sub-Q2: Policies

Return to Question 1	**Provide Feedback**

Question

Return to Top

What additional potential **policy considerations** of a Central Bank Digital Currency (CBDC) may exist that have not been raised in this paper?

Answer

Return to Top

Governance Overview

Return to Top

A major risk to the CBDC is the Governance of a very large, complex system. which encompasses:

- US Legislative laws and regulations
- CBDC cross US department and agency organizations
- CBDC international participants
- CBDC private sector partners
- Legal policies and procedures for the CBDC itself
- Hardware
- Networks
- Software
- Data

CBDC Governance is the system that controls the entities and direction of the CBDC effort. Its primary concern is the structure and processes for decision-making, accountability, control and behavior at the top of the CBDC. CBDC governance will set the organization's objectives, measure how well these objectives are achieved, monitor risks to the CBDC, and set actions in place to mitigate those risks. Governance is a system and a process, not a single activity; therefore successful implementation of a good governance strategy requires a systematic approach that incorporates strategic planning, risk management and performance management. Like culture, it is a core component of the unique characteristics of a successful organization.

Examples

Return to Top

Some "desirements" in the Money and Payments: The U.S. Dollar in the Age of Digital Transformation **White Paper** and summarized in the White Paper Analysis done by the Object Management Group allude to the Governance areas shown in the table below:

Table 1: Example of mapping a subset of "desirements" identified during the White Paper Analysis conducted by OMG.

Governance Area	OMG Identified "desirements"
Legislation, Laws, and Regulations	P: P0011, P0014, P0015, P0016, P0018, P0019, P0030
External Federal Reserve, US Government Organization	B: B0005, B0006, B0020, B0025, B0026, B0030, B0036, B0046, B0052, B0053 P: P0005, P0006, P0016, P0017, P0023, P0024, P0031 R: R0001, R0005, R0008, R0010, R0011, R0012, R0014, D0013, D0016, D0017
External US Entities	B: B0006, B0009, B0015, B0025, B0041, B0052, P0028, D0009,
Private Sector Parties	B: B0006, B0008, B0025, B0026, B0029, B0033, B0037, B0038, B0044, B0046, B0052, B0053 P: P0005, P0010, P0012, P0013, P0016, P0020, P0021, P0023, P0024 R: R0001, R0005, R0008, R0011, R0012, R0014, R0018, R0020, R0022, R0023 D: D0011, D0012, D0013, D0014, D0017
Purpose-built Hardware	P: P0025 R: R0014 D: D0002, D0003, D0011, D0015, D0016, D0017
Purpose-built Software	P: P0025 R: R0014 D: D0002, D0003, D0011, D0012, D0013, D0016, D0017
Purpose-defined Data	B: B0051 P: P0004 R: R0014 D: D0002, D0003, D0011, D0012, D0013, D0016, D0017
B = Benefit Considerations	
P = Policy Considerations	
R = Risk Considerations	
D = Design Considerations	

Discussion of Examples

Return to Top

This discussion is divided into the sections mapped out in Table 1.

Legislation, Laws, and Regulations

Return to Discussion of Examples

Some “desirements” identified in CBDC White Paper by the OMG White Paper Analysis effort map to Legislation, Laws, and Regulations.

Table 2: **White Paper** “desirements” associated with Legislation, Laws, and Regulations.

> **Note:** The following subset of “desirements” only represents a few that are relevant to Legislation, Laws, and Regulations found in the White Paper. They are provided to support further discussions.

Statement No.	Page No.	Statement
P0011	**3**	The Federal Reserve does not intend to proceed with issuance of a CBDC without clear support from: 1. the Executive Branch 2. Legislative Branch 3. ideally in the form of a specific authorizing law
P0030	**21**	The Federal Reserve will only take further steps toward developing a CBDC if: 1. Research points to benefits for households, businesses, and the economy overall that exceed the downside risks 2. Indicates that CBDC is superior to alternative methods

- **`P0030`** indicates that any actions taken regarding the CBDC require prior approval from the Executive and legislative branches of the government; however, **`P0030`** indicates that research can proceed to determine the alternatives and benefits of a CBDC.

