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## DELAY IN TREASURY PAYMENTS: DISCUSSION OF SCENARIOS

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# Overview of Potential Scenarios

There are three potential scenarios for the handling of government securities whose principal or coupon payments are disrupted:

## *Scenarios where instrument with delayed payment remains on Fedwire*

- **Scenario 1:** Delay of Principal – US Treasury decides to extend the maturity of the instrument on Fedwire and as a result the payment of the principal is extended in kind.
- **Scenario 2:** Delay of Coupon Payment – US Treasury delays coupon payment on a security
  - *Scenarios 1 and 2 could both occur on the same day, depending on the securities with P&I payments due on the day in question. These delays can occur independently or in conjunction*

## *Scenario where instrument is no longer transferable on Fedwire*

- **Scenario 3:** No extension of instrument maturity on Fedwire – US Treasury fails to make principal payment when due and Fedwire maturity date remains unchanged

# Key Assumptions for All Scenarios

- Coupon and principal payments are ultimately made in full.
- Under delay of payment scenarios, the holders of a security will still have a claim to principal and/or interest.
- These scenarios use the following convention for describing days:
  - Payment Date -1: The business day before a principal or interest payment was originally scheduled to be made
  - Payment Date: The day when a principal or interest payment was originally scheduled to be made
  - Payment Date +1: The business day following when a principal or interest payment was originally scheduled to be made
- Decisions on payment are made by US Treasury one day at a time
  - Decisions to delay coupon or principal payments due can be made the prior day (Payment Date -1) or the morning P&I payments are due (Payment Day) for an intraday delay
  - Not requesting a delay of payment on Payment Date -1 does not prevent US Treasury from requesting an intraday delay of P&I payments on Payment Date, however the implications of a Payment Date -1 request are different than a Payment Date request
  - There may not be any warning on Payment Date -1 that this is coming
- We assume there should be no change to the handling of securities which do not have principal or coupon falling due during this period. However, we do not know how the market will react, and may change haircuts, deem them ineligible as collateral etc. In addition any event would be restricted to affected CUSIPs – there would not be a cross default with other Treasury securities with different maturities
- The assumption is that a disruption occurring on Friday would be largely the same, but some processes may be extended into the weekend, depending on analysis and coordination among market participants and internal system constraints

# Scenario 1 – Delay of Principal

## •Overview

- US Treasury extends the originally stated principal maturity date, and as a result, the payment on bills or bonds on Fedwire is pushed back one day at a time. US Treasury will make decisions on rolling forward maturities for additional days one day at a time.

## •Assumptions

- Securities with extended Fedwire maturity date will be able to be traded and transferred normally
  - CUSIPs for extended securities will remain transferable
  - FICC and Fedwire will be able to handle extended securities
  - We assume that pricing services will be able to support markets for these securities, and their value would be adjusted accordingly based on conditions
- Market for extended securities will continue
- Notification of the extension of operational maturity will be communicated through Fedwire
- If the affected security has already been stripped, the principal portion will be handled like any other principal on systems, and the interest component will be handle like any other interest component; there will be no forced stripping
- The ultimate payments of principal will be made to the legal holder of record as of the night before the security operationally matures; all payments of interest will be made to the original holder of record for the originally scheduled payment date
- Assumption is that interest will not accrue on the missed coupon payment. There may be a rate announced for compensation but it would most likely not be the same as the stated coupon.
  - Fedwire is not able to calculate or create any “make-up” interest payments, US Treasury would have to decide how to approach any such payments

# Timeline of Scenario 1 – Delay of Principal

	Payment Date -1 Business Day	Extension Day 1 (Formerly Payment Day)	Extension Day 2 (& successive days until resolved)	New Payment Day
<i>US Treasury Activity</i>	US Treasury announces extension of the Fedwire maturity date originally due	US Treasury announces extension of Fedwire maturity date, and additional 1 day extension of already extended securities	US Treasury announces extension of Fedwire maturity date, and additional 1 day extension of already extended securities	US Treasury makes extended principal payment to holder of record on final extended Fedwire maturity date
<i>Firm Activity</i>	Firms and clearing banks prepare securities for extended Fedwire maturity date	Normal transference of extended securities through Fedwire, clearing through FICC	Normal transference of extended securities through Fedwire, clearing through FICC	

