by the Model Review Group prior to implementation into the operating environment.

The Firm calculates separately a daily aggregated VaR in accordance with regulatory rules (Regulatory VaR), which is used to derive the Firm's regulatory VaR-based capital requirements under Basel III. This Regulatory VaR model framework currently assumes a ten business-day holding period and an expected tail loss methodology which approximates a 99 % confidence level. Regulatory VaR is applied to "covered" positions as defined by Basel III, which may be different than the positions included in the Firm's Risk Management VaR.

Stress Testing

Along with VaR, stress testing is an important tool in measuring and controlling risk. While VaR reflects the risk of loss due to adverse changes in markets using recent historical market behaviour as an indicator of losses, stress testing is intended to capture the Firm's exposure to unlikely but plausible events in abnormal markets. The Firm runs weekly stress tests on market-related risks across the lines of business using multiple scenarios that assume significant changes in risk factors such as credit spreads, equity prices, interest rates, currency rates or commodity prices.

The Firm uses a number of standard scenarios that capture different risk factors across asset classes including geographical factors, specific idiosyncratic factors and extreme tail events. The stress testing framework calculates multiple magnitudes of potential stress for both market rallies and market sell-offs for each risk factor and combines them in multiple ways to capture different market scenarios. For example, certain scenarios assess the potential loss arising from current exposures held by the Firm due to a broad sell off in bond markets or an extreme widening in corporate credit spreads. The flexibility of the stress testing framework allows risk managers to construct new, specific scenarios that can be used to form decisions about future possible stress events. The stress testing framework is known as Firmwide Stress Infrastructure (FSI) which is a risk management tool that simulates changes to the prices of trading assets across a range of economic and market scenarios. It is used to measure the Firm's vulnerability to losses under a range of stressed but plausible market environments and to understand the risk factors and assets responsible for those losses.

Stress testing complements VaR by allowing risk managers to shock current market prices to more extreme levels relative to those historically realized, and to stress test the relationships between market prices under extreme scenarios.

Stress-test results, trends and qualitative explanations based on current market risk positions are reported to the respective Lines of Business (LOB) and Firm's senior management to allow them to better understand the sensitivity of positions to certain defined events and to enable them to manage their risks with more transparency. In addition, results are reported to the Board of Directors.

Stress scenarios are defined and reviewed by Market Risk, and significant changes are reviewed by the relevant LOB Risk Committees and may be redefined on a periodic basis to reflect current market conditions.

Risk Monitoring and Control

In setting limits, the Firm takes into consideration factors such as market volatility, product liquidity and accommodation of client business and management experience. The Firm maintains different levels of limits. Corporate level limits include VaR and stress limits. Similarly, LOB limits include VaR and stress limits and may be supplemented by loss advisories, non-statistical measurements and P&L drawdowns. Limits may also be set within the LOBs, as well at the portfolio or legal entity level.

Limits are set by Market Risk and are regularly reviewed and updated as appropriate, with any changes approved by LOB management and Market Risk. Senior management, including the Firm's CEO and CRO, are responsible for reviewing and approving certain of these risk limits on an ongoing basis. All limits that have not been reviewed within specified time periods by Market Risk are escalated to senior management. The LOBs are responsible for adhering to established limits against which exposures are monitored and reported.

Limit breaches are required to be reported in a timely manner to limit approvers, Market Risk and senior management. In the event of a breach, Market Risk consults with Firm senior management and the LOB senior management to determine the appropriate course of action required to return to compliance, which may include a reduction in risk in order to remedy the breach. Certain Firm of LOB-level limits that have been breached for three business days or longer, or by more than 30 %, are escalated to senior management and the Firmwide Risk Committee.

Additional controls beyond market risk limits – including but not limited to Authorized Instruments, LOB Pre-trade Transaction Guidelines and E-Trading Control Standards – are also employed as a means to control market risk.

Legal Entity Market Risk Management

J.P. Morgan AG maintains different levels of limits which include VaR and Stress limits. Limits are may be set at the legal entity as well as at the portfolio level. J.P. Morgan AG maintains an active Trading Book to facilitate the Markets business with the issuance of derivatives to SPVs. Where possible positions are is mostly traded back to back to JPMCB, London Branch or JPMs plc to remain flat market risk for the trading book.

JPMAG CRO is responsible for the application of the Firmwide market risk management processes to JPMAG. Limits are set by Market Risk and are regularly reviewed and updated as appropriate. J.P. Morgan A.G.'s CRO and MRO are responsible for reviewing and approving certain of these risk limits on an ongoing basis. The lines of business are responsible for adhering to established limits against which exposures are monitored and reported.

Market Risk monitors market risk exposures in JPMAG and defines the market risk framework, which is established in the context of the business strategy employed by trading businesses operating out of the legal entity.

Limit breaches are required to be reported in a timely manner to limit approvers, Market Risk. In the event of a breach, the MRO consults with J.P. Morgan AG's senior management to determine the appropriate course of action required to return to compliance, which may include a reduction in risk in order to remedy the breach.

	Value at Risk (in US $)		
T$	12/31/2017	12/31/2016	12/31/2015
Reporting date (10Q)	2,769	15,462	12,985

Structural Interest Rate Risk

Structural Interest Rate Risk is the Interest Rate Risk in the Banking Book ("IRRBB") and is defined as Interest Rate Risk ("IRR") resulting from the Firm's traditional banking activities (accrual accounted on and off balance sheet positions) which includes extension of loans and credit facilities, taking deposits and issuing debt (collectively referred to as 'non-trading' activities); and also the impact from Chief Investment Office

("CIO") investment portfolio and other related CIO, Treasury activities. IRR from non-trading activities can occur due to a variety of factors, including but not limited to:

- Difference in the timing among the maturity or re-pricing of assets, liabilities and off-balance sheet instruments;
- Differences in the balances of assets, liabilities and off-balance sheet instruments that re-price at the same time;
- Differences in the amounts by which short-term and long-term market interest rates change; and
- Impact of changes in the maturity of various assets, liabilities or off-balance sheet instruments as interest rates change.

JPMAG leverages the Firmwide risk framework to manage IRR.

Treasury and Chief Investment Office ("T/CIO") manages IRRBB exposure on behalf of the Firm by identifying, measuring, modelling and monitoring IRR across the Firm's balance sheet. T/CIO identifies and understands material balance sheet impacts of new initiatives and products and executes market transactions to manage IRR through T/CIO investment portfolio's positions.

In order to quantify the IRRBB, J.P. Morgan AG uses as of 12/31/2017 the result of the interest rate shock specified by the banking supervisory authorities of +/−200 basis points currently.

€ MN	BPV
12/31/2017	31.1
Minimum 2017	0.2
Maximum 2017	42.7
Average 2017	15.7

Pension Risk

J.P. Morgan AG defines Pension risk as the risk caused by contractual or other liabilities to or with respect to a pension scheme (whether established for its employees or those of a related company or otherwise). Pension risk is driven by market and demographic risk where the pension scheme may be unable to meet future expected benefit payments.

Pension risk is thus the potential necessity of increasing pension reserves. The pension risks are determined on the basis of a VaR model but are considered in an additional calculation in the quantification of the risk-bearing capacity. If the VaR should exceed the excess of planned pension assets, this position would be deducted from the risk cover potential.

Business Risk

J.P. Morgan AG defines Business risk as any risk arising from changes in its business, including: the acute risk to earnings posed by falling or volatile income; and the broader risk of a firm's business model or strategy proving inappropriate due to macroeconomic, geopolitical, industry, regulatory or other factors; or its remuneration policy. Regular plan monitoring and if necessary the appropriate adjustments ensure that these deviations are minimised.

Reputation Risk

Reputation risk is the risk that an action, transaction, investment or event will reduce trust in the J.P. Morgan AG's and Firm's integrity or competence by our various constituents, including clients, counterparties, regulators, employees and the broader public.

Risk Management
Maintaining the Company's reputation is the responsibility of each individual employee. The Firm's Reputation Risk Governance policy explicitly vests each employee with the responsibility to consider the reputation of the Firm when engaging in any activity.

Since the types of events that could harm the Firm's reputation are so varied across the Firm's lines of business, each line of business has a separate reputation risk governance infrastructure in place, which consists of three key elements: clear, documented escalation criteria appropriate to the business; a designated primary discussion forum – in most cases, one or more dedicated reputation risk committees; and a list of designated contacts, to whom questions relating to reputation risk should be referred. For any reputational risk item impacting JPMAG the CRO would be involved directly.

Line of business reputation risk governance is overseen by a Firmwide Reputation Risk Governance function, which provides oversight of the governance infrastructure and process to support the consistent identification, escalation, management and monitoring of reputation risk issues Firmwide.

