

Accounting for Finance and Affect in Early Modern Spain

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The ubiquitous presence of monetary calculation, financial instruments and business methods across cultural and literary fields in early modern Spain suggest that matters of exchange and the principles of the arts of commerce penetrated all areas of society. These financial practices moulded the pervasiveness of credit and obligation in those episodes of human life involving truth and trust.¹ But these pillars of trade and monetary exchange also framed sentiments and feelings of obligation and intimacy.² In this article I look at the calculation techniques and financial data converging in the books of account supporting the double-entry book-keeping method (hereinafter, DEB). I argue that the pervasiveness of credit and obligation in episodes of human life interlocked mercantile practice and affects to such an extent that DEB and banking became commonplace scenarios for obligation and intimacy in fiction and drama.

I contend that this synergy sheds light on how financial practices and paper technologies influenced social relations; on which

¹ Elvira Vilches, "The Character and Cultures of Credit in Early Modern Spanish Texts: Matters of Trust, Belief, and Uncertainty" in Rodrigo Cacho Casal and Caroline Egan (eds.), *The Routledge Hispanic Studies Companion to Early Modern Spanish Literature and Culture*, London, 2022, pp. 124-139.

² Elvira Vilches, "Doing Things with Money in Early Modern Spain", in Hilarie Kallendorf (ed.), *A Companion to the Spanish Renaissance*, Leiden: Brill, 2019, pp. 508-530.

technologies and skills mattered more; and on how the cultural field wrestled with what and who put value in motion and why. An effective way to look at this is by exploring together distinctive segments of print culture. The segments I will look at are didactic manuals teaching commercial arithmetic, and literary works. For the purpose of this essay, in the literary sphere, I focus on two picaresque novels: Mateo Alemán's *Guzmán de Alfarache* (1599, 1604) and Alonso de Castillo Solórzano's *La niña de los embustes*, *Teresa de Manzanares* (1632). I examine the ways these authors place business tools and outlooks at the heart of human relations to test the polysemy and ambiguities of credit. The prominence of ledgers, ink and paper, and other financial instruments, also surfaces in Tirso de Molina's play *Celos con celos se curan* (1635). Interestingly, this aristocratic romantic comedy makes a compelling illustration of the generative power of the figure zero as a gesture towards the speculative frenzy going on in credit contracts in Spain during this time.

My argument explores the entanglement of the axiomatic and the affective. I suggest that the actual exchange of DEB and financial speculation was integrated with exchange as a subtle metaphor for social and intimate relations. First, this figurative dimension enriches the practical and tacit knowledge that authors, readers and audiences had of these money and credit techniques. Second, the figurative was considered a conceptual tool to experiment with the elusive nature of value and the influence of the virtual nature of economic abstraction on trust, creditworthiness and devotion. Lastly, these concerns show that literary genres are a form of inquiry, examining what the arts of commerce knew about the world, and what was amiss in the idealized economic space that these skills constructed. I focus on the techniques of calculation before considering how these writers examined them through their characters and their conflicts.

Accuracy, Diligence and Balance

Valencian merchant and arithmetician Miguel Gerónimo de Santa Cruz encouraged the young to excel in commercial arithmetic to get ahead in life. As the author of the best-selling manual *Dorado Contador: aritmética especulativa y práctica* (Valencia, 1609), he envisioned good computers and bookkeepers producing paperwork and entering data at the counting house of prominent merchants.³ At the *escritorio de mercaderes* agents, clerks and apprentices kept this paper machine running, rendering the particulars of exchange into multiple records through a regime of classifying and codifying payments, costs, assets and liabilities. They all had to be skilled in the laws and procedures of exchange as well as in paper handling and administrative archiving.⁴

This profusion of paperwork involved a sophisticated system of accounts, journals and ledgers, in the form of *cuenta y razón* or bookkeeping, and especially the method known as *debe y ha de haber, libro de caja y manual or uso de mercaderes*, all of which translate into double-entry bookkeeping (DEB).⁵ The complexities of commercial transactions in an economy dominated by credit made good bookkeeping essential. Without any knowledge of accounting principles or a fixed habit of applying them, business owners could easily find themselves lost in a sea of credits and debits, unaware of impending financial weakness. Manuals on penmanship, legal procedure and archiving, such as Pedro Maradiaga's *Libro subtilísimo intitulado honra de escribanos* (Valencia, 1565), and bookkeeping, such as Bartolomé Salvador de Solórzano's *Libro de caja y manual de cuentas* (Madrid,

³ Miguel Gerónimo de Santa Cruz, *El dorado Contador: aritmética especulativa y práctica*, Seville, 1603, preface.

