

## **The Digitalization of Money in The Bahamas**

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### **Abstract**

In The Bahamas, cash has traditionally been used as the dominant and preferred form of payment for many years. Almost all retailers, companies, and customers traditionally conducted transactions and made payments using cash. The Covid-19 outbreak rocked the worldwide economy in 2020. The impact of the virus changed the patterns of consumption and spending which affected The Bahamas and other countries. Even while credit and debit cards were already accessible, their use and that of other types of digital money changed rapidly to reflect the global cultural shift. Digital wallets emerged prior to the virus but has expanded because of it, while physical coins were retired out of circulation. Advancement in these and other types of digitalization has placed The Bahamas in forefront of this emerging market. The problem is, however, understanding how this digital transition will affect the Bahamian economy and how The Bahamas can continue to play a significant role in this shift. This paper will discuss how the Bahamian economy is affected by digitization and consider how this nation can be a remain trend-setter in an ever-evolving global environment. To do this, this paper will examine two case studies, El Salvador and Coca-Cola Company, to see if these institutions can sustain their competitive edge and how the data can be used to help to The Bahamas sustain ours.

*Keywords: digitalization, technology, consumption, payments, CBDC, and digital money.*

### **The Digitalization of Money in The Bahamas**

Money is among the earliest inventions made by humans. Over the course of human history, money has taken several forms including animals, shells, coins, precious metals, banknotes, credit/debit cards, and more. Without a doubt, money was always something that was able to evolve with shifts in society. From the bartering systems in 1700s, to the use of gold/silver in the 1800s, to the circulation of notes and coins in the 1900s. As the globe entered the late 1900s, there were significant changes in money's forms, functions, and usage. For example, a Brooklyn-based bank launched Charg-It, the first bank card, in 1946. Only a small number of neighborhood businesses accepted it, and it could only be used by people who had bank accounts (Davidson & Turmel, 2017). As such, the world has gone from the bartering system to banknotes and now bitcoin and other digital currencies to adapt to global social and economic changes.

The Bahamas has been predominantly a cash society since the late 1960s. The Bahamas gained its independence from Great Britain in 1973, since then The Central Bank of The Bahamas was designated as the country's official currency provider by 1974 and held responsibility for monetary policy. Since then, significant technological improvements with banknotes and coins have occurred, and new money has been presented to Bahamians. However, this type of money has been shown to be beneficial to Bahamians. Banknotes and coins were able to uphold the functions of money including serving as a medium of commerce, a store of wealth, a unit of account, and a standard of deferred payment. This type of money was especially useful for people who did not have access to banks or expertise in dealing with electronic forms such as credit and debit cards. In terms of accessibility, functionality, and usage, cash and coins were the preferred modes of payment for the majority of Bahamians up to 2019/20.

According to the World Health Organization, the first case of the Covid-19 virus was from Wuhan, China, on 31 December 2019 (World Health Organization, 2022). By March 2020, The Bahamas had received the first confirmed case of Covid-19 (Bahamas Information Services, 2020). After the safely measures insistent on limited contact, a push for change ensued. As stated by the former Minister of Finance, Hon. Peter Turnquest, this pandemic showed “that as a matter of national priority, the various stakeholders need to collaborate and move in unison to accelerate the adoption of digital payment systems. Yes, it is a matter of national efficiency and national competitiveness” (Turnquest, 2020). So, there were tons of initiatives for consumers and businesses to create innovative ways to prevent physical contact and continue consumer spending. With the help of technological advancements, providing contactless services and transactions paved the way for more cashless transactions.

Like other nations, The Bahamas adapted to these untimely changes in the world. According to 2021 businesses and consumers practices surveys, cash and cheque usage among businesses fell at the end of 2020, but acceptance and use of electronic payments grew (Central Bank of The Bahamas, 2021). The Sand Dollar, the Bahamian central bank digital currency (CBDC) was launched in October of 2020 and the Bahamian penny was eliminated from circulation in December of 2020. Along with this, government offices like The Bahamas Passport Office, financial institutions, medical facilities, airport, and more have managed to adopt systems to be more digitalized in a matter of two years (Turnquest, 2020).

Due to the Covid-19 pandemic, The Bahamas was pushed to make extensive measures to combat with global issues and incorporating new means of digital payments. Currently, The Bahamas is becoming “the leading digital asset hub in the Caribbean and a global leader in the progressive regulation of businesses in this profoundly innovative space” because to a number of

these transformational initiatives (The Government of The Bahamas, 2022). Therefore, the focus of this research paper will be on the effects of digital currency on the Bahamian economy.

Additionally, how The Bahamas can continue to be at the forefront of this digital transformation.

### **Literature Review**

As stated by the European Central Bank, digital money can be defined as “a digital representation of value, not issued by a central bank, credit institution or e-money institution, which, in some circumstances, can be used as an alternative to money” (European Central Bank, 2015). Digital money can vary depending on the issuer, public or private sector. According to the International Monetary Fund, “The public sector can issue digital money called central bank digital currency—essentially a digital version of cash that can be stored and transferred using an internet or mobile application. The private sector can also issue digital money. Some forms can be redeemed for cash at a fixed face value. These are fully backed with very safe and liquid assets and are usually referred to as e-money” (Adrian & Mancini-Griffoli, A New Era of Digital Money, 2021). Thus, technology has introduced several forms of digital money including credit/debit cards, CBDCs, stable coins, cryptocurrency and more (Grant, 2021).

According to BIS Committee on Payments and Market Infrastructures (CPMI), both advanced economies (AEs) and emerging market and developing economies (EMDEs) experienced a significantly expansion in the non-cash payments in total GDP due to total credit transfer usage in 2020 (BIS Committee on Payments and Market Infrastructures, 2021). Along with this, the share of contactless payments in total card transactions increased in this period at a rate that had not been since 2015 (BIS Committee on Payments and Market Infrastructures, 2021). For example, Visa International noted that, “Since the start of Covid-19 outbreak, 88% have been using some payment method more often than they did at the start of the year. The most often cited are using swipe or insert chip (40%), contactless card using tap (39%), and mobile payment (35%)” (VISA International, 2020). A financial research expert, Raynor de Best

from Statista is suggesting that the number of non-cash transactions would continue to increase in all regions globally moving into 2023 (De Best, 2022).

Other forms of digital currency are e-money<sup>1</sup>, cryptocurrency<sup>2</sup>, b-money<sup>3</sup>, and i-money<sup>4</sup>. (Adrian & Mancini- Griffoli, *The Rise of Digital Money*, 2021). Some forms of e-money would include pre-paid cards, electronic purses, such as M-PESA in Kenya, or web-based services, such as PayPal (Firpo, 2009). As such, e-money can serve as an umbrella term for several more specific electronic value products and services including mobile money transfer, mobile payments, mobile banking, electronic wallet (e-wallet), mobile wallet (mWallet), and more (Firpo, 2009).

