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Maurer, Bill

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Payment

Forms and Functions of Value Transfer in Contemporary Society

Bill Maurer, University of California, Irvine

Renewed anthropological attention to money and finance is welcome. However, recent attention to the ghosts in the financial machine neglects the infrastructures of payment that make finance possible. Following professionals and policymakers into the clearance and settlement of payments – the means of value transfer – affords insight into an industry hotly contested by new entrants and by a few critics who find in its business model a defiance of market logic. The tolls and fees of private payment infrastructures pose challenges to critical analyses of capitalism as well as to the public interest in payment, even as they are essential to the forms and functions of value transfer. Everyday exchanges are tolled, large-scale transfers are not: the article suggests that payment is a pressing political concern, as well as an analytical one.

Keywords: money, payment, exchange, finance, interchange, infrastructure

‘Interchange’ was originally a term from transit engineering. It refers to a system of routes around an intersection that permits the smooth flow of traffic through it (Figure 1). It is also a term from the payment card industry, but its use there was virtually unknown outside that industry until several anti-trust lawsuits in the late 1970s. This industry has historically gained its profits from fees on transactions. That fee makes a transaction ‘non-par’, the value of the money and the good exchanged being unequal. One of those fees is also called interchange. The Oxford English Dictionary has yet to record this sense of the term. In classic liberal and critical approaches to markets, interchange is hard to figure.¹

Interchange and other such fees are generally invisible to a consumer when using a credit card or other payment technology that is not cash or a paper cheque: a gift card, a pre-paid card, a telephone airtime card or airtime itself, Facebook credits... the list is growing daily, as new technological means of transferring value proliferate. Industry specialists and seminars promote events where you can ‘Join us and 1,000+ innovators in the new money community!’² And interchange may be supplanted soon by the profit some imagine to be mined from consumers’ transactional data: the information on what I purchase and where, not just the fee on the movement of funds from a bank to



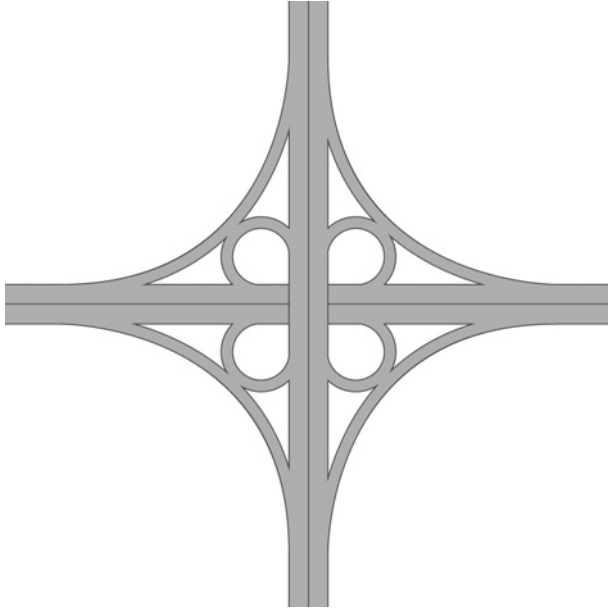


Figure 1: Interchange. Courtesy of Brian Ulaszewski.

a merchant via a card network activated by a piece of plastic and magnetized tape in my wallet.³

Under its entry for ‘interchange’, the OED lists a host of meanings all related to reciprocity, in which one thing substitutes for another within the system of relations that enmeshed the first thing:

The act of exchanging reciprocally; giving and receiving with reciprocity; reciprocal exchange (of commodities, courtesies, ideas, etc.) between two persons or parties.

The change of each of two (or more) things, conditions, etc. for the other, or of one thing, etc. for another; the taking by each of the place or nature of the other.⁴

The use of the term interchange in the payments industry makes sense given the history of clearing houses, where paper slips were ‘interchanged’ for one another to settle credit transactions. But the definitions create familiar if unexpected resonances for the anthropological ear.

This paper is not just another reconsideration of Mauss, however. It is a call for a more nuanced attention to aspects of contemporary money and finance often left to one side in critical theory and anthropology. Turning to payments brings out a neglected side of Mauss, a side that can help obviate attention to the more celebrated aspects of his work and their relevance for contemporary finance (cf. Appadurai 2011, 2012). It also brings out a neglected side of money. Payments can help us see that there is more to money than credit and debt. Money may be a ‘two-sided balance sheet operation’ (Bell 2001:151), in that money is created when a creditor accepts it from a debtor. According

to Minsky ‘everyone can create money’ – that is, everyone can offer a means of payment as an IOU for credit or product or service extended; the problem, he wrote, ‘is to get it accepted’ (Minsky 1986, quoted in Bell 2001:150). Indeed, it is not ‘money’ until someone actually does accept it (Bell 2001:152). The determination of who will accept your IOU in this account is based on the social relations of hierarchy in which one is embedded, with the state assuming the position at the top of the money pyramid. The state’s money is thus the only one accepted for final settlement of debts.

My contribution sits to one side of this argument, however.⁵ For many people in the payments industry with whom I have been conducting fieldwork, that argument is (mostly) beside the point. What they are interested in is not ‘who will accept my IOU?’ but what value can be mined in the act of transferring and settling it. Although they inquire into money, and many think they are remaking it whole, their questions in the course of their work also have to do with this value chain in payments, in clearing and settling others’ debts and not in the credit/debt nexus itself. In fact, at the birth of the payment card networks, it was understood that the business model would not be about credit at all, but about tolls on settlement. As Dee Hock, founder of the VISA network, remembered, ‘It was a revelation then. We were not in the credit card business. ... *We were really in the business of the exchange of monetary value*’ (original emphasis, quoted in Stearns 2011: 45).