⁴ Bartolomé Salvador de Solórzano, *Libro de caja y manual de cuentas de mercaderes*, [1590] London, 1980, fols. 41-42.

⁵ See Bernardo Bátiz-Lazo et al., "Adoption of Double Entry Bookkeeping in Mexico and Spain" in *América Latina en la Historia Económica*, 19, 2012, pp. 164-205. Esteban Hernández Esteve, "Pedro Luis de Torregrosa, primer contador del libro de Caja de Felipe II. Introducción de la contabilidad por partida doble en la Real Hacienda de Castilla (1592)", in *Revista de Historia Económica*, 3, no. 2, 1985, pp. 221-246.

1590), advised businesspeople and their employees to organize data in the taxonomic categories of debits and credits.⁶

DEB or *caxa y manual* represented the conceptual crucible inside which goods and transactions could be broken down and put back together in terms of commensurable units of quantitative as well as exchange value. The ledger and the calculation techniques from which it emerged not only show that commodification was a fundamentally representational act, but also how its logic of endless numerical relations conveyed persuasive ways of thinking, speaking and writing. These conventions promised to bring the confusion of exchange into manageable order. They also demonstrated that the arts of calculation and paper technologies made the artifice of the market into a terrain of orderly economic relations.

The author of *Tratado de Cuentas* (Salamanca, 1522), lawyer Diego del Castillo, anchors clarity, precision and certainty in the systematic arrangement of things, words and numbers.⁷ Similarly, the author of the manual on DEB, *Libro de caxa* (Madrid, 1590), merchant Bartolomé Salvador de Solórzano, suggests that numbers are the conceptual basis of a transparent language of exact words and certain facts. The conceptual basis of DEB is balance: assets must equal liabilities. This notion is represented visually as a symmetry that appears on facing sections of the ledger. Figures signalling a balance evoke justice in the sense of correlation between two numbers that can be justified by comparing them and checking the addition resulting in the total at the bottom of the page.⁸

Step by step, Salvador de Solórzano describes the procedures that Max Weber would later synthesize.⁹ The arithmetic and data writing

⁶ Lothar Müller, *White Magic: The Age of Paper*, trans. Jessica Spengler, Cambridge, UK, 2015, p. 43. Jose María González Ferrando, "De las tres formas de llevar 'cuenta y razón' según el licenciado Diego del Castillo, natural de Molina", in *Revista Española de Financiación y Contabilidad*, 17, no. 55, 1988, pp. 183-222.

⁷ Diego de Castillo, *Tratado de cuentas*, Burgos, 1522; Patti Mills, "The Probative Capacity of Accounts in Early-modern Spain", in *The Accounting Historians Journal*, 14, no. 1, 1987, pp. 95-108.

⁸ John Richard Edwards, *A History of Financial Accounting*, London, 1989.

⁹ Max Weber, *The Protestant Ethic and the Spirit of Capitalism*, ed. Richard Swedberg, New York, 2009, pp. 6, 77.

components suggest the endless routine of compiling real-time transactions in waste books, which are then assembled and calculated in the manual book or journal, before everything is entered in the *caxa* or ledger. The different steps revolve around calculating a balance which he describes using the Italian name *hazer abanço*. It helps the owner of the books to ascertain his capital and use the ledger to create a summary of accounts to estimate profits and losses.¹⁰

