



TO WHOM IT MAY CONCERN

Gentlemen,

Our group, a premier global investment cluster, placed in a very advantages position, benefiting the most reliable and solid financial conditions, due to our recognized and approved humanitarian projects all over the world with accessibility to funds within the banking system World Wide, aim to obtain active participation, initially as shareholder and, eventually as major player, in a banking or financial institution with structure and ample capacity for investment management concurrent with our Objectives, Strategy and Policies in our struggle and fight against universal poverty.

The capital for the bank and the establishment of a banking network to support our group's activities in humanitarian and productive projects worldwide basis are fundamental in our endeavour and joint participation's in the most sophisticated type of transactions in the international financial and banking system (Off Ledger, GPI, Alliance Lite2, RGTS¹, etc.), considered also historical sovereign and domestic assets gold backed, precious stone and commodities high value, could be provide for our potential partners financial support by non recourse loan, joint participation agreement as IAS28, development to open window of opportunities in the way the venture capital and joint forces with NGO to humanitarian and social projects

Moreover, realities have proven that, historically, the population pyramid has undergone dramatic transformations, provoking global failure of the current socio-economic system, thus creating scarcer opportunities for the less fortunate future generations.

Within this context, we ask you to kindly review the following pages in which we present general ideas and projects that reflect our overall humanitarian purposes.

The feedback from you not only will be greatly appreciated, but also will enhance the public-spirited mission we have taken upon ourselves.

The attached is an initial presentation and a short summary of general ideas associated with the ideas & concept of the entity who is looking to participate in a major position within a banking entity. Needless to say that this information and other to be followed, is to be treated & addressed with strict confidence.

¹ The term real-time gross settlement (RTGS) refers to a funds [transfer](#) system that allows for the instantaneous transfer of money and/or securities. RTGS is the continuous process of settling payments on an individual order basis without [netting](#) debits with credits across the books of a central bank. Once completed, real-time gross settlement payments are final and irrevocable. In most countries, the systems are managed and run by their central banks. When you hear the term real-time, it means the settlement happens as soon as it is received. So, in simpler terms, the transaction settles in the receiving [bank](#) immediately after it is transferred from the sending bank. Gross settlement means transactions are handled and settled individually, so multiple [transactions](#) aren't bunched or grouped together. This is the basis of a real-time gross settlement system.

An RTGS system is generally used for large-value interbank funds transfers operated and organized by a country's [central bank](#). These transfers often require immediate and complete clearing. As mentioned above, once transactions are settled, they cannot be reversed.



OBJECTIVES

The funds once deposited within relevant banks World Wide, are designated to be invested in projects as follows based on the Projects available in more than 150 countries.

A. Humanitarian Economic Development

- Livelihood Development
- Scholarship Development
- Healthcare Development
- Annuity Development

Also as consequence to the Plan in coordination with principal financial entities World Wide, had been established as priority to be invested in

B. National Economic Development

- Infrastructure and Development
- Agriculture Development
- Mining Development
- Industrial Development

The relevant field to obtain the purpose of reducing the poverty in each country by the creation of the appropriate opportunities under the investment in Education, Health, Energy, Environmental, Telecommunications and Transportation.

On the other hand, the Earth has a generous amount of land, rich for agriculture and fishery development, at the same time a wide variety of underground mineral mining. The special geographical location in each case and shape of the country lends itself to extensive coastal rich regions, abundant with fauna and flora, with extraordinarily fertile coasts. Having a race of people with infinite abilities, ancestral knowledge and spiritual awareness could, with imaginative support, prove extremely competitive in the real world.

The enemy to be defeated is called poverty and under-development.

POLICIES

The main thrust dictates that funding shall be allocated to specifically targeted areas, involving minimal participation by political parties, churches movements and local governments, such that innovative procedures resulting from our investigations are introduced. Proposed objectives advocate improved levels of personal, financial and educational development for all inhabitants of the Earth. These objectives will be oriented toward the most needed or those less integrated into the economic communities of our Nation's, whilst also incorporating the requirements of our ethnic communities.

Areas or sectors requiring urgent attention are the following:

1. Education
2. Health
3. Energy.



4. Transportation.
5. Telecommunication
6. Environment.
7. Banking and Finance (Venture Capital)

It is reiterated that projects where our Group is willing to participate shall not in any way be related to political parties, religious orders. As to governments of any kind, a special formula and “modus operandi” must be structured & adapted, as the case may be. If it is required, for the purpose of the projects, the scope of any such relationship shall be limited exclusively to achieve our desired goals as described within our **humanitarian** projects vision, as well as our devotion to mitigate poverty and promote personal and national development.

STRATEGIES

Introduction of projects to each area will be based upon development of objectives to maximize profits and shall be measured by the Internal Rate of Social Return.

Composition of the elements of each project to include development of every aspect of the general culture of each ethnic community could mean a restriction to its continuing development potential, nevertheless, a correct evaluation will mean a long term strong hold that will give permanence and increase the value of the projects.



Date September 2021

Private and Confidential

OFF LEDGER-ON LEDGER BANKING NETWORK FROM FARM IN INTERNATIONAL BANKING SYSTEM*.

* Information for this paper has been gathered and compiled from different sources, especially internet and its different searchers as well as from the specific institutions referred to. The aim, purpose and/or objective of this document is to have an almost pedagogical instrument to understand this very intricate -and sometimes covert- issue relating to offline banking. There is no intention whatsoever to claim authorship of the scope and contents of the information in the document, nor to harm the rights of the sources of the information acquired.



All the topics covered in this presentation are intended to be accessible and known by the general public, banks, private companies who need to use the easiest and most efficient means of payment in order to facilitate transactions and economic growth in general



Executive Summary

The Aim for which this document been developed is to exhibit and fairly explain the mains of the terms broadly used in the field of banking and banking management. Extensive use of the terms like banking networks, banking programs, banking strategies, do not guarantee the understanding of their actual meaning, what may become a severe obstacle, capable to interrupt and even demolish the quality (and outcomes) of communication between the Bank (or more correctly Bank Positioners) and the Customer. Solid communication, based on mutual (Bank to Customer and contra versa) understanding and trust (which is the most expected result of understanding), is the success key – factor, for correct and profitable coexistence and cooperation.

The interruption of communication, while the fluent communication is the mean for bringing compliance, between the Customer/Client and Bank, needs and wishes, is an obstacle, sometimes impossible to overcome. What is even more problematic, is the fact that the fluent communication and understanding is vital for the success of both – Customer and the Bank. Such a statement becomes even more dramatically, when considering an enormously large population of communication Participants and consequences of possible process failure. Failure of communication, which is mostly an outcome of misunderstanding, may be resulted in significant spending and even loss of resources (financial and others), not mentioning the possible reputation loses of both sides.

Also, it important to mention that the one-time failure, may shade the intentions of the sides to engage mutual business and projects in the future, what will increase the failure level, beyond the “just occurred”. The sense of “unfair”, “un right” and “unjust”, are hard to overcome, and mostly remain as negative decision factors - forever.

All been previously mentioned and described, promoting the idea, that interruption of communication and inability to “build a mutual trust”, are an outcome of one basic problem – lack of relevant and up-to-date knowledge, about Banks and Banks “*modus operandi*”, what also includes the terminology used in the field and in communication between Bank and Customer/Client. As mentioned this document is aimed on provision of such a knowledge, by explanation and determination of terms and definition in so called “everyday language”.

This document is equitable and its importance lies in the fact, that it may be used by both sides – Banks and Customer/Clients. It may be used by Bank and Banks Positioners to explain the nature and characteristics of the processes and procedures to Customers/Clients. The Customers/Clients may use the document to understand the opposite side and determine their actual needs, through precise understanding of the process and procedures, performed by the Banks.



The world before SWIFT²

As for today the SWIFT is the most common means of the banking communication. It exploits a computer network, in which the data is circulating and reaching its destination, in "real-time" mode.

Prior to implementation and engagement of SWIFT, the TELEX was the only available mean, by which a messaging and international transfer (also domestic), been made - confirmed. Among the disadvantages of Telex using, the low speed of confirmation, security concerns and a free massaging format may be mentioned, as most dominant.

Also, the Telex did not used a unified system of codes (contrary to SWIFT), to address a certain Bank or providing unified and fully understandable description of the required process (like transaction for example). The Telex senders were highly vulnerable for interpretation errors, as an outcome of misunderstanding (or different understanding of the message), what caused severe problems and malfunctions of the banking system.

After the introduction of SWIFT, in 1973, the situation significantly improved. Upon its introduction and engagement into use, six major Banks, formed a cooperative society of users, aimed on SWIFT acceptance as a global system/network for transferring and receive of financial transfers and messages in secure and timely (practically immediate - mode).

Why is SWIFT Dominant?

According to the London School of Economics, "support for a shared network began to achieve institutional form in the late 1960s, when the *Société Financière Européenne* (SFE), a consortium of six major banks based in Luxembourg and Paris, initiated a

²

U.S. control over transactions within the EU.- On 26 February 2012 the Danish newspaper [Berlingske](#) reported that US authorities have sufficient control over SWIFT to seize money being transferred between two European Union (EU) countries (Denmark and Germany), since they succeeded in seizing around US\$26,000 that was being transferred from a Danish businessman to a German bank. The transaction was automatically routed through the US, possibly because of the USD currency used in the transaction, which is how the United States was able to seize the funds. The money was a payment for a batch of [Cuban cigars](#) previously imported to Germany by a German supplier. As justification for the seizure, the [U.S. Treasury](#) stated that the Danish businessman had violated the [United States embargo against Cuba](#). **Monitoring by the NSA.** [Der Spiegel](#) reported in September 2013 that the [National Security Agency](#) (NSA) widely monitors banking transactions via SWIFT, as well as credit card transactions.^[37] The NSA intercepted and retained data from the SWIFT network used by thousands of banks to securely send transaction information. SWIFT was named as a "target", according to documents leaked by [Edward Snowden](#). The documents revealed that the NSA spied on SWIFT using a variety of methods, including reading "SWIFT printer traffic from numerous banks".^[37] In April 2017, a group known as the [Shadow Brokers](#) released files allegedly from the NSA which indicate that the agency monitored financial transactions made through SWIFT.



Introduction

The following is an introduction of the terms “share point FARM”, “off-ledger” and “on-ledger”, their definition and explanation of the meaning and implementation.

The modern economic situation is creating a significant, hard to overcome obstacles for those who wish to “enter the system”. These obstacles (barriers) are, in fact, the “guardians of the entrance gate” into the system, by set of methods, which are seemingly difficult to understand and hard to cooperate with.

One of such “guardians” is the methodology for implementation and use of the of the FARM/fund, because the complexity of which, it been updated and adjusted post the **SIBOS** meeting in 2015. During the meeting the **SWIFT** connected Users, decided to introduce certain modification into the system, to make it “friendlier” for Users and their requirements, in terms of provision better suited solutions for the transfers form the **FARM/funds** (of large funds volume), without any problems. This system, been named **SWIFT GPI**, and been engaged into action in October 2017 along with corporate instrument, known as - **ALLIANCE LITE2**. This instrument (ALLIANCE LITE2 – L2BA), meant for business application is in fact cloud-based solution, enabling the coupling/linking the software owned by User with SWIFT as single package. L2BA, provided the Users bank-agnostic solution, and provided the User with ability to engage and communicate to large number of financial institutions – worldwide.

In fact, this system, is working today and enabling the transaction of large volumes of funds. But, the transfer of large volumes, is associated with different concepts, although deriving from single principal account. Such accounts denominated as **FARM** (derived if “on or off ledger”).

The User is required to use the “off ledger” funds to transfer the funds into the “on ledger” mode later, to gain the funds on account/on balance.

The quantity/number of FARM also requires determination, to understand if it is on or off ledger. For example: **M0** to **M6** used on ledger, while the off ledger will require the denomination **NS0** to **NS6**, while both, will have a single description in the text.

The implementation and use of this methodology, requires also a good/solid knowledge of **Global SWIFT** procedures and the issues related to “server”. Server on SWIFT is the internet transaction, which is highly sensitive and required a clarification of the methodology by which is used, to maintain its correctness.

The following may be considered as a fair exhibition of a realistic approach, for proceeding of the **FARM** funds, under the control of **Federal Reserve System**. The funds are a private entity, which is not under the control of government, nor political – merely a technical entity.



The FARM funds issue may be managed in two different ways: “on ledger” (Ledger to Ledger)” or off ledger (Server to Server), by using the Bank Server or Global SWIFT Manual Download (MT103/202, MT103 IP, IP/IP, IP/ID, IBAN/IBAN and FX4, Target2, SEPA, etc.), and/or other denominations (values). The particular attention is aimed on the SWIFT MT103GPI, ALLIANCE LITE2 and DTC/DTCC.

The DTC/DTCC process explanation and description, will be provided further.

Why SWIFT for Corporate?

The challenges for corporate:

- Many banking partners across their business operations (country/region/global)
- Many banks communication channels
- As a result of the above
 - Many banks interface
 - Many different ways for end users to interact with their banking partners creating operational burden
 - Many interfaces that need to be supported, maintained, and upgraded across your organization

How SWIFT can help:

- SWIFT provides a single, secure, and reliable (99.999% availability) connectivity channel that can be used globally (over 200 countries) with most banking partners (about 11,000) and uses standardized financial messaging
 - ERP systems and Treasury Management Systems (TMS) can be configured to link through to the SWIFT channel – which enables business processes to be simplified and automated – removing the need for manual processing
 - Better security –
 - As cyber security threats increase, SWIFT propose they are investing heavily to ensure the best security measures/controls are implemented – SWIFT also have a Program to help reinforce controls at their customer environments
 - As you remove manual processing across your organization, you reduce the ability for users to manipulate payment files
 - Scalability – As you deploy SWIFT connectivity, you’re able to re-use and expand the single connection to the SWIFT network to add new countries, banks, payment types
- In short, there are 4 ways for corporates to connect to SWIFT:

Alliance Lite 2 – SWIFT’s cloud solution

- Lite 2 for Business Applications (L2BA) – SWIFT integration through a business application (ERP/TMS) – plug and play
- Alliance Access – SWIFT’s on-premises gateway, Alliance Gateway
- Service Bureau – SWIFT connectivity via a third party



S.W.I.F.T.

The **Society for Worldwide Interbank Financial Telecommunication (SWIFT³)**, legally **S.W.I.F.T. SCRL**, was founded in the mid 1970's, by a Belgian cooperative society that serves as an intermediary and executor of financial transactions⁴ between banks - worldwide.

The society is also a provider (distributor) of designated software and additional services to financial institutions, mostly to be used on the society proprietary "SWIFT Net" and ISO 9362⁵ – Business Identifier Codes (BIC's), also known as "SWIFT CODES".

SWIFT is a global network, which is connecting banks for communication of the messages, related to activities meant to guarantee safe and secure Money transfer, by using a designated code.

About 11,000 members of SWIFT send nearly 33.6 million transactions every day. Currently, there are only three data centers in the world which store and manage the entire SWIFT secure messaging by their network: United States of America, Netherlands, and Switzerland. These data centers share information with each other, practically without any delay (real time). It is only obvious that these three data centers witness every transaction, that is made. The number of transactions is estimated in millions per month.

The society owned by the financial institutions, who are the members of the society. The headquarter is located in La Hulpe, Belgium, near Brussels; the main building, designed by Ricardo Bofill Taller de Arquitectura (Barcelona, Spain), was completed in 1989.

The annual SIBOS⁶ conference, was specifically aimed on the financial services industry.

³ **SWIFT** does not facilitate funds transfer: rather, it sends payment orders, which must be settled by correspondent account that the institutions have with each other. To exchange banking transactions, each financial institution must have a banking relationship by either being legally organized as a bank or through its affiliation with at least one bank. While SWIFT transports financial messages in a highly secure manner, it does not hold accounts for its members nor performs any form of clearing or settlement.

⁴ A **financial transaction** is an agreement of communication, carried out between a buyer and a seller to exchange an asset for payment. It involves a change in the status of the finances of two or more businesses or individuals. The buyer and seller are separate entities or objects, often involving the exchange of items of value, such as information, goods, services, and money. It is still a transaction if the goods are exchanged at one time, and the money at another. This is known as a two-part transaction: part one is giving the money, part two is receiving the goods.

⁵ **ISO 9362** defines a standard format of **Business Identifier Codes** (also known as **SWIFT-BIC**, **BIC**, **SWIFT ID** or **SWIFT code**) approved by the International Organization for Standardization, (ISO). It is a unique identification code for both financial and non-financial institutions. The ISO has designated SWIFT as the BIC registration authority.

⁶ **Sibos (previously known as SWIFT International Banking Operations Seminar)**, is an annual banking and financial conference organized by SWIFT in various cities around the world. It has been held most frequently in cities in Europe, as well as other cities in the United States of America, Australia. In recent years, it has also been held more frequently in Asia, Oceania, and other regions. In 2022 Sibos fr global financial Gathering will be at RAI Amsterdam 10-13 October



A major misconception of SWIFT is concerning the common believe that SWIFT is all about funds transfer. Obviously, this is far from being correct. SWIFT do not transfer an actual funds as physical volume. The essence of SWIFT is an exchange of messages (known as Message Types – MT's, refer, Exhibit 11), essence of which is the request for funds transfer between the financial institutions of different Countries (Nations).

The transfer of financial information, from location to location is related to use of the so – called - SWIFT Codes, also known as “Bank Identifier Code” (or BIC). Each “participant (which is a financial institute), is assigned with Unique Identification Codes”, combined of eight to eleven characters. The codes include the information concerning the country in which the institution is located, city code (in which the institution is located – city code), and if applicable individual branch code.

The 1995 SIBOS Conference and the following, revealed that the issue of “off-line” banking been subjected to a dramatic change and evolution in everything related with banking system and banking network. Related to this finding, several adjustments to system been introduced, essence of which was the formation of two separate, but yet mutually depending routes - Offline Banking Network (Off-Ledger System) and Online Banking Network (On-Ledger System).

The adjustment is considered as of a high importance, and as of a high impact on the banking system, which was aimed on meeting the modern requirements of the 21st century. The revaluation of the sector performed in 2018, revealed the intriguing fact, that practically half of all high-value, cross border payments – used the SWIFT as a network of choice. The growth of the SWIFT use is also supported by the fact that in the year of 1995, the average amount of the messages exchange was around 2.4M messages a day, while in 2015 it raised up to 32M a day.

Even the mentioned facts the SWIFT been often criticized for inefficiency. In 2018, the Financial Times (based in London), noted that the transfers are "pass through multiple banks before reaching their final destination, making them time-consuming, costly and lacking transparency on how much money will arrive at the other end". as a reaction, the SWIFT improved it services, by introducing the "Global Payments Innovation" (GPI), and claimed the adoption of it, by 165 banks, and that the GPI allowed these banks to complete half of their payments within 30 minutes. The other issue for concern, revealed by the Financial Times, was the ability of the United States government to monitor and even interfere, in intro – European transactions.

In the recent years, the financial systems become even more interconnected. Such a financial integration is even considered by some, as an improved diversification of the risks related, but, on the other hand, it is also a source of the systemic risk, related to “shock transmitting” from one banking system in one country to another banking system in another country, because of such “close” interconnections of the banking systems.

The recent financial crisis has revealed the complexity of the interlink, which is ages, The



interlinked system is known for its ability to contribute for the transmission of shocks. As the stability of one bank is determined by its interlink ages to other bank, it cannot be assessed in a stand-alone mode. Therefore, to evaluate and study the system stability, everyone must consider the whole network structure. The network research focuses on the transmission of shocks through network linkages and the effect of the network structure on the stability of the financial system.

Seemingly, it is time to abandon the previous knowledge and start right from the beginning. The banking system is old, but at the same time – if it works, don't mess with it.

Although till today the SWIFT maintains its leading position, as preferable and most common method of making international payments, it still “suffers” of several issues that must be resolved, to keep up with modern expectations of system users. These expectations mostly related to problems which are: lack of visibility over funds once they have been sent, high routing fees being charged by intermediaries (which meant less money was arriving with the recipient that was sent) and payments being delayed.

To solve the mentioned issues, SWIFT⁷ has launched a new initiative, SWIFT GPI.

SWIFT GPI

SWIFT GPI (GPI stands for **G**lobal **P**ayments **I**nnovation) is a new initiative by SWIFT, which been developed to improve the experience of making a payment via the SWIFT network for both customers and banks. SWIFT GPI combines the traditional SWIFT messaging and banking system with a new set of rules. Any bank that joins GPI must follow these rules, which include transparency of fees, end-to-end payment tracking, and confirmation of credit to the recipient's account.

This meant to improve the old standards by meeting the users/clients demands for pricing, speed, and transparency of international payments. The initial launch of SWIFT GPI was in 2017; there are already over 3,700 banks who are members, processing over \$700B a day.

Still, the remaining questions are - what are the improvements? What are the new features/abilities that such initiative may offer the companies?

Traditionally, the international transactions are veiled in mystery, as there are large number of players from different countries involved, and there is a lack of a common standards, what makes an international transfer difficult to manage. Information concerning the payment status, the delivery date and the final amount of the payment are

⁷ A Unique Transaction Identifier ([Acronym](#): UTI), alternatively called Unique Swap Identifier (Acronym: USI) is a globally [unique identifier](#) for individual [transactions](#) in financial markets. USIs were introduced in late 2012 in the U.S. in the context of [Dodd-Frank](#) regulation, where reporting of transactions to [Trade Repositories](#) first became mandatory. European financial market regulations followed suit, with reporting to Trade Repositories under [EMIR](#) requiring UTIs from February 2014 on. The use of the UTI is also mandatory for regulatory reporting under [REMIT](#). Strictly speaking, the term USI is specific to the U.S. regulation, while UTI is specific to EU regulations. In practice, both terms are used interchangeable, in particular within large trading firms reporting under both regimes. https://www.swift.com/sites/default/files/files/SWIFT_UTI_Discussion_Paper_Jan2022%20%283%29.pdf



difficult to estimate and, also, the handling of incidents arising from the process has so far been extremely manual.

Banks across the globe have been working for years to make cross-border payments fast and smooth. One of the main initiatives in this area is, the GPI implementation, which is aimed on improving the Customer/Client experience in the system of international payments.

Quicker and more transparent

The SWIFT GPI is a new standard that brings a set of significant improvements into methodology of international payments transfer. It is significantly improving the level of service provided to the customer, by improving the payments rapidity, by relevant and true transparency of the related costs, and timely received information concerning the transaction status.

While discussing the improvement of the service provided to customer, it is essential to emphasize that the information provided to the customer, becomes the key-factor. By using the SWIFT GPI, the customer may know:

- **When is the payment carried out?**

The actual transaction becomes effective on the same day, that the payment process was initiated (depends on the differences in operating hours) Such improves and strengthen the commercial relations with the service suppliers. High transaction speed is, no doubt, one of the most significant strengths of SWIFT GPI method.

- **How much does it cost?**

The transparency of the related costs is of importance, as it is providing detailed description of all costs, including those that depends on the exchange rates, to customer.

- **Where is the payment?**

The status of the payment is always available. Such traceability becomes possible due to unique End-to-End Transaction Reference, (UETR), which is a reference associated with each payment that is kept and shared by the different banks, which are involved in the transaction. The process finalizes with confirmation of the payment, which been deposited in the beneficiary's account.

- **How is the payment identified?**

Information concerning the payment, remains unchanged during the entire process. This means that the details provided by the issuer are the same as those received by the recipient. Such is possible, due to commitment established between the banks, that participate in SWIFT GPI process.

The SWIFT GPI tracker

The use of the SWIFT GPI⁸ method, provides the customers of the performing bank the

⁸ <https://www.swift.com/our-solutions/swift-GPI/swift-GPI-banks/delivering-added-value>



ability to track and monitor the end-to-end payments. The SWIFT Tracker – is securely hosted at SWIFT – and provides the end-to-end visibility on the status of a payment transaction from the moment it is sent till the moment the transaction is accomplished.

The Internet Banking⁹

The Internet Banking, which is also known as Online banking and/or e-banking and/or Net Banking, is an option offered by banks and other financial organization to their customer. The use of it provides the customer with an option to use the variety of banking services, via internet (remote mode). Such is significantly improving the user experience of the customer, but such an option obligates the customer to accomplish several processes prior to being able to use the option. The use of banking services in remote mode, requires the customer to register, as per the procedure determined by the bank (or any other financial organization), receive an identification code (and password) by which the customer engagement into the system – becomes possible.

Features available for the On-Line Banking users –

- Check the account state only.
- Open a fixed deposit account.
- Pay utility bills, such as water and electricity bills.
- Make merchant payments.
- Transfer funds.
- Order a check book.
- Purchase general insurance.
- Recharge prepaid Mobile/DTH

Online Network (On-Ledger Network)

All the relevant and related branches and banks are interconnected to the SWIT operations room and regulatory monetary agencies, via designated servers. The servers, majority of which are operated by Microsoft Windows platform, providing stable and secure communication between the previously mentioned Parties, and customers/clients, authorized and verified for performing the needed operations, via designated websites or devices.

The described system may be considered as a base of the current international banking network or platform. The described on-line network is mapped (recorded), on the off-line network, on which all the routine processes are available, same to on-line network. Processes in off-line network, related to depositing, transferring and services with a pre-defined, specific limit defined, are based on the banking rules and applicable regulations.

⁹ Despite the large decline in aggregate cross-border banking lending volumes, some parts of the global banking network are currently more interlinked regionally than prior the Global Financial Crisis. After developing a simple theoretical Model capturing banks' internationalization decisions, the author estimation reveals that the mentioned regionalization trend is current, even the performed controlling of the traditional gravitational variables (e.g., distance, language, legal system, etc.), especially among lenders in EMs and non-core banking systems, such as Australia, Canada, Hong Kong, and Singapore. Moreover, this regionalization trend increases, what may be associated with regulatory variables and the opportunities created by the retrenchment of several European lenders.



Advantages of internet banking

The advantages of the internet banking are evident. Among other things, the following may be mentioned and emphasized:

- **Availability** – It is possible to avail the full range of banking services round the clock, throughout the year. Most of the offered services are not time restricted. The account and balance are accessible for verification at any time, and transfer of funds is possible with no dependency on the bank opening hours.
- **Easy to Operate** – The use of the options provided by the remote access mode, is relatively easy, and understandable.
- **Convenience** - no need for physical attendance in the bank, for performing the required operations. It is possible to initiate and accomplish the transaction from practically any location.
- **Time Efficient** - it is feasible to accomplish any transaction in a limited amount of time. The f may be transferred to any account within the country, or fixed deposit account may be created on the net banking, fast and securely.
- **Activity Tracking** – **As part of the** transaction at the bank branch, an acknowledgement receipt, provided as confirmation. Paper confirmation may be lost or corrupted. To avoid such, all the transactions performed on a bank's internet portal are recorded and are considered as legitimate mean, constantly available, using of which may support the information, about the transaction. It includes all the required details payee's name, bank account number, the amount paid, the date and time of payment, and remarks (if any) are available in it as well.

Disadvantages of Internet Banking

Unfortunately, nothing is perfect, and the internet banking also has some disadvantages:

- ↓ **Internet Availability** - an uninterrupted internet connection is the foremost requirement to use internet banking services. Similarly, if the bank servers are down, due to any technical issues on their part, the access into the system and any use of it are not possible.
- ↓ **Transaction Security** - No matter how much efforts and resources spending are taken by the banks and other organizations, to provide a secure network, online banking transactions are still susceptible to hackers. Regardless of the advanced encryption methods used to keep the user data safe, there have been cases where the transaction data been compromised. Such may cause a major threat on the legality of the used data/information.
- ↓ **Difficult for certain Users** – some of the people (specially the older Populates), may find the means required for effective use of the internet banking hard to understand and hard to implement. If there is no available information and support for such, self- understanding and compliance are practically impossible to achieve.



- ↓ **Password Securing** - Every internet banking account requires the password to be entered to access the services. Therefore, the password plays a key role in maintaining integrity. If the password is revealed to others, they may utilize the information for use in non-legitimate way. In addition to it, the account owners, are often required to change the password frequently, in order to avoid the identity theft, what may become a hassle as the account owner ought to remember the current password after all the changes.

