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Sensemaking of Stablecoins

A Qualitative Deep Dive into Swedish Financial Stakeholders' Sensemaking of Stablecoins

Master's Thesis in the Master's Programme Industrial Engineering and Management

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Cover: Digital representation of various cryptocurrency coins including Bitcoin, Ethereum, and other altcoins depicted in gold and silver tones. The image showcases a pile of coins with distinct icons and symbols representing different cryptocurrencies.

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Sensemaking of Stablecoins
A Comprehensive Exploration of Swedish Financial Stakeholders' Perceptions and Interpretations of Stablecoins through Qualitative Analysis

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Abstract

Global financial transactions face persistent challenges, including high costs, slow processing times, limited accessibility, and a lack of transparency, often taking 1-3 banking days to complete depending on the destination. These inefficiencies have spurred innovations outside traditional banking, notably the development of stablecoins. Stablecoins leverage blockchain technology and are a digital form of money designed to maintain a stable value by being pegged to assets, such as fiat currencies or commodities. The market valuation of stablecoins has surged from around $ 5 billion to nearly $ 200 billion in two years, showcasing stablecoins growing impact on the financial sector. The potential path of stablecoins reaching mass adoption involves not only economic challenges but also a complex political battleground.

This thesis' aim is to contribute to the currently scarce research regarding sensemaking of how representatives of Swedish financial stakeholders perceive and anticipate the emergence of stablecoins. Employing a qualitative research design, this study gathered data through semi-structured interviews with key representatives from the Swedish financial sector.

The findings reveals that perceptions of stablecoins are influenced by actor dynamics, individual factors, and technical aspects, with regulatory actors playing a pivotal role. Furthermore, through these influencing factors the study revealed that there exists a market divide characterized by "us versus them" mentality. This divide could grow, complicating regulatory collaboration and stifling innovation, potentially driving innovators abroad to more favorable judicial environments in the future. The conclusion underscores the need for enhanced collaboration, open debate, mutual understanding and learning among market actors to maintain a well-functioning and competitive Swedish financial market.

Keywords: Stablecoins, Sensemaking, Sensegiving, Sensebreaking, Digital Currencies, Cryptocurrencies, Blockchain Technology, Gioia Methodology, Technical Aspects, Individual Factors, Actor Dynamics, Stablecoins Future Implementation.

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Melissa Persson & Marcus Lundskog, Gothenburg, May 2024

Glossary

Below is the list of explanations for words and concepts that have been used throughout this thesis listed in alphabetical order:

Blockchain Technology	A decentralized digital ledger that records transactions across many computers so that the registered transactions cannot be altered retroactively.
CBDC (Central Bank Digital Currency)	A digital form of fiat money that is a liability of a central bank rather than a commercial bank.
Concentration Risk	The risk that large losses from a single exposure or group of exposures could threaten a financial institution's stability.
Credit Risk	The potential loss due to a borrower's failure to repay a loan or meet financial obligations.
Cryptocurrency	A digital or virtual currency that uses cryptography for security.
Decentralized Finance (DeFi)	A financial ecosystem built on blockchain technology that enables peer-to-peer transactions and services, such as lending, borrowing and trading, without the need for centralized intermediaries
Fiat currency	A currency that a government has declared to be legal tender, but it is not backed by a physical commodity.

Financial Intermediary	Institutions like banks and credit unions that facilitate the movement of funds between lenders and borrowers in capital and debt markets.
G20	The G20 or Group of 20 is an intergovernmental forum comprising 19 sovereign countries, the European Union (EU), and the African Union (AU).
Legal Tender	Currency that must be accepted for payment of debts, as designated by law.
Liquidity Risk	The risk of not being able to quickly convert assets into cash without substantial loss to meet short-term obligations.
Market Volatility	The rate of price fluctuations in assets, typically measured by the standard deviation of annual returns.
Monetary Policy	The methods by which a central bank or government authority controls the supply of money and the terms of trade in foreign exchange markets.
Pegging	The practice of fixing the exchange rate of one currency to another.
Tokenization	The process of converting rights to an asset into a digital token on a blockchain.
Traditional Finance (TradFI)	The financial system operating through centralized institutions like banks and stock exchanges, regulated by legal frameworks.

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Introduction

The evolution of money throughout history has consistently adapted to shifts in societal structures, technological advancements, and the rise and fall of economic empires. From ancient barter systems to the use of commodities like salt in the Roman Empire and shells in various cultures, money has taken on diverse forms (Popli & Wasswa, 2024). More recently, metallic currencies such as gold, silver, and copper dominated before giving way to banknotes (Arslanian, 2022). These notes initially represented tangible metal reserves but transitioned to what we know today as fiat currencies, government-backed but not pegged to physical commodities, following the termination of the U.S. gold standard in 1970 (Eichengreen et al., 1997). In the modern era, while most fiat currencies have been digitized, global transactions still face significant challenges, including high costs, slow speeds, limited access, and lack of transparency (Grey & Hacker, 2019). With the rise of globalization and the rapid exchange of information and communication, there has been an increased demand for enhanced cross-border payments (Panetta, 2023). This dilemma was further emphasized by Erik, one of the respondents of the interviews in this study:

> "*It's paradoxical that in 2024, moving physically from one place to another can be faster than transferring money. For instance, traveling from Milan to Stockholm takes roughly six and a half hours, but sending money between these locations can take a day or more.*"
>
> - *Erik*

Despite the G20 prioritizing improvements for global transaction rails, no major accomplishments have been achieved (Board, 2023). In 2020, the G20 directed the Financial Stability Board (FSB) to create a roadmap for improving the global transaction system (BIS, 2022). However, international transactions can still be slow and costly, with some taking up to 10 and cost up to 10% of the transfer's value (Cleland, 2021). The stagnation in the development of the global transaction system has catalyzed innovation from beyond traditional banking sectors. The introduction of blockchain technology was initiated by the creation of Bitcoin in 2008 which marked a paradigm shift with regards to global transactions. Designed as a peer-to-peer transactional network, Bitcoin sought to remedy the inefficiencies of the financial system by operating without a central authority, instead relying on a decentralized network (Nakamoto, 2008).

Bitcoin spurred the development of numerous other cryptocurrencies and gave rise to Decentralized Finance (DeFi). However, Bitcoin and most other cryptocurrencies

are known for their high volatility. As a result of this volatility, stablecoins emerged. Initially, stablecoins were intended to serve as a bridge between the decentralized and traditional financial systems, offering a stable alternative amidst the highly volatile crypto market (Hayes, 2023). Among an array of launched stablecoins, Tether's USDT marked the most successful one in 2014 (Bernhart, 2020).

Stablecoins are designed to achieve stability by being pegged to relatively stable assets, such as the U.S. dollar or the euro, while leveraging the benefits of blockchain technology. This approach reduces the drawbacks associated with traditional financial transactions, including lagging processing times, high costs, and risks linked to intermediaries (Wilkie & Smith, 2021). Blockchain technology can facilitate almost instantaneous transactions at reduced costs globally. By 2022, stablecoins had gained traction as a payment method beyond the crypto ecosystem in both advanced and emerging markets (Sadiq et al., 2023).

The rise in the stablecoin market capitalization, from a valuation of around $ 5 billion in 2020 to nearly $ 200 billion in just two years, highlights its growing impact within the financial sector (Barthélémy et al., 2023). Yet, the rise of stablecoins has also ushered in new risks and regulatory challenges. Comparisons have been drawn to the Free Banking Era in the United States, a time characterized by minimal regulatory oversight that led to financial instability (Bolt et al., 2022; Bains et al., 2022; Rockoff, 1972). This historical parallel emphasizes the need for careful regulatory frameworks to mitigate systemic risks inherent in an unregulated issuance of stablecoins by private entities (Dark et al., 2023).

In recent years it has been evident that companies in the traditional financial system are integrating stablecoins and blockchain technology to their business models. For instance in 2021, Visa initiated a partnership with Circle to pilot the use case of USDC, a dollar pegged Stablecoin, which marked one of the first initiatives by a major payment network to leverage blockchain for cross-border settlements (Visa Inc., 2023). Institutions and banks are also exploring blockchain technology to innovate and remain competitive. The introduction of tokenized deposits, developed by international banks such as J.P. Morgan with its JPM Coin and Deutsche Bank through its participation in blockchain-based interbank platforms, exemplifies this trend (Klein, 2023; Mallela et al., 2023). Furthermore, FinTech companies are at the forefront of integrating stablecoins into their services to enable a more efficient transaction system. Early adopters such as PayPal, with their dollar-backed stablecoin, PayPal USD (PYUSD), demonstrate this trend (PayPal, 2023).

Another recent trend is the tokenization of real-world assets such as stocks, securities, and commodities. In 2024, the world's largest asset manager, Blackrock, introduced cryptocurrency investment vehicles and expressed interest in further developments toward tokenizing real world assets (Raheman, 2024). This interest was also indicated by the CEO of Blackrock in his 2023 letter to investors (McCarthy, 2023):

> "*The tokenization of asset classes offers the prospect of driving efficiencies in capital markets, shortening value chains, and improving cost and access for investors.*"
>
> *- Larry Fink*

Financial Times estimated that blockchain technology could decrease costs for asset managers by up to 2.7 billion per year just in the process of buying and selling funds (Mooney, 2018). This demonstrates the incentives to evolve the current financial system into a blockchain based equivalent with inherently low costs and instantaneous settlements.

Additionally there is an increasing number of global businesses recognizing the benefits of using stablecoins for cross-border payments, not only for internal business transactions but also in B2B and B2C dealings. According to Adams et al. (2023), as foreign exchange markets begin to adopt stablecoins, the cost of remittances could decrease by up to 80%. Furthermore, the near-instantaneous settlement and the constant availability of on-chain foreign exchange transactions can result in cost savings and reduced risk for businesses.

While the potential for stablecoins are evident, they also come with associated risks. Until recently, the industry operated without any regulations regarding stablecoins. It was not until 2023 that the European Union enacted its first regulatory framework, known as the Markets in Crypto-Assets (MiCA) Regulation, in June 2023. This framework is the first of its kind at the EU level to oversee Stablecoins and other cryptocurrencies (Parliament, 2023). Under MiCA, issuers of stablecoins must maintain a 1:1 reserve ratio for all claims and redemptions, ensuring a stable value for these digital currencies (Chance, 2022). Additionally, the European Central Bank is empowered to prohibit the issuance of stablecoins if deemed necessary for financial stability (Council, 2023). Internationally, countries such as Singapore, Japan, the UK, and the US are developing and enacting their stablecoin regulations (Gurrea-Martínez, 2020; Mokhinur et al., 2023). The regulatory frameworks vary by region in both the scope and the timing of enforcement. Since the MiCA regulation will first come into effect on December 30, 2024, it remains unclear how this regulatory framework will impact the industry in Europe as a whole.

1.1 Background

There is plenty of research on stablecoins' future role in the monetary system and their potential impact on the financial system. The fast-paced adoption of stablecoins has raised concerns about various potential effects on banking activities and the traditional financial system (Liao & Caramichael, 2022).

Stablecoins and other digital assets have served as a catalyst for Central Banks worldwide to explore their own digital currencies, known as Central Bank Digital Currencies (CBDCs) (Ahnert et al., 2022). The emergence of stablecoins and other digital currencies is increasingly seen as a significant threat to monetary system

stability, as indicated by the European Central Bank (Ahnert et al., 2022). This have ignited researchers to investigate potential scenarios where various digital assets could serve as money in the future (Kulkarni et al., 2019; Zhao & Ringström, 2022).

Bolt et al. (2022) has conducted research on the potential integration of stablecoins and CBDCs in relation to policies. It is further argued that it is essential to establish balanced policies between public money and private forms of money, such as stablecoins. Public money, underpinned by central bank authority, would prioritize trust, ensuring a stable and reliable monetary foundation for the economy. Meanwhile, private money, represented by innovations such as stablecoins, could be argued to foster a culture of innovation, driving forward new technologies and methodologies in the financial sector (Bolt et al., 2022).

Calomiris (2021) highlights difficulties and uncertainties in creating a stablecoin payment system and the potential approval of stablecoin issuers to become banks. Legacy banks, Central banks, and beneficiaries of the current regulatory regime governing traditional banks all have a vested interest in maintaining the status quo (Rosenthal & Court, 2020). Calomiris (2021) argues that the battle over the future of payments extends beyond economic competition, it is also a political struggle. This conflict revolves around the determination of relative political influence and power dynamics, which could impact the decision on whether to permit the advancement of technological progress, particularly in the context of stablecoins (Calomiris, 2021; Cong & Mayer, 2022).

Au et al. (2023) highlight that prior investigations into stablecoins are predominantly centered on monetary policies, striving to represent the attributes of stablecoins empirically. While there has been some exploration into public attitudes toward stablecoins, the focus has largely been limited to the perspectives of private individuals managing hot cryptocurrency wallets (Hsu et al., 2022; Au et al., 2023). According to Hsu et al. (2022), one reason for the limited research is the significant learning curve involved in adopting cryptocurrencies. This often requires users to acquire a deep understanding of various fundamental aspects of cryptocurrency before it can be more widely adopted. Although a "price-stable" cryptocurrency has potential benefits, it can introduce a more complicated perception for less experienced users. Such users might already perceive cryptocurrencies as being characterized by price volatility. Hence, this new concept of "price stability" may cause confusion among this demographic, resulting in fewer studies being made on the subject (Hsu et al., 2022).

Gattringer et al. (2021) emphasizes the importance of individuals' sensemaking in understanding emerging technologies during the pre-adoption phase, as the uncertainties and future paths of disruptive technologies are difficult to predict. One could argue that stablecoins are currently in an early adoption phase, making the study of prospective sensemaking imperative for understanding them. The sensemaking process, where individuals and organizations form expectations about technology

through a continuous cycle of action and interpretation, is crucial before widespread adoption (Gioia & Chittipeddi, 1991). Surprisingly, this aspect of sensemaking related to blockchain technology and related innovations has been largely overlooked in existing research, with only a few exceptions in supply chain research, focusing on the use of permissioned blockchains within semi-closed systems (Wang et al., 2019).

Ostern et al. (2022) have also researched sensemaking processes related to enterprise blockchains, particularly fully private corporate blockchains. Moreover, there is a significant research gap in understanding how stakeholders within the Swedish financial landscape, including FinTech companies, banks, multinational corporations, institutions, and authorities, perceive stablecoins and their sensemaking around it. The perspectives of these stakeholders on the potential advantages and disadvantages of using stablecoins remain vague.

Although the advantages and disadvantages of stablecoins remain a topic of debate, their growing prominence is indisputable. Several crucial questions arises: How will stablecoins coexist with potential CBDCs and tokenized bank deposits, and what will the banks' roles be in this changing landscape? The development of these emerging trends largely depends on the decisions made by individuals with decision-making authority. Therefore, understanding individuals' perceptions and sensemaking processes is critical when exploring the future role of stablecoins. It could be argued that gaining a better understanding of the future adoption of stablecoins requires an exploration of prospective sensemaking processes related to stablecoin adoption. Below, Figure 1.1 illustrates a historical timeline of stablecoins, including future developments and the relationship to prospective sensemaking.

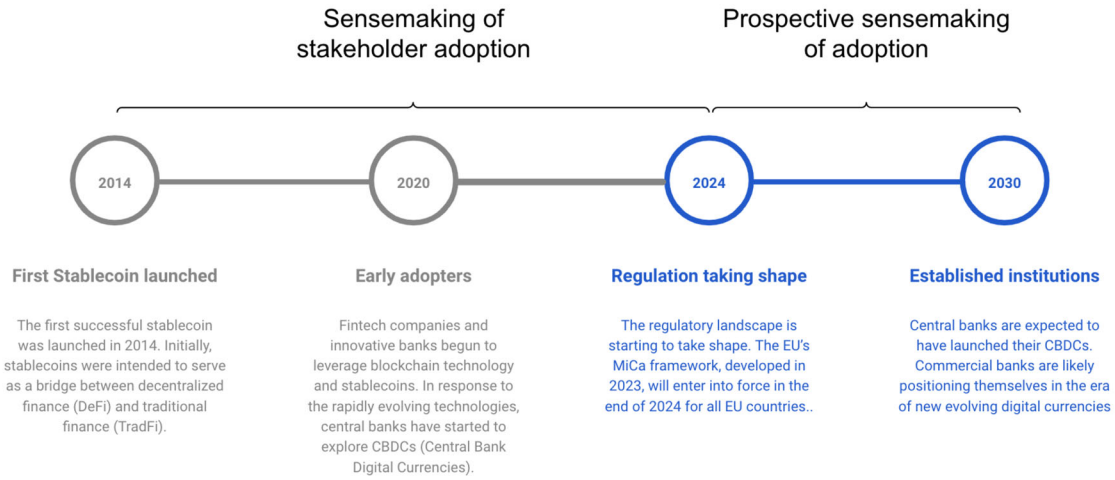

Figure 1.1: Timeline of the studied period

1.2 Problematization

According to Schuh and Stavins (2016) there is a growing demand for faster and more secure payments. This demand has spurred innovations such as stablecoins in the private sector, according to Ahnert et al. (2022). While stablecoins is already in use, we are still in the early stages of its adoption (Gurguc & Knottenbelt, 2018). Yet, the perspectives of individuals representing Swedish financial stakeholders on this innovation remains vague.

As we currently find ourselves in the pre-adoption phase of stablecoins, it is crucial to comprehend how organizations and stakeholders assess their potential impact and make adoption decisions (Wang et al., 2019). This phase may necessitate substantial investments and operational changes, underscoring the critical importance of making well-informed decisions. However, emerging technologies often introduce ambiguity and uncertainty (Wang et al., 2019).

Sensemaking, a cognitive process, becomes valuable in the pre-adoption phase as it aids both individuals and organizations in making sense of technologies that are still evolving and not entirely clear (Gioia & Chittipeddi, 1991). One could assume that the sense-making process varies depending on an individual's background and experience, which in turn can influence their interpretation of and response to the emergence of stablecoins.

According to Seligman (2006), the adoption process of new technology involves multiple sense-making cycles that shape perceptions of the technology until a decision to adopt or reject is made. One could assume that individuals' sense-making about the future of stablecoins dictates their current decision-making and perception of the innovation. Thus, understanding the perspectives of influential individuals within the Swedish financial landscape may be helpful in gauging the potential trajectory of stablecoins.

1.3 Purpose and Research Questions

The aim of this study is to contribute to the currently scarce research regarding sensemaking of how representatives of Swedish financial stakeholders perceive and anticipate the emergence of stablecoins. Furthermore, the aim is to gain understanding and comprehend the current pre-adoption phase.

- *How are representatives of Swedish financial Stakeholders sensemaking around stablecoins?*
  - *What factors impact the sensemaking of stablecoins?*
  - *How does prospective sensemaking interplay with and impact the current understanding of stablecoins?*

– *What are the barriers and opportunities for stablecoins adoption?*

2
Theory

In this theory chapter, we will present a theoretical background that will explain what stablecoins are and its role in today's monetary system. Subsequently, we will introduce a theoretical framework that explains the Sensemaking theories we have applied to this study.