Kanoo and Island Pay are both examples of e-money service providers that exists in The Bahamas prior to Covid-19. Kanoo Pays, one of the newest digital wallets in The Bahamas, debuted in October 2019 in partnership with Super Value Quality Supermarkets, a well-known supermarket chain (Kanoo Pays, 2019). The Central Bank of The Bahamas has granted CaribPay (Bahamas) Ltd., doing business as Kanoo, a license as a “Non-Bank Electronic Retail Payment Institution” (Kanoo Pays, 2019). By October 2020, Kanoo Pays had expanded to approximately 13,000 active users, including more than 100 enterprises that were completing daily digital fiat

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<sup>1</sup> According to the European Commission, electronic money is an electronic version of currency that enable users to utilize money that is saved on a card, phone, or the internet to conduct cashless payments (European Commission, 2022).

<sup>2</sup> Cryptocurrencies are digital tokens that allow people to make payments directly to each other through an online system (Reserve Bank of Australia, 2021). Bitcoin, Ethereum, and Tether are examples of cryptocurrencies used worldwide.

<sup>3</sup> B-money can be described as commercial bank deposits where the use of checks, debit cards, and wire transfers are conducted (Adrian & Mancini- Griffoli, *The Rise of Digital Money*, 2021)

<sup>4</sup> I-money is a developing form of digital money that is a claim-based means of payments on commodities like precious metals like gold and shares in private investment funds (Adrian & Mancini- Griffoli, *The Rise of Digital Money*, 2021).

transactions (McCartney, 2020). Chief Executive Officer of Kanoo Keith Davies said that this growth was due to individuals becoming more accustomed to using electronic money and seeing the value of using electronic payments to complete transactions (McCartney, 2020).

Additionally, the introduction of the Sand Dollar (The Bahamas' CBDC) with the Kanoo Pays app and the education campaigns to inform Bahamians that the Sand Dollar is secure and supported by the Central Bank were crucial to the growth in usage (McCartney, 2020). Given that Bahamians are growing increasingly accepting of and knowledgeable about e-money, there is a remote potential that the number of active users in Kanoo Pays has increased since October 2020. This digital wallet is still available and used by Bahamians today, proving that it is effective and valuable to the Bahamian community.

The 2018-founded Island Pay, a Caribbean e-wallet, enables people, organizations, and governments to send, transfer, and receive money electronically using their mobile phones and other inexpensive access methods while making it simple and secure to pay for goods and services; partners with governments and a network of merchants in strategic alliances (Island Pay, 2022). The Central Bank of The Bahamas granted the first license to Island Pay as a Payment Service Provider and Electronic Money Institution; now this provider assisting The Government of The Bahamas with large-scale payments distributions (Island Pay, 2022). In February 2021, Island Pay has close to 20,000 users of digital wallets as clients (Hartnell, 2021). With Mastercard's assistance, this e-wallet provider took the initiative to develop its technological infrastructure in order to strengthen their brand, legitimacy, and global visibility while also enhancing Bahamian users' trust in utilizing this online platform (Hartnell, 2021).

According to the International Monetary Fund, “around 100 countries are exploring CBDCs at one level or another” (Georgieva, 2022). Countries who are currently distributing

CBDC are The Bahamas, Nigeria, and Eastern Caribbean Central Bank. The Sand Dollar, the nation's first-ever issued CBDC, has been in use in The Bahamas for more than a year (Central Bank of The Bahamas, 2021). Nigeria became the first African country to create a CBDC in October 2021, with approximately 700,000 users downloading their wallet by the end of January 2022. (Smith, 2022). The Eastern Caribbean Central Bank (ECCB) launched their first DXCDCaribe project in March 2019, in collaboration with Bitt Incorporation, where the digital EC currency now utilized in this pilot, named DCash, was issued and securely produced in March 2021 (Eastern Caribbean Central Bank, 2022).

Countries who are in the testing phase are Sweden, and China. Sweden's Riksbank has created a proof of concept and is investigating the technological and regulatory implications of CBDC, but it is yet unclear how to guarantee widespread access, notably for the elderly and those with disabilities (Smith, 2022). China became the world's first significant country to test a digital currency in April 2020, but the People's Bank of China expects extensive domestic use of the e-CNY, or digital yuan, this year (Smith, 2022). According to the IMF, during its testing phase, it presently has over a hundred million individual users and billions of yuan in transactions (Georgieva, 2022).

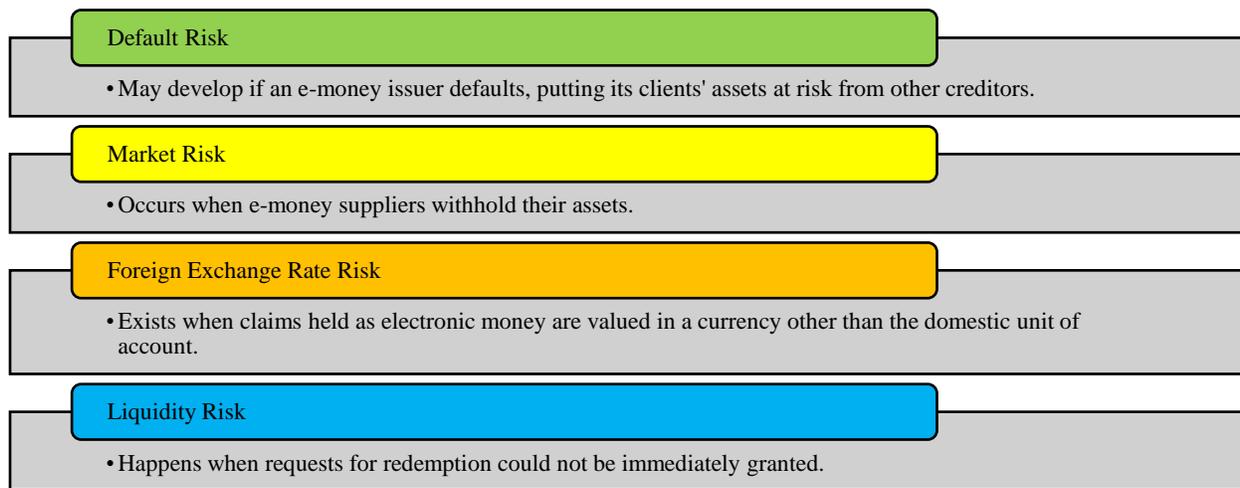
Countries who are still developing CBDC are the United States and India. The government of India stated in May 2022 that the Reserve Bank of India will support the introduction of a state-backed digital currency known as the "digital rupee" by the end of March 2023 (Smith, 2022). On March 9, President Joe Biden issued an executive order mandating that the US Treasury Department, the Commerce Department, and other significant organizations create reports on "the future of money" with the possibility of introducing a digital dollar as a possible outcome (Smith, 2022). The creation and introduction of a digital dollar, according to

analysts, might yet take years (Smith, 2022). As with many other countries the move to CBDCs will not be instantaneous.

