Section 2. Expansive prosthetics funded with merchant credit money creation

Merchant credit money creation

Trade as inventor of facilitations of trade

In a commercial deal, both parties cooperate to expedite its execution. The buyer wants the delivery of the goods as quickly as possible. And, if the seller can be secure to receive the purchase price, he will also support the buyer to become liquid again as quickly as possible. Merchants developed several techniques particularly addressed to further this goal. In fact, they were the first to create credit money, merchant credit money. It all begins with the debt moment that is already present in the simplest exchange contract. We start with this moment and see how merchants worked it out into a classic form of securitization.

A transactional analysis of exchange reveals that the parties must, before they factually exchange commodities against money, already be legally bound to carry through the exchange, as jurists say "a logical second" in advance. This avoids the possibility that a party can change its mind in the middle of the process; e.g., if the commodity is handed over before the payment, then the buyer can no longer say "I don't want it" or "I take it only as a gift", etc. The theoretical distinction between the closure of binding contractual obligations and their fulfillment even exists if the commodity and the money are exchanged instantly when the purchase contract is closed.

Legal claims as genes of merchant credit money

Beginning from this point, the parties may stipulate the lapse of a shorter or longer time between creation and fulfilment of the legal obligation. If the delivery of the commodity comes first, its use by the buyer may, thereby, be de-coupled from the payment by the buyer. *This trivial legal option of dated payment already has macroeconomic potential*; it opens up the possibility for a purchaser to receive a commodity today, even if he does not have the money yet. Received commodities can, thus, already be further forwarded or processed by the buyer before they are paid for and this expedites the circuits of the economy and employment, albeit only by a small margin. The silver coins for a payment by a Spaniard to a merchant in Rotterdam may still be on a ship from the Americas to Sevilla, but if the Spanish buyer is regarded as being solvent, then the trust that the money will later be forthcoming travels before the physical coins and the Spanish buyer's promise to pay later may cause the merchant in Rotterdam to already deliver goods today.

So far, this only expedites the M–C-leg of the circuit on the part of the Spanish buyer. Should merchant practices not also be capable of expediting the C–M'-leg and a future M–C–leg of the circuit of the seller, in the example of the selling Rotterdam

merchant? As the Rotterdam seller already has the claim for the purchase price, and as his Spanish debtor is assumedly solvent, could he not *simply assign his claim* for the purchase price and use this assignment as payment for a new M–C-order, e.g., to an Edinburgh-based merchant? If this were possible, then the gold or silver coins, which are still gently rocking on the ship to Sevilla, could become instrumental to yet another circuit and could expedite the closing of the seller's M–C–M'.

Securization as promissory notes and bills of exchange

While this legal possibility undoubtedly always exists – it is necessary a moment of the logic of a sales transaction –, merely contractual claims are still very individualistic and insecure. Therefore, the assignment of claims for a purchase price as such did not rise to the status of becoming a general instrument of settling accounts between merchants in long distance commerce and no market developed in which such claims were traded. However, this very same transactional debt-moment, which is intrinsic in all exchange contracts, allowed to being *evolved into promissory notes and bills of exchange*, which carried more security and became tradable and negotiable instruments for merchants. They turned into merchant credit money, which grew crucially important in international commerce over centuries. Merchant credit money took three forms, the promissory note, the merchant's bill of exchange, and, ultimately, the bank cheque, too. The *promissory note* is the simplest form of merchant credit money, a signed written confirmation to owe money (an "I owe you", IOU), e.g., out of a sales contract or to settle a dispute, to a payee, either to any holder of the note or to a named person. E.g., our Spanish buyer, who received the delivery of commodities, might write out a promissory note to his supplier in Rotterdam if the gold is still rocking on the ocean or he wants to otherwise use it. The Rotterdam supplier takes the promissory note instead of waiting for cash (as he trusts in the solvency of his Spanish customer and in its liquidity when the note is due).[7] Moreover, by signing the promissory note, he who signs it assumes a *personal additional and legally separate liability to pay*, which is stronger than the mere payment debt out of