There are two related points to my argument. The first is Minsky’s and Bell’s, about getting your money accepted and the changing nature of the social hierarchy of money. Some people involved in payments want to reorganize that hierarchy, replacing the state with private actors. The second is that by introducing tolls on settlement, payments bring to light the excess inherent in any straightforward ‘monetary’ transaction. That excess sits orthogonally to the act of exchange, and defines payment as the work involved in settling an exchange. There’s a lot of money in that orthogonal, and that money is the industry’s inspiration for remaking the hierarchy of money itself.⁶

The stakes are shifting rapidly, too. The payments industry is fracturing. Mobile telecommunications network operators, internet start-ups, mobile phone airtime distributors, social networking services and search engines all issue various types of pre-paid products. Legal tender from one source (a bank account, or physical cash) is surrendered to a third party that converts the cash into some kind of electronic value. That value is then available for transfer to another at the point of sale, online, or over the wireless network. Regulatory changes in the U.S. and EU, meanwhile, are cutting into the fees levied by the traditional networks. Revenue from interchange is dwindling for the major card networks just as hundreds of new start-ups from mobile and computing are entering the game. Those new players are discovering other potential in payments.

I have been conducting fieldwork on emerging payment systems, particularly mobile phone enabled systems that allow for person-to-person transfers of funds, since 2007. It was in that year that my work on the anthropology of finance and money attracted the attention of a couple of anthropologically inclined people working in an information technology company (Intel) and a philanthropic organization (the Bill and Melinda Gates Foundation). Both organizations were interested in new mobile phone enabled financial services. None of us knew at the time that we would become interested in ‘payment’ specifically, much less ‘interchange.’ My colleagues wanted to move the

conversation in IT companies about money away from security and encryption, and toward the social and meaningful uses of money. My colleagues in philanthropy were interested in whether the rapid spread of mobile could be harnessed to provide poor people access to the formal financial sector, which they deemed safer, more reliable and cheaper than informal moneylenders or remittance agents.⁷ Both had taken a keen interest in a service called M-Pesa, a product of the Kenyan mobile network operator, Safaricom. M-Pesa allows clients of Safaricom to send small sums of money to each other via a text message sent over the mobile network. Funds were pre-loaded into a client's account at one of hundreds – now thousands – of M-Pesa agent locations, which were generally also sellers of airtime credits for making voice calls. Recipients then encash the funds sent via text at another agent location (see Mas and Morawczynski 2009; Maurer, Nelms and Rea 2013). A curiosity at the time, M-Pesa grew at a truly phenomenal rate, reaching over half of all Kenyans by 2010 and processing 35 per cent more transactions in 2011 in Kenya alone than were sent over the entire global Western Union wire service in that year.⁸ In the intervening years, over ninety similar so-called mobile money services have sprung up around the world.

The rise of M-Pesa and the beginning of my research coincided also with the onset of the global financial crisis, where, as Appadurai and others have argued, credit reappeared as the shaky foundation and perennial undoing of capitalist finance. I vividly remember a January 2010 meeting on mobile money at the U.S. Federal Reserve in Washington, DC. A government official stood up and said that in the wake of the credit crisis, 'financial innovation' had become a bad word. And yet, with mobile money, he said, 'it is refreshing to be discussing financial innovations that *raise* welfare.'

While this article is primarily a thought piece, it may be helpful to place it in the context of my ongoing fieldwork. This fieldwork has consisted of attending and occasionally speaking at over twenty industry, regulatory, and aid-related conferences and workshops devoted to mobile money, together with thirty formal and scores of informal interviews on five continents with people ranging from payments industry professionals, developers, investors, IT and mobile specialists, product and systems designers, banking and finance professionals, and employees of the major card networks, to consultants, NGO workers, development aid specialists, regulators, other government employees, and more. Some have become friends, and many have become colleagues and collaborators. I have been asked to write letters of reference for some of them; others have helped me write grant proposals and gain access to venues from which I otherwise would have been excluded. Many of us share a fascination with value and money. Not a few of us have participated in alternative currency systems or unconventional property arrangements, and maintain collections of money paraphernalia (vintage bill organizers; mid-twentieth-century charge card imprinters). One tried to live without cash for as long as he could, relying only on digital forms of payment. Another tried to live *only* with cash.⁹ I count myself part of a community that has come up together in and with mobile money.¹⁰

With 'mobile,' we initially imagined ourselves primarily involved in a new offshoot of the mobile telecommunications industry. We wanted to attach this offshoot to banking; some of us referred to mobile money as an 'onramp' to formal banking (see Maurer 2012). What many of us did not realize is that we had been coming hard on the heels

of our predecessors in another industry, the *payments* industry. The payments industry includes the private networks that facilitate global commerce at the retail point of sale, during the ubiquitous, everyday act of handing over an electronic means of payment like a credit card. It wasn't until November 2010 that a small group of us realized we needed to understand things like the card networks and the various interbank clearing systems like the Automated Clearing House (ACH) if we wanted to understand the regulatory, operational, and social aspects of mobile money. We were naive because we were coming at the topic primarily from a mobile network operators' perspective – using what people in the payments industry call a different 'set of rails' on which to run 'payments'. Mobile had not been used to transfer money before. It was a new use for a relatively new network.

Anthropologists have looked at payments of various sorts for many years – including marriage and funeral payments, for example. But when anthropologists have thought about finance and capitalism, they become exchange-centric. The focus on payment is significant for an anthropology long invested in exchange (from the Maussian tradition) and equivalence (from the Marxist or Simmelian traditions). These concerns stand to one side of payment. Payment, as I am using it here and as payments industry professionals use it, refers to *the act and infrastructure of value transfer*, not the creation of that value itself, or even the value of that value. Payment is orthogonal to exchange. To put it in other terms: there may be a pyramid of money, but there is scaffolding and infrastructure extending from each level of the pyramid outwards and inwards, holding it up. My focus is on that infrastructure – or, as payments professionals put it, the portals, rails and plumbing.

Is it 'Money' When...?