External Federal Reserve, US Government Organization

Return to Discussion of Examples

Some “desirements” identified in CBDC White Paper by the OMG White Paper Analysis effort map to US Government organizations external to the Federal Reserve.

Table 3: **White Paper** “desirements” associated with US Government organizations external to the Federal Reserve.

> **Note:** The following subset of “desirements” only represents a few that are relevant to External Federal Reserve, US Government Organization found in the White Paper. They are provided to support further discussions.

Statement No.	Page No.	Statement
B0006	**2**	Provide broad support from key stakeholders
B0011	**7**	Make payments: 1. faster 2. cheaper 3. more convenient 4. more accessible
B0052	**19**	Prevent Financial money laundering crimes
B0053	**20**	Provide resiliency to threats to existing payment services—including: 1. operational disruptions 2. cybersecurity risks
D0017	**20**	Design should include digital payments in areas suffering from large disruption, such as natural disasters

- **`B0006`** advises that the Federal Reserve should consider other government organizations as stakeholders in the CBDC. Just based upon **`B0011`**, **`B0052`**, **`B0053`** and **'`D0017`**, some of those organizations might be: US Treasury, FDIC, ACH, FEMA, DHS, DoD, SEC, FBI, Secret Service, etc.

External US Entities

Return to Discussion of Examples

Some “desirements” identified in CBDC White Paper by the OMG White Paper Analysis effort map to External US Government organizations.

Table 4: **White Paper** “desirements” associated with External US Government organizations.

> **Note:** The following subset of “desirements” only represents a few that are relevant to External US Entities found in the White Paper. They are provided to support further discussions.

Statement No.	Page No.	Statement
B0005	**2**	Protect against criminal activity
B0009	**3**	Provide faster and cheaper payments (including cross-border payments)
B0015	**9**	Reduce cross-border costs to benefit: 1. economic growth 2. enhance global commerce 3. improve international remittances 4. reduce inequality
B0041	**15**	Support streamlining cross-border payments
B0052	**19**	Prevent Financial money laundering crimes

Statement No.	Page No.	Statement
P0005	**2**	Protect against criminal activity
R0014	**13**	**Risk** of not achieving an appropriate balance between safeguarding the privacy rights of consumers and affording the transparency necessary to deter criminal activity
D0009	**18**	**Design** should allow for significant foreign demand for CBDC, furthering complicate monetary policy implementation

- **B0005**, **B0052**, **P0005**, **R0014** are all targeted at preventing criminal activities. Although there is a lot of criminal activity within the US, in this modern age of internationalism, it is important to elicit the help of foreign governments in detecting and tracking down criminal activities.
- **B0009**, **B0015**, **B0041** are all targeted at cross-border payments and remittances, which naturally would require the participation of foreign governments and institutions.
- **D0009** is concerned with foreign demand for CBDC, which again would point to some foreign government and institutions being involved.

Private Sector Parties

Return to Discussion of Examples

Some “desirements” identified in CBDC White Paper by the OMG White Paper Analysis effort are intended for Private Sector organizations.

Table 5: **White Paper** “desirements” associated with Private Sector organizations.

> **Note:** The following subset of “desirements” only represents a few that are relevant to Private Sector Parties found in the White Paper. They are provided to support further discussions.

Statement No.	Page No.	Statement
B0006	**2**	Provide broad support from key stakeholders
B0029	**14**	Suport basic purchases of: 1. goods 2. services 3. pay bills 4. pay taxes
B0033	**15**	Support a level playing field in payment innovation for private-sector firms of all sizes
B0037	**15**	Support private-sector innovation
B0038	**15**	Allow private-sector innovators to focus on: 1. new access services 2. distribution methods 3. related service offerings

Statement No.	Page No.	Statement
B0046	**16**	Enable rapid and cost-effective delivery of: 1. wages, 2. tax refunds 3. other federal payments
P0012	**7**	The firms that operate inter-bank payment services are subject to federal supervision
P0013	**7**	Systemically important payment firms are subject to 1. heightened supervision 2. regulation
P0020	**13**	The private sector would offer accounts or digital wallets to facilitate the management of CBDC holdings and payments
R0005	**7**	New payment services could pose **Risks** to: 1. financial stability 2. payment system integrity 3. other **Risks**
D0014	**20**	**Design** should involve private-sector partners with established programs to help ensure compliance with existing rules

