

Operational Plans for Various Contingencies for Treasury Debt Payments

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Introduction

A disruption in the timing of payment on Treasury debt could arise from a number of circumstances, such as systems failures, natural disasters, terrorist acts or other reasons. Contingency planning for such remote events is valuable, because untimely payments would present significant technical problems for the trading, clearing, and settlement of affected Treasury securities. Moreover, market participants would have difficulty preparing for these contingencies and coordinating with one another without some framework and shared assumptions for understanding how payments and other operational matters might be handled.

Given these challenges, the Treasury Market Practices Group (TMPG) evaluated what practices might be adopted to support market functioning in the unlikely event of an untimely payment on Treasury debt. This document is intended to provide a technical reference on some of the trading, clearing, settlement, and other operational challenges that might arise from untimely payments. It focuses strictly on operational practices that market participants might take in the event that payments on Treasury debt were delayed that would reduce some of the adverse consequences stemming from the operational complications of untimely payments.²

It should be emphasized that the practices described here, if implemented, would only modestly reduce, not eliminate, the operational difficulties posed by untimely payments on Treasury debt. Indeed, a delayed payment on Treasury debt even under these limited contingency practices could cause significant damage to, and undermine confidence in, the markets for Treasury securities and other assets. Moreover, some participants might not be able to implement these practices, and others could do so only with substantial manual intervention in their trading and settlement processes, which itself would pose significant operational risk. Other operational difficulties would also likely arise that could be severe and cannot currently be foreseen.

Of course, the appropriate approach for addressing these operational issues

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² A delayed payment refers to a situation in which the timing of a security's payment of interest or principal has been delayed by the U.S. Treasury Department past the originally scheduled payment date. Please see the appendix for a glossary of terms.

might depend on the exact circumstances that prompted the delay, and on how various systems and market infrastructure, including the Fedwire® Securities Service, evolve in the future. Nevertheless, we hope that this document will provide a sharper focus on some of the relevant issues and, at a minimum, serve as a useful starting point for any future discussions.³

Some Important Operational Features of the Fedwire Securities Service

Before discussing the potential practices contemplated in this document, we briefly review some important operational features of the Fedwire Securities Service, including how securities are ordinarily handled upon their maturity.

In the normal course of business, a security becomes non-transferable during end-of-day processing after the close of the Fedwire Securities Service the day prior to its maturity date, and the holders of record at that time receive payment on the legal maturity date. The Fedwire Securities Service ordinarily closes at around 7 p.m. eastern time (ET), but this close can be extended by a couple of hours in exigent circumstances.⁴ Once a security becomes non-transferable, it cannot be transferred from one participant to another in the Fedwire Securities Service. Given the design of the Fedwire Securities Service, once non-transferable, a security cannot be made transferable again.

Assuming that today and tomorrow are business days, if a security matures tomorrow, the final holders of the security on the Fedwire Securities Service at the close of business today will receive the principal payment on the maturity date (tomorrow). Ordinarily, at or around 8:05 a.m. ET on the maturity or coupon payment date, the Fedwire Securities Service makes principal and interest payments. The Fedwire Securities Service has the capability to delay a principal and/or interest payment if instructed to do so in advance by the issuer.

Summary of Potential Practices

The potential practices described here are designed to support the continued trading and transfer of securities that are subject to delayed payments. The potential practices rely on extending the operational maturity date in the Fedwire Securities Service and other systems to allow securities subject to delayed payments to continue to trade and be transferable. This operational extension has no impact on the legal maturity date. Extending the operational maturity date of securities subject to delayed payments would allow more liquid market functioning than if the securities were non-transferable in the Fedwire Securities Service.⁵ If notification of intent to extend comes late, there may not be sufficient time to make this necessary adjustment.

To help preserve the transferability of securities for which payment cannot be made in a timely manner, the potential practices are explained below.

- ❖ Prior to running the Fedwire Securities Service end-of-day process on the day before a *principal* payment is due, if the Treasury determines that a principal payment cannot be made the following day, the operational maturity date of the securities on trading, custodial, settlement, and transfer platforms would be extended, by one business day.⁶ This practice could be repeated each day until the principal payment is made.⁷ Once Treasury notifies the Reserve Banks that the principal payment will be made, the operational maturity date would no longer be extended in the Fedwire Securities Service, and the principal payment would be made on the last established operational maturity date. This eventual payment of principal would be made to the holder of record as of the close of business the day before the actual principal payment is made.
- ❖ If a *coupon* payment is delayed, the eventual payment of the coupon would be made to the holder of record as of the close of business the

³ See also SIFMA's "[Disruption in Treasury Payments: Discussion of Scenarios](#)" revised in December in 2021.