# Scenario 2: Delay of Coupon

- Overview
  - US Treasury fails to pay coupon due on security
- Assumptions
  - Securities will continue to be able to be traded and transferred normally
  - CUSIPs will remain transferable
  - Fedwire and clearing banks will be able to handle securities
  - Eventual payment of delayed coupon will be made to the holder of record on the originally scheduled payment date (or, in case of a final coupon, the original maturity date)
  - Failure to pay a regularly scheduled coupon prior to maturity of the security may or may not be preceded with a government announcement of extension
    - Any notification of delay in coupon would be communicated through Fedwire
  - Interest will not accrue on the missed coupon payment (no compounding).
  - Instruments should continue to accrue interest normally, and be market valued as such (including but not limited with respect to cash business, repo business, margin calls). Market participants should value the security as if the coupon has been paid on the originally scheduled date because a transferee would not be entitled to receive such coupon – as it goes to the holder of record on the originally scheduled payment date, (or, in case of a final coupon, the original maturity date)
  - Market participants should not expect P&I payments from their custodial or clearing counterparties until payment is made on the instrument by US Treasury.
    - It's possible that the Clearing Banks are notified of the missed payment after processing P&I payments to entitled recipients. In such a case, the Clearing Banks will take action to reverse the coupon payments made.
  - All coupons for a given issuer (i.e. US Treasury) due on a given day will all be paid or all be delayed, there will not be a partial payment of some coupons, reflecting Fedwire functionality
  - These assumptions hold true if it is known that US Treasury is delaying a payment. If there is no clarity from US Treasury, institutions may begin making payments in the normal course of business, assuming the payment will be made

# Timeline of Scenario 2 – Delay of Coupon

	Payment Date -1	Payment Date	Payment Date + 1 (& successive days until resolved)	Actual Payment
<i>US Treasury Activity</i>		Coupon payments delayed, interest does not accrue on extended payments	Coupon payments delayed, interest does not accrue on extended payments  The expectation is that it will be up to US Treasury to determine if additional compensation is potentially paid and how that payment would be made; there are no assumptions on if and how it would be done	Coupon payments made to holder of record on the originally scheduled payment date (or, in case of a final coupon, the original maturity date) (i.e. the date prior to any extension)

# Scenario 3 – No extension of Fedwire maturity date

## •Overview

- US Treasury does not provide instructions to extend the maturity of securities before Fedwire reaches final deadline for end of day processes, or makes an announcement that the next day's principal (as well as any coupon) will not be made

## •Assumptions

- Once Payment Day -1 has ended without the maturity date being extended, the affected securities will no longer exist on the Fed systems and these securities cannot be transferred from one holder of record to another on Fedwire
- These securities will not be able to be transferred normally or settled through FICC
- These securities cannot be “unmatured” - Once Fedwire generates end of day file the night before their maturity date, their maturity date can no longer be modified
- Interest does not accrue on missed final coupon payment
- Eventual payments of principal and final coupon may only be made to holder of record on originally scheduled maturity date.
- FICC has capabilities to adjust P&I payments of its Funds Only Settlement process, however, a prolonged delay in notification of payments could impact the timing of such processes
- Confirmation that P&I payments will not be made on the expected maturity date could occur late on Payment Date, which could disrupt firm's onward payments
- Industry view is that this scenario is highly unlikely.

## •Payment Timeline

- If Fedwire has not received instructions to advance the maturity date of securities by ~10:00 PM on the day before maturity (Payment Date -1), notifications will be generated with CUSIPs maturing based on originally scheduled interest and principal payments
  - While this notification is originally generated at 7:00 PM, it can be delayed
  - These notifications, once generated, are then delivered to the clearing banks for their end of day activities
- Regularly scheduled payment is made the following morning on the Payment Date, when Fedwire makes delivery of funds
  - In the event of disruption, by 7:30 AM Fedwire can be notified by US Treasury to hold payment until later in the day; however payment cannot be delayed further than the close of the securities-cash wire, which is regularly scheduled for 4:30 PM

# Timeline of Scenario 3 – No extension of Fedwire maturity date

	Payment Date -1	Original Payment Date	Original Payment Date +1 (& successive days until resolved)	Resolution Day
<i>US Treasury Activity</i>	Treasury makes no announcement, implying it plans to make P&I payments the next day	US Treasury announces P&I payments due that day will not be made		US Treasury makes missed payments of principal to original holder of record on date of failure to pay
<i>Firm Activity</i>		Affected securities no longer transferable on Fedwire, clearing banks systems and therefore the securities are not transferable anymore	No trading in affected securities (OTC market may develop)	
<i>Fedwire Activity</i>	If US Treasury makes no announcement of delay, Fedwire generates file with P&I payments originally to be made on Payment Date	US Treasury can determine by 7:30 AM to delay delivery of P&I payments; payments can be delayed no later than COB at 4:30 PM		Payment of P&I made to holder of record on original maturity day
<i>Additional securities affected</i>		Process repeats for any securities maturing on the following day	Affected securities no longer on Fedwire and are not transferable anymore	

# Impact on Repo Market and Tri-Party Repo

## Treasury Repo market

How to handle repo-to-maturity securities with affected securities?

