Committee: Economic and Social Council (ECOSOC)

Topic: Discussing the abolition of physical currency in a cashless society

Student Officer: Maria Kapodistria

Position: Deputy President

Personal Introduction

Dear delegates,

My name is Maria Kapodistria, I am an IB2 student at Platon School and it is my utmost pleasure and honor to be serving as a Deputy President of this year's Economic and Social Council at the 10th annual CS Model United Nations conference.

First things first, I would like to congratulate you on your participation in CSMUN. Despite all the difficulties we have encountered in the past two years of online MUN, this community has managed to stay stimulating and engaging. I'm glad to have participated in this learning process as a delegate, and I can't wait to experience MUN through the lens of a Student Officer. I can assure you, that I will use the best of my abilities to create a memorable experience for every single one of you, through which you will be given the opportunity to voice your country's stance on given issues, propose solutions, debate upon them, and expand your current understanding of the modern world and its rather complex functionalities.

The purpose of this study guide is to familiarize you with the topic of "Discussing the abolition of physical currency in a cashless society". Even though you are encouraged to extensively use the information provided throughout this study guide, I would personally advise you not to limit your research solely to it. To be sufficiently prepared, it is essential for you to further investigate your delegation's policy on the matter. To that end, should you face any difficulties in fully grasping the topic, you are

more than welcome to submit any questions or misunderstandings to my email address attached below.

I am looking forward to meeting you all in October!

Yours truly,

Maria Kapodistria

mk.kapodistria@gmail.com

Topic Introduction

Digitalization has emerged in recent years in several dimensions and its implications have radically reformed the economic system as we know it. The integration of robots, automated equipment, and machinery in product manufacturing and the use of cloud computing networks to manage and process data are just a few of the many examples illustrating how technological advancements can fundamentally transform and revolutionize the way a market or business operates. Along with these developments that have changed consumption, production, and business models, further socioeconomic phenomena have become apparent, the digitalization of payments being one of them.

Nowadays, digital payment transactions are increasingly becoming the norm. Alongside card, crypto, and other contactless payment methods, the use of cash has significantly dropped. According to the World Bank, *"As of 2021, 76% of adults globally now have an account at a bank, other financial institution, or with a mobile money provider, up from 68% in 2017 and 51% in 2011"*[1]. Such statistical data have come to indicate that electronic payments of some form are now preferred by consumers at large rates.

[1] World Bank Group. "Covid-19 Drives Global Surge in Use of Digital Payments." World Bank, World Bank Group, 28 June 2022, https://www.worldbank.org/en/news/press-release/2022/06/29/covid-19-drives-global-surge-in-use-of-digital-payments.

Whether the nature of the international monetary system is digital or physical, it is of great importance for the global economy to reach and maintain a level of stability. Stability in terms of economics may be determined through consumer prices. Once prices remain stable and do not fluctuate constantly, consumer and business confidence to spend is boosted, resulting in a greater number of investments and opportunities for job creation. All these factors may lead to economic growth. Now, stable economies are considered those that have secure and convenient payment methods, as consumers and businesses will be willing to spend and invest money only when they feel like their purchases are conducted safely and favorably.

While digital payments are known to be seamless, efficient, and secure, they also introduce unintended consequences that pose hesitations related to the abolition of physical currency. However, given the aforementioned statistics that overwhelmingly state the prevalence of digital payments, it might appear safe to assume that the digitalization of the economy is an inevitable phenomenon. Thus, delegates should consider both new opportunities as well as challenges created by a potential cashless society and give suggestions on the way forward for the adoption of digital transactions.

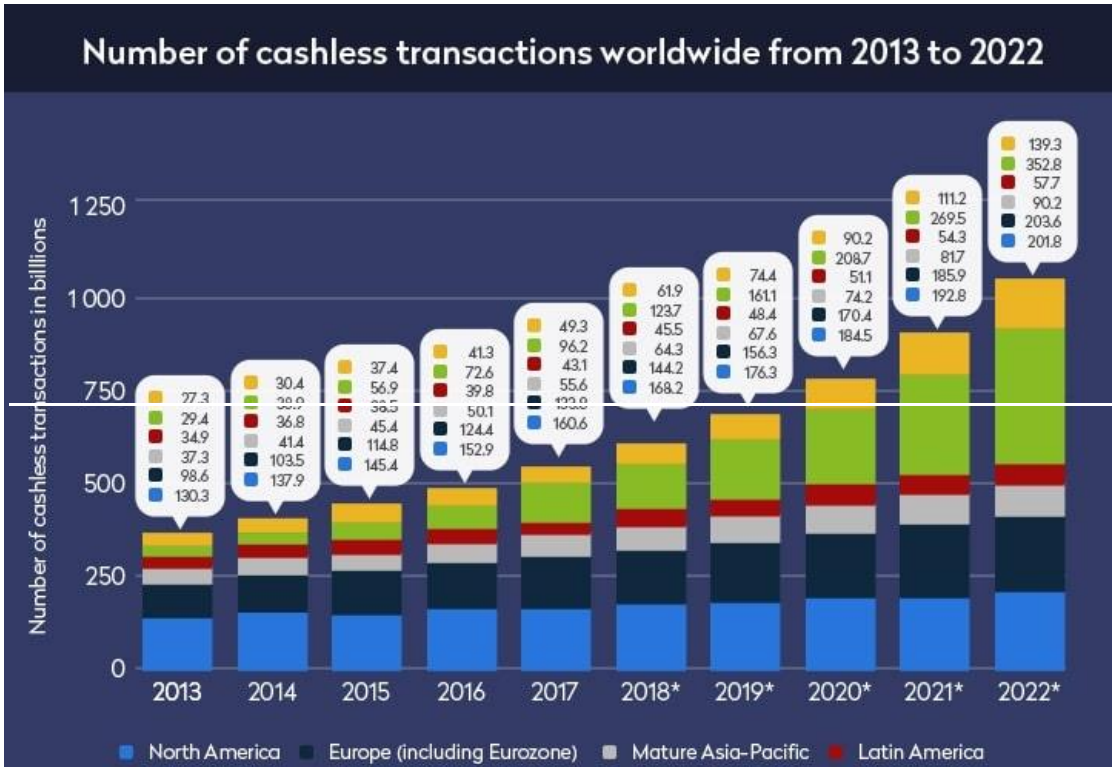


Figure 1: Cashless Transactios by Region 2023

Definition of key terms

Cashless society

A cashless society may be described as an economic trend where people use solely non-cash payment instruments, such as debit and credit cards or mobile wallets, for conducting a financial transaction, indicating the complete absence of cash.