⁴ Under normal circumstances, interbank originations for delivery-versus-payment transactions close at 3:15 p.m. ET, reversals related to those transactions close at 3:30 p.m. ET, transfers against payment between two accounts of the same participant close at 4:30 p.m. ET, and transfers free of payment between two accounts of the same participant close at 7:00 p.m. ET.

⁵ For example, this would maintain the securities' eligibility in Federal Reserve open market operations under normal procedures.

⁶ The Fedwire Securities Service's extension of the operational maturity date would need to be instructed by the Treasury. Once the operational maturity date is extended, it is no longer possible to subsequently make payment on the legal maturity date.

⁷ The Fedwire Securities Service has the capacity to operationally extend maturity dates day by day, if instructed to do so by the issuer before the start of end-of-day processing of the Fedwire Securities Service on the day prior to the maturity date. The Fedwire Securities Service can extend the operational maturity date for Treasury bills, principal payments on coupon-bearing instruments, and principal STRIPS. Interest STRIPS would not be extended and would be treated consistently with the associated coupon payment for a fully constituted note or bond, which would also not be extended, given a delay. Of note, the process of extending the operational maturity date would not change the maturity date specified in the terms and conditions of the Treasury Offering Circular—it would simply be intended to facilitate continued transferability in the affected securities.

day before the originally scheduled coupon payment date.

- ❖ Additionally, under these potential practices, the standard market conventions of quoting bills on a discount basis and notes and bonds on a “clean price” basis are expected to remain as viable market standards.

The asymmetric treatment of principal and coupon payments is preferable because of a number of operational issues faced by many large participants in the market, including clearing banks, utilities, and others. The proposed treatment of coupon payments would allow most systems to continue to track the proper settlement proceeds of trades with less manual intervention, as it is consistent with conventional calculations of accrued interest, overall settlement proceeds, etc. If the delayed coupon is on a maturing security, firms should confirm how their systems would handle the coupon accrual in the stub period beyond the originally scheduled maturity date.

A delay in the payment of Treasury debt even under the potential practices would entail significant operational difficulties and require manual intervention for nearly all market participants. Moreover, from an operational perspective, these practices can only be accommodated by the Fedwire Securities Service if instructions to extend the operational maturity date are provided by the Treasury before the close of the Fedwire Securities Service on the day prior to a scheduled maturity.

Of course, there may be circumstances under which notification on the required timeline would not be possible. If circumstances do not allow for timely notification of extending the operational maturity date, the affected issues would cease to be transferable over the Fedwire Securities Service. In cases where proceeds were committed to be lent or assumed to purchase other securities, market participants may need to consider securing other sources of funding.

Market participants should recognize that how the Fedwire Securities Service will treat a delayed payment would be determined by the Treasury. The potential practices discussed in this document represent just one approach that the Treasury could take.

Treatment of Securities with Delayed Principal

Across various systems (including the Fedwire Securities Service), the operational maturity date of securities with delayed principal payments could be extended one day at a time until payment is made. The eventual payment of principal would be made to the

holder of the security as of the close of Fedwire the day before the actual principal payment is made.

Operationally, this practice would be triggered each day by an instruction from the Treasury prior to the close of the Fedwire Securities Service and would need to continue on a day-by-day basis for as long as the delay lasts. If no action was taken, the operational maturity date for affected issues would not be extended and these securities would cease to be transferable over Fedwire Securities Service. Trading in non-transferable securities would dramatically decrease and likely cease altogether.

Extending the operational maturity date appears operationally feasible for most large market service providers. Most large clearing banks have indicated that they would likely still be able to clear trades and perform other services for their clients (including custody services, tri-party repurchase agreements, and secured financing transactions), albeit with substantial manual intervention. The primary central counterparty utility for the Treasury market, Fixed Income Clearing Corporation (FICC), would also be able to accommodate extended securities in cleared delivery-vs-payment products.⁸

Importantly, while the potential practices envision extending the operational maturity date by one day, such action would not change the underlying payment terms or the legal maturity date of the security; the practices would simply represent an operational step taken to allow the affected securities to continue to be transferred.

Treatment of Delayed Coupons

All coupon payments would be paid to the holder of record as of the close of business the day before the originally scheduled, or contractual, coupon payment date.

Two potential treatments of delayed coupon payments were initially considered: paying the coupon to the holder of record at the time that the funds become available to make the payment, or paying the coupon to the holder of record at the time of the originally scheduled payment.

The originally scheduled payment date approach appears to work best with existing accounting and settlement systems across a range of market participants. Most systems are set up to trade and settle on a standard invoice price basis, and continuing to carry coupons in the invoice price would require significant manual overrides and lead to considerable additional operational risk.

Accordingly, the eventual payment of interest would be made to the holder of the security as of the close of business the day before the originally scheduled coupon

⁸ Securities with extended maturities would not be eligible collateral for FICC Sponsored GC Service and GCF Repo Service, which exclude next day maturing Treasuries.

payment date. For coupon payments for extended securities, firms should determine the operational processes needed within their various systems in order to address the risk of interest accrual during the stub period following the originally scheduled maturity date.