7 Already at the end of the Chinese T'ang dynasty (late 9th century AD) merchants engaged in long distance trade drew up and exchanged paper documents, probably like bills or drafts (see *McDermott/Yoshinobu*, Economic change in China, 960–1279, page 403). If *McDermott/Yoshinobu* speak of a "private use of paper money" in this context, it must be stressed that these papers were certainly no fiat money but probably merchants credit money. In the late 9th century A.D. certificates of deposit were also issued at Sh'ang An (ibidem), which resembled, in their function, to the original certificates of the Amsterdam Wisselbank 700 years later; yet they were issued by provincial government officials rather than by a private bank. The Chinese Sung dynasty, in 985, would hand over vouchers to its army provisioners far up in north China, which could either be redeemed in cash or exchanged for tea voucher, which could then be redeemed against tea in south China, or which would be traded amongst merchants (*Golas*, The Sung fiscal administration, page 198).

the purchase contract. The promissory note not only excludes the objection that the underlying commodities were not delivered or were defectiv, but is also subjected to special rules of civil procedure that expedite and ease enforcement; it is legally "stronger" than a mere claim for payment.

Instead of signing a promissory note, a recipient of a delivery, e.g., our Spanish buyer, may also involve other persons, who are not parties to the original sales contract, in the process of merchant credit money creation. For this purpose, he may "draw" a *bill of exchange* (or a "draft") on, say, his customer in Paris to whom he sells the commodities. Such a bill of exchange brings a triangle structure into being. It is an order by one person, the *drawer* (in our case the first recipient of the commodities, the Spanish buyer), to another person, the *drawee* (the customer in Paris), to pay money to a third person who is also called the *payee* (in our case the original supplier from Rotterdam). The drawee, the second recipient of the commodities in Paris, of course, only becomes liable to pay the bill if he himself makes a declaration of will to this effect. He typically does this by signing the bill as "*acceptor*". The second recipient of the commodities, the person in Paris in our example, will often be ready to sign as acceptor as he will otherwise, quite simply, not receive the delivery just yet. By adding an acceptor as a further debtor, the bill becomes more secure and this increases the readiness of the first supplier in Rotterdam to accept it.

Third signatories adding security and tradability

Because they are detached from the original transaction (as mentioned, the objection that the underlying commodities were not delivered or were defective is excluded and their enforcement before civil courts is expedited), promissory notes and bills of exchange become *tradable or negotiable*. They may be *endorsed* by the payee (in Rotterdam) to third parties (in Edinburgh) who may in turn endorse it further (to parties in the US). Such endorsers normally also become liable to pay the bill like a *guarantor*. He who later holds the bill, may, thus, claim payment against the drawer, the acceptor, and all endorsers who are jointly and severally liable debtors when it becomes due; thus, a polygonal structure emerges.

As we mentioned already twice, a promissory note and a bill of exchange have the effect of improving the seller's legal and procedural position, compared to the mere assignment of a purchase price claim. Their main economic improvement is based on this and on the bill gaining security with each signatory and on promissory notes and bills being tradable or negotiable instruments. A supplier can already pay his own suppliers by endorsing a promissory note or bill and, therefore, can make new purchases and receive their delivery, typically inventories, for the next M–C–M'-circuit. To that end, bills of exchange de facto substitute gold or silver money and allow their holders to quasi "pay" with them instead of cash from a macroeconomic perspective. The gold or silver coins keep rocking on the ship to Sevilla, but merchant credit money creation has already made several uses of them in expediting

their deal-making. There is no chance that new commodity money could have been created so conveniently to close the transactions.

Those who sign promissory notes or bills may *or may not* hold and maintain a 100 % reserve in commodity money somewhere. If they do, and as long the full amount of gold or silver is indeed in their possession, then no additional new money is created? If the gold or silver payment they promise is not already, or no longer kept in reserve, then the stock of pre-existing money is enlarged, *new money* – merchant credit money – *is created*. Such merchant credit money is comparable to von Mises' circulation credit[8] which is created by banks out of fiduciary media, or what we will call fractional reserve bank credit money. While fractional reserve bank credit money disappears again, when a loan is repaid, merchant credit money disappears with the final settlement of the promissory note or bill.