2.1 Theoretical Background

This section aims to provide a theoretical background to foster a comprehensive understanding of stablecoins. To grasp the role of stablecoins in the financial system, we will explore the history of money and define what fiat money entails. Furthermore, we will present what stablecoins are and the blockchain technology they leverage, distinguish different types of stablecoins, and finally touch upon stablecoin regulations.

2.1.1 Defining Money

Throughout history, the form and methods of using money have transformed entirely from tangible commodities like cowry shells, barley, peppercorns, gold, and silver to today's digital currencies (Asmundson & Oner, 2012). Yet, its foundational purpose as a medium of exchange and a store of value have remained unchanged. Without a universally accepted form of exchange, transactions are restricted to direct barter or credit deals, which are prone to failure in the absence of trust established through lasting relationships or perfect commitment (Ahnert et al., 2022). Von Mises (2013) explains that the essential feature of money is its widespread acceptance as a means of payment for goods and services or for settling debts. This broad definition encompasses various forms of potential money. Nonetheless, money must fulfill three fundamental roles within an economy, as identified by Gentle (2021) and Mattke et al. (2020).

- **Medium of Exchange:** It enables buyers and sellers to transact without needing a direct barter, acting as a widely accepted intermediary.
- **Unit of Account:** It provides a common measure to set prices and value goods, services, and assets, making economic comparison straightforward.
- **Store of Value:** It preserves purchasing power over time, allowing individuals to save or invest for future needs.

2.1.1.1 Fiat Money

Fiat money, as Chen (2022) defines it, is a type of currency issued by governments that is not backed by a tangible commodity such as gold or silver. Instead, its value primarily depends on the issuing government's stability and the dynamics of supply and demand. This contrasts with commodity money, whose value is derived from the inherent worth of the material it is made of. Fiat money's worth is established by governmental decree rather than any intrinsic value, as noted by Von Mises (2013).

The shift from commodity money to fiat money is commonly traced back to the collapse of the Bretton Woods agreement. This system implied a gold standard where US dollars value as fixed to a certain quantity of gold and could be convertible at par at any given time (Riksbank, 2024). The Bretton Woods System was effectively terminated in the early 1970s when President Richard M. Nixon declared that the U.S. would cease to convert dollars into gold at a fixed value (Eichengreen et al., 1997). Today, the fiat currency system underpins most of the world's major currencies, including the U.S. dollar, the euro, and others, serving as the foundation of the global financial system (Gechert et al., 2015).

The introduction of fiat money has made the phenomena of inflation and deflation more significant than ever, linking these economic challenges directly to the management of the money supply by governments and central banks (Von Mises, 2013). This transition marks a significant shift in the basis of money's value, from the tangible utility of commodities to the abstract authority of governments, illustrating the complex dynamics at play in modern monetary systems.

2.1.1.2 Money Creation in Today's Financial System

When discussing fiat money, it is crucial to understand how these currencies are created, by whom, and their differences. In the modern money creation system, there are two main types: physical money, issued by central banks, and commercial bank money, which is generated through the mechanisms of borrowing and lending by commercial banks (Jordan, 2018).

Central bank money includes both coins and banknotes physically issued by central banks and in circulation, as well as the sight deposits held by commercial banks at the central bank (McLeay et al., 2014). For example, in Sweden, the central bank, Riksbanken, creates central bank money. When Riksbanken buys foreign currency or securities denominated in Swedish Krona (SEK) from a commercial bank, it credits the bank's sight deposit account with the corresponding amount in SEK (Riksbank, 2023). Conversely, to reduce the monetary base, also known as central bank money, Riksbanken may sell foreign currency or SEK, denominated securities to banks and debit their sight deposit accounts accordingly. This process allows Riksbanken to adjust the monetary base to align with its monetary policy objectives i.e. the inflation target.

The other prevalent form of money, most familiar and widely used by the pub-

lic, is commercial bank money. This type of currency is primarily digital and exists as balances in bank accounts (McLeay et al., 2014). It is created within the banking system through various transactions and loans. Today, commercial bank money represents the majority of the money supply in most economies, underscoring its critical role in daily financial activities and the broader economic system.

Both types of money are considered legal tender, thus, they must be accepted for transactions without any restrictions. This ensures fluidity and reliability in financial transactions across the economy (Riksbank, 2023).

2.1.2 Defining Stablecoins

Stablecoins are a type of digital currency engineered to maintain a stable value relative to fiat currencies or other assets, including cryptocurrencies (Baur & Hoang, 2021; Sameeh, 2018; M. Lee, 2019). This section will present the concept of blockchain technology, Decentralized finance (DeFi), Traditional finance (TradFi), currency stability, the principle of a peg, and detail the various types and definitions of stablecoins. We will examine fiat-collateralized, crypto-collateralized, and algorithmic stablecoins, each characterized by distinct mechanisms designed to preserve their value stability.

2.1.2.1 Leveraging Blockchain technology

Blockchain technology, first introduced as the underlying framework for the cryptocurrency Bitcoin, has evolved significantly and is now foundational to various digital finance innovations. Unlike traditional record-keeping systems that are centralized, blockchain is inherently decentralized, storing data across a network of computers and ensuring transparency and security through its distributed ledger system (Nakamoto, 2008). This technology enables transactions to be recorded chronologically and publicly, effectively preventing tampering and ensuring integrity without the need for a central authority (Yaga et al., 2019).

At its core, a blockchain is a series of interconnected blocks that contain information about transactions. Each block is linked to its predecessor through cryptographic hashing, forming a secure and immutable chain. The decentralization aspect means that every participant, or "node," on the network has a copy of the entire blockchain, which is updated in real-time as new blocks are confirmed and added (Antonopoulos, 2017). This feature not only enhances security but also disperses power, reducing the risk of centralized control or failure (Swan, 2015).

The introduction of blockchain has also spurred the development and adoption of various types of digital currencies, including stablecoins. Stablecoins are a category of cryptocurrencies that aim to offer price stability by being pegged to a reserve asset, such as fiat currency or gold (Kochergin, 2020). They combine the benefits of cryptocurrencies, such as fast transaction times and digital accessibility, with the reduced volatility of traditional currencies. This stability is crucial for businesses and consumers who require predictable financial transactions without the

wide price fluctuations associated with typical cryptocurrencies like Bitcoin (Lipton et al., 2020).

2.1.2.2 Decentralized Finance and Stablecoins

Decentralized finance (DeFi) represents a transformative shift in the financial sector, leveraging blockchain technology to operate continuously, around the clock, and accessible to anyone with an internet connection (Circle, 2024). This level of accessibility has the potential to universalize financial services across the globe, regardless of geographical location or financial background.

By eliminating intermediaries, DeFi reduces transaction costs and increases the speed of financial interactions. Central to this innovation are smart contracts, which are self-executing contracts with the terms of the agreement between buyer and seller being directly written into lines of code. Stored on the blockchain, these contracts automate and secure financial transactions, ensuring that all dealings are traceable and irreversible, enhancing the efficiency and trustworthiness of DeFi platforms (Hayes, 2023).

Stablecoins play a pivotal role within this ecosystem. As blockchain-based equivalents of fiat currencies, stablecoins provide the stability that other cryptocurrencies lack. This stability is crucial in volatile markets, making stablecoins an sufficient medium of exchange and a store of value within DeFi platforms (Shah et al., 2023). DeFi applications allow users not just to trade and invest but also to engage in everyday financial activities such as lending, borrowing, and earning interest, all within a decentralized framework (Gogol et al., 2024).

Furthermore, stablecoins enhance the functionality of DeFi by enabling smoother transitions between different cryptocurrencies and traditional currencies, facilitating easier and more accessible financial transactions on a global scale. They act as a bridge between the conventional financial system and emerging digital alternatives, expanding the market share of DeFi, particularly in regions where access to traditional banking is limited or unreliable (Kulkarni et al., 2019).

2.1.2.3 Traditional Finance

Traditional finance (TradFi) represents the well-established systems and institutions that underpin the global economy, encompassing a vast network of banks, insurance companies, stock exchanges, and other financial entities operating under strict regulatory frameworks (Gourinchas et al., 2019). These institutions provide essential services such as lending, deposit taking, asset management, and insurance, which are crucial for economic stability and growth.

Unlike decentralized finance (DeFi), traditional finance is characterized by its reliance on intermediaries such as banks and brokers to facilitate transactions and ensure regulatory compliance. These intermediaries play a pivotal role in maintaining trust between parties, assessing credit risks, and providing financial advice,

which are integral to the functioning of the financial markets (Ehlers & Villar, 2015). However, this reliance can also lead to higher transaction costs, slower processing times, and occasionally restricted access to financial services for underbanked or unbanked populations, particularly in regions with underdeveloped financial infrastructure.

At the heart of traditional finance are the central banking systems and regulatory bodies that oversee and manage the economic policies of countries. These entities ensure financial stability by managing currency issuance, controlling inflation rates, and acting as lenders of last resort during economic downturns (Schoenmaker, 2013). Their oversight extends to ensuring that financial institutions operate within the bounds of the law and maintain sufficient liquidity to meet their obligations.

2.1.2.4 What is a "Stable" Coin

To understand what a stable coin is, one first needs to understand what stability is when it comes to currencies. According to Baur and Hoang (2020), stability in the context of stablecoins can be categorized into two primary types: absolute stability and relative stability. Absolute stability is characterized by zero variance, indicating statistically insignificant variations. Relative stability requires the return of an asset to be less volatile than the returns of another asset. It can be relative to several other valuables, for instance, Bitcoin, fiat currencies, gold, or silver.

Furthermore, (Baur & Hoang, 2020) presents that none of the stablecoins on the market are absolutely stable, but all of them can be relatively stable compared to volatile assets. Additionally, it is presented that a stablecoin, which is connected to volatile assets, cannot be stable itself. Hence, the most critical aspect is that a stablecoin's value is closely correlated relative to the currency or asset to which it is pegged. d'Avernas et al. (2021) highlight that stablecoins share certain features with conventional financial entities like mutual funds, banks, and central banks, though not all.

But what defines stability when it comes to currency? Currency stability implies minimal fluctuations, maintaining a relatively constant value over time (Sameeh, 2018). There are several stablecoins that are more or less stable due to several different reasons, it can be due to inflation of the underlying assets, the designs of the coin, and the trustworthiness of the coin, as well as other coins affecting each other (Douglas Arner, 2020; Mita et al., 2019; Thanh et al., 2023).

2.1.2.5 What is a "Peg" and a "Stabilization mechanisms"

In the realm of stablecoins, maintaining a reliable peg to designated assets minimizes their volatility and supports their function as stable digital currencies, making them attractive for transactions. A peg is a policy mechanism that aims to stabilize exchange rates in the long term, enhancing economic stability and providing predictability essential for business planning (Banton, 2022). Pegging a currency to an asset or another currency has traditionally been used by national governments to

establish fixed exchange rates and curb volatility (Zhao & Ringström, 2022).

The "stabilization mechanism" of a stablecoin refers to the specific method it employs to maintain its peg to a real-world asset. These mechanisms are crucial for ensuring that the stablecoin retains a value consistent with its underlying asset, thereby upholding its utility and trustworthiness in financial transactions. Various stabilization strategies are currently in use, each tailored to the particular requirements and structure of the stablecoin (Baughman et al., 2022). Essentially, a stabilization mechanism acts as a strategy to preserve the target price of the stablecoin, ensuring its stability and reliability as a medium of exchange.

2.1.2.6 Fiat-collateralized Stablecoins

Fiat-collateralized stablecoins are digital currencies issued and backed by a minting authority that maintains financial assets such as treasury bills, bank deposits, and other highly liquid assets as reserves. These reserves are typically managed off-chain by private minting entities (Baughman et al., 2022). The stability of the coin's value is achieved through a straightforward and transparent process, for every unit of stablecoin issued, an equivalent amount of fiat currency is held in reserve. This ensures that each stablecoin can potentially be exchanged for its fiat equivalent at any time (Hayes, 2024).

The redemption process for these stablecoins is equally direct. When holders wish to redeem their stablecoins, the coins are "burned," and the holder receives their corresponding fiat asset from the reserve. This reserve consists of high-quality liquid assets denominated in the same currency to which the stablecoin is pegged (Mita et al., 2019).

The effectiveness of this model hinges on trust and the regular auditing of reserves. These audits are critical to verify that the tokens are indeed fully backed by the high-quality liquid assets held in reserve, corresponding to 100% of the issued stablecoins (Catalini & Shah, 2021).

The most extensively utilized fiat-collateralized stablecoin is Tether's USDT. Tether, the minting entity maintains a diversified portfolio of assets as reserves for USDT, comprising corporate bonds, money market fund, secured loans, and reverse repo agreements, with the majority of the reserves being in U.S. Treasury securities, accounting for over 60% of Tether's reserves by the end of 2023. USDC, the next largest stablecoin in terms of market capitalization, holds a significantly larger share of cash deposits compared to Tether and primarily invests in U.S. Treasury debt and reverse repo agreements, aside from its cash holdings (Council, 2023).

2.1.2.7 Asset-backed Stablecoins

Asset backed stablecoins are backed by one or a basket of assets compared with fiat collateralized stablecoins backed by cash or cash eqivalent assets. It is increasingly common for issuers to back their stablecoins with one or multiple commodities, such

as gold (Roberts, 2022).

Additionally, there are stablecoins backed by cryptocurrencies, where crypto assets are held as collateral within smart contracts. One example of a crypto-backed stablecoin is DAI (Staff, 2023). This type of stablecoin has its collateral managed on-chain, distinguishing it from fiat-collateralized stablecoins (Berentsen & Schär, 2019; Baughman et al., 2022). This structure provides high transparency and allows for easy auditing at any time, due to the public nature of blockchain ledgers (Fatas, 2019). These stablecoins feature automatic mechanisms for the issuance of new tokens as soon as collateral is pledged. They are typically overcollateralized, meaning that the value of the collateral held exceeds the value of tokens issued (Hayes, 2024). Furthermore, if the ratio of collateral to issued tokens falls below a predetermined threshold, the collateral is automatically liquidated to maintain stability.

2.1.2.8 Algorithmic Stablecoins

Algorithmic stablecoins represent another category within the stablecoin family. Unlike the fiat-collateralized and asset-backed counterparts, these digital tokens are not collateralized by any specific currency or basket of assets. Instead, they employ a variety of stabilization mechanisms aimed at minimizing price volatility and maintaining their peg to, for example, a fiat currency. These coins are generally part of the decentralized finance (DeFi) ecosystem and operate on a decentralized, non-custodial basis (van Echelpoel et al., 2020; Baur & Hoang, 2021; Bullmann et al., 2019). One example of an algorithmic stablecoin is UST, which became infamous following the Terra-LUNA crash in May 2022. This crash was triggered by UST losing its peg to the dollar within the ecosystem (S. Lee et al., 2023).

2.1.3 Other Types of Digital Currencies

Stablecoins and blockchain technology have spurred both central and commercial banks to investigate how they might harness this technology to digitize their currencies and enhance efficiency. Some research positions these digital currencies as competitors to privately issued stablecoins, whereas others suggest that various forms of digital cash could act as complementary options within the financial ecosystem. In this section, we will explore Central Bank Digital Currencies (CBDCs) and tokenized bank deposits, both of which represent the blockchain-based digitization of traditional monetary forms.

2.1.3.1 Defining CBDC

Central banks worldwide are increasingly recognizing the potential of introducing Central Bank Digital Currencies (CBDCs) in response to innovations in digital money by the private sector. Unlike traditional currencies, which are issued in physical forms such as banknotes and coins, CBDCs are entirely digital and backed by the government's full faith and credit (Ozili, 2022). Currently, 130 countries, accounting for 98% of global GDP, are actively researching CBDCs, with 11 already

having launched their own digital currencies (Council, 2022).

A CBDC essentially serves as a digital counterpart to a country's fiat currency and is regulated and issued by the national central bank. This is in stark contrast to decentralized cryptocurrencies, which operate independently of any central financial authority (Ahnert et al., 2022). Over the past five years, interest in CBDCs has surged, driven by the traditional monetary system's perceived stagnation and significant advancements in digital money and payment technologies by the FinTech sector, including blockchain technology (Ahnert et al., 2022). Additionally, several central banks perceive the rise of stablecoins and other private digital currencies as a threat to monetary sovereignty and stability (Bindseil & Pantelopoulos, 2022).

The primary aim of CBDCs is to replicate the functionality of physical cash within a digital ecosystem, ensuring transactions are quick, secure, and cost-effective. Designed to be legal tender, they guarantee acceptance as a form of payment, facilitating smoother and more efficient digital transactions (Miernicki, 2024). The potential of CBDCs to enhance the implementation of monetary policy, allowing for more precise control and distribution of the money supply, has been a subject of extensive discussion (Chia & Helleiner, 2024; Genc & Takagi, 2024; Council, 2023). However, realizing these benefits involves significant challenges, and achieving an optimal CBDC design that is both functional and beneficial to society remains a considerable hurdle.

Developing and deploying CBDCs involves overcoming complex technical, legal, and regulatory challenges, including concerns related to privacy, cybersecurity, and their impact on the existing financial system and monetary policy (Tronnier, 2021; Tian et al., 2023). Despite these obstacles, the momentum towards digital currencies continues to build globally, as evidenced by numerous countries conducting pilot projects to assess the feasibility and advantages of CBDCs.

2.1.3.2 Defining Tokenized Bank Deposits

Increasingly tokenized deposits or deposit tokens are viewed as an alternative to stablecoins or a retail CBDC, preserving the two tier banking system. Leading banks around the world are moving towards digital banking, with examples like J.P. Morgan, Citi group and DBS who have introduced its own digital currency issued on a private blockchain which a client can hold in their bank account (Chakravarty, 2023; Mallela et al., 2023). Deposit tokens are new form of digital money that represents traditional bank deposits on a blockchain (Mallela et al., 2023). They are issued by licensed and regulated depository institutions, such as commercial banks, and are the equivalents of existing deposits, held by a licensed depository institution such as a commercial bank, but recorded on a blockchain. These deposits can also be transferred between clients on the bank's blockchain. However, what is lacking for scalability is the settlement process among different tokenized deposit solutions across multiple banks (Klein, 2023).

The Bank for International Settlements (BIS) highlights significant differences among digital currencies (Garratt & Shin, 2023). It notes that private digital currencies, such as stablecoins, which are intended to function similarly to cash, may not always maintain their value as reliably as the conventional money they represent. In contrast, tokenized deposits that could potentially settle in a future Central Bank Digital Currency (CBDC) tend to preserve their value more consistently according to Garratt and Shin (2023). Therefore, according to the BIS, tokenized bank deposits are safer and more dependable for financial transactions compared to stablecoins.