Master calligrapher teaching in Valencia, Pedro de Madariaga, wrote a didactic dialogue about the DEB method in 1565. In their conversation, Petronio and Velgara agree that the pen is the most useful instrument of trade. They claim that those who cannot work with numbers or do paperwork will see their money dissolved into sand. But those who are prudent and keep their books will transform everything into gold. Velgara praises Pedro Luis de Torregrosa, a successful Valencian merchant, who excelled in DEB and arithmetic, and became rich by trading in Italy.¹¹ Torregrosa, Velgara comments, was famous for his expertise, prudence, creditworthiness and generosity. Only by constantly turning to up-to-date ledgers could entrepreneurs gain an accurate understanding of the financial health of their businesses. Good bookkeeping could alert merchants and business agents to potential difficulties and to the advantage of setting a right course by limiting the extent of their operations, pressing debtors for payments or cutting expenses. When ledgers are neglected, everything falls into utter confusion. Velgara tells the story of a Genoese merchant who failed to keep his ledgers in order, only for his widow to discover the true, alarming state of his finances.¹²

Bartolomé Salvador de Solórzano recommends that the flow of daily transactions be recorded first in a rough book and then organized chronologically in the journal (*diario* or *manual*). Good penmanship should be used, detailing the particulars of each

¹⁰ Bartolomé Salvador de Solórzano, ch. 11, fols. 23-25.

¹¹ See Hernández Esteve "Pedro Luis De Torregrosa". Pedro Madariaga, *Libro subtilísimo intitulado honra de escribanos*, Valencia, 1565, fol. 34.

¹² Madariaga, *Libro subtilísimo intitulado honra de escribanos*, fols. 24-35.

transaction, including buyers, sellers, debtors and creditors, along with the value of each operation, indicating the qualitative and quantitative information pertaining to the merchandise, specifying currencies and units of account, and explaining the credit contracts involved in a similar manner. This writing template for organizing data in the taxonomic categories of debits and credits allowed amended data to be stored instead of being deleted. Data could be carried forward and reassembled. This meant deletions were stored as movements, the information on which distilled as data categorized first in the chronological order of the transactions (in the *libro manual* or journal), and then by type of transaction, specific account or commodity (in the *libro de caja* or *libro mayor* – ledger).¹³

Salvador de Solórzano understood DEB as the international language of commerce which had been perfected through the experiences of many traders, rather than from the expertise of one person. In Spain, the use of DEB by bankers and merchants goes back to the fourteenth and fifteenth centuries, first in Aragon and later in Castile. In 1538, the Consulado de Burgos (merchants' guild) was the first institution to demand the use of the *debe y ha de haber* (DEB) method. Soon the state followed. The royal pragmatics of 1549 and 1552 required all banks, merchants and other businessmen, including foreigners doing business in Spain, to use this system of accounting and write their books in Spanish.¹⁴

Writers, Readers and Audiences

The accounting form is strongly associated with books of memory: the blank books that urban professionals, from notaries to royal of-

¹³ Bartolomé Salvador de Solórzano, *Libro de caja y manual de cuentas de mercaderes y de otras personas, con la declaración dellos*, Madrid, 1590. Address to the reader.

¹⁴ See Hernández Esteve. Earlier manuals such as Diego del Castillo's *Tratado de cuentas*, Burgos, 1522; Salamanca, 1542, focus on the legal aspects of accounting. Both Gaspar de Texeda's *Suma de aritmética práctica y de todos las mercaderías con la orden de contadores*, Valladolid, 1546, and Antich Rocha's *Arithmética*, Barcelona, 1564, inserted chapters discussing bookkeeping, following Luca Pacioli's model.

ficials, merchants, academics and individuals, used to record ordinary transactions along with historical and personal events.¹⁵ Heads of the family, women, stewards and farmers all kept books of account in diverse formats to record transactions as they occurred, listing receipts and disbursements as well as acknowledgements of debts.¹⁶ These techniques were normalized in religious texts, plays set in political, urban and religious contexts, and fiction.¹⁷ Writers used the accounting form as a powerful trope and narrative device to explore how individuals grasped the generative power of money by intertwining the factual and the affective-imaginative.

