#### **Questions for Public Comment**

Treasury requests comment on the questions below. These questions are intended to solicit views on the implications of changes to U.S. Treasury market structure, including changes to financing markets (i.e., the repurchase agreement market) using Treasury securities, for liquidity provision, and market functioning. We also welcome any input on the current market structure and how participants believe U.S. Treasury market structure will evolve in the coming years.

# Please be informed that we only replied to the questions more closely linked to our experience and investment activity. All other questions are not applicable to us.

1.1 Have there been changes in the nature of liquidity provision, or demand for liquidity, in the U.S. Treasury market? If so, are these trends different in the futures, dealer-to-customer, or interdealer broker ("IDB") market, or in the "on-the-run" and "off-the-run" sectors, or across different types of Treasury securities (e.g. bills, nominal fixed rate coupon securities, nominal floating rate securities, and inflationindexed securities)? Which factors have been responsible for any observed trends in liquidity provision and/or demand? In addressing those questions, please consider the dealer-to-customer market, trading on IDB platforms, and in the futures market, as applicable, and please provide or refer to data and/or analysis that support your conclusion. In addition, please consider the following questions, as applicable:

In our trading activity in the US Treasury market, executed especially on electronic trading platforms, we have been experiencing some liquidity issues. In some cases we noticed a reduction in bonds liquidity, measured as a widening in the bid-offer spread and in terms of price impact of a single trade. Such episodes occurred especially:

- in the 0-1 year maturity bucket;
- in trading off-the-run bonds
- for large size trades (100-150 mln USD).

#### a. How do you define liquidity? How do you define liquidity provision?

Market liquidity of an asset can be defined as the ease with which it can be traded. Liquidity provision should aim at ensuring the prompt availability of reasonable trading prices .

# b. Which measures are most indicative of the degree of liquidity? How might these measures be refined or expanded, if you were not limited by the availability of data?

Bid-offer spread, turnover and average ticket size could be used as reliable indicators of the degree of liquidity. The price impact of a single trade, connected to the depth of the trading book, is another indicator we take into account.

c. How do different indicators provide information on different aspects of liquidity, and in what ways?

All the above mentioned indicators should signal the presence of an active market for a certain asset

d. Which measures best represent the resilience of liquidity, or the relationships between liquidity and volatility?

In our view the Bid offer spread is a good measure of such a relationship, usually widening as volatility increases.

e. To what extent are these measures of liquidity and the resilience of liquidity different from measures used in other markets that have witnessed similar market structure changes? What are the idiosyncratic factors unique to Treasury cash markets that may cause these measures to differ?

## Not applicable

f. What changes, if any, have you observed in these measures over recent years? Over recent months?

## Not applicable

g. What microstructure features of the U.S. Treasury futures and cash markets, including both IDB venues and dealer-to-client markets, have affected the functioning, liquidity, efficiency and participation in these markets? What features have affected the functioning of the Treasury market as a whole?

## Not applicable

1.2 What changes, if any, have you made or observed in investment, hedging, and trading practices in response to shifts in Treasury market structure?

There are some observable changes, mainly related to new investment strategies adopted in the Treasury market, most of them coming from faster markets such as equity or futures. There are also signs of decreasing resilience of trading books, above all in moments of uncertainty.

1.3 How does the way in which you transact in or provide liquidity to the U.S. Treasury market change during periods of stress?

# Not applicable

1.4 Looking forward, do you anticipate significant changes in the structure of the U.S. Treasury market absent further regulatory changes? What would be the key benefits and/or risks of these changes in market structure? What key factors are likely to drive these changes? What changes are you planning to your firm's investment and trading policies, strategies, and practices?

In our opinion, the US Treasury market is facing an "equitization" pattern. The increasing use of Electronic Trading Platform (mainly Request for quote or RFQ, but the use of order driven platforms is also increasing) determines a faster reaction of market participants to informative shocks. In addition, the use of ETP is determining a rapid technological evolution, thus attracting categories of market participant previously excluded by the OTC nature of Treasury Market (such as algorithmic traders). As a result, Treasury market is becoming more competitive and faster.

1.5 What changes to the U.S. Treasury market structure, whether through public or private sector initiatives, might be advisable given the recent and expected future evolution? What role should the public sector play in driving or facilitating these changes?