2.1.4 Regulating Stablecoins

In the dynamic realm of cryptocurrencies, the regulatory landscape of stablecoins is rapidly evolving as governments and international bodies work to address the risks associated with their use. There remains significant variation in regulatory approaches across different jurisdictions, ranging from proactive to reactive strategies (Hansen & Bauer, 2024). Key international organizations, including the Committee on Payments and Market Infrastructures, the International Organization of Securities Commissions, the Financial Stability Board, and the Basel Committee on Banking Supervision, are at the forefront, developing frameworks to guide the regulation of stablecoins (BIS, 2022). These efforts aim to foster a cohesive regulatory environment that can adapt to the innovative yet complex nature of stablecoin operations, although a unified global regulation has yet to be established (George, 2024).

In addressing the regulatory challenges posed by stablecoins, the European Union has taken a pioneering role with the introduction of the Markets in Crypto Assets (MiCA) regulation (Parliament, 2023). Under MiCA, stablecoins are classified into two primary categories: e-money tokens, which covers stablecoins pegged to a single fiat currency, and asset-referenced tokens (ARTs), which covers stablecoins pegged to more than one fiat currency, physical asset, cryptocurrency, or a mixture of all three (Nevil, 2024).

One significant concern with stablecoin issuers is the credit risk they pose (Arner et al., 2020). To address these risks, MiCA implements several measures including mandating that issuers maintain robust capital reserves, ensure stringent custody of funds, and uphold clear redemption rights (Nodes, 2024). Issuers must hold reserves in highly liquid assets sufficient to match or exceed the volume of tokens in circulation, ensuring they can fulfill redemption requests promptly. Additionally, stablecoin issuers will be subject to oversight by national authorities and, depending on their scale and impact, may also be monitored by pan-European regulatory bodies such as the European Banking Autority (EBA). Furthermore algoritmic stablecoins will be banned in EU as a consequence of MiCA. This supervision ensures compliance with MiCA standards and helps safeguard financial stability according to Parliament (2023).

Another key focus of MiCA is enhancing consumer protection. The regulation requires issuers to provide detailed disclosures about their governance structures,

risk management practices, and the composition of underlying assets. This transparency is crucial for protecting consumers and maintaining trust in the stability and integrity of stablecoins according to Parliament (2023).

2.2 Theoretical Framework

This chapter will explore the theory of sensemaking, a process by which individuals comprehend phenomena such as disruptive technologies or innovations. This study focuses on stablecoin, and we aim to apply the sensemaking theory to gain a deeper understanding of how individuals perceive and interpret stablecoin as a novel phenomenon. Specifically, we are interested in how people process and understand past, present, and future contexts, particularly in relation to the innovation of Stablecoins.

2.2.1 Sensemaking, Sensegiving and Sensebreaking

Sensemaking can be described as a process of how an individual notices, selects and interprets ideas in their environment (Weick, 1995). It is the sensemaking process that lays the ground for individuals decision-making and action-taking (Gioia & Chittipeddi, 1991). Furthermore, it determines what people see and do and what they interpret to be their reality. Sensemaking is a useful theory in order to understand why people give different interpretations to the same events (Rom & Eyal, 2019). In our study, we focus on the sensemaking perspectives of key individuals and extract their conscious and intentional considerations regarding the potential future impact of stablecoins on the financial landscape.

One perspective that can help us comprehend how individuals' sensemaking is influenced is through the concepts of sensegiving and sensebreaking (Gioia & Chittipeddi, 1991; Almqvist et al., 2011). When influential individuals communicate that the existing interpretive framework is no longer suitable, this can impact stakeholders in various ways, a process called sensegiving (Gioia & Chittipeddi, 1991). Such actions imply the creation of instability in individuals' understanding of the phenomenon, in this case, stablecoin. This instability can prompt individuals to reconsider their perceptions of the phenomenon and its future scenarios. The process of either reinforcing or disrupting an individual's current sensemaking is known as sensebreaking. Essentially, it involves a shift in an individual's understanding, which, in turn, can influence their decision-making process and actions.

2.2.2 Prospective Sensemaking

Gattringer et al. (2021) introduces prospective sensemaking, which builds upon the foundational principles of traditional sensemaking processes. Prospective sensemaking employs similar mechanisms, such as cues and frames, to initiate sensemaking processes. However, unlike traditional sensemaking, it directs attention to the "probable future impact of certain actions" and the associated processes of constructing meaning. Using prospective sensemaking as a framework, one can examine how

individuals within a collective navigated a context of uncertainty and ambiguity stemming from the introduction of a novel innovation, in our context, stablecoin.

Gattringer et al. (2021) further states that prospective sensemaking offers a valuable perspective for gaining deeper insights into how individuals engage with emerging phenomena, shaping initial interpretations. This process of preliminary understanding sets the stage for subsequent reflection (Weick, 1995), potentially influencing strategic decision-making. Additionally, Gattringer et al. (2021) states that a cross-industry, prospective sensemaking approach had a significant impact on how people perceived and thought about technological change.

2.2.3 Making Sense of a Technological disruption

The impact of abrupt technological changes in established industries is a central topic in discussions on technological innovation and progress. These shifts, termed technological discontinuities by Anderson and Tushman (2018), can intensify competition within the technology sector or lead to a complete disruption of existing competitive dynamics (Abernathy & Clark, 1985; Anderson & Tushman, 2018; Utterback & Suárez, 1993).

A closely related topic is how technological disruptions diffuse, and the adoption phases play a vital role in determining whether a new technological disruption succeeds and reaches mass adoption. The diffusion of technology encompasses various adoption processes, as described by Rogers (2003) as the S-shaped adoption curve. However, Seligman (2006) argues that the adoption process does not commence with the introduction of the technology but rather much earlier, with the formation of initial perceptions and symbolic representations of the technology. Moreover, adoption is not a singular decision but a series of sensemaking cycles that shape perceptions of the technology until adoption or rejection actions are taken.

2.2.4 A Theoretical Sensemaking Model

An individuals sensemaking processes do not have a clear beginning or end, instead, it is a iterative process. The figure below Figure 2.1, demonstrates how an individuals sensemaking is impacted by sensegiving, which could potentially lead to sensebreaking causing shifts in individuals' perceptions and understanding. If sensegiving does not lead to sensebreaking, the sensemaking could instead just be reinforced. This, in turn, can affect an individual's prospective sensemaking, as illustrated by the iterative arrows. Furthermore, one's view of prospective sensemaking can also affect one's current sensemaking, which once again showcases the iterative process of sensemaking.

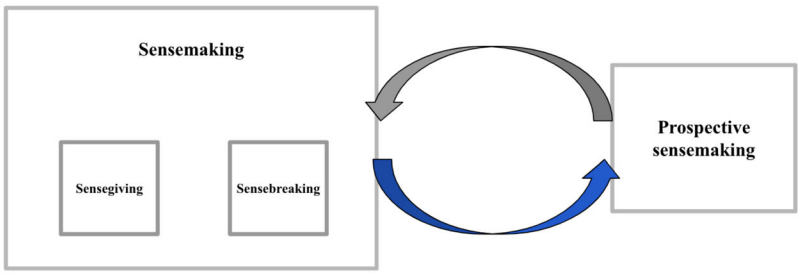

Figure 2.1: Develop model of sensemaking, sensegiving and sensebreaking and the iterative process of prospective sensemaking

3
Methods

This chapter will present the methodology and methods used for our study, we will first present the research design, followed by the data collection, sampling and interviewee description, the data analysis and lastly a reflection of ethics, validity, and reliability.

3.1 Research Design

The aim of this study is to contribute to the currently scarce research regarding sensemaking of how representatives of Swedish financial stakeholders perceive and anticipate the emergence of stablecoins, and identify any barriers and challenges. Given our purpose and research questions, we utilized a qualitative research methodology as it is most suitable for a sensemaking study, given that we aimed to understand how different individuals perceive stablecoins (Paull et al., 2013). The qualitative study involved interviews with representatives of Swedish financial stakeholders to gain their insights on stablecoin and its adoption. Given that the focus of this study is on sensemaking, an interview-based approach was deemed most suitable. Furthermore, as our goal was not to evaluate existing theories but rather to develop new ones. A crucial part of our approach is incorporating an interpretive perspective that recognizes individuals' inherent diversity of views. By acknowledging and embracing this diversity, we aimed to gain a deeper understanding of our research subject. Our focus were not on confirming or disproving established theories but on actively engaging with the complexities of our field to generate fresh theoretical insights.

3.2 Data Collection

In this section, we will discuss the methods used to gather various types of empirical data. We conducted 13 interviews and analyzed relevant documents, including academic research and industry reports.

As mentioned in *Research Design*, our primarily source of data comes from the interviews, which are used to capture the qualitative nuances of individuals' perceptions and views on stablecoins. These interviews were conducted through a combination of in-person sessions and virtual meetings, utilizing platforms such as Google Meetings and Zoom.

The interviews were conducted in a semi-structured way, as it enables the interviewees to present their perspectives on stablecoins. To be able to conduct semi-structured interviews we constructed an interview guide focusing on the main subjects to direct the interviewees accordingly (see Appendix A.1). However, given the semi-structured nature of the interviews, the questions were not necessarily asked in the same order, new ones were added if needed, and thus, the results varied based on relevant side tracks. To preserve the information from each session, the interviews were either recorded or transcribed directly. For this purpose, we utilized Transcriptor, a service providing tools capable of real-time transcription during the interviews and post-session transcription from provided audio files.

According to Bell et al. (2022) and DiCicco-Bloom and Crabtree (2006), using a semi-structured interview can help the interviewer guide the discussion towards a particular subject while allowing the interviewee to offer open-ended answers. This approach encourages a dynamic and interactive dialogue where nuanced insights and unexpected viewpoints can emerge, enhancing the depth and quality of the information collected. Hence, it was seen as the most suitable approach for this study. To gain a comprehensive understanding of the interviewees' perspectives, the interviews were conducted over duration's ranging from 30 minutes to slightly more than an hour.

Additionally, we viewed several documents including research papers and industry specific reports. This type of review helped us gather a deeper understanding of what has been written about stablecoins and it partly served as the basis for creating the interview guide. Furthermore, the document review enabled a foundation for our theory development.

3.2.1 Sampling and Interviewee Description

Interviewing was a crucial step in conducting our qualitative research. Therefore, sampling played a vital role in our study, which was grounded on a purposive sampling method. This method aims to strategically sample participants so that those selected are relevant to the research questions being posed, as described by Bell et al. (2022). Given the diverse range of stakeholders and the breadth of knowledge, we identified key segments in the financial landscape which has or could potentially have an vital role of the adoption of stablecoins, which makes their view and perceptions of stablecoins crucial. This included a mix of actors ranging from decentralized finance, traditional finance, regulatory bodies, banks and businesses engaged in developing an infrastructure for the utilization of stablecoins and cryptocurrencies. The responsiveness of individuals from these various segments varied greatly, with the banking segment showing the most reluctance to participate in the study. The sampling approach involved researching to find the most appropriate individuals representing the different segments and contacting them directly. When selecting individuals for to interview, we considered several aspects including their previous

background, current role, and the organization they represent. We also sampled by asking a specific organization of interest to identify the most suitable individual. At the end of the interviews, we often asked the interviewee if they could refer us to any individuals in the aforementioned segments. This approach, known as snowball sampling, led to several additional interviews.

Below, we provide an introduction to the participants of our interviews. For confidentiality purposes, aliases have been utilized in presenting their identities where the names used are the most common names in Sweden. Additionally, the following table presents the segments in which each interviewee operates, accompanied by the duration of the interview and a brief background description of each individual. See Table 3.1.

Table 3.1: List of Interviewees

Alias	**Segment**	**Interview Length**	**Interviewees Background**
Karl	FinTech	64 min	Currently serving as Partnership Manager at a Swedish FinTech company, facilitating instant cross-border payments using existing banking infrastructure. This individual holds a degree in Industrial Economics with prior experience in capital markets optimization and trade finance.
Erik	FinTech	79 min	Currently serving as Head of Digital Assets & Web3 at a Swedish FinTech company, enabling instant payment solutions. The company, built on existing banking infrastructure, recognizes opportunities within innovations emerging from Web3. This individual Holds a Master in Business Administration.
Lars	FinTech	69 min	Currently serving as Commercial Relationship Manager in Crypto & Web at an international payment processing company. This individual has a background in astrophysics and transitioned to the financial sector and specialized in blockchain and cryptocurrency during university. The company is a leader in payment processing, facilitates transactions across various industries and digital platforms.

Continued on next page

Alias	Segment	Interview Length	Interviewees Background
Anders	FinTech	71 min	Founder of a Swedish FinTech company that assists marketplaces, platforms, and SaaS companies with acquiring payments, managing client funds, and handling payouts. This individual has a background in entrepreneurship and developed an early interest in Bitcoin and blockchain technology. Moreover, this individual has served as an advisor and consultant for blockchain and stablecoins from 2017-2019.
Maria	FinTech	53 min	Currently serving as Technical Product Manager at a Swedish Crypto Exchange. With academic backgrounds in informatics and data engineering, this individual started their career at one of the larger Swedish banks before transitioning to the crypto exchange company.
Per	Bank	61 min	Currently consulting as a Web3 and blockchain expert at one of Sweden's major legacy banks, this individual contributes to enhancing the bank's understanding of cryptocurrency. With a background in engineering and technological research, particularly in cryptocurrency.
Mikael	University	52 min	A prior entrepreneur and currently a PhD student in token economics, additionally working at the Research Institute for Crypto Economics. This individual has pursued studies in business administration in Graz and entrepreneurship and innovation at Lund University. The journey in the crypto space began in 2017, leading to roles such as ICO manager and co-founder of a blockchain gaming platform before pursuing a PhD in token economics.

Continued on next page

Alias	Segment	Interview Length	Interviewees Background
Johan	Financial Supervisory Authority	60 min	Currently serving as an Analyst in Payment Supervision at the Swedish Financial Supervisory Authority. This individual holds a Master's degree in Business Administration, specializing as a business economist and initially began their career in the auditing industry. Later, this individual focus shifted to financial enforcement authorities, with a interest in regulatory roles, particularly within Financial Supervisory Authority.
Olof	FinTech	48 min	Founder and currently serving as chief strategy officer at a Swedish FinTech comapny that are frontrunners in cross-border payment solutions and the link between traditional payments and tokenized assets. Moreover, this individual holds a PhD in electrical engineering from Royal Institute of Technology (KTH) and further studies at Stockholm School of Economics.
Nils	Web3 Infrastructure	56 min	Currently severing as a Sales Director at a global company specializing in digital asset infrastructure, leading innovative projects such as stablecoin initiatives and CBDC projects with central banks. The company provides an easy-to-use, enterprise-trade platform for financial institutions looking to streamline digital asset operations. With a background in business psychology and an MBA, this individual transitioned from traditional finance to join this Web3-native company.
Elisabeth	Web3 Infrastructure	39 min	Currently serving as Vice President for Global Public Policy at a leading global company offering cryptocurrency investigation and compliance solutions to law enforcement agencies, regulators, and businesses to combat illicit cryptocurrency activity. This individual has a background in law, and previous experience as a tax lawyer for a Western country and extensive experience at the OECD, working on projects related to new business models and taxation for the G20, which led this individual to explore the digital asset space.

Continued on next page

Alias	Segment	Interview Length	Interviewees Background
Jan	Swedish Tax Agency	52 min	Currently working at the Swedish Tax Agency, as a cryptocurrency expert. This indvidual has previously been working as a developer alongside a personal crypto business.
Gustav	Web3 Compliance consultant	39 min	Working as an independent consultant since 2017, this individual specializes in helping companies combat money laundering and financial crime related to digital and virtual assets. The interest in cryptocurrency was sparked by recognizing the censorship-resistant aspects of cryptocurrencies and understanding financial exclusion firsthand.

3.3 Data Analysis

During the analysis and coding of the interview data, we primarily employed an inductive approach, allowing themes and patterns to emerge from the data. Our study focused on understanding the processes involved in sensemaking of complex phenomena, which we anchored with the predetermining theme of sensemaking. However, we also remained open to the emergence of additional themes during the coding process. This approach enabled us to flexibly adapt our analysis to the richness of the data while simultaneously incorporating pre-ordained categories developed through various theoretical frameworks.

Researchers face significant challenges when conducting inductive studies, as they need to maintain their capacity for creative discovery and concept generation. Additionally, they must infuse their research with qualitative rigor by utilizing systematic conceptual and analytical frameworks to ensure the credibility of their interpretations (Gehman et al., 2018). To address these challenges we utilized the Gioia method which offers a robust solution to these dilemmas. Emphasizing a structured yet flexible approach to qualitative analysis guiding us through a systematic process of data interpretation. This method encourages the identification of patterns and themes within the data, leading to the development of coherent and plausible interpretations. Moreover, by providing a clear framework for organizing and presenting findings, the Gioia method enhances the transparency of the study's arguments. Thus, the Gioia method equipped us with the tools needed to uphold standards of rigor while harnessing the creative potential inherent in qualitative inquiry (Gioia et al., 2013).

Initially, the interview-data were grouped into identified codes as part of the first-order analysis, which adhered closely to informant terms without simplifying codes.

This approach led to an explosion of codes at the beginning of the study (Gioia et al., 2013). From the data collected from 13 interviews, 88 1st-order concepts emerged. Once we established all the 1st-order concepts, we analyzed the similarities and differences among them, ultimately consolidating them into a more manageable set of 31 main concepts. Following, we labeled these concepts with more descriptive terms. At this stage, according to Gioia et al. (2013), researchers become knowledge agents who must think on multiple levels simultaneously.

In the second-order analysis, we shifted toward the theoretical realm, exploring whether the emerging concepts could suggest themes that would help us describe and explain the sensemaking phenomena. As a third step in the process, four aggregated dimensions emerged from the second order themes. When the 1st-order concepts, 2nd-order themes and the aggregated dimensions had been established, we built a data structure closely related to the structure presented by Gioia et al. (2013). According to Gioia et al. (2013) the data structure enables researchers to configure the data into a more coherent visual aid and offer a graphic representation of our progression from raw data to terms and themes during the analysis process. This serves as a crucial aspect in demonstrating thoroughness in our qualitative research (Gioia et al., 2013). The result of our data structure is presented on the next page (see Figure 3.1).

Lastly, a theory model grounded in the data, was developed from the data structure, following a methodology similar to the Gioia procedures. This model illustrates the dynamic relationships of sensemaking and the emergent aggregated dimensions that describe the phenomenon, establishing clear connections between the data and theory. According to Gioia et al. (2013), the key for good model builders is to account for both the major concepts, themes, and dimensions, as well as their dynamic interrelations. Hence, by using boxes and arrows, where the arrows "set everything in motion", the model showcases the dynamics in a sufficient way. Our model aims to represent and visualize our findings. The model also illustrates the dynamics of sensegiving, sensebreaking, sensemaking, and prospective sensemaking of stablecoins based on the data structure emerged form the interview data. For further explanation and presentation of the model, see 4.1 The Emergent Model of Sensemaking in Disrupting Technologies.