Digitalization

"Digitalization is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business."[2]

Cryptocurrency

Cryptocurrency is a digital currency based on so-called blockchain technology, aimed to function as a medium of exchange. As the name of the term indicates, all cryptocurrency transactions are highly encrypted. Unlike traditional currencies, they are decentralized in nature, meaning that they are not managed by any central authority.

Credit cards

"A credit card is a type of payment card in which charges are made against a line of credit instead of the account holder's cash deposits."[3]

Debit cards

"A debit card is a payment card that deducts money directly from a consumer's checking account when it is used."[4]

---

[2] Gartner_Inc. "Definition of Digitalization - Gartner Information Technology Glossary." Gartner, https://www.gartner.com/en/information-technology/glossary/digitalization.

[3] "Credit Card Definition." Bankrate, https://www.bankrate.com/glossary/c/credit-card/.

[4] Fontinelle, Amy. "The Basics of Debit Cards." Investopedia, Investopedia, 8 Feb. 2022, https://www.investopedia.com/terms/d/debitcard.asp.

Inflation

A general increase in the prices of goods over a period of time - usually a year - following a general fall in the purchasing value of a currency. [5]It is commonly perceived as the rate at which prices for services and goods rise and has both positive and negative consequences for different stakeholders of an economy

Gross Domestic Product (GDP)

The Gross Domestic Product (GDP) of a country or region refers to the total monetary value of all goods and services produced and sold within a country within a specific time period. It is considered a method to calculate a country's economic health and is used by many economists when evaluating a country's economic growth.[6]

Blockchain

"Blockchain is a shared, immutable ledger that facilitates the process of recording transactions and tracking assets in a business network"[7]

Technological illiteracy

"Level of very reduced or nonexistent knowledge on the handling and use of tools, such as basic computer programs, Internet use, and so forth"[8]

---

[5] Fernando, Jason. "What Is Inflation?" Investopedia, Investopedia, 11 Aug. 2022, https://www.investopedia.com/terms/i/inflation.asp.

[6] "GDP and Spending - Gross Domestic Product (GDP) - OECD Data." TheOECD, https://data.oecd.org/gdp/gross-domestic-product-gdp.htm.

[7] "What Is Blockchain Technology? - IBM Blockchain." IBM, https://www.ibm.com/topics/what-is-blockchain.

[8] "What Is Technology Illiteracy." IGI Global, https://www.igi-global.com/dictionary/technology-illiteracy/29517.

Background Information

Transition into the digital economy

History of digital payments

To fully acknowledge and assess the impact of digital payments on a social and economic spectrum, an overview of their evolvement from a technological innovation to one of the leading payment options currently offered is deemed necessary. One might assume that the history of online payments is quite recent, as their introduction was seen during the mid-1990s. Yet, the idea of an electronic payment system goes as back as the 1870s.9 For centuries, to complete a purchase, consumers had to be physically present at the point of sale to conduct a financial transaction. That drastically changed in 1871 (nearly 150 years ago), when the Western Union- an American multinational financial services company-introduced electronic fund transfers (EFTs), a payment method that doesn't involve a physical exchange of cash. Since then, the idea of a digitalized payment system has enamored economic institutions. Shortly after the turn of the century, during the 1910s,10the central bank of the United States began using the telegraph to transfer money and a few years later charge accounts (an early form of credit card) were introduced. The year 1950 further revolutionized payments with the Diners club issuing the first credit card, primarily setting the foundation for digitalized payments. Entering the 1990s11, mobile devices with online banking services emerged as the new popular method of payment transactions. The evolution advances further with the appearance of cryptocurrencies, as Nick Szabo designs Bitcoin in 1998.12 At present, blockchain technology has been gaining power along with mobile devices and wallets such as Apple Pay and Google Pay. The finance industry is constantly modernizing in an attempt to meet the demands of its technologically- advanced

---

[9] Team, CSG Forte. "Electronic Payments: A Brief History." CSG Forte, 11 Aug. 2021, https://www.forte.net/electronic-payments-a-brief-history/.
[10] "The History of Online Payments." Avast, https://blog.avast.com/history-of-online-payments-avast.
[11] Dominic, Lucas. "Turning Points in the History of Electronic Payments." SecurionPay, SecurionPay.com, 31 Mar. 2022, https://securionpay.com/blog/turning-points-history-electronic-payments/.
[12] Frankenfield, Jake. "The Basics on Bitcoin (BTC)." Investopedia, Investopedia, 27 July 2022, https://www.investopedia.com/terms/b/bitcoin.asp.

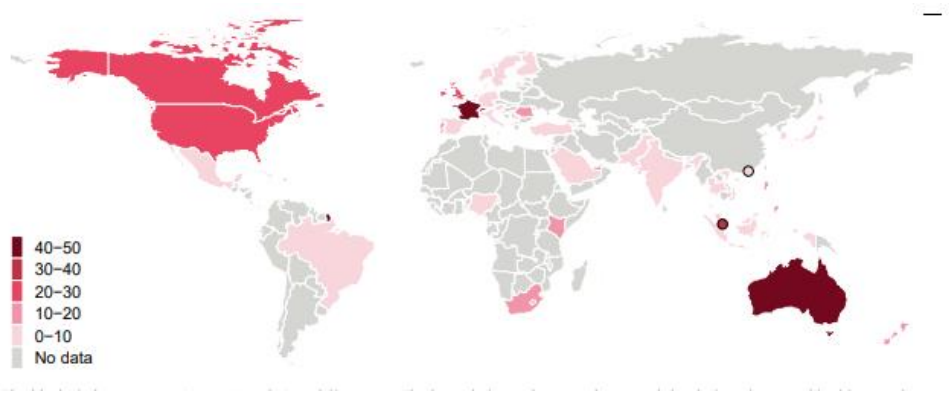
customers. The progression of payment methods over time, from electronic to digital, to mobile proves just how technology and evolution are opening the way for relentless innovation in financial transactions.