### **Advantages & Disadvantages of Digital Money**

The main difference between cryptocurrency and physical money is that the latter uses encryption rather than having a physical form (Adrian & Mancini-Griffoli, *The Rise of Digital Money*, 2021). Each cryptocurrency has its particular functionality and methods because of cryptography systems; this currency is typically divided into “manage coins” and “public coins” (Adrian & Mancini-Griffoli, *The Rise of Digital Money*, 2021). According to Investopedia, “the most traded and covered cryptocurrency is still bitcoin, which was made accessible to the general public in 2009. Over 19 million bitcoins were in use as of May 2022, valued at a total of over \$576 billion (Frankenfield, 2022). When dealing with cryptocurrency and central bank digital currency, there are bound to be some risks. The hazards and effects may differ for each form of digital money. In general, there are several problems that might arise while utilizing any sort of digital currency.

In “The Rising of Money” article, Adrian and Mancini-Griffoli drew their focus to digital money and seen in Figure 1 in adopting this currency (Adrian & Mancini-Griffoli, *The Rise of Digital Money*, 2021)

**Figure 1: Types of Risks in Money**

Source: (Adrian & Mancini-Griffoli, The Rise of Digital Money, 2021)

Along with risk listed in Figure 1, CBDC can be threatened by a few additional factors. As stated by World Economic Forum, CBDC is nevertheless susceptible to cyber security attacks, account and data breaches and theft, counterfeiting, and even more distant problems relating to quantum computing, like any other digital payment system (World Economic Forum, 2021). In The Bahamas, the same implications can exist as it relates to the Sand Dollar. To combat the risks in relation to security, privacy, and data protection, the Sand Dollar was designed to enable wallets only to be configured once multiple credentials have been authenticated and required users to have two passwords, one randomly generated to complete some transactions (Sand Dollar, 2022). Along with this, each wallet has a unique set of data encryption, and all financial institutions providing Sand Dollar undergo cyber security assessments for confidentiality and privacy purposes (Sand Dollar, 2022).

Why are central banks exploring CBDC? According to Bank for International Settlements, CBDCs “could be an important instrument for central banks in such a future to enhance financial stability, harness new technologies and continue serving the public” (BIS Committee on Payments and Market Infrastructures, 2021). On the other hand, the International

Monetary Fund suggested that there is not a universal understanding for the need of central banks digital currencies (Georgieva, 2022). When geography prevents physical banking, for instance, a CBDC might be a key step toward financial inclusion; in other cases, a CBDC could provide a crucial fallback in the event that other forms of payment are unsuccessful (Georgieva, 2022). Specifically in The Bahamas, due to the effects of natural disasters and the spread-out nature of the island, implementing CBDC is an effective tool in promoting financial inclusion.

As it pertains to The Bahamas, the Sand Dollar Infrastructure was designed because it “would eliminate distance and remoteness as a factor in establishing financial relationships and be available as a tool for all financial institutions” according to the Governor of The Central Bank of The Bahamas, John Rolle (Central Bank of The Bahamas, 2021). Furthermore, The Central Bank of The Bahamas ensured that this CBDC would support specific objectives seen in Figure 2, that would be beneficial to both the financial sector and the country (Sand Dollar, 2022).

**Figure 2: Objectives of Sand Dollar**



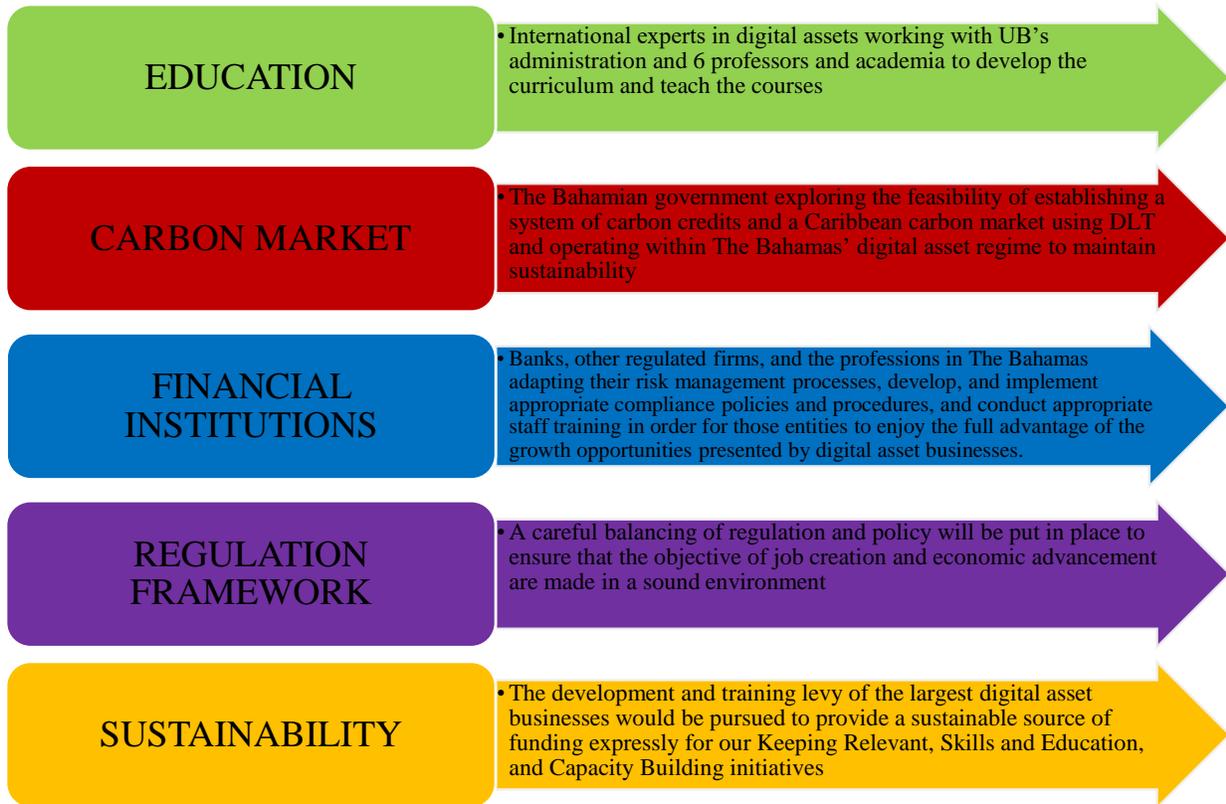
Source: (Sand Dollar, 2022)

The advantages and disadvantages highlight above, can assist in determining how The Bahamas can remain at the forefront of this digital revolution. As stated by the Office of Prime

Minister, this year the Bahamian government tends to “set up the Digital Asset Policy Committee (DPC) and the Digital Advisory Panel (DAP), build capacity and expand the resources of the Securities Commission of The Bahamas (SCB), expand digital asset skills and education opportunities, update the DARE Act, start enabling Bahamians’ access to digital assets using Bahamian Dollar, and enable payment of taxes using digital assets” (The Government of The Bahamas, 2022). These approaches to digital assets by the Bahamian government were built on examples of successes in other countries, including Gibraltar, Switzerland, Liechtenstein, and France; also considered current and proposed regimes in places such as the USA, the UK, the European Union, Dubai, Singapore, Japan, and Australia (The Government of The Bahamas, 2022).

