I would like to express sincere apologies on behalf of Governor Antoine who is unable to attend this year's Bitts conference owing to a previous engagement. That notwithstanding he has asked to convey best wishes to the organizers, the attendees and all persons who by their participation in whatever form would have contributed to the success of the conference.

My role this morning is to share some thoughts on the ECCB CBDC and the Caribbean Settlement Network (CSN).

The discussions that are currently occurring in relation to CBDC and the CSN are very timely however it should not be done in isolation of the payment and settlement system. In other words, to address a CBDC and regional settlement network is to respond to developments taking place in the payment and settlement space.

What then is the Payment and Settlement system? As the name suggest it is any system used to settle financial transactions through the transfer of monetary value. This includes the institutions, instruments, people, rules, procedures, standards, and technologies that make the exchange possible.

The payment system is regarded as an integral part of a country's financial architecture, more importantly it has been agreed that a safe, efficient and robust payment system is essential in promoting financial stability. A smooth functioning payment system can render a positive contribution to economic activity by

providing the markets with mechanisms that allow transactions to be carried out safely, speedily and efficiently between different agents. This engenders confidence in the financial system and promotes financial stability and ultimately economic development.

Having said that it is therefore no mystery why most central banks if not all assume responsibility for the payment system within their jurisdiction. As it relates to the payment system, Central banks are concerned with

1. Financial Stability

2. Efficiency of payments

3. Security of the payment instruments used by the public

4. Public confidence in the payment system

ECCB'S role in Payment System is no different to that of other central banks and that role is defined as multi-faceted.

The ECCB CBDC and the Caribbean Settlement Network fall under two main pillars of a payment and settlement system. That is Retail Payments and Wholesale or Large Value payments respectively. The decision to explore opportunities in the

respective payment system components signals the view that there is need for greater efficiency in the payment system.

The Governor of the ECCB Timothy Antoine would have remarked that

"When we survey our current payments landscape, we cannot help but conclude that payments are still too slow and too expensive…Although a full-scale analysis of the social cost of physical cash in the ECCU has not been carried out, it is indisputable that the costs of cash services, inclusive of transporting, storing and securing, are extremely high."

Such a realization would explain the rationale behind the ECCB's decision to embark on the introduction of a digital currency in the financial space.

The ECCB CBDC is a digital version of the sovereign fiat currency.

The Eastern Caribbean Central Bank's approach is to introduce the CBDC through a pilot phase in the first instance.

The pilot will assist the ECCB in undertaking a comparative assessment of certain issues currently encountered in the payment system. Issues such as the relatively high cost of current payment instruments and banking services, their inadequacy to address the needs of various profile customers and the inefficient settling of cheque transactions which slows the pace of commerce.

These represent just a few of the major concerns that the ECCU region encounters given its geographical configuration of one central bank serving many sovereign countries.

The pilot project focused on three key components:

1. **The development, issuance and distribution of DXCD:**

   ECCB is creating a securely minted digital version of the EC dollar using Distributed Ledger Technology, namely the permission-based (private) IBM Hyperledger Fabric as the blockchain. The DXCD will operate alongside physical EC currency and have near instantaneous, real time processing, with settlement finality.

   IBM Hyperledger Fabric was selected as the blockchain platform because of its strong security architecture (private permissioned blockchain with strong identity management) and open source, which contributes to its security, flexibility and scalability among other desired attributes.

2. **Component # 2 Developing a mechanism for Payments and transfers**:

   A real time payment system to transfer the digital EC currency initiated through digital wallets via one of many channels: smart phones, tablets, and

PCs. Pilot participants will use the DXCD for the conduct of transactions and payments within the ECCU.

3. **Component # 3 Incorporating a KYC and AML/CFT application solutions as part of the DXCD blockchain-based payment system infrastructure:**

   aimed at streamlining regulatory compliance, promoting greater transparency, reducing data fragmentation, lower administrative burden, simplify regulatory reporting on DXCD transactions.

The Pilot Project is being executed in two phases over an 18-month period:

- Development and testing which commenced in March 2019 and is expected to be completed March 2020; and
- Rollout and implementation in selected pilot countries via live deployment in a controlled environment for 6 months commencing Mid-March April 2020; under the regulation and supervision of the ECCB.

Pilot Countries

- St. Kitts and Nevis
- Antigua and Barbuda
- St Lucia and
- Grenada

Target participants include volunteering:

- licensed financial institutions and
- non-bank financial institutions (hereinafter referred to collectively as financial institutions),
- consumers and
- merchants within selected ECCU Pilot countries.