On the stage and page, characters pursued their own fictions about abstract value, blending the axiomatic with multiple, figurative interconnections. Through these lenses, authors, readers and audiences saw that money is the most abstract element in human life, transforming the world into an arithmetic problem.¹⁸ Sociologists and economists have argued with Max Weber, Werner Sombart and Joseph Schumpeter that the process of abstraction inherent in reckoning and accounting is key to articulating concepts like capital, profit and depreciation.¹⁹ The same logic applies to the cultural formations that assimilate monetary calculation and its methods into the private sphere, wherein a twofold process of valuation and accounting registers social relations and affects in financial terms.²⁰

Then the social life of money and its techniques become the ground upon which to explore how financial abstractions could generate a world of make-believe and why economic agents disguised the fact that they were the makers of their own illusion. Subse-

¹⁵ See Gómez Bravo, pp. 139-43; and Castillo, pp. 59-75.

¹⁶ See Castillo Gómez, pp. 74-81.

¹⁷ See Vilches, "Doing Things with Money in Early Modern Spain".

¹⁸ Kurt H. Wolff (ed.), *The Sociology of Georg Simmel*, Glencoe, IL, 1950, p. 412.

¹⁹ See Bruce G. Carruthers, "Accounting for Rationality: Double-Entry Bookkeeping and the Rhetoric of Economic Rationality", in *American Journal of Sociology*, 97, no. 1, 1991, pp. 31-69.

²⁰ Viviana Zelizer, "The Social Meaning of Money: Special Monies", in *American Journal of Sociology*, 95, no. 2, 1989, pp. 342-377.

quently, through these questions, money matters were examined as a problem of thought. These questions ran against the grain of the didactic commercial texts and the objective taxonomies organizing exchange. Creative works were part of these conversations about the reach of finance, profit-making and calculation rationale.

Writers inquired into what the arts of commerce knew about the world by imagining characters who manifested the ubiquitous presence of credit instruments, money contracts and business tools. They shaped a kaleidoscopic terrain of the interrelated reactions and reflections that made economic knowledge a social practice. The characters Guzmán, Teresa and Sirena see that the promissory logic of financial wealth is the essential tool to increase abstract value and chances of social mobility. They also illustrate the ways that the taxonomies of exchange reached a general audience, to reveal the increasing commercial scaffolding of economic life. For these characters, the tools of calculation are subject to passions and affects, and the basic pillars of trust and creditworthiness.

Bankers, investors and creditors relied on personal trust and economies of obligation as a hedge against risk and misfortune.²¹ Confidence was among a person's principal assets. It conveyed one's capacity to relate to others in every aspect of life. For Portuguese merchant Duarte Gómez Solís, these skills built the twin pillars of trust and truth that sustained genuine trade. He saw merchants as people of reasoning and reckoning who upheld their reputation through bookkeeping. He argued that credit is the foundation of trade and truth. Credit is the confidence that leads a person to either sell commodities for a written promise to pay at a certain date, or to entrust another with a certain amount of capital.²²

Reputation is equally vague and relies on a promissory logic that

²¹ Craig Muldrew, *The Economy of Obligation: The Culture of Credit and Social Relations in Early Modern England*, New York, 1998; Scott Taylor, "Credit, Debt, and Honor in Castile, 1600-1650", in *Journal of Early Modern History*, 7, no. 1, 2003, pp. 8-27.

²² Duarte Gómez Solís, *Discurso de comercio de las dos Indias: donde se tratan materias importantes de estado y de guerra*, Madrid, 1622, f. 17r, ff. 32r-33r.

demands continuous performance. Confidence is a leap of faith. To give credit is to believe in what you cannot see, in promises and expectations, while concern remains over the fine line separating reality and illusion.²³ This epistemic question about the abstraction of value also raises doubts as to how finance spurs the follies of the imagination to the point of undermining its own mechanisms of trust. Another dimension of this argument offers an even wider interpretation of the promises and perils of credit as the means to calibrate personal obligations and the affects that stem from them such as venality, desire and jealousy.

Credit and the Suspension of Disbelief

The novel by Mateo Alemán, businessman, judge in audit cases and a head accountant for the Exchequer, puts DEB, as a foundation of trust and creditworthiness, to the test.²⁴ Readers are drawn into a long series of confidence games involving multiple forms of credit, as Guzmán puts his performative acts together to construct a credit-worthy person, in the form of a gentleman or businessman. Guzmán's mastery consists in making the other characters believe in his own schemes. This dynamic of deception is meaningful for at least three reasons. The ups and downs of Guzmán's fortune explore the risks posed by the boundless profusion of ink and paper as the porous foundation of fictitious exchange. The novel appeals to a readership with extensive familiarity with credit instruments – credit sales (*mohatras*), financial contracts (*cambios*), as well as mortgage loans (*censos*) – books of account and business documentation, by setting out to mock the very promissory logic that underscores exchange.