- Scenario 1 Delay of Principal : The repo matures and then is extended 1 more day
  - 1 day financing can continue as long as the counterparty is willing
- Scenario 3 No Extension of Fedwire Maturity Date: Firm now holds a non-transferable open payable or receivable of cash and there is no way to include this in repo markets

## Tri-Party Repo

- Under Scenario 1, an extended security is transferable and so is eligible for tri-party repo, as it is good collateral
- Clearing Bank Position: As long as the security is in the clearing bank system and is online with the Fed systems, it is a good position from their perspective
  - If individual clients don't want to receive extended securities this can be handled through eligibility schedules
    - Currently building tools to allow clients to request extended securities not be eligible, however the CUSIP would have to be identified in advance
    - Both clearing banks confirmed this
    - Need to have both sides agree to changes in eligibility schedule

# Handling fails

Question of how trades that are failed at time of disruption will be handled:

- Clearing banks know who is holding what
- FICC handles this like a trade in its system. The coupon is paid to the holder of record on that date, credits the coupon and then backs it out manually.
- Would keep coupon open until the issue is resolved. In handling payment FICC would debit the account in question and give a credit back, which would then be manually adjusted back to provide an audit trail of the resolved payment
- Broadridge handles in a similar way as well – redemption is held for whoever holds the security at maturity.
- The “failer” is the holder of record for the coupon, and the future receiver is owed the coupon
- Fail charges should be waved in case of Scenario 3, but apply normally in case of Scenarios 1 and 2.

# FAQs

Q: Will the haircuts agreed in tri-party repo change on the affected securities?

A: Haircuts are negotiated bi-laterally between buyers and sellers.

Q: Will there be changes to the haircut that the Clearing Banks assign when assessing net free equity?

A: Haircuts between Clearing Banks and their clients are bi-laterally negotiated.

Q: Will the security remain eligible at the FICC for cash trading, repo trading, and GCF repo trading?

A: If the security is able to be transferred by the Clearing Banks and the Fedwire, it will remain eligible to settle via FICC.

Q: Will the securities be eligible for tri-party repo?

A: If the securities can be transferred by the Clearing Banks and the Fedwire, it will remain eligible to settle in tri-party repo subject to bi-laterally agreed collateral eligibility schedules.

## Appendix: Timeline of Payment Date -1 day activity

Time (ET PM)	Activity	Comments
6:30	If needed, Treasury can request an extension of Fedwire Securities close	
7:00-8:00	Fed end of day process runs, generating notifications on P&I payments to be made; Clearing Banks receive notification from Fed with info on CUSIPs maturing	Can be delayed
7:00-10:00	If Fed end of day process delayed at 6:30, can be run at any point upon receiving instructions from US Treasury	
8:00	Start of Asian trading day; FICC scheduled to close window for trade input and begin the end of day process	FICC activity can be delayed
9:00	Past 9:00 firms will find it difficult to make needed cancels and corrects without full staff	
10:00	Final opportunity for Treasury to instruct Fedwire Securities to roll maturity dates forward	
10:30 -11:00	Final time for Fedwire to deliver notifications on P&I payments to be made, inc. time needed for any changes to maturity dates	
10:00-10:30	Deadline for FICC to close window for trade input and begin the end of day process; Clearing banks begin overnight jobs	

# Appendix: Timeline of Payment Date activity

Time (ET)	Activity	Comments
7:30 AM	Deadline for US Treasury to direct Fedwire not to make regular P&I payments at 8:05 AM	P&I payments cannot be delayed longer than COB that day
10:00 AM	FICC Daily Payment Cycle (1 <sup>st</sup> of 2)	
3:15 PM	FICC Daily Payment Cycle (2 <sup>nd</sup> of 2)	Can be delayed, but length of delays is dependent on FRB's National Settlement Service (NSS)
4:30 PM	Regular end of day at Fedwire, securities-cash window closes; last time for US Treasury to make payment ahead of the regular closing time of the securities & cash windows	
Late afternoon	If expected cash is not delivered, firms would begin to experience issues with connected onward payments	
Evening	If failure to pay occurs, FICC would reverse previously made P&I payments	