#### Not applicable

1.6 What are the benefits and risks from the increased speed with which secondary market transactions take place? Do these benefits and risks differ across individual products (e.g. on-the-run versus off-the run

securities)? How have market participants and trading venues responded to, or facilitated, improvements in speed, and how, if at all, should policy makers respond?

The main benefits of the increased speed of treasury market transactions lies in the better efficiency and price discovery.

On the other hand, treasury market is suffering from episodes of liquidity evaporation which used to occur in the equity market.

New technologies allow market participants to react immediately to changes of the informative environment, thus creating fast and crowded overreaction when information arrives into the markets. Also market making activity is being affected by this unprecedented speed. Market makers are now able to adapt more quickly their bid and ask quote to upcoming information and in case of sudden information shocks this capacity may harm market liquidity as shown during the Treasury flash crash of October 2014, when liquidity provided by market makers suddenly disappeared for some seconds, increasing market fragility and volatility.

In order to attract the high volumes generated by algorithmic traders, trading venues are enhancing their computational and technological features; on the other hand, market participants are adapting to the increased competitiveness, in some cases adopting high frequencies strategies.

1.7 To what extent have changes in Treasury financing markets affected liquidity in cash Treasury markets, and what is the best evidence of those effects? Looking forward, do you anticipate major changes in the Treasury financing markets and how would this impact the functioning of the cash Treasury markets? How have firms modified their trading strategies in response to, or in anticipation of, these changes? What changes in Treasury financing markets could improve market efficiency? What are the potential benefits and risks to the Treasury market of increased access to central clearing of Treasury repurchase agreement ("repo") transactions?

# Not applicable

1.8 What share of trading (in the case of dealers, your own trading) is internalized? To what extent does it vary depending on security type (e.g., on-the-run, off-the-run)? How has this changed over time and how do you expect it to develop? What implications for the Treasury market, if any, do you see as a result of these developments?

#### No trading activity is internalized

# **Questions for Public Comment**

# Most of the questions reported in the following sections are not applicable to our activity

We request comment on the questions below. We are interested in what further steps the public and private sectors can take to address any outstanding risks, including operational risks to market functioning and risks to market integrity. We are also interested in the extent to which rules and practices applicable in other markets may be effective, in whole or in part, in improving the resilience of U.S. Treasury markets.

2.1 Are the risk management controls currently in place at U.S. Treasury cash and futures trading venues, as well as firms transacting in those venues, properly calibrated to support the health of the U.S. Treasury market? Why or why not? Please list the types of controls that are employed, as well as planned changes or

improvements. In addressing these questions, please consider the dealer-to-customer market, trading on IDB platforms, and the futures market, as applicable. In addition, please consider the following questions:

## Not applicable

a. What policies and risk management practices at U.S. Treasury cash and futures trading venues, as well as at firms transacting in those venues, could be improved or developed to mitigate potential risks associated with increased automation, speed, and order complexity? Please consider the risks posed by trading, risk transfer, and clearing and settlement.

# Not applicable

b. To what extent should venue-level risk management practices be uniform across Treasury cash and futures trading venues? For example, should there be trading halts in the Treasury cash market and should they be coordinated between Treasury cash and futures markets, and if so, how? Should Treasury cash, futures, options, and/or swaps venues coordinate intraday risk monitoring, and if so, at what frequency? If there were trading halts, how should they be implemented for bilateral trading activity in the Treasury cash market? What would be the primary challenges in implementing such trading halts, particularly given that trading in the U.S. Treasury cash market is over-the-counter, global in nature, and conducted on a 24-hour basis? (12)

## Not applicable

c. To what extent should U.S. Treasury cash market platforms be responsible for monitoring, identifying, and/or reporting suspicious trading activity?

# Not applicable

2.2 What internal risk controls are commonly employed by firms using automated, including algorithmic, trading strategies in the Treasury cash market? Are these different or similar to those used in the Treasury futures markets, and what are the reasons for any differences? How are such controls designed and triggered? How frequently are they triggered? What internal process controls commonly govern the implementation and modifications of trading algorithms?

#### Not applicable

2.3 What types of algorithmic trading strategies are commonly used by participants in the U.S. Treasury market? What features do those strategies have in common, and what features differ across strategies? What are the potential benefits and risks to an effective U.S. Treasury market functioning resulting from certain algorithmic trading strategies, certain order types, and/or particular trading venue policies or practices.