Along with these measures, the Bahamian government will continue to direct efforts in educate the people in private and public sector about various digital forms of money whiles expanding the digital assets sector in The Bahamas. These measures are seen in Figure 3. Based on the successes and positions of several developing and developed nations, these measures below have the potential on keeping The Bahamas to be at the forefront of the digital revolution.

**Figure 3: Bahamian Government Plans for the Digital Asset Sector: 2022-2026**



Source: (The Government of The Bahamas, 2022)

## **Methodology**

As the first country in the world to issue CBDC, it is difficult to compare The Bahamas to other nations in terms of CBDC. However, other digital payment systems like cryptocurrencies and e-money were not first adopted by The Bahamas. Like all other forms of digital currency, cryptocurrencies and e-money are often initially issued by nations or companies. As a result, this section will examine the first organizations to issue cryptocurrencies and electronic money as well as global responses to their introduction.

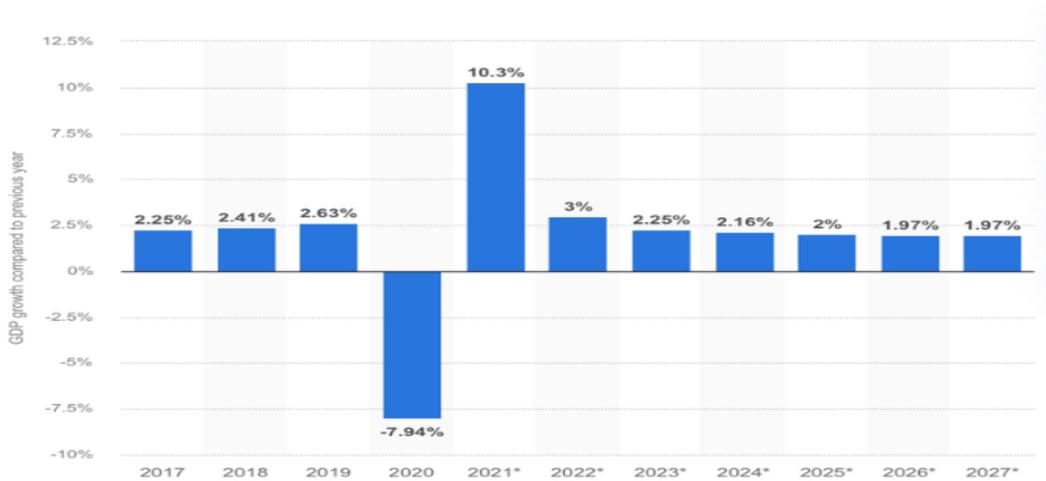
### **Cryptocurrency: El Salvador**

According to PricewaterhouseCoopers, in June 2021, El Salvador became the first nation in the world to accept Bitcoin as legal tender (Arslanian, Donovan, Blumenfeld, & Zamore, 2021). El Salvador embraced this initiative to increase bitcoin use in this area for three key reasons. First, since the United States accounts for over 20 percent of El Salvador's GDP, the country's economy is significantly dependent on transfers of money from abroad (Arslanian, Donovan, Blumenfeld, & Zamore, 2021). These remittances were costing money and taking a long time. The administration, therefore, sought to improve the effectiveness of overseas remittances. Second, the government reduced the number of El Salvadorians without bank accounts. Since over 70 percent of locals do not have a bank account, they thought that bitcoin technology will make it simpler for people to open one (Arslanian, Donovan, Blumenfeld, & Zamore, 2021). Lastly, the people of El Salvador desired to reduce their dependency on the US currency.

In the process, both the International Monetary Fund and World Bank responded to this initiative. The IMF warned El Salvador and stated that El Salvador's law requires significant investment as well as difficult policy choices, such as clarifying the role of the public and private

sectors in providing and regulating digital forms of money (Arslanian, Donovan, Blumenfeld, & Zamore, 2021). On the other hand, The World Bank got involved in rejecting the request initially for El Salvador to move forward with this measure due to the given environmental and transparency shortcomings (Arslanian, Donovan, Blumenfeld, & Zamore, 2021).

Despite the response for the major intentional organizations, El Salvador had experienced upwards trends in growth rate of their GDP between 2017- 2019. As seen in Figure 4, in 2020, this country experienced a significant loss was nearly at 8 percent in their growth rate of GDP because of the COVID-19 pandemic and a large drop in external demand (O'Neil, 2022; Economies of Latin America and the Caribbean, 2021). This growth rate resulted in the third-largest drop in output since the 1980s, with 11.8 percent in 1980 and 10.5 percent in 1981, at the start of the civil war (Economies of Latin America and the Caribbean, 2021). However, by the following year, El Salvador had increased their real GDP growth rate to 10.3 percent in Figure 4 as a result of the Bitcoin Act, the national vaccination program, business support policies, rising domestic demand linked to remittance flows, an increase in the minimum wage, tourism revenue recovery, and an increase in goods exports (Economies of Latin America and the Caribbean, 2021). As of June 2022, this growth rate has decreased to 2.7 percent as a result of risks and unresolved national problems (Trading Economics, 2022).

**Figure 4: Gross Domestic Product (GDP) Growth Rate in El Salvador: 2017- 2027**

Source: (O'Neil, 2022)

### **E-money: Coca-Cola Company**

Despite the different forms of e-money, Coca-Cola was the first institution to perform the first mobile payments and contactless payments in 1997 (Sacco, 2020). This transaction was conducted in Helsinki, Finland where two vending machines were installed that accepted payments via text message (Sacco, 2020). By 1998, vending machines were accounting for 11.9 percent of soft drink sales worldwide; in the United States, nearly 1.2 billion soft drinks were sold through vending machines (Harvard Business School, 2000). The purpose of this venture was because Coca-Cola Company wanted to explore “innovative technology and communication systems that can actually improve product availability, promotional activity, and even offer consumers an interactive experience when they purchase a soft drink from a vending machine” (Harvard Business School, 2000).

