Remarks by Under Secretary for Domestic Finance Nellie Liang at the 2023 Treasury Market Conference

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As Prepared for Delivery

Good morning and thank you all for being here today. I've been looking forward to this annual conference and the opportunity for official sector representatives, academics, and market practitioners to come together. As I said last year, an important mission for us collectively is to strengthen the resilience of the Treasury market. Accordingly, my remarks this morning will consist of two parts: first, a review of Treasury market conditions and liquidity this past year, and second, a brief discussion of progress made by the Inter-Agency Working Group on Treasury Market Surveillance (IAWG), with a focus on a few workstreams led by Treasury.

REVIEW OF TREASURY MARKET CONDITIONS IN 2023

As this audience is well aware, it has been an eventful year for the Treasury market and interest rate volatility has been high. Against an economic backdrop of a strong labor market and higher-than-desired inflation, interest rates have continued to rise sharply. The Federal Open Market Committee (FOMC) increased the target range for the federal funds rate to 5-1/4 to 5-1/2 percent, and the 10-year Treasury yield touched 5 percent last month. The interest rate increases have been punctuated by financial sector stresses and geopolitical risks that have emerged in the interim, and as shown in Figure 1, volatility measures for Treasury yields have been elevated and variable. Implied volatility for the 2-year Treasury rose sharply last year around the beginning of the monetary policy tightening cycle, and spiked to an extreme level in March 2023, following the failures of SVB and Signature Bank, as investors revised sharply downward their expected path for monetary policy.

Treasury market liquidity conditions have nevertheless remained orderly. Figures 2 and 3 illustrate the relationship between the implied volatility for rates and market liquidity, measured by our composite index of trading conditions, for 2-year and 10-year Treasury securities. Implied volatility for 2-year Treasury yields in 2022 and 2023 has been much higher than in 2019 to 2021, and when it reached extreme levels during the bank turmoil in March this

year, market liquidity conditions deteriorated. While we would like to study this relationship more, market liquidity measures are not too far out of line with what a regression line would predict for the very high levels of volatility. For the 10-year nominal Treasury, the increase in volatility has not been as sizable, and liquidity metrics for 2023 have largely remained similar to last year, and clearly are significantly lower than in 2020 at similar levels for volatility.

At the same time, as can be seen in Figure 4, transaction volumes reached new record highs in mid-March. This combination of large transaction volumes (including for the two-year Treasury) and elevated volatility suggests that the market was able to facilitate significant risk transfer during this turbulent episode. We conclude that market conditions have been orderly: High volatility has affected market liquidity conditions, as is typically the case, while reduced liquidity did not amplify volatility.

Moreover, as shown in Figure 5, principal trading firms (PTFs) increased their activity in the Treasury market in March, providing a greater share of liquidity during this period of significant market stress. This surge stands in contrast to the decline in the PTF share in March 2020. The different reactions of PTFs to the events of 2023 and 2020 could be a subject for future study, but the higher share is more consistent with past behavior, such as during the October 15, 2014 event, which, you may know, prompted the official sector to organize this conference more than 8 years ago.

Moving on from this period, downside risks from the banking stresses began to recede, and after the debt ceiling was lifted, Treasury rapidly issued bills to rebuild its cash balance.² Tenyear Treasury yields rose, initially more gradually than shorter-term rates, but then sharply, by nearly 100 basis points between July and the end of October. The sharp increase suggests a notable rise in term premiums, the compensation that investors require for holding longer-maturity debt, which is, estimated generally to have been persistently negative for many years.

There are a range of explanations that we have heard for the estimated rise in the term premium, including from the Treasury Borrowing Advisory Committee (TBAC) a few weeks ago. Some have suggested that the expected path of short rates is higher than what is assumed in term premium models, as the resilience of the economy in the face of rate hikes has resulted in an upward revision to the long-run neutral rate of interest, or r*. Greater volatility in macroeconomic data may also contribute to investors needing more compensation for risk.

Others highlight the shift towards more price-sensitive investors as the marginal source of Treasury demand, with the Federal Reserve reducing and foreign reserve managers at the very least not adding to their positions in Treasury securities. We've seen lower levels of demand from commercial banks, as well. Adding to this dynamic are growing estimates of Treasury's borrowing needs from the private sector, because of higher projected fiscal deficits or the Fed's quantitative tightening lasting longer than expected. In addition, we've heard that the correlation of stocks and bonds turning positive may be a contributing factor, as market participants may view Treasury securities as providing a less effective hedge for risky assets when the nature of shocks to the economy changes from predominantly demand shocks to supply shocks.