The pandemic accelerating the digitalization of payments

COVID-19 has permanently placed humanity on a new path, as it redefined several aspects of our lives. Societies lived through extended periods of quarantine and self-isolation, as governments placed restrictive measures fundamentally altering the public's behavior and daily routines. Protection from the virus came with avoiding physical contact- including when conducting purchases. In fact, the pandemic led to unprecedented public concerns related to virus transmission via banknotes. *"The number of internet searches pertaining to both "cash" and "virus" is at record highs"*[13] Health and safety matters of both consumers and businesses functioned as catalysts towards the adoption of contactless payments, implying that digital payments today constitute a must-have service for the financial industry. As per the World Bank, *"Over 40% of adults who made merchant in-store or online payments using a card, phone, or the internet did so for the first time since the start of the pandemic."*[14] In a post-pandemic world, the number of cashless payments is only expected to rise, given that they are not perceived as an alternative payment method anymore, but rather as a necessity.

[13] Covid-19, Cash, and the Future of Payments. https://www.bis.org/publ/bisbull03.pdf.

[14] World Bank Group. "Covid-19 Drives Global Surge in Use of Digital Payments." World Bank, World Bank Group, 28 June 2022, https://www.worldbank.org/en/news/press-release/2022/06/29/covid-19-drives-global-surge-in-use-of-digital-payments.



15

Figure 2: Average search intensity related to Covid-19 and cash use

A review on banking cards (credit/debit cards)

An introduction to banking cards

Banking cards have become one of the most popular cashless payment methods among consumers. According to Statista, “In 2019, 22.8 billion credit, debit, and prepaid cards were in circulation worldwide. This number is set to reach 29.31 billion by 2023” [16]. As proven by the numbers of banking card ownership and usage, their prominence has been expanding rapidly.

Credit and debit cards are physical cards issued by banks through which consumers may access funds (pay bills or withdraw cash) and make purchases online or in stores. There are different types of banking cards, each accommodating different consumer demands and preferences. Credit cards suggestively, act as a type of short-term loan, between the consumer and the credit card company. To make a purchase with a credit card, the customer need not have funds in the banking account. Instead, with such payment transactions, banks usually set a credit limit, which essentially is a certain amount of money allowed to be spent by the consumer while using the card.

---

[15] Figure 2: Covid-19, Cash, and the Future of Payments - Bank for International ... https://www.bis.org/publ/bisbull03.pdf.

[16] “Credit Card Statistics: Global Facts, Data, and Figures.” Secure Credit Card & No Annual Fee I RCBC Bankard, https://rcbcbankard.com/blogs/credit-card-statistics-global-facts-data-and-figures-16.

Once the credit limit is reached, money spent must subsequently be returned to the bank, in installments, and with interest. Alternatively, debit cards directly link an individual's purchases with their credit union. Through debit cards, money is deducted from the user's bank account every time they conduct a purchase, given that the amount of money required to make the transaction is approved by the bank. Whether consumers choose to use a credit or debit card to perform their payments, their employment eliminates the need to carry physical cash, aiding in the achievement of a cashless economy.

Benefits and Advantages

Needless to say, banking cards are profoundly used due to the convenience they offer over traditional payment options. The feasibility of making payments through credit and debit cards is key for cardholders, as they can instantly, efficiently, and recklessly swipe their credit/debit card to purchase a product anywhere in the world at any time, without counting out cash or figuring out change.

Financial transactions entering computer systems can be proven beneficial for banking card users in multiple ways. They can track spending patterns through budgeting apps, as all of their purchases are recorded online. Through such means, long-term financial planning becomes a straightforward procedure for individuals, as they are given the opportunity to achieve consistency in their economic goals. Moreover, credit/debit card payments offer security protection in case of fraudulent activity, as any suspicious activity is to be closely monitored and when suspected, security alerts are sent via email to the user.

Through a broader lens, banking cards have the capacity to increase accountability and transparency of financing, in an attempt to deter corruption through the emergence of underground markets. Banking cards automatically generate an auditable record of payments, meaning that governments can track how digital money is spent. This type of financial tracking may function as a means of investigating frauds. Economic transactions deemed illegal may only be conducted by the use of physical cash. Through a cashless society, economic activity may never go unreported.

In the case of credit cards, users can also increase their purchasing power, as it is not limited to their earnings. Instead, they have more chances to invest in goods and services of their preference, as long as their credit limit allows them to do so. Whatever the circumstance, if managed correctly, banking cards can head towards a promising future of a cashless society.

Challenges

Banking cards have inarguably been truly embedded in the current payment system, yet their recent introduction in the economy has pointed out their sore points. Once credit cards are not handled responsibly, users can seriously be trapped in debt given their increased purchasing power. Sometimes, credit cards can come with penalties for late payments, such as increased interest rates and over-the-limit fees, resulting in the accumulation of debt in the long term. However, while finance charges are a matter of consumer behavior, banking cards have also introduced several key issues to consider for all types of consumers and businesses, when referring to the abolition of physical currency.

An increasing worry has been cybersecurity threats. “Fraud committed through new credit card accounts increased to 365,597 cases in 2020.”[17] The integration of the current payment system into the digital world can have drastic downsides. Personal data and sensitive information could be stored, shared, or used by fintech companies. While this may function as an advantage from a consumer’s perspective through recommendation engines and targeted advertisements, the truth is that once such private assets get in the hands of cyber criminals and hackers, identity theft and substantial financial losses may be inevitable cases. Electronic transactions have digital footprints, and sometimes consumers do not want their economic behavior recorded.

The 2018 VISA outage is a prime example of how overreliance on digital payments can be detrimental in the case of a network crash. The outage left thousands of individuals and businesses without credit card services for two days, due to VISA’s

[17] “Credit Card Statistics: Global Facts, Data, and Figures.” Secure Credit Card & No Annual Fee I RCBC Bankard, https://rcbcbankard.com/blogs/credit-card-statistics-global-facts-data-and-figures-16.

hardware failure. In the immediate aftermath of the outage, ATMs ran out of paper money, as consumers were obliged to withdraw cash given the service disruption. Banking card outages are particularly common phenomena, and they are usually associated with unauthorized access to data, or more common hardware failures. They unquestionably disrupt the operations of a given financial institution, as they further raise public concerns related to account safety. Following this incident, experts have advised consumers to be open to additional payment options, a suggestion primarily challenging the elimination of physical currency.

Lastly, credit/debit card payment methods may disfavor technologically illiterate people. Several countries across the developing world still struggle with high rates of digital illiteracy. This trend subsequently results in a global state of financial exclusion, as financial service providers are unable to reach such populations. When referring to the adoption of a cashless society, the case of individuals unable to handle credit or debit cards raises serious ethical questions and considerations relating to issues such as enrollment without informed consent.