Moving into the mid-2000s, this company has continued to pursue these technology initiatives regarding contactless payments. In 2006, Coca-Cola and MasterCard paired to launch 1000 vending machines that had “tap and go” or e-Port cashless transaction solution feature

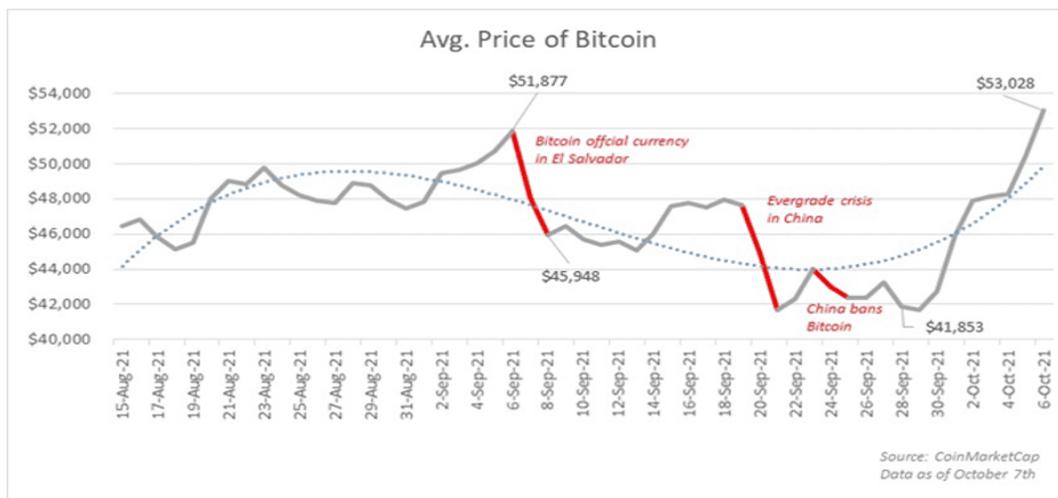
(Secure Technology Alliance, 2006). At this point in time, this venture was largest issuance of contactless payment in the United States (Secure Technology Alliance, 2006). As the years passed, Coca-Cola continuing to push for ways to remain actively involved in digital innovations. For instance, in New Zealand, Coca-Cola Amatil was founded in 2018 where it was designed to cooperate with and invest in digital companies, seeks for innovative approaches and potential future business models (Market.us, 2021). Also, in 2021, Coca-Cola announced opening up seven digital centers in different parts of the world that would focus on Business Intelligence, data analytics, digital insights, digital marketing, and better customer experience including Dublin and South Africa (Mohanta, 2021). In the U.S., Coke One North America Services (CONA) is trialing using public Ethereum for supply chain transparency (Ledger Insights, 2020). These are several examples of ways The Coca-Cola Company and its bottling partners have made an extensive initiative to embrace digitalization through different forms of digital currency.

## Discussion

This section will be analyzing the two previous case studies of El Salvador and Coca-Cola Company, in order to understand if these institutions, maintain their competitive edge and apply those results to The Bahamas.

El Salvador has been unable to maintain its competitive edge in the use of bitcoin as legal tender. Throughout the first three months of its implementation, this country's bitcoin values rose, bolstering its tourism industry and expanding access to its financial services (Taylor, 2022). As of September 6, 2021, the average price of bitcoin peaked at \$51,877 when El Salvador made bitcoin is official currency in Figure 5.

**Figure 5: Average Bitcoin Price: August- September 2021**

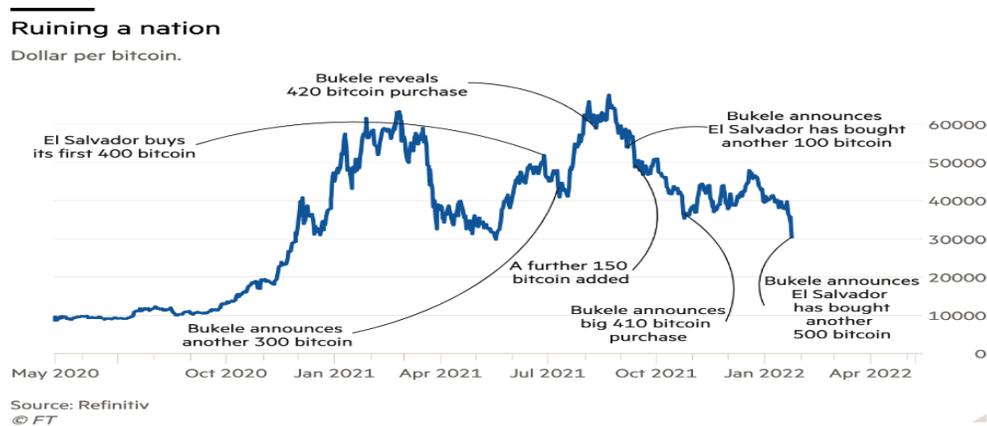


Source: (PYMENTS, 2021)

However, as of June 2022, bitcoin values have fallen by 22 percent (Taylor, 2022). This is unfortunate news for El Salvador since bitcoin surrounds their economy's infrastructure and stability. Along with this, Salvadorans are not enthusiastic about this endeavor. A 2021 survey conducted by Central American University (UCA) suggested that “the majority of citizens do not want Bitcoin, with 9 out of 10 Salvadorans not understanding what the cryptocurrency is, and eight out of 10 saying they have no confidence in bitcoin” (Taylor, 2022). Also, October 2021,

more than El Salvadorians marched to Supreme Court demanding that the bitcoin law be appealed. Despite the residents' opposition and plummeting prices, the President of El Salvador, Nayib Bukele continues to pour more taxpayer funding and other resources into buying more bitcoins seen in Figure 6 (Taylor, 2022).

**Figure 6: The Bitcoin Purchase History of El Salvador**



Source: (El Salvador loses nearly 30% due to Bitcoin plunge, 2022)

President Bukele has been advertising his bitcoin purchases for El Salvador on Twitter and other forms of social media. As a result, El Salvador and its bitcoin legislation have been exposed to multiple opinion from other countries. Countries following El Salvador experience are using this as a lesson for future digitalization change. For instance, Panama passed a bill in April 2022 declared bitcoin as foreign-source income, which in accordance with Panama's territorial taxation system, which means no taxes on capital gains (Engler, 2022). Panamanian Congressman Gabriel Silva, the sponsor of a bill stated that “the bill doesn't allow for any crypto to become legal tender but makes possible free use of crypto as a means of payment for any transaction” (Engler, 2022). Even though cryptocurrency are risky, other nations are considering this initiative similar to in El Salvador and focusing their efforts within their government, other nations are beginning a bitcoin trainer program for community leaders (Owusu, 2022). Instead of

following El Salvador, several countries are attempting to avoid adopting bitcoin as legal tender since it can have various negative consequences for a country.

Moreover, The Coca-Cola Company, on the other hand, has managed to maintain its competitive advantage as the pioneer of mobile and contactless payments. The Coca-Cola Company became the first consumer products company to join the Better Than Cash Alliance in 2014 (Better Than Cash Alliance, 2014). This company joined several well-established institutions including governments, international organizations, companies, and resource partners. Some examples of members are seen in Table 1. Together with its bottling partners, it aims to promote the usage of electronic payments throughout its worldwide operations and supply chain (Better Than Cash Alliance, 2014).