Compensation for Delayed Payments

It would require explicit legislation by Congress to provide compensation to holders of securities subject to a delayed payment on Treasury debt for the delay in these payments. As a result, at the time of a delay, investors most likely would not know whether this compensation would be provided and what form it might take. Nevertheless, market prices of Treasury securities would take into account the possibility of such compensatory payments, and hence this document proposes a potential practice to accommodate this. The most straightforward practice for the market to accommodate would likely be as follows:

- ❖ The parties that receive the delayed payments (either the holder of record as of the close of business the day before the actual payment date in the case of delayed principal payments, or the holder of record as of the contractual payment date in the case of delayed coupon payments) should also be the ultimate beneficiaries of any subsequent related compensatory payments. Although the parties would likely not know at the time of the delay whether compensatory payments would be forthcoming, to whom they would initially be paid, or the magnitude of any such payments, agreeing to their ultimate disposition (should the compensation be realized) in the trade confirmation would serve to reduce uncertainty and support liquidity in affected issues.

This practice recognizes that parties entitled to receive the coupon payments would receive such payments later than originally scheduled, and hence could be compensated for not receiving the payment in a timely way. It also clarifies who receives any compensatory interest on the delayed principal payments in a simple manner, allowing the security to trade at a price that appropriately reflects any expected accrual of compensatory interest. To be clear, the TMPG makes no presumption that such a compensatory payment would be made.

Quoting Conventions

Given the recommended practices above, the TMPG recommends that standard market practices for trading and quoting Treasury securities should continue to be used in the event of a payment on Treasury debt is delayed. In other words, market participants should continue to provide price quotes on a “clean” basis. In particular, Treasury bills should continue to be quoted on a discount basis, and notes, bonds, and Treasury Inflation-Protected Securities (TIPS) should continue to be quoted using the practices that are in place currently.⁹ Of note, for Treasury bills, relatively small price discounts could result in unusually high discount rates given a one-day effective maturity under a delay. Market participants should ensure that their systems for processing bill trades are able to handle abnormally high discount rates.

Most trading systems are set up to transform “clean” quotes on notes, bonds, and TIPS into invoice prices (that is, price quotes inclusive of accrued interest) for various post-trade downstream clearing, settlement, and accounting purposes. We believe continuing to quote notes, bonds, and TIPS that have experienced a delayed payment of principal or interest on a clean price basis should be the convention, and would still allow systems to continue to post-trade process trades on a “dirty price,” basis. Even if the operational maturity date was not extended in the Fedwire Securities Service, the market might still adopt the same convention of quoting securities based on an assumed maturity date of the following business day.

Pricing Conventions

In the event of a delayed payment on Treasury debt, another key issue would be how pricing vendors would treat Treasury securities subject to delayed payments. Some market participants, such as large clearing banks or custodians, typically accept quotes obtained from pricing vendors without adjustment. Therefore, if pricing vendors were to provide problematic pricing data, such as setting the price of a Treasury subject to a delayed payment to \$0 (as is common treatment for defaulted commercial paper or certificates of deposit) or selecting a different quoting convention than their customers use, they will generally accept this pricing. We believe that the market would benefit from having pricing vendors continue to provide reasonable (that is, non-zero) prices for Treasury securities that have experienced a delayed payment and such prices should be provided on a timely basis.

⁹ The date used to convert a discount rate to price should be the value of the maturity date in place at the time of the trade. As an example, if a payment was originally due on a Thursday, and on Wednesday night the operational maturity date had been extended to Friday, trades that take place on Thursday should use Friday as the assumed maturity date for discount rate-to-price conversion purposes.

Payment System and Custody Considerations

In the event payments on Treasury debt are delayed, there would likely be a number of problems encountered by custodians, but these might be somewhat less disruptive with some preparatory work. Most custodial arrangements for Treasury securities operate such that custodians advance payments that are to be generated by securities held in custody. In the event that these payments were not paid to custodians in a timely manner, custodians would need to decide whether or not to advance principal and interest proceeds. Custodians and their customers may wish to discuss the potential challenges faced in the event payments on Treasury debt were delayed under the practices described in this document.

At present, differences in systems capabilities exist across various market utilities that process Treasury trades.¹⁰ It is recommended that all firms that clear Treasury trades or perform related custodial or payment system functions review the capability of their systems to operate under the practices provided in this document and communicate such capability to their customers.

Documentation Considerations

In light of the proposed practices, the TMPG recommends that market participants review existing contractual documentation to determine if extending the operational maturity date for a security subject to a delayed payment would raise concerns with respect to terms and conditions related to pricing or default provisions.