The Private Sector Participation in the CBDC is subdivided into a few categories:

- Those participating in the building and support of the CBDC infrastructure: **B0033**, **B0037**, **B0038**, **P0020**, **D0014**
- Those participating in the use of the CBDC: **B0029**, **B0046**
- Those affected by the use of CBDC: **P0012**, **P0013**, **R0005**

Purpose-built Hardware

Return to Discussion of Examples

Some “desirements” identified in CBDC White Paper by the OMG White Paper Analysis effort call for Purpose-built Hardware.

Table 6: **White Paper** “desirements” associated with Hardware that is purpose built for the CBDC.

> **Note:** The following subset of “desirements” only represents a few that are relevant to Purpose-built Hardware found in the White Paper. They are provided to support further discussions.

Statement No.	Page No.	Statement
P0025	**14**	CBDC intermediary would need to verify the identity of a person accessing CBDC
D0011	**19**	**Design** should generate data about users’ financial transactions in the same ways that commercial bank and nonbank money generates data today

Statement No.	Page No.	Statement
D0015	**20**	**Design** should include any dedicated infrastructure required to provide a resilience to threats such as operational disruptions and cybersecurity risks
D0016	**20**	**Design** should include offline capabilities to help with operational resilience of the payment system
D0017	**20**	**Design** should include digital payments in areas suffering from large disruption, such as natural disasters

- **P0025** could require hardware for identification such as Smart Cards or https://www.omgwiki.org/dido/doku.php?id=dido:public:ra:xapend:xapend.a_glossary:r:rsa_secureid which may or may not be Purpose-Built for the CBDC.
- **D0011** could be relevant when there is network monitoring
- **D0015** if portions of the CBDC are over secure, private networks that are purpose built for the operations, then they must be resilient to threats, disruptions and cybersecurity threats.
- **D0016**, **D0017** mean that payment systems need to be able to work autonomously in isolation from the Internet. This highlights the advantage of a Digital Coin versus a Stablecoin.

Purpose-built Software

Return to Discussion of Examples

Some “desirements” identified in CBDC White Paper by the OMG White Paper Analysis effort call for Purpose-built Software.

Table 7: **White Paper** “desirements” associated with Software that is purpose built for the CBDC.

> **Note:** The following subset of “desirements” only represents a few that are relevant to Purpose-built Software found in the White Paper. They are provided to support further discussions.

Statement No.	Page No.	Statement
P0025	**14**	CBDC intermediary would need to verify the identity of a person accessing CBDC
R0014	**13**	**Risk** of not achieving an appropriate balance between safeguarding the privacy rights of consumers and affording the transparency necessary to deter criminal activity
D0002	**17**	**Design** should allow the central bank to limit the amount of CBDC an end user could hold
D0003	**18**	**Design** should allow a limit on the amount of CBDC an end user could accumulate over short periods
D0011	**19**	**Design** should generate data about users’ financial transactions in the same ways that commercial bank and nonbank money generates data today

Statement No.	Page No.	Statement
D0013	**19**	**Design** should facilitate compliance with a robust set of rules already intended to combat 1. money laundering 2. the financing of terrorism 3. customer due diligence 4. record keeping 5. reporting requirements
D0016	**20**	**Design** should include offline capabilities to help with operational resilience of the payment system
D0017	**20**	**Design** should include digital payments in areas suffering from large disruption, such as natural disasters

