

## 3.0 White Paper Analysis

### [OMG Responses to Federal Reserve Discussion Paper](#)

A breakdown of the **White Paper** discussion of a U.S. CBDC and the Desirements<sup>1)</sup> for that effort. Each Desirement is identified as to the page it was found on, its classification as a Benefit, Policy, Risks, Design, and a brief actionable statement.

## Executive Summary

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The following is the **Executive Summary** provided in the [Money, and Payments: The U.S. Dollar in the Age of Digital Transformation](#)<sup>2)</sup> **White Paper**:

*For a nation's economy to function effectively, its citizens must have confidence in its money and payment services. The Federal Reserve, as the nation's central bank, works to maintain the public's confidence by fostering monetary stability, financial stability, and a safe and efficient payment system.*

*This paper is the first step in a public discussion between the Federal Reserve and stakeholders about [Central Bank Digital Currencies \(CBDCs\)](#). For the purpose of this paper, a CBDC is defined as a digital liability of a central bank that is widely available to the general public. In this respect, it is analogous to a digital form of paper money. The paper has been designed to foster a broad and transparent public dialogue about CBDCs in general, and about the potential benefits and risks of a U.S. CBDC. The paper is not intended to advance any specific policy outcome, nor is it intended to signal that the Federal Reserve will make any imminent decisions about the appropriateness of issuing a U.S. CBDC.*

## Preparation for Responses to the Request for Comments

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In order to provide answers to the 22 questions requested by the Federal Reserve in the [White Paper](#), it is important to summarize the rest of the content of the **White Paper** so as to help provide context for the questions in the White Paper and OMG's answers to these questions. The questions fall into two major categories:

- CBDC Benefits, Risks, and Policy Considerations
- CBDC Design

In order for the [Object Management Group \(OMG\)](#) to prepare responses to the questions in the **White**

**Paper**, the OMG has taken a traditional Systems Engineering approach to understanding the problem by dissecting it into smaller, more manageable pieces based on the stated objectives outlined in the **White Paper**. We noted four major objectives:

- [Benefit Considerations](#)
- [Policy Considerations](#)
- [Risk Considerations](#)
- [Design Considerations](#)

## Methodology

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The **White Paper** was read linearly (i.e., from top to bottom) with each statement classified as describing or providing: Background, Benefits, Policy Considerations, Risks, or Design. The sentences were then copied into the appropriate table (e.g., Table 1, Benefits) in this White Paper Overview. Statements in the **White Paper** that provided Background were not transcribed into any table. This does not mean these Background statements were unimportant; they were used to provide definitions and context for the Benefits, Policy Considerations, Risks, or Design statements captured in the tables below.

**Note:** Some of the statements have been edited to allow them to be standalone and written in the form of an “action”. For future iterations, these statements need be written as requirements. See: [Specifying Requirements](#) in the [Distributed Immutable Data Object - References Architecture \(DIDO-RA\)](#).

## Benefit Considerations

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The following are the [U.S. CBDC Benefits](#) identified in the [White Paper](#):

Table 1: The Benefits identified in the **White Paper**

Desirement No.	Page No.	Desirement <sup>3)</sup>
<b>B0001</b>	<b>1</b>	Provide benefits to households, businesses, and the overall economy that exceed any costs and risks
<b>B0002</b>	<b>1</b>	Yield such benefits more effectively than alternative methods
<b>B0003</b>	<b>1</b>	Complement, rather than replace, current forms of money and methods for providing financial services
<b>B0004</b>	<b>2</b>	Protect consumer privacy
<b>B0005</b>	<b>2</b>	Protect against criminal activity
<b>B0006</b>	<b>2</b>	Provide broad support from key stakeholders