The analyses of the nature of the increasing regionalization process in global banking -

Online banking is generally very secure as the companies that operate in it tend to hire top cyber security talents who may be skilled sufficiently to construct a solid infrastructure for banking services that complies with strict regulations, meant to assure the safety of the customers funds and processes.

Precaution and safety measures

It is always a good idea, to be careful. When operating within the on-line banking system, the following is vital:

- Reliable firewall shall be installed and operated on the system.
- The password shall be changed frequently to avoid the identification theft.
- Access to on-line banking shall be via original, well – known links.
- The notifications, from unfamiliar sources, shall be ignored (and if possible reported to Authorities).
- If there is a doubt – there is no doubt, direct contact with the bank, is the best option.

How to initiate an Online Banking Service Account

There are significant differences between online and online accounts, which are discussed in the following chapter.

Online Payments

Online Payments are made, by client/customer/vendor – immediately upon the confirmation. Often the customer/client will use a credit or debit cards for that.

An Online Payment specifies money that are exchanged in electronic form - it is an Internet-based method of finances exchange and transmission.

The online payments method allows the vendor to accept payments over the web or over other Internet connections, such as direct database connections between retail stores and their suppliers a common method of maintaining just-in-time inventories.



Online payment methods

- **PayPal** - is an American company, which operates the online payments system that supports online money transfers and serves as an electronic alternative to traditional payment methods like cheques and money orders.
- **WeChat and Alipay** - are two, China based companies operating in China, Hong Kong, and Macao. Both the companies provide an online payment system, that supports online money transfers and serves as an electronic alternative to traditional paper methods like checks and money orders.
- **Google Wallet** - is Google's developed version of PayPal. It is an online payment service that allows users to send a safe, simple, and fast funds transfers from their browser, smartphone, or Gmail account.
- **2Checkout** - is a trusted payment platform that allows its users to receive credit and debit cards worldwide. It's available in 87 different languages. It also offers international payments, shopping cart stores, and a recurrent billing feature.

Offline payments

Offline payments allow the merchants to track payments made via cash, checks, and bank transfers, by using an assortment of means (like postal order), contrary to online payment method, even if an existing payment method been already configured. The client/user may record the offline payment after it been collected. The offline payment can also be configured in a way that they will become, an only method of payment.

Advantages of Offline Payment Processing

- Offline transactions are **transparent**. This means both the sender and receiver are sure about the transaction at the moment of the deal.
- Being a **traditional** method of payment makes it more trusted. People still trust the bank checks and drafts and use them for payments.
- Offline mode of payment is **direct** and do not rely on any other source. For example, Internet or payment gateways.
- Easy to use and understandable. Many people experiencing difficulties, with the online mode of payment.

Main differences between the online and offline payments

- Offline mode performed without the use of an internet; hence it is called - "offline." These offline payments are easily monitored as they are directly received by retailers in most cases, for example, postal payments. Because of the direct payment method, payments are more transparent.
- Online mode always requires a direct connection. The users required to reveal billing and personal details, what increases the risk of identity theft (loss) to a high level.



Offline Network (Off—Ledger Network)

The server network of the banks is the base of the banking network, which is meant to process the information by using the UNIX IOS servers (e.g., Linux, Ubuntu, etc.).

The transactions in this network are of server to server type (S2S). Other than server to server transactions there is another type known as of server to bank (S2B). The server transactions made, by using several methods that will be further explained.

The off—ledger network is designed for management of the online (On- Ledger) banking system and for management, creation, and transferring of the large amounts (DTC, IP/IP, IP/ID) of money, which cannot be transferred by the online banking system. For example, large credits, credit lines, infrastructures, and trading platforms. These infrastructures are limited and inaccessible for the public. The main users are countries, governments, commonwealth organizations, banks and/or companies and people that has the required/necessary authorization from Monetary/regulatory bodies, treasuries, and/or banking system.

A large portion of the funds, used for humanitarian or public benefits (Green) Projects, requiring the described type of transaction. It is obvious that the sender and receiver, prior to performing any transactions, is obliged to own necessary licenses, certificates, and authorizations from Monetary/regulatory bodies like the Federal Reserve Bank (FRB and/or FED), European Central Bank (ECB), EUROCLEAR, International Monetary Fund (IMF), International Treasury Control, along with the authorization the treasury of the receiving country, the central bank of the receiving country and the receiving bank.

Due to a fact that the main subject here is the operations within the offline banking network, which is an extensive subject of its own, the explanations will be provided on the topics level with no additional details.

The main role of the off-ledger network is creating Money and deliver it to the consumers, this to rephrase the creation and production of “real” Money with offline banking resources and eventually reaching the Money printing stage and further introduction of the printed money into treasuries.

Opening an Account

Generally speaking, open an account is an easy task. All is needed is an identification certificates and fill in the designated forms, all the required information. The process may be generally described as following:

Preparation of identification documents as required by the local legislation of the country: passport, identity card, driver’s license, or other.

- Downloading of the Rewire app onto designated means of communication.
- Filling the form with all the required details: name, phone number, email address, and password.



- Finally, when the previously described activities are accomplished the user may decide on the following stages: receive a free European Account (IBAN), sign up for a free debit MasterCard, add funds to the Rewire account, transfer the Money worldwide, etc.

It is interesting to mention that:

A 2018 Deloitte survey revealed that 73% of consumers use an online banking channel at least once every 30 days – an impressive number considering the hardship of adapting to new technology. It is known, that trusting new technology is not something that comes easily, especially when that technology is supposed to guard our hard-earned Money. Online banking seems to make sense for most customers, and the simplicity of the process converts even the most resistant nay-Sayers.

The online network completely and 100% depends on the offline network and its operations are processed based on the servers and portals of the offline (Off-Ledger) network.

Transfers on the online banking and bank to bank are called (B2B) or (L2L). This type of transfer is executed by the bank officers which is called (BO2BO). These transfers occur in different methods.

A detailed explanation of the FARM's role in creating real Money, will include the explanations for the origin of the offline Money data, and how and with what the real Money is created. Also, an additional explanation of how the off-ledger Money after transferring to the receiving bank, analyzing, and reviewing convert into real Money (Monetized) and after authorized, reaches to the Money printing stage. After the deduction of the taxes and expenses it becomes the Money to use in online banking network and finally enters into the country's economy.

It is worth mentioning that there are other methods to convert the offline funds; for example, converting to bank guarantees, bonds, guarantees for loans and credits or entering into banking trading system and other methods.

A SharePoint FARM

A SharePoint FARM is a collection of servers that operates to provide a set of basic SharePoint services to support a single site.

A SharePoint FARM can be hosted in a cloud, in a company's private data center or across multiple data centers in different locations. Such allows an authorized person to connect to a unified SharePoint Intranet and collaborate on shared calendars, documents and more.

A SharePoint administrator is responsible for the installation, configuration, maintenance, management, and software upgrades of SharePoint FARM's. Beside that the administrator also responsible to configure service applications, maintain and manage the content databases.



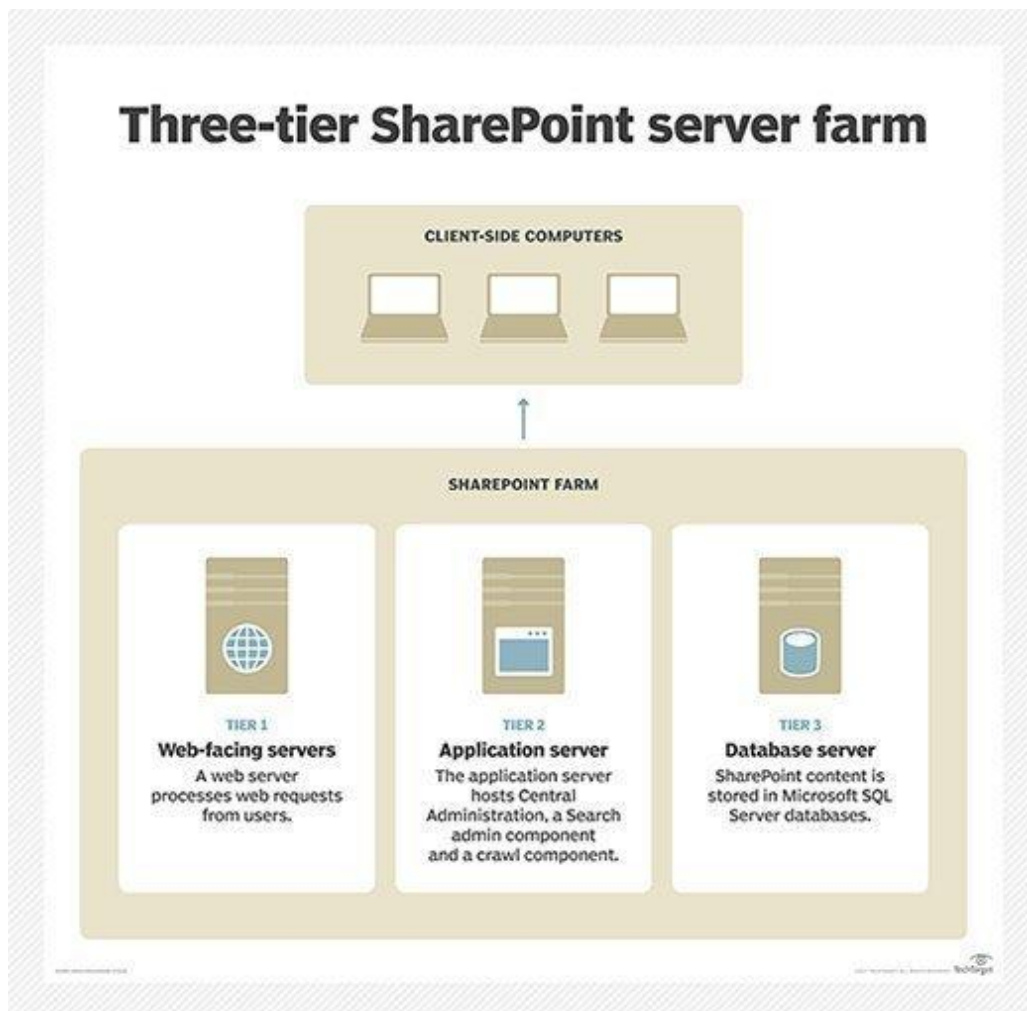
SharePoint FARM components

Servers in a SharePoint FARM constructing and forming the back-end infrastructure, which supports SharePoint features, including collaboration, uploading files, tracking tasks, and managing content.

To install SharePoint Server, an appropriate administrative and service accounts on servers running SharePoint Server and SQL Server, are must to have. After installation, it is needed to have appropriate administrative and service accounts to modify and maintain the environment. The accounts that are required to complete these groups of tasks are not necessarily the same.

Traditional SharePoint FARMs are made up of application servers, database servers and web servers. A small SharePoint server FARM often includes a Microsoft SQL Server database server and one or More servers running Internet Information Services and Office SharePoint Server. In this scenario, the front-end servers are configured as web servers and application servers to serve up content to users over the internet. The application server provides Office SharePoint Server services.

A large SharePoint server FARM might include two or More database servers, a number of front-end web servers that run Office SharePoint Server and two or More application servers to run Office SharePoint Server. In this setup, each application server provides Office SharePoint services, and the front-end servers provide web content.



SharePoint FARM topology

Till the SharePoint 2013 version, keeping the server deployment simple was crucial for its operation. There were three main roles for servers that factored into a SharePoint FARM topology: web server, application server and database server. The web servers were meant for the communication of end user. The applications servers were intended to provide a various service across the environment to help optimize the architecture of the FARM¹⁰. The database server role is to operate the SQL Server services across the FARM.

Within a FARM, there are several services that run on one or More servers. The ability of multiple servers to work in conjunction and provide redundancy is important in the cloud, especially for big data processing centers. One value of such a system is its fail over capabilities -if any server is incapacitated, another one can take over for it. The servers can also provide readily available backups that can scale to immense sizes.

These services provide basic functionality for SharePoint and regulate which services should run on which servers, to manage the impact on overall FARM architecture and performance.

¹⁰ With the introduction of SharePoint 2016 and SharePoint Online, updates to SharePoint include MinRole, which is an alternative to traditional FARM topologies. With MinRole, the role of the server is defined within the FARM, and, therefore, the server runs only specific services and nothing else, allowing it to function more effectively.



Single FARM vs. multi-FARM

There are occasions when the multiple SharePoint FARM's use is just. An enterprise might have a quality-assurance (QA) FARM, for example, that is separate from a production FARM. Geographically isolated enterprises might have a FARM in Europe, one in the Asia-Pacific region and another in North America. When different departments within an organization have different policies regarding customization and SharePoint support, it makes sense to have separate FARM's. It is then possible for the enterprise to replicate or share services as needed.

Advantages and Disadvantages of offline and online banking network dependency

The offline and online banking networks has many positive but also negative points.

One of the main negative points in the vulnerability of the network to hacker attacks. Many hackers are trying to penetrate the banking network, however, there are not many people who can gain access, interfere, and can transfer funds within the offline network.

The hackers using various methods to penetrate the banking networks. Most relevant and wide known are Phishing, DDOS, A.I. attacks, rainbow tables, hacks, etc.

It is important to know that professional hackers can only move dirty money and they don't have access to clean funds and cannot transfer them.

Among the positive points, the following may be stated:

The system is very precise and is under a complete supervision and control by the FARM authorities.

For preventing hackers' penetration, FARM authorities identifying the hackers, and they share the information with law enforcement Authorities. As mentioned before, the executive arm of the FARM is Federal Reserve, so their cases are forwarded to Federal Reserve to put them under prosecution in their country, subjected to their penalty laws.

The other duty of the FARM authorities is to track the banking frauds and violations in offline banking and even online banking systems around the world; This means, if a financial resource with high amount transfers without authorization or hacked in the offline banking network using a bank server or private server, the FARM officials freeze and block the transfer and forward the case to the executive arm of the FARM, or Federal Reserve, for investigation.

Classification and naming of online and offline banking network

In the online banking system, servers are defined by the letter "M", configuration of which starts from M0 to M6 (M0 - M1 - M2 - M3 - M4 - M5 - M6).

The funds in M0 servers are considered as good, clean, and clear funds and the funds in M6 are considered as "dirty" Money.

In the offline banking system, servers are defined by letters "NS" configuration of which starts from NS0 to NS6 (NS0 - NS1 - NS2 - NS3 - NS4 - NS5 - NS6).

The funds in NS0 servers are considered as good, clean, and clear funds and the funds in



NS6, considered as “dirty” Money. Further explanation about the differences and specifications of the online and offline banking servers or the funds in these servers will be provided where needed.

The further explanation will be related to topics relevant for the types of money, how does supervision of the monetary and regulatory organizations happen, financial corruption, financial abusing methods, and how to avoid it.

The considerably large volume of the known problems and violations in the banking online or offline banking servers' section, force the Author to emphasize and specify this general information in form of the manuscript and even to consider its publication and further distribution of the manuscript content.

It is crucial to promote the public awareness for the importance of honesty and regulatory compliance in everything related to operations of the global banking system. The previously mentioned compliance is capable to solve the Money crisis in the world. Such is correct, if accepting as fact that the aim is making the monetary and regulatory organization's officials and authorities aware that most of the big problems in the banking system and network were and still are caused by incorrect and untimely decisions due to a lack of sufficient knowledge and expertise.

It seems necessary to inform the general public and the financial system authorities and monetary regulators that governments and people with correct and honest decisions and movements can end the world financial crisis.

Due to the strong dependency of the offline and online banking system it is strongly emphasized and recommended to the monetary/regulatory bodies to know and understand the offline banking system and its abilities with small or big changes in their working procedure, create a new path for resolving their countries financial issues, to correct the past mistakes and make changes in previous regulations.

Governments, banks, and individuals, and legal entities can easily use the vast financial resources available in the offline banking network to solve the world's financial problems by obtaining necessary authorizations, however, unfortunately, due to the lack of sufficient knowledge, there are rules and regulation approved by Monetary and regulatory bodies that make this procedure very slow and these regulations causing problems for the financial and banking regulators.

Eventually, it is obvious that small mistakes, may cause significant issues for the regulatory bodies, banking system, financial system but to the general public as well.

If the small financial institutions can have direct access to the offline banking networks like banks do, they can easily monetize off-ledger funds according to rules and regulations and after creating real money (after paying the costs and expenses), immerse it into the online banking system and finally introduce it in the economic system of their country.

By creating money and introduction of it into the banking system, uncompleted projects can be finished, or new necessary projects can be initiated and executed around the globe.

It is expected that with public awareness, we can witness a drastic improvement in monetary and regulatory systems in international banking.

The further explanation will be related to topics relevant for the types of money, how does



supervision of the monetary and regulatory organizations happen, financial corruption, financial abusing methods, and how to avoid it.

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FARM and its sectors:

The FARM is divided into 256 parts that start from 0 and end in 255. FARM ZERO is the management center and it is only accessible by managers and inspectors (Moderators). FARM 1 to 255 are for the offline and online networks all over the world and are accessible to authorized users, managed by FARM management and inspectors.

In general, every single unit including private or governmental, confidential, or public, personal, or general etc. that are connected to the internet through servers are subsets of FARM and are under management and supervision of the FARM/FED.

By FARM's definition, it didn't belong to any government, organization, country or etc. in simple words, FARM means all the servers that are connected to each other through the internet all over the world. The FARM is not owned by anyone and any server, anywhere in the world, is connected to the FARM and these vast connections create server FARM's or FARM.

The FARM's management and supervision are totally on the private sector and manager's communications to the subsets happen through of FEDERAL RESERVE SYSTEM of the United States of America (U.S.A) which bears this responsibility since 2015. In Simple words, FEDERAL RESERVE is the executive arm and liaison of the FARM in all countries and all the communications, correspondence, and orders (e.g., complaints, acknowledgments, confirmations, prosecutions etc.) to subsets like the financial systems, offline banking networks etc. are done through FEDERAL RESERVE.

It is worth mentioning that hackers tried to imitate the FARM and even attempted to Mirror the FARM, but failed, and the created mirror became a subset of the FARM and is being managed by FARM authorities.

Hackers and criminals are constantly exploring and browsing the FARM, causing problems which fortunately FARM authorities identify them and prosecute them by legally available means.



Mining and creation of the Money in the FARM¹¹ :

Creation of the initial data for the money occurs in the FARM and under the supervision of the FARM authorities. The creation of Money is the basis of the FARM. Part of the FARM is related to the financial banking system in an offline network that is consist of FARM 42 to 107 and it can be stated that the financial and banking system all over the world is managed and directed by these FARM's.

The mining of the raw money data happens in a special procedure (not allowed to provide more details here). The raw money data is data that a specific for the unit of currency can be defined for that data and after defining, it is equal to a unit of that currency. Upon mining of the raw and initial data of the Money in FARM and deduction of certain costs and taxes in a special procedure this raw data converts into a currency unit and after the creation of server Money with specific currency (e. g. Euro), this Money deposits and stores in the FARM's treasury. For transferring offline funds from FARM's treasury to banking servers and lines server to server transactions (like IP/IP, IP/ID, DTC, etc.) is used.

Supervisory organizations on creation of the Money and its transfer

For transferring funds from the FARM's treasury or sender bank's server or line to the receiver bank's server or line, the Sender of financial resources and a Receiver of financial resources are required. Sender and receiver must have authorizations from designated Monetary and regulatory bodies, which are as follows:

1. **Federal Reserve Bank (FRB or FED)¹²:** Federal Reserve Bank is the USA's central bank. US Congress set three key goals for Money policies in the Federal Reserve act:

- a. Maximum employment.
- b. Price stabilization.
- c. Long-term interest rate adjustment.

Over the more 100 years the Federal Reserve's duties have been expanded and as of now include the supervision and adjusting of the banks, maintaining the stability of the financial system, and providing financial services to depository institutions, the US government and official foreign institutions, and other countries.

Federal Reserve is the executive arm and liaison of the FARM authorities with subsets and the offline network is under the full supervision of this organization and getting authorization and license is mandatory and these huge quantity of funds in this system could be the way to solve all and each financial difficulties world wide.

2. **European Central Bank (ECB):** European Central Bank is the main element of the Euro system and European central banks and also, one of the main seven institutions of the European Union that its central office is in Frankfurt, Germany. Seemingly, this is among

¹¹ Contrary to the public belief, FARM 42 is just the archive of the documents for mining and creation of the offline financial resources and in simple words, it is where the documents of the offline funds entered in or exited from FARM's 43 to 107 stored and there is no fund or financial resource.

¹² Federal Reserve consists of multiple layers (one relevant player it is Bank of England). The Federal Reserve System is unique in central banks. Although it is a tool for the US government nowadays it is independent because the decisions that this bank makes about the Monetary policies don't need to be approved by Congress, President or any other organization or person.



the Most important central banks in the world.

The ECB board determines the EU's Monetary policies and manages the euro reserves of the EU members and participates in exchanges. Also, defines the Monetary targets and key interest rates of the EU. The executive board of the ECB executes the policies and decisions of the ECB board, and they may issue orders to the central banks of the EU members. ECB is the only organization that can print euro currency Money and the EU members can only produce coins, however, the volume of the production must be confirmed by the ECB. This Central Bank makes TARGET2 payments.

ECB is governed directly by EU law. The total value of this bank's stock is more in Euros which belongs to all 27 central banks of the EU members. These shares cannot be transferred, used as collaterals, or guarantees.

As the big part of Money mining in the FARM¹³ is in euro currency, ECB is one of the most important and first institutes that issues the authorization for the creation or transferring off-ledger funds.

It is worth mentioning that other currencies like the US Dollar, Sterling Pound etc. are also mined in the FARM but due to the willingness of the banks and good embedding of the euro currency in global transactions.

3. **EUROCLEAR:** The International Central Securities Depository (ICSD) and the Euroclear Central Securities Depositories (CSD's) are of very low-risk, financial companies, located in Belgium. It is their expert to trade securities and related services. This company was established to trade in developing Eurobond market. EUROCLEAR covers the domestic or international securities, covering bonds, stocks, derivatives, and mutual funds settlement. It provides these services to more than 90 financial institutions in the world. Because the offline funds can be converted into securities, stocks etc. EUROCLEAR is also involved in offline funds and issues authorization for the creation or transferring of the funds.

The International Monetary Fund (IMF)

An international institute, located in Washington DC and it is consisted of 190-member countries trying to improve international monetary cooperation, financial stability, employment, sustainable economic growth, and international trades and reducing poverty in all over the world. Currently, this organization plays the main role in managing payment balances and international financial crises.

IMF's budget is provided from two sources: Shares and Credits.

Shares are the total amounts combined paid by the member countries that provide the largest part of the budget. The amount of each member's payment depends on their financial and economic importance in the world. As the offline funds can be converted into stocks, shares, loans, or loans guarantee this organization must issue authorizations in case of the need.

¹³ More than 90% of the mining and Money creation is in EURO and this is the main reason for getting the authorization from the ECB to keep the euro currency balance in the banking system.



Treasury and the central bank of the receiving country

The central banks, with duly authorization from the previously mentioned organizations, may initiate an authorization to transfer or create money.

Receiving bank or executing bank

This is the bank which upon its client request and after doing the due diligence about the sender and receiver regarding the ability and financial back up of the receiver will attempt to acquire authorizations and licenses from higher organizations and institutes and finally will authorize the client to receive offline transactions and provides off-ledger banking facilities.

There are other organizations and centers that are responsible for issuing authorization depending on the receiving country, organizations like the Anti-Money Laundering Department, Judicial System, etc.

Offline banking network in international banking system

Offline (Off-ledger) network subset

All the Central Banks, high-level prime banks, prime banks, their subsidiaries, governmental financial institutions, private financial institutions, and in general any financial or monetary organization, regardless of its size, all over the world are connected to the offline network via servers and their connections are supervised by the FARM.

The online banking network is designed, basing on the offline banking network, while its infrastructure management is centered on the offline network.

Online Network (On-Ledger Network)

It is the internal server network that all the branches are connected to the central branch, and they are connected to the SWIFT room and Monetary and regulatory bodies. Most of them are using Microsoft Windows OS and they underlie connecting the real or legal clients through websites, Mobile banks (Android, IOS, etc.), ATMS, POS machines, etc. This system is the base for the development in the international banking system.

The online banking network is mapped on the offline banking network. All the routine services on that platform are accessible by opening an account in one the bank's branches in any country like services inside the branch, services over the internet bank, mobile bank etc. for depositing, transferring and other services with a pre-defined, specific limit defined based on that country's banking rules and regulations.

Advantages of Internet Banking

The advantages of internet banking are as follows:

- **Availability:** You can avail the banking services round the clock throughout the year. Most of the services offered are not time-restricted; you can check your account balance at any time and transfer funds without having to wait for the bank to open.



- **Easy to Operate:** Using the services offered by online banking is simple and easy. Many find transacting online a lot easier than visiting the branch for the same.
- **Convenience:** You need not leave your chores behind and go stand in a queue at the bank branch. You can complete your transactions from wherever you are. Pay utility bills, recurring deposit account installments, and others using online banking.
- **Time Efficient:** You can complete any transaction in a matter of a few minutes via internet banking. Funds can be transferred to any account within the country or open a fixed deposit account within no time on net banking.
- **Activity Tracking:** When you make a transaction at the bank branch, you will receive an acknowledgement receipt. There are possibilities of you losing it. In contrast, all the transactions you perform on a bank's internet banking portal will be recorded. You can show this as proof of the transaction if need be. Details such as the payee's name, bank account number, the amount paid, the date and time of payment, and remarks if any will be recorded as well.

Disadvantages of Internet/Online Banking

The disadvantages of internet banking are as follows:

- ↓ **Internet Requirement:** An uninterrupted internet connection is a foremost requirement to use internet banking services. If you do not have access to the internet, you cannot make use of any facilities offered online. Similarly, if the bank servers are down, due to any technical issues on their part, you cannot access net banking services.
- ↓ **Transaction Security:** No matter how much precautions banks take to provide a secure network; online banking transactions are still susceptible to hackers. Irrespective of the advanced encryption methods used to keep user data safe, there have been cases where the transaction data is compromised. This may cause a major threat such as using the data illegally for the hacker's benefit.
- ↓ **Difficult for Beginners:** There are people in some places of the world who have been living far away from the web of the internet. It might seem a whole new deal for them to understand how internet banking works. Worse still, if there is nobody who can explain them on how internet banking works and the process flow of how to go about it, it will be very difficult for inexperienced beginners to figure it out for themselves.
- ↓ **Securing Password:** Every internet banking account requires the password to be entered to access the services. Therefore, the password plays a key role in maintaining integrity. If the password is revealed to others, they may utilize the information to organize some kind of fraud. Also, the chosen password must comply with the rules stated by the banks. Individuals must change the password frequently to avoid password theft which can be a hassle to remember by the account holder himself.

The analyses the nature of the increasing regionalization process in global banking. Despite the large decline in aggregate cross-border banking lending volumes, some parts of the



global banking network are currently more interlinked regionally than before the Global Financial Crisis. After developing a simple theoretical Model capturing banks' internationalization decisions, our estimation shows that this

regionalization trend is present even after controlling for traditional gravitational variables (e.g., distance, language, legal system, etc.), especially among lenders in EMs and non-core banking systems, such as Australia, Canada, Hong Kong, and Singapore.

Moreover, this regionalization trend was present before the Global Financial Crisis, but it has increased since then, and it seems to be associated with regulatory variables and the opportunities created by the retrenchment of several European lenders.

Online banking is generally extremely secure as the companies that operate them tend to hire top cybersecurity talents who build a solid infrastructure for banking services and comply with strict regulations to ensure the safety of their customers.

Precautionary Measures

Taking precautionary measures is always a good idea. So, when dealing with online banking services, be sure to:

Install a reliable firewall on your device and not use a public Internet network.

Change your password frequently and choose one that is hard to guess.

Access your online bank account from the original link you bookmarked in your browser. Any notifications will be available upon your login too. Don't reply to emails or click on links in suspicious emails that claim that they are from your online bank. When you receive a suspicious email, contact support before clicking on any links or replying.

How to Open an Online Banking Services Account

Perhaps some people are aware of the differences between Offline and Online payment while others are not. Thus, let's tackle and talk about the differences between Offline and Online payment.

ONLINE PAYMENTS

Online Payments occur when a customer's funds are transferred to your payment account right after your customer confirms the payment. Online customers often will pay through Credit Card, Debit Card, etc.

