

Threats to monetary policy



Consumers now have a myriad of payment instruments from which they can choose. Due to the rapid evolution of surrogates for bank notes and coins, electronic money, also known as e-money, has gained real eminence and is anticipated to displace traditional physical currencies. This has aroused the attention of a multitude of stakeholders concerned, economists, authorities, policy makers, financial institutions and the public, in the advent of a “Cashless society”.

A large body of existing literature has exclusively investigated the underlying threats to monetary policy, that an economy without cash could foster. We argue that these studies are incomplete as they fail to (1) include the implications to other key parties and (2) provide extensive insight into the benefits of adopting an all-electronic payments environment. The consequent implications of monetary policy within a cashless society, although significant, is not the only concern and the impacts to other major parties has not been a primary focus on existing literature concerning this field.

This chapter is organised as follows: the first section focuses on the active area of academic research covering the implications of a cashless society from a private perspective, while the second focuses on that of the less pursued implications from a public perspective.

Section I

Threats to central bank sovereignty

Monetary policy is a fundamental tool that central banks use to influence interest rates and in turn control inflation. The central bank is responsible for <https://assignbuster.com/threats-to-monetary-policy/>

the monopolistic issuance of national currency; the demise of cash therefore raises concerns that central banks will relinquish its autonomy on monetary policy and moreover, the financial landscape. The magnitude of the consequences of this, is why such homage has been paid to this area of research, provoking considerable debate amongst economists.

The Bank for International Settlements (1996) were amongst the first institutions to critically examine the main policy issues that could arise as a result of the development of e-money for central banks. The report suggests that the effects of e-money on the execution of monetary policy is dependent upon whether the lack of cash in circulation will impact the demand for bank reserves or the capacity of the central bank to supply those reserves. In similar vein, Thomas (2000) proposed a supporting view that the adoption of e-money indeed has the potential to impact the demand for bank reserves. His researched concluded with the remarks that widespread use of e-money challenges the central bank's ability to control interest rates, by disturbing the relationship between economic activity and the demand for reserves.

Later study by Woodford (2000) contests the claim that advances in electronic payment systems may require changes in the way in which monetary policy is implemented in developed economies. His research claims that in countries like Canada and Australia, the method of interest-rate control that is currently used (the "channel" system), is robust and durable enough to withstand the toughest technical changes that are projected to ensue. Freedman's (2000) findings corroborate with this. His research concludes that cash does not play an important role in monetary

policy operation, hence its disappearance would generally have no detrimental consequence. Raskin and Yermack (2016) takes this analysis further and maintains that digital money has the potential to develop central banks' clearing and settlement processes, and possibly launch their own sovereign digital currency.

The Bank for International Settlements' (1996) article explained that the effect on Monetary Policy is dependent upon the rate of e-money adoption. If e-money were to be largely embraced, the loss of seigniorage could pose a major concern to central banks which, resultantly could become reliant on other sources of revenue - a concern particularly facing governments in countries with large budget deficits. Costa stroti and De grauwe's (2001) study challenged this and concluded their research with a more pessimistic outlook. The main findings from their systematic study revealed that the central bank is likely to lose its traditional instruments of monetary policy, due to the decentralised nature of electronic payment instruments, therefore rendering open market operations and the mechanisms to control interest rates ineffective.

Payment instrument decisions

Several attempts by a number of authors have been made to examine consumers shifting payment behaviour. Garcia-swartz *et al* (2004) carried out two case studies to investigate the change in sales volume for debit cards, credit cards, cash, and checks at discount stores from 1994 to 2001. The results from investigation revealed that the proportion of sales paid for with credit cards has stayed constant, however, debit cards effectively rose

from zero to over 20%, whilst both cash and checks each declined by 10%. These results were also consistent with their supplementary case study that examined the sales volume for the same payment instruments at grocery stores.

Loix *et al* (2005) analysed large-scale Belgian customers payments instrument survey data against socio-demographic factors and financial characteristics to analyse a customer's propensity to adopt new technology and in turn gauge their willingness to embrace a cashless society. Her results revealed that the intensity of use of a payment instrument is primarily accounted for by education, employment, income and to a smaller degree by age. Technology (e. g. mobile phone usage) has a considerable impact on the intensity of use of e-money and thus, those of whom are technologically savvy are less resistant to a cashless society. These results are largely comparable with Hayashi and Klee's (2003) findings. The authors analysed also analysed consumer's payment instrument survey data, of primary internet users, at the point of sale and for bill payment. They reported that the adoption of other new technologies is a significant indicator of electronic payment adoption.