While there are many possible reasons, the rise in term premiums on sovereign debt does not appear to be unique to the US or to this narrow time period, so the most plausible explanations should have some cross-country commonalities. Moreover, it is worth emphasizing again that the recent increases in term premiums and volatility do not appear to be because of technical market functioning issues; rather liquidity conditions have held up well.

Finally, at the most recent quarterly refunding, amid elevated volatility, we decided to moderate the rate of increase in longer-dated coupon auction sizes, an action which was broadly aligned with the expectations of the primary dealers and with the recommendations of the TBAC. As always, we strive to finance the government at the least cost over time, and our borrowing decisions are made within the context of our regular and predictable issuance framework. This framework considers a range of factors, including an assessment of demand at points across the curve.

In the past week, we've been monitoring a cybersecurity incident at the U.S. broker dealer sub of Industrial and Commercial Bank of China, which provides clearing services for Treasury securities transactions. Treasury activated its cyber incident response procedures, which includes a sector-wide executive response group. The firm quickly moved to alternative processing, and the event did not spread to other firms nor have a notable effect on Treasury markets. We are staying in regular contact with key financial sector participants and federal regulators, as well as continuing to assess potential effects on Treasury markets.

STRENGTHENING TREASURY MARKET RESILIENCE

While we've seen that Treasury market liquidity has held up well over the past year even amid very high volatility, we have, and should have, a very low tolerance for any significant disruptions to this market. The IAWG members have continued to work on a number of significant reforms to enhance the resilience of the Treasury market and, last week, released a third Staff Progress Report.³ Some potential reforms are complex and could have wideranging effects. Accordingly, we recognize that it is important that the IAWG members work carefully, with substantial public input, and that we attempt to coordinate initiatives in pursuit of our common purpose. I will speak to a few initiatives that Treasury is leading and leave the discussion of other initiatives to my IAWG colleagues.

Additional Public Transparency for Treasury Securities

I will start with an update on transparency for Treasury securities. When I spoke at this conference last year, I stated that we sought to expand transparency in a gradual and calibrated way. I said we would "walk, not run." And in the past year, we've been walking steadily down this path and have made important progress. First, in February 2023, FINRA, in consultation with Treasury, replaced the weekly reports on secondary market trading with daily reports. These reports also provide more information on trade counts and volume-weighted average prices for on-the-run nominal coupon securities. We've received positive feedback from market participants about the reports. By coincidence, this greater transparency was available just weeks before the regional banking stresses I mentioned earlier, allowing market participants to benefit from the enhanced information about Treasury securities market activity during that difficult time.

Second, we have made progress towards the public release of detailed secondary market transaction data for on-the-run nominal coupons, with end-of-day dissemination and with appropriate cap sizes. During the past year, we have worked with FINRA to improve the transactions reporting processes and turn this proposed policy into a reality.

Market participants have noted that capping the size of a trade in disseminated data would provide some protection for counterparties, while still indicating to others that a large trade had occurred. This practice is used in disseminating data in other fixed income markets. Market participants have generally suggested that caps should be simple and easy to understand, calibrated for differences in liquidity and interest rate risk across tenors, and that they should be re-evaluated periodically. There has also been interest in releasing an

"uncapped" data set with true trade sizes, but only months after execution to avoid any disruption to liquidity provision.

Two weeks ago, FINRA submitted their proposed rule filing to the SEC to move forward with transaction-level dissemination as described. We are hopeful that, after a review of the public comments, the SEC will approve a final rule and the proposed dissemination by FINRA for onthe-runs can begin soon afterwards. In line with our "walk, not run" policy, once we have had time to evaluate the effects of disseminating on-the-run transactions, we'll consider possible next steps for additional transparency.

Improving Data Quality and Availability

Continuing on improving data quality and availability, in January 2023, Treasury's Office of Financial Research (OFR) proposed a rule to establish ongoing collection of data from the non-centrally cleared bilateral repo market, where transactions are conducted between two firms without a central counterparty. This market represents one of the largest remaining data gaps for the official sector on Treasury market activity. Filling this gap will provide data on primary dealers' counterparties, including hedge funds, and the terms of the trades, which should help to be able to assess the vulnerabilities in the market. Specifically, the proposed rule would cover U.S. financial companies with an average of \$10 billion or more in daily outstanding commitments to borrow cash and extend guarantees through non-centrally cleared bilateral repo contracts. This threshold would include both overnight and intraday commitments. The OFR currently is considering comments received from the public and expects to publish a final rule in early 2024.