<b>Desirement No.</b>	<b>Page No.</b>	<b>Desirement<sup>3)</sup></b>
<b>B0007</b>	<b>3</b>	Provide households and businesses a convenient and electronic form of central bank money with: <ol style="list-style-type: none"> <li>1. safety</li> <li>2. liquidity</li> </ol>
<b>B0008</b>	<b>3</b>	Provide entrepreneurs a platform on which to create new financial products and services
<b>B0009</b>	<b>3</b>	Provide faster and cheaper payments (including cross-border payments)
<b>B0010</b>	<b>3</b>	Expand consumer access to the financial system
<b>B0011</b>	<b>7</b>	Make payments: <ol style="list-style-type: none"> <li>1. faster</li> <li>2. cheaper</li> <li>3. more convenient</li> <li>4. more accessible</li> </ol>
<b>B0012</b>	<b>7</b>	Provide payment services to households and businesses around the clock, every day of the year
<b>B0013</b>	<b>7</b>	Provide immediate access to transferred funds
<b>B0014</b>	<b>7</b>	Reduce costs and fees associated with certain types of payments
<b>B0015</b>	<b>9</b>	Reduce cross-border costs to benefit: <ol style="list-style-type: none"> <li>1. economic growth</li> <li>2. enhance global commerce</li> <li>3. improve international remittances</li> <li>4. reduce inequality</li> </ol>
<b>B0016</b>	<b>11</b>	Provide Stablecoins that are: <ol style="list-style-type: none"> <li>1. well-designed</li> <li>2. appropriately regulated</li> </ol>
<b>B0017</b>	<b>9</b>	Provide Stablecoins that are: <ol style="list-style-type: none"> <li>1. faster</li> <li>2. more efficient</li> <li>3. more inclusive payment</li> </ol>
<b>B0018</b>	<b>13</b>	Allow the general public to make digital payments
<b>B0019</b>	<b>13</b>	Provide the safest digital asset available to the general public, with no: <ol style="list-style-type: none"> <li>1. associated credit</li> <li>2. liquidity risk</li> </ol>
<b>B0020</b>	<b>13</b>	Maintain public confidence by not requiring mechanisms, such as deposit insurance
<b>B0021</b>	<b>13</b>	Maintain value by not using backing by an underlying asset
<b>B0022</b>	<b>13</b>	Provide a CBDC that is: <ol style="list-style-type: none"> <li>1. <a href="#">Privacy-Protected</a></li> <li>2. <a href="#">Intermediated</a></li> <li>3. <a href="#">Widely Transferable</a></li> <li>4. <a href="#">Identity-Verified</a></li> </ol>
<b>B0023</b>	<b>14</b>	Create a liability to the Federal Reserve
<b>B0024</b>	<b>14</b>	Provide transactions finalized and completed in real time
<b>B0025</b>	<b>14</b>	Serve as a new foundation for the payment system
<b>B0026</b>	<b>14</b>	Provide a bridge between legacy and new payment services
<b>B0027</b>	<b>14</b>	Maintain the centrality of safe and trusted central bank money

<b>Desirement No.</b>	<b>Page No.</b>	<b>Desirement<sup>3)</sup></b>
<b>B0028</b>	<b>14</b>	Offer the general public broad access to digital money: 1. free from credit risk 2. liquidity risk
<b>B0029</b>	<b>14</b>	Support basic purchases of: 1. goods 2. services 3. pay bills 4. pay taxes
<b>B0030</b>	<b>14</b>	Support benefit payments directly to citizens
<b>B0031</b>	<b>14</b>	Provide the general public broad access to digital money that is free from: 1. credit risk 2. liquidity risk
<b>B0032</b>	<b>14</b>	Provide a programmable CBDC
<b>B0033</b>	<b>15</b>	Support a level playing field in payment innovation for private-sector firms of all sizes
<b>B0034</b>	<b>15</b>	Generate new capabilities to meet the speed and efficiency requirements of the digital economy
<b>B0035</b>	<b>15</b>	Streamline cross-border payments by using: 1. new technologies 2. introducing simplified distribution channels 3. creating additional opportunities for cross-jurisdictional collaboration and interoperability
<b>B0036</b>	<b>15</b>	Preserve the dominant international role of the U.S. dollar
<b>B0037</b>	<b>15</b>	Support private-sector innovation
<b>B0038</b>	<b>15</b>	Allow private-sector innovators to focus on: 1. new access services 2. distribution methods 3. related service offerings
<b>B0039</b>	<b>15</b>	Provide a programmable CBDC to deliver payments at certain times
<b>B0040</b>	<b>15</b>	Provide micropayment support
<b>B0041</b>	<b>15</b>	Support streamlining cross-border payments
<b>B0042</b>	<b>15</b>	Preserve the dominant international role of the U.S. dollar
<b>B0043</b>	<b>16</b>	Promoting financial inclusion—particularly for economically vulnerable households and communities
<b>B0044</b>	<b>16</b>	Facilitate access to digital payments
<b>B0045</b>	<b>16</b>	Enable rapid and cost-effective payment of taxes
<b>B0046</b>	<b>16</b>	Enable rapid and cost-effective delivery of: 1. wages 2. tax refunds 3. other federal payments
<b>B0047</b>	<b>16</b>	Lower transaction costs
<b>B0048</b>	<b>16</b>	Provide a secure way for people to save
<b>B0049</b>	<b>16</b>	Promote access to credit
<b>B0050</b>	<b>16</b>	Extend Public Access to Safe Central Bank Money