Banks: Discounting promissory note and bills – and signing checks

Banks developed roughly in parallel to merchants' promissory notes and bills of exchange. A first way for banks to come into play was by *discounting promissory notes and bills*. Instead of holders waiting until the promissory note or bill became due, or until they would find another merchant to take them as payment, holders would carry them to banks and immediately receive cash for them. This involved credit by the bank – the note was only due later – and the bank assumed the holder's risk. The bank also wanted a profit. Therefore, the bank paid less than the note's nominal amount, which was called *the discount*. A second way for banks to get involved was to allow their depositors to draw bills of exchange *on them*. A bill of exchange drawn on a bank (as *drawee*) is called *bank check* (or *bank cheque* or, simply, a check or cheque). Checks would be drawn on banks by bank customers. The very drawing of a check would only *entitle* the bank vis-à-vis to make a payment, e.g., out of money of the depositor's account, to the check-holder; thereby, the bank did not yet assume a legal obligation vis-à-vis the check-holder. In this case, banks' wealth would not increase the security of the check and the checks would not convey better security than notes or bills (without acceptor or other additional debtor). But banks could also accept checks (as *acceptor*), whereby they would personally become liable to the check-holder; these checks would become more secure. Checks, too, can be endorsed and endorsers, like drawers, normally become jointly and severally liable, further increasing the security of the check.

8 E.g.: "The fiduciary media affect the market phenomena in the same way as money does. Changes in their quantity influence the determination of money's purchasing power." (*von Mises* (1949) page 434) or: "It is important to realize that commodity credit cannot be expanded. The only vehicle of credit expansion is circulation credit." (*von Mises* (1949) page 434). Von Mises does not take finding new mines or robbing existing precious metals into account here.

Legislation on checks often prohibited or restricted the acceptance of checks by banks. States sought to, thereby, prevent checks from being used instead of bank notes and closed the door for banks to circumvent state regulations on the creation of bank fractional reserve credit money through bank notes. Today, for the emergence of bank deposit accounts, checks are very seldom used and bank laws have often become more liberal in this regard.

The dilemmas of funding prosthetics with merchant credit money creation

The dilemmas of prosthetic spending, enabled by merchant credit money creation in regimes of commodity money, result from notes, bills and checks only evolving out of specific commercial transactions, these possessing a significant level of complexity, involving significant information necessities for users, and carrying costs and unavoidable remaining risks.

The number of notes and bills is, in particular, limited by the number of the members of the merchant class with a rank and reputation of solvency that their notes, bills and checks are trusted. It is also limited by the volume of commercial transactions, in which such trustworthy merchants actually engage. Furthermore, there is a price for the "self-made-ness" of merchant credit money: The creation of merchant credit money takes a certain level of effort, coordination, information, communication, and persuasion– and even that will not always ascertain that it succeeds. It also often necessitates the help of lawyers. Not everybody will be equally capable of assessing the risks connected to taking or endorsing a note or bill and not everybody else will take it as payment because prospective holders may have different information.

Of course, the security of a promissory note, bill or check is of crucial importance. Even if it conveys a *strong* legal position, the security of payment still ultimately depends on the solvency of the drawer, drawee, acceptors, and endorsers or other guarantors. Merchants must, thus, take remaining risks and assess them. Time, once more, is an issue. A debtor-counter-party may be initially solvent, but no more by the time the promissory note, bill or check is due.[9] While a gold of silver payment is solid, the final word about a payment with an endorsed note, bill or check will only be spoken after they have been presented to the signatories. Bad surprises are especially possible if the solvability of several signatories depends on the fate of the same single trade system. A settlement by notes, drafts or checks, which appeared to have worked well and may almost be forgotten about, may retroactively turn badly sour and he who took one of these instruments, and who endorsed and forwarded

9 Indeed, few can dare to feel sure to be solvent and liquid at a future date as typically their solvency and liquidity, apart from natural, economic and political catastrophes, depends on whether the counterparties in their networks of exchanges are solvent or at least liquid.

it to his supplier in turn, may later even find that he thereby became jointly and severally liable to a successive holder for the full amount (plus interest and costs). This plunges merchant credit money into a *flickering uncertainty* in the otherwise brazen world of payments by gold and silver. That feeds back on the readiness of merchants to accept merchant credit money, etc.