An Online Payment indicates money that is being exchanged electronically. Typically, this involves the use of computer networks, the internet, and digital stored value systems. It is an Internet-based method of processing economic transactions.

It lets a vendor accept payments over the web or over other Internet connections, such as direct database connections between retail stores and their suppliers a common method of maintaining just-in-time inventories.



Online Payment Methods

PayPal is an American company operating a worldwide online payments system that supports online money transfers and serves as an electronic alternative to traditional paper methods like cheques and money orders.

Wechat and Alipay are two Chinese companies operating a China, Hong Kong and Macao online payments system that supports online money transfers and serves as an electronic alternative to traditional paper methods like cheque and money orders.

Google Wallet is essentially Google's version of PayPal. It is an online payment service that allows users to send a safe, simple, and speedy Money transfers from their browser, smartphone, or Gmail account.

2Checkout is a trusted payment platform that allows users to accept credit cards, and debit cards globally. It's available in 87 different languages. It also offers international payments, shopping cart stores, and a recurring billing feature.

OFFLINE PAYMENTS

Offline payments allow merchants to track payments made via cash, checks, bank transfers, at the desk, postal orders, or any other means unlike online payment methods such as cards, PayPal, etc. They can be used even if you have an existing payment method configured. In such cases, you can record the offline payment after collecting them. You can also configure subscriptions in such a way that they make use of Offline payments as the only method of payment.

Advantages of Offline Payment Processing

There is a reason why most people around the world still prefer to use cash for their daily money transaction.

- Offline transactions are transparent. This means both the lender and receiver are sure about the transaction at the moment of the deal.
- Being a traditional method of payment makes it more trusted. People still trust the bank checks and drafts and use them for payments.
- Offline mode of payment is direct and do not rely on any other source. For example, Internet or payment gateways.
- Easy to use and understand. Many people face difficulty with the online mode of payment.

Differences Between Offline and Online Payments

- Offline mode works without the internet, hence the term "offline." These offline payments are easily monitored as they are directly received by retailers in most cases, for example, postal payments. Due to the direct payment method, payments are more transparent.



- Online mode always requires an internet connection. The individuals are required to enter billing and personal details, the risk of identity theft is quite high. Due to the nature of internet billing, individuals can keep track of their payments.

Offline Network (Off—Ledger Network)¹⁴

It is a server network of the banks that help the banks to connect through this network to other banking networks and it is the base of the banking network which its information is processed based on the UNIX IOS servers (e.g., Linux, Ubuntu, etc.).

The transactions in this network are server to server transactions (S2S). Other than server to server transactions there is another type called server to the bank (S2B). Server transactions happen with several methods that we will explain in detail in future articles.

The off—ledger network is designed for management of the online (On- Ledger) banking system and also, is designed for management, creation, and transferring of the Money with large amounts (DTC, IP/IP, IP/ID); amounts that cannot be transferred by the online banking system, for example, large credits, credit lines, infrastructures, and trading platform. These are limited and inaccessible for the public and usually, countries, governments, commonwealths, organizations, banks and/or companies and people that has necessary authorization from Monetary/regulatory bodies, treasuries, and/or banking system has access to it.

Because the main subject here is the offline banking network and this subject alone is very extensive, we will avoid discussing the online banking network in-depth and we will overview it only by mentioning the headlines.

The main duty of the off-ledger network is creating Money and delivering it to the consumers, to rephrase creating and producing real Money with offline banking resources and finally reaching o Money printing stage and injecting the real printed Money in bank treasuries for the benefit of the governments, private sector or general public.

Opening an Account

Typically, opening an account is easy. You will need to provide identification papers and fill in all your information. With Rewire, for instance, the process is as straightforward as can be. All you need to do is:

Prepare your identification documents as required by the local legislation of the country where you reside: passport, identity card, driver's license, or other.

Download the Rewire app for your phone and click Sign Up. Using the app is optional. You can follow the same steps on your desktop PC.

Fill in the form with all the required details: name, phone number, email address, and password.

¹⁴ A large part of these funds is used in humanitarian projects or projects with public benefits (Green Projects) which to begin the Sender and Receiver must have necessary licenses, certificates, and authorizations from Monetary/regulatory bodies like the Federal Reserve Bank (FRB and/or FED), European Central Bank (ECB), EUROCLEAR, International Monetary Fund (IMF), International Treasury Control, the treasury of the receiving country, the central bank of the receiving country and the receiving bank.



You are all set up. When you are done registering, you can decide what you want to do next: receive a free European Account (IBAN), sign up for a free debit MasterCard, add funds to your Rewire account, send Money worldwide, etc.

The online network completely and 100% depends on the offline network and its operations are processed based on the servers and portals of the offline (Off-Ledger) network.

Transfers on online banking and bank to bank are called (B2B) or (L2L)¹⁵. This type of transfer is executed by the bank officers which is called (BO2BO). These transfers happen in different methods.

We will explain in detail the FARM's role in creating real Money or the main origin of the offline Money data and how and with what backing the real Money is created or how off-ledger Money after transferring to the receiving bank, analyzing and reviewing convert into real Money (Monetized) and after getting certain certificates and licenses reaches to the Money printing stage and upon deducting the taxes and expenses it becomes the Money to use in online banking network and finally enters into the country's economy.

It is worth mentioning that there are other methods to convert the offline funds; for example, converting to bank guarantees, bonds, guarantees for loans and credits or entering into banking trading system and other methods.

A SharePoint FARM

A SharePoint FARM is a collection of servers that work in concert to provide a set of basic SharePoint services to support a single site.

A SharePoint FARM can be hosted in a cloud, in a company's private data center or across multiple data centers in different locations. This allows dispersed employees to connect to a unified SharePoint Intranet and collaborate on shared calendars, documents and more.

A SharePoint administrator is responsible for the installation, configuration, maintenance, management, and software upgrades of SharePoint FARM's. They must also configure service applications, maintain, and manage the content databases.

SharePoint FARM components

Servers in a SharePoint FARM make up the back-end infrastructure, which supports SharePoint features, including collaboration, uploading files, tracking tasks, and managing content.

To install SharePoint Server, you must have appropriate administrative and service accounts on servers running SharePoint Server and SQL Server. After installation, you need

¹⁵ A 2018 Deloitte survey revealed that 73% of consumers use an online banking channel at least once every 30 days – an impressive number considering the hardship of adapting to new technology. Yes, we know, trusting new technology is not something that comes easily, especially when that technology is supposed to guard our hard-earned Money. Online banking seems to make sense for most customers, and the simplicity of the process converts even the most resistant nay-Sayers.



to have appropriate administrative and service accounts to modify and maintain the environment. The accounts that you require to complete these groups of tasks are not necessarily the same.

Traditional SharePoint FARMs are made up of application servers, database servers and web servers. A small SharePoint server FARM often includes a Microsoft SQL Server database server and one or More servers running Internet Information Services and Office SharePoint Server. In this scenario, the front-end servers are configured as web servers and application servers to serve up content to users over the internet. The application server provides Office SharePoint Server services.

A large SharePoint server FARM might include two or More database servers, a number of front-end web servers that run Office SharePoint Server and two or More application servers to run Office SharePoint Server. In this setup, each application server provides Office SharePoint services, and the front-end servers provide web content.

. It is then possible for the enterprise to replicate or share services as needed.

FARM and its sectors:

The FARM is divided into 256 parts that start from 0 and end in 255. FARM ZERO is the management center and it is only and only accessible for managers and inspectors (Moderators). No one else can access FARM Zero. FARM 1 to 255 are for the offline and online networks all over the world and are accessible to authorized users, managed by FARM management and inspectors.

In general, every single unit including private or governmental, confidential, or public, personal, or general etc. that are connected to the internet through servers are subsets of FARM and are under management and supervision of the FARM/FED.

By FARM's definition, it didn't and doesn't belong to any government, organization, country or etc. in simple words, FARM means all the servers that are connected to each other through the internet all over the world. The FARM is not owned by anyone and any server, anywhere in the world, is connected to the FARM and these vast connections create server FARM's or FARM.

The FARM's management and supervision are totally on the private sector and manager's communications to the subsets happen through of FEDERAL RESERVE SYSTEM United States of America (U.S.A) which bears this responsibility since 2015. In Simple words, FEDERAL RESERVE is the executive arm and liaison of the FARM in all countries and all the communications, correspondence, and orders (e.g., complaints, acknowledgments, confirmations, prosecutions etc.) to subsets like the financial systems, offline banking networks etc. are done through FEDERAL RESERVE.

It is worth mentioning that hackers tried to simulate the FARM and even Mirror the FARM that it was failed, and the created mirror is also a subset of the FARM and is being managed by FARM authorities.

Hackers and criminals are constantly exploring and browsing the FARM, causing problems which fortunately FARM authorities identify them and prosecute them through legal arms.



Mining and creation of the Money in the FARM:

Creation of the initial data of the money occurs in the FARM and under the supervision of the FARM authorities. The creation of Money is the basis of the FARM. Part of the FARM is related to the financial banking system in an offline network that is consist of FARM 42 to 107 and it can be said that the financial and banking system all over the world is managed and directed by these FARM's.

Contrary to the public belief, FARM 42 is just the archive of the documents for mining and creation of the offline financial resources and in simple words, it is where the documents of the offline funds entered in or exited from FARM's 43 to 107 stored and there is no fund or financial resource.

The mining of the raw money data happens in a special procedure (we are not allowed to provide more details here). What we mean by raw money data is data that a specific unit of currency can be defined for that data and after defining, it is equal to a unit of that currency. Upon mining of the raw and initial data of the Money in FARM and deduction of certain costs and taxes in a special procedure this raw data converts into a currency unit and after the creation of server Money with specific currency (e. g. Euro), this Money deposits and stores in the FARM's treasury. For transferring offline funds from FARM's treasury to banking servers and lines server to server transactions (like IP/IP, IP/ID, DTC, etc.) is used.

Supervisory organizations on creation of the Money and its transfer:

For transferring funds from the FARM's treasury or sender bank's server or line to the receiver bank's server or line, we need a Sender of financial resources and a Receiver of financial resources. Sender and receiver must have authorizations from Monetary and regulatory bodies for the transfer, which are as follows:

Federal Reserve Bank (FRB or FED)¹⁶: Federal Reserve Bank is the USA's central bank. US Congress set three key goals for Money policies in the Federal Reserve act:

1. Maximum employment.
2. Price stabilization.
3. Long-term interest rate adjustment.

Over the more 100 years the Federal Reserve's duties have been expanded and as of now include supervision and adjusting the banks, maintaining the stability of the financial system, and providing financial services to depository institutions, the US government and official foreign institutions, and other countries.

As explained before Federal Reserve is the executive arm and liaison of the FARM authorities with subsets and the offline network is under the full supervision of this organization and getting authorization and license is mandatory.

¹⁶ Federal Reserve consists of multiple layers (one relevant player it is Bank of England). The Federal Reserve System is unique in central banks. Although it is a tool for the US government nowadays it is independent because the decisions that this bank makes about the Monetary policies don't need to be approved by Congress, President or any other organization or person.



European Central Bank (ECB): European Central Bank is the main component of the Euro system and European central banks and also, one of the main seven institutions of the European Union that its central office is in Frankfurt, Germany. It is one of the Most important central banks in the world.

The ECB board determines the EU's Monetary policies and manages the euro reserves of the EU members and participates in exchanges. Also, defines the Monetary targets and key interest rates of the EU. The executive board of the ECB executes the policies and decisions of the ECB board, and they may issue orders to the central banks of the EU members. ECB is the only organization that can print euro currency Money and the EU members can only produce coins, however, the volume of the production must be confirmed by the ECB. This Central Bank makes TARGET2 payments.

ECB is governed directly by EU law. The total value of this bank's stock is more in Euros which belongs to all 27 central banks of the EU members. These shares cannot be transferred, used as collateral s, or guarantees.

As the big part of Money mining in the FARM¹⁷ is in euro currency, ECB is one of the most important and first institutes that issues the authorization for the creation or transferring off-ledger funds.

EUROCLEAR: The International Central Securities Depository (ICSD) and the Euroclear Central Securities Depositories (CSD's) are very low-risk, both financial companies located in Belgium, that its specialty is trading securities and its related services for maintenance and managing of them. This company was established to trade in developing Eurobond market. EUROCLEAR covers the domestic or international securities, covering bonds, stocks, derivatives, and mutual funds settlement. It provides these services to more than 90 financial institutions in the world. Because the offline funds can be converted into securities, stocks etc. EUROCLEAR is also involved in offline funds and issues authorization for the creation or transferring of the funds. Every 5 days settle transactions equivalent to the GDP of the European Union.

The International Monetary Fund (IMF)

It is an international institute, located in Washington DC and it is consisted of 190 member countries trying to improve international monetary cooperation, financial stability, employment, sustainable economic growth, and international trades and reducing poverty in all over the world. Currently, this organization plays the main role in managing payment balances and international financial crises.

IMF's budget is provided from two sources: Shares and Credits.

Shares are the total amounts combined paid by the member countries that provide the largest part of the budget. The amount of each member's payment depends on their financial and economic importance in the world. As the offline funds can be converted into

¹⁷ It is worth mentioning that other currencies like the US Dollar, Sterling Pound etc. are also mined in the FARM but due to the willingness of the banks and good embedding of the euro currency in global transactions. More than 90% of the mining and Money creation is in EURO and this is the main reason for getting the authorization from the ECB to keep the euro currency balance in the banking system.



stocks, shares, loans, or loans guarantee this organization must issue authorizations in case of the need.

Treasury and the central bank of the receiving country

The central banks, with duly authorization from the previously mentioned organizations, can issue an authorization to executing banks to transfer or create money.

Receiving bank or executing bank

This is the bank which upon its client request and after doing the due diligence on the sender and receiver regarding the ability and financial back up of the receiver will attempt to acquire authorizations and licenses from higher organizations and institutes and finally will authorize the client to receive offline transactions and provides off-ledger banking facilities.

There are other organizations and centers that are responsible for issuing authorization depending on the receiving country, organizations like the Anti-Money Laundering Department, Judicial System, etc.

The History of the Ledger System

While the concept of ledgers has existed for as long as the concept of legal tender, modern ledgers originated in the British banking system of the late 17th century. Ledgers began as large handwritten books in which deposits, loans, currency exchanges and jewelry transfers were recorded using pen and ink. The system required exacting efficiency and organization, particularly for the tracking of large-scale entities.

Advantages of the Ledger System

Ledger to ledger or inter-account transactions offer several advantages. Automatic transfers offered by many commercial banking institutions what allows the funds deposited into checking accounts to be automatically transferred to savings accounts, allowing the customers to integrate the habit of savings into their financial organization without reconsideration. Such is an excellent way to establish good savings habits. Inter-account transactions also allow individuals with personal and business accounts in a single financial establishment to transfer funds seamlessly without necessitating the physical transfer of funds to different location.

Disadvantages of the Ledger System

The ease and instantaneous of modern ledger to ledger transfers can cause significant discomfort to individuals and businesses who do not keep their financial matters keenly organized. A dissolution of barriers between checking and savings as well as personal and business accounts can also be problematic for individuals who have trouble restraining themselves from differentiating their personal funds from those reserved for a business enterprise.



Modern Developments

Many commercial banking establishments place limits on the number of ledger-to-ledger transactions. Personal and commercial banking customers can conduct transactions in a daily, weekly, or quarterly period. Newly implemented federal regulations on online bank accounts limit the amount of inter-account transfers to six per statement cycle. These stipulations often include pre-authorized and automatic transfers as well as those made via telephone.

Legal methods for conversion of an off-ledger to an on-ledger funds (Monetizing)

NSO or MO funds after the final conversion (monetization) and upon the deduction of the taxes and expenses, will be deposited into the online bank account. After this they may be freely used, for any cause. These funds are totally legal and clean.

For transferring and monetizing the fund there must be a project which is the cause for transferring, (generally humanitarian and/or green). The owner of the fund (sender) must have the necessary documents for funds, this to prove that the fund is clean and has the authorization for transferring. The receiver must have the investment project(s) in documented form meant to provide evidence, that the fund is going to be spent on that project and the tax and other expenses will be paid.

In this process confirmation of the sender and receiver by the security, financial, economic, judicial, and anti-money laundering organizations and in general government and the state owner is essential.

As previously explained, one of the most important and essential confirmations for sender and receiver comes from the Federal Reserve¹⁸.

Numerous times it been mentioned that the FARM is the heart of the banking system. It was discussed that the FARM consists of 255 Line, and we only work with some of them that are responsible for the creation of the off-ledger fund. FARM 42 to 107 are banking FARM's.

Sending and receiving Money is a complex and long process that not only requires authorizations, but also demands the existence of appropriate supporting infrastructures (like server equipment, professional hardware, OS, and high level and experienced, skillful, and qualified officers).

Central banks all over the world are divided into multiple parts and banks and financial institutes are the Most important parts. In the off-ledger case, only high-level (rank) banks are entitled to deal with an off-ledger funds.

¹⁸ Real or legal persons including banks, financial institutions, companies etc. are the only entities, allowed to transfer the money to the limit defined by monetary and regulatory organizations of their country, and in case they need to transfer above the limit, they must get a proper authorization from the monetary, regulatory, or governmental Authorities. Monetary and regulatory organizations are at the top of the pyramid and above them, there are state owners, bank owners, politicians, big royal families that have the power to pass and change the law the Monetization process, in details -



Bank of international settlement (BIS)¹⁹

BIS is an international financial institution established and owned by central banks from around the globe. The main task of this bank is helping the central banks by providing support for their operations. This bank meant to improve the cooperation level between the member banks. This bank also provides banking services only to central banks and some international organizations.

Conditions to be fulfilled, for getting the off-ledger transaction authorization for the receiving bank

The banks for receiving off-ledger funds must have special environment and equipment, so they can get the authorization from the related organizations.

The receiving bank must be government-owned or shared, or they must be a dependent, subsidiary and under the full supervision of the country's treasury and central bank.

The receiving bank must be a top bank in that country.

The receiving bank must have authorizations from the government and the bank must be introduced by the central bank to the BIS and necessary authorization issued from BIS for that bank.

The receiving bank must have executive abilities in the off-ledger system.

The receiving bank must have a qualified, senior IT officer (level 13 or higher).

The receiving bank must have the necessary authorization for off-ledger (S2S) from related organizations like Federal Reserve and report their activities to regulatory, monetary, and even security or intelligence organizations.

Conditions to be obligatory fulfilled for getting the off-ledger transaction authorization for receiving bank

Sender and receiver for sending or receiving the fund must meet certain conditions and acquire certain authorizations from receiving bank or responsible organizations:

The sender and receiver's (real and legal) must be absent of history of criminal, financial, and money laundering records, must be clean in their respective countries or internationally.

The sender and receiver (real and legal) shouldn't have banking debt or tax evasion records or any kind of debt to any organization or authority and any financial records in intelligence and judicial system.

The sender or receiver (real and legal) must have an on-ledger bank account and off-ledger accounts in the bank that has off-ledger (S2S) transfer authorization.

¹⁹ This bank has established in 1930 and it is controlled by 63 central banks that are representative of countries. Its headquarter is in Basel, Switzerland and it has two offices in Hong Kong and Mexico.



The sender and receiver (real and legal) either must have an off-ledger financial turnover or they must have access to off-ledger funds that they own. (Further explanation is illegal)

The sender and receiver (real and legal) must have access to the banking server; either via their bank and its officers or renting or buying (legally) banking lines to get banking Windows Terminal Server (WTS) for making transactions and transfers.

The sender and receiver (real and legal) must have all the necessary and essential authorizations for the transfer and the pre-defined project in the receiving country²⁰.

After acquiring the necessary authorizations for the project and the transfer in the off-ledger network they will register them in the receiving bank that can receive and process the off-ledger funds. The receiving bank after reviewing the documents will take the necessary measures (e.g., opening an account) and will attempt for getting

the essential authorizations from the related organizations (mentioned in previous and this article). Upon getting the authorization, the bank will allow the transaction.

For the contract between the sender and receiver, company, personal, and banking information are needed that are company registration certificate, account signatory passport and etc. which are provided by and in client information sheet (CIS).

CIS must be signed and stamped by the owner and according to the law it must be registered in the executive bank (sender or receiver) and after the bank, confirmation must be registered in the international banking system.

Client information sheet (CIS)

The provision of the CIS (Client Information Sheet) is an obligatory for every on-ledger and off-ledger transferring contract (DOA).

The CIS as a document, contains details, meant to identify the Client, the Company, the procedure type (on-ledger or off-ledger), and additional as may be required. The provided information is extracted partially from the account signatory (or beneficiary passport), certificate of company incorporation, while the additional information is related to identification of the transaction (on-ledger and off-ledger bank account and server which is provided by the banks officers).

The information shall be submitted in the form of the document, shall carry the Company logo, confirmed, signed, and sealed by applicable, certified, and authorized Positioner.

The document must be exhibited to the bank and upon its authorization by the bank, it may be registered in the international banking system as evidence.

In case that the receiver, making use of a NOSTRO ACCOUNT, the CIS document, must

²⁰ Could be extend those projects to other countries if the receiver or purchaser has humanitarian projects with big impact in the activities in particular Education, Health, Energy, Transportation, Telecommunication, Environmental, Aggro Industry, Mining development, Water, etc



acknowledge such a use and the NOSTRO account and the server information (items B and C), of the third-party bank shall be added and mentioned in the CIS.

General obligations and descriptions –

The following is the description of the procedure, by which the receiver of the fund and confirmation, of the CIS accuracy and propriety is performed.

Attachments:

CIS has two major attachments, absence of which makes it unacceptable.

These attachments are:

Passport copy – page carrying the picture and personal Identification details of the Representative.

Certificate (of the Company) Incorporation – evidence that the Company is legal and adequately registered.

NOSTRO Account Information -

What are the NOSTRO and VOSTRO accounts²¹?

A NOSTRO/VOSTRO account is a bank account where one bank has another bank's money on deposit, typically on behalf of a foreign bank in relation to international trade or other financial transactions. This also involves deposit overdrafts, whereby depositors are authorized to obtain funding in the form of an overdraft. The terms "NOSTRO" and "VOSTRO" are used to indicate which bank has money on deposit.

In some cases, the receiving bank doesn't have the required server equipment or authorizations, so they use a third-party bank to receive the off-ledger funds. In this case the process is performed as following: The sender will transfer the off-ledger funds to the third-party bank where the receiving bank (that the client has its account in) has a NOSTRO account in there. The third-party bank (corresponding bank) monetizes the fund and deposits the fund in the NOSTRO account and the client's bank can deposit it in the account of the receiver that it holds from the NOSTRO account in the corresponding bank.

GIROKONTO

"Girokonto" OFF-LEDGER to ON-LEDGER inside same actual custodial bank, when receiver bank with its proper NOSTRO account have allocation quota-matching funds -LTV - collateralization readiness to properly handle and receive such special cash funds by & through an OFF-LEDGER to ON-LEDGER.

²¹ The bank that holds the VOSTRO or NOSTRO account is called the corresponding bank. NOSTRO accounts are calculated by debit cash balance, and, in contrast, the VOSTRO is calculated by the credit cash balance. Accounting software can easily reconcile the NOSTRO and VOSTRO accounts using "+" and "-" signs.



STP - Straight Through Processing

Basically, it is an initiative used by financial companies to speed up the transaction process. This may be performed by allowing the information that has been electronically admitted, to be transferred from one party to another in the settlement process without manually re-entering of the same details, throughout the entire sequence – again and again. The goal of STP is simple – reducing the time that is required to process a transaction.

STP was invented in the early 90s by James Karat in London to describe automated processing in the equity markets. It was also used around the same time by SWIFT, the banking cooperative, to describe automated processing on the payment's arena. Such was needed to speed-up the trade, to meet the demands for reduction of risks related to uncertainty, possible human errors and minimize the operational expenses.



FTP Procedure

EXECUTIVE PROCEDURES: INSTRUCTION FOR MT103+FTP

HERE ARE THE INSTRUCTIONS FOR THE SWIFT OPERATOR ON HOW TO IMMEDIATELY IDENTIFY THE QUICK ACCOUNT AND CREDIT/DEBIT OF THE CREDIT BENEFICIARY (CASH SETTLEMENT IN REAL TIME) THE SIMPLE STEPS OF THE TREE AND THE TRANSACTION ARE SETTLED. THIS IS MONEY, NOT CREDIT (FOR CLARIFICATION). IT IS IMPORTANT TO AGREE THE RECEIVING BANKS THAT THEY WILL RECEIVE FUNDS ACCORDING TO THIS PROCEDURE. FOR SECURITY REASON, THE FOLLOWING STEPS ARE REQUIRED TO PERFORM THE DOWNLOAD TRANSACTION CREDIT PROCEDURE: THE USE OF THE SWIFT "MT103+FTP" REQUIRES THAT THE SWIFT OPERATOR PERFORM A SEARCH EQUIVALENT TO TRACING THE SWIFT TRANSACTION.

- 1) THE SWIFT OPERATOR IS REQUIRED TO CONDUCT THE SEARCH USING THE REFERENCE NUMBER OF THE TRANSACTION IN "GLOBAL SWIFT" NOT IN "LOCAL SWIFT" (IF THE SEARCH IS CARRIED OUT ON THE COMMON ACCOUNT OF THE RECEIVING BANK "LOCAL SWIFT") THE TRANSACTION REFERENCE NUMBER WILL NEVER BE FOUND.
- 2) WHEN THE SWIFT OPERATOR IDENTIFIES THE TRANSACTION REFERENCE NUMBER ON "GLOBAL SWIFT", THE SWIFT OPERATOR IS REQUIRED TO ENTER THE "KEY CODE" PROVIDED BY THE BENEFICIARY COSTUMER. THE CREDIT FOR THE DOWNLOAD TRANSACTION WILL BE STARTED AND THE FUNDS WILL BE DELIVERED TO THE COMMON ACCOUNT OF THE RECEIVING BANK LOCAL SWIFT.
- 3) THE SWIFT OPERATOR IS REQUIRED TO ENTER THE "RELEASE CODE" TO CREDIT THE BENEFICIARY CUSTOMER'S ACCOUNT. USE OF THE "RELEASE CODE" WILL AUTHOMATICALLY CREDIT THE COSTUMER'S ACCOUNT AND ALLOW FUNDS TO BE IMMEDIATELY AVAILABLE TO THE CLIENT. THE KEY CODE AND "RELEASE CODE" WILL BE PROVIDED BY THE INVESTOR THROUGHT THE PRINTING OF THE SWIFT TRANSACTION. REFERENCE NUMBER OF THE TRANSACTION EXAMPLE:

TRN: 200055554875961230043286923V88
KEY CODE / PASSKEY: 123456
RELEASE CODE: 123X456

NOTE, THAT THIS PROCEDURE, MUST BE COMPLETED WITHIN 20 MINUTES.

THIS PROCEDURE CANNOT BE INTERRUPTED UNTIL THE FUNDS ARE DELIVERED TO THE BENEFICIARY ACCOUNT. DO NOT STORE THE DOWNLOADED TRANSACTION CREDIT FUNDS ON THE JOINT ACCOUNT OF THE RECEIVING BANK AND DO NOT CLOSE, CLOSE THE SESSION WITHOUT TRANSFERRING THE FUNDS TO THE BENEFICIARY'S ACCOUNT. IF THE PROCEDURE IS INTERRUPTED BEFORE COMPLETION, THE SWIFT OPERATOR WILL NOT BE ABLE TO IDENTIFY THE FUNDS A NEW SESSION IS OPENED DUE TO THE SECURITY BUILT INTO THE SWIFT SYSYEM THE TRANSACTION WILL BE IN PROTECTION MODE AND WILL NOT BE VISIBLE FOR A PERIOD OF 24 TO 48 HOURS.

Unique End-to-end Transaction Reference – UETR

A string of 36 unique characters featured in all payment instruction messages carried over the SWIFT. UETR's are designed to act as a single source of truth for a payment and provide complete transparency for all parties in a payment chain, as well as enable functionality from SWIFT gpi, such as the payment Tracker.

UETR – Mode of Operation –

The UETR, is very similar to routinely used tracking number. The Sender issues a unique, unalterable reference which allows a payment to be located at any time, by any of the parties in the chain. UETRs are fully digitized and totally transparent – and by that assisting



the efficient processing. The sender is also automatically notified of any status changes applied by any banks handling the payment and – what is very important - confirming that the funds have been credited to the beneficiary or rejected at any point in the payment chain.