<b>Desirement No.</b>	<b>Page No.</b>	<b>Desirement<sup>3)</sup></b>
<b>B0051</b>	<b>19</b>	Generate data about users' financial transactions similar to the current Commercial Bank <sup>4)</sup> and <a href="#">nonbank_money</a>
<b>B0052</b>	<b>19</b>	Prevent Financial money laundering crimes
<b>B0053</b>	<b>20</b>	Provide resiliency to threats to existing payment services—including: 1. operational disruptions 2. cybersecurity risks
<b>B0054</b>	<b>19</b>	Attract risk-averse users to CBDC

## Policy Considerations

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The following are the [U.S. CBDC Policy Considerations](#) identified in the [White Paper](#):

Table 2: The Policy Considerations identified in the **White Paper**

<b>Desirement No.</b>	<b>Page No.</b>	<b>Desirement</b>
<b>P0001</b>	<b>1</b>	Provide benefits to households, businesses, and the overall economy that exceed any 1. costs 2. risks
<b>P0002</b>	<b>1</b>	Provide Yield benefits more effectively than alternative methods
<b>P0003</b>	<b>1</b>	Complement current forms of money and methods for providing financial services
<b>P0004</b>	<b>2</b>	Protect consumer privacy
<b>P0005</b>	<b>2</b>	Protect against criminal activity
<b>P0006</b>	<b>2</b>	Garner broad support from key stakeholders
<b>P0007</b>	<b>2</b>	Be policy outcome neutral (i.e., not advancing a specific policy outcome)
<b>P0008</b>	<b>2</b>	Have a neutral position on the ultimate desirability of a U.S. CBDC
<b>P0009</b>	<b>3</b>	CBDC would be a liability of the Federal Reserve, not of a commercial bank
<b>P0010</b>	<b>3</b>	CBDC would be a liability not of a commercial bank <sup>5)</sup>
<b>P0011</b>	<b>3</b>	The Federal Reserve does not intend to proceed with the issuance of a CBDC without clear support from: 1. The Executive Branch 2. The Legislative Branch 3. ideally in the form of a specific authorizing law
<b>P0012</b>	<b>7</b>	The firms that operate interbank payment services are subject to federal supervision
<b>P0013</b>	<b>7</b>	Systemically important payment firms are subject to 1. heightened supervision 2. regulation
<b>P0014</b>	<b>12</b>	The PWG report highlights gaps in the authority of regulators to reduce these risks
<b>P0015</b>	<b>12</b>	The PWG report recommends that Congress act promptly to enact legislation that would ensure payment Stablecoins