In Milan, Guzmán joins forces with Aguilera, the bookkeeper of

²³ Luis Alcalá, *Tratado en que a la clara se ponen y determinan las materias de los préstamos*, Toledo, 1543, preface; Tomás de Mercado, *Suma de tratos y contratos*, ed. Nicolás Sánchez-Albornoz, Madrid, 1977, vol. 1, pp. 92-95, vol. 2, pp. 360, pp. 494-496.

²⁴ Mateo Alemán, *Guzmán de Alfarache*, ed. Francisco Rico and Luis Gómez Canseco, [1599, 1604] Barcelona, 2012, pp. 1447-1454.

an important merchant, to plan a scheme to get some easy money. Posing as a nobleman who has come to Milan to buy gifts for his bride, Guzmán places a deposit of 3,000 escudos in gold and silver coins with the merchant for temporary safekeeping. Later, Guzmán has Aguilera make a key for the merchant's master safe and take Guzmán's money along with the merchant's ledger and journal.

Guzmán leafs through the books, checking all the entries from the last eight weeks. He finds a space in the journal and the ledger where Aguilera puts down sums, adding ten coins of a different denomination – 10 *dobloones de a diez* – that the bookkeeper is to have written and deposited in the safe. Despite this last-minute addition, Aguilera's longhand does not raise any suspicion.

Guzmán and Aguilera exploit the probative capacity of books of account, knowing that if they raise doubts about the creditworthiness of the merchant, the authorities will grant a request for a formal investigation. The next day, Guzmán returns to the shop to request the money he has never deposited. The merchant is caught off guard. Playing the role of the affronted nobleman, Guzmán demands to know the truth from Aguilera, the merchant's servant, and from the ledger, and show the bystanders and everyone in the shop who is creditworthy and who is telling the truth.²⁵

Merchant and accountant Bartolomé Salvador de Solórzano writes that the most valuable advantage of DEB is to demonstrate how capital is employed and profits are generated. It supports an effective administration which, by balancing the accounts, allows records to be inspected so that fraud can be kept at bay. The ledger and journal are essential to facilitate the addition of all the amounts. He adds that through this method, proprietors can learn what charges are pending, what payments they should receive, how much they owe and how much capital they actually have. As an experienced merchant in Seville, Panama and Peru, Salvador de Solórzano notices the need to employ skilful and honest bookkeepers to man-

²⁵ Alemán, *Guzmán de Alfarache*, pp. 523-542.

age the assembly line of paperwork and the avalanche of calculations resulting from diverse ventures until all the data is put together in the company books.²⁶

Max Weber reaches a similar conclusion when he explores calculation as the basis of the spirit of capitalism in Protestant societies. He stresses the repetitive nature of the DEB method and contends that debits and credits convey the conceptualization of financial expectation and its realization.²⁷ Merchant Duarte Gómez Solís suggests that when merchants govern themselves and their affairs wisely, credit provides the lifeblood of trade and that when this nexus of confidence, reputation and prudence fails, so does exchange.²⁸

Guzmán suggests that individual necessity, rather than reason and prudence, can easily undermine these trust mechanisms. In hindsight, he contends that the perils of credit lie in actualizing the anticipation of its promise by spending what is borrowed carefreely and taking great delight in acquiring what takes one's fancy until everything collapses. The foolish who build their castles on the sand, soon realize how fast they fall down.²⁹ In his itinerary through the social strata, Guzmán embodies the promise of future value through cycles of accumulation and loss of fictitious capital driven by the continuous flow of exchange and re-exchange.³⁰ His expertise in finance disrupts the creditworthiness and diligence of the paperwork that produces capitalism to instead highlight the artifice of the virtual reality of economic abstractions, as well as the risks of getting caught up in its mirage.