A review on Cyrptocurrencies

An introduction to cryptocurrencies

Government-led efforts to keep pace with the increasing reliance of consumers on digital payment solutions have greatly contributed towards a cashless future. Countries such as Singapore and the Philippines have already explored the possibility of building a digital form of their currencies. While central banks are leading the way towards a digitalized economy, decentralized finance, *"a financial ecosystem based on blockchain technology"*[18] holds a promising future as well. "According to CoinMarketCap.com there were more than 8,000 different cryptocurrencies with a global market value of about $2.24 trillion as of Dec. 12, 2021"[19]. Cryptocurrencies are

[18] Santander. "What Is Decentralized Finance?" Santander Corporate Website, Santander Bank, 21 June 2022, https://www.santander.com/en/stories/decentralized-finance.

[19] DeNicola, Louis. "What Is Cryptocurrency? Here's What to Know about This Increasingly Popular Digital Currency before Getting Involved." Business Insider, Business Insider, 20 Dec. 2021, https://www.businessinsider.com/personal-finance/what-is-cryptocurrency.

becoming an established element of today's economy: *"In September 2021, El Salvador became the first country in the world to make bitcoin legal tender"* [20]. Adopting Bitcoin as a legal tender means that firms and the government were required to accept bitcoin for all payment transactions. It is only a matter of time before the world witnesses the mass adoption of cryptocurrencies.

Cryptocurrency is a digital currency based on so-called blockchain technology, aimed to function as a medium of exchange. To fully comprehend the idea, it might prove helpful to think of cryptocurrencies as alternatives to government-based money while pointing out their differences. In centralized banking, governments control, manage and maintain the supply and circulation of money within an economy. In decentralized economic systems, digital money is not issued by any central authority. Instead, it is bought and sold online, as it is based on a broad network circulated across a large number of computers- computers belonging to users that particularly chose to enter the crypto market. As the name indicates, cryptocurrencies use cryptography and encryption algorithms to ensure an environment of secure and verified financial transactions. To elaborate further, cryptography offers necessary security to users by providing 2 private keys to each crypto wallet account. The first one is public, and its primary purpose is to validate transactions. The second one is private as it ensures the required secrecy in personal account information. Through the system's ability to exchange information, personal identifiable information (PII) is safeguarded, identity is authenticated, and users are protected against double-spending and repudiation.

Benefits and Advantages

The incredible innovation offered by cryptocurrencies (and banking cards) has introduced radical new ways of making cost-effective and quick payments. Especially in the case of cryptocurrencies though, any financial transaction of any amount, whether local or international, propagates instantly and is confirmed in a matter of minutes given that another user with a Bitcoin wallet is located. Once the block with the user's

[20] Alvarez, Fernando E., et al. "Are Cryptocurrencies Currencies? Bitcoin as Legal Tender in El Salvador." NBER, 25 Apr. 2022, https://www.nber.org/papers/w29968.

transaction is approved by the network, money or assets are immediately transferred from one account to the other, with no interference from monetary institutions. The process of setting up a cryptocurrency wallet is also unrestrained and streamlined, compared to the process offered by traditional banking services. All the users need in order to open an account is an internet connection and access to a computer. Regardless of the barriers limiting accessibility to cryptocurrencies, such as lack of technological resources and financial education, the idea of promoting universal access to financing is practically there. With the ease of access offered and the absence of central authorities in transactions, cryptocurrencies can bring many opportunities to under/unbanked individuals to meet their financial needs, resulting in financial inclusion. *"In 2017, the World Bank released a report claiming that 1.7 billion people do not have access to formal banking. They also highlighted that women are overrepresented. For example, in Kenya, 75% of those who are unbanked are women. In China and India, it's 60%."*[21]. For populations with no access to modern monetary institutions or with no means to afford banking fees, cryptocurrency seems like a financial alternative.

In economies based on government-issued currency, inflation is a given. This happens as centralized authorities are held responsible for liquidity, circulation, and supply of money. Central banks can therefore influence the economy through monetary policies such as rampant money printing. Exorbitant printing results in an excessive supply of money, devaluing currencies. As prices tend to increase in an economy, physical money becomes less valuable, and purchasing power is reduced. However, this is not the case with cryptocurrencies, as most of them come with pre-set limits in circulation. For example, "*the supply of Bitcoin (BTC) has been algorithmically capped to 21 million coins."*[22]. Fixed supply offers protection from inflation.

---

[21] "Will Cryptocurrency Further Equity or Undermine It? It's Complicated." Home Page, https://www.feminuity.org/post/cryptocurrency-crypto-equity-digital-currency-women-internet-dei-decentralized-empower-coding-bias-scams.

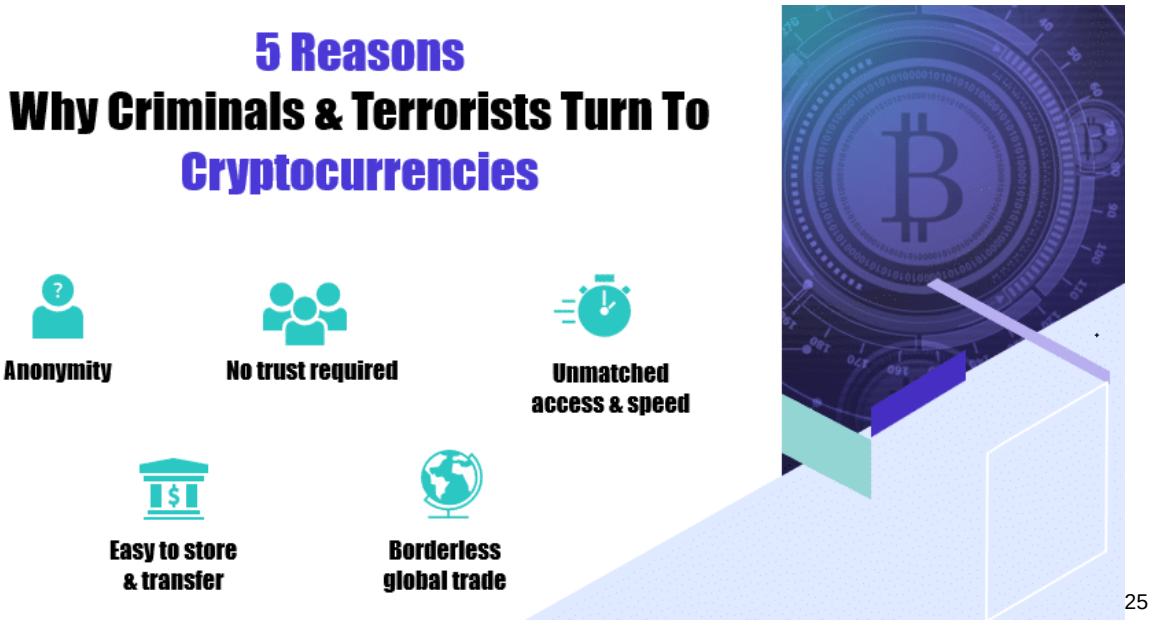
[22] Hayes, Adam. "What Happens to Bitcoin after All 21 Million Are Mined?" Investopedia, Investopedia, 13 July 2022, https://www.investopedia.com/tech/what-happens-bitcoin-after-21-million-mined/.