<b>Desirement No.</b>	<b>Page No.</b>	<b>Desirement</b>
<b>P0016</b>	<b>12</b>	The PWG report recommends payment Stablecoin arrangements are subject to a consistent and comprehensive federal regulatory framework
<b>P0017</b>	<b>12</b>	The PWG report recommends CBDC complement existing authorities Regarding: 1. market integrity 2. investor protection 3. illicit finance
<b>P0018</b>	<b>13</b>	The Federal Reserve Act does not authorize direct Federal Reserve accounts for individuals
<b>P0019</b>	<b>13</b>	Federal Reserve accounts for individuals represent a significant expansion of the Federal Reserve’s role in the financial system and the economy
<b>P0020</b>	<b>13</b>	The private sector would offer accounts or digital wallets to facilitate the management of CBDC holdings and payments
<b>P0021</b>	<b>13</b>	The intermediaries would operate in an open market for CBDC services
<b>P0022</b>	<b>14</b>	CBDC itself would be a liability of the Federal Reserve
<b>P0023</b>	<b>14</b>	CBDC would need to be readily transferable between customers of different intermediaries
<b>P0024</b>	<b>14</b>	CBDC would need to comply with the U.S. robust rules
<b>P0025</b>	<b>14</b>	CBDC intermediary would need to verify the identity of a person accessing CBDC
<b>P0026</b>	<b>14</b>	CBDC transactions would need to be final and completed in real-time
<b>P0027</b>	<b>14</b>	CBDC a risk-free asset
<b>P0028</b>	<b>15</b>	Require significant international coordination to address issues such as: 1. common standards 2. infrastructure, 3. the types of intermediaries able to access any new infrastructure, 4. legal frameworks 5. preventing illicit transactions 6. the cost and timing of implementation
<b>P0029</b>	<b>16</b>	The Federal Reserve is committed to ensuring the continued safety and availability of cash
<b>P0030</b>	<b>21</b>	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
<b>P0031</b>	<b>21</b>	The Federal Reserve would only pursue a CBDC in the context of broad public and cross-governmental support

## Risk Considerations

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The following are the [U.S. CBDC Risks](#) identified in the [White Paper](#):

Table 3: The Risks identified in the **White Paper**

<b>Desirement No.</b>	<b>Page No.</b>	<b>Desirement</b>
<b>R0001</b>	<b>3</b>	<b>Risk</b> of affecting financial-sector market structure
<b>R0002</b>	<b>3</b>	<b>Risk</b> to the cost and availability of credit
<b>R0003</b>	<b>3</b>	<b>Risk</b> to the safety and stability of the financial system
<b>R0004</b>	<b>3</b>	<b>Risk</b> to the efficacy of monetary policy
<b>R0005</b>	<b>7</b>	New payment services could pose <b>Risks</b> to: 1. financial stability 2. payment system integrity 3. other <b>Risks</b>
<b>R0006</b>	<b>8</b>	<b>Risk</b> of extreme price volatility
<b>R0007</b>	<b>8</b>	<b>Risk</b> CBDC is difficult to use without service providers
<b>R0008</b>	<b>8</b>	<b>Risk</b> of severe limitations on transaction throughput
<b>R0009</b>	<b>8</b>	Increased <b>Risk</b> of “runs” or other instabilities to the financial system
<b>R0010</b>	<b>11</b>	CBDC has <b>Risk</b> of significant energy footprint similar to Cryptocurrencies
<b>R0011</b>	<b>11</b>	Increased <b>Risk</b> to consumer's vulnerability to: 1. loss 2. theft 3. fraud
<b>R0012</b>	<b>12</b>	<b>Risk</b> of increased concern related to the potential for: 1. destabilizing “runs” 2. disruptions in the payment system 3. concentration of economic power
<b>R0013</b>	<b>13</b>	CBDC offers no associated credit or liquidity <b>Risk</b>
<b>R0014</b>	<b>13</b>	<b>Risk</b> of not achieving an appropriate balance between safeguarding the privacy rights of consumers and affording the transparency necessary to deter criminal activity
<b>R0015</b>	<b>14</b>	Require mechanisms to reduce liquidity <b>Risk</b>
<b>R0016</b>	<b>14</b>	Require mechanisms to reduce credit <b>Risk</b>
<b>R0017</b>	<b>15</b>	Using private digital money could present <b>Risks</b> to both individual users and the financial system as a whole
<b>R0018</b>	<b>17</b>	<b>Risk</b> a CBDC could fundamentally change the structure of the U.S. financial system, altering the private sector and central bank: 1. roles 2. responsibilities
<b>R0019</b>	<b>17</b>	<b>Risk</b> of reducing the aggregate amount of deposits in the banking system, which could in turn increase bank funding expenses, and reduce credit availability or raise credit costs for households and businesses.
<b>R0020</b>	<b>17</b>	<b>Risk</b> that interest-bearing CBDC could result in a shift away from other low-risk assets, such as shares in money market mutual funds, Treasury bills, and other short-term instruments.
<b>R0021</b>	<b>17</b>	<b>Risk</b> of reducing credit availability or raising credit costs for businesses and governments
<b>R0022</b>	<b>17</b>	<b>Risk</b> of Stablecoins and other types of nonbank money shifting deposits away from banks even without a CBDC