Operational Practices

Treasury market stakeholders should keep in mind the potential practices discussed in this document during routine systems maintenance efforts, consider opportunistically incorporating the ability to follow the practices, and periodically reconfirm their firm's ability to handle delayed payments. This planning should consider questions such as:

- ❖ What systems issues arise and what manual procedures would need to be invoked if the interest and principal payments were delayed under these practices?
- ❖ Are there any operational modifications that can shorten the time needed to extend the

operational maturity date in key systems, given short notice?

- ❖ If the operational maturity date was not extended in the Fedwire Securities Service before the close one day before the legal maturity date, what system or process changes would be necessary to support the payment of receivables?
- ❖ Would settlement and custodial systems process maturities on an automated basis on the night before maturity for the next day's settlement? If so, would positions automatically reflect the receipt of cash, posing a problem if the cash was not received as scheduled?
- ❖ Would extending the operational maturity date of the security lead systems to cancel and re-book entries? Would systems continue to accrue interest for a security that has its operational maturity date extended? Would there be a need to manually intervene to zero out the coupon during the delay period?
- ❖ Would the manual nature of the potential practices lead to operational bottlenecks?
- ❖ Would the protocol for handling one-day-to-maturity securities in tri-party repo transactions in the normal course of business apply as well in a payment delay scenario?

Summary

While the practices contemplated in this document might, at the margin, reduce some of the negative consequences of an untimely payment on Treasury debt for Treasury market functioning, the TMPG believes the consequences of delaying payments would nonetheless be severe. In part, this reflects the fact that some participants may not be able to implement these practices. Moreover, participants that do implement them may need to rely on substantial manual intervention—a recourse that poses additional operational risks. In general, it is difficult to anticipate the full range and severity of problems that could emerge from delayed payments. Nevertheless, the potential practices outlined here provide a framework under which market participants can begin to make adjustments to their contingency plans. As participants consider the robustness of their internal systems to these practices, we believe it would be a matter of prudent planning to begin developing more flexible internal systems and processes for this remote contingency.

¹⁰ One major clearing bank, Bank of New York Mellon, has stated that it can extend the operational maturity date and still clear trades and perform other services for clients (including custody, securities financing, and tri-party repo), albeit with a fair amount of manual intervention.

Appendix: Glossary of Terms

Discussing operational arrangements given a delayed payment on Treasury securities is made easier if participants use a common vocabulary.

Actual payment date: The date on which payments are made to the holder of record. In the normal course of business, this is the same as the contractual payment date, but in a contingency scenario, delayed payments might be made and settled after the original maturity date.

Contractual payment date: The date on which payments are originally due to be paid. All principal and interest payments in the normal course of business are paid on this date.

Delayed payment: Refers to a situation in which the timing of a security's payment of interest or principal has been delayed by the U.S. Treasury Department past the originally scheduled (i.e., legal) maturity or coupon payment date.

Extended security: Refers to a security for which, subject to timely authorization from an issuer, the operational maturity date of a security is extended—or rolled forward—one day at a time to maintain transferability over the Fedwire Securities Service until a delay is resolved. Extending the operational maturity date would not change the legal maturity date of the security. Formerly referred to as “rolled” securities.

Fedwire Securities Service: A book-entry securities transfer system that provides safekeeping, transfer, and delivery-versus-payment settlement services. “Fedwire” is a registered service mark of the Federal Reserve Banks.

Legal maturity date: The originally scheduled maturity date of a security, which does not change whether or not the operational maturity date is extended on the Fedwire Securities Service.

Non-transferable security: Refers to a security that is no longer transferable on the Fedwire Securities Service. For example, a security that has reached its legal maturity date, but has not been redeemed or operationally extended. Once non-transferable, a security cannot be transferred from one holder of record to another on the Fedwire Securities Service. Formerly referred to as “frozen” securities.

Operational maturity date: The date reflected in the maturity date field in various systems. Under a payment delay, it is envisioned that the operational maturity date can be extended by modifying the maturity date in the Fedwire Securities Service and other systems beyond the legal maturity date to maintain transferability and liquidity on a one-day rolling basis (subject to timely authorization by Treasury). Such an operational extension would not change the legal maturity date.

Transferable security: Refers to a security that can be transferred from one holder of record to another across the Fedwire Securities Service.

The Treasury Market Practices Group (TMPG) is a group of market professionals committed to supporting the integrity and efficiency of the Treasury, agency debt, and agency mortgage-backed securities markets. The TMPG is composed of senior business managers and legal and compliance professionals from a variety of institutions—including securities dealers, banks, buy-side firms, market utilities, and others—and is sponsored by the Federal Reserve Bank of New York. Like other Treasury Market Practices Group publications, this document represents the views of the private sector members. The ex officio members do not express a position on the matters herein. More information is available at www.newyorkfed.org/tmpg.