Scholars of money may immediately object that in identifying a payment function I am mistaking the nature of money in Aristotelian terms: the classic 'functions of money' issue that has animated inquiry into money forms for millennia. This issue often turns on the twinned problems of the bundling of different functions into one currency object, and the subsequent conundrums over representation thereby posed by that object's ability to signify 'value'. This is a familiar anthropological orientation to money, stretching from Bohannan (1959) onwards (for a review, see Maurer 2006; also Foster 1999; Hart 1999; Guyer 2004; Graeber 2011). Others argue that the nature of money lies not in its supposed functions for exchange, payment or value storage, but rather as a unit of account for the final settlement with the state or political community (Ingham 2004a) and its centrality to a chain of credit relationships whose final settlement, though warranted by the state, is perpetually deferred. Credit and state theories of money wend their way in an alternative tradition that connects Defoe and Keynes, a tradition that tries to temper the 'bewilderment' of credit (Ingham 2004b: 213) with the pragmatic understanding that the 'identification of money as coin, or any other commodity, is a conceptual category error' and that the focus should be on the 'hierarchy of credibility and acceptability by which money is constituted' (ibid.). Still, 'practical metallism' (Ingham 2004b: 212) has powerfully shaped the understandings and circumstances of money. This oscillation between money as commodity and money as credit warranted

by final settlement within a political community shapes the design and the regulatory conundrums of new means of payment. Can you pay your taxes with Facebook credits? (The answer has to be 'no' simply because Facebook has announced it will discontinue the service sometime in 2012.) Will government deposit insurance protect pre-paid accounts held on behalf of consumers by mobile network operators? (Maybe soon.)

This level of specificity here is important: one needs to get into the technicalities of money, credit and payment in order to get at the status of value forms in practice.¹¹ At the same time, however, my object may seem inconsequential. Certainly, cash is still king, and deposits in bank accounts are the basis of the money that makes the world go round, and the financial crisis signals the centrality of finance itself to the global economic order. So, anthropologists pivot toward financialization. Although some of us have been labouring in that garden for some time, we are newly told that we should all be writing about finance, derivatives, abstraction, complex market devices that brought the world to ruin. Yet pre-paid instruments are occupying a growing portion of the payments industry, especially in the wake of the global financial crisis that began in 2008, and as online and mobile computing transform the nature of purchase and payment around the world. And you can't have finance without the act of value transfer – payment, the seemingly small, mundane little technicality that sets the world of finance, high and low, in motion.

In addition, the products and services I am discussing in this paper might at first brush seem obscure. Payments industry specialists – regulators and industry experts alike – have referred to themselves as 'payments geeks', acknowledging with some pride the arcane nature of their expertise. And yet almost every day, every reader of this article will likely make use of a payment instrument other than cash, coin or paper cheque: they will purchase coffee with a pre-paid card, receive loyalty points at the supermarket, use a credit card for an online purchase, log into World of Warcraft and use its virtual 'gold' to purchase a sword in the game.

Consider one specific 'use case' of a payment device: what happens if someone sends, say, Facebook credits to a merchant to purchase a game for his mobile phone? What happens if someone else uses Facebook credits to purchase a voucher she prints out and uses to pay a merchant for the purchase of a 'real' good? Although Facebook 'credits' as such are being discontinued from the third fiscal quarter of 2012, the example remains germane to the policy and ethnographic milieu because it is a brand-name online payment system familiar to many in the payments industry – and on which several other services are modelled.

'Is it money, or is it a value-add?' This was an informant's question to me, as we were working out this very question from a regulatory point of view. It could sound nonsensical. How could one thing be confused for either of these two things? How could one thing be seen to stand in the relations that the other occupies? Money – the commodity version – is a means of exchange. 'Value-add' is the difference between production cost and sales price, or, in the Marxist tradition, surplus value. In a marketing context, value-add also refers to the features of a product that differentiate it. The question has come up repeatedly in my fieldwork when payments professionals and regulators have to determine how to treat the use of an electronic currency on a mobile device.

The scale and significance of revenue collected from value transfer generally goes unrecognized outside of the industry. Social science has been virtually silent on it, except for legal scholars and others who work on credit card networks, bank clearing and settlement functions, checking, and so forth. Payment systems law has been called 'perhaps the most esoteric topic in the already esoteric world of commercial law' (Porter 2008: 1168). However, according to several estimates, the size of the payments industry now surpasses biotech, Hollywood, and global venture capital investment, as well as the airline and lodging industries (Levitin 2008: 1323–1324, Brown 2009: 130).

The size of the industry aside, however, what makes it interesting is that the value chain in value transfer – the market in payments – complicates social scientific accounts of money and finance. Payments exist almost as Mauss (1923–4) described for the commonplace exchanges (*gimwali*) that took place alongside *kula*. There is a double parallelism here. In terms of form, payment is to *kula* as money and finance are to *gimwali* alongside the *kula*: both payment and *kula* seem to operate outside the market mechanism, in a realm of obligation, rent, fee, and toll instead of supply, demand, and price. In terms of ideological or symbolic importance, however, payment is to *gimwali* as money and finance are to *kula*: the latter pair is supposedly where the action is, the former pair is a sideshow.

With new forms of payment like online, social media currencies, however, even payments professionals have to stop and ask themselves the question from time to time: what is it that we are seeing, making, doing? 'What is it?' Or, as one put it to me, 'When is it ... money?' and, again, 'Is it "money" when you...?' The instigation for these questions was the purchase of 'virtual' goods using an online 'currency' versus the purchase of 'real' goods. The context was a concern over financial monitoring: how can financial regulators get a handle on the volume of payments taking place through new technological devices and channels? The concern was for monetary policy: how can a financial regulator know the volume of money in circulation now, if certain forms of 'money' are instantiated in virtual coupons exchanged within environments that do not touch the mainstream financial and banking structure: for example, when airtime minutes are transferred from one person's mobile phone to another, when Facebook credits move from 'friend' to 'friend' in the context of online game play. The concern was also for financial system integrity, the maintenance of the trust in the entire system that supposedly derives from the knowledge that it is not being used for fraudulent purposes, or that it is not being hijacked by anyone seeking to disguise the origins and movements of their funds by using new channels outside the regulated and reportable financial sector.