DXCD Features

Secure sovereign, digital version of the EC currency operating alongside cash and other current payment platforms.

- Legal tender status
- DXCD $2.7: USD$1.0
- Distributed by Licensed Bank and Non-Bank Financial Institutions in the ECCU; also available at approved non-financial digital wallet service providers.

- Transactions facilitated via digital wallets on smart devices (e.g. desktop, laptop, tablet, mobile phone)
- P2P, B2B, P2B, B2P,

Currently we at the Development stage and this entails

- Partnered with Bitt Inc. who is working alongside the ECCB and associated stake-holders to undertake the design and development of the software that is required in the execution of the pilot.

The Development stage is made up of a number of sub-components

Inception Phase

- comprised of a consultative review of the proposed structure of the Project involving Pilot Participants with a view to ensuring that all parties understand the needs and expectations.

Elaboration Phase

- comprised of an analysis of the requirements and necessary architecture of the proposed systems,
- identification of the principal risks and
- prioritization of such risk for remediation, such as constructing critical components in a logical order and engaging Stakeholders.

Construction Phase

- comprised of coding and implementation of application features, delivery of complete application and preparation for Preliminary Testing. The out from the Construction Phase contemplates (among other aspects of the Software) the development of DXCD as a high-security digital legal tender. The divisibility of the DXCD is expected to be consistent with fiat and therefore will allow the exact payment of any price.
- The Development of the DXCD will allow for two models:
    - a value-based model where DXCD could be stored in a secure manner on the customer's smart device and facilitates transfers without having to revert to a holding account with a financial institution;
    - a registered based model where customers hold individual 'cold wallet' digital currency accounts with licensed financial institutions, which is linked to the customer's digital wallet application on customer's smart device.

Preliminary Testing Phase

- comprised of agreed functional testing of the Software by the Central Bank in accordance with the Acceptance Criteria.

Training Phase

- comprised of training the Central Bank Project Team and agreed Stakeholders to participate effectively in the Pilot Phase.

Pilot Phase

- Live Deployment where the DXCD operates alongside XCD with near instantaneous, real time processing and legal settlement finality.
- facilitation of payments and transfers, including demonstration of a real time retail payment system with the capabilities to conduct DXCD transactions through digital wallets via various smart devices;
- demonstration of the KYC and AML/CFT utilities as part of the digital payments system infrastructure, including greater transparency, reduced fragmentation and duplication of due diligence data by recording customer data centrally, facilitating permission-based access to such records by appropriate users (permissioned based) and simplification of regulatory reporting on DXCD transactions.

Post Deployment Analysis Phase

- comprised of verifying the project implementation against the Acceptance Criteria and preparation of the Project report.

On the issue of the CSN our regional proximity combined with inter regional trade and travel should have made it easier for us to settle transactions among each other. However, differences in currencies and exchange rates meant that we had to rely on a payment and settlement system that is oblivious to our historical relationship. Currently payment settlement among regional countries is facilitated through the use of Society for Worldwide Interbank Financial Telecommunication (SWIFT) network by which messages relating to financial transaction are securely sent between network participants. The volume and value of transactions on a global scale for which SWIFT messages must be dispatched are enormous. It therefore means that security features for this global secure messaging network must be constantly upgraded to protect against unethical intrusion and this can be quite expensive.

International politics have entered the payment space as certain countries for political reasons are contemplating developing an alternative to SWIFT.

Then there is a legitimate question, do we have other options to SWIFT when it comes to undertaking financial transactions among ourselves in the region.

A CSN that provides an alternative to the current payment and settlement infrastructure should be embraced. For one it is expected to be cheaper. Secondly it represents an alternative and we should not have to rely exclusively on one payment option.

Thirdly the payment messaging system is not regional based or controlled and political and other considerations can influence can the smoothness by which payment are executed.

However, in assessing the operations of a CSN and the manner in which it can be employed for the region, consideration should be given to the following:

1. Determining Settlement finality for transaction conducted through the CSN
2. The need to introduce a central counterparty an institution that is central to all the countries may need to take that position.
3. The CSN model appears to be biased towards deferred net settlement. However, in a large value payment, Real Time Gross Settlement is the preferred option as it is less risky.

I have no doubt that there may be numerous other concerns especially when payment system considerations are factored.

I am aware also that we are at the conceptual phase of this proposed solution, however I do not think it is too early to bring in payment system experts.

I thank you.