UETR – importance –

Modern users of the banking systems, expecting clear, accurate and real-time payment information. UETR's are fundamental mean, aimed on meeting these demands, by delivering true transparency and real end-to-end tracking of international payments. If the payment is delayed, the beneficiary needs (and expects) to be able to find out quickly where the funds are and why that delay has occurred. The consequence of not having this visibility is a series of frustrating manual interventions, friction, and delays to the flow of goods and services. For beneficiary banks, UETRs drastically reduce exceptions and investigations as banks involved earlier in the process can view, in real-time, the latest payment status – meaning they no longer have to contact the beneficiary bank.

UETR – provision –

All SWIFT users (whether gpi members or non-gpi members) originating payments must provide a UETR as standard for each of the following message types:

- MT103
- MT 103 STP
- MT 103 REMIT
- MT 202
- MT 205
- MT 202 COV
- MT 205 COV

All the SWIFT member banks are required to provide confirmation of payments status to the Tracker once they have been credited to the end beneficiary's account – this must include whether payments have been rejected. As of Standards MT release 2020, universal confirmations will apply to every single customer payment (MT 103 on FIN).

RWA – Ready, Willing, Able – letters –

There are two major types of RWA letters:

Corporate RWA Letter - letter announces the readiness and willingness of a company or corporation to start a project with real or legal persons. This letter is not obligatory and is revocable. In a corporate RWA letter, the company provides information about the requests and conditions of the project. After reviewing this letter by the receiver, they will come back either with a positive or negative response. If the response was positive the project will be continued to signing contract and ultimately the execution of the project. An important point is that the corporate RWA letter must be on the company or corporate letterhead, and it must be signed and sealed by the company.



Banking RWA letter - letter, that is issued by a bank or a financial institute announces the readiness and willingness to make transactions for a special proposal on behalf of its client. For each project usually a guarantee needed that it has been provided by the investor to provide financial backup.

Banking RWA states that according to the request made by the client and after negotiations, agreement, signing of a contract that are all exchanged in a bank-to-bank connection, the client is ready, willing, and able to make transactions. Bankers must notice that with this letter the client doesn't ask the bank obligation to make a transaction, but it just shows the readiness and willingness of the client to continue the project.

The banking RWA letter shows that the client's bank will make transactions on time and in accordance with the banking rules and regulations and this is the exact purpose that banking RWA serves. The bank based on the guarantees (provided by the client) will respond via MT199 or MT799 that they are ready to provide the payments.

So, the RWA shows the intention of the bank to send (pay) the guarantee of the client (including banking guarantees, credits etc.) only if the client asks for it. The banking RWA is not an obligatory letter, and it is revocable and at the time of issuance, there is no money transfer.

RWA letters can be sent via MT799, and it can be pre-advice which is just a text message, and it is not a guarantee or obligatory letter. In other cases, RWA can be signed, and sealed letter exchanged with a secure banking email.

The main goal of the banking RWA is to show that a developer or investor is ready, willing, and able to provide a guarantee for its investment. It is a useful and popular message which can help the receiving bank and the receiving client in compliance, recognizing eligibility of the investor etc. for investment, execution of a project.

Power of Attorney (POA) -

Such a letter is aimed on the authorization of a person on behalf organization or individual to perform a financial transaction, trading, or other legal affairs. The authorizing person is the main power, and the authorized person is a representative which can be any person. Usually, the authorized person do not have to be an attorney (lawyer), although in some regions, such a requirement exists.

Notarized Power of attorney is a letter that is notarized (signed, sealed, stamped, and registered) by a notary. Previously, the Power of Attorney should have been notarized but, nowadays, in most regions and countries, it is not necessary.

Letter of Authorization (LOA) –

Such a letter is a document that provides certain degree of authority to person authorized by it, to act and perform as the exact content of the letter. This letter doesn't need to be notarized.



In another words, the letter is a legalized permission to someone to do the things that are in content of the authorization letter for a project, trade or etc.

It is worth mentioning that authorizing party is directly responsible for the activities and deeds of the person authorized by it.

Mandate Letter -

Issuance of a mandate letter provides the mandated person the ability to act and perform on behalf of the party that issued the letter. The nature of the activity and authority are limited by the mandate letter content, under the full supervision of the issuing person.

Prior the issuance of such letter, all the aspects related to the representing definition in the international laws, that is a contractual relationship between two persons, which the representative using the name and credit of the main person, giving it to act on behalf of the person and get a commission agreed before.

From the public point of view, all the mentioned letters (POA, LOA, and Mandate Letter) are serving the purpose and are similar and they can be used interchangeably, but these letters are unique in the enforce-ability and method of use.

Memorandum of Understanding (MOU) or Memorandum of Agreement (MOA) –

It is an agreement between two or more parties that reveals a convergence of objectives of the parties in achieving the goal, usually, when two parties cannot sign an obligatory agreement or they are not willing to obligate, they sign this type of agreement.

The level of obligation of the MOU or MOA is solely dependent on the composing text/content and the nature of the legal elements in it. Legal elements are the offer, acceptance of the offer, and legal obligation, which may depend on the subject of the agreement.

Most of the banks, organizations, companies etc. are using these tools to define a path and relationship between departments, agencies, or companies. MOU or MOA is valid, only upon signing and seal by the parties.

Deed of Agreement (DOA), Contract or Agreement -

It is an agreement between two or more parties in which the rights and duties of parties are specified and detailed. The document is binding if it has certain legal and executive obligations. An agreement usually includes trading of commodities, services, or money or promising of doing something. If an agreement is violated by any party, the damaged party can make legal claims.

In law, the conclusion of an agreement requires a proposal, acceptance, consideration, and mutual intention. Each party must be bound by the contract. Although most oral contracts are binding, some types of contracts may require formalities, such as written or documented.



Each country that has been recognized by the international laws has a different rule on contracts; however, in some cases and articles, they may be similar but there are some big differences. Hence, most of the contracts and especially international contracts has a ruling (governing) law specified in the contract for arbitration of the contract and in general ruling the contract. In case the bidding law is not agreed in the contract each country has own set of laws to rule and govern the contract.

Joint Venture Agreement (JVA) -

Joint ventures may exploit many forms. By the broadest definition, (JVA or JV) can mean a strategic arrangement between two or more businesses in which financial resources are merged to work together on a specific project or on an ongoing basis. Capital sharing is a useful way to collaborate with other businesses and combine different areas of expertise for targeted or general business purposes.

However, there is a commercial risk to the parties, as each party trusts the other to ensure that their reputation will not be compromised or harmed by placing their name in a joint venture. It is important that the parties to the joint venture define their respective roles and responsibilities at the outset and how the parties work together to achieve the objectives of the joint venture. Ideally, this is formally recorded in a joint venture agreement.

There are several ways to structure one (JVA or JV). Before taking too many steps toward a joint venture, it is important to consider whether the transaction is for a short-term or long-term agreement. Whether this is a completely weak partnership agreement or a vision for future mergers or acquisitions.

Bank Guarantee (BG) –

A bank guarantee (BG) is a type of guarantee from a crediting organization. A bank guarantee indicates that the lender's guarantee that a debtor's debt is being settled. A bank guarantee allows the customer or debtor to enter transactions, buy goods, equipment, or borrow with the support of a BG. Bank guarantee applies obligation on the part of a bank or other crediting institution. The bank is responsible to cover the losses to any party if the debtor is unable to pay no matter the reason.

Payment Guarantee Letter (PGL) -

Payment Guarantee Letter may be of two types:

- **Corporate PGL** - the corporate Payment Guarantee Letter is issued by a company on their letterhead, signed and sealed to the benefit of the other party according to their agreement. This type of guarantee doesn't have any financial backup and it is just a promise given by an issuer. In case of a breach, the beneficiary can make legal claims but as it doesn't have a backup; it will take months, if not years, to claim your rights. In most cases, the corporate PGL's don't end up in execution.



- **Bank Endorsed PGL** - a letter that is signed and sealed by a bank officer in the bank based on the Bank Guarantee and, if the client cannot pay the debt, the bank is responsible to make payment for the beneficiary (the experience shows that type of PGL normally doesn't work)

Most of the time, PGLs are used as bank guarantees for a future promise of payment which lowers the risk for the investing company.

These guarantees have a due date, and they are usually executed on the due date. As per the guarantees the beneficiary has the right to claim the subject of PGL.

Financial Action Task Force (FATF) –

Financial Action Task Force is the supervising body on money laundering and terrorism financing. This inter-governmental and international organization creates and defines standards to stop illegal and damaging activities in financial areas. The FATF, as a policy-making body, seeks to develop and implement methods needed to govern and order the financial arena. FATF members (more than 200 countries), have established a united and committed jurisdiction to implement the FATF recommendations or standards, which ensures a coordinated global response to prevent organized crime, corruption, and terrorism. FATF helps governments find and seek money from criminals who dealing with illicit drugs, human trafficking, and other crimes, and seeks to stop funding of weapons of mass destruction.

The FATF examines money laundering and terrorist financing activities and techniques and is constantly raising its standards to address new risks, for example, the regulation of virtual assets, which have expanded with the popularity of digital currencies. It also monitors countries to ensure full and effective implementation of FATF standards and prosecutes countries that do not comply.

IIIP Transfer (Global Swift) –

IIIP transfer method is commonly used to order the movement of funds from an off-ledger account to an on-ledger account before transferring to the beneficiary institution(s), however the common movement are on ledger to on ledger.

The IP address is a number used to identify where an online banking log-in attempt is being made. It is a number that is generally based on your physical location and is assigned by your mobile carrier, internet service provider, or employer.

The currency transfer method is done by servers that the money from the common account of the Bank is entered into the receiver's common account, and it is uploaded or downloaded by the sender or receiver's officer. In the IP/ID method, the entry of the currency into the receiver's server is downloadable.

The transfer of all huge financial resources of the world is done by servers in virtual banking. In the IP/IP method, the entry of the currency into the receiver's server is uploaded. ... In the IP/ID method, the entry of the currency into the receiver's server is downloadable.



The transfer of all large financial resources of the world is done by servers in virtual banking. E-Banking, in which the server is connected to the common account of the bank, is used in server method.

The currency transfer is done by servers that the money from the common account of the Bank is entered into the receiver's common account, and it is uploaded or downloaded by the sender or receiver's officer.

In the IP/IP method, is based on the entry of the currency into the receiver's server is uploaded. In the IP/ID method, the entry of the currency into the receiver's server is downloadable. In the S2S method, the currency exchange is run in the form of a launcher with Windows time which was sent by the receiver's officer who has a full control on his server. This method is less secure because it may not be possible to place the box or capsule on the server line when it is launched.

When the transfer of currency has a very high volume, in other words, it is considered to be the backbone of the currency exchange, due to the fact that the receivers cannot upload or download the money of the Fund, this action is carried out by the Fund's officer, who is the head officer of the server in the world's prime banks, and the server line of the receiver must be open. There must be no obstacle on the path of the server's money transfer, so numeric characters can easily be replaced and sent to receiver's server as good as possible.

The differences between IP/IP and IP/ID –

In the IP/IP method, all the necessary facilities are sent to the receiving Bank to obtain conversion of the box or capsule into the currency.

In the IP/ID document method, the money is provided by the receiving Bank, and only the perfect money and numeric characters are sent by the sender.

Sometimes currency exchange procedures can be carried out by DTC (Digital Transfer Central). In other words, it is transferring currency to the central bank's common account.

Sometimes the method of transferring money is Ledger-to-Ledger, Officer-to-Officer or Bank-to-Bank. In these ways, the sender and the receiver have no role in arranging the contracts and essential guarantees, and only the officers of two banks communicate with each other. Furthermore, all stages of the currency transfer are carried out from A to Z.

All banks (or companies) must have the following features to receive currency:

- The server connected to the common bank account.
- The server's Head Officer or an officer who is familiar with downloading or uploading server's currency.
- License and authorization of the money tasers inside the server band. The amount of the accepted input currency.



- Basic knowledge and problems with IPIP, IPID, SEPA, FX4, DTC and others

It is necessary to clarify concerning the various transfers by many intermediaries who, unfortunately, have little or no knowledge about the field of high finances and do not know the background of these transactions.

Many of these ridiculously high sums come from PPP and are available on bank servers (not on accounts!). The reason for this is simple: parts of these funds are to be invested in humanitarian projects, but the owners do not have humanitarian projects, which is why the bank cannot put the money on their account. The use for humanitarian projects will be strictly tested and enforced by the FED.

So, the owners are looking for a way to get the funds free. Often this is done through foundations. Every banker knows that this is a grey area! Such required complete and full secure of all the parties.

IP/IP Method –

Requires the involvement of bank officers, to discuss and check the deal directly.

The checking will include:

1. Complete KYC
2. Proof of capital and deal
3. The procedure **MUST** be discussed BO to BO (often transfer times and codes are to be considered).
4. Very often unrecoverable/encrypted mail accounts must be created to send important codes.
5. Performance guarantees are communicated through these accounts

IP/ID Method –

Bank to bank is obligatory, as both BO must clarify the TTM for the transfer. The bank officers must exchange codes - code and counter code. Without TTM, an IP/ID is not feasible, as both BOs have to sit at their desk at the same time. Both must send an IMFPA.

Both have to agree on various explanations e.g., execution guarantee / tax burden / release of the money must be guaranteed. The transaction itself takes only a few seconds.

Each sender must be aware that the receiver has very high costs (taxes in each country) and bank fees to pay. The total cost of the receiver in XXXX is e.g., about 15% ... or even higher.

DTC

At DTC it is very often a matter of state funds or government funds. From this we can see that the actual banking system also has the states under control.

The transmitter sends - the receiver is liable. Again, editing without the direct contact of both bank officers is impossible.



FX4

The system was actually abolished by Deutsche Bank.

KYC is necessary.

Contact BO to BO is necessary.

3. It is not money, but files sent and decrypted by the recipient again!

4. FX4 is not necessary in many cases - there are often better ways of transfer

SEPA Direct (ONLY EUROPE)

SEPA has 2 ways

1. Normal SEPA = simple direct debit authorization - immediately feasible
2. Business SEPA is much more complicated
 - must be applied for at the bank
 - immediate credit
 - receiver have to be creditworthy and must have very high credit limit
 - possible bankruptcy must be clarified
 - Bank is liable
 - very big effort / duration 2 weeks
 - only B2B feasible
 - receiver could lose his account
 - tax liability of the receiver in the country
 - In some countries (Europe) to observe negative interest ratesAt SEPA business the receiver MUST protect himself from fakes. Therefore -> KYC and proof of capital necessary Basically:

The sender wants something from us. That's why the sender must show up and disclose everything! There are safe ways to do that without scattering everything -- Mandate / Mandate or BO / BO.

If a sender does not accept this, he is hiding something and will not be processed by me. I have ways for every (clean) kind of transfer.

I do not answer quotes without first having facts, because every transfer is different and needs to be discussed individually. Also, taxes are different in each country, which is why a quota can only be quoted when the deal is discussed and the country in which it is made is known.

NOBODY must worry about his commission. The banks must strictly adhere to the rules of the ICC and must not allow themselves any mistakes or scams, otherwise they may lose their license.

DTC Transactions and issuing screenshot

The information processed and available on the DTC screenshot and with authorization from DTCC company on server issued for the user or owner. We try to explain the codes as deep as possible (subject to public knowledge and our permission to explain) for you to



understand the codes and their usage on the screenshot, also, you will understand which codes are issued automatically and which codes are inserted manually.

A. Mandatory information on the screenshot:

- a. Codes in the header:
 - a. TRANSACTION DATE: The date of transaction execution issued by the server automatically relative to the local time and date.
 - b. TRANSACTION LAST UPDATE DATE: The last update time and date executed by the server relative to the local time that is issued automatically by the server. This field is not available on the transaction screenshot, and it is added on the updated screenshot.
 - c. TRANSACTION CODE: The running transaction's code is determined randomly and automatically by the server in the relation to the server balance. In some cases, it can be entered manually (with limited characters). Note that this code cannot be entered fully manually.
 - d. TRANSFER CODE: The running transaction's transferring code, issued in relation to the transaction type and entering port. It is issued randomly and automatically by the server and again this code cannot be entered fully manually.
 - e. REFERENCE CODE: issued randomly and automatically based on the root DTC Box and related bank and Money system. Note that this code cannot be entered fully manually.
 - f. AGREEMENT NUMBER: The contract or agreement number signed by two or More parties between sender and receiver which lead to the execution of this transaction. It is entered manually by the requesting company (sender) in the DTC requesting form and will show up in the screenshot of the transaction.

Important notice: All of the above-mentioned codes must be available on the server transactions (IP/IP, IP/ID, DTC and etc.) header and if it doesn't Money or cash box won't be created, and the transaction won't execute.

B Sender information (DTC VIA SPECIAL IP TRANSFER SWIFT MESSAGE):

This part of the screenshot is for the owner of the DTC box, transmitting bank and fund documents and it is one of the main parts of the transaction.

In this part, items are formed based on the DTC box owner information and with this, the owner (company A) asks the banking system to transfer the fund to the receiving company (company B).

Information and items related to the transmitting bank and requesting company (Owner):

- a. TRANSMITTING BANK NAME: the bank that executes the transaction and is submitted by the owner of the DTC.
- b. TRANSMITTING BANK ADDRESS: The executing bank's accurate address that was submitted by the owner of the DTC.



- c. TRANSMITTING BANK SWIFT OR BIC CODE: Business Identifier or SWIFT code of the executing bank that submitted by the owner of the DTC.
- d. TRANSMITTING BANK OFFICER 1: First Bank officer information (name, pin code etc.) of the executing bank that was submitted by the owner of the DTC.
- e. TRANSMITTING BANK OFFICER 2: Second Bank officer information (name, pin code etc.) of the executing bank that was submitted by the owner of the DTC.
- f. BANK NAME: The requesting bank of DTC execution's name that was submitted by the owner of the DTC.
- g. BANK ADDRESS: The requesting bank of DTC execution's accurate address that was submitted by the owner of the DTC.
- h. BANK SWIFT OR BIC CODE: The requesting bank of DTC execution's Business Identifier or SWIFT code that was submitted by the owner of the DTC.
- i. COMPANY NAME: The DTC requesting company (company A) which is responsible for DTC and the fund is owned by this company. It is submitted by the owner of the DTC.
- j. COMPANY ADDRESS: The DTC requesting the company's accurate address. It is submitted by the owner of the DTC. COMPANY REG. NO.: The DTC requesting the company's registration number. It is submitted by the owner of the DTC.
- k. REPRESENTED BY: the company's responsible person. It is submitted by the owner of the DTC.
- l. COMPANY OFFICER E-MAIL: Company's technician e-mail address. It is submitted by the owner of the DTC.
- m. ACCOUNT NAME: the account name registered in the requesting bank that its the beneficiary is the requesting company. It is submitted by the owner of the DTC.
- n. ACCOUNT NUMBER: the account number registered in the requesting bank that its beneficiaries are the requesting companies. It is submitted by the owner of the DTC.
- o. IBAN NUMBER: the IBAN number of the registered account in the requesting bank that its beneficiary is the requesting company. It is submitted by the owner of the DTC.
- p. COMMON ACCOUNT NUMBER: the common account of the requesting bank. As there can be multiple common accounts, it must be checked.
- q. ACCOUNT SIGNATORY: the account signatory name, registered in the requesting bank. It is submitted by the owner of the DTC.
- r. PASSPORT NUMBER: the account signatory passport number. It is submitted by the owner of the DTC.
- s. PASSPORT DATE OF ISSUE: the account signatory passport's date of issue. It is submitted by the owner of the DTC.
- t. PASSPORT DATE OF EXPIRY: the account signatory passport's date of expiry. It is submitted by the owner of the DTC.
- u. BANK OFFICER NAME: the registered account's bank officer name information. It is submitted by the owner of the DTC.
- v. BANK OFFICER EMAIL: the registered account's bank officer email information. It is submitted by the owner of the DTC.



- w. CLIENT REFERENCE CODE: Client reference code that is processed and issued by the server.
- x. CLEARING HOUSE CODE: the settlement code of the DTC box that is issued after deduction of the banking fees and taxes. It is submitted by the owner of the DTC.
- y. GLOBAL SERVER ID: unique identification number related to the requesting bank server. It is submitted by the owner of the DTC.
- z. GLOBAL SERVER IP: unique IP of the requesting bank. It is submitted by the owner of the DTC.
- aa. SERVER ID: unique identification number related to the executing bank server. It is submitted by the owner of the DTC.
- ab. SERVER IP: unique IP of the executing bank and can be a range of IP's. It is submitted by the owner of the DTC.
- ac. RECEIVING SERVER ID: receiving a unique identification number related to the executing bank server. It is submitted by the owner of the DTC.
- ad. RECEIVING SERVER IP: receiving unique IP of the requesting bank and can be a range of IP's. It is submitted by the owner of the DTC. Important notice: IP and ID information must be accurate as they are the accurate address of the cash box from the origin to the destination server. These are entered manually and if there are any problems the server will issue a warning.
- ae. IDENTITY CODE: the unique identifier of the company requesting DTC and it is very important, the reason for this importance is that upon the Monetization of the fund, tax and banking fee reports are defined based on it. Another important usage of this code is that the owner company can prove that the DTC box is owned by this company and no other. It is submitted by the owner of the DTC.
- af. SORT CODE: it is the code chosen by the European banks and financial institutes and this is a code that is used to transfer Money in European Union countries. This is a 6-digit long numbers read in two digits divisions and are exclusive for UK and Ireland banks and show the bank and branch that the account opened in. In some cases, it can be more than 6 digits. It is submitted by the owner of the DTC.
- ag. WINDOWS TIME SERVER (WTS): it is a window of time that the server issues it automatically.
- ah. UNIQUE TAXPAYER REFERENCE NUMBER (UTR) CODE: it is a unique identifying number to identify the taxpayer and shows the company as an economically active entity. It is key for the tax agent to recognize and identify all the financial transfers. It is submitted by the owner of the DTC.
- ai. INPUT/OUTPUT MESSAGE ACCOUNTABILITY DATA (IMAD): it is a unique number specified for the financial transfer issued by the FED WIRE SERVICE of the Federal Reserve. This number is for tracking and reviewing the financial transfer. It is submitted by the owner of the DTC.
- aj. INTERNATIONAL SECURITIES IDENTIFICATION NUMBER (ISIN): a unique number identifying the securities structured with IS06166 that is a 12 character for identifying securities through the national code on the platform that it exists and used for the settlement of the deal. It is submitted by the owner of the DTC.



- ak. USERNAME: the owner of the DTC's username. It is submitted by the owner of the DTC.
- al. USER ID: the owner of the DTC's user id number. It is submitted by the owner of the DTC. (Manually inserted)
- am. FUND TYPE: specifies the fund type. E. g. NSO or NS1 and etc. it is processed by the server.
- an. FARM NAME: the executive FARM that the financial resource and documents are withdrawn (42/107). It is processed by the server.
- ao. CURRENCY: the currency of the Money box, ready for transfer. E. g. Euro, Dollar principally. It is submitted by the owner of the DTC.
- ap. DTC AMOUNT BALANCE: the net amount of the DTC box. It is processed by the server.

In the next article, we will go through the information on the beneficiary of the DTC. The beneficiary is the company which all the new authorizations must be issued to their name.

The DTC Transactions and issuing screenshot:

C. Information and codes in beneficiary or receiver part:

This information is related to the beneficiary or second company, so it is very important to enter this information accurately.

The processed information is as follows:

BENEFICIARY BANK NAME: the beneficiary bank that is submitted by the owner of the DTC.

BENEFICIARY BANK ADDRESS: the beneficiary bank's accurate address that is submitted by the owner of the DTC.

BENEFICIARY BANK SWIFT OR BIC CODE: the SWIFT or Business Identifier Code of the beneficiary bank. It is submitted by the owner of the DTC.

BENEFICIARY COMPANY NAME: the beneficiary company name. It is submitted by the owner of the DTC.

BENEFICIARY COMPANY ADDRESS: the beneficiary company address. It is submitted by the owner of the DTC.

BENEFICIARY COMPANY REG. NO.: the company registration number. It is submitted by the owner of the DTC.

BENEFICIARY REPRESENTED BY: the responsible person (passport owner) in the beneficiary company (company B). It is submitted by the owner of the DTC.

BENEFICIARY COMPANY OFFICER EMAIL: the beneficiary company's technician's email address. It is submitted by the owner of the DTC.

BENEFICIARY ACCOUNT NAME: the account name that is registered in the beneficiary bank that the beneficiary of the account is the beneficiary company. It is submitted by the owner of the DTC.



BENEFICIARY ACCOUNT NUMBER: the account number in the beneficiary bank. It is submitted by the owner of the DTC

BENEFICIARY IBAN NUMBER: the IBAN number related to the account number. it is submitted by the owner of the DTC.

BENEFICIARY COMMON ACCOUNT NUMBER: the common account of the beneficiary bank. As there can be multiple common accounts, it must be checked..

BENEFICIARY ACCOUNT SIGNATORY: the account signatory name, registered in the beneficiary bank. It is submitted by the owner of the DTC.

BENEFICIARY PASSPORT NUMBER: the account signatory passport number. It is submitted by the owner of the DTC.

BENEFICIARY PASSPORT DATE OF ISSUE: the account signatory passport's date of issue. It is submitted by the owner of the DTC.

BENEFICIARY PASSPORT DATE OF EXPIRY: the account signatory passport's date of expiry. It is submitted by the owner of the DTC.

BENEFICIARY BANK OFFICER NAME: the registered account's bank officer name information. It is submitted by the owner of the DTC.

BENEFICIARY BANK OFFICER E-MAIL: the registered account's bank officer e-mail information. It is submitted by the owner of the DTC.

BENEFICIARY GLOBAL SERVER ID: unique identification number related to the beneficiary bank server. It is submitted by the owner of the DTC.

BENEFICIARY GLOBAL SERVER IP: unique IP of the beneficiary bank. It is submitted by the owner of the DTC.

BENEFICIARY SERVER ID: unique identification number related to the beneficiary bank server. It is submitted by the owner of the DTC.

BENEFICIARY SERVER IP: unique IP of the beneficiary bank and can be a range of IPs. It is submitted by the owner of the DTC.

BENEFICIARY RECEIVING SERVER ID: receiving a unique identification number related to the beneficiary bank server. It is submitted by the owner of the DTC.

BENEFICIARY RECEIVING SERVER IP: receiving unique IP of the beneficiary bank and can be a range of IPs. It is submitted by the owner of the DTC.

Important notice²²: IP and ID information must be accurate as they are the accurate address of the cash box from the origin to the destination server. These are entered manually and if there are any problems the server will issue a warning.

²² In off-ledger transactions, IP and IDs are very important as they are the final destination that the Money will be uploaded so they must be double or even triple checked. In fact, IP and ID are the main portals of the bank and after downloading the fund, they will deposit into the COMMON ACCOUNT of the bank.



The DTC Transactions and issuing screenshot:

ATTACHED MESSAGE: it is a message that the executing bank sends to the beneficiary and beneficiary bank in relation to fund, fund type, and other needed descriptions. This part is optional and if the bank officer feels the need can be added or omitted from the screenshot.

SERVER CODES:

These codes are the ultimate codes of the box that are created by requesting company for easy access, you have to note that these codes are produced randomly by the server and cannot be entered manually and are for the DTC box.

The codes are as follows:

IDENTITY CODE: this is the unique identification of the DTC BOX and it is important because in the Monetization process this is the code that the cash box can be identified and the beneficiary can prove themselves to be the beneficiary with this code. (Automatically produced by the server)

NTERBANK BLOCKING CODE: this is the code that blocks the fund for the benefit of the beneficiary and the fund is processed based on this code in an on-ledger or off ledger system. (Automatically produced by the server)

SORT CODE: the executive bank code.

RELEASE CODE: this code is entered after the fund is successfully downloaded into the comMOn account, trustee account of the bank. (Automatically produced by the server)

ACCESS CODE: this code is used for locating the fund on the server. (Automatically produced by the server)

TRANSACTION CODE: we explained this code in article no 10, in the header item.