Summarising Presentation
The conservative risk policy and the solid capital resources ensure the very comfortable risk position of J.P. Morgan AG going forward. The quantification of the capital requirement for the occurring risks takes place through internal, institute-specific calculation approaches. The calculation of the risk bearing capability takes place on a monthly basis. As per 31 December, 2017, utilisation stood at 28 %. As part of the integrated stress testing, the risk bearing capability was guaranteed at any time.

The following key performance and risk indicators essentially represent the risk profile of J.P. Morgan AG:

€ M	2017	2016	2015
RWA Overall	**1,654**	**901**	**679**
Total capital	835	840	834
Tier 1 capital ratio	39 %	73 %	95 %
Total capital ratio	50 %	93 %	122 %
Liquidity ratio	1.79	1.48	1.91
Leverage Ratio	4.20 %	2.89 %	4.91 %
Liquidity Coverage Ratio	155 %	121 %	149 %
Net Stable Funding Ratio	346 %	400 %	161 %
Risk capital requirement Going-Concern	34.4	49.2	60.7
Risk cover potential Going-Concern	122.8	125.3	99.2
Risk capital requirement Gone-Concern	183.1	327.3	222.8
Risk cover potential Gone-Concern	821.7	836.9	801.7

In 2017, as in previous years, J.P. Morgan AG did not observe any credit default.

RISK CONTROL AND MONITORING

Timely, independent and risk-based reporting the risk categories credit risk, market price risk, liquidity risk and operational risk is provided to the Management Board on a daily, weekly and monthly basis; Risk Management summarises said reports as part of the quarterly MaRisk reports.

The various control functions at J.P. Morgan AG – mainly the Internal Audit, Compliance and Risk Management departments – create an annual review and audit plan based on the results of the risk assessment of the operational risks, particularly in order to ensure the effectiveness of the defined controlling measures.

The Internal Audit department of J.P. Morgan AG is an integral component of Group auditing and reports directly to the Chairperson of the Management Board. It is responsible for the review of the business operations at J.P. Morgan AG based on a risk-oriented audit approach, which covers all activities and processes at J.P. Morgan AG and thus the outsourced activities as well. The Group auditing department of JPMorgan Chase Bank, N.A., London, is generally involved when this type of audit is performed.

DEFINITION OF LIMITS

In addition to regulatory limits, the Management Board at J.P. Morgan AG defined a series of early-warning indicators, which are monitored daily and in a timely manner. These limits are defined in the Limit and Trigger Guidance and include, among others, renovation indicators, credit limits, investment limits, bidding limits, as well as the minimum liquidity of J.P. Morgan AG.

The risk-based framework of J.P. Morgan AG is approved by the Management Board and updated on a regular basis. It defines roles and responsibilities as well as escalation procedures in the event that critical threshold values are exceeded or fallen short of, or that defined limits are breached.

CHANGE PROCESSES

The introduction of new products and the expansion of business into new markets occurs in line with the Group-wide "New Business Initiative Policy". Under the responsibility of the Management Board member "Back Office" in its role as CRO, an analysis takes place of the potential risks, the design of the operative processes, their regulatory impacts, and their impact on J.P. Morgan AG's risk capacity. If the product involves an expansion of trading activities, the CRO shall also ensure there is a sufficient test phase prior to introduction in real production.

Integrating various functions such as Financial Control, Tax, Legal, Compliance Internal Review and Risk as coordinated by the CRO guarantees a review of the planned product launch independent of the trading function. This committee documents its findings along with a recommendation for approval, which are then submitted for discussion to the general management. Only after approval is the initiative integrated into real production at J.P. Morgan AG.

Internal Control System

GENERAL REMARKS

Please refer to the explanations provided in the risk report for a presentation of the risks and the measures for limiting risks. The internal control system (ICS) and the risk management system, which cover the J.P. Morgan AG accounting process, focus on the guidelines, procedures and measures taken to ensure the efficacy, economic viability and orderliness of the accounting as well as guaranteeing adherence to the key statutory regulations. The internal control system consists of two areas, Control and Monitoring. In organisational terms, the Financial Control & Tax division is responsible for the control.

The monitoring measures consist of elements integrated into the process and external, independent elements. Among other things, the integrated measures include a monthly control process covering all the Bank's activities, during which the balance sheet as at that date and the income statement are examined to assess and confirm their correct presentation and risks. Moreover, in all instances the four-eye principle is applied, along with technical controls, mainly by software-controlled audit mechanisms. Furthermore, qualified staff members with due expertise and specialist functions such as Financial Control & Tax take part in the process-integrated monitoring and control functions.

The Management Board and the Supervisory Board (in particular the Audit Committee) as well as the internal audit department are involved in the internal monitoring system in the form of process-independent audit measures. The audit of the annual financial statements constitutes a key element of process-independent monitoring.

With a view to the accounting, the risk management system is geared to identify, evaluate and communicate risks from faulty bookkeeping, accounting, and reporting in a timely manner.

IT USAGE

The IT environment to support accounting processes in J.P. Morgan AG is made up of the IT applications which have been deployed throughout the Group. The orderly functioning of the programs and interfaces utilised is regularly assessed and confirmed. As part of the examination of our IT, the Group auditors check the due operation of the accounting-related applications at all computer centre locations. The complete IT system, including that for accounting, is secured against unauthorised access.

KEY REGULATIONS AND CONTROL ACTIVITIES TO ENSURE DUE, ORDERLY AND RELIABLE ACCOUNTING

The internal control system's structure and measures ensure that business transactions are entered swiftly and completely in line with the statutory and the internal regulations and that assets and liabilities are accurately calculated, valued and carried in the annual financial statements. The booking documentation provides a reliable information base and a clear paper trail.

The regulations of the Financial Accounting Standards Board are applied within the J.P. Morgan Group as uniform valuation and accounting principles according to US-GAAP, supplemented and commented on by the Group's "Accounting Policies" section. Here, again, stipulations are made with regard to the intra-Group settlement policies. As part of the preparation of the individual financial statements of J.P. Morgan AG, a reconciliation statement is prepared from US-GAAP to the annual financial statements in accordance with the German Commercial Code. Here, local work directives regulate in detail the formal requirements and material information in the annual financial statements.

With respect to the country-specific reporting under § 26a Para. 1 sentence 2 KWG [Banking Act], J.P. Morgan AG has neither foreign branch offices nor subsidiaries in this sense.

Assurance by the Management Board

We hereby assure that to the best of our knowledge and in line with the applicable accounting principles for financial reporting, this report offers a fair picture of the Bank's assets, financial/liquidity and earnings situation that corresponds to the facts and that the course of business, the business results and the Bank's position are presented in such a way as to convey a true and fair picture, and that the material opportunities and risks of the Bank's presumable future performance in the remainder of the current business year are described.

Frankfurt am Main, April 19, 2018

J.P. Morgan AG
Frankfurt am Main
The Management Board

BURKHARD KÜBEL-SORGER   STEFAN BEHR

ANNUAL BALANCE SHEET FOR THE PERIOD ENDED DECEMBER 31, 2017 OF J.P. MORGAN AG, FRANKFURT AM MAIN

ASSETS

€				Notes	2017 €	2016 T€
Cash reserves						
– Cash in hand			100			0
– Credits with central banks			7,822,448,256			13,195,115
incl.: with Deutsche Bundesbank	7,822,448,256					13,195,115
				2.1.	**7,822,448,356**	**13,195,115**
Debt instruments of public agencies and bills of exchange, eligible for refinancing with central banks:						
– Treasury bills, discounted treasury notes and similar debt instruments issued by public-sector institutions			–			–
incl.: eligible for refinancing with Deutsche Bundesbank	–					–
– Bill of exchange			–			–
incl.: eligible for refinancing with Deutsche Bundesbank	–				–	–
Receivables from credit institutions						
– due daily			7,099,858,407			8,804,762
– other receivables			28,177,587			29,856
				2.2.	**7,128,035,994**	**8,834,618**
Receivables from clients				**2.3.**	**260,071,233**	**204,688**
incl.: secured by mortgages	–					–
incl.: municipal credits	–					–
Bonds and other fixed-interest securities						
– Money market instruments						
from public issuers		–				–
incl.: eligible as collateral at Deutsche Bundesbank	–	–				–
from other issuers		–				–
incl.: eligible as collateral at Deutsche Bundesbank	–	–				–
			–			–
– bonds and debt securities						
from public issuers		50,636,007				247,994
incl.: eligible as collateral at Deutsche Bundesbank	50,636,007					247,994
from other issuers		–				–
incl.: eligible as collateral at Deutsche Bundesbank	–	–				–
			50,636,007			247,994
– own debt securities			–			
Nominal amount	–		–			–
				2.4.	**50,636,007**	**247,994**

