

# The Book of Payments

Bernardo Bátiz-Lazo • Leonidas Efthymiou  
Editors

# The Book of Payments

Historical and Contemporary Views on the  
Cashless Society

palgrave  
macmillan

*Editors*

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ISBN 978-1-137-60230-5      ISBN 978-1-137-60231-2 (eBook)  
DOI 10.1057/978-1-137-60231-2

Library of Congress Control Number: 2016957724

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Printed on acid-free paper

This Palgrave Macmillan imprint is published by Springer Nature  
The registered company is Macmillan Publishers Ltd.

The registered company address is: The Campus, 4 Crinan Street, London, N1 9XW, United Kingdom

## Foreword: Friction and Fantasies of the Cashless Future

The present collaborative volume takes a look back and a look forward at a historical moment when money and payment seems up for grabs in a way that would not have been possible just 30 years ago. If the twentieth century was an era of cash, checks, and plastic credit cards, the twenty-first is one of rapidly proliferating forms of electronic value transfer systems, each running on different platforms using different protocols and network infrastructures. When I first enrolled at college in 1985, the ATM was a marvel to me. In goes the plastic card; out comes cash! We lined up sometimes for a half hourbrail to use it. And there was only one, later two, on the entire campus. My students today can access and part with their money using Venmo, a mobile application and web-based service that allows person-to-person payments; using Apple Pay, tapping their Near-field Communication (NFC)-enabled mobile phone to a point-of-sale terminal; using Amazon.com and other online merchants' one-click payment methods to make purchases online; as well as with all manner of plastic cards and other devices with at least a half-dozen embedded communications technologies to facilitate value transfer. My list is partial but includes NFC, radio frequency identification (RFID), Bluetooth radio waves, magnetic stripes, wireless radio signals (Wi-Fi), supersonic sound waves, barcodes, QR codes, and other graphic representations that can be scanned electronically using an optical scanner. All this to facilitate frictionless, efficient payments, the transfer of value from one party to

another and the clearance and settlement of those transactions in a rapid, secure, and verifiable fashion.

A handbag that automatically locks shut whenever its owner walks too near a “danger zone,” a known location where self-control breaks down and the owner is likely to make an impulse purchase. A brass device modeled on ovoid Japanese Tokugawa coinage that generates a visual and tactile response whenever it is used to pay at an electronic terminal. These are but two technology prototypes from the summer of 2016 developed to create *more* friction in payments—a direct response to electronic payment systems that make it so easy to spend. Their designers made them intentionally to interrupt the ease with which the cashlessness of today’s electronic value transfer systems allows people to part with their hard-earned money. According to the founder of NewDealDesign—the very name, intentionally or not, evokes the history of financial crisis and political economic reconstruction—the vision behind the coin-like device is to “do something inefficient that people really do have to pay attention to, that’s quite literally trying to stimulate the pain receptors in your body” (Wilson 2016). The handbag is the venture of a personal finance website and is similarly meant to “make shoppers aware of their spending urges in the moment and ... even physically deter them from accessing their wallets when they are at their most vulnerable” (Finextra 2016).

So why not just use cash? From an individual person’s point of view, after all, cash is also relatively frictionless: I hand a banknote to you, and you receive it. Transaction completed. Naysayers will argue that cash is cumbersome, costs money to move and store, is prone to theft or loss, is filthy. More important, perhaps, people feel cash, and when they hand it over, they feel its loss. A one-click payment sure is easy to make, and to make thoughtlessly. Hence the self-locking purse and the coin that sends little braille-like bumps into your flesh whenever you use it to pay.

The contributors to this volume bring perspectives from diverse academic and professional fields—from sociology, business, economics, computer science; from finance, information technology, journalism, management consulting. They are from countries as distant, and different, as Chile and Thailand. Providing rich case studies on cash and cashlessness in comparative and historical context, the chapters, together, help place in context the emerging present: a time when global unequal-

ity, consumer debt, political economic instability, and environmental destruction go hand in hand with technological utopianism, new forms of social and political organization—and new ways to pay, new monies even. As money dematerializes for some strata of global society, cash becomes an ever more significant part of the daily lives of others. There are zones of intense payment innovation, as well as payment deserts. Sometimes they are side by side, literally occupying the same geographic space: panhandling in tech hot-spot cities has become a real challenge, when no would-be benefactor carries cash anymore. Just a few blocks from my house, there are stores that only accept cash, that only accept cash in denominations of US\$20 or lower, that only accept cash at certain times of the day, that use telephone dial-up modems to process credit card transactions, that have an always-broken ATM or all-too-frequent skimming devices on gasoline pump payment stations.