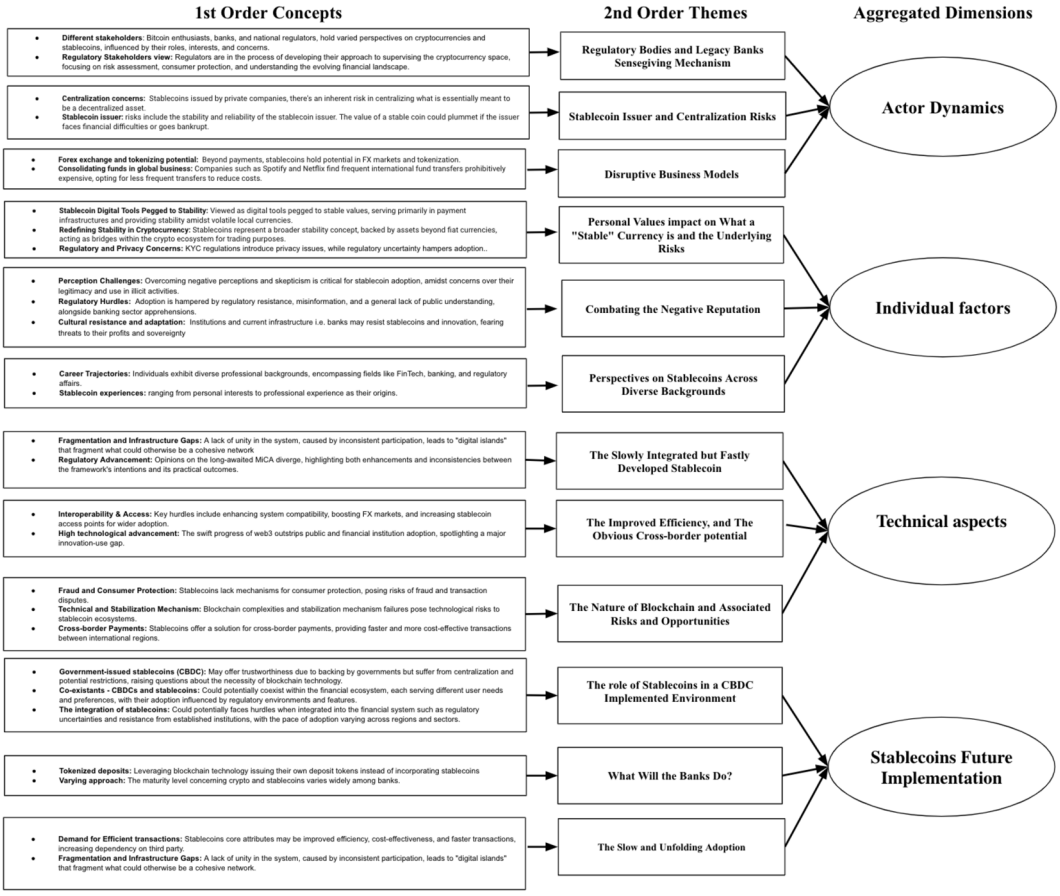

Figure 3.1: Data structured developed from the interviews

3.4 Reflection of Ethics, Validity, and Reliability

When developing research, various aspects must be considered throughout the entire project. Ethics, validity, and reliability are of most importance and require careful consideration throughout the entire process. Guillemin and Gillam (2004) explains "ethics in practice" as dealing with everyday problems that can happen during research. This includes noticing and handling special situations and important ethical decisions as they come up in a study. For instance, as we were interviewing people it is important that we do not publish anything which might hurt them in the future, or that can be used against them in any way. It might be that they accidental state company confidential information which both can hurt them and the company. Furthermore, we have taken precautions to protect the identities of participating individuals by excluding their real names and company affiliations, instead using aliases and describing the types of companies they work for. One exception to not disclosing individuals' stakeholder backgrounds was made for Swedish institutions, due to their unique status as state-owned. Lastly, we made sure all the participants knew that they can withdraw any statement during the whole research period. Utilizing this approach underscores our dedication to ensuring ethical in-

tegrity in every facet of our research endeavors.

Regarding integrity and personal data, the participants were always given information about the content of the interview before the interview, allowing them to ask questions or decline in advance. Interviewees were also asked for permission to record the interviews and if they wanted to remain anonymous in the final report as a sign of respect for their privacy.

Research reliability and validity refers to the consistency, precision, repeatability, and trustworthiness in research (Mohajan, 2017). Reliability issues in qualitative research are most often associated with subjectivity, if the researchers become too subjective, the level of reliability will be reduced. The subjectivity was continuously reduced through being two authors consistently discussing the results, ensuring the reliability of the findings. Furthermore, validity involves researchers employing specific procedures to ensure the accuracy of the findings. Therefore, it is important to maintain research transparency and objectivity by providing clear process of how the researchers arrived at their interpretations. To achieve this, we used the Gioia methodology (Gioia et al., 2013), which is recognized for its ability to generate new ideas, concepts, and theories while upholding standards of credibility and plausibility. Moreover, this inductive approach provided a systematic framework for analyzing the collected data, ensuring that the results produced were reliable and valid.

4

Findings

4.1 The Emergent Model of Sensemaking in Disrupting Technologies

The emergent model presented below, see Figure 4.1, was developed by applying Sensemaking theory to the data structure which emerged from the interviews, see Figure 3.1. It identifies three main factors i.e. the aggregated dimensions in the data structure, that influence an individual's sensemaking and understanding of stablecoins: actor dynamics, individual factors, and technical aspects. These factors collectively influence and acts as sensegiving to an individuals understanding of stablecoins. As shown in the top right corner of the figure, the green arrows represent sensegiving, with the width of the arrows indicating the extent to which the different boxes are engaged in sensegiving process. Some sensegiving change perceptions leading to a sensebreaking event, while some reinforce ones sensemaking. When sensebreaking happens, it can influences an individual's prospective sensemaking i.e. the future understanding regarding stablecoins. Prospective sensemaking is a iterative process, as visualized in the feedback loop arrow, ultimately this prospective sensemaking process is changed continuously.

This model can be used to enhance the understanding of how individuals in sensemaking regarding technological disruptions and how this process is influenced by various factors of sensegiving. It explains why certain influences can strengthen or weaken, leading to changes or reinforcements in prospective sensemaking about how individuals perceive future disruptions. This understanding is important, as it affects individual decision-making related to disruptive technologies.

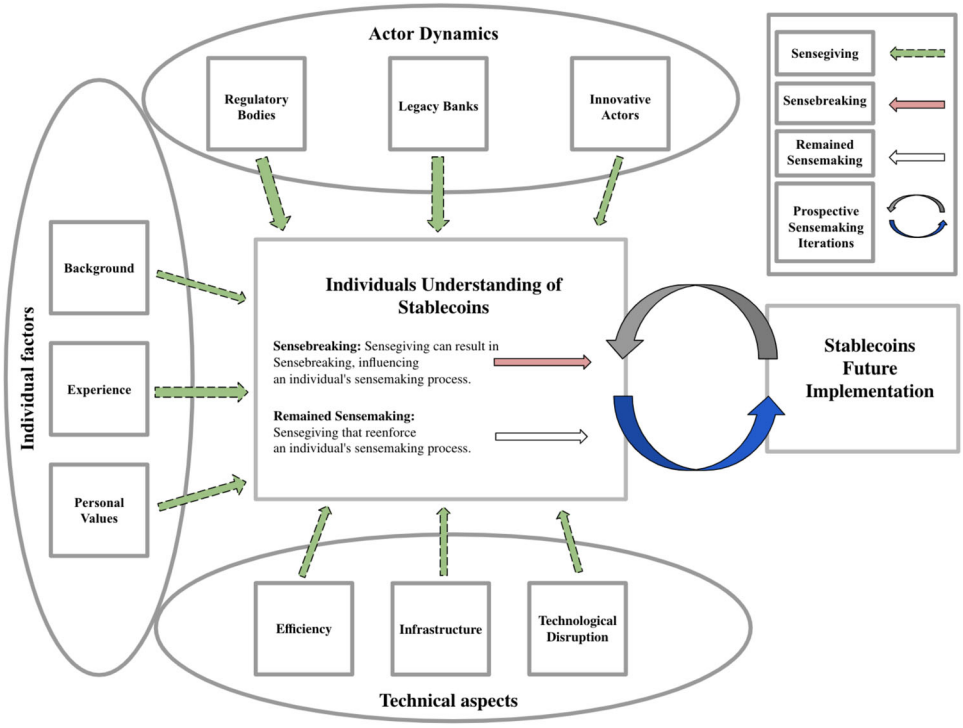

Figure 4.1: The Emergent Model of Sensemaking in Disrupting Technologies

4.2 Technical Aspects

Throughout the interviews, several technical aspects of stablecoins were identified as both enabling opportunities and creating challenges. All participants recognized the potential for cross-border transactions, made possible by the nature of blockchain technology. Although there is significant promise in this technology, it was also noted that implementing new technologies comes with substantial barriers, especially in an area where there is intense interest from all stakeholders and a deeply entrenched system. Rebuilding current transaction rails presents an even greater challenge due to the established nature of the system and the extensive co-dependencies involved. Given this we identified three technical aspect, Efficieny, Infrastucture and Technological distruption, represented in Figure 4.1. From these aspects four main subsections were developed, *The Slowly Integrated but Fastly Developed Stablecoin, The Nature of Blockchain and Risks Associated, The Improved Efficiency,* and *The Obvious Cross-boarder potential* which will be presented in the following section.

4.2.1 The Slowly Integrated but Fastly Developed Stablecoin

To develop an infrastructure which facilitates stablecoins transaction many aspects must be taken into consideration such as creating wallet both for retail and cor-

porations and custody of digital assets including management of private keys. Jan argued that since this is a nascent field, virtually everything needs to be innovated and developed from the ground up. Lars highlighted that one of the primary barriers for stablecoin adoption lies with developing the technical infrastructure necessary for actors engaging with stablecoins.

Gustav emphasized the importance of distinguishing between self-custody wallets and custodial solutions, as each presents its own unique set of risks that need to be managed carefully. While most individuals with a DeFi background highlighted the positive aspects of blockchain technology. Contrary Johan from the Financial Supervisory Authority, pointed out the cybersecurity risks associated with the public blockchain utilized by stablecoins, can be shut down due to technical or malicious reasons.

Nils mentions that substantial operational changes are needed to align with the nature of cryptocurrencies and stablecoins on public blockchains, which are accessible at all hours every day of the year. This requires infrastructural stakeholders to operate around the clock. Many participants also noted that we are still far from having a seamless and user-friendly stablecoin ecosystem, which is essential for broader adoption. For instance, Gustav highlighted a significant hurdle: the requirement for users to securely store complex information, such as a 24-word recovery phrase, if they wish to use a private wallet. Although projects are working to simplify this process, aiming to make it as easy as using email, there is still considerable progress to be made.

The challenge of various stablecoins using different public blockchains and the associated interoperability issues were topics brought up by several individuals. Johan pointed out that it can be complex for users to obtain certain stablecoins since they must navigate through various issuers and platforms. Nils also highlighted that the lack of interoperability between different blockchains, whether public or private, adds another layer of complexity. This issue needs to be addressed with better standards and practices. Similarly, Johan noted that there is a lack of a unified standard and that companies tend to operate in silos, leading to a lack of interoperability and increased fragmentation within the ecosystem.

Several interviewees noted that the adoption of stablecoins heavily depends on how and when key stakeholders in today's traditional financial system integrate a Web3 infrastructure. Jan highlighted that a primary challenge for these traditional actors is IT integration. Since businesses already operate with established banking, accounting, supplier systems, and payment channels, adopting a new payment method like stablecoins involves significant IT integration costs. Elisabeth also addressed this issue, noting the high costs associated with creating and implementing the required infrastructure. Furthermore, Erik pointed out that the pace of development in Web3-related technologies far exceeds the rate of public adoption and integration into existing financial systems, such as banks. Therefore, the adoption of stablecoins will depend not only on their availability to end-users but more critically on

whether financial institutions will adapt and integrate stablecoin solutions for their customers. This situation suggests that for traditional actors to fully integrate stablecoins, a major sensebreaking event is required, prompting them to question the future relevance of their current systems.

Maria, Nils, and Johan highlighted the lack of effective on- and off-ramp solutions for seamless conversion between crypto and fiat currencies. Nils noted that while such solutions, including partnerships and crypto exchanges, are under development, there remains an urgent need for more efficient and accessible services to facilitate stablecoin payments. Johan observed that although some platforms currently support stablecoins as a payment method, most payment providers still convert stablecoins back to fiat before processing transactions. This method fails to fully exploit the direct payment potential of stablecoins, using them instead primarily as intermediary tools. Maria added that while crypto transactions are fast and globally executable, the processes for converting fiat to crypto and vice versa are fraught with considerable challenges. Regarding the infrastructural challenges, the individuals' backgrounds do not seem to have any significant impact on their sensemaking, as they come from widely varying backgrounds yet seem to agree.

4.2.2 The Nature of Blockchain and Associated Risks

Since stablecoins are leveraging blockchain technology, the interviewees brought up a whole new set of risks mainly associated with this novel technology. The risks were mainly associated with technical aspects such as traceability, anonymity, irreversibility, and the nature of instant payments.

During the interviews, Maria discussed the risks that stablecoins pose, particularly concerning Anti-Money Laundering (AML) and counter-terrorism financing. Furthermore, Maria, Per, Anders and Johan argued that the traceability of cryptocurrencies can help address these issues. Jan from the Tax Agency also believes that illegal transactions are likely to decrease over time as more people realize that tracing them is possible. Although, he suggested that stablecoins might see an increase in illegal activity because they are less volatile and therefore more appealing for criminals compared to other volatile crypto assets.

According to Nils, consumer protection risks arise due to the lack of robust mechanisms in the decentralized blockchain system. Once a payment is made, it occurs instantly and is irreversible. Stablecoins utilize instant transfers, introducing new challenges in retrieving lost funds. However, several interviewees proposed solutions to these issues. For instance, Maria and Lars suggested that the design of stablecoins could mitigate these risks. They argue that the decentralized and open-ledger nature of blockchain offers both transparency and security.

In contrast, Johan from the Supervisory Financial Authority argued for the need to re-engineer stablecoins by introducing transactional friction. Such modification would enable regulatory bodies to identify and investigate high-risk transactions,

potentially revealing issues related to money laundering, fraud, or other concerning activities. Building on this perspective, Johan highlighted that stablecoins, due to their somewhat centralized nature, have already shown a capacity to block addresses associated with illicit activities, marking a proactive step towards mitigating such risks.

On the other hand, Lars with a DeFi background highlighted the traceability inherent in blockchain technology as a significant advantage of using stablecoins over traditional cash payments. Building on this, Maria similarly argued that the transparency and security of public blockchains debunk the myth that cryptocurrencies are primarily used for illicit activities. However, Lars noted that there is still a gap in fraud monitoring and consumer protection for stablecoins. Despite this, several initiatives are underway to improve these aspects, such as Circle's stablecoin USDC, which is currently piloting programs with both Visa and Mastercard.

4.2.3 The Improved Efficiency

There was a consensus among the interviewees, regardless of their backgrounds, that stablecoins have the potential to revolutionize the efficiency of transaction costs, exchange fees, and processing times. Johan from the Financial Supervision Authority acknowledged this potential, noting that the technology is particularly robust in cases involving multiple parties, as transactions are not centrally processed like in traditional finance. Additionally, Lars described the growing demand for enhanced efficiency in transactions:

> "*The progression from physical currency to digital cash managed by banks to now controlling assets directly without a banking intermediary is a testament to this demand.*"
>
> *- Lars*

Johan, Maria, Olof, and Lars argued that stablecoins could benefit various corporations since the advantages center around reducing friction in cost and speed, which is a universal incentive for all businesses. However, Johan pointed out that improved efficiency also introduces increased risks, necessitating transaction monitoring systems that introduce friction to slow down transactions. Karl similarly acknowledged this need, stating that while it might lead to higher costs, such measures are essential to maintain the integrity of the financial system.

4.2.4 The Obvious Cross-border potential

In every interview, one common theme emerged, which was the significant potential of stablecoins for cross-border transactions. Regardless of their background or profession, whether in banking, FinTech, or regulatory bodies, there was a consensus among the interviewees that the current methods of conducting cross-border transactions do not meet customer demands. One of the interviewees described this dilemma:

> "*It's paradoxical that in 2024, moving physically from one place to another can be faster than transferring money. For instance, traveling from Milan to Stockholm takes roughly six and a half hours, but sending money between these locations can take a day or more.*"
>
> - *Erik*

The interviewees agreed that a country like Sweden could greatly benefit from enhanced cross-border transactions, highlighting that although Sweden's domestic transaction rails are well-developed, there are significant opportunities to create value for companies engaged in international transactions. Johan particularly noted the potential in complex payment corridors. He explained that the greater the distance and the complexity of the financial ecosystem, the more substantial the impact stablecoins can have. Moreover, according to Olof, stablecoins do more than simplify transactions, they also address multiple aspects of international payments, including compliance and operational risks.

Per added that the around-the-clock availability of stablecoin for cross-border payments is revolutionary. He emphasized that this is not just a future possibility but a current reality, as stablecoin transaction volumes have already surpassed those of major payment networks like Visa and Mastercard combined. He mentioned that while SEPA has made efforts toward instant transactions within Europe, while SWIFT, the dominant system beyond Europe, still faces challenges where transactions typically take three to four days to settle. Given their market dominance, there is little incentive for these systems to innovate or reduce costs according to several participants.

Lars further elaborated that stablecoins might find their niche in specific financial activities, particularly in the corporate sector for cross-border payments in emerging markets. Building on this, Elisabeth pointed out that the international financial system lacks adequate governance structures to manage cross-border financial matters. This deficiency has created substantial opportunities for the private sector to step in and address these cross-border challenges.

Some interviewees highlighted the role of stablecoins in enhancing financial inclusiveness. Johan pointed out that stablecoins are particularly popular in countries with unstable financial systems, where citizens may trust these digital currencies more than their own national currencies or want to escape to a USD pegged stablecoin to escape their domestic high inflation. Expanding on this, Anders emphasized the importance of having reliable payment channels to jurisdictions affected by sanctions or those that are challenging to send money to, such as areas needing war aid support.

From a sensemaking perspective, the clear and agreed-upon consensus on the potential for stablecoins in cross-border transactions enhances both the clarity and

uniformity of individual perspectives, which could arguably have a positive influence on stablecoin adoption.

4.3 Individual Factors

Going beyond the technical aspects, it was identified that personal values, experience and their background also influenced the understanding of stablecoins. This section explores the interviewees perspectives on stablecoins, highlighting challenges arising from skepticism and negative perceptions perpetuated by media and regulatory bodies. It also explores the influence of personal values and backgrounds on individuals' views, particularly regarding risk perceptions and opportunities. Overall, it offers insights into the diverse perspectives shaping the stablecoin adoption across the financial landscape. Given this we identified three individual factors, background, experience and personal values, represented in Figure 4.1. From these factors four main subsections were developed, *Combating the Negative Reputation, Individual Factors impact on What a "Stable" Currency is, Impact of Individual Factors on Perceptions of Underlying Risks*, and *Perspectives on Opportunities and Challenges for Stablecoins Across Diverse Backgrounds* which will be presented in the following section.