SETTLEMENT TRANSACTION CODE: this is a reference code related to the deal settlement with various organizations and their fee (including fees, banking deductions, taxes and etc.) payments. (Automatically produced by the server)

FINAL BLOCKING CODE: upon downloading and starting the Monetization process, the beneficiary can enter this code before or after release code and before the final code to make the transaction irrevocable, in-callable or non-reject-able. (Automatically produced by the server)

FINAL CODE: this is the last code that is inserted in the Monetization process. With executing this code, the Monetization process is finished and the fund legally and trouble-free entries in the on-ledger network, hence can be used in the on-ledger network. (Automatically produced by the server)

TRANSFER CODE: in the header item.

SOURCE TRANSACTION ID: This is the transaction code of the source (root or parent) DTC. (Automatically produced by the server)



WINDOW TIME SERVER: this is the most important and one of the main codes in the transaction and in off-ledger transactions in general. This code is an authorization for the box owner or user to enter in the off-ledger network by the server. For making a successful transaction that has obtained all the authorizations and licenses, both parties need a WTS from the central bank. In fact, without WTS not only making a legal transaction is illegal and impossible but also locating the fund is impossible.

Important note: the WTS is exclusively for the current DTC box and both beneficiary and owner can use this WTS. We will discuss More about WTS in future articles.

BONDING KEY: this code is one of the Most important codes, however unfortunately banks don't pay attention too much. This code is the connection introduction of sender server to receiver server, and it shows the route and track of the fund and how the fund transferred from server A to server B. (Automatically produced by the server)

UNIQUE TRANSACTION REFERENCE (UTR) CODE: it is a reference number that is used to identify a financial transaction. Each bank uses the UTR number for all local Money transfer Modes and monitors it, and if there is no update or credit related to the financial transaction, using this code will be useful for the receiver or beneficiary.

TERMINAL ID: this is the identification number of the terminal that the Money withdraws. It is processed based on the WTS and processed and produced for the DTC box. (Automatically produced by the server)

DOWNLOADING CODE: this is an important code to notice; upon obtaining the WTS and locating the fund to download the fund from the server to the comMOn account of the bank the download code is used. In fact, downloading the fund is the first step of Monetization. After the download, the fund is registered in the beneficiary's name in the bank's portal and is ready for the next stage. (Automatically produced by the server)

RECEIVING CODE: this code is for restoring the documents related to the fund. In some cases, the beneficiary puts a delay in the fund's Monetization or uses an old transaction, which in these cases the documents for security reasons automatically go back to the FARM, so the receivers or beneficiaries need to restore the fund's documents using this code. (Automatically produced by the server)

ACTIVATION CODE: this code is used to activate deactivated funds. As mentioned in the RECEIVING CODE, the delay in Monetization for any reason not only sends the documents back to the FARM but also most importantly if in the 90 days, no Movement happens (obtaining WTS or locating the fund) or in the process of Monetization a delay of 90 days happens, the DTC box automatically (or based on the FARM inspector's report) deactivates, and the beneficiary needs to enter this code to activate this code. (Automatically produced by the server)

BIS TRANSACTION: this code is for Bank for International Settlements which we talked about in the previous

IRON CODE: This code has a very complex performance. It has been created in 2019 and its creation is only and only for off-ledger fund's security. This code is for avoiding callbacks and acts as a high-level firewall for the DTC box. Usually, after the successful downloading



(Moving the fund from server to common account of the bank) entering this code adds a security layer to the fund to make it harder for the hackers to access the box. Note that it makes it harder but not impossible! (Automatically produced by the server)

DEPOSIT CODE: this code is issued by the FARM for the NSO and MO funds. Every real or legal person that has funds in the FARM and deposited it there safely, gets this code automatically, that it is based on the USER ID and FARM's servers are authorized to withdraw from them in special conditions such as tax, fees, damage or etc. (Automatically produced by the server)

REFERENCE CODE: issued randomly and automatically based on the root DTC Box and related bank and Money system. Note that this code cannot be entered fully manually.

FED CODE: this code is the Federal Reserve confirmation code, so it is very important. In case this code doesn't exist on the shot, it means that the fund is hacked, or dirty and the Federal Reserve has no idea of this transaction and sender and receiver hence the transaction is completely illegal. (Automatically produced by the server)

EUROCLEAR CODE: this code is very important, and it is related to EUROCLEAR organization, not that this code is issued for Euro currency and other currencies, the reason is that the Euro clear as a regulatory/Monetary organization must know about the transaction and its impact on the economy of the world. (Automatically produced by the server)

DTCC CODE: DTCC company confirmation code that authorized the creation of the box. It is very important as it shows that the fund has the necessary authorizations and licenses. (Automatically produced by the server)

DTC NUMBER: DTC cash box's file number in the DTC company. (Automatically produced by the server)

CLEAR BOX CODE: the requested Money has too many codes that are issued for it, and one of them is for the project and tax deductions. A fund considered to be clean upon paying all the fees and taxes and obtaining all the authorizations, is ready to enter the world's economy. This code is issued after the DTC code, and it is the last authorization that is issued for the box. (Automatically produced by the server)

RECEIVER'S CODE: For each transaction obviously, we need a receiver, and this code is issued based on the receiver's company and representative name and registers directly in that person's record so in every inquiry of the person this code will come up as the fund file number. (Automatically produced by the server)



PROVIDER CODE23: this code is issued based on the sender's (provider) company name and representative and registers directly in that person's record so in every inquiry of the person this code will come up as the fund file number. (Automatically produced by the server)

F. Transmitting bank's server information:

In this part, the transmitting bank's server information is based on the latest registration on the system produced and registered on the screenshot. "End of DTC transaction execution and issuing of the screenshot. »

Difference between DTC screenshot and other transactions' screenshots

The DTC screenshot is a single color, and it only has a black shot which is processed and issued in UNIX format. Their background is black, and their font's color is gold (there is a sample at the end of this article) but other transactions' screenshots are multi-color for instance IP/IP and IP/ID has black, blue, yellow, and white screenshots.

The only similarity between these transactions is that we know them as server to server (S2S) or of-ledger or offline transactions, but each transaction type is different in the documents exported by the server however it is important to know that they are very dependent on each other; one of the Most important dependencies is IP/IP, IP/ID or MT103 Manual Download and GPI cannot be transacted without a DTC box. In other words, the only financial resource that you can send off-Ledger funds from them is DTC boxes, otherwise, the transaction is illegal or a hacker's job.

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²³ **Note 1:** if you look closer at the screenshot, you will notice that some codes are repeated but their values are different (e. g. WTS, UTR, SORT CODE and etc.), but why? The reason is one of them is related to the sender, and others are related to the receiver (beneficiary) or the box, so they are different and registered in their specific place.

Note 2: the count of the code in a real and legal transaction is between 25 to 35, however in the illegal transaction and hacked transaction the count of the code is less than mentioned numbers and some cases are not More than 10. One of the easiest ways to recognize a correct transaction is the type of code and count of code.



EXHIBIT 1: PROCEDURE OVERVIEW

The following are the bank methods available with which you and your banker must accept and match at least one of these bank methods, to be successful, and obtain the common aim: to generate spendable cash funds for all parties, and built a successful long-term intel & economic relationship:

This cash investment funding is ready via special, it means not ordinary, not common SWIFT MT 103 cash wire transfer bank method, but by & through SWIFT.COM MT 103 at manual download- active remittance bank protocol by SWIFT.COM main Global Mondial Brussels bank method which works not in auto-delivery mode, not in automatic landing as further described, then also in bigger figures through SWIFT IP to IP Internet Protocol bank method of cash transfer funds, and/or also via DTC/DTCC Securities banking system screen at active remittance protocol through shared banking passcodes & passwords directly provided from my bank officer to receiver bank officer; or also by a special not common internal wire transfer "Girokonto" OFF-LEDGER to ON-LEDGER inside same actual custodial bank DB, when receiver bank with its proper NOSTRO account inside DB have allocation quota-matching funds -LTV -collateralize readiness to properly handle and receive such special cash funds by & through an OFF-LEDGER to ON-LEDGER by DB Securities LINK & Channel pass codes to be actively digitized from receiver banker to locate and complete and put on ledger the incoming cash transferred funds internally inside DB itself. All these special not usual not ordinary bank methods with an initial RWA POF to be sent an initial test trial inter-banking BO to BO communicable activity where your bank officer will have to reply to confirming receiver's RWA readiness on it for mutual cross check initial verification of each other's respective role play, aimed for socio-humanitarian not recourse loan/s for investment & re-investment purposes. Please refer to the attached provided main off-ledger banking proof of funds statement.

In order to initiate the transaction, please provide from the receiver bank the following details, and/or it is needed a bank meeting with your introduced bank to first arrange and assured they match the technical banking requirements to prepare the cash delivery of such funds through this or one of the other below mentioned special not ordinary bank methods to cash wire transfer aimed to cooperate with your entity/ies. Technically focusing, the following are required once established - find out the bank institution that match and agree to adopt/cooperate in at least one of the bank methods available, above & below described; the initial verification step on bank-to-bank basis will need the following banking details:

1. Bank Office Name
2. Bank Office TITLE
3. Bank Office PIN
4. Bank Address
5. SWIFT identification code of receiver bank
6. DTC identification code of receiver bank
7. Account name



8. Account number

Senders banker will first establish the communication link via DTC “BO to BO’ interbank screen to coordinate with your/our engaged find out compatible receiver bank writing directly to a receiver identified bank officer in charge: it will be sent first a RWA - ready willing able banking declaration, united with a Proof of Funds (POF), directly from sender bank officer to receiver bank officer (BO to BO by DTC banking screen straight only) to confirm in full bank responsibility the effective readiness by the agreed bank method. Receiver must then reply confirming his/her respective readiness they can handle these cash funds through such a special bank method. Sender will then start the cash wire transfers in tranches to be agreed with receiver banker, aimed for set up a to be

structured investment& re-investment purposes linked with qualified receiver entities. Detailed transaction procedures available are described as follows:

1. DTC INTERBANK circuit alias delivery of cash transfer at active remittance -manual download protocol.
2. INTERNAL INSIDE DEUTSCHE BANK OFF-LEDGER TO ON-LEDGER special “Girokonto”, where the receiver banker has to be qualified to manually digit-input DB securities Link & Channel codes, to locate and then complete the incoming cash funds and through such input process of passcodes, put on-ledger disposal into a NOSTRO bank account of XXX bank inside DB bank then either to activate a Loan To Value (LTV) based on what is received, collateralize such cash funds and transfer into the final receiving country.
3. SWIFT IP to IP circuit (Internet Protocol) at active remittance -manual download protocol
4. TT (Telegraphic Transfer) in interlink traceable by both RTGS (Real Time Gross Settlement central bank circuit), both by SWIFT.COM/TT portal, in semi-automatic delivery mode: here the technical description how it works, how to handle it properly and for built a successful matched banking terms: TELEGRAPHIC TRANSFER (SEMI-AUTOMATIC) PROCEDURES TO LOCATE FIRST & THEN TO TAKE POSSESS OF TRANSMITTED CASH FUNDS

o Normally when a telegraphic transfer is executed the cash that is supposed to be transferred is debited and released in the favour of the final beneficiary. The time and method that is supposed to be followed depends on the inter-banking relations between the remitting and the receiving banks. o If there are direct relations between them, the funds are directly transferred in the favour of the beneficiary, but in cases when there are no direct inter-banking relations between the two, a RMA or Intermediary bank takes the responsibility of getting the funds released to the

beneficiary bank and hence the beneficiary. The method we have proposed is based on this general idea and also provides a secondary adjutant to what else can be done when there are no direct inter-banking relations between the remitted and the beneficiary. PROCESS:

o We have released € xx,000,000.00 in the favour of the beneficiary in xxx Bank by the order of our client, but in doing so, we have not assigned the transfer by any Intermediary bank or RMA bank and have sent the cash funds directly to them. o This is not possible in normal scenarios used in day-to-day transactions, but when we send the funds as encrypted digital funds like how we did here, it indeed becomes possible.

o The funds were taken from the account of the assignee and were placed in the favour of the beneficiary entity Incorporated in receiver bank.



o This digital trace was relayed directly to receiver bank via SWIFT.COM/TT and is now there, placed in their favour, waiting to be redeemed. o Initially the receiving bank officer will have to locate the transfer of cash placed in the favour of the beneficiary by utilizing all the codes provided to them in the telegraphic transfer slip, which are mainly: - UID - Transaction Code - Sort Code -Pin Code - Access Code- Reference The bank officer will have to log into the system (SWIFT.COM) and then access the telegraphic transfer charts which are incoming in the favour of their bank. Once login is complete, the receiving bank officer enters the entrails of the codes provided to him over the transaction slip presented in the order it's shown in the system of if no order is indicated in the screen, he can put it in the following format:

Reference >>> Transaction Code >>>IBAN >>> UID >>> Access Code >>> Sort Code >>> Pin Code >>>

The telegraphic transfer is sent out of Europe are over IBAN Basis, therefore, he can also use the IBAN along with the rest of the codes to locate the incoming wire. Once the entrails are indicated the funds can now be seen in the favour of the beneficiary. Please note, once he puts the Release code and Assimilation code, he can draw-down the funds in the favour of the beneficiary, which are pure M0 Cash funds and can be immediately credited in the favour of the beneficiary. The bank officer doesn't have to wait for compensation from the intermediary bank or even from Deutsche bank itself, as when he puts the codes and draws down the funds there is a simultaneous debit at our end and credit at the Receiver's end, thereby, making the funds available to them on real time basis. 5. SWIFT MT 103 SINGLE CUSTOMER CASH WIRE TRANSFER at active remittance -manual download protocol operated solely and directly onto SWIFT.COM Global Mondial Brussels circuit 6. SWIFT MT 103 SINGLE CUSTOMER CREDIT WIRE TRANSFER at active remittance -manual download protocol operated solely and directly onto SWIFT.COM Global Mondial Brussels circuit; here more deeply and fully technically bank method no. 5 & 6 steps described as follows:

PROCESS FOR MT 103 FTP / STP / GPI MANUAL DOWNLOAD Swift Issuing Process.

The method of transfer agreed is SWIFT MT-103 CASH TRANSFER IN FTP / STP / GPI (MANUAL MODE), and here the Receiver is agreeing they are aware of the fact they will have to access the SWIFT GLOBAL MONDIAL for localizing the Swift placed in their favour, along with the fact their bank officer is also Ready, Willing & Able to Enter the Global Mondial ACK and not the Branch level / Network Mondial ACK for localizing the swift placed in the favour of the beneficiary.

The receiving bank officer on Logging in in the Global Mondial with his Pin Code, has to then find the Swift by means of the provided indices on the receipt viz., TRN (Transaction Reference Number, MIR (Message Input Reference), MOR (Message Output Reference), CHK & Track Code. Once the Swift is localized in the Global Mondial, the bank officer has to confirm for the same in an official way to the client by means of providing an attested confirmation on the bank letter head or an email confirmation for the same to the client, which can then be forwarded to the Issuing party requesting for the Sanitized Keys / Download Codes for as to Consolidate the Funds in the system. The Download Keys are mainly the "Release Code" & the "Download Code", which will only be provided once the Swift is localized an additional / satisfactory confirmation of the same is provided to the Issuing Client. Addendum B – Process For Download.



This process starts only after the Swift is Localized in the system perfectly and the funds too are Insight by the bank officer.

1. Download Model A.

A) Track TRN in Swift Manual Room via Provided Mode. Don't use STP or SSP to Track TRN, Transaction Can be Blocked in case, if provided in FTP Mode. After the Swift is Successfully tracked the TRN will be visible in a security mode (so no funds can be localized further).

In this case the receiving bank officer must put the Key code (to deactivate the security mode), thereby, making the funds position visible.

B) Incorporation of the Key Code in the mainframe is the first step which initiates the Download Process in the common account / system.

C) Followed by the incorporation of the key code the receiving bank officer is to incorporate the Release code and Download code in the system, so as the get the download done (Please note, if there are additional code asked by the system and also in an order that can be because of the technical adaptations of the mainframe or the programming, therefore, in this case the bank officer is to follow that process to the book and incorporate the codes as necessary).

D) After the download is successfully finished in the common account, the receiving bank officer is to create a fund block in the common account and placed in the favour of the beneficiary of the said transaction with the release code.

D) Don't make any interruptions in the process from A-C; if the continuity is not followed, the process will fail, or the screen will freeze or both.

2. Download Model B

The Bank Officer Access the Swift.com Global Mondial. The Bank Officer upon gaining successful access to the Mondial logs in with his PIN Code. After successfully logging in, the Bank Officer will be directed the main page, with a list of all the transaction indicated with IBAN and References, including the destination at which such swifts are sent. At this step, the bank officer is to try and localize the swift, which he is trying / attempting to localize in circuit using the TRN (Transaction Reference Number).

Upon success, a screen will be shown with all transaction strings and values already set-in or laid in. The Bank Officer is then expected to confirm all strings and values by Flagging the relevant check boxes.

OTHERWISE

Confirm all values and Strings by clicking "OK".

With this the Download Starts AUTOMATICALLY and will last 15-20 Minutes (DON'T DO ANYTHING TO INTERRUPT WHILE THIS PROCESS IS UNDERWAY). As soon as the download finishes AUTOMATIC COMPENSATION STARTS (In case it doesn't within 2-minutes,



the bank officer is expected to Credit the account of the beneficiary MANUALLY). GENERAL PROCEDURES USED BY THE BANK OFFICERS: Access SWIFT.COM using the PIN Code.

Enter Transaction Reference Number to Track the transaction.

A Mask Appears, where the whole transaction is settled with the help of the codes provided in the slip.

In doing so the Download Starts Automatically and Credit can be done Manually



EXHIBIT2: SWIFT for Corporate: Costs

This is really interesting analysis by Deloitte. Deloitte explain each organization will have different costs depending on the number of banks, countries, payment types, ERP systems.... the list continues. But the following gives you an idea of the different costs involved:

SWIFT messaging costs

SWIFT has 2 main messaging channels –

FIN – uses the SWIFT MT Standards to send urgent/high value (MT101) payments to banks

File Act – used to send payments in various file formats- such as ISO20022 XML / bank proprietary

Corporate will be charged for payments sent via the SWIFT network, inbound reporting messages (such as bank statements) delivered over the SWIFT network will not incur a SWIFT charge, although you should be aware that:

Banks may charge a processing fee

Your SWIFT service bureau (if you so choose) may charge a delivery fee Deloitte analysis indicates a cost of around €170 EUR per message

Connectivity method costs

Alliance Lite 2:

Installation cost: €15,000 – €20,000 EUR – hardware, software, integration

Annual costs: €6,000 – €15,000 EUR – based on volume

Alliance Lite 2 for Business Applications (L2BA):

Installation cost: €15,000 – €20,000 EUR – hardware, software, integration

Annual costs: €6,000 – €15,000 EUR – based on volume

Consider: The business application provider will likely charge a fee to maintain/support the infrastructure

Alliance Access:

Installation cost: €65,000 – €85,000 EUR – hardware, software, integration

Annual costs: 20-30% – based on software maintenance, support, volume, type of integrations

Consider: 0.25-1 full time employee will be required to support, operate and monitor the infrastructure



SWIFT Service Bureau

On boarding cost: €20,000 – €40,000 EUR

Annual costs: €15,000 – €35,000 EUR for maintenance, support

Bank Fees

Keep in mind bank costs will likely exist for other connectivity methods, not just for SWIFT

Onboarding cost: €0 – €3,000 EUR

Annual costs: Depends on factors such as number of accounts, volume

SWIFT for Corporates: Some Interesting Facts

Check out the Deloitte report for full details and stats, but in short:

SWIFT as a communication channel is not solely for large corporates, but should be considered by smaller (revenue less than 0.5 billion USD) companies too

SWIFT implementations are increasingly using the Alliance Lite 2 and Alliance Lite 2 for Business Applications – ensuring a 'light' IT infrastructure footprint

- Corporate with a variety of banking partners are using SWIFT, not just those with many (more than 10) banking partners



EXHIBIT 3 DRAFT GOOD STANDING CERTIFICATE

BANK LETTERHEAD

SAMPLE

REF: GOOD STANDING CERTIFICATE

To: Beneficiary Depositary Funds Account

Account Number:

Reference ID:

We,Bank, located at , P.O City....Country, hereby confirm with this communication, that you Name....., are our Confidential account signatory of related IBANxxxx Date: , 2022 xx by linked common account no. xxxx, and have the capacity and legal authority to order us to transmit cash funds of more than xx digits by & through special bank methods such as by DTC INTERBANK SCREEN -DTC Cash Transfer Free Delivery method and/or by SWIFT.COM IP-IP, MT103 GPI all in banking manual-active remittance delivery protocol mode to be completed its drawn-download from receiver bank DTC/SWIFT unit department by provided bank pass codes.

We also confirm with full bank responsibility that the said funds can also be reserved blocked in the favor of any JVA/Sale and Purchase contract beneficiary as per the request of our client for a stipulated term and / or can be transferred via the aforementioned modes upon a written request by the client.

This good standing statement can be verified on bank-to-bank basis by DTC inter banking screen straight only, upon you provide and inform our client xxxxxxx. disclosing him your relevant bank Officer data of who wants to verify it, with a to be activated from us window DTC/DTCC "BO to BO" IPIP, IPIP, SWIFT GPI securities by interbank screen desk for verification.

This BCL can be verified on bank-to-bank basis by DTC banking screen straight or Inter bank Screen, upon you provide and inform us disclosing allrelevant bank Officer data.

This Bank Confirmation Letter may be verified basis only with an allocated time of verification.

For and on Behalf of,

Bank Officer1

Bank Officer2



EXHIBIT 4: ACCRUAL ACCOUNTING VS. CASH ACCOUNTING

Accrual accounting can be contrasted with cash accounting, which recognizes transactions only when there is an exchange of cash. Accrual accounting is almost always required for companies that carry inventory or make sales on credit.

For example, consider a consulting company that provides a \$5,000 service to a client on Oct. 30. The client received the bill for services rendered and made a cash payment on Nov. 25. The accounting entry would be recorded differently under the cash versus the accrual method.

CASH METHOD

The revenue generated by the consulting services will only be recognized under the cash method when the company receives payment. As a result, if the company uses the cash accounting method, the \$5,000 in revenue would be recorded on Nov. 25, which is when the company receives the payment.

ACCRUAL METHOD

However, accrual accounting says that the cash method is not accurate because it is likely, if not certain, that the company will receive the cash at some point in the future because the services have been provided.

The accrual method recognizes the consulting company's \$5,000 in revenue when the client's services have been concluded even though the cash payment has yet to be received from the client. As a result, the \$5,000 in revenue is recognized as earned on Oct. 30. The sale is recorded in an account known as accounts receivable, found in the current assets section of the balance sheet. Accounts receivables represent the Money owed by clients that have yet to be received.

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EXHIBIT 5: Technical Procedure of Funds Location and Extraction

TECHNICAL PROCEDURE OF FUND LOCATION & EXTRACTION – USING SWIFT GLOBAL INTERNATIONAL SCREEN GPI SYSTEM

SWIFT GPI MT103 DIRECT CASH TRANSFER – WITH UETR CODE
SWIFT GPI MT103 SEMI-AUTOMATIC/AUTOMATIC- WITH UETR CODE



*The global provider
of secure financial messaging service*

Normally all funds arrive in Common Account | Incoming Payment Folder or at GLOBAL SWIFT INTERNATIONAL SYSTEM. Always any mode of TRANSFER incoming funds to be Located and accepted for Incoming. Funds SHOULD ALWAYS BE LOCATED THROUGH "TRACKING CODE" or "TRN NO AS IN FIELD F20". AS UETR CODE IS JUST A CONFIRMATION CODE THAT FUNDS ALREADY SENT AND WENT OUT OF SENDER BANK SYSTEM

- A. **QUALIFICATION OF THE BO & SYSTEM REQUIREMENT:** First of all, the Receiver's Bank Officer in charge of the transaction must have the appropriate system credentials (i.e., he must be a **14th + level bank officer**) and he should have access to **GLOBAL SWIFT INTERNATIONAL SYSTEM** in the **SWIFT ROOM/SERVER ROOM** of the BENEFICIARIES Bank – Preferably at **BANK HEAD OFFICE OR AT CENTRAL SERVER/SWIFT ROOM** of the Bank Head Office.
- B. **INFORMATION REQUIRED TO LOCATE:** All information of the Transfer is with the receiver in the Transfer he got from the sender through the SWIFT/WIRE TRANSFER SLIP and find the wire transfer amount remitted to the receiver. The information needed for the download to take place are in the delivery slip. No other document will be provided as none will be required.
- C. **LOCATE BY TRN Code:** Different mode of transfer identifies TRN codes differently, in most of the case codes on **FIELD F20** or codes on the **TRACK CODE** are considered to be TRN. In some cases, UETR code also act as TRN.

Note: "GPI" stands for "Global Payments Innovation", the most efficient Swift platform to administer cross borders payments. GPI SWIFT Codes are: Alphanumeric (hexadecimal characters) Generated by the System and registered in the MT103/202 Swift Copy Under the "UETR" Column or "Tracking code" or code under "Field F20", separately or independently called "TRN".

FUND NOT TO BE LOCATED THROUGH UETR CODE- AS UETR CODE IS CONFIRMATION CODE THAT FUNDS ALREADY SENT AND WENT OUT OF SENDER BANK SYSTEM

- D. **TO LOCATE THE TRANSFER:** The TRN identifies a financial transaction consisting in a wire transfer. The BO must start by first accessing the Global Swift International system, NOT the GPI Facility that is meant to be a pure downloading device to be used only to input the funds amount manually in the right place under the hereinafter described circumstances!! The BO should locate the funds and track the TRN peripherally (i. e. within Global Swift International) First.
- E. **SEMI AUTO PROCESS TECHNICAL PROCESS :** Once the wire transfer amount has been located successfully on Global Swift International system in the SWIFT ROOM/SERVER ROOM , then bank officer needs to enter into the GPI "Pending" folder, and input the TRN and / or the UETR again which was sent to the receiver, to his banking coordinates (i. e. the bank account number/IBAN and the Swift Code/BIC of the branch from which the bank account is operated), and simply position the funds manually onto the Receiver's bank account field.

IMPORTANT NOTICE: The Receiver's Bank Officer must be perfectly aware that his task is to carry out a transaction which is **NOT AUTOMATIC** , that's why it's called **SEMI-AUTO**, as part of the process to be done Manually by the BO, the "**Compensation**" needs to be projected and set up before even entering into the GPI facility and must be accomplished after positioning the wire transfer amount onto the bank account field and before leaving the GPI facility.

- F. The wire transfer amount must then be inputted manually onto the account field of the receiver's bank account before the bank officer exits the GPI IT facility and credited thereafter to the receiver himself.
Note: BO cannot locate anything unless he has access to GLOBAL SWIFT INTERNATIONAL SYSTEM from the SWIFT ROOM/SERVER ROOM of the BENEFICIARIES Bank – Preferably at Bank Head Office or at Central Server/Swift Room of the Bank Head Office. **Again, the funds cannot be downloaded from an external server that will never work it must be done in the swift room of the bank!**
- G. The Bank Officer should not quit the Swift GPI interface before crediting the cash amount to the RECEIVER's bank account, otherwise the TRN may lose its connection with the associated funds then becoming utterly useless.
- H. To make sure the Bank Officer may enjoy the highest chances for concluding the transaction successfully, he should track the funds peripherally in Global Swift and input them to the RECEIVER's bank account through the GPI system on the same day and seamlessly, i.e., without any break between the two operational stages.

Disclaimer: The above technical guideline are purely suggestive/indicative Guidelines only, Sender take no responsibility of loss of fund if process is not followed correctly. Moreover, Many Banks has different setup & different software versions as such the Receiver may/must consult his Bank Officer before requesting any of the Investment fund offered under this contract. Moreover RECEIVER MUST HAVE, SPECIAL GLOBAL INVESTMENT BANK ACCOUNT, OPEN CREDIT LINE OR OWN FUNDS TO ACTIVATE CLEARING PROCEDURE, ALL NECESSARY APPROVALS FROM LOCAL CENTRAL BANK, ECB, ECONOMIC OR HUMANITARIAN PROJECTS ETC.