So, the question before my colleagues was: Is it money when you purchase a game or ringtone for your phone? And is it money when you purchase a physical-world good, or 'cash out' your credits somehow – licitly, illicitly, informally, however you might do so? In a directive circulated among regulators and industry professionals around the world, including those interested in mobile payments, the European Union had decided:

The definition of [electronic money] should cover all situations where the payment service provider issues a pre-paid stored value in exchange for funds, which can be used for payment purposes because it is accepted by third persons as payment. (Directive 2009/110/EC, section 7)

The definition here harks back to the hierarchy of money. But it is not always the regulators, as agents of the state, who bolster that hierarchy. Under heavy pressure from the mobile telecommunications industry, the EU also specifically *exempted* ‘money’ used to purchase certain ‘digital goods’ from the definition of electronic money:

[T]his Directive [does] not apply to monetary value that is used to purchase digital goods or services, where, by virtue of the nature of the good or service, the operator adds intrinsic value to it ... This is a situation where a mobile phone or other digital network subscriber pays the network operator directly and there is neither a direct payment relationship nor a direct debtor-creditor relationship between the network subscriber and any third-party supplier of goods or services delivered as part of the transaction. (Ibid: section 6)

Mobile network operators wanted to be exempted from the definition of money to escape added regulation. In the process, though, they opened the door to a ‘money’ that is not money. It is ‘monetary value,’ separate from ‘money.’ The electronic value adds value – constitutes value-add – to an existing device or service. Only when it comes out of the system and off the device, does it become money. State and credit theorists of money should remark: ‘Naturally, since as long as the value remains in the system, so to speak, it can never exit to serve for final settlement of a claim with a creditor or the state, so it is not money.’ However, ethnographically, the confusion over commodity versus credit money very much inspires the conversations about and the design of new payment systems. And politically, some system designers imagine a world *where the value never leaves the system at all*, deferring indefinitely any settling of accounts, collecting rents all along the way, becoming the final arbiter of payment and thereby privatizing payment and money.

First, we have a payment that is not a payment: I purchase Facebook credits using funds from my bank account, let’s say. When I then purchase items in Farmville, a game within the Facebook platform, for use on my mobile phone, I am adding a value-added service to my existing Facebook service, and to my mobile device. This is not money, and it is not a payment. It is outside the relations of money and payment. So what is it?

Second, value has to be stored somewhere when I exchange funds in my bank account for a virtual currency, for electronic value. Where and how is that value stored? Practice varies but the regulations are generally clear, in the EU, U.S., and in countries with mobile money services. The funds backing electronic value are generally pooled (funds from different clients mingled together and not separated or registered by individual account holder), and segregated from the electronic value issuer’s operating capital. In the EU:

The issuance of electronic money does not constitute a deposit-taking activity ... in view of its specific character as an electronic surrogate for coins and banknotes, which is to be *used for making payments*, usually of limited amount and *not as means of saving*. Electronic money institutions *should not be allowed to grant credit* from the funds received or held for the purpose of issuing electronic money. Electronic money issuers *should not, moreover, be allowed to grant interest* or any other benefit unless those benefits are not related to the length of time during which the electronic money holder holds electronic money. (Directive 2009/110/EC, section 13, emphasis added)

The string of negatives is striking, yet a positive definition becomes difficult to set. The funds I use to buy an online currency or other virtual pre-paid stored value instrument like airtime do *not* constitute a deposit; the funds cannot be used as a means of savings and I cannot get interest on it.

So, it is not a deposit, not a store of wealth. And it is not a store of wealth for me, or for the issuer, who is not allowed to intermediate the funds or use them for operating expenses. It is not, therefore, capital – for anyone. If I am the user, I get to buy online games, ringtones, airtime. I might get to buy physical-world goods, too, in which case my electronic value undertakes a miraculous transformation into money. But if I am the issuer: what is in it for me?

On Payment

Historically, private property rights have not attached to the infrastructure of exchange.

Nobody owns the system of making payments by writing, presenting, and clearing paper checks. Nobody owns the apparatus of paper currency as a medium of exchange.

Nobody owns the general concept of paying and selling by means of a payment card system. (Fram, Radin and Brown 1999: paragraph 114)

Consider an everyday purchase. You go to a market. You offer money to a vendor in exchange for goods. You provide an amount of money equivalent to the price demanded by the vendor. If you disagree with the amount, you can haggle, you can compare prices with those offered by other vendors. Demand, supply, the price mechanism. This is the stuff of all manner of political economic Robinsonades. The transaction is the line between M and C in Marx's classic formulae. But if you use a credit card, what happens then?

It is an often overlooked fact that the exchange of goods or services for money in today's world often does not occur at par. Merchants generally bear the cost of accepting all alternative forms of payment besides cash or cheques. For the US\$100 that I offer to a merchant, he receives a net of around \$97 after paying the merchant discount, a fee comprised of a number of parts, the largest of which is usually interchange, with an additional *ad valorem* component based on the purchase price. Merchants pay the merchant discount in exchange for enhanced sales and convenience.

In the case of online credits, there is a fee levied on merchants, too: for Facebook credits and iTunes, the portion taken by the electronic-value issuer is 30 per cent. The 30/70 split in revenue for online and mobile pre-paid credits of various kinds is becoming the industry standard, though it was originally arbitrarily set by Apple (there are apocryphal stories about this, but that is for another article). For a dollar's worth of Facebook credits used to purchase items in a game from Zynga (Farmville's developer), Zynga gets 70 cents. And, incidentally, Facebook will still take its 30 per cent cut from game developers for all transactions made through its payments platform even after Facebook credits are retired. *This* is where the money is. This is not news in the payments industry, of course, but it would do well for social scientists of money and finance to pay attention to it. As with interchange in the card networks, the exaction of a toll on the means of value transfer generates a huge revenue stream. It is a revenue stream based on a *toll on the means of value transfer*, on the means of *payment*, that

renders that payment a *non-par transaction, non-equivalent to the market price* of the good purchased with the payment.¹²

Par clearance during exchange was, in earlier days, a monumental technical and political achievement. One of the slow victories of the U.S. Federal Reserve was to gradually chip away at the non-par clearance of paper cheques, that is, the practice of deducting exchange charges from cheques' face value. Non-par cheque clearance created a value chain within the act of payment. Fees were levied, based not on float or the leveraging of bank paper as capital, but instead for the act of clearing. Non-par banks argued that the expense of clearing cheques from more distant U.S. states justified charging exchange fees. Their congressional representatives also argued that the Federal Reserve's effort to stamp out the practice was an attack on 'states' rights' by an overreaching federal authority. Said one banker before the U.S. House of Representatives in 1944: '[The non-par bank] should not die, for with it will go the last bastion of States' rights, and freedom should shriek from its fall!' (Miller 1949:124). It is perhaps not a surprise, given this rhetoric, that non-par banking was mostly focused in the states of the former Confederacy (Miller 1949).¹³

But exchange charges on cheques could not be justified, economically or pragmatically, in the wake of the Federal Reserve (Stearns 2011). With the centralization of Federal Reserve Banks throughout the country, the costs of transporting currency and paper were diminished and were absorbed by the Reserve banks themselves. The Fed – in effect, creating a public infrastructure for cheque clearance and currency reserves – eliminated the justification for interchange. Par clearance was instituted by the political decision and the technical operations involved in asserting the non-ownership of the means of value transfer. No one would own payments; the value chain in payment was cut. Even today, payments industry professionals refer to cash and cheques as 'virtual' payment systems because no one 'owns' them.