Challenges

While different types of cryptocurrencies have surged in popularity in recent years, the crypto market continues to be a polarizing topic. In fact, the security and anonymity blockchain technology offers enable criminals to engage in unlawful practices such as the sale of illegal goods, drugs, and weapons, money laundering, terror funding, and fraud. *"Cryptocurrencies are increasingly used by criminal actors, with a global total of $10 billion in illicit activities in 2020."*[23]. A prime example of how cryptocurrencies may empower criminals is the case of Silk Road, "a digital black-market platform that was popular for hosting money laundering activities and illegal drug transactions using Bitcoin".[24] It was launched in 2011 and shut down two years later by the FBI, as its founder, Ross Ulbricht received a life sentence. Silk Road was a haven for drug traffickers. They were able to illegally sell drugs while protecting their identities through Bitcoin's anonymous form of payments. Unlike cryptocurrencies, banks are institutions with numerous requirements and restrictions when it comes to accounts and transactions. An example is the Know Your Customer (KYC) protocol, which verifies customer identity. Non-compliance to such conditions can seize or freeze a banking account. On the contrary, transactions through cryptocurrencies take place outside the control of governments or any central authority for that matter. Thus, the independence of central banks implies no legal protection against attacks.

[23] Tom Sadon, Director of Product Marketing. "5 Reasons Why Criminals & Terrorists Turn to Cryptocurrencies." Cognyte, 30 Mar. 2022, https://www.cognyte.com/blog/5-reasons-why-criminals-are-turning-to-cryptocurrencies/.

[24] Frankenfield, Jake. "Silk Road Definition." Investopedia, Investopedia, 8 Feb. 2022, https://www.investopedia.com/terms/s/silk-road.asp.



[25]

Figure 5: Why the storage of choice for criminals is cryptocurrencies

A cashless society whether achieved through cryptocurrencies or banking cards has the potential to exclude populations from payment systems. To be more concise, the adoption of digitalized payment methods presumes a level of financial stability and development in the technological sector. There are different parameters to examine the level of preparedness of each country to perform a complete withdrawal of cash. Some of these factors include the number of mobile phones and computers per capita, the number of bank branches, Internet signal coverage, and literacy rates. Correspondingly, the elimination of cash will be a big challenge for the developing economies, as, for instance, very large segments of their populations are illiterate, or there is a lack of necessary infrastructure: “only about 35 percent of the population in developing countries has access to the Internet (versus about 80 percent in advanced economies).”26 In any case, if cryptocurrency is set to become the future of global banking and trade, member states and organizations need to focus on consumer protection methods and financial coverage expansion.

---

[25] Figure 5: Cognyte. “Homepage.” Cognyte, 3 Apr. 2022, https://www.cognyte.com/.

[26] World Bank Group. “Connecting for Inclusion: Broadband Access for All.” World Bank, World Bank Group, 21 Nov. 2018, https://www.worldbank.org/en/topic/digitaldevelopment/brief/connecting-for-inclusion-broadband-access-for-all.

Consumer unwillingness to switch to digital payment methods

While online technologies are revolutionizing the way financial transactions take place, a relative percentage of people worldwide still prefer using cash instead of a banking card or a mobile wallet. Indeed, banknotes and coins offer some important functions and benefits. In financial matters, physical money ensures privacy and autonomy, as the transactions are not recorded, nor do they involve any third party or institution. Especially in times of cybercrime, cash empowers consumers, as it has proven to be secure and safe, with no danger entailed regarding identity and data theft. Reviewing the incident of the 2018 VISA outage, physical money is advantageous as a form of a tangible and liquid asset, offering resilience in terms of a crisis. Lastly, cash is considered as inclusive, providing access to payment systems to anyone and everyone regardless of their social status. This is particularly the reason why physical money remains the payment of choice for socially vulnerable citizens such as elderly or low-income persons.

Major countries and organizations involved

Sweden

Sweden is leading the way towards becoming fully cashless. *"The use of cash has been declining for years, and instant mobile payments and other new technologies have gained prominence."*[27] In fact, Sweden is expected to become the world's first cashless society by 2023 while just one percent of the country's GDP circulates as cash at the moment. Swedes are technocentric: they have even developed digital payment apps, like the Swish. The Swish is an app-based payment method with over two-thirds of the country's population actively using it to perform transactions. Along this line, Sweden has already implemented laws allowing shops to only accept digital payment

[27] Henrik Bergman Director of the Financial Infrastructure Department at the Swedish Bankers' Association. He has mo. "Sweden: Cashless Society and Digital Transformation." European Payments Council, https://www.europeanpaymentscouncil.eu/news-insights/insight/sweden-cashless-society-and-digital-transformation.

methods[28] for the sale of goods. While the public has been adjusting to such policies in a welcoming way, the debate of an utter transition towards a cashless economy is still prominent. "If war or crisis comes" is a document listing essential assets for survival during a crisis or war, written by the Swedish Authority for Community Protection and Preparedness. The document received heavy criticism as the list included "cash in small denominations". However, despite such concerns, Sweden's culture of innovation in a combination with societal adoption and trust in public institutions has marked a turning point in the history of online payments.

India

The Indian government has carried out transformational actions towards demonetization in an attempt to get the unbanked into the finance system and eliminate untracked payments. "On November 8th, 2016, India's Prime Minister Narendra Modi announced that the country would be removing cash from its economy."29 Having various modes of digital payments available (banking cards, mobile wallets, POS, Internet Banking, etc.), along with several government incentives promoting the adoption of electronic payment modes, India has the potential to transform into a digital economy. Yet, considering that India's economy is predominantly cash-centric (95% of all transactions in the country30), the switch in the direction of a cashless society is fraught with challenges.