**Table 1: Examples of Some Better Than Cash Alliance Members**

<b>Governments</b>	<b>International Organizations</b>	<b>Companies</b>	<b>Resources Partners</b>
Dominican Republic	International Labor Organization (ILO)	H & M Group	Bill & Melinda Gates Foundation
Republic of Colombia	Inter-American Development Bank	The Coca-Cola Company	United Nations Capital Development Fund
Republic of Afghanistan	C.A.R.E	Target	VISA International

Source: (Better Than Cash Alliance, 2022)

Throughout the years, the Coca-Cola Company has been holding up this goal and more particularly with the use of vending machines. Along with the company's activities in the previous section, the Coca-Cola Company decided to launch the Coca-Cola Freestyle machines in Canada and the United States during the Covid-19 outbreak, allowing "consumers to choose and pour a drink from their phone in just seconds without having to sign up for a membership or download an app" (Coca-Cola Canada, 2020). During this same year, the Coca-Cola Company ventured into cryptographic assets, more than 2,000 Coca-Cola vending machines in Australia

and New Zealand were accepting bitcoin as a means of payment (Handagama, 2020). Along with bitcoin, Coca-Cola has ventured into accepting non-fungible tokens (NFTs) as well. On July 30, 2021, it released four unique Coca-Cola NFTs, which sold at an online auction for \$575,883.61 (The Coca-Cola Company, 2021).

According to Statista, The Coca-Cola Company is ranked third as the leading beverage company worldwide in 2017, based on sales seen in Figure 7 (CB Insights, 2018). So, in terms of digitization within the company, Coca-Cola has accepted not just e-money but also other kinds of digital money such as cryptocurrencies and non-fungible tokens. This company is demonstrating patterns indicating that it accepts digital currency and will keep doing so across its global operations. The Coca-Cola Company continues to be a leading example of how other institutions might use digital assets to benefit themselves and the environment.

**Figure 7: Leading Beverage Companies Worldwide in 2017**



Source: (CB Insights, 2018)

Furthermore, both cases studies of The Coca- Cola Company and El Salvador can be used to infer reasons as to how digitalization can impact The Bahamas. The Bahamas has launched the Sand Dollar roughly a year ago, but several members of the Bahamian community

are still on uninformed about CBDC and its impact on Bahamian economy. Even though the Sand Dollar's website can answer frequently asked questions in relation to The Bahamians' CBDC. To avoid experiencing resistance like El Salvadorians, there needs to be more of an extension into educating Bahamians.

As it relates to legal and economic infrastructure, The Bahamas government have been working diligently to ensure that the proper infrastructure is put in place for protection of both Bahamians and the country. Moreover, as a small developing nation, The Bahamas is constantly threatened by market shocks especially natural disasters. As stated by Governor John Rolle in a phone interview in September 2021 with the Director of Global Communications at MasterCard, Vicki Hyman, CBDC was meant "for citizens to store, save and spend their money safely through their phones. They could even access government-issued near-instant aid or receive insurance payouts in the wake of a disaster like Dorian" (Hyman, 2021). So, the Sand Dollar infrastructure is designed to ensure that The Bahamas does not fall into similar situations like El Salvador.

On the other hand, like the Coca-Cola Company, the Bahamian government may think of promoting the Sand Dollar by using other well-known digital payment methods, like it did with Island Pay and Kanoo. In addition, drawing inspiration from Coca-Cola, the Bahamian government should create a working group for information sharing with other Caribbean nations or unions that have issued CBDC or plan to CBDC in order to share knowledge and improve each other's domestic CBDC programs.

Overall, these case studies are too few to formal a concrete opinion on whether remaining in forefront of digital advancements are possible but can provide The Bahamas lessons learned. El Salvador provided the lesson that The Bahamas needs to have the proper infrastructure in

place, whilst The Coca-Cola Company provided the lesson that information sharing, and partnership are key.

## Conclusion

In conclusion, The Sand Dollar and the use of other digital wallet providers are only the beginning of this continuous digitization process. The Sand Dollar will not replace cash, but it will reduce its use due to the security and safety that this CBDC can provide. On the other hand, other forms of digital currency, whether new or traditional, may still be in use while Sand Dollar is in use. For example, persons prefer to use banknotes and coins for transportation and laundry services, debit/credit cards for online purchases, and e-wallet services for drug store and grocery items. Sand Dollar is currently being promoted as a means. The country is gradually moving toward digitalization in all industries, the Bahamian government is developing policies and activities to embrace the digital assets sector between now and 2026 (The Government of The Bahamas, 2022). As a result, the government is willing to give the Bahamian people time to adjust while also monitoring their trends in the following years.

Notably, The Coca-Cola Company has brought an unexpected approach to digital currency in The Bahamas. By forming an information sharing initiative with other Caribbean nations or unions that have issued CBDC, the Bahamian government could provide their lessons learned and expertise, while also strengthen their own domestic CBDC programs. Even though evidence suggests that El Salvador is struggling with their bitcoin initiative, The Bahamas can still benefit from their failings. The Bahamas should focus on the following:

- To inform and comprehend national consumer trends, demands, and concerns
- To educate the economy on its uses and purpose
- To guarantee the establishment of an appropriate legal and economic framework
- To ensure that the regulation of digital money and its design can resist economic shocks like natural disasters, recessions, and pandemics.

Generally, there is always room for improvement. Future success will depend on getting Bahamians to embrace utilizing their CBDC, especially as more countries move toward testing it globally. These same countries are keeping an eye on The Bahamas to observe how the residents have embraced the CBDC since its adoption. The Bahamas is making great strides with Sand Dollar, but must be aware of the risk, the changes in digitalization and the competition of other forms of money in the market. Therefore, it has to continuously improve if it wants to compete in the global digital economy.