ASSETS (CONTINUED)

€				Notes	2017 €	2016 T€
Shares and other non-fixed-interest securities					–	–
Trading portfolio				2.5.	385,642,714	0
Investments					–	–
incl.: in credit institutions	–					
incl.: in financial services institutions	–					–
Shares in affiliated companies						
incl.: in credit institutions	–					–
incl.: in financial services institutions	–					–
Trust assets						
incl.: fiduciary loans	–					–
Tangible assets				2.6.	12,573,255	14,725
Other assets				2.7.	6,749,032	4,250
Accrued and deferred expenses				2.8.	3,078,043	1,116
Excess of plan assets over pension liabilities				2.9.	76,629,927	64,958
Total assets					15,745,864,561	22,567,464

LIABILITIES

€				Notes	2017 €	2016 T€
Liabilities to credit institutions						
– due daily			4,743,374,910			4,156,770
– with agreed maturity or notice period			2,971,014,592			11,401,392
				2.11.	**7,714,389,502**	**15,558,162**
Liabilities to clients						
– savings deposits						
with agreed notice period of three months		–				–
with agreed notice period of more than three months		–				–
			–			–
– other liabilities						
due daily			6,692,867,409			6,078,551
with agreed maturity or termination notice period			10,000,000			10,000
				2.12.	**6,702,867,409**	**6,088,551**
Securitised liabilities						
– issued debt instruments			–			–
– other securitised liabilities			–			–
						–
incl.: money market instruments	–					–
incl.: acceptances and promissory notes outstanding	–					–
Trading portfolio			**–**	**2.5.**	**383,658,081**	**0**
Trust liabilities					**–**	**–**
incl.: trust loans	–					–
Other liabilities				**2.13.**	**24,012,574**	**16,406**
Accrued and deferred expenses					**58,242**	**68**
Provisions						
– Provisions for pensions and similar obligations			–			–
– tax provisions			8,116,185			4,303
– other provisions			12,452,846			13,089
				2.14.	**20,569,031**	**17,392**
Subordinated liabilities				**2.15.**	**184,887,920**	**185,376**
Profit participation right					**–**	**–**
incl.: maturity after less than two years	–				–	–B

LIABILITIES (CONTINUED)

€				Notes	2017 €	2016 T€
Fund for general banking risks				**2.16.**	**56,499,805**	**56,300**
Equity						
– Called-in capital						
Subscribed capital			160,000,000	**2.17.**		160,000
minus unclaimed outstanding deposits			–			–
– Capital reserves			418,681,895			418,682
– Retained earnings						
Legal reserves		6,000,000				6,000
Reserve for interests in a dominant or majority stake holding company		–				–
Reserves as stated in the Articles of Association		–				–
Other revenue reserves		60,526,889				44,980
			66,526,889			50,980
– Balance sheet profit			13,713,213			15,547
					658,921,997	**645,209**
Total liabilities					**15,745,864,561**	**22,567,464**
Contingent liabilities						
– Contingent liabilities from rediscounted, settled bills			–			–
– Liabilities from guarantees and indemnity agreements			161,922,269			438,030
– Collateral provided for third-party liabilities			–			–
				2.20.	**161,922,269**	**438,030**
Other commitments						
– Repurchase obligations under reverse repurchasing agreements			–			–
– Placement and underwriting obligations			–			–
– Irrevocable loan commitments			–			–
					–	–B

INCOME STATEMENT
OF J.P. MORGAN AG, FRANKFURT AM MAIN

FOR THE PERIOD FROM JANUARY 1, 2017 TO DECEMBER 31, 2017

€				Notes	2017 €	2016 T€
Interest income from						
– lending and money-market transactions	23,632,280					
– less negative interest arising from lending and money-market transactions	−45,238,250	−21,605,970				−13,379
– fixed-income securities and debt register claims	1,537,848					
– less negative interest arising from debt register claims	–	1,537,848				
– Total interest income			−20,068,122			−11,115
Interest expenses from						
– lending and money-market transactions	1,694,940					
– less positive interest arising from lending and money-market transactions	−30,055,455	−28,360,515				−26,737
– fixed-interest securities debt register claims	359,865					768
– less positive interest arising from debt register claims	–	–				
– Total interest expenses			−28,000,650			−25,969
				3.1.	**7,932,528**	**14,854**
Current income from						
– equities and other non-fixed-income securities			–			–
– investments			1,951			23
– shares in affiliated companies			–			–
					1,951	**23**
Commissions income			87,585,528			78,661
Commissions expenses			1,945,884			1,661
				3.2.	**85,639,644**	**77,000**
Net income from trading portfolio				**3.3.**	**1,798,241**	**0**
Other operating income				**3.4.**	**39,659,298**	**36,848**
General administrative expenses						
– Personnel expenses						
Wages and salaries		26,782,298				25,662
Social security contributions and expenses for pension provisions and benefits		4,878,816	31,661,114			3,279
incl.: for retirement benefits	1,548,532					62
– other administrative expenses			78,988,476			74,778
				3.5.	**110,649,590**	**103,719**

FOR THE PERIOD FROM JANUARY 1, 2017 TO DECEMBER 31, 2017 (CONTINUED)

€				Notes	2017 €	2016 T€
Depreciation, amortisation and valuation adjustments of intangible and tangible fixed assets				2.6.	**2,217,715**	**2,249**
Other operating expenses				3.6.	**2,312,110**	**1,179**
Depreciation and value adjustments in respect of receivables and specific securities and allocations to provisions for credit risks			–			
Income from allocations to receivables and specific securities as well as allocations to loan transaction accruals			–			
					–	
Depreciation, amortisation and write-downs of equity investments, shares in affiliated companies and securities classified as fixed assets			–			–
Income from reversals of investments, shares in affiliated companies and securities classified as fixed assets			–			–
					–	–
Income before Tax and extraordinary items					**19,852,247**	**21,578**
Extraordinary income			–			–
Extraordinary expenses			–			–
Extraordinary result					**–**	**–**
Taxes on income and revenue			6,125,924			6,019
including changes in deferred taxes:	–					
Other taxes, not shown under other operating expenses			13,110			12
				3.7.	**−6,139,034**	**− 6,031**
Profit transferred on the basis of profit pooling, profit and loss transfer, or partial profit transfer agreements					–	–
Annual net profit					**13,713,213**	**15,547**
Profit/loss carried forward				**3.8.**	**0**	**0**
Retained profit					**13,713,213**	**15,547**

J.P. MORGAN AG, FRANKFURT AM MAIN
NOTES TO THE 2017 ANNUAL FINANCIAL STATEMENTS

1. General Remarks

1.1. GENERAL PRINCIPLES

J.P. Morgan AG, with registered offices in Frankfurt am Main, is a public limited liability company under German Law registered in the Trade Register of the Frankfurt District Court under number HRB 16861, which is active in Germany in the main business segments of transactional banking, the securities custody business and depository and loan business, and the business with over-the-counter derivatives.

The annual financial statements for J.P. Morgan AG have been prepared under the rules laid down in the German Commercial Code (HGB), the Companies Act (Aktiengesetz) and the Accounting Regulation for Credit Institutions and Financial Service Institutions (RechKredV).

The structure of the balance sheet and the income statement is mainly unchanged as compared to the prior year. Only the items for the trading portfolio were supplemented.

1.2. ADDENDUM REPORT

There were no significant changes after the balance sheet date.

1.3. CHANGED ACCOUNTING AND VALUATION METHODS

The balance sheet preparation and valuation methods adopted in the 2017 annual financial statements were retained without change compared to the previous year.

The financial instruments of the trading portfolio are valued according to the fair value minus a deduction for risk pursuant to § 340e Para. 3 HGB. In accordance with § 255 Para. 4 HGB the fair value corresponds to the market price.

1.4. FOREIGN CURRENCY CONVERSION

Foreign-currency receivables and liabilities have been converted using the European Central Bank reference rates applicable at the reporting date. Transactions denominated in foreign currency are translated at the end-of-month rate for the month in which the business was transacted. Exchange gains/losses are reported in profit or loss under other income. The losses incurred from foreign currency conversion in 2017 in the amount of € 374,299 are shown under Other Expenses.

2. Key Accounting and Valuation Principles and Explanations

2.1. CASH RESERVES

T€	12/31/2017	12/31/2016
Cash reserves	**7,822,448**	**13,195,115**
Cash on hand	0	0
Credit with central banks	7,822,448	13,195,115
incl.: with Deutsche Bundesbank	7,822,448	13,195,115

Liquid funds are reported at nominal value. As of the reporting date there was € 100 in liquid assets in the cash on hand.