China

China is a pioneer in adopting digital payment methods, as its financial technology industry has flourished in the aftermath of the pandemic, projected to reach 85.7 USD billion in market value by 2022. *"Around 60 percent of China's 1.3 billion population will*

---

[28] Figure 6: Niklas˜Arvidsson Building a Cashless Society the Swedish Route ... - Oapen. https://library.oapen.org/bitstream/id/efe59437-35ac-4073-b7b6-bfcf71e287fa/1006852.pdf.

[29] Basul, Alara. "Everything You Want to Know about Why India Is Going Cashless but Were Too Afraid to Ask." Bobsguide, 13 May 2021, https://www.bobsguide.com/articles/everything-you-want-to-know-about-why-india-is-going-cashless-but-were-too-afraid-to-ask/.

[30] Ibid

have made a purchase via mobile payment by 2023".[31] China's dependence on digital devices for regular tasks further intensified when two private banks located within the capital of Beijing suspended services for banknotes and coins as of the year 2022. Meanwhile, the cashless movement has met some resistance from the government. The central bank is concerned that mobile payment apps such as Alipay and WeChat have become immoderately dominant. On that note, China has currently banned all cryptocurrency transactions within the country, arguing that crypto destabilizes their financial system.

The United States of America

The US is one of the major states that has developed a digital economy and the cashless trend has rather accelerated due to the pandemic. Yet, the country is still far away from achieving a complete absence of cash: *"6.5% of U.S. households are unbanked, and about 18.7% more households are underbanked"*[32]*.* Further, privacy and visibility concerns are incredibly prevalent across the US population. Because of such matters, Philadelphia, a major US city, banned cashless stores, sending a clear message that the abolition of physical currency is currently a distant reality.

European Central Bank

The ECB is not pro the abolition of physical cash but is rather ensuring that people have the choice to make and receive a digital economic transaction. There are vast differences between member states: *cash transactions range from 42% in Finland to 92% in Malta.*[33] Through this lens, the ECB is not seeking to replace cash, but to offer

---

[31] "China's Rising Cashless Society." Eye on Asia, https://www.eyeonasia.gov.sg/china/know/living-in-china/rising-cashless-society/.

[32] Lee, Ella. "Fact Check: A Cashless Society Isn't Imminent and Wouldn't Mean Total End of Cash." USA Today, Gannett Satellite Information Network, 28 July 2020, https://eu.usatoday.com/story/news/factcheck/2020/07/27/fact-check-cashless-society-isnt-imminent-wouldnt-eliminate-cash/5415027002/.

[33] European Central Bank. "Why Europe Still Needs Cash." European Central Bank, 28 Apr. 2017, https://www.ecb.europa.eu/press/key/date/2017/html/ecb.sp170428.en.html.

additional payment choices. Public authorities are therefore required to accept cash payments while fostering innovation in the financial technology sector. To respond to the gradual changes in consumer payment behaviors, the ECB is examining the possibility of introducing a digital euro. Through this attempt, the introduction of central bank digital currencies (CBDCs) may appear an attractive alternative for governments when it comes to cryptocurrency.

Better than Cash Alliance

Based at the United Nations, the Better than Cash Alliance is a global partnership of governments, companies, and international organizations aiming to ensure financial inclusivity in a digitalized environment on a global scale. The alliance has approximately 80 members (primarily national governments from Africa, Asia-Pacific, and Latin America), dedicated to reaping all the benefits digital payment systems may provide in an economy such as transparency, accountability, efficiency, and financial equality. The Better than Cash Alliance works with member states and focuses on the provision of necessary services and the sharing of know-how and research. According to the alliance, accelerating the transition from cash to digital payments may mark progress on the Sustainable Development Goals. For example, in Nepal, *"households headed by women increased education spending by 20% when given access to a digital savings account"*[34], inciting improvements in quality education.

Timeline of events

1871	The Western Union- an American multinational financial services company-introduces electronic fund transfers (EFTs)- a payment method that does not involve a physical exchange of cash
1910	The central bank of the United States begins using the

[34] "Why Digital Payments." Better Than Cash Alliance, https://www.betterthancash.org/why-digital-payments.

	telegraph to transfer money
1914	The Western Union introduces charge accounts (early form of credit card)
1950	Diners Club issues the first credit card, further revolutionizing electronic payments
1959	American Express introduces the first plastic card for electronic payments
1990s	Mobile devices emerge as the new popular method of payment transactions- online internet banking services are offered
1995	The idea for the creation of cryptocurrency first begins
1998	Nick Szabo designs Bitcoin
February 2011	Silk Road, a digital black market, launches using Bitcoin
September 2012	Formation of the Better than Cash Alliance
November 2014	Silk Road shut down by the FBI
June 1, 2018	VISA outage
July 2018	High-level Panel on Digital Cooperation held by the Secretary General
2021	El Salvador becomes the first country in the world to make bitcoin legal tender
March 9, 2022	Biden aims towards the regulation of cryptocurrencies through an executive order directed to federal agencies

Previous attempts to solve the issue

Incentivizing citizens to conduct digital transactions

Although consumer acceptance of digital payments has skyrocketed in recent years, rates of adoption in developing countries remain modest. India has marked a substantial effort to promote cashless payments, yet, despite the endeavors, unwillingness to switch to digital payment methods remains an issue. More specifically, the Indian Central Government has implemented a pack of measures to encourage citizens to conduct cashless transactions. For example: *"The Central Government Petroleum PSUs shall give incentive by offering a discount at the rate of 0.75% of the sale price to consumers on purchase of petrol/diesel if payment is made through digital means."*[35]. While such incentive schemes have the potential to partially shift consumer preference for cash, digital payment adoption remains rather low among firms, as essential prerequisites for the supply of digital payment technologies are not satisfied. Producers do not possess the necessary infrastructure and technological knowledge or do not have the records to open a bank account. Further, although these are challenges associated with functionality problems, social–psychological issues among businesses and consumers related to uncertainties may also result in non-adoption. This means that producers may be unwilling to offer digital payment options to consumers regardless of their possession of the underlying requirements.

Regulation of cryptocurrencies

Cryptocurrency is considered by some as a currency of criminals, as its anonymization is a perfect aid for illegal activities. In light of these concerns, it has been well-established by the international community that cryptocurrency needs to be brought within the regulatory perimeter. An attempt towards that direction was led by President Biden. Through an executive order directed to federal agencies, the Biden administration aimed towards the regulation of cryptocurrencies *"to better understand the risks and*

---

35 Cashless India, http://cashlessindia.gov.in/package-for-promotion-of-digital-and-cashless-economy.html.

opportunities presented by digital assets."[36] Yet, the regulation of cryptocurrencies poses a fundamental challenge for the federal government, considering that there are still big questions facing the industry (we do not yet know exactly how the market operates and which economic forces drive the entire system), making the process of regulating them extremely difficult. Discussions regarding the establishment of a central bank digital currency have been introduced.