A comprehensive description of algorithmic strategies is difficult to perform, given the proprietary nature of such strategies and their fast evolution.

However, some evidence of automated trading based on technical levels could be observed at times, as also strategies based on the fast reading of macroeconomic data or the release of policy decisions. In some cases those strategies seem to be implemented through high frequency technology. In the Treasury future market signs of high frequency traders' activity could be envisaged (strategies such as "stop hunting" or "ignition momentum" are an example). Flash crashes episodes - usually related to the presence of "high frequency trading" seem to be occurring more frequently than in the past. The cash market may also be impacted by such episodes: given the existing correlation between future and cash prices, a flash crash occurring in the future market may quickly spill over cash prices. In addition, a faster future market affects the market makers hedging capabilities. Market makers may find more complex and expensive to cover their activity, especially in moments of stress. As a result ,they may be forced to widen significantly their bid ask spread when future prices become too volatile, in an attempt to avoid huge losses due to the impossibility to hedge their positions.

2.4 How are best practices used in evaluating, and updating, risk management systems at a given firm? How does your firm make use of TMPG's best practices (referenced above) for operations in the Treasury cash market? How can best practice recommendations be utilized in order to reinforce market integrity? What are the benefits and limitations of best practice recommendations?

# Not applicable

2.5 What are the benefits and risks associated with the current structure for clearing and settling Treasury securities transactions in the dealer-to-customer market and on IDB platforms, as applicable. For example:

# Not applicable

a. Are intraday margining practices in the Treasury cash market for both cleared and non-cleared transactions currently sufficient to protect against counterparty risk, especially in light of the speed at which positions can be accumulated? What options are available to improve margining practices? Should the maximum potential intraday exposure of firms be calibrated relative to their level of capital? If so, how should it be calibrated? Are alternative measures of potential exposure more meaningful for automated trading strategies, and if so, which type of measures?

# Not applicable

b. Currently, there are no statutory requirements that require participants to centrally clear cash Treasury transactions. Should such a requirement apply to any participants, particularly those with large trading activity or large positions? Would the secondary market for cash Treasury securities benefit from broader participation in centralized clearing? Why or why not?

# Not applicable

2.6 Many of the standards applicable to U.S. securities, commodities, and derivatives markets are not applicable to the U.S. Treasury cash market. Which differences, if any, should be addressed and how should standards be aligned? How will these affect the cost of accessing or participating in these markets, as well as of transacting in these markets? Would there be any implications to U.S. federal government borrowing costs? In addressing these questions, please consider the dealer-to-customer market, trading on IDB platforms, and the futures market, as applicable. In addition, please consider the following:

# Not applicable

a. What implications would a registration requirement for firms conducting certain types of automated trading, or certain volume of trading, in the U.S. Treasury market have on market structure and efficiency, investor protection, and oversight?

b. Should firms that conduct certain types of automated trading, or certain volume of trading, in the U.S. Treasury market be subject to capital requirements, examinations and supervision, conduct rules, and/or other standards? What would be the implications of each?

# Not applicable

2.7 Should self-trading be expressly prohibited in the cash Treasuries market? (13) Does self-trading provide any benefits to the markets? Are there risk management tools, either at trading firms or at trading platforms, which can effectively reduce levels of self-trading and improve trading efficiencies?

In principle self trading activity could be either intentional or unintentional: the former is usually deemed suitable for manipulative purposes, while the latter is often related to the interaction of different trading algorithms belonging to the same firm. In our view, while making an assessment on self-trading and on its potential market impacts, such distinction should be taken into account.

# **Questions for Public Comment**

We request comment on the questions below. The questions in this section of the RFI seek information about which U.S. Treasury market data the official sector should have regular and ongoing access to. We are also interested in views regarding the potential for additional coordination across futures and cash markets, as well as interest rate swaps and options. These questions relate to the provision of U.S. Treasury market data to the official sector. Accordingly, while there may be considerations regarding data dissemination to the public that may be relevant to the answers to the questions posed in this section, those considerations should not factor into the answer to these questions (unless otherwise noted), but should be addressed, to the extent applicable, in Section IV.