4.3.1 Combating the Negative Reputation

The majority of individuals working in the FinTech sector, including those on traditional banking rails and those more native to DeFi, share the view that the adoption of stablecoins in Sweden faces significant challenges. These challenges stem from gaining credibility and overcoming skepticism, which are largely due to the unfair negative reputation the cryptocurrency ecosystem has acquired. According to Erik, Maria and Karl the negative reputation is rooted from media, banks and regulators' standpoint and sensegiving to individuals' perception on crypto assets. Environmental and consumer protection concerns are often highlighted to cast cryptocurrencies in a negative light. Despite the fact that stablecoins differs from most of the other cryptocurrencies, it seems that stablecoins are affected by the overall negative criticism that cryptocurrencies receive. According to Nils the lag in blockchain adoption in Sweden is partly due to the regulatory resistance as described:

> "*Misinformation and lack of public education on cryptocurrencies and stablecoins further complicate the landscape.*"
>
> - *Nils*

Nils suggested that central banks are generally fearful of cryptocurrencies' potential to disrupt traditional financial systems. He observed that the hesitation of regulatory bodies and central banks, often cited as consumer protection, contradicts actual consumer behavior and the security measures available in the cryptocurrency space. Continuing on this theme, Gustav discussed how regulators sometimes seem to lack a comprehensive understanding, although there have been instances where very detailed and informed documents were published, such as the European Cen-

tral Bank's (ECB) insightful analysis on Bitcoin and digital assets in 2012. This inconsistency between well-informed discussions and seemingly uninformed public stances raises questions about whether this is due to a lack of knowledge or a strategic approach to discourage cryptocurrency adoption due to its potential threats to traditional financial systems. Gustav reasoned that the dismissive attitudes towards the viability of cryptocurrencies are more likely rooted in a protective stance towards traditional financial systems than in outright ignorance. This protective approach may be driven by concerns over the existential threats that cryptocurrencies pose to the current economic order, particularly in the context of the European Union's stability and the relative strength of the euro versus the dollar. Similarly, just as regulatory bodies have strong sensegiving mechanisms, central banks also possess these, but to an even greater extent. Being higher in the hierarchy of the decision-making pyramid, they significantly dictate the narrative.

Maria pointed that the reluctance appears to be rooted in a Swedish cultural mentality where new technologies and innovations are met with skepticism until their success is evident elsewhere. This cautious approach is not limited to the financial sector, it was similarly observed in the initial reception of services like Spotify. Once adoption begins, however, Maria mentioned that Sweden has demonstrated a remarkable ability to rapidly embrace and integrate new technologies. Thus, increasing awareness and showcasing the tangible benefits of stablecoins could gradually reduce fears and skepticism, potentially paving the way for broader acceptance both within the business sector and among the general public. This suggests that strong, positive sensegiving mechanisms are necessary for the broad masses to recognize stablecoins as a successful and legitimate disruption before cultural acceptance can be achieved in Sweden.

4.3.2 Individual Factors impact on What a "Stable" Currency is

There was a general understanding that stablecoins were created to serve as a bridge between decentralized finance (DeFi) and traditional finance. Initially, according to the participants the main purpose of stablecoins was to act as a less volatile asset for traders, allowing them to bypass traditional banking channels when moving in and out of volatile cryptocurrency assets.

Some interviewees believe that a stablecoin could achieve greater stability if it were backed by a diversified portfolio of assets, currencies, or indices, instead of being tied to a single currency. Olof suggested that pegging a stablecoin to a GDP index might be more beneficial than linking it to an inflation-sensitive fiat currency. Gustav, with a background in DeFi, argued that stablecoins could represent a basket of currencies or assets, a concept reminiscent of the initial proposal by Libra (now renamed to Diem).

Furthermore, the some interviewees expressed concerns about the concentration of economic policy-making power in the hands of a few central banks, which may not

always serve the public's interests. Gustav highlighted the reliance on fiat currencies, particularly the US dollar, which has operated purely on trust since detaching from the gold standard in 1971. He argued that this reliance, compounded by geopolitical shifts, can significantly impact currency stability, as demonstrated by the 2008 financial crisis. Building on this, Lars and Mikael, who turned to cryptocurrency after recognizing flaws in the traditional financial system, argued that stablecoins cannot achieve true stability due to the inherent instability of fiat currencies.

> "*Stablecoins are not stable, as they are pegged to fiat currencies subject to inflation, nor are they coins in the traditional sense of being the primary currency of a network. A more accurate term would be "fiat tokens" or "fiat currency tokens." The terminology is misleading since stablecoins are often backed by assets that fluctuate in value.*"
>
> - *Mikael*

The origin of stablecoins could potentially affect and limit the general public's understanding of their potential. Since regulatory bodies strongly communicate that cryptocurrencies are highly risky and volatile, this reputation may also influence the landscape's sensemaking regarding stablecoins. On the other hand, individuals with a crypto background generally perceive fiat currencies as risky and subject to inflation and devaluation over time. This highlights the significant differences in opinions about what constitutes a stable currency and how historic events influences individuals' sensemaking.

4.3.3 Impact of Individual Factors on Perceptions of Underlying Risks

During the interviews, participants emphasized various risks associated with stablecoins, revealing a pattern in their perceptions of these risks based on their individual backgrounds.

It was evident that individuals with background in decentralized finance, such as Per, Nils, Lars, and Maria, pinpointed a significant dependency risk of the fiat-currencies which most often are the underlying asset pegged to stablecoins. This dependency introduces vulnerabilities, as any instability or devaluation in the underlying fiat currency can impact the value and stability of stablecoins. Recent examples made by the interviewees include inflationary pressures on currencies like the US dollar and the British pound, along with the extreme case of hyperinflation in the Zimbabwean dollar, underscoring the risks associated with this dependency. While most of the discussion focused on the dependency on fiat currencies, Karl argued that a viable solution to this problem is to create stablecoins backed by a diversified basket of assets to achieve optimal stability. One could argue that the inherent risks associated with fiat currencies are closely tied to the values of the DeFi space. Consequently, individuals with backgrounds in DeFi or cryptocurrency naturally focus on these risks, recognizing them as some of the most significant vulnerabilities affecting stablecoins.

The consensus among the interviewees was that algorithmic stablecoins pose significantly more risk compared to collateralized ones. Additionally, Olof argued that maintaining a stable peg with an algorithmic stablecoin is ultimately unsustainable. He believes that instability is inevitable and that a bank run leading to de-pegging is an unavoidable consequence for all algorithmic stablecoins. Many participants discussed the risk of stablecoins de-pegging, citing the example of Terra Luna's UST depegging from the dollar in 2022. Johan and Jan argued that it is crucial to learn from Terra Luna's crash and take actions to prevent such events in the future.

Olof and Johan argued that stablecoins, unlike traditional banks, which have developed reliability and security over decades without collateral, require a direct correlation between the digital currency and real-world assets. For example, if a stablecoin is backed by €10 million, there must be an equivalent amount in a real bank account to support its value. This necessity introduces unique risks and challenges not present in traditional banking. Additionally, Johan highlighted the counterparty risk in transactions involving big tech companies or other players in the cryptocurrency industry. These entities face challenges in proving their ability to maintain a 100% reserve for backing stablecoins.

From the interviews, it was evident that individuals from regulatory bodies and traditional finance companies were more focused on addressing counterparty risks associated with stablecoin issuers and the risks of stabilization mechanisms. Conversely, individuals from decentralized finance were more inclined to highlight the inherent risks of an unstable fiat currency itself.

4.3.4 Perspectives on Opportunities and Challenges for Stablecoins Across Diverse Backgrounds

Even though all of the interviews agreed that there are several opportunities within the stablecoin realm, it was apparent that the participants with a FinTech background were more optimistic about the opportunities. For instance, according to Olof, the emergence of stablecoins can be seen as part of a broader trend towards a more globalized and technologically advanced payment infrastructure, promising reduced friction and lower transaction costs. He further stated that, from a broader perspective, the move towards a less fragmented and technologically advanced payment infrastructure is seen as positive. It promises reduced friction, lower transaction costs, and the potential for innovation in payment technologies.

However, one distinct difference based on background is that none of the participants with a background in regulation mentioned reduced dependency on third parties as an opportunity. This highlights how individual personal values influence differing perspectives on current issues, leading to significantly varied identification of opportunities. In contrast, participants interested in cryptocurrency provided several examples of how stablecoins could benefit end consumers by minimizing reliance on intermediaries such as banks. For instance, Lars pointed out that personal

freedom over finances is becoming increasingly important, people seek the ability to send money internationally without restrictions, manage their assets independently, and avoid the risks associated with bank failures. This trend is similar to the traditional practice of physically storing wealth, yet in modern times, it involves storing private keys and managing wealth through a combination of stable and volatile assets. Overall, the shift toward stablecoins is driven by a desire for efficiency and enhanced control over personal financial transactions, according to interviewees with a DeFi background.

Per recognized an opportunity for stablecoins to serve as an additional backup transaction channel. For example, in the event of a cyber-attack that disrupts a company's ability to process payments, causing delays for several days, stablecoins could provide a reliable alternative. He argued that such incidents highlight the vulnerability of businesses to payment disruptions and underscore the importance of having multiple payment options to mitigate risks. Therefore, stablecoins could be particularly advantageous, offering an alternative means of transaction. In contrast, Johan from the Financial Supervisory Authority argued that there is a crucial cybersecurity risk in malicious attacks on public blockchains, where stablecoins are issued, which could cause shutdowns of the network stablecoins depend on. Based on these points, one could argue that there is a distinction in perspectives. Regulatory bodies tend to see risks more extensively associated to stablecoins, whereas the innovative sector tends to see more opportunities in how stablecoins could mitigate current risks and improve efficiency.

4.4 Actor Dynamics

Lastly, the interviewees provided insights into their perceptions of actor dynamics in the financial landscape and their attitudes towards stablecoins. The section provides insights into how the interviewees view regulatory bodies, legacy banks, and innovative actors. Regulatory bodies generally adopt a cautious approach, focusing on consumer protection and risk mitigation, while banks exhibit varying levels of readiness and engagement with stablecoins. Furthermore, according to the interviewees the stablecoin issuers face concentration and credibility risks, with diversity among issuers seen as crucial for ecosystem robustness. It was also an extensive focus on the upcoming MiCA regulation which is anticipated to enhance clarity and regulatory conditions for stablecoin adoption. Given this we identified three main categories constituting to the actor dynamics, being regulatory bodies, legacy banks and innovative actors, represented in Figure 4.1. From these three actor dynamic categories, four main subsections were developed: *Regulatory Bodies Sensegiving Mechanism, Legacy Banks Impacting role in the Stablecoin landscape, Stablecoin Issuer & Centralization Risks*, and *Stablecoins Catering Disruptive Bussiness Models* which will be presented in the following section.

4.4.1 Regulatory Bodies Sensegiving Mechanism

Interviewees with a background in decentralized finance gave various nuances when defining stablecoins. Conversely, the representatives from regulatory bodies adopted a more shallow approach when defining stablecoins. However, there was a general perception among all interviews regarding the definition of a stablecoin suggests it is a cryptocurrency pegged 1:1 to a fiat currency, utilizing blockchain technology to leverage the advantages this technology offers. Other types of stablecoins, such as algorithmic ones, were either not mentioned or considered unlikely to succeed due to the risk of a bank run if holders lose confidence. This could lead to de-pegging, as occurred with Terra LUNA's UST in September 2022.

It could be argued that regulatory bodies are generally perceived as legitimate and trustworthy institutions, which positions them as a strong sensegiving mechanism in regards to stablecoins. For instance, Jan from the Tax Agency, broadly categorized stablecoins with other cryptocurrencies when discussing stablecoins. He put more weight on describing what cryptocurrenices in general are used for, which according to him was either as investment vehicles or tools to obscure financial transactions. Interestingly Jan shared that The Tax Agency's main role is ensuring that citizens comply with tax obligations related to cryptocurrencies, without taking a specific stance on them. Although Jan noted that there are mixed views within the agency, some thinks that cryptocurrencies should be taxed like gambling due to their volatility and the dubious legitimacy while others argues that the usage of cryptocurrencies should be restricted or limited.

Johan from the Financial Supervisory Authority provided a more precise definition of stablecoins, aligning with the guidelines set by MiCA. However, he also noted that the Financial Supervisory Authority does not distinguish stablecoins from other cryptocurrencies, grouping them all together. Furthermore, Johan, shared that the Swedish Financial Supervisory Authority has historically maintained a critical view on cryptocurrencies, especially concerning consumer protection. They have issued several reports urging consumers to exercise caution when investing in cryptocurrencies, underscoring the necessity of understanding the associated risks. Their guidance have highlighted various concerns, including sustainability and fraud related issues associated with crypto assets.

4.4.1.1 The Long Awaited MiCA Regulation

Interviewees expressed varying opinions on stablecoin regulation based on their backgrounds. Despite these differences, there was a widespread agreement that the upcoming regulation on EU level, MiCA, is a positive step towards enhancing clarity and bettering conditions for both industry actors and consumers.

As mentioned previously Swedish regulatory bodies have taken a cautious approach to regulating stablecoins and cryptocurrencies. Johan, from the Financial Supervisory Authority, explained that before the MiCA regulation, Sweden did not have any crypto-specific regulatory framework. He argued that the MiCA framework is

beneficial for the industry, but especially for consumers, as it will promote a safer and more reliable environment for stablecoin adoption. Lars working at the web3 and digital asset department at a global payment processing company also argued that MiCA is a step forward in regulatory clarity for the crypto industry. Both Lars and Johan highlighted that while MiCA is a step forward, there are likely loopholes that will need addressing in future updates, potentially leading to a "MiCA 2.0". While Johan emphasized that the current version does not entirely mitigate all potential risks, Lars and Elisabeth emphasized that it will not regulate and provide guidelines for all associated business models and innovations within the space.

Furthermore, Johan stated that adopting EU-level regulatory frameworks is beneficial for Sweden, as the global nature of the crypto market and the facilitation of cross-border payments by stablecoins require a uniform approach. He noted that the MiCA regulation and various technical standards issued by European authorities will enhance capital requirements and risk management. However, Johan also pointed out that MiCA does not fully address the sustainability risks associated with proof of work and should not mislead consumers into believing that investing in cryptocurrencies is now without risks. While MiCA improves consumer protection by regulating riskier products, it does not eliminate all potential issues. This suggests that regulatory bodies in Sweden remain cautious and somewhat skeptical in their prospective sensemaking of crypto assets including stablecoins, which can be argued to influence their current sensegiving effect on individuals and actors' future perceptions about stablecoins.

According to some interviewees stablecoins face challenges related to regulatory fragmentation due to their global nature. Erik and Lars argued that regulations of stablecoins vary significantly across regions, potentially hindering their universal adoption despite their global utility, which creates uncertainties. Unlike traditional banking infrastructures, which vary in effectiveness, stablecoins provide a universally applicable technology. However, their widespread adoption may be limited by diverse regulatory frameworks that do not fully exploit the collaborative potential of stablecoins. Moreover, Lars pointed out that while Europe might be leading with MiCA, particularly in comparison to the US, establishing a cohesive global regulatory environment remains challenging. Elisabeth highlighted that while Europe is ahead in regulation, other regions have also advanced in stablecoin regulations. She noted that early regulation does not necessarily imply support for stablecoins and the Web3 ecosystem. It could be argued that when there is a consensus on the high uncertainty of a situation, such as the regulatory aspects of stablecoins, it becomes difficult to anticipate future outcomes. This uncertainty can negatively impact individual prospective sensemaking.

4.4.2 Legacy Banks Impacting Role in the Stablecoin Landscape

Settling interviews with individuals working legacy banks in Sweden was challenging, limiting us to one direct bank-connected participant, a DeFi expert consultant

at a Swedish legacy bank. However, most individuals shared insights on their understanding and sensemaking of the banks' perspective on stablecoins, noting that the majority of stakeholders are significantly dependent on banks. This dependency led individuals to speculate on the underlying reasons for banks' commonly cautious and hesitant stance towards stablecoins.

Per the bank consultant explained that banks take cryptocurrencies and blockchain seriously, seeing them as crucial innovations. Many banks, including his, have established digital asset departments to stay relevant by monitoring developments like stablecoins. He stated that there are varying levels of engagement with stablecoins among banks, with newer ones already supporting them. Jan commented on the banks' diverse readiness:

> "*This diversity in readiness and implementation shows the banking industry's varied approach to embracing financial technology innovations*"
>
> - *Per*

Conversely, Johan from Financial Supervisory Authority pointed out that there are no direct public statements from banks about integrating stablecoins into their business models, reflecting a generally cautious stance towards cryptocurrencies. He emphasized that banks reluctance may not be surprising given their generally negative view towards cryptocurrencies like Bitcoin. However, upcoming regulations may prompt banks to reassess, differentiating stablecoins from more volatile cryptocurrencies.

Maria, who works as a technical manager at a Swedish crypto exchange and formerly worked at one of the big legacy banks, emphasizes that Swedish banks exhibit resistance to stablecoins primarily because they pose a significant threat to their revenue models. According to her, this stance is less about a lack of understanding and more about the financial implications stablecoins have on their business models. This perspective was echoed by Nils, who is working at a FinTech company operating within traditional financial systems. He pointed out that another reason for the banks' reluctance toward stablecoins is the substantial costs associated with updating their outdated legacy banking systems. These systems are often highly obsolete to the extent that some processes still depend on paper, making the transition to new technologies both challenging and time-consuming.

Maria noted that Sweden's cautious approach may delay its adoption of stablecoins, as the country prefers to learn from the experiences of others before committing. The financial landscape, dominated by a few major banks, poses a significant hurdle. However, the success of innovative financial services like Avanza suggests that stablecoins could gain traction if a pioneering entity were to lead the initiative.

4.4.3 Stablecoin Issuer & Centralization Risks

It was evident throughout the interviews that the majority of the participants see risks associated with a stablecoin issuer, both related to concentration risks and credibility risks. For instance, Lars especially expressed his concerns stating following:

> "*The first major challenge I identify is the centralization of financial systems, similar to how stablecoins, like USDC issued by Circle, present a central point of failure. This issue is also evident in traditional financial systems, where central banks and major financial institutions can disrupt markets.*"
>
> - *Lars*

Moreover, some interviewees argued that the ideal model for entities issuing stablecoins is that they maintain sufficient reserves, such as cash or low-risk treasury bills, which are kept separate from the issuer's financial statements. This model ensures safety and returns even in the event of the issuer's bankruptcy, and due to its segregation from operational risks, it is perceived as less risky, according to Olof. Karl contended that the core challange with stablecoins is the trustworthiness of the issuer, as it significantly influences adoption and use. He argued that this is an advantage that banks currently have, being supported by the state in case of failure, an aspect that is lacking for stablecoin issuers.

Per emphasized the importance of diversity among stablecoin issuers for a healthy ecosystem. He acknowledged that there is currently a commendable level of diversity among European stablecoin market issuers, which is beneficial and necessary for the ecosystem's robustness. However, he also warned of the potential risks of centralization if the market becomes overly dependent on a single issuer. He particularly pointed out the risks associated with heavily relying on Tether, which issues USDT from the relatively unregulated British Virgin Islands.