Relevant UN Resolutions, Events, Treaties and Legislation

UN Secretary General's Roadmap for Digital Cooperation[37]

In July 2018, the Secretary-General held a High-level Panel on Digital Cooperation to develop suggestions to improve digital cooperation among governments, the corporate sector, and civil society. The *UN Secretary General's Roadmap for Digital Cooperation* is a plan created through international collaboration, setting the stage for a safer and more equitable digital world against cyber-attacks and the digital divide. Through the roadmap, a set of goals is envisioned: *"ACHIEVING UNIVERS AL CONNECTIVITY BY 2030". The* implementation of the scheme is headed by the Office of the Envoy on Technology.

UN Principles for Responsible Digital Payments[38]

The United Nations Principles for Responsible Digital Payments were developed by the Better Than Cash Alliance, as a means to respond to the urgent need for contactless payments as well as to the proliferation of financial services. The principles

---

[36] Rogers, Katie, and Ephrat Livni. "Biden Takes Step toward Regulating Cryptocurrencies." The New York Times, The New York Times, 9 Mar. 2022, https://www.nytimes.com/2022/03/09/us/politics/crypto-regulation-biden.html.

[37] "Secretary-General's Roadmap for Digital Cooperation." United Nations, United Nations, https://www.un.org/en/content/digital-cooperation-roadmap/.

[38] Updated Edition, October 2021 - Responsiblepayments.org. https://responsiblepayments.org/pdfs/UN-ResponsiblePayments.pdf.

established touched up on matters such as safeguarding client data, empowering women in regard to financial technology, and transparency on pricing.

Possible solutions

When forming operative clauses, it might prove useful to take a look back on the challenges introduced by the adoption of digital payment methods, such as cybersecurity threats and financial exclusion faced by the developing world. The move towards a cashless future would be internationally embraced in a welcoming way only if such issues that inhibit the benefits of the abolition of cash, fade away.

Creating financial and digital education opportunities

From a social welfare perspective, making informed financial decisions is the key to the promotion of a resilient economic system. In today's digital era, financial technology is developing so rapidly; everything and everyone is expected to adapt to its novelties. Yet, especially in the developing world, individuals do not possess the necessary knowledge and equipment to conduct digital payments after they are given access. In an attempt to narrow the digital divide, member states may engage in promoting scalable educational programs refined to fit the needs and skills of vulnerable communities, ensuring that both consumers and producers are sufficiently literate to be able to use digital payment systems. For instance, banks may create short video tutorials on topics such as opening a bank account or using a credit card. Furthermore, there may be virtual assistants or training teams guiding unbanked individuals aiming to establish a trusting environment through direct contact with customers. The establishment of digital literacy centers is also a contributing factor to the solution.

Ensuring access to valuable tools

No strategy for the adoption of a cashless society would succeed without adequate infrastructure and access to resources. Many rural and remote areas located in the developing world still lack access to the Internet, digital devices, or tech-enabled financial infrastructure, increasing the probability of involuntary financial exclusion. This digital gap needs to be directly addressed. Whether it is done through public access to

computers, free Wi-Fi hotspots, and kiosks, or low-cost broadband services, vulnerable communities should be enfranchised into the financial system. Further, reviewing the successful attempt of Sweden and the Swish (an app-based payment method) to incentivize Swedish individuals to shift towards mobile payments, the idea of developing national online banking platforms seems like an alternative option.

Countering the issue of the unbanked

While cryptocurrencies are known to be solving the problem of the unbanked given their decentralized nature, the fact that there are people lacking an official foundational identification should not be overseen. There are billions of people who cannot prove their identity yet opening a bank account requires an ID and other related documents. Considering that there are bureaucratic barriers to participating in digital payment systems, a decentralized identity platform may provide the solution. As long as the platform is recognized by governments and exists on a legal basis, it can enable the unbanked people to maintain a verifiable and unique identity, providing a pathway to financial inclusion.

Financial services companies endorse cyber training

The shift of financial services towards digitization has compounded problems for cybersecurity teams. In particular, the banking industry currently faces serious cyber-threats, let alone the fact that attacks are becoming more sophisticated and harder to detect as criminals use more advanced methods and techniques to invade a bank's digital system. Thus, if a cashless society is under discussion, establishing operational resilience in the case of cyber-attacks would be more important than ever. A suggestion would be for boards to develop automated response capabilities and rehearse through cyber-war simulation exercises. Consumers are seeking protection and identity encryption in their digital payments and additional layers of security may only prove valuable.

Regulating cryptocurrencies

Cryptocurrencies are decentralized, which is a cause of concern when it comes to the vulnerability of the system, as seen by the examples provided above. To avoid such issues concerning security or financial threats, but also allow the values of such a market - them being self-regulation and autonomy from regional or national governing bodies - to persist, the establishment of a legitimate international code of conduct concerning the rights of consumers and producers of the market would be an interesting and effective proposal. Such a decision would ensure the protection of the market from unauthorized for-profit individuals and illicit financial flows, while also maintaining the ability of the system to control itself and avoid dependency on governing bodies that would directly influence its procedure. Following the establishment of the code would be a set of guidelines that would further outline the freedom of interested users, ensuring the proper regulation of the decision taken above.

Bibliography

Adoption of Cashless Economy in the World: A Review - ResearchGate. https://www.researchgate.net/publication/360236152_Adoption_of_Cashless_Economy_in_the_World_A_Review.

Basul, Alara. “Everything You Want to Know about Why India Is Going Cashless but Were Too Afraid to Ask.” Bobsguide, 13 May 2021, https://www.bobsguide.com/articles/everything-you-want-to-know-about-why-india-is-going-cashless-but-were-too-afraid-to-ask/.

Best, Raynor de. “Cashless Transactions by Region 2023.” Statista, 3 May 2022, https://www.statista.com/statistics/265767/number-of-cashless-transactions-worldwide-by-region/.

“The Big Idea: Should We Embrace a Cashless Society?” The Guardian, Guardian News and Media, 18 Apr. 2022, https://www.theguardian.com/books/2022/apr/18/the-big-idea-should-we-embrace-a-cashless-society.

Cashless India, http://cashlessindia.gov.in/package-for-promotion-of-digital-and-cashless-economy.html.