2.2. RECEIVABLES FROM CREDIT INSTITUTIONS

T€	12/31/2017	12/31/2016
Receivables from credit institutions	**7,128,036**	**8,834,618**
incl.: receivables from affiliated companies	7,013,400	8,354,653
Breakdown by remaining maturity:		
a) due daily	7,099,858	8,804,762
b) other receivables	28,178	29,856
1. up to three months	28,178	29,856

The receivables from credit institutions are listed at the nominal values or the lower cost of acquisition plus accrued interest. The majority of the receivables in the amount of € 5.539 billion is made up of intra-group reverse repo transactions.

2.3. RECEIVABLES FROM CLIENTS

T€	12/31/2017	12/31/2016
Receivables from clients	**260,072**	**204,688**
incl.: receivables from affiliated companies	20,861	71,920
Breakdown by remaining maturity:		
a) due daily	16,859	36,473
b) undefined maturity	243,212	168,214
c) other receivables	–	–
1. up to three months	–	–

Receivables from clients are reported at nominal value or at the lower cost of acquisition plus accrued interest.

The majority of the receivables in the amount of € 204 million comprises tolerated overdrafts with clients from the Custody and Funds Services business area.

2.4. BONDS AND OTHER FIXED-INTEREST SECURITIES

T€	12/31/2017	12/31/2016
Bonds and other fixed-interest securities	**50,636**	**247,994**
maturing in the following year	–	–
Bonds and debt securities		
from public issuers	50,636	247,994
incl.: eligible as collateral with Deutsche Bundesbank	50,636	247,994
including marketable securities	50,636	247,994
listed on the stock exchange	50,636	247,994
not listed on a stock exchange	–	–

This position includes only listed bonds. Bonds and other fixed-income securities are valued at acquisition with the acquisition cost.

The securities form part of the liquidity reserves. The securities are assessed according to the strict lowest value principle pursuant to § 253, Para. 4 HGB. Depreciations and write-ups of the securities in the liquidity reserve are reported in the income statement under "Depreciation and value adjustments in respect of receivables and specific securities" and "Allocations to provisions in connection with lending business interests" or "Income from write-ups to receivables and specific securities" as well as "amortisation of provisions in connection with lending business interests".

To hedge the risk of changes in interest rates, a security and an interest hedging instrument were combined to form a micro-valuation unit. The interest-induced market price change hedged by means of a swap was € −4.5 million on the closing date. Effectiveness tests conducted monthly show that it is an effective relationship. The valuation unit terminates on the maturity date of the security in 2024.

As at December 31, 2017, hidden reserves amounting to € 2.3 million existed in the securities of the liquidity reserve, taking the existing valuation units into consideration. Due to the classification of all securities as liquidity reserve, no hidden liabilities exist.

2.5. TRADING PORTFOLIO

Only financial derivative instruments are listed as financial instruments of the trading portfolio. The basic assumptions used to determine fair value using recognised valuation methods are presented in § 2.10. "Other accounting and valuation methods". § 2.10. also deals with the calculation of the value-at-risk-based risk discount.

T€ 12/31/2017	Trading portfolio on the assets side	Trading portfolio on the liabilities side
Trading portfolio		
Derivative financial instruments	385,643	383,658
Risk discount	5	0
In total	**385,648**	**383,658**

The amount, timing and certainty of future cash flows are influenced essentially by the interest rate environment, developments on the equity and bond markets, and developments in spreads and default probabilities.

The following table breaks down the nominal amount and fair value of the derivative financial instruments according to the type and scope before risk discount and debit valuation adjustments (DVA).

T€ 12/31/2017	Nominal amount	Positive market values	Negative market values
Products traded over the counter			
Interest-rate-linked transactions	4,648,227	232,146	232,146
Exchange-rate-linked transactions	3,416,668	110,038	110,038
Credit derivatives	1,052,615	15,740	15,740
Equity-linked transactions	373,873	27,724	27,724
In total	**9,491,384**	**385,648**	**385,648**

2.6. CHANGE IN FIXED ASSETS

T€	Other equipment and office equipment	Technical equipment and machines	Total
Cumulative acquisition costs as of 01/01/2017	**17,741**	**2,105**	**19,846**
Additions	81	4	86
Disposals	−20	0	−20
Transfers	0	0	0
Cumulative acquisition costs as of 12/31/2017	**17,803**	**2,109**	**19,912**
Cumulative depreciation as at 01/01/2017	**3,849**	**1,272**	**5,121**
Scheduled depreciation in the current year	1,823	384	2,208
Additions	8	1	9
Disposals	0	0	0
Transfers	0	0	0
Cumulated planned depreciation as at 12/31/2017	5,681	1,657	7,338
Residual value as at 12/31/2017	**12,122**	**452**	**12,574**
Residual value as at 12/31/2016	**13,892**	**833**	**14,725**

The fixed assets are valued at acquisition cost and minus scheduled straight line depreciation. The value of the used parts of buildings amounts to € 9.4 million, while that of operating and business equipment amounts to € 3.2 million.

2.7. OTHER ASSETS

T€	12/31/2017	12/31/2016
Other assets	**6,749**	**4,250**

This mainly comprises € 1.3 million in value-added tax receivables, € 0.7 million from the asset value of the pension liability insurance.

2.8. ACCRUED AND DEFERRED EXPENSES

T€	12/31/2017	12/31/2016
Accrued and deferred expenses	**3,078**	**1,116**

The accrued and deferred expenses include € 3.06 million for the pension payments that were paid out in advance for billing reasons in 2017.

2.9. EXCESS OF PLAN ASSETS OVER PENSION LIABILITY

In line with § 246 Para. 2 S. 2 HGB, assets that serve to cover debts from pension liabilities and similar long-term obligations were netted against the liabilities. If the fair value of the assets exceeds the amount of the debts arising from retirement benefit obligations and similar long-term obligations, the excess amount is listed under the item "Excess of plan assets over pension liabilities." The actuarial report was calculated using the mortality tables of Prof. Dr. Klaus Heubeck 2005 G.

The evaluation was carried out in accordance with the accepted principles of actuarial mathematics using the so-called "Projected Unit Credit Method" (PUC method).

T€	12/31/2017	12/31/2016
Valuation parameters (BilMoG [Bilanzrechtsmodernisierungsgesetz – German Accounting Law Modernisation Act])		
Pension obligations:		
Actuarial interest rate	3.68 %	4.01 %
Future increase of benefits	3.00 %	3.00 %
Increase of pension	1.75 %	1.75 %
In order to account for fluctuation, age-specific and gender-specific fluctuation probabilities were used	Mercer Standard	Mercer Standard
Partial retirement:		
Actuarial interest rate	2.80 %	3.24 %
Future increase of benefits	3.00 %	3.00 %
Increase of pension	0.00 %	0.00 %

€		12/31/2017
Pension liabilities	**01/01/2017**	**140,053,598**
Allocations		9,819,430
Allocations from deferred compensation		0
Consumption (pension payments)		−10,851,276
Pension liabilities	**12/31/2017**	**139,021,753**
Assets	**01/01/2017**	**205,011,385**
Additions		745,237
Disposals		0
Reversal of impairment on part values that have risen again		0
Market valuation in relation to acquisition costs (under other operating income)		9,895,058
Assets	**12/31/2017**	**215,651,680**
Excess of plan assets over pension liabilities	**01/01/2017**	**64,957,787**
Excess of plan assets over pension liabilities	**12/31/2017**	**76,629,927**
Acquisition costs of assets	**01/01/2017**	**121,415,325**
Acquisition costs of assets	**12/31/2017**	**122,162,513**
Trend for allocations to pension provisions		
Allocations		9,819,430
Details of costs of partial retirement under "Wages and salaries"		−24,163
Proof of change in the discount rate and discounting/compounding of pension liabilities under other operative income		−9,706,777
Allocations to pension provisions	**01/01–12/31/2017**	**88,490**

	2017
Asset investment measures pursuant to HGB § 285 no. 26 of the assets	
Special Institutional Funds	**JPMC I Universal Fund**
Legal basis:	Risk management approach:
Basis of the calculation:	Market value (NAV) of assets
Reinvestment:	Capitalisation funds
§ 253 Para. 3 S. 4:	No depreciation because listed in accordance with § 246 Para. 2 HGB
Term:	No restriction on the daily return
Valuation as per §§ 168, 278 KAGb [Capital Investment Act] or comparable foreign law as of balance sheet closing date:	T€ 184,366; shares 1,071,094
Capital assets:	Not eligible for listing on the stock exchange/ unlisted
– Mutual funds	**JPMorgan Funds – Global Unconstrained Equity**
Legal basis:	Luxembourg law
Basis of the calculation:	Market value (NAV) of assets
Reinvestment:	Capitalisation funds
§ 253 Para. 3 S. 4:	No depreciation because listed in accordance with § 246 Para. 2 HGB
Term:	No restriction on the daily return
Valuation in accordance with §§ 168, 278 KAGb [Capital Investment Act] or comparable foreign law as of balance sheet closing date:	T€ 323,270; shares 17,457,996
Capital assets:	Not eligible for listing on the stock exchange/ unlisted

All pension assets are held to hedge pension benefits granted to employees. The primary investment target of the funds is to cover long term financial obligations.