The early charge card systems – Diners Club in 1948, Carte Blanche, American Express and BankAmericard by 1960 – were the first twentieth-century forays into privately owned payment systems. It was not until the 1970s, however, when the major card networks Visa and MasterCard were coming into being, that something like non-par clearing of payments started attracting the attention of merchants and regulators. Claiming that they were recouping the costs of clearing paper credit slips between banks that acquired payment orders from merchants, where the cards had been used, and the banks that issued credit cards, the card networks assessed a number of fees, including 'interchange', on card transactions.

David Evans and Richard Schmalensee (2005) note that there has been very little scholarly attention to credit and debit interchange fees. The term was unknown outside Visa and MasterCard until 1979, when the first of several major anti-trust lawsuits (the *NaBanco* case) was filed against the card networks. After the first such case was decided in favour of Visa, however, interchange again faded from view. Evans and Schmalensee write that the 'topic languished in obscurity until around the turn of this century' (2005: 3). By then, we had the dramatic increase in the use of credit and debit, the innovation of online payments using cards, and payment cards had become one of the fastest growing expenses for businesses (Levitin 2007: 429).

Interchange started to become interesting for another reason, too. As Evans and Schmalensee note, ‘understanding their determination and effect is *intellectually challenging*’ (2005: 4). Why is it so challenging? Because in classic liberal and critical approaches to markets, it is hard to figure out these fees. Both in litigation and academic writing, lawyers and legal scholars have pondered the peculiarities of payment cards. This is a ‘two-sided market’, where card networks face both merchants and banks as their customers and the network provides a *platform* more than a specific product, an *infrastructure* that brings players together in a new, networked market.

The platform has two kinds of customers: banks and merchants. The banks are themselves of two kinds: the issuing bank which issues a card to a consumer, and the acquiring bank which processes card transactions for a merchant. The platform facilitates settlement between the acquirer and the issuer. The merchant and the consumer pay the cost of the transaction, the merchant through interchange, and the consumer through the passed-on cost of interchange plus whatever other fees the platform or its client, the issuing bank, might charge (an annual membership fee, for example). But it is important to remember that the platform’s customers are neither the merchant nor the consumer, but the issuing and acquiring banks.

If interchange is a price, then of what is it the price? Who is selling something here? The issuing bank is selling access to the consumer’s account. The merchant is buying access to that account via the acquiring bank. But how is the price of access determined? The platform or card network sets the price. And who is the card network’s customer? The issuing bank. (Look in your wallet at your credit card: the bank named on the card is the network’s real customer, not you.) If the issuing bank does not issue the card, then the card network does not receive any revenue in the form of fees. In short, then, the platform, the card network in this example, is setting the price that the platform’s customer – the issuing bank – will receive from the merchant via the acquiring bank. Let’s now imagine an environment where a lot of issuers are competing for business. Every bank wants to issue me with a credit card, and I can choose from Visa, MasterCard or another branded network. What does the card network do to attract issuers to its product? It raises the price paid by merchants. ‘Competition for issuance *raises* prices’, a payments industry expert instructed me; it does not lower them, the way one would expect with a market mechanism. The merchant, who actually pays that price, cannot bargain or negotiate. If he wants to be able to accept payment cards, he has to agree to this arrangement. So, the network sets the price that the network’s customer – the issuing bank – receives, not the price that it will pay for a service.

Private card network rules govern payment card transactions. Among these is the ‘honour all cards’ rule, which states that if a merchant accepts one payment card he must accept all co-branded cards: he cannot choose to accept cards for which lower interchange is being assessed. This has been challenged several times in anti-trust lawsuits. But the ‘honour all cards’ rule is another interesting element in the interchange market: it helps prevent competition among cards based on the price that the consumer pays at the point of sale. As Levitin writes, this helps issuers avoid ‘commoditization’ – ‘where sellers compete solely on the basis of price for the sale of individual products’ (Levitin 2008: 1360).

For some critics of payment cards, the question then arises as to whether such a platform can properly be considered a private commodity. What is interesting to me is that platform owners ask the same question and come up with the same answer: No. But they do not do so in favour of some notion of public infrastructure or in favour of the idea that card networks are like common carriers. What they provide is not to be commoditized, but it is not to be considered a public good either. It is instead another kind of beast entirely, sitting alongside and constituting the market economy, next to finance, athwart money.¹⁴

It is interesting that since the *NaBanco* case, which stretched from 1979 until 1986, the card networks have generally opted to settle lawsuits rather than fight claims in court. The most telling was the settlement in the so-called Wal-Mart case.¹⁵ Wal-Mart and other merchants argued that the card networks were engaged in anti-competitive price fixing; that the 'honour all cards' rule was an instance of collusion; and that the differential interchange for debit and credit card was unjustified given the radically different risks and costs associated with each. This last argument was especially important as use of debit had increased dramatically in the late 1990s and early 2000s.

Credit cards involve the risk of credit loss, obviously: some cardholders will default. Interchange does not, however, make up for this loss: the courts and the card networks have made clear that credit loss is not to be passed on as a cost of doing business via interchange. Rather, the argument has been that interchange compensates for the 'cost of funds' (COF) or the time-value of money. In a credit card transaction, the issuing bank pays the merchant the next day. But the issuing bank does not receive payment from the card holder for thirty days. The issuer makes the bargain that the card holder will not pay off the balance at the end of the month, but will pay an installment, incurring an interest charge which more than compensates for the loss of the funds for those thirty days. But when a card holder pays off the balance in full at the end of those thirty days, the issuing bank has lost the use of the funds for thirty days and has had no opportunity to earn interest. In effect, 'credit' never made its appearance: the money extended to the card holder never entered into the bank's ability to leverage debt to create interest-bearing capital. This 'cost of funds', therefore, is included in the interchange calculation. Or so the card networks argued.