# Questions in the following section are not applicable to us

3.1 To what extent can trading practices in U.S. Treasury cash and futures markets be effectively monitored using only transaction and/or order data from one, not both, of those markets? Is it necessary for regulators to have visibility across all U.S. Treasury cash and derivative markets in order to more effectively monitor and oversee trading behavior in any one market? What aspects of U.S. Treasury market monitoring require data collection across cash and derivatives markets?

# Not applicable

3.2 What frequency and type of additional data reporting to the official sector is necessary for it to effectively monitor functioning of the U.S. Treasury markets, including cash, futures, and financing markets? What level of data granularity is necessary for sufficient monitoring to be performed (e.g., transaction data, inventories or positions, order book data, and other additional data) across venues?

# Not applicable

a. Should all transactions in securities issued by Treasury be subject to reporting or should reporting be limited to secondary market transactions, on-the-run benchmark issues, or some other subset of securities?

#### b. Should repurchase agreement transactions be reportable?

#### Not applicable

3.3 What criteria should be used to determine who should report to the official sector? Should both counterparties (buyer and seller) be required to report a trade or is one-sided reporting preferable? Should reporting requirements depend on the platform or execution method? Should only a subset of participants, such as brokers, dealers, futures commission merchants (FCMs) and commercial bank dealers be required to report transactions? Should other parties to a transaction, such as banks and PTFs, be required to report? Should trades executed on automated trading venues be reported by those venues and not the individual brokers, dealers, FCMs, bank dealers, etc. transacting on such venues?

## Not applicable

3.4 Should transaction reporting include identifiers for categories of end investors? What are the costs and benefits of this approach? What alternatives should be considered to permit monitoring of positions and market activity?

## Not applicable

3.5 For those instruments subject to official sector reporting requirements:

## Not applicable

a. Should all transactions be subject to the same reporting time requirement? Are the answers different for different types of transactions or instruments?

#### Not applicable

b. Should cross market transactions have special indicators to link the different legs of the transactions?

#### Not applicable

c. Are there specific trades and/or trading strategies that should be considered for additional identification to ensure that regulatory organizations can accurately interpret the data (similar to Dollar Rolls or Stipulations on deliverable collateral in mortgage to-be-announced trading)?

#### Not applicable

d. Are there other industry practices and/or special situation information that should be considered for reporting?

#### Not applicable

e. Should trade allocations be reported? Are there any special pricing issues that should be considered (e.g. mark ups, commissions, ATS fees) or is dollar price adequate for determining the price of the trade?

#### Not applicable

f. Should settlement date and/or other settlement terms be reportable?

#### Not applicable

g. Are there any special considerations/conditions for determining the time that a trade is executed? Does this differ across trade types or venues?

## Not applicable

h. Should transactions executed on an ATS and/or in response to an electronic RFQ be identified as such? Should the specific ATS and/or RFQ platform be identified as part of the transaction report? Are there unique characteristics of such transactions that should be identified? Should the order type giving rise to a particular execution be captured? Are there any other unique methods of transacting in the Treasury market that should be identified?

## Not applicable

i. Should transaction counterparties be identified uniquely or categorized by counterparty type? If the latter, what counterparty types should be identified? Are there generally accepted definitions for these categories of counterparties?

## Not applicable

j. For transactions that are already subject to reporting requirements to the official sector, are there particular data standards or identifiers that should be used for the reporting of transactions in the Treasury cash market to aid harmonization? What transmission protocols, data standards and identifiers should be utilized to enhance authorities' ability to integrate data, share information and cooperate on analysis, for both existing and new data reporting?

#### Not applicable

k. Should the identification of registered market participants be "normalized" across U.S. Treasury cash and futures transactions such that there is a consistent and unique moniker used to identify each individually registered entity?

#### Not applicable

3.6 For those securities subject to official sector reporting requirements:

a. Should quotes and/or orders be reported? If so, should special consideration be made for certain types of quotes and/or orders (e.g., electronically submitted orders versus voice orders versus RFQ)? Are there any special considerations when defining an order and/or quote? How will these special considerations affect the ability of the official sector to analyze activity in the Treasury cash markets?

#### Not applicable

b. Should transactions, quotes, and/or orders be reported on a real time basis? If not, what should be the reporting standard? How should orders that are executed over multiple days be handled? Are there other special considerations when defining the time of an order?