- **`P0025`** could require software for identification such as Smart Cards or https://www.omgwiki.org/dido/doku.php?id=dido:public:ra:xapend:xapend.a_glossary:r:rsa_secureid which may or may not be Purpose-Built for the CBDC.
- **`R0014`** there are https://www.omgwiki.org/dido/doku.php?id=dido:public:ra:xapend:xapend.a_glossary:p:p_p which can be implemented to help protect privacy but still allowing for the surveillance of activities that indicate criminal behavior. There are also Software approaches available that allow for the anonymization of data.
- **`D0002`**, **`D0003`** almost require a centralized system in order to enforce these rules. However, if Digital Dollars are used instead of Stablecoins, the hoarding of the dollars requires a lot of planning on the part of the hoarder (i.e., money in a mattress)
- **`D0011`**, **`D0013`** is very important and is often overlooked by the current Cryptocurrencies and Stablecoin implementations. They are often built from the bottom up rather than from the top down or middle out. This means that many of these projects/products have to discover these rules and try to shoehorn them into their existing efforts. Just like security, many of these can not be “bolted” on *post facto*
- **`D0016`**, **`D0017`**, like the financial and banking rules, is something that needs to be considered very early on in the development of the requirements and architecture rather than addressed *post facto*

Purpose-defined Data

Return to Discussion of Examples

Some “desirements” identified in CBDC White Paper by the OMG White Paper Analysis effort for Purpose-defined Data.

Table 8: **White Paper** “desirements” associated with Data, Data Formats, and Metadata that is purpose defined for the CBDC.

> **Note:** The following subset of “desirements” only represents a few that are relevant to Purpose-defined Data found in the White Paper. They are provided to support further discussions.

Statement No.	Page No.	Statement
B0051	**19**	Generate data about users' financial transactions similarly to current Commercial Bank[1] and Nonbank Money
P0004	**2**	Protect consumer privacy
R0014	**13**	**Risk** of not achieving an appropriate balance between safeguarding the privacy rights of consumers and affording the transparency necessary to deter criminal activity
D0002	**17**	**Design** should allow the central bank to limit the amount of CBDC an end user could hold
D0003	**18**	**Design** should allow a limit on the amount of CBDC an end user could accumulate over short periods
D0011	**19**	**Design** should generate data about users' financial transactions in the same ways that commercial bank and nonbank money generates data today
D0013	**19**	**Design** should facilitate compliance with a robust set of rules already intended to combat 1. money laundering 2. the financing of terrorism 3. customer due diligence 4. record keeping 5. reporting requirements
D0016	**20**	**Design** should include offline capabilities to help with operational resilience of the payment system
D0017	**20**	**Design** should include digital payments in areas suffering from large disruption, such as natural disasters

- **`B0051`**, **`D0011`**, **`D0011`**, **`D0013`**: most existing blockchain, Stablecoin products are "organic", evolving from the bottom up and are centered around the concepts of a ledger. Although this is part of banking, there is so much more that is required by law in the US. Many of these rules are not intended just to be administrative roadblocks (i.e.,administrivia) but were instituted as a result of some previous problems and help to stabilize and instill confidence in the US financial institutions. Adding "rules" to these products will either degrade the quality and performance of the products or have spotty implementations.
- **`P0004`** is intended to protect consumer privacy, not just when the Data is at Rest, but also when the Data is in Motion and while it is being used (processed). It is only when all the places where data is used are protected, can there be assurances of consumer privacy. While the traditional concepts of Data-At-Rest and Data-In-Motion are well known and understood, the third category, Data-In-Use, has emerged as equally important. In the past, Data-In-Use was physically protected at physically secured mainframes and Data Centers; however, with distributed computers, especially on Public Networks, there can be no such assurances. As the value of the assets on the network increase, the motivation to "hack" the data while in use increases. The CBDC, as part of the critical infrastructure, will be a prime target.
- **`R0014`** is about achieving a balance between a consumer's privacy and the transparency required to prevent criminal activity. In the real world, these limits are achieved through the difficulty of using physical money. Storing, transferring, and counting it is a problem. Although cash is anonymous, large amounts of cash trigger examination.
- **`D0002`**, **`D0003`** represent limits on CBDC holdings and the transactions associated with the current system. In many ways these represent limits established to protect against money laundering.

- **D0016**, **D0017** like the financial and banking rules, is something that needs to be considered very early on in the development of the requirements and architecture rather than addressed *post facto* so the correct data can be collected.

1) Commercial banks include banks licensed either by federal or state banking agencies, credit unions, and thrifts from the **White Paper&**.