The fund unit prices are calculated as follows: A net asset value (NAV) is allocated to each share class – this is the value of the assets of a share class minus the liabilities for that class. The NAV is then divided by the total number of current shares belonging to that share class to arrive at the unit price.

2.10. OTHER ACCOUNTING AND VALUATION METHODS

Other assets are valued under consideration of the strict lowest value principle.

Provisions for expenses and income have been created and allocated to the respective balance sheet items. No significant costs or income relating to other periods were recorded.

The accounts payable are recognized at fulfilment amounts.

Appropriate provisions have been made for uncertain liabilities, including imminent losses in the amount of T€ 54.

Interest driven business, in the banking book, was valued using the periodical approach (p&l based method) for loss free valuation. In accordance with this method, it was not required to form a provision for contingent losses.

The financial instruments of the trading portfolio are valued according to the fair value minus a risk discount pursuant to § 340e Para. 3 HGB. In accordance with § 255 Para. 4 HGB the fair value corresponds to the market price. Where available, fair value is based on observable market prices or derived from observable prices or parameters. The availability of observable data varies according to product and market and may change over time. If no observable stock market prices or information are available, valuation models that correspond to market standards are used.

Netting of positive and negative fair values of financial instruments were not applied during the reporting period.

The value-at-risk is determined for the financial instruments in the trading book and deducted on the balance sheet within the trading assets. The calculation of the value-at-risk discount is based on a holding period of ten days and a confidence level of 99 %. The observation period is 264 trading days. The value-at-risk is charged to the net income position of the trading result according to § 340e Para. 4 HGB and increased the fund for general banking risks.

The amount that may not be disbursed under § 268 Para. 8 S. 3 HGB totalled € 93.5 million as of December 31, 2017. This is the difference between the fair value and the purchase costs of the plan assets. Another item that is barred from disbursement is a part of the retirement pension commitment difference amount in accordance with § 253 Para. 6 S. 2 HGB, using the 7-year average interest rate, totalling € 10.5 million. Free reserves within the meaning of § 268 Para. 8 HGB existed in the amount of € 492.9 million.

Provisions were valued at the settlement amount, factoring in expected increases in prices and costs.

Provisions with a remaining term of more than one year have been discounted/revalued at the average market interest rates as calculated and announced by Deutsche Bundesbank (§ 253 Para. 2 HGB). Income and expenses from the discount or compounding are shown on an unbalanced basis, depending on whether provisions were created for the lending business interests or the non-banking business, correspondingly under the interest income/expense (§ 277 Para. 5 HGB) or in the other operating income/expenditure (§ 340a Para. 2 in conjunction with § 277 Para. 5 HGB).

Deferred taxes are calculated for temporary differences between the commercial valuations of assets, liabilities and deferred income and their taxable value and tax loss. The underlying temporary differences are mainly due to different valuations of securities, pension liabilities and the valuation of plan assets and provisions and lead to a net deferred tax asset (surplus). For the calculation of deferred taxes, a corporate income tax rate including solidarity surcharge of 15.825 % and an industrial tax rate of 16.10 % were assumed. The right available under § 274, Para. 1, S. 2, HGB for activation of deferred taxes is not exercised.

Valuation units were created for registered bonds and promissory notes that were issued, which were hedged against market prices using a Total Return Swap (TRS). Moreover, parts of the fixed-interest securities were combined into a valuation unit with an interest rate swap as a hedge.

The TRS and the interest swap were each combined into a single hedge transaction with their underlying transaction, and their effectiveness was tested.

Owing to the clear hedging relationship, the transactions involved are Micro-Hedges that represent an efficient and perfect hedging relationship for the entire term. The market values covered by the Total Return Swaps in relation to the underlying liabilities are calculated using customary valuation models. Efficiency is measured by using the dollar offset method, or with the use of suitable statistical procedures such as regression analysis.

The fair market value of the Total Return Swap on December 31, 2017 was T€ 3,696. The value of the interest swap on the closing date is T€ –5,145. Valuation was carried out using internal valuation procedures. The Group uses valuation procedures to establish the fair value of financial instruments where prices quoted in active markets are not available. Therefore, where possible, parameter inputs to the valuation procedures are based on observable data derived from prices of relevant financial instruments traded in an active market. The use of these models involves some level of management estimation and judgment, the degree of which will depend on the price transparency for the financial instrument and its market and the instrument's complexity.

The maturity of the TRS corresponds to the hedged liability, and is made up as follows on December 31, 2017:

T€	Total Return Swap	Liabilities
Total Return Swaps Overview (Nominal)		
Maturity		
2022	10,000	10,000

A valuation unit was created that combined a Total Return Swap and a liability item.

The maturity breakdown of the interest swap is shown in the following table, in combination with the bonds:

T€	Interest Rate Swaps	Debt securities
Interest Rate Swap overview (nominal)		
Maturity		
2024	50,000	50,000
2025	–	–

The effective portion of the valuation units formed is presented according to the freezing method.

2.11. LIABILITIES TO CREDIT INSTITUTIONS

T€	12/31/2017	12/31/2016
Liabilities to credit institutions	**7,714,390**	**15,558,162**
incl.: liabilities to affiliated companies	5,572,194	13,028,352
Maturity structure:		
a) due daily	4,743,375	4,156,770
b) with agreed maturity or notice period	2,971,015	11,401,392
1. up to three months,	2,871,015	11,156,392
2. more than three months to one year,	–	145,000
3. more than one year to five years,	–	–
4. more than five years	100,000	100,000

The majority of the accounts payable are against intra-group companies.

The JPMorgan Chase Bank, N.A., London Branch, has furnished a cash security of € 500 million to secure granted lines of credit, as well as a cash security of € 100 million to secure transactions with derivatives.

2.12. LIABILITIES TO CLIENTS

T€	12/31/2017	12/31/2016
Liabilities to clients	**6,702,867**	**6,088,551**
incl.: liabilities to affiliated companies	126,567	317,201
Maturity structure:		
a) due daily	6,692,867	6,078,551
b) with agreed maturity or notice period	10,000	10,000
1. up to three months,	–	–
2. more than three months to one year,	–	–
3. more than one year to five years,	–	–
4. more than five years	10,000	10,000

The majority of the accounts payable in the amount of € 5,238 million comprises client deposits from the Custody and Funds Services business area.

2.13. OTHER LIABILITIES

T€	12/31/2017	12/31/2016
Other liabilities	**24,013**	**16,406**
consisting of:		
– Value added tax	8,365	11,609
– Liabilities from deliveries and services	10,782	3,654
– other liabilities	2,806	1,143

These mainly comprise liabilities from deliveries and services, as well as value added tax liabilities.

2.14. PROVISIONS

T€	12/31/2017	12/31/2016
Provisions	**20,569**	**17,392**
incl.:		
– tax provisions	8,116	4,303
– other provisions	12,453	13,089

In the provisions that are shown, all recognizable obligations on the balance sheet closing date that are based on past business transactions or past events are reflected and valued in accordance with § 253 Para. 2 HGB.

Other provisions consist for the most part of provisions regarding personnel expenditure and asset retirement obligations for the leased office building.

Provisions for anniversaries included in this figure were calculated using an actuarial report and the mortality tables of Prof. Dr. Klaus Heubeck 2005 G and in line with the valuation method as per § 253 para. 1 HGB.

2.15. SUBORDINATED LIABILITIES

T€	12/31/2017	12/31/2016
Subordinated liabilities	**184,888**	**185,376**
incl.: Subordinated liabilities to affiliated companies	184,888	185,376

The subordinated capital shown in 2017 comprises a subordinate loan of € 150,000,000 taken out on 21 December 2009, as well as another subordinate loan of € 35,790,432, which was transferred to J.P. Morgan AG within the scope of the merger between J.P. Morgan Beteiligungs- und Verwaltungsgesellschaft mbH and J.P. Morgan AG.