Building on Per's point, several interviews suggested that Circle, as the issuer of USDC, is a more secure option compared to Tether. It could be argued that these views underscores the importance of centralization and credit risk associated with an issuer. Johan further acknowledged significant issuer risks, especially with redemption's and stated that there is a possibility that consumers might not be able to redeem their stablecoins as expected.

4.4.4 Stablecoins Catering Disruptive Bussiness Models

Several interviewees shared the perspectives that stablecoins have the potential to improve not only peer-to-peer transactions but also business models within the global economy. For instance, Nils noted that the high costs associated with frequent international fund transfers lead global businesses like Spotify to minimize these transactions. This results in significant capital inefficiency as funds remain idle. He emphasized the need for a more efficient, transparent, and responsive fi-

nancial system where the status and flow of funds are clear and accessible, in stark contrast to the current obscure and cumbersome system.

Lars and Anders both highlighted another application for stablecoins, the ability to consolidate various types of currencies, which is a challenge faced by businesses like Airbnb and Uber. These companies often receive payments in multiple currencies and need to pay out salaries and other expenses in different ones. This currency mismatch frequently leads to imbalances, resulting in time delays, high accounting costs, and substantial foreign exchange fees.

Additionally, Elisabeth and Nils argued that stablecoins will play a crucial role in tokenizing both digital and physical assets, as this emerging asset space requires compatible payment rails on the blockchain. In such a scenario, stablecoins could potentially be perceived more as a blockchain dollar and less as a risky cryptocurrency. This perception could potentially enhance the broad adoption of stablecoins.

From a sensemaking perspective, a clear pattern emerges: individuals with a background in transaction systems are the ones proposing how stablecoins could improve internal transaction flows for certain companies. These individuals offered a unique viewpoint, suggesting that stablecoin solutions are highly innovative compared to opinions from other interviewees.

4.5 Stablecoins Future Implementation

In previous sections, we focused on how technical aspects, individual perspectives, and actor dynamics influence an individual's sensemaking process and understanding of stablecoins. This, in turn, can affect their prospective sensemaking process, shaping how, when, and the manner in which the potential implementation and adoption of stablecoins will unfold. This section will present individuals' views role of stablecoins in a CBDC Implemented Environment, how established actors such as legacy banks and other actors will adapt along with their varying perspectives on how and when the future implementations of stablecoins will unfold in the Swedish financial landscape.

4.5.1 The Role of Stablecoins in a CBDC Implemented Environment

All interviewees acknowledged that CBDCs will impact the role of stablecoins to some extent. Some participants expressed the view that CBDCs and privately issued stablecoins will coexist, while others see CBDCs and stablecoins as competitors. Notably, individuals with a background in decentralized finance tended to be more critical of the emergence of CBDCs, whereas those from institutional and traditional financial backgrounds generally had a more positive perspective, viewing CBDCs as necessary for ensuring trust and stability within the financial system. As Erik pointed out, understanding and forecasting the dynamics in this area is

complex.

> "*Addressing the development of CBDCs in comparison to stablecoins takes us into the realm of macroeconomics rather than strictly payments.*"
>
> - *Erik*

Although the Swedish Central Bank has been piloting and investigating the introduction of a CBDC e-krona for around eight years, according to Per, we are still far from seeing the e-krona fully implemented. The impact of CBDCs will largely depend on their design, as noted by both Lars and Per. Lars suggests that the utility of stablecoins will be shaped by the specific features of each country's CBDC. In countries where CBDCs are designed with high surveillance, there may be a stronger preference for private stablecoins that offer more anonymity accoring to Lars. Conversely, Jan argues that a well-designed CBDC could offer significant advantages, but central banks inherently lack the innovation found in the competitive private sector. Additionally, Lars argued that if a CBDC were widely implemented, it would likely be universally accepted for retail payments due to endorsements from central banks and governments. This inherent advantage for CBDCs suggests that while stablecoins will continue to play a significant role in the financial system, their use in retail transactions might be diminished by the introduction of CBDCs.

Even though various potential scenarios were discussed, the majority of interviewees still believe that stablecoins and CBDCs will likely coexist in the future. As Lars pointed out:

> "*The future financial ecosystem will likely include a mix of cash, card payments, private stablecoins, and CBDCs, each catering to different user needs and preferences.*"
>
> - *Lars*

Elisabeth, who has experience at a Tax Agency and now works for a blockchain intelligence business, argued that central banks do not consider stablecoins a threat because private money already exists, and in fact, most of the money in circulation is private. Conversely, Johan from the Financial Supervisory Authority contended that although our current system is relatively effective, stablecoins, rather than being mere disruptors, actually pose significant competition to the traditional banking system and the e-krona CBDC. This shows that individuals are not aligned on how the Central Banks view and perceive the emerging stablecoin asset class.

4.5.2 The Question is What Will the Banks Do?

During the interviews, there was considerable speculation about how banks will adapt to and implement technological disruptions. It could be argued that this speculation stems from the fact that every stablecoin-related company depends on traditional banking infrastructure, which explains why individuals spent much time

predicting the path banks will choose. Karl emphasized that banks wield considerable authority, including the ability to close accounts of competing businesses, thereby underscoring their control over the financial system. He argued that despite the apparent strength of FinTech companies, there remains a dependence on the traditional banking system for operations. This creates a paradoxical situation where innovators are still reliant on traditional banks according to Karl.

During the interviews, two main paths for banks emerged as potential responses to the technological disruption of stablecoins. One observed trend by the participants is that some banks have begun leveraging blockchain technology issuing their own deposit tokens. Olof emphasizes the importance of distinguishing these bank deposit tokens from privately issued stablecoins. Privately issued stablecoins, often backed by collateralized assets or fiat on private or permissioned blockchains, significantly reduce credit risk. In contrast, bank-issued stablecoins bear the full credit risk of the issuing bank, which Olof believes often leads these projects to focus more on public relations than on practical financial innovation. However, Nils argues that banks may still lack trust in these disruptive stablecoin issuers or may want to maintain their current business model to a large extent. These perceptions suggests that banks potentially embracing bank-issued deposit tokens instead of stablecoins.

The other potential path observed by participants was that banks could involve and integrate stablecoins like USDC and USDT into their business models. However, according to Maria, this path seemed less likely because it would diminish the revenue streams generated from banks' current business models. Ultimately, as long as a bank remains profitable, the urgency to adopt new technologies like stablecoins varies significantly from one institution to another according to Per.

4.5.3 The Slow Adoption in Sweden

When participants discussed the timeline for future stablecoin implementation in Sweden, a variety of perspectives and estimates emerged. Jan from The Tax Agency was the only participant who predicted that stablecoins would never achieve mass adoption in the Swedish landscape. The remaining participants believed that stablecoins would eventually achieve mass adoption, but their perceptions of how this would be implemented and to what extent varied significantly, depending in part on the individual's background. As visualized in Figure 4.2 there was a tendency for individuals with a cryptocurrency background to be more optimistic, predicting mass adoption by 2030. Meanwhile, individuals from traditional finance, including Johan from the Financial Supervisory Authority, projected a timeline of future stablecoin implementation by 2035-2040.

These predictions, backed by varied arguments, highlighted a consensus that the adoption of stablecoins is more advanced in some parts of the world than in Sweden, as noted by several interviewees. According to Jan and Nils, this discrepancy partly results from Sweden being early adopters of previous generations of financial technologies, which has made the country slow to embrace new innovative financial

technologies due to the efficiency of its current system. Building on this, Johan predicted that for stablecoins to be integrated into the Swedish financial system, a significant shift in interest from major banks and financial institutions would be necessary. Given the robustness of Sweden's existing payment system and the lack of interest from major banks in stablecoins, predicting their evolution is challenging. Jan added that the banks' implementation of stablecoins will depend on the success of CBDC projects, which will determine the banks' involvement and adaptation, although it remains unclear whether they would be integrated into a future CBDC, issue their own bank deposit token, or integrating stablecoins.

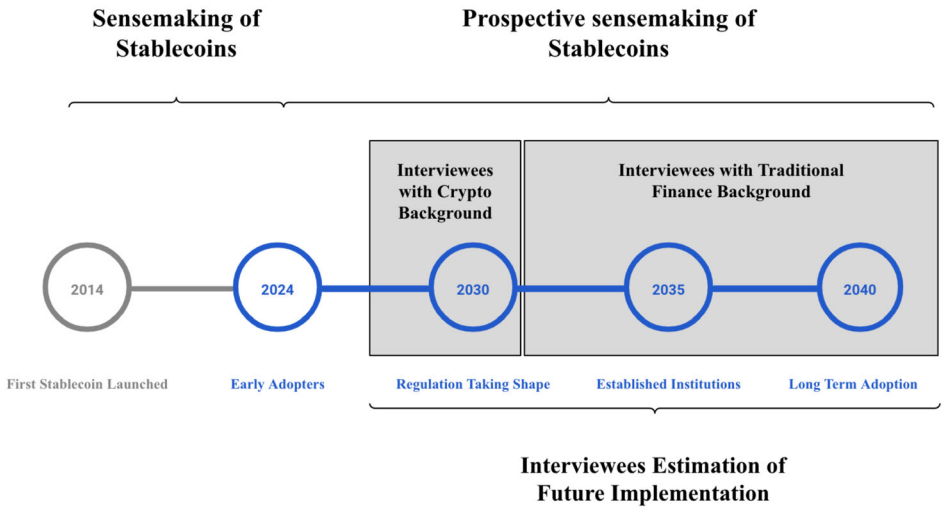

Figure 4.2: Interviewees Estimation of Future Implementation

Several participants with a crypto background argued that widespread adoption of stablecoins involves navigating numerous regulatory and legal challenges, which typically require several years to address. Gustav highlighted that his prediction for the mass adoption of stablecoins could begin around 2030, depending on various factors including regulatory decisions, technological advancements, public acceptance, and potential resistance against CBDCs themselves.

One aspect that only Elisabeth and Erik touched upon was that the adoption of stablecoins will also heavily depend on the evolution of the tokenization of traditional assets. Elisabeth believes that the current crypto market is limited compared to traditional asset markets. However, once institutions begin to tokenize financial assets like stocks, securities, and commodities, stablecoins could play a crucial role

in acting as a bridge between the traditional financial space and the tokenized asset space.

4.5.4 The Unfolding Adoption

Several interviewees pointed to the history of the banking sector being slow and reluctant to innovate. Despite recognizing the value and efficiencies of new approaches, Elisabeth noted that the monumental cost of change for incumbent entities poses a formidable obstacle to incentives change. Consequently, she argues that we see an influx of disruptors entering the market, leveraging new infrastructure from scratch and avoiding the complexities associated with integrating into old systems. Several other participants similarly argued that it is most likely the disruptive companies that will drive the infrastructure needed for mass adoption. Both Jan and Erik contended that traditional financial entities will instead outsource expertise, services, and tools, underscoring the importance of disruptors' role in the unfolding adoption.

An example of banks' failed attempts to foster innovation, as pointed out by Anders, is one of the Swedish legacy banks that created a tech innovation incubator separate from the main banking operations. This approach is indicative of banks' tendency to prioritize traditional operations over innovation, treating their own venture projects with more caution than even the riskiest client accounts according to Anders. However, Karl reasons that a credible entity eventually will emerge offering a similar technology or improved version of stablecoins.

Aligned with these predictions, several individuals working at FinTech companies that operate on traditional banking rails stated that stablecoins are soon to be implemented and used by the companies where Karl, Olof, and Anders are currently employed. Erik from another FinTech company stated that adopting stablecoins is a long-term prospect considering all their current partnerships with banks and the existing regulatory environment.

However Maria pointed out that the adoption of stablecoins needs a combined effort from both companies and individuals. Initially, the adoption by private individuals may play a more critical role in demonstrating the practical uses and benefits of stablecoins, encouraging companies to integrate them into their operations. Conversely, as more companies begin to use stablecoins for transactions, the infrastructure and ecosystem will develop, making it easier and more compelling for individuals to use stablecoins.

There was a clear consensus that the forthcoming MiCA regulation will decrease uncertainties and bring clarity to the regulation of stablecoins, potentially leading to reduced barriers for mass adoption. Karl argued that stablecoins, currently marred by their use in gray areas, can benefit from regulation that improves public perception and helps overcome the existing stigma, which are crucial steps for future growth and acceptance. He noted that regulating stablecoins is a move in the right direction towards public acceptance. Johan from the Financial Supervi-

sory Authority shared similar thoughts, highlighting the potential positive impact of clear regulations.

> "*Many large companies have been hesitant to enter the crypto space due to the lack of clear regulations. The introduction of standards like MiCA could provide the necessary security and clarity, encouraging more firms to explore and innovate with stablecoins.*"
>
> - *Johan*

Conversely, Jan from the Tax Agency presented a different perspective on MiCA, suggesting that it could serve as a forum to gather tips on illegal activities and aid investigations into tax evasion cases,issues not discussed by other participants or covered in the literature. This indicates that the understanding of MiCA and its implications for the industry might not be commonly perceived, which affects individual sensemaking and potentially creates discrepancies in how people foresee the future path of stablecoin adoption.

Building on this, Johan mentioned that although regulation is imminent, the Financial Supervisory Authority continues to warn consumers that the roll-out of MiCA does not eliminate all high risks associated with cryptocurrencies. The influence of the Financial Supervisory Authority could arguably have a strong, ongoing effect on sensegiving, and therefore, adoption in Sweden could be argued is to some extent dependent on their approach.

5
Discussion

The aim of this study has been to contribute to the currently limited research on sensemaking about stablecoins. The Emergent Model of Sensemaking in Disrupting Technologies, see Figure 4.1, contributes to illuminating the complex dynamics of how various factors interact and influence an individual's sensemaking process. By identifying and analyzing these different components, the model provides insights into how individuals interpret information in the context of disruptive innovations. It offers an intriguing contribution to understanding how people respond to and are shaped by different events and how this can vary from person to person. By considering these multifaceted influences, we can better understand how the sensemaking process evolves and how individuals navigate through changes and uncertainties in their environment. This model can be applied to any disruptive innovation or phenomenon and helps structure and organize how individuals' sensemaking around a disruptive technology is influenced by various factors. Additionally, within this chapter, we will explore the primary influences we've identified.

5.1 Impact of Regulatory Actors and Legacy Banks

It was found that the regulatory bodies significantly impacted the participants, an outcome that is not unexpected given their recognized legitimacy and considerable decision-making power. However, it was noted among participants that the Financial Supervisory Authority has historically maintained a skeptical and cautious approach to cryptocurrencies, which has had a spillover effect on stablecoins. This stance arguably has a substantial influence on the sensemaking processes of participants and other individuals, a phenomenon similarly described by Gioia and Chittipeddi (1991). Interestingly, the effectiveness of the regulatory bodies' sensegiving varied among participants, depending on their experience and background. Individuals with less experience in decentralized finance tended to be more influenced by the regulatory bodies' sensegiving processes, which consequently led to a sensebreaking process, where the perception of stablecoins was changed due to these external influences. Conversely, participants with a background and experience in decentralized finance were found to be less affected by the Financial Supervisory Authority's sensegiving. One could argue that individual factors such as deeper understanding of the technical aspects provide a stronger sensegiving mechanism on their sensemaking of stablecoins. This can be argued to overshadow the influence from external entities like the Financial Supervisory Authority.

Another area of uncertainty frequently discussed by participants was the future regulatory landscape for stablecoins. Several individuals highlighted that the forthcoming MiCA regulation at the European level is a positive step toward the adoption of stablecoins. However, the findings suggest that regulatory bodies are likely to remain cautious and somewhat skeptical about crypto assets, including stablecoins, due to concerns that MiCA may not mitigate all associated risks. Contrarily, participants from FinTech companies acknowledged that while MiCA will improve operational guidelines, it will still fall short of addressing all associated business models and innovations within the stablecoin space. Additionally, they argued that regulatory challenges arise from jurisdictions failing to establish cohesive frameworks, leading to fragmentation, as demonstrated by Dark et al. (2023). This fragmentation introduces complex uncertainties that can impede individuals' sensemaking processes, potentially obstructing the global adoption of stablecoins.

In addition to uncertainties related to regulatory aspects and institutional responses, participants shared diverse opinions on the stance of Swedish banks toward stablecoins. Most participants viewed the banks' approach to stablecoins and cryptocurrencies in general as cryptic and unpredictable. This uncertainty was underscored by a wide range of varying speculations regarding the banks' views and future actions. Despite numerous detailed speculations about how banks might engage with stablecoins, there was no clear consensus on their future actions. One reason for the participants significant focus on the banks' views and approaches to stablecoins could be due to that the majority of actors are likely to remain dependent on banks in the future, regardless of whether or not the banks directly integrate stablecoins. Thus, banks maintain a powerful position in shaping the role of stablecoins.

However, some participants provided qualitative estimates suggesting that banks are at a crossroads. The consensus was that the banks are not likely to integrate stablecoins in the near future since it poses a threat to their current business models and revenue streams. Instead some participants believed it is more likely that banks will develop tokenized deposits, still leveraging blockchain technology but without significantly changing the banking structure. This aligns with the development of tokenized deposits that are taking place in some international banks such as J.P. Morgan, Citi Group, and Deutsche Bank (Klein, 2023; Mallela et al., 2023). This approach is perceived as less disruptive to banks existing business models, thereby reducing uncertainty and risk for the banks.

Since the development of tokenizing deposits is evolving, it can be argued that banks seem to understand the potential of stablecoins and the benefits of blockchain technology. However, strategically, banks may choose to be non-transparent about their views and stance towards stablecoins, as these threaten their powerful position in the financial system. This situation is similar to how (Pack, 2022; Calomiris, 2021) described the future of stablecoins as a political battleground concerning the actors who benefit from the status quo. Furthermore, this showcase how a lack of clear sensegiving from banks can lead to a speculative sensemaking among key actors, resulting in a segregated financial landscape.

The uncertainties arising from regulatory bodies and banks regarding their views and future decisions on stablecoins create significant insecurity for innovative players. Since there is no clear indication of how banks intend to implement stablecoins, and it is uncertain how the Financial Supervisory Authority will scrutinize and manage cryptocurrency companies in the future, one could argue that this divides the market, characterized by an "us versus them" mentality, which could potentially lead to a decline in communication and sensegiving among various financial actors. Such a scenario could lead to a reluctance to engage in meaningful dialogue and listen to each other's perspectives, potentially widening the gap in individuals' understanding of stablecoins. Furthermore, the opposing atmosphere created by the "us versus them" mentality may stifle innovation within the financial sector. When different parties view each other as opponents rather than collaborators, they may be less inclined to share ideas or work together on innovative solutions, resulting negatively on individuals prospective sensemaking of stablecoins (Gattringer et al., 2021). This could impede progress towards developing new technologies and business models that could benefit the entire industry.