However, Wal-Mart and other merchants noted that COF was also included in the interchange calculation for debit. Unlike credit, there is no risk of credit loss with debit – debit is linked directly to a person's bank account balance. There is no credit risk. And debit payments settle either within seconds (for PIN debit) or within 1–3 days (for signature debit). In other words, there is no COF. This is what Wal-Mart demonstrated, and Visa settled out of court. Subsequently, the U.S. Congress and the European Union's Single Euro Payment Area (SEPA) took up the issue of reducing interchange on debit card purchases, as debit cards became a major growth industry in payments, accounting for almost 25 per cent of all transaction volume in the U.S. by 2009.

Again, then: what kind of relation is interchange?

Interchange

As I noted earlier, the OED does not record the payments industry sense of the term interchange. Instead, it lists a host of meanings related to reciprocity. In particular, interchange refers to a reciprocal exchange in which one thing takes the place of another thing, and thereby stands in relation to the things around it as did the object or entity for which it was exchanged. One thing substitutes for another within the system of relations that enmeshed the first thing. The transit metaphor is a good one for payments, however: in transit contexts the term references the engineering of routes for vehicles so as to permit the flow of traffic through or around junctions.

What the acquirer and issuer do in the act of interchange is what two railcars do. They cross without touching the M–C–M' equation: they allow a pass-through to take place. According to the critics (e.g., Levitin 2008), the card network fixes a price for the pass-through. It is not based on the market mechanism determining price but is instead an arbitrary levy on passage: a bridge toll, but a bridge toll collected by private entities on what had heretofore been – at least since the consolidation of national currencies – a public infrastructure.¹⁶

Interchange has no place in classic or critical accounts of modern political economy. In the *Wealth of Nations*, Adam Smith briefly mentions fees charged by the city of Amsterdam at Amsterdam banks for opening accounts, transferring funds and other services. He noted that the amounts collected through such fees had become considerable, but that this was essentially an 'accidental' revenue stream which, though profitable, was incidental to the main operations of the bank itself. The levying of such fees, he wrote, was supposed to serve the interests of 'public utility', to help facilitate clearance and settlement for the bankers. This was, we note, revenue that accrued to the public coffer, not the bank.¹⁷

Several of my interlocutors have directed me to Alexander Hamilton (c.1756–1804), one of the founding fathers of the American Republic. Hamilton was the architect of the first Bank of the United States and, with James Madison and John Jay, author of the *Federalist Papers* (see, e.g., Morris 1987). My informants cite Federalist 44 on the topic of the federal state's establishment of a public means of payment as crucial to the functioning of the republic.

Many anthropologists are more likely to pick up Marx or Weber than either Smith or the *Federalist Papers*, however. Due to space constraints, I limit myself to Marx. The section of *Capital* on the 'Means of payment' means to lay bare the relationships of credit at the heart of commodity exchange. Central to Marx's account is the fact that not all payments settle when they are promised.

[T]he quantity of money in circulation no longer corresponds with the mass of commodities in circulation during a given period, such as a day. Money which represents commodities long since withdrawn from circulation [i.e., those 'paid for' on credit in the past] continues to circulate. Commodities circulate, but their equivalent in money does not appear until some future date. Moreover, the debts contracted each day, and the payments falling due on the same day, are entirely incommensurable magnitudes. (Marx 1901, vol. I: 237)

A lengthy footnote follows: Marx quotes from an anonymous author on the workings of deferred payment that create a 'mass of liabilities', all due to settle on indefinite dates in the future. Marx's subsequent discussion concerns the perturbations in the credit system created by these varying settlement dates, and leads him to conclude that: 'The development of money as a means of payment also makes it necessary to accumulate it in preparation for the days when the sums which are owing fall due' (ibid.: 239). Chapter 33 of *Capital*, volume III similarly takes up the effect of the credit system on money as a means of payment – as credit. Marx makes no mention of any fees collected for clearance and settlement. What mattered to him was deferred payment generating more money in circulation than the sum total of commodities at any given time. This was the essence of the transformation of labour power into capital, and of capital accumulation. This is also in accord with some of the credit theories of money mentioned earlier in this article.

Famously, Marx wrote:

The consumption of labour-power is completed, as in the case of every other commodity, outside the limits of the market or of the sphere of circulation. Accompanied by Mr. Moneybags and by the possessor of labour-power, *we therefore take leave for a time of this noisy sphere*, where everything takes place on the surface and in view of all men, and follow them both into the hidden abode of production. (1901, vol. I:195, emphasis added)

It should be clear by now that I am arguing for attention to the whole world going on alongside, underneath, rhizomatically extending below, the M–C–M' formula, astride credit, never touching it so as to interrupt its flow but channelling it and other payments and collecting tolls along the way. For Marx and other nineteenth-century analysts of political economy, it was important to understand the relationship between money as specie and the consolidation of bills of exchange and bank notes as methods of payment. Bills of exchange were dominant for long-distance trade, after all. Marx was writing in a time before the consolidation of national currencies (see Helleiner 2003) and in a world where there were many coexisting forms of money, not all of which entered into the credit nexus (from tobacco, to leather, to specie, lottery tickets, non-bank issued notes, etc.; see Nyquist 1995). One might argue, yes, but surely the rise of capitalism renders those other forms of money, those other relations, marginal to the main act, if not themselves articulated in some way to the capitalist processes of accumulation broadly defined.

The consolidation of the money-form was a state project, however. In the U.S., the clearance of bank cheques at par represented a huge political and economic accomplishment – an accomplishment of the Federal Reserve, which if anything made Marx's account of the credit system more true by eliminating much of the noise accompanying it. Defenders of non-par banking had to go through unusual contortions to come to its aid, arguing that it was not a form of hidden interest, or that it was a legitimate fee for service, even after it became clear, with regional Reserve Banks, that that service was unnecessary.