Interest payments are made quarterly starting on December 21, 2009 or for the capital gained within the context of the merger, on a semi-annual basis. The interest that is payable is calculated on the basis of the respective three-month EURIBOR (European InterBank Offered Rate) or, as the case may be, six-month EURIBOR interest rate. The amount of expenses incurred for subordinated liabilities amounts to T€ 93 for the financial year.

The subordinated capital to the amount of T€ 150,000 is due on December 21, 2039. The subordinated loan to the amount of T€ 35,790 has no term with an option for termination at any time with a notice period of two years. In the event of insolvency, all remaining lenders will be serviced in order of priority. There are no early repayment obligations.

The subordinated liabilities meet the requirements of § 10 Para. 5a of KWG [Kreditwesengesetz – German Banking Act].

2.16. FUND FOR GENERAL BANKING RISKS

T€	12/31/2017	12/31/2016
Status as at 01/01/2017	**56,300**	**56,300**
Additions	200	–
Disposals	–	–
Status as at 12/31/2017	**56,500**	**56,300**

2.17. SUBSCRIBED CAPITAL RESERVE AND RETAINED EARNINGS

The share capital amounts to € 160,000,000 split into 160,000,000 shares (€ 1 per share).

The shares are 100 % paid-in. The profit shown on the Balance Sheet in the prior year of amount of € 15.5 million was assigned by the Annual General Meeting to the retained earnings reserves.

2.18. OTHER ITEMS DUE TO AFFILIATED COMPANIES

T€	12/31/2017	12/31/2016
Other items due to affiliated companies		
Other liabilities	1,771	1,824

2.19. FOREIGN CURRENCY ASSETS AND LIABILITIES

T€	12/31/2017	12/31/2016
Foreign currency assets and liabilities		
Assets	1,450,612	1,984,480
Liabilities	1,451,620	2,378,092

2.20. CONTINGENT LIABILITIES

T€	12/31/2017	12/31/2016
Contingent liabilities		
Liabilities from guarantees and indemnity agreements	161,922	438,030

The contingent liabilities shown are mainly covered by corresponding hedges.

The likelihood of a claim, based on past experience, is deemed to be low. Information in accordance with § 35 par. 5 RechKredV [Credit Institution Accounting Regulations] does not have to be provided in this context, since J.P. Morgan AG has not transferred any collateral to others.

3. Explanatory Notes to the Income Statement

3.1. NET INTEREST INCOME

T€	01/01–12/31/2017	01/01–12/31/2016
Interest income (net)	**7,933**	**14,854**
Interest income from:	**−20,068**	**−11,115**
a) Lending and money-market transactions	23,632	25,448
less negative interest arising from lending and money-market transactions	−45,238	−38,827
b) Fixed-income securities and debt register claims	1,538	2,263
Interest expenses:	**−28,001**	**−25,969**
a) Lending and money-market transactions	1,695	2,538
less negative interest arising from lending and money-market transactions	−30,055	−29,275
b) Fixed-income securities and debt register claims	360	768

Net interest income fell by 47 % compared to the comparison period. This heavy fall is due in part to reverse repo transactions, which because of negative interest rates led to a reduction in interest income by T€ 6,411.

The positive balance of interest from bonds reduced by T€ 317 compared to the prior year.

3.2. NET COMMISSION INCOME

T€	01/01–12/31/2017	01/01–12/31/2016
Commission income (net)	**85,640**	**77,001**

The net commission income increased by 11.2 % in comparison to the previous year. In particular, increasing income from payment transactions and the first collection of commissions receivable from OTC derivative business contributed positively to this increase.

3.3. NET INCOME FROM THE TRADING PORTFOLIO

T€	01/01–12/31/2017	01/01–12/31/2016
Net income from trading portfolio	**1,798**	**0**

The net income from the trading portfolio amounts to T€ 1,798.

3.4. OTHER OPERATING INCOME

T€	01/01–12/31/2017	01/01–12/31/2016
Other operating income	**39,659**	**36,848**
including:		
– Services rendered for Group entities	29,765	30,231
– Miscellaneous other operating income	9,895	6,617

The increase in other operating income is 8 % compared to the previous year. A positive effect was achieved from the sale of securities from the liquidity reserve in the amount of T€ 9,416 (2016: T€ 1,049). The positive effect is partially reduced from T€ 2,586 in 2016 to T€ 188 in 2017 as a result of the valuation result arising from the changes in the present value of the cover assets, the change in the actuarial interest rate, and the effects of discounting and compounding the pension liabilities.

Further, other income included services rendered to Group units.

3.5. GENERAL ADMINISTRATIVE EXPENSES

T€	01/01–12/31/2017	01/01–12/31/2016
General administrative expenses	**110,650**	**103,719**
incl.:		
Personnel expenses	31,661	28,941
– Wages and salaries	26,782	25,662
– Social security contributions and expenses for pension provisions and benefits	4,879	3,278
• of which for retirement	1,549	62
other administrative expenses	78,988	74,778

The increase in general administrative expenses results mainly from increased expenses on services to companies of the Group.

3.6. OTHER OPERATING EXPENSES

T€	01/01–12/31/2017	01/01–12/31/2016
Other operating expenses	**2,312**	**1,179**

The other operational expenses primarily include intra-Group expenses for the administration and sale of securities from the liquidity reserve.

3.7. TAX ON INCOME AND REVENUE AND OTHER TAXES

T€	01/01–12/31/2017	01/01–12/31/2016
Taxes	**6,139**	**6,031**
Industrial tax	4,073	2,967
Corporate tax	3,839	3,052
Other	–1,771	12

In the fiscal year out-of-period tax expenses in the amount of T€ 13 were recorded. The Miscellaneous Taxes item contains € 1.7 million in interest income that results from a completed tax audit.

3.8. PROPOSED APPROPRIATION OF PROFITS

The Management Board and the Supervisory Board propose to the Annual General Meeting that the balance sheet profit for fiscal year 2017, totalling € 13,713,213 be added to the retained earnings.

4. Other Data

T€	Market value on 12/31/2017 positive	Market value on 12/31/2017 negative	Market value on 12/31/2016 positive	Market value on 12/31/2016 negative	Market value on 12/31/2015 positive	Market value on 12/31/2015 negative
Total Return Swap	3,696	–	4,071		4,104	8,950
Interest Rate Swaps	–	5,145	–	6,353	–	14,951

Forward transactions which were not yet settled at the reporting date consisted of Total Return Swaps and Interest Rate Swaps. The Total Return Swaps and Interest Rate Swaps were concluded to hedge against market risks, or change of interest rate risks.

4.1. RELATIONS WITH AFFILIATED COMPANIES

The sole shareholder of J.P. Morgan AG is J.P. Morgan International Finance Limited, Newark/Delaware, USA. A dependency report pursuant to § 312 AktG [Aktiengesetz – German Stock Corporations Act] is issued.

J.P. Morgan Chase & Co. and J.P. Morgan Chase Bank, National Association, have informed us by letter dated January 15, 2018 that an indirect equity interest of 100 % exists. J.P. Morgan International Finance Limited informed us in writing on January 15, 2018 that a direct holding of 100 % exists.

The group financial statements for the smallest and the largest scope of included companies are prepared by JPMorgan Chase & Co., New York, whose shares are quoted on the New York Stock Exchange as well as on certain European and Asian stock markets. The consolidated annual financial statements can be obtained on request from J.P. Morgan AG, Frankfurt am Main.

The Bank is a member of the Deposit Protection Fund of the Association of German Banks.

4.2. NUMBER OF EMPLOYEES

On average for the year there were 275 employees, distributed as follows:

Number	12/31/2017	12/31/2016
Yearly average	**275**	**269**
Distribution of employees		
Authorised signatories	9	12
Authorised officers	135	128
Commercial employees	131	129

Employees who are seconded, released from duties and on parental leave are not included in these figures.

4.3. TOTAL REMUNERATION OF THE ACTIVE MEMBERS OF THE BOARDS

The remuneration paid to members of the Management Board amounted to T€ 2,387. A portion of this came from 6,490 restricted stock units which had a fair value on their grant date of T€ 495.

The remuneration paid to members of the Supervisory Board amounted to T€ 10 in 2017.

No loans were granted to Board members during the business year.

4.4. TOTAL PAYMENTS TO FORMER BOARD MEMBERS AND THEIR DEPENDENTS

Pension provisions for these persons totalled T€ 18,475 as of December 31, 2017. The total remuneration for former members of the Management Board and their dependants amounted to T€ 3,924 as at December 31, 2017.