Examining Effects of Leverage and Fund Liquidity Risk Management Practices

Another workstream is to monitor and assess the effects of leverage and liquidity risk mismatches to reduce possible fire-sale dynamics in Treasury markets if funds were to have to meet margin calls or investor redemptions. For example, we continue to highlight the need for funds to adopt anti-dilution tools to reduce the first-mover advantage in open-end funds that hold less-liquid assets. Additionally, the Financial Stability Oversight Council's interagency Hedge Fund Working Group has been analyzing trends in leverage and potential funding vulnerabilities in non-centrally cleared bilateral Treasury repo transactions, building on the pilot data collection for this market.

We are aware of the increasing amount of attention being shown to Treasury cash-futures basis positions, in which hedge funds take a short position in Treasury futures, and an offsetting long position in cash Treasury securities financed by repo. CFTC data indicate that the gross volumes of futures have grown substantially over the past 18 months, with long positions in Treasury futures by asset managers and short positions by hedge funds. Repo market activity (particularly sponsored) has also picked up, some of which could be related to financing Treasury securities as part of cash-futures basis positions. This basis activity could provide benefits by increasing the liquidity of Treasury securities, improving integration between related cash and derivative market segments, and translating demand for futures into demand for Treasury securities. At the same time, we are attentive to the potential risks of a disorderly unwind of leveraged positions, especially those reliant on rolling over financing every day. Naturally, we are monitoring these developments closely, because of its potential financial stability risks, and also because of its potential effects on Treasury market liquidity and demand for Treasury securities.

Treasury Buybacks

Finally, I would like to address Treasury buybacks, which we announced at the May 2023 refunding for anticipated implementation next year. Based on extensive consultations with a broad variety of market participants, we believe that buybacks can play an important role in making the Treasury market more resilient by supporting market liquidity, while also enhancing our cash management capabilities. I'd like to highlight some key takeaways from our analysis here.⁴

First, our intention is to conduct buybacks in a regular and predictable manner, cycling through each of our maturity buckets at least once per quarter for liquidity support. While cash management operations will be more episodic, their timing will nevertheless be predictable because they will be focused during periods of high cash inflows such as around major tax filing dates.

Second, Treasury intends to be price sensitive in evaluating which buyback offers to accept. We don't have an objective to purchase a certain quantity of securities. As a result, the amount we buy in any given operation might be materially lower than the maximum amount that we announce we're willing to buy. As a reminder, we've noted our intention to initially purchase as much as \$30 billion per quarter in liquidity support operations, and up to \$120 billion per year for cash management.

Third, we believe that liquidity support buybacks should improve the willingness of investors and intermediaries to trade and provide liquidity in these securities, all else equal, through the knowledge that there is a potential outlet to sell some of their off-the-run holdings. These operations can make intermediation capacity more readily available, as we buy back hard-to-move securities that are in broker-dealer inventories and would otherwise absorb their intermediation capacity. However, given the caps on buyback amounts, our purchases would not be a substitute for actions that could be taken by the Federal Reserve during periods of acute market stress.

Treasury will continue to refine its operational design for buybacks, and we intend to provide an update on timing in the next quarterly refunding announcement on January 31.

CONCLUSION

To conclude, despite the various shocks and stresses that emerged during this year, Treasury market functioning has been orderly. The IAWG members have made progress on a number of reforms laid out in the staff reports, but there is still more to complete. I am confident that the IAWG members working with one another, and with market participants, such as those in this room, and other interested parties, can make additional significant progress in the coming year. Efforts to continue strengthening Treasury market resilience will serve us well over the years to come. Thank you.

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- 1. For additional analysis on Treasury market liquidity conditions, see (for example): "Resilience redux in the Treasury Market" by Darrell Duffie (August 25, 2023) and "How Has Treasury Market Liquidity Evolved in 2023" by Michael Fleming (October 17, 2023).
- 2. So on after the March bank failures, the Treasury market also dealt with the consequences of the debt limit impasse. The eventual rebuild of the Treasury General Account (TGA) from a low of \$23 billion in early-June to more than \$550 billion in mid-July was absorbed by the market in stride. Importantly, the increase in Treasury bill issuance that funded the increased TGA balances led to reduced participation in the Federal Reserve's overnight reverse repo facility, rather than adding further stress to bank deposits.
- 3. The Inter-Agency Working Group on Treasury Market Surveillance (IAWG) is composed of staff from the U.S. Department of the Treasury, the Board of Governors of the Federal Reserve System, the Federal Reserve Bank of New York, the U.S. Securities and Exchange Commission, and the U.S. Commodity Futures Trading Commission. I would also like to thank Sam Schulhofer-Wohl and colleagues from the Federal Reserve Bank of Dallas for their help in producing this report.

4. For additional detail, see Remarks by Assistant Secretary for Financial Markets Josh Frost at the International Swaps and
Derivatives Association Derivatives Trading Forum (September 21, 2023): https://home.treasury.gov/news/press-releases/jy1757