5.2 Risk of Future Implementation of Stablecoins

A key finding from the discussions was the influence of individuals' diverse backgrounds and experiences on their understanding of the risks associated with stablecoins. It was an agreed consensus among participants that it is important to recognize the concentration risk linked to a stablecoin issuer, particularly in discussions about fiat-collateralized stablecoins. Although these stablecoins operate on decentralized public blockchains, their collateral is held off-chain and centrally by the issuer, such as Circle or Tether, creating a potential central point of failure (Hayes, 2024). Furthermore, several participants across all backgrounds highlighted the critical importance of issuers maintaining adequate reserves at all times, which should be kept distinct from the issuers' operational finances. This issue was seen as a primary challenge in establishing trustworthiness for stablecoin issuers. The consensus pointed towards the necessity for regulatory measures to address the risks posed by issuing entities, thereby enhancing their legitimacy and trustworthiness. The forthcoming MiCA regulations, which aim to mitigate these risks, could significantly boost the credibility of stablecoins, thereby improving their acceptance among the public.

The differences in perceived risks were instead found in the technical aspects of stablecoins. Individuals with a decentralized financial background tended to appreciate the technology's advantages, acknowledging its superiority and the straightforward nature of implementing risk-mitigating measures on top of blockchain technology. In contrast, regulatory bodies were more inclined to recognize the inherent risks of blockchain technology, such as anonymity, irreversibility, and the instantaneous nature of blockchain transactions. On the other hand, individuals with a decentralized financial background were more inclined to recognize the underlying risks associated with the currency to which the stablecoin is pegged. One could argue

that the inherent risks associated with fiat currencies are closely tied to the values of the DeFi space. Consequently, individuals with backgrounds in decentralized finance naturally focus on these risks, identifying them as some of the most significant vulnerabilities affecting stablecoins.

During the discussions, several participants highlighted potential risks associated with stablecoins, especially concerning Anti-Money Laundering (AML) and counter-terrorism financing. Regulatory participants expressed significant concerns about the prevalence of illicit activities linked to cryptocurrency transactions, thus adopting a more skeptical stance. It could be argued that it is crucial for the Financial Supervisory Authority to start distinguishing between volatile, high-risk cryptocurrencies and stablecoins. Otherwise, users may perceive stablecoins as similar to other cryptocurrencies that are associated with higher risk, which could lead to confusion among users. This confusion, as noted by Hsu et al. (2022), undermines the understanding of stablecoins, potentially harming the adoption of stablecoins.

In contrast, stablecoin innovators argued that illicit activities were relatively low and more manageable due to the traceability offered by public blockchains. DeFi participants perceived the concerns about high-risk illicit transactions with cryptocurrencies and stablecoins as a misconception held by the general public and fueled by regulatory bodies. They pointed out that statistics demonstrate these activities occur at very low levels. This demonstrates that, as regulatory bodies, it is crucial to ensure statements and arguments are clear and data-backed to avoid spreading unrightful information. Unrightful information can not only stifle innovation in Sweden over the long term but also undermine the trustworthiness of regulatory bodies if they appear to take political stances on new technological innovations without substantiating their positions with factual evidence.

Moreover, Johan from the Financial Supervisory Authority argued that stablecoins must be redesigned to introduce transactional friction to mitigate illegal activities and enhance security. However, participants with a background in decentralized finance contended that blockchain technology's inherent traceability and transparency significantly improve security and offer substantial advantages for stablecoins over traditional cash payments. Contrary to the regulatory participants' view of the risks associated with stablecoins, individuals with a decentralized finance background perceive the technical risks identified by Johan and Jan as major improvements. They suggest that compliance and fraud mitigation measures can be easily implemented on top of the blockchain on which the stablecoin operates. Nevertheless, several participants perceive the risk of transactions not being reversible, posing challenges in recovering lost funds, and suggest that stablecoins may introduce a new set of risks.

This demonstrates that individuals' sensemaking concerning the various risks associated with stablecoins is somewhat aligned regarding the issuer credit risk but also differs in fundamental aspects of technical risks. This could arguably result from the contrasting sensegiving that participants have been exposed to, leading to

varying perspectives (Gattringer et al., 2021). Individuals from regulatory bodies perceived more issues with the risks. In contrast, those with a background in decentralized finance viewed these risks from a different perspective, believing that risks can be mitigated more easily by traceability and transparency. One explanation for the varying perspectives on the risks could be attributed to the divergent definitions that the actors hold regarding stablecoins. Regulatory bodies, for instance, have chosen to categorize stablecoins alongside various other cryptocurrencies, asserting that the risks are uniform across all of them. There is a discrepancy between regulatory bodies and innovative actors as perspectives on the extent of illegal activities differ significantly. It can be argued that it is important to establish a common understanding and knowledge base to communicate and discuss the accurate risks associated with stablecoins, ensuring they do not receive an unfairly negative reputation due to other cryptocurrencies with different characteristics.

5.3 The Different Views of the Unfolding adoption

It was found that an individual's experience and personal values influence their prospective sensemaking process and perceptions of when the Swedish industry will implement and achieve mass adoption of stablecoins. Aligned with Gattringer et al. (2021), these individuals are trying to navigate a context of uncertainties stemming from the introduction of stablecoins.

All participants, except for Jan from the Tax Agency, believed that stablecoins will be implemented in the Swedish financial industry to some extent. The varied perspectives on the timing and manner of implementation and adoption were evident. Individuals with personal interest or experience in decentralized finance generally exhibited a more optimistic stance about the broad implementation of stablecoins in the Swedish financial ecosystem, predicting widespread adoption around 2030. In contrast, those with backgrounds in traditional finance held more diverse and somewhat more pessimistic views, with adoption estimates ranging from 2030 to 2040. These estimates align with (Rogers, 2003) theory of the S-shaped adoption curve, which describes the characteristics of innovators and later adopters. This outcome, while not unexpected, is intriguing as it helps to understand where different adoption groups see the implementation of stablecoins in time, which influence how individuals interpret and make sense of stablecoins today.

During the interviews, discussions frequently centered on the future adoption of stablecoins and the potential coexistence of stablecoins with Central Bank Digital Currencies (CBDCs). Most participants believe that CBDCs will likely be introduced in Sweden as well as in other global regions, aligning with Ahnert et al. (2022). Individuals with a DeFi background expressed caution, noting significant implications tied to CBDCs, a concern echoed by Chia and Helleiner (2024). They

emphasized that the impact of CBDCs on stablecoin adoption would depend heavily on the CBDCs' design.

Contrary, participants from traditional finance and regulatory sectors tend to view CBDCs as essential for maintaining trust and stability within the financial system, a perspective supported by central banks Bindseil and Pantelopoulos (2022). While recognizing the potential of stablecoins, they expect CBDCs to play a more dominant role in the financial landscape. However, they acknowledge that stablecoins could complement CBDCs, especially in niche and high-cost payment corridors. Given the theoretical nature of CBDCs versus the practical application of stablecoins, opinions vary on how these currencies will co-exist. Since stablecoins are already established in complex payment corridors, they have already established a market presence. The delay in launching CBDCs could allow stablecoins further credibility and market penetration. Consequently, CBDCs may find easier adoption in areas where stablecoins are less established.

This dynamic between CBDCs and stablecoins highlights a consensus, traditional institutions are often viewed as lacking innovation, particularly in areas such as cross-border payments, where stablecoins excel. The private sector is seen as crucial in driving innovations, while regulatory actors are lagging behind but attempt to develop a competitive alternative. The struggle for stablecoins to become a future payment system is not solely an economic competition but also a political battle (Pack, 2022). It involves determining the relative political influence and power dynamics, which will play a crucial role in deciding whether socially beneficial technological progress in the form of stablecoin-based payment networks will be allowed to proceed (Calomiris, 2021).

The complex political situations surrounding stablecoins and CBDCs may result in a split within the industry. Banks and regulatory bodies might be worried about losing their power and control in the future, as illustrated by Bindseil and Pantelopoulos (2022), potentially leading to a divide between them and innovative actors.

However, despite these challenges and the divided opinions within the financial sector, a unifying perspective among participants from diverse backgrounds emerged regarding the practical applications of stablecoins. One point of consensus was the recognition of stablecoins potential to facilitate cross-border payments. Some argued that central banks and legacy banks lack innovation capabilities, a sentiment also echoed by Ahnert et al. (2022). Participants with experience in payment-providing companies observed that nations have historically made several extensive efforts to improve the cross-border payment network, aligning with one of the G20's top priorities. However, despite these significant efforts, we have only achieved an improved network that is still far from functioning effectively worldwide.

Across various backgrounds and professions, including banking, FinTech, and regulatory bodies, all agreed that current methods of conducting cross-border transactions fail to meet customer demands. The cross-border potential was mainly rooted in

the perception among participants that stablecoins have significantly revolutionized transaction costs, exchange fees, processing times, and its global nature. However, participants with a background in decentralized finance provided more detailed examples of opportunities that can enhance innovative business models and play a crucial role as a bridge in the emerging tokenized asset space. This commonly viewed potential can be seen as enhancing the coherence and alignment of individual perspectives and potentially strengthening the adoption of stablecoins thus, it remains unclear.

The dynamics of whether stablecoins or CBDCs will dominate cross-border payments in the future and their respective market shares remain uncertain. On the one hand, there is considerable potential seen in existing stablecoins. On the other hand, significant conflicts and power stakes are involved for the establishment to maintain its influence. This complexity makes it challenging to predict how various parties will deploy their strategies and the eventual appeal of stablecoins, depending on the regulatory stances and CBDC implementations of different states.

5.4 The Need for Enhanced Collaboration

Moreover, most professionals in the FinTech industry, whether they operate within traditional banking or specialize in cryptocurrency, hold a common belief that the widespread acceptance of Swedish stablecoins encounters substantial hurdles. These obstacles primarily revolve around establishing credibility and dispelling skepticism, largely attributed to the negative perception surrounding the cryptocurrency ecosystem. It was even argued that regulators occasionally demonstrate a lack of thorough understanding, despite instances of highly detailed and informed publications, such as the European Central Bank's (ECB) insightful analysis on Bitcoin and digital assets in 2012.

This disparity between well-informed discourse and seemingly uninformed public positions prompts inquiries into whether this stems from a knowledge gap or a deliberate strategy aimed at impeding cryptocurrency adoption due to its perceived threats to traditional financial systems. Evidence from ECB working papers (Bindseil & Pantelopoulos, 2022; van Echelpoel et al., 2020; Ahnert et al., 2022) suggests that the latter may be more plausible, particularly regarding the view that stablecoins pose a significant threat to monetary sovereignty. This divide within the market is another example of an us-versus-them mentality that could potentially lead to a decline in communication and understanding among various financial actors. Potentially leading to a further deepening of divisions within the market over time.

Stablecoins are still in the early stages of adoption, similar to cryptocurrencies from which they originated. Still today, stablecoins are by many perceived as another risky investment vehicle within the broader category of cryptocurrencies. However, stablecoins has recently demonstrated that the use of stablecoins extends beyond cryptocurrency-related activities. They are increasingly employed in both emerging and advanced economies. Another promising application for stablecoins is in the

tokenized asset space.

Recently, the world's largest asset managers have begun introducing cryptocurrency investment vehicles and have shown interest in further developments towards tokenizing real-world assets, such as real estate, stocks, and bonds (Raheman, 2024). As influential actors enter the blockchain industry, there is potential to bridge the gap between regulatory bodies, TradFi, and DeFi sectors. Should such developments occur, the perception of stablecoins could shift significantly. There is a possibility that the sensemaking of stablecoins would no longer be grouped with fringe cryptocurrencies but rather seen as a "blockchain dollar" that is part of a broader blockchain-based financial system alongside tokenized real-world assets like blockchain bonds, stocks, and real estate.

6
Conclusion

This study has contributed to the theory by (Seligman, 2006), who argues that the adoption process of a disrupting technology is initiated with the formation of individual sensemaking. Furthermore, this study has demonstrated that various factors, including actor dynamics, individual factors, and technical aspects, significantly influence how individuals perceive a technological disruption such as stablecoins. Notably, regulatory actors play a crucial role in shaping perceptions of stablecoins. While it may not be surprising, it is essential to recognize that stablecoins are not just any innovation, they disrupt and affect society at multiple levels. Consequently, the debate surrounding stablecoins extends beyond mere technological and economic competition to encompass a broader political challenge.

Personal experience and background are critical, as they greatly influence how different actors engage with the innovation of stablecoins. Proponents of stablecoins often view their efforts as taking responsibility for society by fostering an inclusive, accessible, transparent, and less centralized payment system. In contrast, established financial institutions view their efforts as taking responsibility by exercise caution, prioritizing consumer protection against unproven technologies that could assume significant roles in the financial system. In response, these institutions often adopt a skeptical stance while simultaneously developing alternatives like Central Bank Digital Currencies (CBDCs), which aim to compete with stablecoins but remain under conventional regulatory control.

The challenge that stablecoins pose to critical functions in the current financial system has emerged as the central outcome of our study, illuminating a market divide often characterized by an "us versus them" mentality. This divide has the potential to widen, hindering collaborative efforts for future regulations and stifling innovation. Moreover, it may even incentivize innovators to seek judicial environments where such divisions are absent. This overarching conclusion underscores the necessity for enhanced collaboration, open debate, mutual understanding, and learning among different market actors. By embracing these principles, nations can maintain a competitive edge in financial industry innovations.

The further tokenization of real-world assets beyond currencies could cast stablecoins in a new light, where they might be categorized with assets such as tokenized real estate, stocks, and bonds, rather than with cryptocurrencies. As the adoption of blockchain technology matures, the influence of major actors, such as global asset management firms, could help bridge the existing gap between regulatory bodies

and smaller, innovative actors. In such a case, the sensemaking of stablecoins could rapidly evolve, alongside the emerging use cases of blockchain technology.

6.1 Recommendations for Future Research

Firstly, further research could be made to conduct additional interviews, particularly targeting legacy banks where previously access to information proved challenging. This would enrich the data with deeper insights from a crucial sector of the financial industry.

Secondly, adopting a global perspective could enhance the research around sensemaking of stablecoins, since it is a global innovation, utilized in several countries. Comparing how representatives of different financial stakeholders from several countries perceive and anticipate the emergence of stablecoins can provide a broader understanding of the international finical landscape and its various challenges and opportunities.

Additionally, researching how jurisdictional regulatory differences impact stablecoin adoption could provide valuable insights into where innovation may flourish and which jurisdictions pose greater obstacles. This understanding could further clarify how regulators influence market behaviors and stakeholder decisions across borders.

Finally, it would be interesting to explore the potential future interplay between stablecoins and CBDCs. Investigating this relationship could offer critical perspectives on the implications for monetary policy and financial stability, enriching the development of digital currencies and their role in the evolving financial sector.

References

Abernathy, W. J., & Clark, K. B. (1985). Innovation: Mapping the winds of creative destruction. *Research policy*, *14*(1), 3–22.

Adams, A., Lader, M.-C., Liao, G., Puth, D., & Wan, X. (2023). On-chain foreign exchange and cross-border payments. *Available at SSRN 4328948*.

Ahnert, T., Assenmacher, K., Hoffmann, P., Leonello, A., Monnet, C., & Porcellacchia, D. (2022). The economics of central bank digital currency.

Almqvist, R., Catasús, B., & Skoog, M. (2011). Towards the next generation of public management: A study of management control and communication in the swedish armed forces. *International Journal of Public Sector Management*, *24*(2), 122–145.

Anderson, P., & Tushman, M. L. (2018). Technological discontinuities and dominant designs: A cyclical model of technological change. In *Organizational innovation* (pp. 373–402). Routledge.

Antonopoulos, A. M. (2017). *Mastering bitcoin: Programming the open blockchain.* " O'Reilly Media, Inc.".

Arner, D. W., Auer, R., & Frost, J. (2020). Stablecoins: risks, potential and regulation.

Arslanian, H. (2022). The history of money. In *The book of crypto: The complete guide to understanding bitcoin, cryptocurrencies and digital assets* (pp. 1–43). Springer.

Asmundson, I., & Oner, C. (2012). What is money? *Finance Development*, *49*(3).

Au, C. H., Hsu, W. S., Shieh, P. H., & Yue, L. (2023). Can stablecoins foster cryptocurrencies adoption? *Journal of Computer Information Systems*, 1–10.

Bains, P., Ismail, A., Melo, F., & Sugimoto, N. (2022). *Regulating the crypto ecosystem: the case of stablecoins and arrangements.* International Monetary Fund.

Banton, C. (2022). Currency peg: What it is, how it works, and fixed exchange rates. *Luettavissa: https://www.investopedia.com/terms/c/currency-peg.asp*, *19*, 2022.

Barthélémy, J., Gardin, P., & Nguyen, B. (2023). Stablecoins and the financing of the real economy.

Baughman, G., Carapella, F., Gerszten, J., & Mills, D. (2022). The stable in stablecoins.

Baur, D. G., & Hoang, L. T. (2020). How stable are stablecoins? *The European Journal of Finance*, 35.

Baur, D. G., & Hoang, L. T. (2021). A crypto safe haven against bitcoin. *Finance Research Letters*, *38*, 101431.

Bell, E., Bryman, A., & Harley, B. (2022). *Business research methods.* Oxford university press.

Berentsen, A., & Schär, F. (2019). Stablecoins: The quest for a low-volatility cryptocurrency. *The economics of Fintech and digital currencies*, 65–75.

Bernhart, S. (2020). Applications of cbdcs and private stablecoins: Comparative analysis.

Bindseil, U., & Pantelopoulos, G. (2022). Towards the holy grail of cross-border payments.

BIS. (2022). *Cpmi and iosco publish final guidance on stablecoin arrangements confirming application of principles for financial market infrastructures.* Retrieved 2024-03-06, from https://www.bis.org/press/p220713.htm

Board, F. S. (2023). *G20 roadmap for enhancing cross-border payments: Priority actions for achieving the g20 targets.* https://www.fsb.org/2023/02/g20-roadmap-for-enhancing-cross-border-payments-priority-actions-for-achieving-the-g20-targets/. (Accessed: 2024-05-28)

Bolt, W., Lubbersen, V., & Wierts, P. (2022). Getting the balance right: Crypto, stablecoin and cbdc.

Bullmann, D., Klemm, J., & Pinna, A. (2019). In search for stability in crypto-assets: are stablecoins the solution? *Available at SSRN 3444847*.

Calomiris, C. W. (2021). Will fractional-reserve stablecoin banking replace bitcoin and some traditional banking payments? *Journal of Applied Corporate Finance*, *33*(4), 70–75.

Catalini, C., & Shah, N. (2021). Setting standards for stablecoin reserves. *Available at SSRN 3970885*.

Chakravarty, R. (2023). *Citi launches token service for institutional clients.* Retrieved 2024-05-08, from https://www.bankingdive.com/news/citi-token-services-launch-commercial-blockchain-technology-cross-border-instant-payments/694092/#:~:text=The%20new%20service%2C%20called%20Citi,the%20clock%2C%20Citi's%20statement%20said

Chance, C. (2022). Crypto regulation:the introductionof mica into the eu regulatory landscape. Retrieved from https://www.cliffordchance.com/content/dam/cliffordchance/briefings/2022/12/crypto-regulation-the-introduction-of-mica-into-the-eu-regulatory-landscape.pdf

Chen, J. (2022). Fiat money: What it is, how it works, example, pros & cons. *Luettavissa: https://www. investopedia. com/terms/f/fiatmoney. asp. Luettu*, *19*, 2022.