### References

Adrian, T., & Mancini- Griffoli, T. (2021, June). *A New Era of Digital Money*. Retrieved from

International Monetary Fund:

<https://www.imf.org/external/pubs/ft/fandd/2021/06/online/digital-money-new-era-adrian-mancini-griffoli.htm#:~:text=oppose%20their%20>

Adrian, T., & Mancini- Griffoli, T. (2021, July 15). The Rise of Digital Money. *International*

*Monetary Fund*. Retrieved from <https://www.imf.org/>

[/media/Files/Publications/FTN063/2019/English/FTNEA2019001.ashx](https://www.imf.org/-/media/Files/Publications/FTN063/2019/English/FTNEA2019001.ashx)

Arslanian, H., Donovan, R., Blumenfeld, M., & Zamore, A. (2021). El Salvador's law: a meaning

test for Bitcoin. *PricewaterhouseCoopers*, pp. 1-10. Retrieved from

<https://www.pwc.com/gx/en/financial-services/pdf/el-salvadors-law-a-meaningful-test-for-bitcoin.pdf>

Bahamas Information Services. (2020, March 15). *61-Year-Old Female is the First Confirmed*

*Case of COVID-19 in The Bahamas*. Retrieved from The Government of The Bahamas:

[https://www.bahamas.gov.bs/wps/portal/public/gov/government/news/61-year-](https://www.bahamas.gov.bs/wps/portal/public/gov/government/news/61-year-old%20female%20is%20the%20first%20confirmed%20case%20of%20covid-19%20in%20the%20bahamas!/ut/p/b1/vZXJkqM4EIafpR6ARuxwxKwGsQswXBxmsQ)

[old%20female%20is%20the%20first%20confirmed%20case%20of%20covid-](https://www.bahamas.gov.bs/wps/portal/public/gov/government/news/61-year-old%20female%20is%20the%20first%20confirmed%20case%20of%20covid-19%20in%20the%20bahamas!/ut/p/b1/vZXJkqM4EIafpR6ARuxwxKwGsQswXBxmsQ)

[19%20in%20the%20bahamas!/ut/p/b1/vZXJkqM4EIafpR6ARuxwxKwGsQswXBxmsQ](https://www.bahamas.gov.bs/wps/portal/public/gov/government/news/61-year-old%20female%20is%20the%20first%20confirmed%20case%20of%20covid-19%20in%20the%20bahamas!/ut/p/b1/vZXJkqM4EIafpR6ARuxwxKwGsQswXBxmsQ)

[GDscE24Kdv10RNzPREV9Ucqkt5UuhPfaE\\_UxKe4hs8Pe3u9WF3r](https://www.bahamas.gov.bs/wps/portal/public/gov/government/news/61-year-old%20female%20is%20the%20first%20confirmed%20case%20of%20covid-19%20in%20the%20bahamas!/ut/p/b1/vZXJkqM4EIafpR6ARuxwxKwGsQswXBxmsQ)

Better Than Cash Alliance. (2014, Decemeber 24). *Better Than Cash Alliance welcomes The*

*Coca-Cola Company as its member*. Retrieved from Better Than Cash Alliance:

[https://www.betterthancash.org/news/advancing-electronic-payments-expanding-](https://www.betterthancash.org/news/advancing-electronic-payments-expanding-financial-inclusion-better-than-cash-alliance-welcomes-the-coca-cola-company-as-its-)

[financial-inclusion-better-than-cash-alliance-welcomes-the-coca-cola-company-as-its-](https://www.betterthancash.org/news/advancing-electronic-payments-expanding-financial-inclusion-better-than-cash-alliance-welcomes-the-coca-cola-company-as-its-)



- Central Bank of The Bahamas. (2021, June 14). *Results of the 2020 Surveys on Business and Consumer Payments Practices*. Retrieved from Central Bank of The Bahamas: <https://www.centralbankbahamas.com/news/press-releases/results-of-the-2020-surveys-on-business-and-consumer-payments-practices>
- Coca-Cola Canada. (2020, July 27). *Pour by Phone: Coca-Cola Freestyles Unveils Contactless Solutions for Fountain Fleet*. Retrieved from Coca-Cola Canada: <https://www.coca-cola.ca/news/coca-cola-freestyle-unveils-contactless-solutions>
- Davidson, D., & Turmel, S. (2017). "CHIPPING" In For Consumer Protection Or Chipping Away At Small Business? *EBSCOhost*, 1. Retrieved from <https://web-p-ebSCOhost-com.ozarks.idm.oclc.org/ehost/pdfviewer/pdfviewer?vid=10&sid=dfc68a16-616f-43fe-9e6e-e0f1e436167c%40redis>
- De Best, R. (2022, May 3). *Statista*. Retrieved from Number of non-cash transactions worldwide from 2013 to 2018, with forecasts from 2019 to 2023, by region.: <https://www.statista.com/statistics/265767/number-of-cashless-transactions-worldwide-by-region/>
- Eastern Caribbean Central Bank. (2022). *About the Project*. Retrieved from Eastern Caribbean Central Bank: <https://www.eccb-centralbank.org/p/about-the-project>
- Economies of Latin America and the Caribbean. (2021). El Salvador. *Preliminary Overview of the Economies of Latin America and the Caribbean*, pp. 1-3. Retrieved from [https://repositorio.cepal.org/bitstream/handle/11362/46504/17/PO2020\\_ElSalvador\\_en.pdf](https://repositorio.cepal.org/bitstream/handle/11362/46504/17/PO2020_ElSalvador_en.pdf)
- El Salvador loses nearly 30% due to Bitcoin plunge*. (2022, May 11). Retrieved from Gigazine: [https://gigazine.net/gsc\\_news/en/20220511-el-salvador-bitcoin-losses-swell/](https://gigazine.net/gsc_news/en/20220511-el-salvador-bitcoin-losses-swell/)

Engler, A. (2022, April 28). *Panama's Crypto Law: No Legal Tender, but Digital Assets Exempt From Capital Gains Tax*. Retrieved from Coin Desk:

<https://www.coindesk.com/policy/2022/04/28/panamas-crypto-law-no-legal-tender-but-digital-assets-exempt-from-capital-gain-tax/>

European Central Bank. (2015, February). Virtual currency schemes- A further analysis. p. 25.

Retrieved from

<http://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemes201210en.pdf>

European Commission. (2022). *E-Money*. Retrieved from European Commission:

[https://ec.europa.eu/info/business-economy-euro/banking-and-finance/consumer-finance-and-payments/payment-services/e-money\\_en](https://ec.europa.eu/info/business-economy-euro/banking-and-finance/consumer-finance-and-payments/payment-services/e-money_en).

Firpo, J. (2009, January 21). *E-money*. Retrieved from World Bank Blogs:

<https://blogs.worldbank.org/psd/e-money-mobile-money-mobile-banking-what-s-the-difference>

Frankenfield, J. (2022, January 11). *Investopedia*. Retrieved from Cryptocurrencies:

<https://www.investopedia.com/terms/c/cryptocurrency.asp>

Georgieva, K. (2022, February 9). *The Future of Money: Gearing up for Central Bank Digital Currency*. Retrieved from International Monetary Fund:

<https://www.imf.org/en/News/Articles/2022/02/09/sp020922-the-future-of-money-gearing-up-for-central-bank-digital-currency>

Grant, M. (2021, September 27). *Digital Money*. Retrieved from Investopedia:

<https://www.investopedia.com/terms/d/digital-money.asp>.

Handagama, S. (2020, June 10). *Coca-Cola Distributor Offers Bitcoin Payment Options for Aussie Vending Machines*. Retrieved from CoinDesk:

<https://www.coindesk.com/markets/2020/06/11/coca-cola-distributor-offers-bitcoin-payment-options-for-aussie-vending-machines/>

Hartnell, N. (2021, February 18). *The Tribune – Digital Provider Targets \$100m In Payments*.