But today, with interchange, those subterranean relations can become visible again, can reassert themselves, can grow to the point where interchange expenses take up 50 per cent of the profits of certain classes of merchants (Levitin 2007);¹⁸ where the

payments industry grows to become a sector in its own right; when cash purchases at the point of sale are increasingly overtaken by plastic; and where new, privately owned means of value transfer can assess a 30 per cent toll on transactions while removing themselves altogether from the realm of (public) money.

And one must remain cognizant of the recent phenomenal growth of the use of debit, instead of credit, and pre-paid payment instruments, where there is no cost of funds, where the payment is settled either instantaneously or the very next day. The day of reckoning of the credit system so colourfully described by Marx does not come for debit. The card networks' refusal to fight in court and the difficulty of explaining in standard economic terms the pricing of debit interchange are further evidence of the oddity, from a capitalogocentric (Gibson-Graham 2006) perspective, of interchange.

Conclusion: Alternative Interchanges

It is crucial to reiterate that what people make money from in payments is not money in its 'store of wealth' aspect. This is not capital, credit, or debt. 'Stored value' has even been regulated away in the U.S. and in the E.U., as noted above (see Maurer 2013). Regulations often specifically prohibit intermediation or leveraging of funds along the payment processing chain. In emerging mobile money services in places like Kenya and Afghanistan, the float is held in a trust account – sometimes several trust accounts, spread over a number of banks in case of bank failure or corruption – and is segregated from the service provider's operating capital. What people make money from in payments is rent, a toll, a fee that is not reflective of a market price. What is being profited from is money-in-exchange, as a 'soft currency' (Guyer 2012), for everyday payments.

There is by now a body of excellent ethnographic scholarship on financial professionals, techniques and settings, how they reshape sociality and space, how they figure and refigure time, how they operate in mundane and sometimes mystical milieux (see Maurer 2005b for a review; also Hart 2012). But as several anthropologists of finance have recently noted (Riles 2010; Roitman n.d.), some of the new social studies of finance that are less ethnographically informed, that are based less on interaction with actual finance professionals or spaces outside of one's everyday experiences or commitments to critical theory, can overstate certain conventional claims. Thus, Riles notes that critical perspectives on dominant modes of finance tend to 'play to' popular conceptions of 'virtual' money, 'infinite circulation', 'gambling' and 'acceleration' (Riles 2010: 795). Roitman writes that the analytical conceit of 'crisis' often assumed in such reflections on finance or the economy more generally – a conceit borne of a theoretical commitment to teleological determinism, or to a crude dialectic – is itself oxymoronic. One cannot continually maintain a position that capitalism is permanently in crisis without denaturing the very term, sucking it of analytical purchase, without oneself participating in a new form of mysticism.

Roitman notes a theoretical contradiction. Riles sees an ethnographic opportunity. Getting away from the trading room floors, from the technological devices that themselves bedazzle even as we attempt to open their black boxes, Riles urges us to attend to what is on 'the margins – collateral to – the trading room' (Riles 2010:

796). For Riles, these collateral knowledges include the humdrum legal knowledge practices of contract and regulation. For me, they include the realm of the payments geeks. In a related argument, Jane Guyer (2012) points out that the focus on money as a store of wealth and as participating in long-term temporal cycles of credit and finance leads analysts to understate the means of exchange and payment function and money's multiplicity in the near-term, and in cash economies. There are over 180 national currencies currently in circulation, and only a handful serve as reserve currencies warranted by strong states. This handful of hard currencies has provided the parameters for models of money, including critical theory on capital, finance, abstraction and fiction. But empirically, the world is a more complicated place, a place of 'soft currencies', used in unstable contexts, short time horizons, in constant if fuzzy conversion into other forms of 'cash' (Guyer 2012).

I place the word 'cash' in quotation marks to call attention to its referent in the material practices of storing and exchanging short-term moneys. Cash originally indicated the cashier's box into which money would be placed for short-term storage, the implication being that the money had to be held safe but not that the money would be stored for all eternity: bringing a receipt for payment, one would exchange a paper note for a currency note out of the cash box, 'cash' a cheque, and so forth (Maurer 2011b). What matters for collateral knowledges and soft currencies are the contexts of their enactment and use. Far from being the virtual fictions of the popular and critical imagination, they are always linked to positional differences (of subjects, of currencies, of objects: Guyer 2012) and the pragmatic unfoldings of their use in different contexts.¹⁹

There is a telling elision in the English translation to Marcel Mauss's classic, *The Gift*. In a footnote in the section on Hindu law, Mauss wrote:

Nous ne voulons pas lire non plus que le contrat n'ait eu dans l'Inde que cette origine, partie réelle, partie personnelle et partie formelle de la transmission des biens, et que l'Inde n'ait pas connu d'autres formes d'obligations, par exemple le quasi-délit. Nous ne cherchons à démontrer que ceci: la subsistance, à côté de ces droits, d'un autre droit, d'une autre économie et d'une autre mentalité. (Mauss 1923–1924: 142)

The English translator abbreviates the last sentence: 'We seek only to show the existence, beside these laws, of another system' (Mauss 1967:123, Cunison translation). A more literal translation of the final sentence might be:

We seek to demonstrate this: the persistence, alongside these laws, of another law, another economy, and another mentality.

This footnote is one of the two main passages where Mauss used the expression *à côté de* – side by side with, alongside or next to – in a substantive fashion. This instance is admittedly minor. The other, more significant passage, comes in the section on the *kula*, the famous Trobriand gift exchange of shell valuables documented by Malinowski. Mauss wanted to make clear that the *kula* provides the occasion for a host of other exchanges, more mundane in character: '[A]ll the *kula* provide the occasion for *gimwali*, commonplace exchanges' (ibid.: 27). And these are 'extremely diverse in scope' (ibid.).