²⁶ Salvador de Solórzano, *Libro de caja y manual de cuentas de mercaderes*, fols. 49-50.

²⁷ Weber, p. 6

²⁸ Gómez Solís, ff. 17, 32-33.

²⁹ Alemán, *Guzmán de Alfarache*, p. 657.

³⁰ Alemán, *Guzmán de Alfarache*, p. 631.

Intimacy and Jealousy

In the sequel of female picaresque novels by Alonso de Castillo Solórzano, Teresa de Manzanares stands out for telling a deeply contemporary story in which her business acumen interlaces labour, social and sexual freedom, and marriage. Teresa reads and writes, does embroidery and sewing. She is a prosperous hair stylist famous for her sophisticated styles, fashionable wigs and natural looking hairpieces for bald men. She makes money and increases her savings by buying shares from larger financiers who negotiate public debt.³¹ She keeps her ready money in accounts and uses bills of exchange to transfer funds especially when travelling. Whether love is a genuine feeling of longing, or an obliging relationship understood in terms of profit and debt, is a matter of reflection. Teresa looks at intimacy through the lenses of economic rationality as she recounts her trades and the stories of her customers. She registers goods, services and different kinds of social interactions as being consubstantial to money, providing the frame for an interpolated ballad about unrequited love. Her scorned lover complains that Teresa prefers an effeminate young boy to a grown man like him. The poet finds the figure zero useful as a compelling analogy especially when it conveys the difficulty of balancing the columns of his “love” ledger.

The imagery of arithmetic and DEB is evocative and compelling. Like a zero, the foppish young boy stands alone unable to generate value. The manly poet, by contrast, captures its generative power. Just like Teresa, whose habits of mind are driven by quantification, abstraction and calculation, the lover co-opts these habits of speech and mind to register his feelings of rejection. The lover asks his lady-love to multiply her affection by at least 100 times, but all is in vain. In the enterprise of love, the ballad says, many feelings and passions are invested and spent. Reckoning is necessary especially when no receipts remain. The lover keeps a ledger of love to figure out his

³¹ Alonso Castillo Solórzano, *La niña de los embustes, Teresa de Manzanares, in La novela picaresca española*, ed. Ángel Valbuena Part, Madrid, 1974, pp. 331, 332.

feelings through the steps of calculation and balance. Readers are drawn to observe how he ascertains his capital by estimating profits and losses. This task is impossible: the debit column remains blank while the credit side shows all the feelings spent. Then the unrequited lover is left with a thorny question about how long this contract of love can last.³²

If Teresa travels through Spain circulating all sorts of commodities and accruing financial value, Sirena, the leading lady in Tirso's play, is a savvy financial player. Sirena assimilates love-making to money-making and wonders whether love is an arithmetical question as well, for she sees banking and jealousy in similar terms. In the aristocratic setting of the play, the passion for gain is a serious pastime for Sirena. She may imagine that money and love work in similar ways but what remains striking is her expertise in creating money and speculating with future expectations.

Sirena's love- and money-making follow the process of abstraction through which precious metals are assayed to make them into a trusting monetary substance whose value is defined in a recognizable unit of account.³³ In parallel, she ponders how it is possible to measure the excellence of love, which unit of account she should use to reckon its worth, and what financial transactions can create and increase its value. Sirena realizes that zeros and jealousy or celos work in similar ways. The figure zero embodies the march of compound interest, turning units into tens, hundreds, thousands and millions. Just like zeros, jealousy has no value on its own, yet they can both generate a boundless expansion of value and endearment that is greater than themselves. The underside of the promissory logic of fictitious capital is that the constant expansion of future value becomes conceptually elusive.³⁴ By unlocking value from the

³² Castillo Solórzano, *La niña de los embustes, Teresa de Manzanares*, pp. 368-369.

³³ Elvira Vilches, "Trade, Silver, and Print Culture in the Colonial Americas", in *Latin American Cultural Studies*, 24, no. 3, 2015, pp. 315-334. Philip Grierson, *The Origins of Money*, London, 1977.