Hayashi and Klee's (2003) findings draws attention to the prominence of transaction characteristics on a consumer's payment choice, concluding that both transaction value and physical characteristics can influence payment choice. This corroborates with Mantel's (2000) findings which outlines the three factors that justify the private use of electronic banking: household income, personal preferences, such as convenience and privacy; and transaction-specific factors, such as the transaction size. MacKie-Mason and

White (1996) also performed a similar experiment, that summarises the features of 10 electronic payment instruments using 30 different criteria. The authors bring to our attention the systematic approaches a decision maker follows before selecting a payment mechanism.

Global e-money penetration

Papadopoulos (2007) analysed card-based e-money penetration data from Europe's 9 most advanced piloted card and electronic payment programmes from 1998 through 2005. The analysis highlighted the rapid growth of e-payment use in 2002, where e-money payment transaction volumes doubled in France, Austria, Netherlands and Belgium as a result of the introduction of the Euro consequently encouraged the adoption of cashless means of payment. After 2002 the e-money transactions either contracted or slowed down transactions, with the exception of the Netherlands and Italy which had the most consistent uptake. A major criticism of Papadopoulos' (2007) work is that the scope of these pilot programmes were constrained both in terms of the countries examined and the number of payment cards issued; hence the use of electric money across countries is still limited and the results may not be generalisable. A later study from Krueger and Seitz (2017), however addressed this limitation in an analogous study that analyse the cashless payment transactions per capita of EU member states including Netherlands, Sweden, United Kingdom using a longitudinal data from 2000-11. The findings support that the cashless payment instruments have been used intensively amongst Scandinavian countries and the Netherlands. The findings also illustrated that 2002 was a year of significant e-payment

performance as the numbers of card payments per capita in the EU increased in every country, in accordance with Papadopoulos' (2007) findings.

Section II

Risks to public welfare

Tee and Ong (2016) mentions that the spread of e-money could result in the reduction of fraudulent activity and the prevalence of cash related crimes in developing countries such as Nigeria, while Almeida *et al* (2018) in a more recent study, dissects these social issues in more depth. They analysed the main threats associated with e-money handling and the possible impacts on a cashless society. Their findings concluded that the most dangerous consequences for the societies adopting electronic money can result from fraud and terrorism. Decentralisation of currency makes it plausible for dissident organisations to hack and destroy large confidential data-centres, in turn causing debilitating damage to the economy. The weakness of this particular study is that it makes no attempt to acknowledge the many possible impacts of a cashless society on isolated players such as individuals, companies and specific sectors of the economy. While the points raised are valid, the threat of terrorist attacks alone is not sufficient enough to conclude that a cashless society poses as a substantial threat to the economy when other potential factors or benefits have not been weighted. Despite this limitation, Irwin *et al*'s (2014)'s findings validate Almeida *et al*; / (2018) conducting a number of experiments to explore the feasibility of threats such as money laundering and terrorism financing activities that could arise from a cashless society. They deduced that cyber money laundering and terrorism

financing offer perpetrators anonymity, and eliminates the risks associated with terrorism financing and money laundering activity which could yield devastating impacts.

Bal (2013) examined the phenomena of virtual money, and in particular looks at the tax consequences of virtual money in various contexts, focusing on the tax systems of two countries, Germany and the United States to address this development. Her seminal article concludes that the main issue with cryptocurrencies is that there is no third party that could provide any data on the taxpayer's identity and because of the untraceable nature; they can easily be sent undetected out of a country. They suggest that tax compliance can only be secured if there is full disclosure of the parties involved in the transactions.

Summary

Many scholars have described the various means an economy can be impacted by a cashless society, using studies and scenarios to support their findings. Some economists have suggested the improvement to the economy with the rise of fewer cash transactions (___), whilst others have ___. The existing research highlights the need for strong supportive empirical analysis weight consequences to public as well as the private entities to address all parties involved.

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