Retrieved from Island Pays: <https://islandpay.com/the-tribune-digital-provider-targets-100m-in-payments/>

Harvard Business School. (2000, December 12). Coca-Cola New Vending Machine (A): Pricing

To Capture Value , Or Not? *Harvard Business School*, pp. 4-5. Retrieved from <http://sharif.edu/~albadvi/ITCS5.pdf>

Hyman, V. (2021, February 21). *The Bahamas is 'disaster-proofing' payments with its first-ever digital currency*. Retrieved from MasterCard:

<https://www.mastercard.com/news/perspectives/2021/the-bahamas-is-disaster-proofing-payments-with-its-first-ever-digital-currency/>

Island Pay. (2022). *Company*. Retrieved from Island Pay: <https://islandpay.com/company/>

Kanoo Pays. (2019, October 13). *The Bahamas' Newest Digital Wallet Secure it Largest Merchant- Kanoo in Super Value*. Retrieved from Kanoo Pays:

<https://www.kanoopays.com/media/the-bahamas-newest-digital-wallet-secures-its-largest-merchant-kanoo-in-super-value/>

Ledger Insights. (2020, September 29). *Coca Cola bottling co invests in digital asset payments for vending machines*. Retrieved from Ledger Insights:

<https://www.ledgerinsights.com/coca-cola-bottling-co-invests-in-digital-asset-payments-for-vending-machines/>

Market.us. (2021, December 29). *Coca-Cola Company Statistics and Facts*. Retrieved from

Market.us: <https://market.us/statistics/food-and-beverage-companies/coca-cola-company/>

- McCartney, P. (2020, October 20). *Kanoo approaching 13000 active users*. Retrieved from Kanoo Pays: <https://www.kanoopays.com/media/kanoo-approaching-13000-active-users/>
- Mohanta, N. (2021, July 20). *How Coca-Cola is going digital to better understand, serve customers*. Retrieved from <https://www.geospatialworld.net/blogs/how-coca-cola-is-going-digital-to-better-understand-serve-customers-location-bi/>
- O'Neil, A. (2022, March 12). *Gross domestic product (GDP) growth rate in El Salvador 2027*. Retrieved from Statista: <https://www.statista.com/statistics/460450/gross-domestic-product-gdp-growth-rate-in-el-salvador/>
- Owusu, T. (2022, February 23). *El Salvador Has Unexpected Benefit From Bitcoin Adoption*. Retrieved from The Street: <https://www.thestreet.com/investing/el-salvador-has-unexpected-benefit-from-bitcoin-adoption>
- PYMENTS. (2021, October 8). *El Salvador's President a Bitcoin Booster, But Data Point to Uneven Embrace*. Retrieved from PYMENTS: <https://www.pymnts.com/cryptocurrency/2021/el-salvador-president-bitcoin-booster-but-data-point-to-uneven-embrace/>
- Reserve Bank of Australia. (2021). *Reserve Bank of Australia*. Retrieved from Cryptocurrencies: <https://www.rba.gov.au/education/resources/explainers/cryptocurrencies.html>
- Sacco, F. (2020, September 29). *The history of digital wallets*. Retrieved from 7/17 Credit Unions: <https://blog.717cu.com/resources/education/financial-education-blog/the-history-of-digital-wallets>
- Sand Dollar. (2022). *Objectives*. Retrieved from Sand Dollar: <https://www.sanddollar.bs/objectives>
- Sand Dollar. (2022). *Security*. Retrieved from Sand Dollar: <https://www.sanddollar.bs/security>

Secure Technology Alliance. (2006, June 27). *MasterCard, Philadelphia Coca-Cola Bottling Company and USA Technologies Introduce Contactless “Tap & Go” Payment*

*Technology in Vending Machines*. Retrieved from Secure Technology Alliance:

<https://www.securetechalliance.org/mastercard-philadelphia-coca-cola-bottling-company-and-usa-technologies-introduce-contactless-tap-go-payment-technology-in-vending-machines/>

Smith, I. (2022, March 9). *Central Bank Digital Currencies: Which countries are using, launching or piloting CBDCs?* Retrieved from Euro News:

<https://www.euronews.com/next/2022/03/09/cbdc-are-the-countries-are-using-launching-or-piloting-their-own-digital-currencies>

Taylor, L. (2022, June 16). *What will the crypto crash mean for 'bitcoin nation' El Salvador?*

Retrieved from NewScientist: <https://www.newscientist.com/article/2324810-what-will-the-crypto-crash-mean-for-bitcoin-nation-el-salvador/>

The Coca-Cola Company. (2021, May 8). *Coca-Cola NFTs Auction on OpeaSea Fetches More*

*Than 575,000*. Retrieved from The Coca-Cola Company: <https://www.coca-colacompany.com/news/coca-cola-nft-auction-fetches-more-than-575000>

The Government of The Bahamas. (2022, April 20). *The Future of Digital Assets in The*

*Bahamas*. Retrieved from The Government of The Bahamas- Policy White Paper:

<https://www.bahamas.gov.bs/wps/wcm/connect/059ddd37-a1a7-47b0-860c-a501c2ec595d/The+Future+of+Digital+Assets+APR+20+%281%29.pdf?MOD=AJPERE>

S

Trading Economics. (2022). *El Salvador GDP Annual Growth Rate*. Retrieved from Trading

Economics: <https://tradingeconomics.com/el-salvador/gdp-growth-annual>

Turnquest, P. (2020, May 27). *Budget Communciation FY 2020/21*. Retrieved from The

Government of The Bahamas:

<https://www.bahamas.gov.bs/wps/wcm/connect/09671b37-4aed-4601-87bd-5fd970e7aeb3/2020-21+Budget+Communication+-+Final+%281%29-compressed.pdf?MOD=AJPERES>

VISA International . (2020, June 29). *The Visa Back to Business Study: Global Small Business and Consumer Insights Powering Recovery Through Digital and Contactless Payments Amidst COVID-19*. VISA International , p. 12. Retrieved from

<https://usa.visa.com/content/dam/VCOM/global/run-y>

World Economic Forum. (2021, Novemeber 20). *4 key cybersecurity threats to new central bank digital currencies*. Retrieved from World Economic Frum:

<https://www.weforum.org/agenda/2021/11/4-key-threats-central-bank-digital-currencies/>

World Health Organization. (2022). *Coronavirus disease (COVID-19) update*. Retrieved from World Health Organization: [https://www.who.int/bangladesh/emergencies/coronavirus-disease-\(covid-19\)-](https://www.who.int/bangladesh/emergencies/coronavirus-disease-(covid-19)-)

[update#:~:text=On%20this%20website%20you%20can,on%2031%20December%202019](https://www.who.int/bangladesh/emergencies/coronavirus-disease-(covid-19)-update#:~:text=On%20this%20website%20you%20can,on%2031%20December%202019)