³⁴ Karl Marx, *Capital: A Critique of Political Economy*, 3 vols., vol. 3, London, 1990, p. 516.

concrete basis of economic value, jealousy becomes a promise of intense love built on a porous foundation of transient feelings.³⁵

Sirena banks on words and deception to lure other beaux while treating her fiancé, César, with disdain. She believes that with each plot she devises, the value of her love account increases. The audience see how actively she engages in quantification, abstraction and calculation, as they follow her thinking process and imaginative business strategies. Sirena's speculative ploy merges the promise of bigger love dividends with the distorting effect of mistaking the delusional for the substantial. Interestingly, César is aware of Sirena's deluded grand scheme. He notices that she revels in the large figures that keep accumulating in her love account, and that he cannot surmise, let alone calculate, the long line of zeros that Sirena keeps adding. Sirena is sensitive to César's limited financial skills and is willing to cancel her love account. She is willing to start a new one that would realize the value of true feelings. But César quickly turns away from the techniques of money and credit to the economy of the household as the foundation of genuine value, leading to their marriage. The convention of a happy ending does not cancel the ability to work with numbers or the tacit knowledge of banking that the actors and audience have shared.

Normalizing Iberian Capitalism

In seventeenth-century Spanish society matters of exchange reached out everywhere and to everyone. The currency of monetary metaphors and the financial transactions circulating between authors and audiences suggest that everyone did their best to use money to their own advantage and that profit and loss intersected business and cultural registers to such an extent that both didactic business manuals and literary works taught, depicted and normalized the tools and discourses of money.³⁶

³⁵ Fray Gabriel Téllez, *Quarta parte de las comedias de Tirso de Molina*, Madrid, 1635.

³⁶ Vilches, "Doing Things with Money in Early Modern Spain"; Vilches, "The Character

Commercial arithmetic manuals deployed an assemblage of techniques and methods that rationalized Iberian capitalism as a matrix of equations and writing forms which interlaced economic rationality with moral codes. This blend of calculation techniques, credit instruments and sets of account books made skills, expertise and creditworthiness inextricable from each other. The literary works, on the other hand, showed how this epistemic knowledge and its distinctive assemblage of credit instruments and books encountered overlapping layers of feelings and affects. This twofold process blends objects, practices and linguistic elements with business tools and ways of thinking belonging to the public and private spheres of exchange.

Money allows for the incompatible to equate.³⁷ But the compromising objectivity that makes money into the perfect means of economic calculation is also the source of endless series of commensurations that reach beyond the transformation of money into capital.³⁸ This cognitive process of abstraction, quantification and calculation entwines the axiomatic and the intimate.³⁹ The juxtaposition of intimacy and speculation illustrates a process of equation, association, contiguity and relation through which we construct our own fictions about money, while we dismiss and obscure our own intervention.⁴⁰ Alemán, Castillo Solórzano and Tirso, along with their readers and audiences, understood that promises of credit remain as long as numbers and facts interlock with such mechanisms of trust as expertise and creditworthiness. They also perceived that the mystification of finance eclipses the possibilities that interfere with the self-perpetuating accumulation of value. They all knew what to do and say about money.

and Cultures of Credit in Early Modern Spanish Texts: Matters of Trust, Belief, and Uncertainty”.

³⁷ Karl Marx, *Grundrisse*, trans. Martin Nicolaus, London, 1973, p. 163.

³⁸ Max Weber, “Religious Rejections in the World and their Directions,” in H.H. Gerth and C. Wright Mills (eds.), *From Max Weber: Essays in Sociology*, New York, 1971, p. 331.

³⁹ Zelizer, “The Social Meaning of Money: Special Monies”.

⁴⁰ Martijn Konings, *The Emotional Logic of Capitalism*, Stanford, CA, 2015, p. 18.

