IAT TERMS & DEFINITIONS:

Gateway Operators
- U.S. Gateway Operator: The Northern Trust Company uses FedGlobal to process and settle IATs. This service is provided by the Federal Reserve Bank of Atlanta.*
- Foreign Gateway Operator: This is the Gateway Operator that acts as the entry point to or exit point from a foreign country.

* ACH items originated in the United States are governed by U.S. laws and regulations (including the NACHA Rules), until they cross the border into other countries. Once they arrive in the foreign country, foreign country local laws and regulations apply.

Types of Transactions
- CREDIT: An International ACH transaction that executes a 'payment' into a checking, savings and/or loan account(s).
- DEBIT: An International ACH transaction that executes a 'withdrawal' from a checking and/or savings account.

Currency Exchange (FX Options)
- FIXED-TO-FIXED (FF-USD to USD): U.S. dollars are both sent & received to USD denominated accounts. This applies to countries that allow USD accounts and are permitted in FedGlobal ACH *
  * It is important to note that if the destination account is not denominated in U.S. dollars, the RDFI will likely convert the U.S. dollars into the currency in which the account is denominated. Where the FX conversion is performed by the foreign RDFI, FedGlobal ACH will not have knowledge of the rate applied.

- FIXED-TO-VARIABLE (FV-USD to Foreign CCY): U.S. dollars are converted to a variable amount of destination currency based on a competitive foreign exchange rate provided as part of the payment flow (FedGlobalSM Foreign Exchange Rates).
  * For FV payments, the exchange rates applied to estimate USD to Foreign CCY for a Treasury Passport IAT are approximations based on the currency exchange rates used by The Northern Trust Company for international wires. The FGO for each region collects daily exchange rates from each respective country in that region and publishes them to FedGlobal ACH foreign exchange rate website by approximately 7:00am ET (1:00pm Central European Time) each day. This rate is the rate that is applied for transactions that are settling on that date. The FX rate for an item originated today will generally be determined on the US settlement date unless otherwise specified.

Value Limits
- There are NO LIMITS on International ACH Transaction values. Originators can send any dollar amount currently allowed by NACHA Operating Rules just as if it were a domestic transaction.
Prenotes
A prenotification is a non-monetary or low-value entry transmitted through the ACH network by an originator to a receiving depository institution*.

* To verify account information for a new receiver, a forward IAT credit for $2.00 may be sent. If the information for the receiver is incorrect, the receiving financial institution may return the item within the appropriate timeframe for the receiving country. Prenotifications are currently limited to Panama.

Notifications of Change (NOC)
A Notification of Change is a non-dollar entry that the receiving depository institution transmits to the ACH Operator for distribution to the originator. NOC’s return incorrect information to the originator with a change code that identifies the incorrect information that requires attention before retransmitting.

Reversals
Reversals are not supported in the FedGlobal ACH service. If an error is detected after a file has been submitted, the Northern Trust Company will contact the originating party and work with the receiver to request a refund.

Rejects & Returns
The timing related to Rejects and Returns to U.S. financial institutions varies upon the receiving region/country. Additionally, return timeframes may be extended due to country regulations which may result in a later return. Originators should also note that a different currency exchange rate can be applied to the originated item and the return. This difference varies by the destination currency and country*.

* Generally, the exchange rate on returns is slightly less favorable to the customer because the foreign gateway operator is now selling local currency and buying dollars.

Fund Availability
The settlement at the receiving depository institution may vary depending upon the region to which items are originated. Excluding ‘exception processing’ and ‘suspensions’, funds will be expected to be made available at the receiving depository institution between 1 and 3 days following the date that processing occurs*.

* The FedACH processing day begins at 3:00am ET and runs through the following day at 2:15am ET; this is known as Dₒ (e.g. start of Day "0" at 3:00am ET Monday through close of Day "0" at 2:15am ET on Tuesday).

Holiday Processing
When an item is submitted on a foreign holiday that is NOT also a U.S. holiday, FedGlobal will process and settle the items against the originating institution’s settlement account on the specified settlement date. However, the item will be delivered and settled to the receiver in the foreign country on the next banking day after the foreign holiday*.

* The holiday of the applicable foreign gateway operator may delay the FX conversion until the next business day in that respective country.

Right to Refuse
The Foreign Gateway Operator may refuse to handle IAT items originated by any participating U.S. ODFI that they believe to pose a compliance risk, such as originating items that include parties on the OFAC list, AML concerns, and/or countries in which sanctions are imposed.
<table>
<thead>
<tr>
<th>Region</th>
<th>Countries in Region</th>
<th>Foreign Gateway Operators (FGO)</th>
<th>Debits/Credits</th>
<th>FX Options</th>
<th>Value Limits</th>
<th>Pre-notes</th>
<th>NOC</th>
<th>Reversals</th>
<th>Rejects / Returns</th>
<th>CCY Supported</th>
<th>US Cutoff Time</th>
<th>Settlement Date(s)</th>
<th>Payment delivered to RDFI</th>
<th>Holiday Processing</th>
<th>Right to Refuse</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>Canada</td>
<td>Bank of Nova Scotia (Scotiabank)</td>
<td>Both</td>
<td>FF / FV</td>
<td>None</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>If FV, BNS will convert back to USD on the next business day; If FF the returns will be processed same day as received</td>
<td>USD, CAD</td>
<td>D₀+2 (USD)</td>
<td>USD @ 10:00am ET</td>
<td>CAD @ 2:30pm ET</td>
<td>NO</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Mexico</td>
<td>Banco de México (Banxico)</td>
<td>Credits</td>
<td>FV</td>
<td>None</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Returned transactions will be processed on the same day as received by the local ACH operator.</td>
<td>MEX (Pesos)</td>
<td>D₀+2</td>
<td>MEX @ 3:30pm ET</td>
<td>NO</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Austria, Belgium, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxemburg, Malta, Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland * United Kingdom*</td>
<td>Deutsche Zentral-Genossenschafbank (DZ Bank)</td>
<td>Credits</td>
<td>FF / FV</td>
<td>None</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Items will generally be returned no later than the next business day following receipt by the RDFI.</td>
<td>USD, EURO, FRANC, GBP</td>
<td>D₀+1⁰ (USD)</td>
<td>D₀+1 (FCCY)</td>
<td>USD @ 6:00am ET – 12:00pm ET</td>
<td>NO</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* These countries allow for settlement in Euro or the legacy currency (Franc or Pound)

⁰ Since there is no foreign exchange conversion required, the items are delivered to the European banks in U.S. dollars on Day 1

¹ The foreign exchange rates for items processed on Day 1 is applied after the rates are set at 1:00pm Central European Time (07:00am ET) on Day 2
OTHER HELPFUL RESOURCES ON INTERNATIONAL ACH TRANSACTION PROCESSING:

- For a more comprehensive explanation of the above table please visit the 'Resources' section on the Home page.
- For a list of foreign country holidays, please visit the following resource: 'Bank Holidays throughout the World'.
- To visit the Federal Reserve Bank's 'International Payments Resource Center'.
- To review the Federal Reserve Bank’s ‘FedGlobal® ACH Product Sheet’. 
- To review the Federal Reserve Bank’s all-inclusive ‘FedGlobal® ACH Payments Service Origination Manual’. 