Desirement No.	Page No.	Desirement
R0023	17	<b>Risk</b> of financial panic causing outflows from Commercial Banks to CBDC without prudential supervision, government deposit insurance, and access to central bank liquidity

## Design Considerations

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Table 4: The Designs identified in the **White Paper**

Desirement No.	Page No.	Desirement
D0001	17	<b>Design</b> should be for a non-interest-bearing CBDC, for example, would be less attractive as a substitute for commercial bank money
D0002	17	<b>Design</b> should allow the central bank to limit the amount of CBDC an end-user could hold
D0003	18	<b>Design</b> should allow a limit on the amount of CBDC an end-user could accumulate over short periods
D0004	18	<b>Design</b> should influence how the Federal Reserve might affect monetary policy
D0005	18	<b>Design</b> could affect monetary policy implementation and interest rate control by altering the supply of reserves in the banking system
D0006	18	<b>Design</b> should allow an increase in CBDC supply to provide an adequate buffer, so there is little effect on the federal funds rate
D0007	18	<b>Design</b> should allow the Federal Reserve to increase the level of reserves on average, in order to provide an adequate buffer against unanticipated increases in CBDC
D0008	18	<b>Design</b> should allow for interest-bearing at levels of the CBDC to be controlled independently of other safe assets
D0009	18	<b>Design</b> should allow for significant foreign demand for CBDC, further complicating monetary policy implementation
D0010	18	<b>Design</b> should consider the potential for interest-bearing CBDC as a new policy tool on the channels of influence in monetary policy
D0011	19	<b>Design</b> should generate data about users' financial transactions in the same ways that commercial bank and nonbank money generates data today
D0012	19	<b>Design</b> should address privacy concerns by leveraging existing tools already in use by intermediaries
D0013	19	<b>Design</b> should facilitate compliance with a robust set of rules already intended to combat <ol style="list-style-type: none"> <li>1. money laundering</li> <li>2. the financing of terrorism</li> <li>3. customer due diligence</li> <li>4. record-keeping</li> <li>5. reporting requirements</li> </ol>

Desirement No.	Page No.	Desirement
D0014	20	<b>Design</b> should involve private-sector partners with established programs to help ensure compliance with existing rules
D0015	20	<b>Design</b> should include any dedicated infrastructure required to provide resilience to threats such as operational disruptions and cybersecurity risks
D0016	20	<b>Design</b> should include offline capabilities to help with the operational resilience of the payment system
D0017	20	<b>Design</b> should include digital payments in areas suffering from large disruption, such as natural disasters

1) 3)

**Desirement** is a blended word combining the word **Desire** and **Requirement**. **Desirement** is something that is desired, but not absolutely required and is often used to caption the capabilities of a product or system before it has reached the formal requirements phase. Source: [Desirement](#)

2)

Board of Governors, The Federal Reserve System, January 2022, Accessed: 5 May 2022, <https://www.federalreserve.gov/publications/files/money-and-payments-20220120.pdf>

4)

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

5)

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

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