EXHIBIT 6: ORIGIN BANK ONLINE SERVICE AGREEMENT

By completing and submitting the enrollment form (the "Application") to subscribe to certain personal computer banking and related services offered by Origin Bank as described in this Service Agreement and Disclosure Statement (this "Agreement") and as otherwise made available by the Bank from time to time (collectively, "Origin Bank online banking service"), or by your initial access to Origin Bank online banking service, and in consideration of your access to Origin Bank online banking service, you agree to the terms and conditions of this Agreement. Each reference in this Agreement to the "Bank", "Origin Bank", "we", "us", or "our" refers to Origin Bank and each reference to "you" and "your" refers to each depositor, borrower, authorized signer or authorized user for an account (as defined below) who is now or hereafter enrolled in any one or More of the Origin Bank banking services with respect to the account. Each time you use Origin Bank Online, Origin Bank's online banking service, constitutes confirmation by you of your agreement to and understanding of the terms of the Agreement and any screens that appear on your computer when you sign on to Origin Bank's Web Site. This agreement will be effective as of the date of your acceptance of this Agreement. Please read this agreement carefully and keep it for future reference.

BROWSER SECURITY. Origin Bank Online Internet Banking transmits data using SSL (Secure Socket Layer) technology that supports 128-bit key encryption. It is important to verify that a secure connection between your browser and the Internet Banking server has been established before transmitting any confidential account information over the Internet. This can be verified by an indicator on your web browser.

HOST SECURITY. Origin Bank's web server does not connect directly to the Internet. It is buffered from the Internet using multiple firewalls. All access from outside the bank must go through these firewalls, which screens the requests and allows only valid traffic to reach the server. Origin Bank's Internet Banking makes use of an ICSA certified firewall.

LINKS. Links to any non-Origin Bank websites contained in this site are offered only as pointers to sources of information on subjects that may be of interest to users of the Origin Bank website, and Origin Bank is not responsible for the content of such sites as we have no control over what is displayed there. Origin Bank does not guarantee the authenticity of documents at such sites, and links to non-Origin Bank sites do not imply any



endorsement of or responsibility for the ideas, opinions, information, products, or services offered at such sites. Use of links to any non-Origin Bank site is solely at the user's own risk.

1. Hardware and Software Requirements. To be able to use Origin Bank Online, you must provide your own personal computer (a "PC") with a Modem and related equipment (the "Hardware"). You also must provide the type of telephone or cable service and Internet access service required by the Hardware and/or the Software. Once

the Hardware has been properly connected to the telephone service, and any required Internet access has been established, you will be able to access the Origin Bank Online services through the PC banking service provider (the "Service Provider") that will act as an interface between you and the Bank. You are and will remain solely responsible for the purchase, hook-up, installation, loading, operation and maintenance of the Hardware, the Software, the telephone service, and the Internet access service (if applicable) to your PC, and for all related costs. You are solely responsible for scanning the Hardware and the Software for computer viruses and other related problems before you use them.

2. The Accounts. Generally. You agree to use Origin Bank Online solely for the services described in this Agreement and designated by you in the Application or subsequently designated by you as provided in Section 5, and solely in connection with each deposit account (collectively, the "Deposit Accounts") and each loan account (collectively, the "Credit Account") held by the Bank and designated by you in the Application or subsequently designated by you as described below (collectively, the "Accounts"), except as otherwise expressly provided in this Agreement or as otherwise expressly permitted by us from time to time. Under this Agreement, there may be multiple accounts. To use the bill payment option, at least (1) one account must be a Deposit Account with unlimited check writing privileges. You may add any personal account for which you are primary or secondary owner, the single authorized signer or a guarantor by notifying the Bank or by visiting any Banking Center. If you close or delete all accounts designated for Origin Bank Online, you will no longer be able to use Origin Bank's online banking service.

3. PIN; Confidentiality of PIN. All Origin Bank Online transactions or inquiries must be initiated by use of your Origin Bank Online personal identification number (the "PIN" or "password"). Your PIN (password) will be created, by you, during the registration process. Upon approval of your registration, the PIN (password) created by you, will be effective.



You may change your PIN from time to time, as provided in the Software. It is recommended that you do not use your social security number, birthdays, names, or other codes that may be easy for others to determine as your PIN. No Bank employee should ask you for your PIN, nor should you provide it to anyone unless you intend to allow that person access to your accounts. YOU AGREE TO KEEP YOUR PIN CONFIDENTIAL. USE OF THE PIN BY YOU OR BY ANY OTHER PERSON WITH YOUR AUTHORIZATION WILL BE CONSIDERED THE SAME AS YOUR WRITTEN SIGNATURE AUTHORIZING US TO COMPLETE ANY TRANSACTION OR REQUEST COMMUNICATED THROUGH ORIGIN BANK ONLINE BANKING. You agree that any Origin Bank Online transaction or request initiated by use of the PIN will be subject to and governed by this Agreement. If you authorize another person to use your PIN, that person can use Origin Bank Online to view any information or initiate any transaction on any of the accounts to the same extent as you, including viewing information or initiating transactions on accounts to which that person does not otherwise have access. As such, your sharing of your PIN is strongly discouraged by the Bank and done at your sole risk and peril. If a third party should gain access to your PIN, you alone are responsible for changing the PIN to deny the third party's access to your banking information. Given the electronic nature of these transactions, the Bank shall have no liability to you in the event a third party should gain access to your PIN through no fault of the Bank. You should always exit Origin Bank Online after you finish viewing your accounts. Never leave your computer unattended while accessing Origin Bank Online. If you should, a third party may be able to access your accounts from your terminal, without ever needing to use your PIN.

4. Business Days. Business processing days for the Bank and for Origin Bank Online are Monday through Friday, excluding holidays. You may access the accounts through Origin Bank Online 24 hours a day, seven days a week, except that Origin Bank may perform regular maintenance on our systems or equipment, which may result in errors or interrupted service. We may also find it necessary to occasionally change the scope of our services. Origin Bank cannot guarantee that we will be able to provide notice of such interruptions and changes, although we will attempt to provide such notice.

5. Online Services. You may use Origin Bank Online to perform any of the following services designated by you in the Application or subsequently added by you as provided below:



a. To transfer funds between any Deposit Accounts, such as checking savings or Money market deposit accounts;

b. receive and download balance and transaction information for Origin Bank accounts;

c. pay bills electronically from a Deposit Account that is a checking account with unlimited check writing privileges; and

d. receive e-mail from and transmit e-mail to the Bank, all as described in this Agreement and the Software. You may sign up for or cancel any service by contacting Origin Bank. As used in this Agreement, the term "electronic fund transfer" has the meaning provided for that term in Regulation E and includes, without limitation, a bank transfer or bill payment (other than a bill payment made by check or other paper item), as these terms are defined below.

e. BECAUSE EMAIL IS NOT A SECURE METHOD OF COMMUNICATION OVER THE INTERNET, WE RECOMMEND YOU DO NOT SEND CONFIDENTIAL INFORMATION BY EMAIL. PLEASE BE AWARE YOU CANNOT USE E-MAIL TO INITIATE TRANSACTIONS ON YOUR ACCOUNT(S).

6. Transfers to and from Accounts.

a. Deposit Accounts. You may use Origin Bank Online to initiate electronic fund transfers from one Deposit Account that is a checking, savings, or Money market deposit account to any other Deposit Account that is a checking, savings, or Money market deposit account, as provided in this Agreement. These types of transactions are referred to in this Agreement as "bank transfers".

b. Authorization. You expressly authorize us to debit the appropriate Deposit Account in the amount of any bank transfer initiated through Origin Bank Online by you or by any other person who is authorized to use your PIN. You agree that we may treat any such bank transfer from a Deposit Account the same as a duly executed written withdrawal, transfer, or check and that we may treat any such bank transfer to a Deposit Account the same as a deposit, all in accordance with the terms of this Agreement and your deposit agreement(s) with us.

c. Limitations. Your ability to initiate bank transfers between Deposit Accounts may be limited by federal laws or by the terms of your deposit agreement with us. Bank transfers from Deposit Accounts that are savings or Money market deposit accounts are limited as required by federal regulation. You agree that we may, without notice or other obligation



to you, refuse to make any bank transfer for security reasons or as otherwise expressly provided in this Agreement or your deposit agreement with us. You cannot postdate bank transfers.

d. Time of bank transfers; postings; funds availability. If you initiate a bank transfer of available funds on a business day, the bank transfer will be immediately available and will post to the Deposit Account on the same business day. Transferred funds will be immediately available for withdrawal. Transfers made on weekends or holidays will be immediately available but will not post until the next business day. Except as expressly otherwise provided in this Section, transferred funds will be available for transfer and withdrawal as provided in our Schedule of Funds Availability (the "Schedule of Funds Availability"). The schedules provided in this Section are subject to the provisions of Section 15 and 16.

7. Account Information. You may use Origin Bank Online Banking to receive, download, and store or print information regarding an account that is routinely set forth in the statement for the Account, debits and credits made to the account, amounts and item numbers for items drawn on the account (if applicable), and the daily account balance (including interest credited to a Deposit Account and finance charges accrued on a Credit Account). If the Account is a Deposit Account that consists of two or More sub-accounts, the account information provided will be for the sub-accounts through which you have access to your funds in the account. All account information provided by Origin Bank Online will be current as of the end of the preceding business day, to include bank transfers or bill payments made since the end of the preceding business day, and is subject to further adjustment and correction. Because the information that is made available to you is "raw data" furnished through the Service Provider and is subject to change, we cannot assure you of the accuracy or completeness of the information and expressly disclaim the same. You will still receive your usual periodic statement of account, and adjustments may have been made to your account in connection with the preparation of your statement.

8. Bill Payment Service.

a. Payment Accounts. If you have enrolled in the optional bill payment service, you may use Origin Bank Online Banking to initiate payments from any Deposit Account that is a checking account with unlimited check writing privileges (a "Payment Account") to pay



obligations owed to certain third parties in the United States, including, without limitation, any Origin Bank Mortgage, installment loan, credit card or line of credit account. These types of transactions are referred to in this Agreement as "bill payments". You may initiate individual bill payments and may pre-authorize recurring bill payments.

b. Authorization. You agree that we may treat any bill payment that was initiated through Origin Bank Online by you or by any other person who is authorized to use your PIN the same as your duly executed written payment order or check, all in accordance with the terms of this Agreement and your deposit agreement with us.

c. Time of bill payments. Each bill payment must be initiated a certain number of business days before the business day that you want the bill payment to be made (the "Payment Date"). This number of business days is referred to as the "lead time". The lead time for the payee could be up to 4 business days, as noted on your online payee list. If you initiate a bill payment on a Saturday, Sunday, or holiday, the bill payment will be deemed initiated on the next business day. You should schedule each bill payment to be made prior to the due date of the bill payment. If you do not schedule a bill payment on time or if you do not otherwise initiate a bill payment properly, you will be solely responsible for any late charges, finance charges, or other costs resulting from failure to make the bill payment on time. You will be solely responsible for all inputting errors.

d. Checks. If the payee cannot or will not accept a bill payment by electronic fund transfer from the Service Provider, a check will be drawn on the Payment Account for payment to the payee. The check will be signed by the Bank's representative, and will not be signed by you; however, you agree that any check issued in this manner to make a bill payment initiated in accordance with this Section will be deemed authorized and may be paid by the Bank from the Payment Account.

e. Returned or rejected bill payments. If a bill payment is returned or rejected, whether by the Bank, the Service Provider or any third party (including, without limitation, an intermediary bank or the payee's bank), then either the Bank or the Service Provider will notify you and you will be solely responsible for re-initiating the bill payment. You agree to furnish to the Bank and/or the Service Provider such information as it may request to resolve any error or inquiry arising out of your initiation of any bill payment(s).

f. Cancellation or Change of bill payments; revocation of authorization. You may review,



edit or cancel pending bill payments online without an additional charge until the payment Moves to an "In Process" Status. For inquiries related to payments that are in an "In Process" Status, contact Origin Bank. Origin Bank will work with Bill Pay Service and the customer to resolve the issue. You may revoke your authorization for future recurring bill payments by deleting the bill payment instructions, as provided in the Software, by notifying the Bank, or by canceling the bill payment service. In order to incur no future bill payment charges if you decide to cancel your bill payment option, you must contact Origin Bank Online Customer Service.

E.g. Inconsistent name and number appearing in a bill payment order. If a bill payment initiated by you describes the intended recipient of funds inconsistently by name and account number, you agree that payment by the receiving bank (which may be the Bank) may be made based on the account number alone even if that account is not owned by the person named in the bill payment. If a bill payment identifies an intermediary bank or the payee's bank inconsistently by name and identifying number, you agree that we may rely solely on the number as the proper identification of the intermediary bank or the payee's bank even if it identifies a bank different from the bank identified by name. To the extent permitted by applicable law, you acknowledge and agree that your obligation to pay us the amount of the bill payment will not be excused in any circumstance described above and that you will reimburse us for any losses or expenses we incur because of our reliance of the identifying number provided in the bill payment.

h. Adding a loan to the online banking profile. If you add a loan to your online banking profile, the loan is automatically added to your bill payment payee register. However, a bill payment will not be applied to the loan unless you initiate the payments through the bill payment service.

9. Electronic Mail Service. You may use Origin Bank Online to send electronic mail ("e-mail") to us and to receive e-mail from us. The e-mail service may not be used to make bank transfers between accounts or to make bill payments from an account. E-mail transmitted by you to us via Origin Bank Online often will not be delivered immediately. We will not be responsible for acting on or responding to any e-mail request made through Origin Bank Online until we receive your e-mail message and have a reasonable opportunity to act. You should check your e-mail regularly; we will attempt to notify you by e-mail in the event of



any technical difficulties or other occurrence that may affect your use of Origin Bank Online.

10. Mobile Banking. We offer Mobile banking to all our online banking customers. If you are signed up for our MObile banking services and your MObile device is lost or stolen you should do the following: log into your online banking account, choose the User Options tab, select Enhanced Login Security, and delete any presets previously selected. This will reM0ve any security/criteria previously selected.

11. Additional Service. We may, from time to time, make additional services available through Origin Bank Online. We will notify you of the availability and terms of these new services. By using these additional services when they become available, you agree to be bound by this Agreement and any additional instructions, procedures and terms provided to you with respect to each of these new services.

12. Fees and Charges. In consideration of our making the Origin Bank Online services available to you, you agree to pay, and you authorize us to automatically debit (if fees apply) the billing account designated on the Application (the "Billing Account" or "Primary Account") during the first week of each calendar M0nth, the following non-refundable charges for the preceding calendar Month.

Access to the Origin Bank web site is furnished at no charge to the customer. Origin Bank has not instituted a charge for viewing your accounts or completing transfers to and from your individual accounts. Access to our bill payment service is also free.

These charges will not be prorated for portions of a M0nth and may be changed pursuant to Section 21 of this Agreement. You will be solely responsible for all tariffs, duties, or taxes imposed by any government or governmental agency in connection with any transfer made pursuant to this Agreement and for all telephone charges, Internet access service charges, tools tariffs, and other costs for online sessions initiated by you. There may be other costs and charges associated with your accounts. Please refer to the service schedule for details.

13. Errors and Adjustments. We agree to correct any error made in crediting or debiting any account by making the appropriate adjustment to your account balance. You agree to repay promptly any amount credited to your account in error, and you authorize us to initiate a debit transfer to any account to obtain payment of any erroneous credit.

14. Account Reconciliation. The Deposit Account statements, or other notices provided to you by us will notify you of (a) the execution of bank transfers of bill payments and the



debits to the Deposit Account made with respect to such bank transfers and bill payments, and (b) amounts debited by the Bank from the Billing Account or any other account for payment of the services or other charges pursuant to this Agreement. You agree that we will not be required to provide any other notice to you of the execution of bank transfers, bill payments, or debits. You agree to promptly examine each statement for a Deposit Account and to promptly report any discrepancies between your records and the Deposit Account statements or any other notices mailed by the Bank to you.

15. Settlement of Obligations. To the fullest extent permitted by applicable law, you authorize us to obtain payment of your obligations to us under this Agreement from time to time by (a) initiating debit or credit transfers to any of the accounts or (b) deducting the payment from the amount of any bank transfer or bill payment. Such obligations include, without limitation; fees owed to us and settlement for bank transfers or bill payments initiated through Origin Bank Online. At the time any account is closed (whether by you, by us, or otherwise) or any Origin Bank Online service is terminated (whether by you, by us, or otherwise), you agree that all such obligations will be immediately due and payable to us, and you authorize us to withhold the amount of any such obligations from any account. Debiting an account or deducting payment from the amount of any bank transfer or bill payment is not the Bank's exclusive remedy under this or any other section of this Agreement and the Bank will not be deemed to have made an election of remedies by making any such debit or deduction on any one or More occasions.

16. Bank's Liability for Failure to Make or Stop Certain Electronic Fund Transfers. If we do not complete an electronic fund transfer to or from a Deposit Account in a reasonable amount of time or in the correct amount according to our agreement with you, we will only be liable for your direct losses or actual damages, except in the following instances:

17. a. If, through no fault of ours, you do not have enough Money in the Deposit Account (or any linked account) to make the electronic fund transfer.

b. If the electronic fund transfer would cause the primary account to be insufficient and the amount of the check is more than any overdraft protection line of credit account linked to the Deposit Account.

c. If you have not completely and properly followed the terms of this Agreement or



instructions provided by the Software regarding how to make an electronic fund transfer.

d. If any data or instruction transmitted via Origin Bank Online banking are inaccurate or incomplete.

e. If you do not initiate an electronic fund transfer according to the time limits set forth in this Agreement and the online Payee list, or if the payment amount requested is less than the full amount due.

f. If the electronic fund transfer has been transferred from the Deposit Account to a third party, including, without limitation, any third party through which payment is made and any payee or its financial institution.

g. If the Hardware, the Software, the Service Provider, or any part of the Origin Bank Online system, including the bill payment service, was not working properly and you knew about the breakdown when you started your electronic fund transfer.

h. If circumstances beyond our control, such as an act of God, failure, delay, or error on the part of any third-party service provider (including, without limitation, the Service Provider, the United States Postal Service or any other delivery service), power outage, difficulty with telephone or cable lines or satellite communications, difficulty with any Hardware, the Software, or the Service Provider, computer virus or related problem, or cessation of the operation of the Service Provider or the arrangement between the Bank and the Service Provider, prevent or delay the electronic fund transfer, despite reasonable precautions that we have taken.

i. If your funds are being held or frozen or are subject to legal proceedings.

j. The funds in the Deposit Account are unavailable (funds are only conditionally credited until they become available for withdrawal).

k. If your PIN has been reported lost or stolen or if we have any other reason to believe that an electronic fund transfer may be erroneous or unauthorized.

l. If you, any joint holder, or an authorized cosigner on a Deposit Account has requested that we stop payment on the electronic fund transfer.

m. If you have exceeded the limitations on the number of withdrawals or transfers allowed during the statement period for the type of Deposit Account you have with us (e.g., certain types of savings accounts, including Money market deposit accounts).

n. If the Deposit Account has been closed.



o. If we do not receive the necessary, transfer information from you or any third party of if such information is incomplete or erroneous when received by us.

p. There may be other exceptions stated in this or any other applicable agreement that we may have with you.

Limits on Bank's Liability. Our liability for electronic fund transfers made to or from Deposit Accounts is also governed by Sections 15 and 17. If any provision herein is inconsistent with any provision of Section 15 or Section 17 or any provision of applicable law that cannot be varied or waived by agreement, the provisions of those Sections or applicable law shall control. To the fullest extent permitted by applicable law, you agree that we will have no liability whatsoever for any loss, damage, or claim arising out of any delay or failure in the performance of Origin Bank Online in accordance with the terms of this Agreement, including but not limited to, that resulting from our negligence. Our duties and responsibilities to you are strictly limited to those described in this Agreement, except with respect to any provisions of the law applying to electronic fund transfers that cannot be varied or waived by agreement. In no event will the Bank be liable for any consequential, special, or punitive damages or for any indirect loss that you may incur or suffer in connection with the service (even if the Bank has been informed of the possibility of such damages), including, without limitation, attorneys' fees. The Service Provider is an independent contractor and not the Bank's agent. The Bank's sole duty shall be to exercise reasonable care in the initial selection of the Service Provider. YOU ACKNOWLEDGE THAT NO EXPRESS OR IMPLIED

WARRANTY, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS OR A PARTICULAR PURPOSE, IS MADE BY THE BANK WITH RESPECT TO ANY ORIGIN BANK ONLINE SERVICE OF THE SOFTWARE, AND THE BANK HEREBY DISCLAIMS ALL SUCH WARRANTIES. The only warranties are those provided by the license of the Software and set forth on the Software package. To the fullest extent permitted by applicable law, and without limiting the generality of the foregoing, the Bank shall not be liable at any time to you or any other person for any loss, charge, fee, penalty, expense or other damage resulting from any failure or delay of the performance of the bank's responsibilities under this Agreement which is caused or occasioned by any act or thing beyond the Bank's reasonable control, including, without limitation, legal restraint, interruption of



transmission or communication facilities, equipment failure, electrical or computer failure, war, emergency conditions, acts of God, fire, storm, or other catastrophe, or inability to obtain or delay in obtaining wire services or Internet access, or refusal or delay by the Service Provider or another bank or financial institution to execute any bank transfer or bill payment. In addition, the Bank shall be excused from failure or delay in executing a bank transfer or bill payment, if such execution would result in the violation of any applicable state or federal law, rule, regulation, or guideline. To the fullest extent permitted by applicable law, you agree that the Bank shall not have any liability whatsoever for any loss caused by the act, error, or omission of you or any other person, including, without limitation, the Service Provider, any Internet access Service Provider, any federal reserve bank or transmission or communications facility or any intermediary or receiving financial institution, and no such person shall be deemed the Bank's agent.

18. Your Liability for Unauthorized or Erroneous Transfers. To the fullest extent permitted by applicable law, you agree to be responsible for all unauthorized or erroneous transactions initiated through Origin Bank Online. You have the obligation to immediately notify the Bank if your PIN has been lost or stolen, or if someone has transferred funds from your checking account through Origin Bank Online without your permission (or is contemplating doing so). The following provisions of this Section apply only to your liability for unauthorized electronic fund transfers. An "unauthorized electronic fund transfer" means an electronic fund transfer from a Deposit Account that is initiated by another person without your authority to initiate the electronic fund transfer(s) and from which you receive no benefit. The term does not include any Origin Bank Online electronic fund transfer that is initiated by a person to whom you furnished your PIN, unless you have notified us that electronic fund transfers by that person are no longer authorized, and we have had reasonable opportunity to act on that notification. We may require that the notice be in writing. You could lose all the Money in your Deposit Account, some, or all the Money in any linked account, or up to your maximum overdraft line of credit if you have a check overdraft protection line of credit, if you fail or refuse to immediately advise the Bank of the unauthorized use of your PIN. If your statement shows electronic fund transfers that you did not make, tell us at once. If you do not tell us within sixty (60) calendar days after the statement was mailed to you or an email was sent to you notifying



you that your periodic statement was available for viewing, you shall not be entitled to assert a claim against the Bank, nor be entitled to any damages from the Bank, as to said unauthorized transfers. This sixty (60) day limitation is without regard as to the standard of care exercised by the Bank. If you believe your PIN has been lost or stolen or that someone has transferred or may transfer Money from a Deposit Account without your permission .

19. Rejection of Payment Orders; Overdrafts. You acknowledge that the Bank or the Service Provider may from time to time, in its sole discretion, reject any bank transfer or bill payment request (any "permanent order") or return any bank transfer or bill payment (a) if there are insufficient or unavailable funds in the Deposit Account or if the Deposit Account has been closed or is frozen, (b) if the payment order does not conform to the terms of this Agreement or the Software, or (c) if the payment order appears to be a duplicate, but neither the Bank nor the Service Provider is under any obligation to recognize that a payment is a duplicate and you should not rely on the Bank or the Service Provider to do so. If a payment order is rejected or a bank transfer or bill payment is returned, either the Bank or the Service Provider will notify you and you will have the sole obligation to remake the payment order in accordance with the terms of this Agreement and the Software. The Bank or the Service Provider may from time to time, in its sole discretion and without any obligation to do so, execute any payment order or make any bank transfer or bill payment even though an overdraft to the account results. To the extent permitted by applicable law, you agree that neither the Bank nor the Service Provider will have any liability whatsoever for refusing to accept any payment order or rejecting or returning any bank transfer or bill payment. If an overdraft occurs in a Deposit Account, you agree to cause sufficient available funds to pay the amount of the overdraft to be deposited into or credited to the Deposit Account before the end of that business day. Any overdraft existing at the close of a business day is immediately due and payable without notice or demand.

20. Disclosure of Deposit Account Information to Third Parties. You agree that we may from time to time disclose to third parties' information about your Deposit Account or the transactions that you make through Origin Bank Online. We will disclose information to third parties about your Deposit Account or the transfers you make:

a. Where it is necessary for completing bank transfers or bill payment or providing any other service in connection with Origin Bank online banking; or



- b. To verify the existence and condition of your Deposit Account for a third party, such as a credit bureau or merchant; or
- c. To comply with government agency or court orders; or
- d. If you give us your written permission.

21. Other Agreements; Severability; Governing Law. The terms and conditions of this Agreement are cumulative with and in addition to any terms of the signature cards or account agreements for your Deposit Account(s), the applicable account disclosures, the Service Schedule, the Schedule of Funds Availability, the Bank's Electronic Fund transfer Agreement and Disclosure Statement, the agreements governing the Credit Accounts, and the Application, all as may be amended from time to time. In the event of any conflict between this Agreement and the content of the Software or any related materials regarding the Bank's obligations to you, the terms of this Agreement will control. If any provision of this Agreement is unlawful or unenforceable, each such provision or writing will be without force and effect without thereby affecting any provision hereof. No consumer protection provision of the federal Electronic Fund Transfer Act or Federal Reserve Board Regulation E is intended to be waived by you under this Agreement unless the waiver is permitted by law. The parties agree to be bound by the operating rules and guidelines of the National Automated Clearing House Association and the applicable local automated clearing house association as in effect from time to time with respect to all automated clearing house transfers made hereunder. This Agreement will be governed by the substantive laws, and to the extent not inconsistent therewith, the laws of the state where our offices holding the account(s) are located, without regard to such state's rules regarding conflict of laws.

22. Amendments. We may amend this Agreement from time to time. Each amendment will be affected by our mailing, emailing or otherwise delivering the amendment, revised agreement and/or notice thereof to you in accordance with applicable federal or state laws. If no federal or state law specifically governs the amendment, the amendment shall be effected by mailing, emailing, or otherwise delivering it to you or posting it in our full-service branch offices at least 10 calendar days prior to the effective date of the amendment. Notwithstanding the foregoing and to the extent permitted by applicable law, we may change any term of this Agreement without prior notice or obligation to you: (a) if



the Software of the Service Provider changes any term without providing us sufficient notice to enable us to properly notify you; (b) for security reasons; (c) to comply with applicable law; or (d) as otherwise expressly provided in this Agreement.

23. Termination. You agree that we may cancel or restrict your use of Origin Bank Online or any Origin Bank Online banking service at any time upon such notice (including e-mail) as is reasonable under the circumstances. You may cancel Origin Bank Online by written request to the bank at any time. If you cancel the bill payment service, all pending and/or recurring bill payments will be automatically canceled.

24. Assignment. You may not assign all or any part of your rights or obligations under this Agreement without our prior express consent, which may be withheld in our sole discretion. We may assign or delegate all or any part of our rights or obligations under this Agreement, including, without limitation, the performance of the services described herein. This Agreement will be binding on and inure to the benefit of the successors and assigns of either party.

25. No Third-Party Beneficiaries. This Agreement is for the benefit of you and the Bank and is not intended to grant, and shall not be construed as granting, any rights to or otherwise benefiting any other person, except as expressly otherwise provided in this Agreement.

26. CHOICE OF FORUM AND JURY TRIAL WAIVER. In the event any litigation is instituted to enforce or interpret the terms of this Agreement, you agree that the exclusive forum therefore shall be the Circuit Court. If the Bank is the prevailing party, the Bank shall be entitled to reimbursement for all reasonable attorneys' fees and costs incurred including, but not limited to, those incurred incident to any appeal. YOU AND THE BANK HEREBY WAIVE THE RIGHT TO TRIAL BY JURY OF ALL DISPUTES, CONTROVERSIES AND CLAIMS BY, BETWEEN OR AGAINST EITHER YOU OR THE BANK WHETHER THE DISPUTE, CONTROVERSY OR CLAIM IS SUBMITTED TO ARBITRATION OR IS DECIDED BY A COURT.