“Cashless Society Draws Closer with Only One in Six Payments Now in Cash.” The Guardian, Guardian News and Media, 16 June 2021, https://www.theguardian.com/business/2021/jun/16/cashless-society-draws-closer-with-only-one-in-six-payments-now-in-cash.

“Cashless Society: The Future of Digital Payments.” Financier Worldwide, https://www.financierworldwide.com/cashless-society-the-future-of-digital-payments#.YrXE9XZBzIU.

"The Countries Most Likely to Support a Cashless Society." MoneyTransfers.com, https://moneytransfers.com/sending-money/the-countries-most-likely-to-support-a-cashless-society.

"China's Rising Cashless Society." Eye on Asia, https://www.eyeonasia.gov.sg/china/know/living-in-china/rising-cashless-society/.

Cognyte. "Homepage." Cognyte, 3 Apr. 2022, https://www.cognyte.com/.

Covid-19, Cash, and the Future of Payments - Bank for International ... https://www.bis.org/publ/bisbull03.pdf.

"Credit Card Definition." Bankrate, https://www.bankrate.com/glossary/c/credit-card/.

"Credit Card Statistics: Global Facts, Data, and Figures." Secure Credit Card & No Annual Fee I RCBC Bankard, https://rcbcbankard.com/blogs/credit-card-statistics-global-facts-data-and-figures-16.

European Central Bank. "Why Europe Still Needs Cash." European Central Bank, 28 Apr. 2017, https://www.ecb.europa.eu/press/key/date/2017/html/ecb.sp170428.en.html.

Fontinelle, Amy. "The Basics of Debit Cards." Investopedia, Investopedia, 8 Feb. 2022, https://www.investopedia.com/terms/d/debitcard.asp.

Frankenfield, Jake. "Silk Road Definition." Investopedia, Investopedia, 8 Feb. 2022, https://www.investopedia.com/terms/s/silk-road.asp.

Hayes, Adam. "What Happens to Bitcoin after All 21 Million Are Mined?" Investopedia, Investopedia, 13 July 2022, https://www.investopedia.com/tech/what-happens-bitcoin-after-21-million-mined/.

Henrik Bergman Director of the Financial Infrastructure Department at the Swedish Bankers' Association Henrik is Director of the Financial Infrastructure Department at the Swedish Bankers' Association. He has mo. “Sweden: Cashless Society and Digital Transformation.” European Payments Council, https://www.europeanpaymentscouncil.eu/news-insights/insight/sweden-cashless-society-and-digital-transformation.

“Is Your Country Headed for a Cashless Future?” N26, https://n26.com/en-eu/blog/most-cashless-countries-in-europe.

Lake, Rebecca. “Get the Lowdown on How Credit Cards Work and How to Use Them.” Investopedia, Investopedia, 28 Dec. 2021, https://www.investopedia.com/how-do-credit-cards-work-5025119.

Lee, Ella. “Fact Check: A Cashless Society Isn't Imminent and Wouldn't Mean Total End of Cash.” USA Today, Gannett Satellite Information Network, 28 July 2020, https://eu.usatoday.com/story/news/factcheck/2020/07/27/fact-check-cashless-society-isnt-imminent-wouldnt-eliminate-cash/5415027002/.

Niklas˜Arvidsson Building a Cashless Society the Swedish Route ... - Oapen. https://library.oapen.org/bitstream/id/efe59437-35ac-4073-b7b6-bfcf71e287fa/1006852.pdf.

Phillips, Dillon. “The Evolution of the Electronic Payment System until 2020.” Secure Any Sensitive Data Element, https://www.tokenex.com/blog/evolution-electronic-payment-systems-until-2020.

Qrius, and Qrius. “Top Reasons Why Cryptocurrencies Are so Popular.” Qrius, 6 Jan. 2022, https://qrius.com/top-reasons-why-cryptocurrencies-areso-popular/.

Rogers, Katie, and Ephrat Livni. “Biden Takes Step toward Regulating Cryptocurrencies.” The New York Times, The New York Times, 9 Mar. 2022, https://www.nytimes.com/2022/03/09/us/politics/crypto-regulation-biden.html.

Schnaubelt, Catherine. “The Pros and Cons of Credit Cards.” Forbes, Forbes Magazine, 9 Dec. 2021, https://www.forbes.com/sites/catherineschnaubelt/2019/02/15/the-pros-and-cons-of-credit-cards/?sh=74dda38b1e8b.

“Secretary-General's Roadmap for Digital Cooperation.” United Nations, United Nations, https://www.un.org/en/content/digital-cooperation-roadmap/.

“Some Key Challenges of a Cashless Society.” NCR, 2 June 2022, https://www.ncr.com/blogs/banking/cashless-society.

Team, CSG Forte. “Electronic Payments: A Brief History.” CSG Forte, 11 Aug. 2021, https://www.forte.net/electronic-payments-a-brief-history/.

Tom Sadon, Director of Product Marketing. “5 Reasons Why Criminals & Terrorists Turn to Cryptocurrencies.” Cognyte, 30 Mar. 2022, https://www.cognyte.com/blog/5-reasons-why-criminals-are-turning-to-cryptocurrencies/.

“2021 Annual Report - Responsible Digital Payments: Accelerating Progress on the Sustainable Development Goals and Rebuilding Inclusive Economies.” Better Than Cash Alliance, https://www.betterthancash.org/alliance-reports/2021-annual-report-responsible-digital-payments-accelerating-progress-on-the-sustainable-development-goals-and-rebuilding-inclusive-economies.

Walden University. “Should-We-Become-a-Cashless-Society.” Walden University, Walden University, 25 Mar. 2021, https://www.waldenu.edu/online-doctoral-programs/phd-in-public-policy-and-administration/resource/should-we-become-a-cashless-society.

"What Is Blockchain Technology? - IBM Blockchain." IBM, https://www.ibm.com/topics/what-is-blockchain.

"What Is Technology Illiteracy." IGI Global, https://www.igi-global.com/dictionary/technology-illiteracy/29517.

World Bank Group. "Connecting for Inclusion: Broadband Access for All." World Bank, World Bank Group, 21 Nov. 2018, https://www.worldbank.org/en/topic/digitaldevelopment/brief/connecting-for-inclusion-broadband-access-for-all.

World Bank Group. "Global FINDEX Database 2021 Survey Headline Findings on the Use of Financial Services." World Bank, World Bank Group, 29 June 2022, https://www.worldbank.org/en/publication/globalfindex/brief/the-global-findex-database-2021-chapter-2-use-of-accounts.