Chia, C., & Helleiner, E. (2024). Central bank digital currencies and the future of monetary sovereignty. *Finance and Space*, *1*(1), 35–48.

Circle. (2024). *The Role of stablecoins in decentralized finance (defi) | circle — circle.com.* https://www.circle.com/en/digital-dollar-stablecoin-solutions-for-defi. ([Accessed 28-02-2024])

Cleland, V. (2021). *Working together to enhance cross-border payments - speech by victoria cleland.* Retrieved 2024-05-08, from https://www.bankofengland.co.uk/speech/2021/november/victoria-cleland-keynote-presentation-the-cbpc-international-payments-on-the-move

Cong, L. W., & Mayer, S. (2022). The coming battle of digital currencies. *The SC Johnson College of Business Applied Economics and Policy Working Paper Series*(2022-04).

Council, A. (2022). *Central bank digital currency tracker.* Retrieved 2024-04-03, from https://www.atlanticcouncil.org/cbdctracker/

Council, A. (2023). *Pwc global cbdc index and stablecoin overview 2023.* Retrieved 2024-04-03, from https://www.pwc.com/gx/en/financial-services/pdf/

pwc-global-cbdc-index-and-stablecoin-overview-2023.pdf

Dark, C., Rogerson, E., Rowbotham, N., & Wallis, P. (2023). *Stablecoins: Market developments, risks and regulation.* Rsrv. Bank of Australia,(December 8, 2022) https://www. rba. gov. au ....

DiCicco-Bloom, B., & Crabtree, B. F. (2006). The qualitative research interview. *Medical education*, *40*(4), 314–321.

Douglas Arner, J. F. T., Raphael Auer. (2020). Stablecoins: risks, potential and regulation. *BIS Working Papers*, *905*.

d'Avernas, A., Bourany, T., & Vandeweyer, Q. (2021). Are stablecoins stable? *Workin g Paper*.

Ehlers, T., & Villar, A. (2015). The role of banks. *BIS Paper*(83b).

Eichengreen, B. J., Flandreau, M., et al. (1997). *The gold standard in theory and history* (Vol. 2). Routledge London.

Fatas, A. (2019). *The economics of fintech and digital currencies* (Vol. 3). CEPR Press.

Garratt, R., & Shin, H. S. (2023). Stablecoins versus tokenised deposits: implications for the singleness of money. *BIS Bulletin*(73).

Gattringer, R., Damm, F., Kranewitter, P., & Wiener, M. (2021). Prospective collaborative sensemaking for identifying the potential impact of emerging technologies. *Creativity and Innovation Management*, *30*(3), 651–673.

Gechert, S., Truger, A., van Treeck, T., & Watt, A. (2015). Inequality and the future of capitalism. *European Journal of Economics and Economic Policies: Intervention*, *12*(2), 143–146.

Gehman, J., Glaser, V. L., Eisenhardt, K. M., Gioia, D., Langley, A., & Corley, K. G. (2018). Finding theory–method fit: A comparison of three qualitative approaches to theory building. *Journal of management inquiry*, *27*(3), 284–300.

Genc, H. O., & Takagi, S. (2024). A literature review on the design and implementation of central bank digital currencies. *International Journal of Economic Policy Studies*, 1–29.

Gentle, P. F. (2021). Rice as an early form of money in the economic sense: Satisfying store of value, unit of account and medium of exchange requirements.

George, K. (2024). Cryptocurrency regulations around the world.

Gioia, D. A., & Chittipeddi, K. (1991). Sensemaking and sensegiving in strategic change initiation. *Strategic management journal*, *12*(6), 433–448.

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research: Notes on the gioia methodology. *Organizational research methods*, *16*(1), 15–31.

Gogol, K., Killer, C., Schlosser, M., Bocek, T., Stiller, B., & Tessone, C. (2024). Sok: Decentralized finance (defi)–fundamentals, taxonomy and risks. *arXiv preprint arXiv:2404.11281*.

Gourinchas, P.-O., Rey, H., & Sauzet, M. (2019). The international monetary and financial system. *Annual Review of Economics*, *11*, 859–893.

Grey, R., & Hacker, P. (2019). Banking in a digital fiat currency regime. *Regulating blockchain: Techno-social and legal challenges*, 169–180.

Guillemin, M., & Gillam, L. (2004). Ethics, reflexivity, and "ethically important moments" in research. *Qualitative inquiry*, *10*(2), 261–280.

Gurguc, Z., & Knottenbelt, W. (2018). Cryptocurrencies: Overcoming barriers to trust and adoption. *Etoro-Imp. College London Consultants*.

Gurrea-Martínez, A. (2020). Disruptive technologies and digital transformation of the financial services industry in singapore: Regulatory framework and challenges ahead. *SMU Centre for AI & Data Governance Research Paper*(11).

Hansen, P., & Bauer, H. (2024). Mica's significance regime for stablecoins-a sledgehammer to crack a nut? *Available at SSRN 4699043*.

Hayes, A. (2023). Stablecoins: Definition, how they work, and types. *ημερομηνία πρόσβασης*, *10*(6.23).

Hayes, A. (2024). *Stablecoins: Definition, how they work, and types.* Retrieved 2024-05-08, from `https://www.investopedia.com/terms/s/stablecoin.asp`

Hsu, W. S., Au, C. H., & Shieh, P.-H. (2022). Can stablecoins foster cryptocurrencies adoption? a preliminary study from the push-pull-mooring model perspective.

Jordan, T. J. (2018). How money is created by the central bank and the banking system. *Zurich: Swiss National Bank*, *16*.

Klein, M. (2023). *Blockchain-based money from the private sector – an overview.* Retrieved 2024-04-09, from `https://flow.db.com/cash-management/blockchain-based-money-from-the-private-sector-an-overview#4`

Kochergin, D. (2020). Economic nature and classification of stablecoins. *Finance: theory and practice*(24), 6.

Kulkarni, R., Schintler, L., Koizumi, N., Olds, J., & Stough, R. R. (2019). Cryptocurrency, stablecoins and blockchain: Exploring digital money solutions for remittances and inclusive economies. In *66th annual north american meetings of the regional science association international (13–16 nov, 2019) in pittsburgh, pa, usa.*

Lee, M. (2019). Stablecoin: Yet another layer of cryptocurrency complexity. *American Bankruptcy Institute Journal*, *38*(9), 36–64.

Lee, S., Lee, J., & Lee, Y. (2023). Dissecting the terra-luna crash: Evidence from the spillover effect and information flow. *Finance Research Letters*, *53*, 103590.

Liao, G. Y., & Caramichael, J. (2022). Stablecoins: Growth potential and impact on banking.

Lipton, A., Sardon, A., Schär, F., & Schüpbach, C. (2020). 11. stablecoins, digital currency, and the future of money. *Building the New Economy*, *30*.

Mallela, N., Toprak, B., Zaltsman, N., & Tombazzi, M. (2023). How deposit tokens are changing the digital money ecosystem. Retrieved from `<https://www.oliverwyman.com/our-expertise/insights/2023/feb/deposit-token-a-foundation-for-stable-digital-money.html>`

Mattke, J., Maier, C., & Reis, L. (2020). Is cryptocurrency money? three empirical studies analyzing medium of exchange, store of value and unit of account. In *Proceedings of the 2020 on computers and people research conference* (pp. 26–35).

McCarthy, A. M. (2023). *Blackrock's fink says tokenization of asset classes could drive efficiencies in capital markets.*

McLeay, M., Radia, A., & Thomas, R. (2014). Money creation in the modern

economy. *Bank of England quarterly bulletin*, Q1.

Miernicki, M. (2024). Cash, accounts, and central bank digital currencies: a legal view on the introduction of account-and token-based digital central bank money. *Law and Financial Markets Review*, 1–28.

Mita, M., Ito, K., Ohsawa, S., & Tanaka, H. (2019). What is stablecoin?: A survey on price stabilization mechanisms for decentralized payment systems. In *2019 8th international congress on advanced applied informatics (iiai-aai)* (pp. 60–66).

Mohajan, H. K. (2017). Two criteria for good measurements in research: Validity and reliability. *Annals of Spiru Haret University. Economic Series*, *17*(4), 59–82.

Mokhinur, K., Dilshodbek, A., Khodjaev, S., & Amira, S. (2023). The regulation and differences between cryptocurrency, stablecoin, central bank digital currency, e-money, virtual currency, and in-game currency. *Stablecoin, Central Bank Digital Currency, E-Money, Virtual Currency, and In-Game Currency (March 17, 2023)*.

Mooney, A. (2018). *Blockchain 'could save asset managers $2.7bn a year.* Retrieved 2024-05-15, from `https://www.ft.com/content/b6171016-171f-11e8-9e9c-25c814761640`

Nakamoto, S. (2008). Bitcoin whitepaper. *URL: https://bitcoin. org/bitcoin. pdf-(: 17.07. 2019)*.

Nevil, S. (2024). What is markets in crypto-assets (mica)?

Nodes, L. (2024). *The eu markets in crypto-assets (mica) regulation explained.* Retrieved 2024-05-15, from `https://legalnodes.com/article/mica-regulation-explained`

Ostern, N. K., Holotiuk, F., & Moormann, J. (2022). Organizations' approaches to blockchain: A critical realist perspective. *Information & Management*, *59*(7), 103552.

Ozili, P. K. (2022). Central bank digital currency in nigeria: opportunities and risks. In *The new digital era: digitalisation, emerging risks and opportunities* (pp. 125–133). Emerald Publishing Limited.

Pack, S. (2022). Issues raised by monetary theory concerning bitcoin and cryptocurrencies. In *The political economy and feasibility of bitcoin and cryptocurrencies* (pp. 218–232). Edward Elgar Publishing.

Panetta, F. (2023). *Extending the benefits of digital technologies to cross-border payments.* Retrieved 2024-05-21, from `https://www.ecb.europa.eu/press/blog/date/2023/html/ecb.blog231031~85a4bcdee0.en.html`

Parliament, E. (2023). *Crypto-assets: green light to new rules for tracing transfers in the eu.* Retrieved 2014-03-06, from `https://www.europarl.europa.eu/news/en/press-room/20230414IPR80133/crypto-assets-green-light-to-new-rules-for-tracing-transfers-in-the-eu`

Paull, M., Boudville, I., & Sitlington, H. (2013). Using sensemaking as a diagnostic tool in the analysis of qualitative data. *The Qualitative Report*, *18*(27), 1–12.

PayPal. (2023). *Paypal launches u.s. dollar stablecoin.* PayPal Press release. Retrieved from `https://newsroom.paypal-corp.com/2023-08-07-PayPal-Launches-U-S-Dollar-Stablecoin`

Popli, S., & Wasswa, G. (2024). Exploration of forces and catalysts for the evolution of money: From barter to digital. In *Exploring central bank digital currencies: Concepts, frameworks, models, and challenges* (pp. 1–12). IGI Global.

Raheman, F. (2024). Harvesting, tokenizing, and sharing the influence of planetary abundance to mitigate the global debt catastrophe. *Theoretical Economics Letters*, *14*(1), 125–163.

Riksbank, S. (2023). *Vad är pengar?* Retrieved 2024-05-15, from `https://www.riksbank.se/sv/betalningar--kontanter/vad-ar-pengar/`

Riksbank, S. (2024). *1973 - bretton woods goes to the grave* (Tech. Rep.). Author.

Roberts, C. (2022, 02). Stablecoins -types and definitions. doi: 10.13140/RG.2.2.27163.95526

Rockoff, H. (1972). *The free banking era: a reexamination. dissertations in american history (rev. ph. d. diss., university of chicago).* New York: Arno Press.

Rogers, E. M. (2003). Diffusion of innovations. simon & shuster. *Inc.,*.

Rom, N., & Eyal, O. (2019). Sensemaking, sense-breaking, sense-giving, and sense-taking: How educators construct meaning in complex policy environments. *Teaching and Teacher Education*, *78*, 62–74.

Rosenthal, M., & Court, J. (2020). Is it ok for fintechs to use regulatory arbitrage to avoid consolidated supervision? *Bank Policy Institute*.

Sadiq, M., Aysan, A. F., & Kayani, U. N. (2023). Digital currency and blockchain security in accelerating financial stability: A mediating role of credit supply. *Borsa Istanbul Review*, *23*(6), 1251–1262.

Sameeh, T. (2018). Your most comprehensive guide to stablecoins. *Retrieved from*.

Schoenmaker, D. (2013). Central banks role in financial stability. *Handbook of Safeguarding Global Financial Stability*, *2*, 271–284.

Schuh, S., & Stavins, J. (2016). How do speed and security influence consumers'payment behavior? *Contemporary Economic Policy*, *34*(4), 595–613.

Seligman, L. (2006). Sensemaking throughout adoption and the innovation-decision process. *European Journal of Innovation Management*, *9*(1), 108–120.

Shah, K., Lathiya, D., Lukhi, N., Parmar, K., & Sanghvi, H. (2023). A systematic review of decentralized finance protocols. *International Journal of Intelligent Networks*.

Staff, C. (2023). *Dai: A systematically sustainable stablecoin.* Retrieved 2024-04-03, from `https://www.gemini.com/cryptopedia/dai-stablecoin-what-is-dai-token`

Swan, M. (2015). *Blockchain: Blueprint for a new economy.* " O'Reilly Media, Inc.".

Thanh, B. N., Hong, T. N. V., Pham, H., Cong, T. N., & Anh, T. P. T. (2023). Are the stabilities of stablecoins connected? *Journal of Industrial and Business Economics*, *50*(3), 515–525.

Tian, S., Zhao, B., & Olivares, R. O. (2023). Cybersecurity risks and central banks' sentiment on central bank digital currency: Evidence from global cyberattacks. *Finance Research Letters*, *53*, 103609.

Tronnier, F. (2021). Privacy in payment in the age of central bank digital currency. In *Privacy and identity management: 15th ifip wg 9.2, 9.6/11.7, 11.6/sig 9.2. 2 international summer school, maribor, slovenia, september 21–23, 2020,*

revised selected papers 15 (pp. 96–114).

Utterback, J. M., & Suárez, F. F. (1993). Innovation, competition, and industry structure. *Research policy*, *22*(1), 1–21.

van Echelpoel, F., Chimienti, M. T., Adachi, M., Athanassiou, P., Balteanu, I., Barkias, T., ... others (2020). *Stablecoins: Implications for monetary policy, financial stability, market infrastructure and payments, and banking supervision in the euro area* (Tech. Rep.). ECB Occasional Paper.

Visa Inc. (2023). *Visa expands stablecoin settlement capabilities to merchant acquirers.* Visa Inc. Press release. Retrieved from `https://usa.visa.com/about-visa/newsroom/press-releases.releaseId.19881.html`

Von Mises, L. (2013). *The theory of money and credit.* Skyhorse Publishing, Inc.

Wang, Y., Singgih, M., Wang, J., & Rit, M. (2019). Making sense of blockchain technology: How will it transform supply chains? *International Journal of Production Economics*, *211*, 221–236.

Weick, K. (1995). *Sensemaking in organizations* (Vol. 3). Sage publications Thousand Oaks, CA.

Wilkie, A., & Smith, S. S. (2021). Blockchain: speed, efficiency, decreased costs, and technical challenges. In *The emerald handbook of blockchain for business* (pp. 157–170). Emerald Publishing Limited.

Yaga, D., Mell, P., Roby, N., & Scarfone, K. (2019). Blockchain technology overview. *arXiv preprint arXiv:1906.11078*.

Zhao, E., & Ringström, O. (2022). *Stablecoins: the possibility of a cryptocurrency becoming the future means of payment.*

A

Appendix 1

A.1 Appendix

Interview guide

Our study centers on sensemaking and explores how different individuals perceive and anticipate the emergence of Stablecoin as a means of payment. We are keen to gain your perspective and thoughts on the subject to comprehend the current pre-adoption phase we are experiencing. During this phase, organizations are becoming aware of the new technology, evaluating its potential impact, and deciding whether to embrace it.

Topic: Background

We want to talk a little about your background and experience with the financial system and the crypto world. We are interested in your personal perspective and what you think about your organization's perspective.

Q1.1 Give an overview of what you work with, and your previous experience?

Q.1.2 Tell us a bit more about your company!

Q.1.3 How and when did you first come in contact with cryptocurrencies?

Q.1.4 How would you describe your experience with cryptocurrencies, professional, or personal interest?

Q.1.4 How do you perceive your company's position in relation to the cryptocurrency industry?

Topic: View on Stablecoins

After gaining insight into your background and your company, we are now interested in hearing your perspective on Stablecoins. These insights will contribute to our deeper understanding of how Stablecoins are perceived both at an individual and organizational level.

Q2.1 What is stablecoins to you, describe it in the way you understand it.

Q2.2 In what areas do you see that there is a potential for stablecoins?

Q2.3 What main challenges do you see with Stablecoin as a means of payment?

Q2.4 What current and future risks do you see with the use of Stablecoins?

Q.2.3 What role do you think Stablecoins play in today's payment system? How widespread is it? Use cases in the Swedish landscape?

Q.2.4 What is your view on CBDC development compared with Stablecoins? Co-exist, how? winner takes it all - in that case which one

Topic: Current system

Given that stablecoins are still in the early stages of adoption, we want to understand your perspective on the current system. We would like to know your thoughts on the functionality of the existing payment infrastructure, how your organization depends on it, and where you identify the greatest opportunities for potential innovation/improvements.

Q.3.1 According to you, what are the biggest challenges with the current financial system? (Transactions, trust, traceability, time, political, non-homogeneous)

Q.3.2 Have you experienced any problems with the current financial system? Explain what happened and identify the underlying reasons for the problems you encountered.

Q.3.3 When looking at this time line, where would you say that your organization would be ready to start to adopt and utilize Stablecoins in any form?

-Where on this timeline would you say that the Swedish landscape at a whole would start to adapt, including banks, institutions, businesses

Topic: Drivers for development and (dis)advantages with stablecoins Now we want to gain insights into the driving forces, advantages, disadvantages, and potential applications in your business. Your input will greatly contribute to our understanding of this evolving landscape.

Q4.1 What is your perception of the main drivers behind the emergence of stablecoins?

Q4.2 What is your understanding of the purpose of the phenomena, and what are the advantages and disadvantages of stablecoins?

Q4.3 How do you think Stablecoins could potentially solve problems in your business? What role could Stablecoins play?

Q4.4 What potential barriers and obstacles do you think you would face if you were to involve Stablecoins in your business (or are facing)? Knowledge, regulation, early adoption, providers

Q4.5 What current and future risks do you see with the use of Stablecoins?

If you have any additional insights or experiences related to the subject that we haven't yet covered, we want to ensure there's room for you to share any observations or experiences that you feel have impacted your view.

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