Sometimes drawers and drawees were also known to consciously do things that render notes, bills or checks less secure. Thanks to their money creation effect, signing notes and accepting drafts became a means of survival for businesses in trouble, including to prolong the life of otherwise totally insolvent firms. And it sometimes was a gimmick in the hand of fraudsters. A note is normally signed or a bill drawn if a commodity is in production or already being transported to the buyer; in this case, the buyer gives credit (makes an advance of the promissory note or bill) to the seller. Alternatively, the commodity has already been delivered to the buyer; in this case, the seller gives credit (in the amount of the difference in value-in-exchange between the promissory note or bill and gold or silver money) to the buyer. Both cases, though, share in common that there is at least *a commodity around*, which normally has a certain value-in-exchange close to the original contractual debt, and to which the creditor has a legal claim (either for delivery or for return if it is not paid). This adds some security.[10] However, parties that have exhausted their reserves and are no longer eligible for bank loans or private credit or who commit fraud, may use notes and bills to "mine" merchant credit money *ex nihilo* without any legal claim for a valuable good existing. E.g., if A and B both sign promissory notes for each other, without an underlying commercial transaction, notes have been issued without such additional value-in-exchange of a given commodity in play. The same is true if two people, once more without an underlying commercial transaction, draw bills on each other and are able to endorse them.[11] This drawing and redrawing of bills ("bill jobbing") is, in fact, a classic example of the underworld of abusing notes and bills. [12] In the end, merchant credit money creation remained far too limited in

10 It is, at first, only comparable to a bank holding reserves in commodity money for credit money. Holding reserves and being solvent are entirely different things, but still, reserves will often increase the bank's solvency (see on page 72 et seq.) Furthermore, the travelling commodities can be legally used as collateral, e.g., by retention of title provisions, etc.

11 This does neither imply the creation of counterfeit bill (with a fake signature) nor necessarily a deception by the acceptor. There may have simply been a misjudgment about his future solvency, hence, e.g., about the solvency of others, the market, or the lack of adverse events.

12 If "bill jobbing" spells the pathology of merchants' bills of exchange, it neither necessarily implies that A or B must have fraudulent intentions nor that the bill will not be honored. A and B may feel sufficiently solvent and may expect to be liquid on the due date, independently of the underlying transaction-value and even the payee or endorsers may not be worried that no new value-in-exchange is created together with the bill in the form of a new commodity, e.g., in view of the abundant other wealth of the drawer, drawee, or

scope, transactionally too complex, and too risky to satisfy the macroeconomic desires of money creation for prosthetics. Of course, during the heyday of merchant credit money, the necessity of prosthetics was also mostly not as perceivable as it would become in modern capitalism when the modern master drama accentuated.

Section 3. Expansive prosthetics funded with private bank credit money creation

Fractional reserves bank credit money creation in commodity money regimes

A first artificial money creation gland being born

The invention of bank fractional reserve credit money creation was of the utmost historical importance as it gave birth to a first powerful money creation gland. It was in banking, not in laboratories and by chemistry, where the dream of the alchemists was fulfilled. No test tubes, no fire, and no bizarre technology was needed for the purpose, only bookkeeping and the printing of statements of accounts (or bank notes or, albeit to a less relevant extent, the embossing of aluminum, iron, or other low value metal token money).

The gland of banks' money creation enabled the creation of something to which people would attribute tremendously more value-in-exchange than the costs of its production. This pushed down the costs of the generation of new value-in-exchange to about the costs of generation of debt, of mere paperwork. We have seen that commodity money and state fiat money have no trace of debt in them. That is different with merchant credit money. Like merchant credit money, private bank credit money, involves debt. It is, indeed, the offspring of a noble and privileged segment of merchants: Bank credit money creation works by the state allowing this segment, banks, to *sell some of their debt as money*.[13]

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acceptor. How the law on bills of exchanges and merchant practices deal with this, in a way, resembles how bank codes regulate banks.

13 *Luhmann* (1988) page 145: "Die Banken haben das Zentralprivileg, ihre eigenen Schulden mit Gewinn verkaufen zu können…". "Geldschöpfung seitens der Banken" erfolgt, sagt Schumpeter, "durch Konstituierung von Forderungen gegen sich selbst." *Schumpeter* (1912) page 202. Schumpeter also quotes *Fetter* saying that a bank is "a business whose income is mainly derived from lending its promises to pay" (page 203). This insight, which would probably still irritate a significant percentage of otherwise well-educated people, is widely accepted in economics. "…our money mostly consists of the transferrable debts of banks to account holders" (*Wolf*, The threat and the promise of digital money, in: *Financial Times* of 23 October 2019). Wolf also writes "What makes banks special is that their liabilities are money – a universally acceptable IOU" (*Wolf*, Fear of hyperinflation is a delusion of the ignorant, in: *Financial Times* of 11 April 2014).