# Not applicable

c. Are there additional elements that are important for regulators to understand beyond the categories of quote/order originator, price, size and time of the order (e.g., inventory or position data)? Should the type

of an order or any special order instructions be collected? Should all order changes be reported? Is the answer different for electronically submitted versus voice submitted orders?

# Not applicable

d. Should the submitter of a quote and/or order be identified uniquely or categorized by counterparty type? If the latter, what counterparty types should be identified? Are there generally accepted definitions for these categories of counterparties?

# Not applicable

3.7 Is it appropriate to have transactions, orders, and quotes time stamped at a certain clock precision (e.g., microsecond) level? Are the answers to these questions different for different types of transactions (e.g., electronic or voice) or different products (e.g., Treasury bills, notes, bonds, on-the-runs, off-the-runs, cash, or futures)? Would the answer be different for trade reporting, quote reporting, or order reporting? Would the answer be different categories of market participants?

# Not applicable

3.8 Do commercial bank dealers and broker-dealers have technology infrastructures and order/execution handling in place to report trades on a continuous basis?

# Not applicable

3.9 As the official sector begins to collect additional data on the cash U.S. Treasury market, what operational or market factors should be assessed? Are there particular negative consequences from the implementation of data collection? If so, what are they and why do they arise?

# Not applicable

a. The official sector may consider different methods for receiving transaction data from Treasury markets. For instance, it may rely on existing reporting regimes, or it may seek to build an alternative reporting system. If the latter, what alternative reporting system should be used? What are the costs and benefits with these different approaches? Would one approach impose fewer burdens on reporters than others? If so, why and by how much?

# Not applicable

b. Would one approach impose fewer burdens on smaller reporters than another? If so, why and by how much?

# Not applicable

c. Is the answer different for trades, orders, quotes, or execution methods?

# Not applicable

3.10 What additional infrastructure would be necessary for market participants to begin reporting comprehensive U.S. Treasury market transaction data? Should reporting requirements be phased in? If yes, how and why? Does phasing affect the cost of implementation for market participants? What transmission protocols, data standards and identifiers should be utilized to minimize reporting burdens?

#### Not applicable

3.11 Will the requirement to report transactions in the Treasury markets affect competition in this market? Who would be affected and how? What data or empirical evidence support this position?

#### Not applicable

## **Questions for Public Comment**

## Questions in the following section are not applicable to us

We request comment on the questions below. We are interested in the appropriate level and form of data about Treasury market activity that should be made available to the public. This includes use of transmission protocols, data standards and identifiers to facilitate the public's ability to link and integrate data.

4.1 Is the publicly available information for U.S. Treasury market trading activity sufficiently transparent to foster an efficient, healthy, and liquid market? What changes to public reporting would be most advisable, if any, including the use of data standards and identifiers?

## Not applicable

4.2 What additional information should be made available to the public in order to better assess liquidity conditions in the U.S. Treasury market, and at what frequency? For instance, should there be readily available transaction cost data that accounts for price movements that occur from the initiation of a trade request on RFQ platforms?

# Not applicable

4.3 If additional public transparency is necessary at the transaction level, what is the most appropriate level of transparency for publicly available data on trading in the secondary market? Should additional public transparency be phased in over time in any way? Should all quotes and/or orders in the inter-dealer market be made public, or just "top of book"? What characteristics should be reported (e.g., participant type, aggressor side, volume, price)? Should the release of any or all of the data be in real time or delayed? Should the available data differ depending on the age of the security, size of the transaction or other characteristics of a particular security or transaction?

#### Not applicable

4.4 Is there an existing public reporting model that would be appropriate, in whole or in part, for the U.S. Treasury market (e.g., swap data repositories for swaps, or FINRA's Trade Reporting and Compliance Engine (TRACE) for corporate bonds and agency mortgage-backed securities), or would the Treasury market benefit from a new model?

#### Not applicable

4.5 What additional information should be available to the public about the operation of trading platforms or trade execution algorithms on trading platforms (for inter-dealer as well as dealer-to-customer platforms)? For example:

a. Should information about order types, agreed upon fee arrangements, user agreements, and/or brokerage agreements be disclosed?

## Not applicable

b. Should the degree to which subscribers to the platform may limit their interaction with or exposure to other subscribers be disclosed?

## Not applicable

c. Should the degree and extent to which the sponsor of a platform trades on the platform be disclosed?

#### Not applicable