4.5. FEE EXPENSES[1]

T€	01/01–12/31/2017	01/01–12/31/2016
Total fee expenses for the financial year calculated by the auditors for	**445**	**289**
Financial document auditing services	**365**	**204**
of which, for the previous year	5	2
of which, expenses in the current financial year	0	0
of which, expenses for creating provisions	360	202
Other confirmation services	**80**	**85**
of which, for the previous year	0	2
of which, expenses in the current financial year	0	0
of which, expenses for creating provisions	80	83
Other services	**0**	**28**
of which, for the previous year	0	0
of which, expenses in the current financial year	0	28
of which, expenses for creating provisions	0	0

[1] Net expenses, excluding VAT

The other confirmation services are the WpHG [Securities Trading Act] audit of the custodian bank.

4.6. EXPLANATORY NOTES ON OTHER FINANCIAL COMMITMENTS

The Company utilises services from various Group member companies as part of its outsourcing functions. The business procurement contracts have a notice period of three months.

The rental contract for the business premises runs until September 30, 2024.

Management Board
Burkhard Kübel-Sorger Chairperson of the Management Board, Managing Director, J.P. Morgan AG
Michelle Grundmann (until October 16, 2017) Managing Director, J.P. Morgan AG
Stefan Behr Managing Director, J.P. Morgan AG
Supervisory Board
Mark S. Garvin Chairman, Managing Director, J.P. Morgan Europe Limited
Frédéric P. Mouchel Deputy Chairperson, Managing Director and Chief Executive Officer, J.P. Morgan Bank Luxembourg, S.A.
Melanie Martin Managing Director, JPMorgan Chase Bank N.A., London Branch
Dorothee Blessing Regional Head Germany/Austria/Switzerland & Vice Chairman Investment Banking EMEA
Thomas Freise Employee Representative, J.P. Morgan AG
Christoph Fickel Employee Representative, J.P. Morgan AG

Directorships or seats on supervisory boards

Management Board
Burkhard Kübel-Sorger Management Board of Whiteshire Debt Solutions GmbH
Michelle Grundmann (until October 16, 2017) No other directorships
Stefan Behr No other directorships
Supervisory Board
Mark S. Garvin Executive management body J.P. Morgan Securities plc, supervisory body J.P. Morgan Bank Luxembourg S.A. (Chairman of the Board); J.P. Morgan Europe Limited Euroclear S.A.; Euroclear plc
Frédéric P. Mouchel Executive management body J.P. Morgan Bank Luxembourg S.A. (Chairperson of the Executive Committee), Supervisory body J.P. Morgan Chase Holding Ltd.
Melanie Martin No other directorships
Dorothee Blessing Executive management body J.P. Morgan Securities plc Frankfurt Branch, supervisory body A.P. Møller Maersk Group
Thomas Freise No other directorships
Christoph Fickel No other directorships

Frankfurt am Main, April 19, 2018

J.P. Morgan AG
Frankfurt am Main
The Management Board

BURKHARD KÜBEL-SORGER STEFAN BEHR

AUDITOR'S REPORT

To J.P. Morgan AG, Frankfurt am Main

Note by the Auditor of the Financial Statements

AUDIT JUDGMENTS

We have audited the annual financial statements of J.P. Morgan AG, Frankfurt am Main – consisting of the December 31, 2017 balance sheet and income statement for the fiscal year from January 1 through December 31, 2017, as well as the notes, including the description of the balance sheet preparation and valuation methods. In addition, we have audited the management report of J.P. Morgan AG for the fiscal year from January 1 through December 31, 2017.

According to our evaluation based on the knowledge gained in the course of the audit,

– the attached annual financial statements are in all substantial respects in conformity with the provisions of German commercial law and convey an accurate picture of the corporation's asset and financial situation on December 31, 2017 and its earnings situation for the fiscal year from January 1 through December 31, 2017 in compliance with the principles of proper accounting, and
– the attached management report conveys an accurate picture of the corporation's situation overall. In all substantial respects, this management report is in accord with the annual financial statements, complies with the German statutory provisions, and accurately presents the opportunities and risk of future development.

In accordance with § 322 par. 3 sentence 1 HGB [Commercial Code], we hereby declare that our audit has not led to any objections with respect to the propriety of the annual financial statements or the management report.

BASIS FOR THE AUDIT JUDGMENTS

We conducted our audit of the annual financial statements and management report in accordance with § 317 HGB and the EU Financial Statement Auditing Regulations (no. 537/2014; hereinafter referred to as "EU-APrVO") and in compliance with the German principles of proper auditing of financial statements established by the Institut der Wirtschaftsprüfer [Institute of Auditors] (IDW). Our responsibility under these provisions and principles is described in detail in the "The Financial Statement Auditor's Responsibility for the Audit of the Annual Financial Statements and Management Report" section of our audit certificate. We are independent of the enterprise in accordance with the European and German provisions of commercial and professional law and have fulfilled our other German professional obligations in accordance with these requirements. In addition, we declare in accordance with Article 10 par. 2 letter f)

EU-APrVO that we have not rendered any prohibited non-audit services set forth in Article 5 par. 1 EU-APrVO. We are of the opinion that the audit evidence that we have obtained is adequate and suitable to serve as the basis for our audit judgments concerning the annual financial statements and management report.

PARTICULARLY IMPORTANT AUDIT SITUATIONS IN THE AUDIT OF THE ANNUAL FINANCIAL STATEMENTS

Particularly important audit situations are situations that, in our duly exercised discretion, were the most significant in our audit of the annual financial statements for the fiscal year from January 1 through December 31, 2017. These situations were reflected in connection with our audit of the annual financial statements as a whole and in forming our audit judgment in this regard; we submit no separate audit judgment concerning these situations.

From our perspective, the following situation was the most significant in our audit:

1 **Balance sheet listing of business transactions in derivative financial instruments arising from the trading business with special purpose vehicles**

We have structured our presentation of this particularly important audit situation as follows:

1 Facts and statement of the problem

2 Audit procedure and findings

3 Reference to further information

We will describe the particularly important audit situation in the following:

1 **Balance sheet listing of business transactions in derivative financial instruments arising from the trading business with special purpose vehicles**

1 In the 2017 fiscal year, J.P. Morgan AG commenced the trading business in derivative financial instruments with special purpose vehicles (SPVs) as a business activity for the first time.

The corporation concludes derivative transactions with SPVs outside of the JPMorgan Chase & Co. group (clients). The corporation shows this proprietary trading activity in the trading portfolio. The underlyings are essentially securities, currencies, units of account, interest rates, indices, or other earnings. The corporation's objective is not the position [or] taking of risk or the associated generation or earnings from price fluctuations or margins, but rather the rendering of the service to clients of the group.

In order to close the created positions arising from the client transactions, J.P. Morgan AG simultaneously concludes an offsetting transaction with another group-affiliated company. In the offsetting transaction, there is a substantial matching of all risk-determining terms with the client transaction. The offsetting transactions are also shown in the trading portfolio of J.P. Morgan AG.

To hedge the counterparty risks arising from the transactions with group-affiliated companies, cash security takes place with implementation of an ongoing margining process between the corporation and the respective group-affiliated companies. The reporting in this regard is under the accounts receivable or, as the case may be, accounts payable to credit institutions. The corporation posts the interest arising from the security in net interest income. In individual cases, there is a securing of the client transactions by means of securities by the client. The corporation currently provides no collateral with respect to the client transactions.

The accruals of current cash flows – arising, for example, from interest payments – are carried out in the corporation's trading portfolio.

The valuation of the positions in the trading portfolio takes place in accordance with § 340e par. 3 sentence 1 HGB at the fair value minus a risk discount. In accordance with § 340e par. 4 sentence 1 HGB, the corporation allocates 10 percent of the net earnings of the trading portfolio to the "Funds for general banking risks" special item in accordance with § 340g HGB. The fair value is determined with the help of generally recognized valuation methods. The bank determines the risk discount on the basis of a value at risk, taking into account the parameters prescribed by banking supervisory law with respect to the trading portfolio.

The valuation losses and gains, current expenditures and revenues, and the risk discount change that affects net income are shown by the corporation in the net result of the trading portfolio. In exchange for its work, the corporation receives commissions from the respective group-affiliated companies that execute the transaction to close the position arising from the client transaction. These are posted in the commission earnings.

In light of the first-time commencement of this business activity by the corporation during the fiscal year and as a result of the high complexity and quantity of the transactions, as well as the possible effects on the corporation's asset and earnings situation, the balance sheet portrayal of business transactions in derivative financial instruments arising from the trading business with specific purpose vehicles was of particular significance to our audit.

2 Within the framework of our audit, we evaluated the corporation's procedure concerning the balance sheet posting of business transactions in derivative financial instruments arising from the trading business with specific purpose vehicles.