EXHIBIT 7 :DTC Settling Banks²⁴

NAME	ABA
AMALGAMATED BANK	0260 0337 9
AMALGAMATED BANK OF CHICAGO	0710 0340 5
ASSOCIATED BANK, N.A.	0759 0057 5
BANK OF AMERICA, NATIONAL ASSOCIATION	0260 0959 3
BANK OF CHINA, NEW YORK BRANCH	0260 0326 9
BANK OF NEW YORK MELLON ,THE	0210 0001 8
BANK OF NOVA SCOTIA, NEW YORK AGENCY ,THE	0260 0253 2
BANKERS' BANK	0759 1247 9
BMO HARRIS BANK NA	0710 0028 8
BOKF, NATIONAL ASSOCIATION	1039 0003 6
CENTRAL TRUST BANK (THE)	0865 0063 4
CITIBANK, N.A.	0210 0008 9
COMERICA BANK	0720 0009 6
COMMERCE BANK	1010 0001 9
DEUTSCHE BANK AG, NEW YORK BRANCH	0260 0378 0
DEUTSCHE BANK TRUST COMPANY AMERICAS	0210 0103 3
FANNIE MAE	0210 3953 9
FEDERAL HOME LOAN MORTGAGE CORPORATION	0210 3320 5
FEDERAL RESERVE BANK OF NEW YORK	0210 8855 1
FIDUCIARY TRUST COMPANY	0110 0188 1
FIFTH THIRD BANK, NATIONAL ASSOCIATION	0420 0031 4
FIRST HORIZON BANK	0840 0002 6
FROST BANK	1140 0009 3
HOME FEDERAL BANK OF TENNESSEE, F.S.B.	2642 7139 0
HSBC BANK USA, NATIONAL ASSOCIATION	0210 0482 3
HUNTINGTON NATIONAL BANK ,THE	0440 0002 4
JPMORGAN CHASE BANK, NATIONAL ASSOCIATION	0210 0002 1
KEYBANK NATIONAL ASSOCIATION	0410 0103 9
LAKESIDE BANK	0710 0150 4
MANUFACTURERS AND TRADERS TRUST COMPANY	0220 0004 6
MIZUHO BANK, LTD. NEW YORK BRANCH	0260 0430 7
MUFG UNION BANK, N.A.	1220 0049 6
NORTHERN TRUST COMPANY ,THE	0710 0015 2
PNC BANK, NATIONAL ASSOCIATION	0310 0005 3
REGIONS BANK	0620 0569 0
SOCIETE GENERALE, NEW YORK BRANCH	0260 0422 6
SOUTH STATE BANK, NATIONAL ASSOCIATION	0631 1673 7
STATE STREET BANK AND TRUST COMPANY	0110 0002 8
SYNOVUS BANK	0611 0060 6
TEXAS TREASURY SAFEKEEPING TRUST COMPANY	1149 0016 4
TRUIST BANK	0610 0010 4
U.S. BANK N.A.	0420 0001 3
UBS AG, STAMFORD BRANCH	0260 0799 3
UMB BANK, NATIONAL ASSOCIATION	1010 0069 5
UNION BANK & TRUST COMPANY	1049 1079 5
WELLS FARGO BANK, NATIONAL ASSOCIATION	1210 0024 8
WESBANCO BANK, INC.	0434 0003 6

²⁴ Public Information available Dec 31, 202110:01:26 AM



ZIONS BANCORPORATION, NATIONAL ASSOCIATION

1240 0005 4



EXHIBIT 8: DTC Participant Report (Alphabetical Sort)

Participant Account Name	No
ABN AMRO CLEARING CHICAGO LLC	0695
ABN AMRO SECURITIES (USA) LLC	0349
ABN AMRO SECURITIES (USA) LLC/A/C#2	7571
ABN AMRO SECURITIES (USA) LLC/REPO	7590
ABN AMRO SECURITIES (USA) LLC/ABN AMRO BANK NV REPO	7591
ALPINE SECURITIES CORPORATION	8072
AMALGAMATED BANK	2352
AMALGAMATED BANK OF CHICAGO	2567
AMERICAN ENTERPRISE INVESTMENT SERVICES INC.	0756
AMERICAN ENTERPRISE INVESTMENT SERVICES INC./CONDUIT	7260
AMHERST PIERPONT SECURITIES LLC	0413
APEX CLEARING CORPORATION	0158
APEX CLEARING CORPORATION/APEX CLEARING MATCHBOOK	4439
APEX CLEARING CORPORATION/APEX CLEARING STOCK LOAN	8308
ARCHIPELAGO SECURITIES, L.L.C.	0436
ARCOLA SECURITIES, INC.	0166
ASCENSUS TRUST COMPANY	2563
ASSOCIATED BANK, N.A.	2257
ASSOCIATED BANK, N.A./ASSOCIATED TRUST COMPANY/IPA	1620
AXOS CLEARING LLC	0052
AXOS CLEARING LLC/CORRESPONDENT FLIP FACILITATION ACCOUNT	1186
AXOS CLEARING LLC/AXOS ADVISOR SERVICES	5981
AXOS CLEARING LLC/STOCK LOAN	7576
B. RILEY SECURITIES, INC.	9186
BANK OF AMERICA, NATIONAL ASSOCIATION	2236
BANK OF AMERICA, NA/GWIM TRUST OPERATIONS	0955
BANK OF AMERICA NA/FBO TEMASEK	1367
BANK OF AMERICA/LASALLE BANK NA/IPA, DTC #1581	1581
BANK OF AMERICA NA/CLIENT ASSETS	2251
BANK OF CHINA, NEW YORK BRANCH	2555
BANK OF CHINA NEW YORK BRANCH/CLIENT CUSTODY	2656
BANK OF MONTREAL, CHICAGO BRANCH	2309
BANK OF MONTREAL, CHICAGO BRANCH/CM	3272
BANKERS' BANK	2557
BARCLAYS BANK PLC NEW YORK BRANCH	7263
BARCLAYS BANK PLC NEW YORK BRANCH/BARCLAYS BANK PLC-LNBR	8455
BARCLAYS CAPITAL INC.	5101
BARCLAYS CAPITAL INC./LE	0229
BARCLAYS CAPITAL INC./BARCLAYS BANK PLC, LONDON BRANCH	7254
BARCLAYS CAPITAL INC./BARCLAYS CAPITAL INC. FIXED INCOME	7256
BBVA SECURITIES INC.	2786
BETA CAPITAL SECURITIES LLC	4077
BETHESDA SECURITIES, LLC	8860
BGC FINANCIAL, L.P.	0537
BGC FINANCIAL L.P./BGC BROKERS L.P.	5271
BMO CAPITAL MARKETS CORP.	0045



BMO CAPITAL MARKETS CORP./PALOMA	5221
BMOCM/BONDS	5257
BMO HARRIS BANK NA	2697
BMO HARRIS BANK NA/TRUST	0992
BMO HARRIS BANK NA/M&I BANK IPA	1530
BMO HARRIS BANK NA/IPA	1582
BMO HARRIS BANK NA/DEALER	2559
BNP PARIBAS SECURITIES CORP.	0630
BNP PARIBAS SECURITIES CORP./PRIME BROKERAGE	2154
BNP PARIBAS SECURITIES CORP./PRIME STOCK LENDING	2885
BNP PARIBAS SECURITIES CORP./PRIME ARBITRAGE SLAB	8238
BNP PARIBAS, NEW YORK BRANCH	1569
BNP PARIBAS, NEW YORK BRANCH/BNP PARIBAS LONDON ALM	1014
BNP PARIBAS, NEW YORK BRANCH/MERLION/CLIENT ASSETS	1405
BNP PARIBAS, NEW YORK BRANCH/IPA	1601
BNP PARIBAS, NEW YORK BRANCH/BNP PARIBAS PRIME BROKERAGE CUSTODIAN	2147
BNP PARIBAS, NEW YORK BRANCH/BNPP SA	2322
BNP PARIBAS, NEW YORK BRANCH/CUSTODY/CLIENT ASSETS	2787
BNP PARIBAS, NEW YORK BRANCH/BNP PARIBAS PRIME BROKERAGE INTERNATIONAL	2884
BNP PARIBAS NEW YORK BRANCH /BNP PARIBAS SA (METLIFE)	4252
BNP PARIBAS, NEW YORK BRANCH/MARKETAXESS/CLIENT ASSETS	4302
BNP PARIBAS NY BRANCH LONDON BONDS	5153
BNP PARIBAS NY BRANCH/PARIS BONDS	7382
BNP PARIBAS NEW YORK BRANCH/USAL	8183
BNP PARIBAS NEW YORK BRANCH/BNP PARIBAS PROPRIETARY ASSETS	8462
BNY MELLON CAPITAL MARKETS, LLC	2523
BOFA SECURITIES, INC.	0161
BOFA SECURITIES, INC. / FIXED INCOME	0773
BOFA SECURITIES, INC. /SECURITIES LENDING	5143
BOFA SECURITIES, INC. /FOREIGN SECURITIES LENDING	5176
BOFA SECURITIES, INC. /SAFEKEEPING	5198
BOFA SECURITIES, INC. /STOCK LOAN HEDGE ACCOUNT	7560
BOKF, NATIONAL ASSOCIATION	3975
BROWN BROTHERS HARRIMAN & CO.	0010
BROWN BROTHERS HARRIMAN & CO./ETF	0109
BROWN BROTHERS HARRIMAN & CO. /SECURITIES LENDING SPO ACCOUNT II	4048
SECURITIES LENDING SPO ACCOUNT/BBH	5288
BUCKLER SECURITIES LLC	3961
CAJA DE VALORES S.A.	5610
CALDWELL TRUST COMPANY	2687
CANTOR FITZGERALD & CO.	0696
CANTOR FITZGERALD & CO. / CANTOR CLEARING SERVICES	0197
CANTOR FITZGERALD/STOCK LOAN	5253
CANTOR FITZGERALD & CO./DEBT CAPITAL MARKETS	7311
CDS CLEARING AND DEPOSITORY SERVICES INC.	4800
THE BANK OF NOVA SCOTIA/BNS PRIME GLOSS/CDS	4700
BMO NESBITT BURNS INC./BMO NB EQUITY FINANCE BMO UK BRANCH/CDS	4706
ROYAL BANK OF CANADA-ROYAL TRUST/CDS**	4707
BMO NESBITT BURNS INC./BMO TRUST COMPANY/CDS**	4712
TORONTO-DOMINION BANK (THE)/TDGF MARGIN ACCOUNT/CDS	4714



BANK OF NOVA SCOTIA/SCOTIABANK IRELAND DAC/CDS	4715
TORONTO-DOMINION BANK (THE)/TD GLOBAL FINANCE UNLIMITED COMPANY/CDS	4717
THE BANK OF NOVA SCOTIA/PRINCIPAL EQUITIES/CDS**	4794
THE BANK OF NOVA SCOTIA/SUB FIXED INCOME/IMPACT/CDS**	4795
BMO NESBITT BURNS/INSTITUTIONAL CDS**	4797
RBC DOMINION SECURITIES INC./CDS**	4801
BANK OF NOVA SCOTIA/BNS LONDON/CDS**	4802
TORONTO-DOMINION BANK (THE)/CDS	4805
J.P. MORGAN SECURITIES CANADA INC. **	4808
BMO NESBITT BURNS INC./BMO NB EQUITY FINANCE CMLUK/CDS**	4809
THE BANK OF NOVA SCOTIA/BNS TOR PRINCIPAL GLOSS/CDS	4810
THE BANK OF NOVA SCOTIA/CDS**	4812
THE BANK OF NOVA SCOTIA/ SCE LTD./CDS**	4814
THE BANK OF NOVA SCOTIA/CLIENT A	4816
BANK OF MONTREAL/ CHICAGO/CDS**	4817
FIDUCIE DESJARDINS INC. **	4818
BANK OF MONTREAL/ IRELAND/CDS**	4819
BANK OF MONTREAL/ LONDON/CDS**	4822
THE BANK OF NOVA SCOTIA/CLIENT B/CDS**	4838
BANK OF MONTREAL/US TRANSIT/CDS	4845
BANK OF MONTREAL **	4855
BMO NESBITT BURNS INC./BMO NB EQUITY FINANCE BMIRE/CDS**	4947
LAURENTIAN BANK SECURITIES INC. /CDS	5001
RBC DOMINION SECURITIES INC./CDS**	5002
SOCIETE GENERALE CAPITAL CANADA INC./CDS**	5003
NATIONAL BANK FINANCIAL INC./CDS**	5008
SCOTIA CAPITAL INC./CDS**	5011
EDWARD JONES/CDS**	5012
CALDWELL SECURITIES LTD./CDS**	5013
PETERS & CO. LIMITED/CDS**	5014
RF SECURITIES CLEARING L.P./CDS	5016
UBS SECURITIES CANADA INC./CDS**	5017
CREDIT SUISSE SECURITIES CANADA INC./CDS**	5019
PICTET CANADA L.P./CDS**	5027
DESJARDINS SECURITIES INC./CDS**	5028
MACKIE RESEARCH CAPITAL CORPORATION/CDS**	5029
CIBC WORLD MARKETS INC./CDS**	5030
NATIONAL BANK FINANCIAL INC. #2/CDS**	5032
TD WATERHOUSE CANADA INC./CDS**	5036
FIDELITY CLEARING CANADA ULC/CDS**	5040
BMO NESBITT BURNS INC./CDS**	5043
ROYAL BANK OF CANADA-ROYAL TRUST 1/CDS**	5044
CANACCORD GENUITY CORP./CDS**	5046
MANULIFE SECURITIES INCORPORATED/CDS**	5047
HAYWOOD SECURITIES INC./CDS**	5058
CDS CLEARING AND DEPOSITORY SERVICES INC./CDS DEFAULT MANAGEMENT	5068
LEEDE JONES GABLE INC./CDS**	5071
ODLUM BROWN LIMITED/CDS**	5074
PI FINANCIAL CORP./CDS**	5075
RAYMOND JAMES LTD./CDS**	5076
W.D. LATIMER CO LTD./CDS**	5078
CREDENTIAL SECURITIES INC./CDS**	5083



QUESTRADE INC./CDS**	5084
CI INVESTMENT SERVICES INC./CDS	5085
CDS CLEARING AND DEPOSITORY SERVICES INC.**	5099
CENTRAL TRUST BANK (THE)	2880
CETERA INVESTMENT SERVICES LLC	0701
CF SECURED, LLC	0794
CHARLES SCHWAB & CO., INC.	0164
CHARLES SCHWAB & CO., INC. STOCK LOAN CONDUIT ACCOUNT	7322
CHARLES SCHWAB & CO., INC./SCHWAB GLOBAL INVESTING ACCOUNT	7587
CHARLES SCHWAB TRUST BANK	2993
CIBC WORLD MARKETS CORP.	0438
CIBC WORLD MARKETS CORP./CIBC WORLD MARKETS CORP. REPO	7295
CITADEL CLEARING LLC	0395
CITADEL SECURITIES LLC	8430
CITIBANK, N.A.	0908
CITIBANK, N.A. - DEALER	0950
ADR-CITI	0953
CITIBANK/CP/IPA	1501
CITIBANK/THE CITIGROUP PRIVATE BANK/TRUST	2032
CITIBANK, N.A./ETF	2333
CITIBANK, N.A./CORPORATE AGENCY & TRUST	2426
CITIBANK NA/DEALER SAFEKEEPING	2562
CITIBANK, N.A./SEGREGATED LENDING	2658
CITIBANK, N.A. BOOK-ENTRY-ONLY MEDIUM TERM NOTE ACCOUNT	2790
CITIBANK N.A. LONDON/MTN	2952
CITIBANK, N.A./S.D. INDEVAL INSTITUCION PARA EL DEPOSITO DE VALORES,	3926
CITIBANK, N.A./PROJECT BLUE	3974
CITIBANK, N.A./PUERTO RICO IBE	4027
CITIBANK, N.A./CITIBANK MARGIN LOANS	4327
CITIBANK N.A./PROPRIETARY ASSETS	8164
CITICORP SECURITIES SERVICES, INC.	0563
CITIGROUP GLOBAL MARKETS INC.	0505
CITIGROUP GLOBAL MARKETS INC./SALOMON BROTHERS	0274
CITIGROUP GLOBAL MARKETS INC./CORRESPONDENT CLEARING	0418
CITIGROUP GLOBAL MARKETS INC./SALOMON BROTHERS/A.M.M.	5215
CLEAR STREET LLC	9132
CLEAR STREET LLC/SECURITIES LENDING	4231
CLEAR STREET LLC/SECURITIES FINANCE ACCOUNT	8858
CLEARSTREAM BANKING AG	2000
COMERICA BANK	2108
COMMERCE BANK	2170
COMMERZ MARKETS LLC	0126
COMMERZ MARKETS LLC/FIXED INC. REPO & COMM. PAPER	0033
COMPUTERSHARE TRUST COMPANY, N.A.	2415
COMPUTERSHARE TRUST COMPANY, N.A./OPTIONS	2330
COMPUTERSHARE TRUST COMPANY, N.A./DRP	2586
COWEN AND COMPANY LLC	0100
COWEN AND COMPANY LLC/FULLY PAID FOR LENDING	0933
COWEN AND COMPANY LLC/STOCK LOAN CONDUIT	8185
COWEN AND COMPANY LLC/SUSQUEHANNA	8857
CREDIT AGRICOLE CORPORATE AND INVESTMENT BANK	4024
CREDIT AGRICOLE SECURITIES (USA) INC	0651



CREDIT AGRICOLE SECURITIES (USA) INC/F/B/O CREDIT AGRICOLE NY BRANCH	7372
CREDIT AGRICOLE SECURITIES (USA) INC/STOCK LOAN CONDUIT	7540
CREDIT SUISSE AG - NEW YORK BRANCH	1587
CREDIT SUISSE AG-NEW YORK BRANCH/DTC I.D. CONFIRMATION	1006
CREDIT SUISSE SECURITIES (USA) LLC	0355
CREDIT SUISSE SECURITIES (USA) LLC/INVESTMENT ACCOUNT	0135
CREST INTERNATIONAL NOMINEES LIMITED	2012
CREWS & ASSOCIATES, INC.	5158
CURVATURE SECURITIES, LLC	3598
D. A. DAVIDSON & CO.	0361
DAIWA CAPITAL MARKETS AMERICA INC.	0647
DAIWA CAPITAL MARKETS AMERICA INC./DASAC	7561
DASH FINANCIAL TECHNOLOGIES LLC	0627
DAVENPORT & COMPANY LLC	0715
DEALERWEB INC.	8445
DEPOSITO CENTRAL DE VALORES S.A., DEPOSITO DE VALORES	2735
DEPOSITO CENTRAL DE VALORES S.A., DEPOSITO DE VALORES/BVE	4180
DESERET TRUST COMPANY	0958
DESERET TRUST COMPANY - D	2118
DESERET TRUST COMPANY - I	2497
DESERET TRUST COMPANY - A	8485
DEUTSCHE BANK AG, NEW YORK BRANCH	2481
DEUTSCHE BANK AG NY/US CUSTODY	2690
DEUTSCHE BANK AG, NEW YORK BRANCH/CC O CLT TRI PARTY	2863
DEUTSCHE BANK SECURITIES INC.	0573
DEUTSCHE BANK SECURITIES INC.- STOCK LOAN	0032
DEUTSCHE BANK SECURITIES INC.-INTERNATIONAL STOCK LOAN	5162
DEUTSCHE BANK SECURITIES INC.-FIXED INCOME STOCK LOAN	5225
DEUTSCHE BANK TRUST COMPANY AMERICAS	1503
DBTC AMERICAS/CTAG/PUTS & DEMANDS	2041
DBTC AMERICAS/CTAG-GES	2655
DBTC AMERICAS/CTAG-CDFP	2808
DRIVEWEALTH, LLC	2402
DRIVEWEALTH, LLC/SECURITIES LENDING	3276
E D & F MAN CAPITAL MARKETS INC.	8873
E D & F MAN CAPITAL MARKETS INC. /SECURITIES LENDING	3932
E*TRADE SECURITIES LLC	0385
E*TRADE SECURITIES LLC/ETS SECURITIES LENDING	1051
EDWARD D. JONES & CO.	0057
ELECTRONIC TRANSACTION CLEARING, INC.	0873
ELECTRONIC TRANSACTION CLEARING, INC./HOUSE	3821
EMBED CLEARING LLC	1963
EUROCLEAR BANK SA/NV	1970
EUROCLEAR BANK SA/NV/IMS ACCOUNT	8451
FANNIE MAE	2306
FEDERAL HOME LOAN MORTGAGE CORPORATION	2391
FEDERAL HOME LOAN MORTGAGE CORPORATION/RETAINED	2068
FEDERAL HOME LOAN MORTGAGE CORPORATION/MULTIFAMILY	8846
FEDERAL RESERVE BANK OF NEW YORK	3000
FHN FINANCIAL SECURITIES CORP.	0202
FIDUCIARY TRUST COMPANY	2126
FIFTH THIRD BANK, NATIONAL ASSOCIATION	2116



FIFTH THIRD BANK, NATIONAL ASSOCIATION/STATE TEACHERS RETIREMENT OF	2416
FIFTH THIRD BANK, NA/FBO SCHOOL EMPLOYEE RETIREMENT SYSTEM OF OHIO	2898
FIFTH THIRD BANK, NATIONAL ASSOCIATION/PUBLIC EMPLOYEES RETIREMENT	2975
FIFTH THIRD BANK, NATIONAL ASSOCIATION/STAR OHIO	3023
FIRST HORIZON BANK	2445
FIRST TRUST PORTFOLIOS, L.P.	8244
FMSBONDS, INC.	5217
FOLIO INVESTMENTS, INC.	0728
FROST BANK	2053
FUTU CLEARING INC.	4272
FUTU CLEARING INC./FUTC CONDUIT	2986
GLENMEDE TRUST COMPANY, N.A. (THE)	2139
GOLDMAN SACHS & CO. LLC	0005
GOLDMAN SACHS & CO. LLC/CME HOUSE COLLATERAL ACCT	4404
GOLDMAN SACHS & CO. LLC/IMS	8699
GOLDMAN SACHS BANK USA	2941
GOLDMAN SACHS BANK USA/GOLDMAN SACHS AGENCY LENDING	2660
GOLDMAN SACHS BANK USA/GS & CO. LLC FCM CLEARED SWAPS CUST OMNIBUS	3944
GOLDMAN SACHS BANK USA/ #2	8197
GOLDMAN SACHS BANK USA/GS & CO. LLC FCM CUST OMNIBUS ACCT CFTC REG	9180
GOLDMAN SACHS INTERNATIONAL	5208
GOLMAN SACHS INTERNATIONAL/REHYP SEPARATION ACCOUNT	2924
GOLDMAN SACHS INTERNATIONAL/GOLDMAN SACHS BANK EUROPE SE	4056
GUGGENHEIM FUNDS DISTRIBUTORS, LLC	0526
GUGGENHEIM SECURITIES, LLC	0181
HILLTOP SECURITIES INC.	0279
HILLTOP SECURITIES INC./STOCK LOAN	5128
HOLD BROTHERS CAPITAL LLC	0430
HOME FEDERAL BANK OF TENNESSEE, F.S.B.	2425
HOME FEDERAL BANK/HOME FINANCIAL SERVICES, INC.	2447
HOME FEDERAL BANK/HF PORTFOLIO	2533
HOME FEDERAL BANK OF TENNESSEE, FSB/TRUST DEPARTMENT CUSTOMERS	2534
HONG KONG SECURITIES CLEARING COMPANY LIMITED	2338
HRT FINANCIAL LP	0369
HSBC BANK USA, NATIONAL ASSOCIATION	2165
HSBC BANK USA, NATIONAL ASSOCIATION/IPA	1544
HSBC BANK USA, NA/HSBC CUSTODY & CLEARING SERVICES FOR STOCK LOAN &	1950
HSBC BANK USA, N.A.-IPB	2122
HSBC BANK USA, NATIONAL ASSOCIATION/OMNIBUS	2393
HSBC BANK USA, N.A./CORPORATE TRUST IPA	2894
HSBC BANK USA, NA/CLEARING	8396
HSBC BANK USA, NA/HTM	8402
HSBC BANK USA, NA/AFS	8404
HSBC SECURITIES (USA) INC.	0816
HSBC SECURITIES (USA) INC. (FIXED INCOME)	0486
ICAP CORPORATES LLC	0148
ICAP CORPORATES LLC/CROSSTRIDE	8456
ICE SECURITIES EXECUTION & CLEARING, LLC	4264



INDUSTRIAL AND COMMERCIAL BANK OF CHINA FINANCIAL SERVICES, LLC	0824
INDUSTRIAL AND COMMERCIAL BANK OF CHINA FINANCIAL SERVICES, LLC/	0388
INDUSTRIAL AND COMMERCIAL BANK OF CHINA FINANCIAL SERVICES LLC/	2667
INDUSTRIAL AND COMMERCIAL BANK OF CHINA FINANCIAL SERVICES LLC/	7583
ING FINANCIAL MARKETS LLC	0270
ING FINANCIAL MARKETS LLC/INTERNATIONAL	5104
ING FINANCIAL MARKETS LLC/LTD.	5262
ING FINANCIAL MARKETS LLC/INTERNATIONAL EQUITY FINANCE	5268
ING FINANCIAL MARKETS LLC/INTERNATIONAL EQUITY FINANCE MATCH BOOK	7273
ING FINANCIAL MARKETS LLC/GLOBAL SECURITIES FINANCE NON-PURPOSE	7595
INGALLS & SNYDER, LLC	0124
INSTINET, LLC	0067
INSTINET, LLC/STOCK LOAN	7276
INTERACTIVE BROKERS LLC	0017
INTERACTIVE BROKERS LLC/RETAIL	0534
INTESA SANPAOLO IMI SECURITIES CORP.	0136
INVESCO CAPITAL MARKETS, INC.	0692
ITAU BBA USA SECURITIES, INC.	8113
J.P. MORGAN SECURITIES LLC	0187
J.P. MORGAN SECURITIES LLC/JPMC	0352
J.P. MORGAN SECURITIES LLC/JPMC LENDING	5213
JANE STREET CAPITAL, LLC	8497
JANNEY MONTGOMERY SCOTT LLC	0374
JANNEY MONTGOMERY SCOTT LLC/STOCK LOAN	7320
JAPAN SECURITIES DEPOSITORY CENTER, INC.	5600
JEFFERIES LLC	0019
JEFFERIES LLC/JEFFERIES EXECUTION SERVICES, INC./SERVICE BUREAU	0536
JEFFERIES LLC/AS AGENT FOR JEFFERIES INTERNATIONAL LONDON	7441
JEFFERIES LLC/SECURITIES FINANCE	7565
JPMORGAN CHASE BANK, NATIONAL ASSOCIATION	0902
JPMORGAN CHASE BANK - ADR	0923
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BNYMELLON/RE BNYMSANVLB RE FIRM	8134
BNYMELLON/RE BBPLC F LRCM REPO	8139
BNY MELLON/WEALTH MANAGEMENT	8275
BNYMELLON/RE BNYMLB RE FIRM	8311
BNYMELLON/RE CACEIS BANK	8313
BNYMELLON/RE CBD BAADER AG	8314
BNYMELLON/RE CBD STEUBING AG	8317
BNYMELLON/RE WINTERFLOOD SECURITIES LTD	8318
BNYMELLON/RE CACEIS BANK LUXEMBOURG	8320