Another meaning of interchange from the OED is:

Alternate or varied succession in time, order, or space; alternation, vicissitude. (OED)

Central to Mauss's analysis of the gift are the alternatives that sit beside it, and that, as he argued and many commentators on *The Gift* have affirmed, alongside our market economy runs another, an economy of regard and relations. This is not a new argument. What is new, to my mind, is that the view Mauss affords opens out onto myriad alternatives: times, orders, and spaces which turn out to be absolutely integral to the forms and functions of all value exchange in contemporary society. I am arguing that these may be far more significant analytically and politically than the fictions of finance that have received so much critical attention in the wake of the financial crisis. These are the mundane, subterranean practices of payment. And, equally crucially, they are engaged in battle with each other: private players against each other, and against the still-dominant public goods of cash, cheque, and par clearance. In the world of private payment, money-as-exchange is subject to a toll. In the world of public payment, cash still passes hand to hand. One might imagine an alternative world in which money-as-wealth is levied a similar toll, or where the massive exchanges of money-as-capital in the financial markets are assessed a fee. This is the proposal of those supporting a 'Tobin Tax' (Tobin 1978). That would represent a new set of relations in place of the old: *interchange*, indeed.

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Notes

1. By liberal, I refer to the classical economic and classical liberal traditions; by critical, I refer to the Marxist tradition but also the related moral arguments around if not always against trade, speculation and exchange, from Aristotle to Appadurai.
2. Email to author from Money2020 organizing committee, 1 June 2012.

3. This article is about the retail payments industry: consumer-facing mechanisms for making everyday retail payments at a point of sale or online or via other electronic device. The only discussion I know in anthropology of the wholesale payments industry that facilitates payment and settlement between banks is Riles 2011. See also Maurer 1999. A recent excellent science and technology studies account of payments infrastructure is Stearns 2011.
4. Oxford English Dictionary, 'interchange, n.', Second edition, 1989; online version September 2011. <<http://www.oed.com/view/Entry/97600>> (accessed 29 November 2011). Earlier version first published in *New English Dictionary*, 1900.
5. Being 'to one side' figures centrally here, as it has in my other work (Maurer 2005a; see also Gad 2012; Zhan 2012; Helmreich 2011; Jensen and Winthereik 2012).
6. I am grateful for an anonymous reviewer's effort to get me to clarify this point and for the reference to Bell 2001.
7. The terms informal and formal here should be understood, like interchange, as emic.
8. Data compiled by the author from Western Union and Safaricom annual reports.
9. The first experiment ended when New York cabdrivers consistently gave him grief for wanting to use a credit card; interchange fees eat into cab drivers' low margins. The second experiment ended when she wanted to rent a car.
10. To the point where I have become one of the 'mobile money intellectuals' described in Maurer 2011b. See Maurer 2011a for an example of the kind of contribution I have tried to make within mobile payments.
11. I thank Janet Roitman for this phrasing. For a related argument about pragmatism and value, see Muniesa 2011.
12. If the high margin for using such credits is simply for access to a distribution channel *as well as* or *incidentally* a payment service, as an anonymous Cambridge economist suggested in comments on this article, then there is nothing necessarily interesting here. But when the aim of system designers is to become the primary means of payment for physical-world goods, services and for accounts-settlement, then we do have something different. If, next, the goal is to forget about interchange and focus on the transactional data in every real-world purchase, a bridging of the gap between actual and virtual world economies and societies will have been effected (Boellstorff 2012).
13. For Miller's map, see <<http://www.charisma-network.net/finance/how-can-you-see-money-moving>> (accessed 1 July 2012).
14. See Helmreich 2009: 23.
15. *In re Visa Check/Mastermoney Antitrust Litigation*, No. 96-CV-5238, 2003 WL 1712568 (E.D.N.Y., 1 April 2003).
16. Riles notes in her discussion of the transition from one wholesale settlement system to another that market participants had to be made to understand and act as if the market were a public good (2011: 234). This was Alexander Hamilton's aim, and finds expression further back in eighteenth-century debates about credit and speculation: tempered by honesty, trust and open account books, there was no reason to fear credit (see Pocock 1985). Daniel Defoe's pragmatic realism concerning paper credit is useful for underscoring the *political* foundation of the current early twenty-first-century situation, and the need for honesty to mitigate epistemological uncertainty (the terms are Sandra Sherman's, 1997: 328) rather than seeking to abolish uncertainty with the seeming substantialism of commodity money, the abolition of speculation, or the unfettering altogether of 'the market'. Honesty and not, importantly, reputation (Sherman 1997: 343), Defoe argued, should militate against the more fantastic and fatalistic spectres of credit. I am grateful to Julia Elyachar and Tomaz Mastnak for discussions on this issue.
17. 'The city of Amsterdam derives a considerable revenue from the bank. Besides what may be called the warehouse-rent above mentioned, each person, upon first opening an account with the bank, pays a fee of ten guilders; and for every new account three guilders three stivers; for every transfer two stivers; and if the transfer is for less than three hundred guilders, six stivers ... Public utility, ... and not revenue, was the original object of this institution. ... The revenue which has arisen from it was unforeseen, and may be considered as accidental' (Smith 1843: 198, IV.3.29).
18. The U.S. and EU in the past two years have sought to rein in interchange fees through legislation and regulation, a topic for another paper. A new shift may be on the horizon. At an industry forum in Spring 2012, a prominent digital money figure proclaimed: 'over the 5-10 year term as interchange and similar fees approach zero, transactional advertising will be a major source of payment profit. If you

haven't been an advertising person yet, you will be.' So from float and credit to fees to ... data mining. The return of the metallist metaphor promises fodder for the anthropologist of finance.

19. See Appadurai 2011. Payment is not 'external to and prior to any and all of its distinctive devices' (ibid.: 519) and payment stream revenues are not 'gambles' at all (ibid.: 521); there is little of the 'spirit of uncertainty' (ibid.: 522) when you know you can collect 30 per cent on every transaction. Hence, perhaps, the strenuous resistance from financial professionals to a similarly certain revenue stream to be generated by a toll on large-scale transactions – a Tobin Tax – not just everyday small-scale transactions. Neither interchange nor a Tobin Tax would have 'risk at its very heart' (ibid.: 522).

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Bill Maurer is Professor of Anthropology and Law at the University of California, Irvine. His publications include *Recharting the Caribbean: Land, Law and Citizenship in the British Virgin Islands* (Michigan, 1997), *Mutual Life, Limited: Islamic Banking, Alternative Currencies, Lateral Reason* (Princeton, 2005), and *Pious Property: Islamic Mortgages in the United States* (Russell Sage, 2006).