Assemblages build contingent relations among the parts, so that they can all be extracted from the whole and inserted into a different assemblage where new interactions emerge. These interactions see the social world through an extensive network of configurations. Rather than following a single path or resolving itself into a single form, capitalism can be conceived of as an aggregate of particular assemblages, from the material to the cultural, seen through different logics governing production, circulation and the boundaries between the public and the private. For economic historian Kenneth Lipartito, these aspects illuminate a wider understanding of capitalism, interlocking and combining different forms of capital and an array of histories and drawing together various forms of governance, localized practices, forms of knowledge and epistemic communities.⁴¹

Thinking in assemblages reveals the interconnections between networks of objects and people in a more tangible way. In this essay I have used three interconnected case studies to explore how expertise in exchange, calculation and accounting assemble and connect segments of print culture that are typically not studied together. I have argued that the culture of exchange and calculation was not unique to mercantile circles. By distinguishing between different kinds and meanings of money and credit, an interdependent logic is seen in which the cultural, the affective and the economic forge new connections among different practices, synthesizing them into a coherent whole. This unifying view sees money at once as a unitary fact – a mere medium of exchange – and as a relational construct that operates through complex dynamics of inscription, transcription, interpretation and conversion.

All these aspects exemplify our ability to grasp money as an icon representing a complex mixture of interconnected signs, whose meaning emerges from intricate, networked relations entwining the

⁴¹ Kenneth Lipartito, "Reassembling the Economic: New Departures in Historical Materialism", in *The American Historical Review*, 121, no. 1, 2016, pp. 101-139, <https://doi.org/10.1093/ahr/121.1.101>.

rational and the affective-imaginative. This process consists of a set of skills that, beyond the specifics of handling money, includes the capacity to forge and discern complex networks of meaning and connections. In the end, we create our own fictions about money, constructing its fictitious nature by blending the axiomatic with multiple affective and figurative interconnections. However, we totally dismiss and obscure our own intervention in this process.⁴²

Such familiarity implies the equally important but contradictory effect of masking our own awareness in order to simply observe the quality of money as mere abstraction. Indeed, its most tangible form is its capacity to convert an infinite variety of other things into money. In early modern Spain, this know-how about matters of money and credit blended the axiomatic with multiple affective and figurative appreciations. The question of whether a moral economy and a profit economy can coexist asks us to consider the economy as an institutionalized process that goes beyond markets and trade. In this specific historical context, the questions that are also important to consider are how the profit economy is understood and naturalized, and to what extent this process provides a sphere of ideas enabling an understanding of elements of circulation and the political economy.

Iberian merchants and arithmeticians writing textbooks on the techniques of money and credit taught multiple applications of the arts of commerce and disseminated the techniques and skills to systematize and smooth the operation of exchange. Their heuristic approach aligns the taxonomies of paperwork, accounts and accounting books with the importance of rules, method and skill in order to provide a moral compass. The three case studies considered in this essay reveal a multi-layered understanding that goes beyond what the audience and reader may have learned about the rules, regulations and the paper technologies governing exchange.

Characteristics such as ambiguity, duplicity, deviance and subversion may seem unique to literary discourse. However, a closer

⁴² Konings, *The Emotional Logic of Capitalism*, pp. 18-20.

look reveals that they are fundamental features of social exchange. The technical authors included observations about the accelerated pace of exchange, and their years of experience in commerce and bookkeeping. They also sympathized with the reader's fear of being overwhelmed by a series of long calculations and the intricate method of bookkeeping. When these techniques and concerns are filtered through figurative language and literary discourse, what stands out is the work done to give fiction and make-believe a permanent function or efficacy in testing the social creation and organization of monetary knowledge and practice. Compared to the actual exchange unfolding at banking benches and in counting houses, business documentation provides an idealized economic space, where books of accounts remain the silent business partner that accepts and reifies any sort of transaction. The literary characters in this essay show that the conventions for recording and laying out how capital has been employed and the ensuing profits can open a door into a parallel reality. Guzmán, Teresa and Sirena seem to suggest that the matrix of numerical relations generated by mathematicians and entrepreneurs speaks of mechanisms of trust and make-believe peculiar to fiction. They show that the power of the imagination veils the perils of credit, the delusional facts of speculation and the blurred line between reality and illusion. This dynamic of clarification and confusion puts to the test both the value of the written media enabling exchange and the risks posed by the porous foundation of fictitious exchange. Merchants, bookkeepers, agents and authorities all committed their financial data to the three-fold book structure of DEB. This method made it possible to overwrite and amend existing data, which could be stored rather than deleted, and conceived of each correction and deletion as a movement in an intricate mosaic of transactions.