In doing so we took into consideration the business organisation, the IT systems, and the relevant valuation models. In the process we become convinced of the reasonableness and effectiveness of the monitoring actions. In evaluating the valuation of the derivative financial instruments at the fair value, we retraced the calculation methods on the basis of market data and the contractual basis data and undertook an evaluation of the valuation methods that were used. We have retraced the corporation's calculations and reconciled them with the evidence that was presented to us.

We evaluated the contractual basis of individual transactions within the framework of random samples. We also became convinced of the simultaneous conclusion of offsetting transactions and the substantial matching of all risk-determining terms. In addition, we retraced the procedure for determining the risk discount and reconciled the results with the evidence that was presented to us.

We reviewed the requirements for the determination of the amount of the cash collateral and the interest thereon with the help of the contractual provisions, and we reconciled a reconciliation of the portfolio with the help of the evidence that was presented to us.

On the basis of our audit actions, we became convinced that the balance sheet recognition of business transactions in derivative financial instruments arising from the trading business with specific purpose vehicles took place properly in accordance with § 340e par. 3 and 4 HGB.

3 The corporation's statements concerning the balance sheet recognition of business transactions in derivative financial instruments arising from the trading business with specific purpose vehicles are contained in § 2.5 and 2.10 of the notes.

MISCELLANEOUS INFORMATION

The statutory representatives are responsible for the miscellaneous information. The miscellaneous information encompasses the business report – without further cross-references to outside information – with the exception of the audited annual financial statements, the audited management report, and our audit certificate.

Our audit judgments concerning the annual financial statements and management report do not extend to the miscellaneous information, and accordingly we do not submit an audit judgment or any form of audit conclusion in that regard.

In connection with our audit, we have the responsibility to read the miscellaneous information and evaluate whether the miscellaneous information

– shows substantial discrepancies with respect to the annual financial statements, management report or our findings gained in the course of the audit, or
– otherwise appears to be substantially misrepresented.

RESPONSIBILITY OF THE STATUTORY REPRESENTATIVES AND THE SUPERVISORY BOARD FOR THE ANNUAL FINANCIAL STATEMENTS AND MANAGEMENT REPORT

The statutory representatives are responsible for the preparation of annual financial statements that conform in all substantial respects to the provisions of German commercial law and for ensuring that the annual financial statements conform to German principles of proper accounting and convey a picture of the corporation's asset, financial, and earnings situation that corresponds to actual circumstances. In addition, the statutory representatives are responsible for the internal controls that they have determined to be necessary in conformity with the German principles of proper accounting, in order to enable the preparation of annual financial statements that are free from substantial – intended or unintended – misrepresentations.

In preparing the annual financial statements, the statutory representatives are responsible for evaluating the corporation's ability to continue business activity. In addition, they have the responsibility of stating situations in connection with the continuation of business activity, if pertinent. Beyond that, they are responsible for preparing the balance sheet on the basis of the accounting principle of continuation of business activity, unless this is precluded by actual or legal conditions.

Moreover, the statutory representatives are responsible for the preparation of a management report that conveys an overall accurate picture of the corporation and is in accord with the annual financial statements in all substantial respects, conforms to the German statutory provisions, and accurately presents the opportunities and risks of future development. The statutory representatives are also responsible for the precautionary actions and measures (systems) that they have deemed necessary in order to enable the preparation of a management report in accordance with the applicable German statutory provisions and in order to be able to provide adequate and suitable evidence of the statements in the management report.

The supervisory board is responsible for monitoring the corporation's accounting process with respect to the preparation of the annual financial statements and management report.

THE FINANCIAL STATEMENT AUDITOR'S RESPONSIBILITY FOR THE AUDIT OF THE ANNUAL FINANCIAL STATEMENTS AND MANAGEMENT REPORT

Our goal is to gain sufficient certainty concerning whether the annual financial statements as a whole are free from substantial – intended or unintended – misrepresentations and whether overall the management report conveys an accurate picture of the corporation's situation, is consistent in all substantial respects with the annual financial statements and the findings gained in the course of the audit, conforms to the German statutory provisions, and accurately presents the opportunities and risks of future development and issue an audit certificate that contains our audit judgments concerning the annual financial statements and management report.

Sufficient certainty is a high degree of certainty, but not a guarantee that an audit conducted in accordance with § 317 HGB and EU-APrVO and in compliance with the principles of proper financial statement auditing established by the Institut der Wirtschaftsprüfer [Institute of Auditors] (IDW) will always detect a misrepresentation. Misrepresentations can result from violations or inaccuracies and are viewed as substantial if it could reasonably be expected that they will, individually or as a whole, influence the audience's economic decisions made on the basis of the annual financial statements and management report.

During the audit, we exercise due discretion and maintain a critical attitude. In addition,

– we identify and evaluate the risks of substantial – intended or unintended – misrepresentations in the annual financial statements and management report, plan and conduct audit actions as a response to these risks, and obtain audit evidence that is adequate and suitable to serve as a basis for our audit judgments. The risk that substantial misrepresentations will not be detected is greater in the case of violations than in the case of inaccuracies, since violations can include fraudulent cooperation, falsifications, intentional incompleteness, misleading representations or, as the case may be, abolition of internal controls.
– we gain an understanding of the internal control system relevant to the audit of the annual financial statements and the precautionary actions and measures relevant to the audit of the management report, in order to plan audit actions that are reasonable under the given circumstances, but not with the goal of submitting an audit judgment concerning the effectiveness of these systems of the corporation.
– we evaluate the reasonableness of the accounting methods applied by the statutory representatives and the tenability of the estimated values and associated statements presented by the statutory representatives.
– we draw conclusions concerning the reasonableness of the accounting principle of continuation of business activity applied by the statutory representatives and, on the basis of the audit evidence that has been obtained, concerning whether substantial uncertainty exists in connection with the events or conditions that might raise significant doubts as to the corporation's ability to continue business activity. If we come to the conclusion that substantial uncertainty exists, we are obligated to call attention in the audit certificate to the relevant statements in the annual financial statements and management report or, if these statements are unreasonable, modify our respective audit judgment. We draw our conclusions on the basis of the audit evidence obtained up to the date of our audit certificate. Future events or conditions can, however, result in the corporation no longer being able to continue its business activity.

- we evaluate the overall presentation, structure, and content of the annual financial statements, including the information, as well as whether the annual financial statements present the underlying business transactions and events in such a manner that the annual financial statements convey a picture of the corporation's asset, financial, and earnings situation that corresponds to the actual circumstances in compliance with the German principles of proper accounting.
- we evaluate the management report's consistency with the annual financial statements, its statutory conformity, and the picture of the corporation's situation that it conveys.
- we conduct audit actions concerning the prospective statements in the management report that have been presented by the statutory representatives. On the basis of adequate audit evidence, we retrace, in particular, the significant assumptions on which the statutory representatives base the prospective statements, and we evaluate the proper derivation of the prospective statements from these assumptions. We do not submit an independent audit judgment concerning the prospective statements or the underlying assumptions. There is a substantial unavoidable risk that future events will substantially deviate from the prospective statements.

In conversation with the persons responsible for monitoring, we discuss, among other things, the planned scope and scheduling of the audit, as well as significant audit determinations, including any defects in the internal control system that we detect during our audit.

We give the persons responsible for monitoring a statement to the effect that we have complied with the relevant independence requirements and discuss with them all relationships and other situations that can reasonably be assumed to have an effect on our independence, and the protective measures that have been taken in this regard.

From the factual situations that we have discussed with the persons responsible for monitoring, we determine the situations that were most meaningful in the audit of the annual financial statements for the current reporting period and are therefore particularly important audit situations. We describe these situations in the audit certificate, unless statutes or other legal provisions preclude the public disclosure of the situation.

Miscellaneous Statutory and Other Legal Requirements

OTHER INFORMATION IN ACCORDANCE WITH ARTICLE 10 EU-APRVO

We were selected as financial statement auditor by the general shareholders' meeting on April 27, 2017. We were engaged by the Supervisory Board on 16 November 2017. We have been working on an uninterrupted basis since the 1983 fiscal year as the auditor of the financial statements of J.P. Morgan AG, Frankfurt am Main, or its predecessor companies.

We hereby declare that the audit judgments contained in this audit certificate are in accord with the additional report to the audit committee in accordance with Article 11 EU-APrVO (audit report).

Responsible Auditor

The auditor responsible for the audit is Christoph Lehmann.

Frankfurt am Main, April 19, 2018

PricewaterhouseCoopers GmbH
Audit Company

Christoph Lehmann	ppa. Fatih Agirman
Auditor	Auditor