Understanding payment is a matter of profound public significance. Purveyors of cashless payment systems are not just doing it for the consumer, after all—they have a stake in the value they can glean from encouraging more and more people to pay their way. New payment providers are getting in the game for tolls on transactions, for spending and consumer preference data that can be leveraged for advertising revenue, for cutting out the middleman by inserting themselves in its place. For some, that middleman is the state, and the effort to provide frictionless electronic payment is a play for the disintermediation of the state from the means of exchange. If, as I have argued elsewhere, payment is a public good, understanding new forms of payment through case studies like the ones this volume offers is a necessary part of our contemporary political education. Indeed, we may need it even more than a self-locking purse.

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## Preface: News from the Cashless Front

The second half of the twentieth century observed new ways of thinking systematically about methods for retail payments. Successive generations of researchers and managers in financial institutions debated and theorised their use while visualising their societies in a future where there was no role for material representations of money. This agenda roots to the emergence of the term “cashless/checkless society”, which appears to have originated within the world of business. It was coined in the USA in the mid-1950s to describe a future state of the economy in which a system of electronic transactions replaced the use of coins, cheques, and banknotes as media of exchange.<sup>1</sup> Such a milestone provides the basis for our examination of retail payments while trying to examine questions such as: How did it come about? What have been the most significant developments since then? What is the future of banknotes and coins? As the readers of the contributions to this edited book will see, the discourse and practices around *cashless* and *payment* imply wide human, societal, historical and technological trends, many of which have consequences on a global scale.

In its many forms, nuances and variations, the term cashless denotes the “absence of” without actually proposing a solution. Interestingly, it has been embraced throughout the global financial services industry. Replacing cash with payment cards, for instance, has shown to be resilient and broken through geographic, language, religious, and currency borders.<sup>2</sup> More recently, payment cards embody an international strategy

to increase financial inclusion by allowing ready access to financial markets for low income and remote populations located far from economic centres and banks. In this sense, the diffusion and adoption of cashless technologies often lead to increased communication, participation and social support.

Cashless also symbolises technological globalisation. Diffusion of technology matters and very much so in the early twenty-first century, when this book went into print. Cashless technologies provide worldwide payment networks and business solutions, at the same time as payment technologies are continually in development, passing through extended life cycle stages. These developments are not in isolation but take part in an ever-growing global retail payments ecosystem. Through the contributions to this book we place contemporary developments in a long-term context by detailing the computerisation and automation of payments in their historic context, as well as examining how different parts of the world adopted cashless solutions at different speeds and points in time.

Cashless also involves an element of risk—particularly when considering there is no consensus in the way forward while many compete to impose their preferred solution to replace cash. In this book we explain how institutions supporting cashless attempts are often risky ventures. These risks often emerge associated with a lack of legislation, poor strategy, failure in operation, lack of market interest, even fear and uncertainty in the adoption of new technologies. In this edited book we document occasions where cashless technological innovations could not be implemented due to a lack of appropriate legislation, while on other occasions, a lack of a clearly defined regulatory framework had the opposite effect of incentivising trade and commerce to take the initiative and develop its own cashless payment instruments. There were also cases where, ahead of their time, early cashless technologies failed to perform, adding obstacles to implementing visions of the future or causing uncertainty around the technologies that followed. In other instances, it was the banks that rejected the adoption of cashless solutions as it was considered too risky a venture.

Cashless, however, is not an end in itself but it is rather part of a wider payment revolution. In this context, cash is more than simply a method to fulfil a transaction, numeral or store of value as economists' conceptions often suggest. In fact, and at the time of writing, the circulation of cash in many economies is rising. Although customers are increasingly finding

other ways to pay for goods and services, such as payment cards, mobile phones, Internet payments and more, paper money is still popular.

Yet people are not replacing one payment media for another. Rather, they adopt the one that is more suitable for the transaction given a particular context. Paper money is convenient as a medium of exchange, easy to handle, anonymous, reliable and widely accepted. Importantly, cash is more than welcome when other payment methods fail during power outages and natural disasters. At the same time, cash has its own disadvantages, as it is not practical for large transactions. Also, it is difficult to track when it comes to tax collection or law enforcement. This is the sort of complex framework this book deals with when exploring the interaction of technology and on-the-spot purchases.

Before we turn to the subject matter of this book we would like to thank a number of people who helped in this project. First and foremost, all the authors in joining us throughout the journey and particularly Dave Stearns, with whom we conceptualised the original idea. D'Maris Coffman for her advice. Alexandra Morton and Aimee Dibbens at Palgrave for their patience and most excellent support throughout the editorial process. Sophia Michael generously helped with the review and editions while Alexander Zarifis helped with the indexing. Finally, Bangor University and Intercollege Larnaca provided the time and space to bring the project to fruition. In particular, Phil Molyneux, Kostas Nikolopoulos and John Thornton particularly deserve special appreciation given their unconditional support.

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## Notes

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2. Stearns David, '*Electronic Value Exchange: Origins of the VISA Electronic Payment System*', (London, Springer, 2011). Also, Chap. 14 in this book.

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