BNYMELLON/RE GFI SECURITIES LTD	8321
BNYMELLON/RE UIT NSCC CNS CLEARANCE	8355
BNYMELLON/ELLINGTON MGMT. GRP OMNIBUS FOR EFM ADVISED ACCTS	8412
BNYMELLON/RE FFT RE FIRM	8417
BNYMELLON/RE NA-BANK CUSTODY	8420
BNYMELLON/RE BNYMIL FIRM	8421
BNYMELLON/RE RABOBANK LONDONBRANCH FIXED INCOME	8423
BNYMELLON/RE CBD ICF BANK AG	8471
BNYMELLON/RE RBC BARBADOS	8472
BNYMELLON/RE RBCEL FIXED INCOME	8475
BNYMELLON/RE BARCLAYS BANK PLC LONDON	8476
BNYMELLON/RE BBPLC CLIENT COLL SEC LNBR SEG	8478
BNYMELLON/RE RBCLB EQUITY FINANCE	8479
BNYMELLON/RE BARCLAYS OVERSIGHT MANAGEMENT INC	8481
BNYMELLON/RE RBCLB FIXED INCOME	8482
BNYMELLON/RE BGC FINANCIAL LP M/M	8483
BNYMELLON/RE RBCEL EQUITY FINANCE	8487
BNYMELLON/RE COOPERATIEVE RABOBANK U.A.	8488
BNYMELLON/RE GCM CLIENT ACCOUNTS	8489

BNYMELLON/RE RBC BAHAMAS BRANCH	8490
BNYMELLON/RE DESHAW US BMCAE CUSTOM PORT L.L.C	8491
THE BANK OF NEW YORK MELLON TRUST COMPANY, NATIONAL ASSOCIATION	2438
THE BANK OF NOVA SCOTIA, NEW YORK AGENCY	2347
BANK OF NOVA SCOTIA, NEW YORK AGENCY/IPA (THE)	1542
THE BANK OF NOVA SCOTIA, NEW YORK AGENCY/RATES DESK	2531
THE CENTRAL DEPOSITORY (PTE) LIMITED	5700
THE HUNTINGTON NATIONAL BANK	2305
HUNTINGTON NATIONAL BANK/IPA	1562



HUNTINGTON NATIONAL BANK/FBO OHIO POLICE AND PENSION FUND	2219
THE NASDAQ STOCK MARKET LLC	0734
NASDAQ STOCK MARKET LLC/OMNIBUS ACCOUNT	0759
THE NORTHERN TRUST COMPANY	2669
NORTHERN TRUST COMPANY/IPA	1560
NORTHERN TRUST COMPANY/UNITED NATIONS JOINT STAFF PENSION FUND	2602
NORTHERN TRUST COMPANY - SAFEKEEPING	2684
NORTHERN TRUST COMPANY/FUTURE FUND ACCOUNTS	2778
THE TEL-AVIV STOCK EXCHANGE CLEARING HOUSE LTD	2015
TRADEBOT SYSTEMS, INC.	0083
TRADELINK SECURITIES LLC	4230
TRADESTATION SECURITIES, INC.	0271
TRADESTATION SECURITIES, INC./TRADESTATION SECURITIES, INC.	8035
TRADEUP SECURITIES, INC.	0287
TRADEUP SECURITIES, INC./STOCK LOAN CONDUIT	2862
TRADITION SECURITIES AND DERIVATIVES LLC	0370
TRUIST BANK	2971
TRUIST BANK/CT CF IPA	1518
TRUIST BANK/SUNTRUST BANK RETAIL	2114
TRUIST BANK/SUNTRUST BANK DEALER	2262
TRUIST BANK/IP TRUIST FINANCIAL CORP	2703
TRUIST BANK/IP TRUIST BANK	2705
TRUIST BANK/SUNTRUST SAFEKEEPING	2717
TRUIST BANK/IP BB&T COMMUNITY HOLDINGS	2871
TRUIST BANK/SUPPLY CHAIN FINANCE	4053
TRUIST SECURITIES, INC.	2095
TULLETT PREBON FINANCIAL SERVICES LLC	0624
U.S. BANCORP INVESTMENTS, INC.	0280
U.S. BANK N.A.	2803
U.S. BANK N.A./CP	1510
U.S. BANK N.A./SAFEKEEPING WEST	2234
U.S. BANK N.A./ETF	2580
U.S. BANK, N.A./U.S. BANK MUNICIPAL SECURITIES GROUP	2781
U.S. BANK N.A./THIRD PARTY LENDING	2837
U.S. BANK N.A./TRUST NY MTN	2897
U.S. BANK N.A./QUASAR DISTRIBUTORS, LLC DEALER CLEARING SERVICES	9487
UBS AG, STAMFORD BRANCH	0979
UBS AG, STAMFORD BRANCH/IPA ACCOUNT	1540



	2003
UBS AG STAMFORD BRANCH/AS CUSTODIAN FOR UBS AG LONDON BRANCH	2507
UBS FINANCIAL SERVICES INC.	0221
UBS FINANCIAL SERVICES INC./GOVERNMENT SECURITIES ACCOUNT #2	5170
UBS SECURITIES LLC	0642
UBS SECURITIES LLC/CMO	0652
UBS SECURITIES LLC/SECURITIES LENDING	5284
UMB BANK, NATIONAL ASSOCIATION	2450
UMB BANK, INVESTMENT DIVISION	2451
UNION BANK & TRUST COMPANY	2067
VANGUARD MARKETING CORPORATION	0062
VANGUARD MARKETING CORPORATION/FPL	1206
VELOCITY CAPITAL LLC	6019
VELOCITY CAPITAL LLC/PROPRIETARY ACCOUNT	4424
VELOCITY CLEARING, LLC	0294
VELOCITY CLEARING, LLC/STOCK LOAN	7359
VELOX CLEARING LLC	3856
VELOX CLEARING LLC/SECURITIES LENDING	1605
VIRTU AMERICAS LLC	0295
VIRTU AMERICAS LLC/VIRTU FINANCIAL BD LLC	0063
VIRTU AMERICAS LLC/VIRTU ITG LLC	0099
VISION FINANCIAL MARKETS LLC	0595
VISION FINANCIAL MARKETS LLC/SECURITIES LENDING	8493
WACHTEL & CO., INC.	0709
WEDBUSH SECURITIES INC.	0103
WEDBUSH SECURITIES INC./STOCK LOAN	5166
WEDBUSH SECURITIES INC./P3	8199
WEDBUSH SECURITIES INC. / P3 STOCK LOAN	8237
WELLS FARGO BANK, NATIONAL ASSOCIATION	2027
WELLS FARGO BANK, N.A. ISSUING/PAYING AGENT	1538
WELLS FARGO BANK, N.A./LENDING	2040
WELLS FARGO BANK, N.A./SIG	2072
WELLS FARGO CLEARING SERVICES LLC	0141
WELLS FARGO CLEARING SERVICES LLC/SECURITIES LENDING MATCH BOOK	5237
WELLS FARGO CLEARING SERVICES LLC/SUB ACCOUNT WFA REPO	7360
WELLS FARGO SECURITIES, LLC	0250
WELLS FARGO SECURITIES, LLC/SECURITIES FINANCE	2480
WELLS FARGO SECURITIES, LLC/SIG WELLS FARGO SECURITIES INT'L, LTD	5199
WESBANCO BANK, INC.	2271
WILLIAM BLAIR & COMPANY, L.L.C.	0771
WILSON-DAVIS & CO., INC.	0283
WOLVERINE EXECUTION SERVICES, LLC	7350
ZIONS BANCORPORATION, NATIONAL ASSOCIATION	2104
ZIONS BANCORPORATION, NATIONAL ASSOCIATION/CT ISSUE & PAY A/C/IPA	1586
ZIONS BANCORPORATION, N.A./TRUST	2736
ZIONS BANCORPORATION, NATIONAL ASSOCIATION/PORTFOLIO	8233
ZIONS DIRECT, INC.	0065
ZIV INVESTMENT CO.	8082



EXHIBIT 9: NOSTRO ACCOUNT VS. VOSTRO ACCOUNT

"Nostro" and "vostro" are two different terms used to describe the same bank account. The terms are used when one bank has another bank's Money on deposit, typically in relation to international trading or other financial transactions.

Both banks in the venture must record the amount of Money being stored by one bank on behalf of the other bank. The terms *nostro* and *vostro* are used to differentiate between the two sets of accounting records kept by each bank.

Nostro and *vostro* are variations on the Latin words that mean "ours" and "yours," respectively. Modern retail banking is derived from 13th and 14th century Italy, where both depositors and retail banks maintained ledgers of their account balances. The ledger kept by the depositing customer called it a *nostro* ledger; the bank kept the corresponding *vostro* ledger.

KEY TAKEAWAYS

- *Nostro* and *vostro* are terms used to describe the same bank account; the terms are used when one bank has another bank's Money on deposit.
- *Nostro* and *vostro* are used to differentiate between the two sets of accounting records kept by each bank.
- *Nostro* comes from the Latin word for "ours," as in "our Money that is on deposit at your bank."
- *Vostro* comes from the Latin word for "yours," as in "your Money that is on deposit at our bank."

Nostro Account

A *Nostro* account is a reference used by Bank A to refer to "our" account held by Bank B. *Nostro* is a shorthand way of talking about "our Money that is on deposit at your bank."

The *Nostro* account is the record of the bank that has Money on deposit at another bank. These accounts are often used to simplify settlements of trade and foreign exchange transactions.

Nostro accounts differ from standard demand deposit bank accounts in that they are usually held by financial institutions, and they are denominated in foreign currencies.



Vostro Account

Vostro is the term used by Bank B, where bank A's Money is on deposit. Vostro is a reference to "yours" and refers to "your Money that is on deposit at our bank." A vostro account is like any other account held by a bank. The account is a record of Money owed to or maintained by a third party, typically another bank, but it can be either a company or an individual.

Banks in the United Kingdom or the United States often hold a vostro account on behalf of a foreign bank. The vostro account is held in the currency of the country where the Money is on deposit.

Nostro vs. Vostro Example

Let's look at an example. GTBank, a Brazilian bank, gets a lot of Money sent to its customers at home from the United States in the form of remittances. Since GTBank does not have a physical presence in the United States, it enters into an agreement with Citibank where the latter has an account remotely opened for GTBank in U.S. dollars. This way, Money received by U.S. customers and businesses sending Money to GTBank account holders in Nigeria will be deposited in the account that GTBank has with Citibank.

This Money deposited will then be transferred by Citibank via SWIFT to GTBank's U.S. dollar account in Nigeria. SWIFT refers to the Society for Worldwide Interbank Financial Telecommunications, a member-owned cooperative that offers safe and secure financial transactions for its members.

With the transfer complete, GTBank receives the dollar-denominated funds, converts them into the local currency (i.e., the Real), and deposits them to the local accounts of the recipients.

From GTBank's perspective, its U.S. dollar account with Citibank is a nostro account. From Citibank's perspective, it is holding a vostro account for GTBank in U.S. dollars.

For both nostro and vostro accounts, the domestic bank (i.e., the bank that is holding the account) acts as the caretaker for the account and is sometimes referred to as the "facilitator" bank.

Nostro accounts with debit balances are considered cash assets. Contrarily, vostro accounts with a credit balance are considered liabilities.



Computerized accounting allows for easily reconciling nostro and vostro accounts just by using "+" or "-" signs in the banks' respective accounting systems.



EXHIBIT 10: SWIFT MESSAGE TYPE REFERENCE

SWIFT groups message types into the following categories:

Customer Payments and Cheques

- See [Category 1 Messages](#).

Financial Institution Transfers

- See [Category 2 Messages](#).

Treasury Markets: Foreign Exchange and Derivatives

- See [Category 3 Messages](#).

Collections and Cash Letters

- See [Category 4 Messages](#).

Securities Markets

- See [Category 5 Messages](#).

Treasury Markets: Precious Metals and Syndications

- See [Category 6 Messages](#).

Documentary Credits and Guarantees

- See [Category 7 Messages](#).

Travellers Cheques

- See [Category 8 Messages](#).

Cash Management and Customer Status

- See [Category 9 Messages](#).

The remainder of this section discusses these categories and the message types within each category.

The 2001, 2002, 2003, 2005, 2006, 2007 and 2008 versions of the SWIFT OTD Library are provided with the SWIFT OTD Library. You must install each version via a separate **sar** file. However, the MT Funds, Validation, and BIC Dir Service features can only be used with 2003, 2005, 2006, 2007, and 2008 OTDs (see [SWIFT Message Library JAR Files](#))²⁵.

²⁵ For explanations of the 2001, 2002, 2003, 2004, 2006, 2007, and 2008 versions, see the SWIFT Web site at <http://www.swift.com>.



Category 1 Messages

The table below lists the Category 1 message types, Customer Payments and Cheques, with the type designation MT 1xx.

Table 1 Customer Payments and Cheques

SWIFT Message Type	Description
MT 101	Request for Transfer
MT 102	Multiple Customer Credit Transfer
MT 102+(STP)	Multiple Customer Credit Transfer (STP)
MT 103	Single Customer Credit Transfer
MT 103+ (REMIT)	Single Customer Credit Transfer (REMIT)
MT 103+ (STP)	Single Customer Credit Transfer (STP)
MT 104	Direct Debit and Request for Debit Transfer Message (STP)
MT 105	EDIFACT Envelope
MT 106	EDIFACT Envelope
MT 107	General Direct Debit Message
MT 110	Advice of Cheque(s)
MT 111	Request for Stop Payment of a Cheque
MT 112	Status of a Request for Stop Payment of a Cheque
MT 121	Multiple Interbank Funds Transfer (EDIFACT FINPAY Message)
MT 190	Advice of Charges, Interest and Other Adjustments
MT 191	Request for Payment of Charges, Interest and Other Expenses
MT 192	Request for Cancellation
MT 195	Queries
MT 196	Answers
MT 198	Proprietary Message
MT 199	Free Format Message



Category 2 Messages

The table below lists the Category 2 message types, Financial Institution Transfers, with the type designation MT 2xx.

Table 2 Financial Institution Transfers

SWIFT Message Type	Description
MT 200	Financial Institution Transfer for its Own Account
MT 201	Multiple Financial Institution Transfer for its Own Account
MT 202	General Financial Institution Transfer
MT 203	Multiple General Financial Institution Transfer
MT 204	Financial Markets Direct Debit Message
MT 205	Financial Institution Transfer Execution
MT 206	Cheque Truncation Message
MT 207	Request for Financial Institution Transfer
MT 210	Notice to Receive
MT 256	Advice of Non-Payment of Cheques
MT 290	Advice of Charges, Interest and Other Adjustments
MT 291	Request for Payment of Charges, Interest and Other Expenses
MT 292	Request for Cancellation
MT 295	Queries
MT 296	Answers
MT 298	Proprietary Message
MT 299	Free Format Message

Category 3 Messages

The table below lists the Category 3 message types, Treasury Markets, Foreign Exchange, Money Markets, and Derivatives, with the type designation MT 3xx.

Table 3 Treasury Markets, Foreign Exchange, Money Markets, and Derivatives



SWIFT Type	Message Description
MT 300	Foreign Exchange Confirmation
MT 303	Forex/Currency Option Allocation Instruction
MT 304	Advice/Instruction of a Third Party Deal
MT 305	Foreign Currency Option Confirmation
MT 306	Foreign Currency Option Confirmation
MT 307	Advice/Instruction of a Third Party FX Deal
MT 308	Instruction for Gross/Net Settlement of Third Party FX Deals
MT 320	Fixed Loan/Deposit Confirmation
MT 321	Instruction to Settle a Third Party Loan/Deposit
MT 330	Call/Notice Loan/Deposit Confirmation
MT 340	Forward Rate Agreement Confirmation
MT 341	Forward Rate Agreement Settlement Confirmation
MT 350	Advice of Loan/Deposit Interest Payment
MT 360	Single Currency Interest Rate Derivative Confirmation
MT 361	Cross Currency Interest Rate Swap Confirmation
MT 362	Interest Rate Reset/Advice of Payment
MT 364	Single Currency Interest Rate Derivative Termination/Recoupons Confirmation
MT 365	Single Currency Interest Rate Swap Termination/Recoupons Confirmation
MT 380	Foreign Exchange Order
MT 381	Foreign Exchange Order Confirmation
MT 390	Advice of Charges, Interest and Other Adjustments
MT 391	Request for Payment of Charges, Interest and Other Expenses
MT 392	Request for Cancellation



SWIFT Message Description

Type

MT 395	Queries
MT 396	Answers
MT 398	Proprietary Message
MT 399	Free Format Message

Category 4 Messages

The table below lists the Category 4 message types, Collections and Cash Letters, with the type designation MT 4xx.

Table 4 Collections and Cash Letters

SWIFT Message Type Description

MT 400	Advice of Payment
MT 405	Clean Collection
MT 410	Acknowledgment
MT 412	Advice of Acceptance
MT 416	Advice of Non-Payment/Non-Acceptance
MT 420	Tracer
MT 422	Advice of Fate and Request for Instructions
MT 430	Amendment of Instructions
MT 450	Cash Letter Credit Advice
MT 455	Cash Letter Credit Adjustment Advice
MT 456	Advice of Dishonor
MT 490	Advice of Charges, Interest and Other Adjustments
MT 491	Request for Payment of Charges, Interest and Other Expenses
MT 492	Request for Cancellation
MT 495	Queries
MT 496	Answers



SWIFT Message Type	Description
MT 498	Proprietary Message
MT 499	Free Format Message

Category 5 Messages

The table below lists the Category 5 message types, Securities Markets, with the type designation MT 5xx.

Table 5 Securities Markets

SWIFT Message Type	Description
MT 500	Instruction to Register
MT 501	Confirmation of Registration or Modification
MT 502	Order to Buy or Sell
MT 502 (FUNDS)	Order to Buy or Sell (FUNDS)
MT 503	Collateral Claim
MT 504	Collateral Proposal
MT 505	Collateral Substitution
MT 506	Collateral and Exposure Statement
MT 507	Collateral Status and Processing Advice
MT 508	Intra-Position Advice
MT 509	Trade Status Message
MT 509 (FUNDS)	Trade Status Message (FUNDS)
MT 510	Registration Status and Processing Advice
MT 513	Client Advice of Execution
MT 514	Trade Allocation Instruction
MT 515	Client Confirmation of Purchase or Sale
MT 515 (FUNDS)	Client Confirmation of Purchase or Sale (FUNDS)
MT 516	Securities Loan Confirmation
MT 517	Trade Confirmation Affirmation



SWIFT Message Type	Description
MT 518	Market-Side Securities Trade Confirmation
MT 519	Modification of Client Details
MT 524	Intra-Position Instruction
MT 526	General Securities Lending/Borrowing Message
MT 527	Triparty Collateral Instruction
MT 528	ETC Client-Side Settlement Instruction
MT 529	ETC Market-Side Settlement Instruction
MT 530	Transaction Processing Command
MT 535	Statement of Holdings
MT 535 (FUNDS)	Statement of Holdings (FUNDS)
MT 536	Statement of Transactions
MT 537	Statement of Pending Transactions
MT 538	Statement of Intra-Position Advice
MT 540	Receive Free
MT 541	Receive Against Payment
MT 542	Deliver Free
MT 543	Deliver Against Payment
MT 544	Receive Free Confirmation
MT 545	Receive Against Payment Confirmation
MT 546	Deliver Free Confirmation
MT 547	Deliver Against Payment Confirmation
MT 548	Settlement Status and Processing Advice
MT 549	Request for Statement/Status Advice
MT 558	Triparty Collateral Status and Processing Advice
MT 559	Paying Agent's Claim
MT 564	Corporate Action Notification



SWIFT Message Type	Description
MT 565	Corporate Action Instruction
MT 566	Corporate Action Confirmation
MT 567	Corporate Action Status and Processing Advice
MT 568	Corporate Action Narrative
MT 569	Triparty Collateral and Exposure Statement
MT 574 (IRSLST)	IRS 1441 NRA (Beneficial Owners' List)
MT 574 (W8BENO)	IRS 1441 NRA (Beneficial Owner Withholding Statement)
MT 575	Report of Combined Activity
MT 576	Statement of Open Orders
MT 577	Statement of Numbers
MT 578	Statement of Allegement
MT 579	Certificate Numbers
MT 581	Collateral Adjustment Message
MT 582	Reimbursement Claim or Advice
MT 584	Statement of ETC Pending Trades
MT 586	Statement of Settlement Allegements
MT 587	Depository Receipt Instruction
MT 588	Depository Receipt Confirmation
MT 589	Depository Receipt Status and Processing Advice
MT 590	Advice of Charges, Interest and Other Adjustments
MT 591	Request for Payment of Charges, Interest and Other Expenses
MT 592	Request for Cancellation
MT 595	Queries
MT 596	Answers
MT 598	Proprietary Message
MT 599	Free Format Message



Category 6 Messages

The table below lists the Category 6 message types, Treasury Markets, Precious Metals, with the type designation MT 6xx.

Table 6 Treasury Markets, Precious Metals

SWIFT Message Type	Description
MT 600	Precious Metal Trade Confirmation
MT 601	Precious Metal Option Confirmation
MT 604	Precious Metal Transfer/Delivery Order
MT 605	Precious Metal Notice to Receive
MT 606	Precious Metal Debit Advice
MT 607	Precious Metal Credit Advice
MT 608	Statement of a Metal Account
MT 609	Statement of Metal Contracts
MT 620	Metal Fixed Loan/Deposit Confirmation
MT 643	Notice of Drawdown/Renewal
MT 644	Advice of Rate and Amount Fixing
MT 645	Notice of Fee Due
MT 646	Payment of Principal and/or Interest
MT 649	General Syndicated Facility Message
MT 690	Advice of Charges, Interest and Other Adjustments
MT 691	Request for Payment of Charges, Interest and Other Expenses
MT 692	Request for Cancellation
MT 695	Queries
MT 696	Answers
MT 698	Proprietary Message
MT 699	Free Format Message



Category 7 Messages

The table below lists the Category 7 message types, Treasury Markets, Syndication, with the type designation MT 7xx.

Table 7 Treasury Markets, Syndication

SWIFT Message Type	Description
MT 700	Issue of a Documentary Credit
MT 701	Issue of a Documentary Credit
MT 705	Pre-Advice of a Documentary Credit
MT 707	Amendment to a Documentary Credit
MT 710	Advice of a Third Bank's Documentary Credit
MT 711	Advice of a Third Bank's Documentary Credit
MT 720	Transfer of a Documentary Credit
MT 721	Transfer of a Documentary Credit
MT 730	Acknowledgment
MT 732	Advice of Discharge
MT 734	Advice of Refusal
MT 740	Authorization to Reimburse
MT 742	Reimbursement Claim
MT 747	Amendment to an Authorization to Reimburse
MT 750	Advice of Discrepancy
MT 752	Authorization to Pay, Accept or Negotiate
MT 754	Advice of Payment/Acceptance/Negotiation
MT 756	Advice of Reimbursement or Payment
MT 760	Guarantee
MT 767	Guarantee Amendment
MT 768	Acknowledgment of a Guarantee Message



SWIFT Message Type	Description
MT 769	Advice of Reduction or Release
MT 790	Advice of Charges, Interest and Other Adjustments
MT 791	Request for Payment of Charges, Interest and Other Expenses
MT 792	Request for Cancellation
MT 795	Queries
MT 796	Answers
MT 798	Proprietary Message
MT 799	Free Format Message

Category 8 Messages

The table below lists the Category 8 message types, Travellers Cheques, with the type designation MT 8xx.

Table 8 Travellers Cheques

SWIFT Message Type	Description
MT 800	T/C Sales and Settlement Advice [Single]
MT 801	T/C Multiple Sales Advice
MT 802	T/C Settlement Advice
MT 810	T/C Refund Request
MT 812	T/C Refund Authorization
MT 813	T/C Refund Confirmation
MT 820	Request for T/C Stock
MT 821	T/C Inventory Addition
MT 822	Trust Receipt Acknowledgment
MT 823	T/C Inventory Transfer
MT 824	T/C Inventory Destruction/Cancellation Notice
MT 890	Advice of Charges, Interest and Other Adjustments



SWIFT Message Type	Description
MT 891	Request for Payment of Charges, Interest and Other Expenses
MT 892	Request for Cancellation
MT 895	Queries
MT 896	Answers
MT 898	Proprietary Message
MT 899	Free Format Message

Category 9 Messages

The table below lists the Category 9 message types, Cash Management and Customer Status, with the type designation MT 9xx.

Table 9 Cash Management and Customer Status

SWIFT Message Type	Description
MT 900	Confirmation of Debit
MT 910	Confirmation of Credit
MT 920	Request Message
MT 935	Rate Change Advice
MT 940	Customer Statement Message
MT 941	Balance Report
MT 942	Interim Transaction Report
MT 950	Statement Message
MT 970	Netting Statement
MT 971	Netting Balance Report
MT 972	Netting Interim Statement
MT 973	Netting Request Message
MT 985	Status Inquiry
MT 986	Status Report
MT 990	Advice of Charges, Interest and Other Adjustments



SWIFT Message Type	Description
MT 991	Request for Payment of Charges, Interest and Other Expenses
MT 992	Request for Cancellation
MT 995	Queries
MT 996	Answers
MT 998	Proprietary Message
MT 999	Free Format Message

Validation Collaborations

The table below lists the Validation Collaboration. Validation Collaboration Definitions are provided for many key SWIFT message types.

Table 10 Common Group Messages

Validation Collaborations	Validates OTD/Message Type
ValidateMt_101	MT_101 - Request for Transfer
ValidateMt_103_STP	MT_103_STP - Single Customer Credit Transfer
ValidateMt_202	MT_202 - General Financial Institution Transfer
ValidateMt_300	MT_300 - Foreign Exchange Confirmation
ValidateMt_500	MT_500 — Instruction to Register
ValidateMT_502	MT_502 — Order to Buy or Sell
ValidateMt_502_FUNDS	MT_502_FUNDS - Order to Buy or Sell (FUNDS)
ValidateMt_508	MT_508 — Intra-Position Advice
ValidateMt_509	MT_509 — Trade Status Mesage
ValidateMt_513	MT_513 — Client Advice Execution
ValidateMt_515	MT_515 — Client Confirmation of Purchase or Sell
ValidateMt_515_FUNDS	MT_515_FUNDS -Client Confirmation of Purchase or Sale (FUNDS)

**Validation****Validates OTD/Message Type****Collaborations**

ValidateMt_517	MT_517 — Trade Confirmation Affirmation
ValidateMt_518	MT_518 — Market Side Security Trade
ValidateMt_527	MT_527 — Tri-party Collateral Instruction
ValidateMt_535	MT_535 - Statement of Holdings
ValidateMt_536	MT_536 - Statement of Transactions
ValidateMt_537	MT_537 - Statement of Pending Transactions
ValidateMt_538	MT_538 — Statement of Intra-Position Advices
ValidateMt_540	MT_540 - Receive Free
ValidateMt_541	MT_541 - Receive Against Payment
ValidateMt_542	MT_542 - Deliver Free
ValidateMt_543	MT_543 - Deliver Against Payment
ValidateMt_544	MT_544 - Receive Free Confirmation
ValidateMt_545	MT_545 - Receive Against Payment Confirmation
ValidateMt_546	MT_546 - Deliver Free Confirmation
ValidateMt_547	MT_547 - Deliver Against Payment Confirmation
ValidateMt_548	MT_548 - Statement Status and Processing Advice
ValidateMt_558	MT_558 — Tri-party Collateral Status and Processing Advice
ValidateMt_559	MT_559 — Paying Agent's Claim
ValidateMt_564	MT_564 — Corporate Action Notification
ValidateMt_565	MT_565 — Corporate Action Instruction
ValidateMt_566	MT_566 — Corporate Action Confirmation
ValidateMt_567	MT_567 — Corporate Action Status and Processing Advice
ValidateMt_568	MT_568 — Corporate Action Narrative
ValidateMt_576	MT_576 — Tri-party Collateral and Exposure Statement



Validation Collaborations	Validates OTD/Message Type
ValidateMt_578	MT_578 — Statement Allegement
ValidateMt_586	MT_586 — Statement of Settlement Allegement
ValidateMt_590	MT_590 — Advice of Charges, Interest and Other Adjustment
ValidateMt_595	MT_595 — Queries
ValidateMt_596	MT_596 — Answers
ValidateMt_598	MT_598 — Property Message
ValidateMt_900	MT_900 - Confirmation of Debit
ValidateMt_910	MT_910 - Confirmation of Credit
ValidateMt_940	MT_940 - Customer Statement Message
Validate-mt_950	MT_950 - Statement Message

For information about the Validation Collaborations, see [Using Message Validation Features](#)

September 21, 2021.