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# "Credit mechanisms in nineteenth-century Timbuktu: Evidence of merchant banking in the Arabic documents of Saharan and West African commerce"

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> Africa's economic history is not that of continual backwardness, shared poverty, choking overpopulation, or unremitting subservience. Its history is also one of adaptation to difficult ecosystems, of trading systems that linked different producers across long distances. African entrepreneurs adapted—whether for better or for worse—to external demands for their products. But questions remain about the forms innovation and adaptation have taken and the effects of adaptation, constraint, and resistance on connections to world markets.
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> Frederick Cooper[1]

Introduction:

This paper is an effort to make sense of accounting documents that survive in the papers of Saharan traders, mostly from the nineteenth century. I am interested in these documents as a means of understanding how commercial capital was moved across the Sahara Desert in the nineteenth century, during a moment of transition, before the incorporation of this region into European colonial empires and the redirection of trans-Saharan trade towards the Atlantic and the Mediterranean in the late-nineteenth and early-twentieth centuries, but after the development of a much more rapidly interconnected world of 'modern' commercial capital. The geographic focus of the paper is the commercial axis that connected the Mediterranean port city of Tripoli to the Saharan oases of Ghadames and Ghat (all in modern-day Libya), and from there to Timbuktu (in modern-day Mali). For merchants in Libya, the connections to Timbuktu were important for the acquisition of gold and ostrich feathers, complimenting extensive trade that they carried out with the Hausaland cities of Kano and Katsina (in modern-day Nigeria). The other main trans-

[1] Frederick Cooper, *Africa in the World: Capitalism, Empire, Nation-State* (Cambridge, MA: Harvard University Press, 2014), 14.

Saharan commercial circuit from Timbuktu led to southern Morocco and ultimately to the port of Essaouira on the Atlantic coast. According to Heinrich Barth, who spent seven months in Timbuktu in 1853-4, the Moroccan trade had been the most important Saharan commerce in Timbuktu in the first half of the nineteenth century, but Libyan traders had recently become successful by cornering the southern Saharan and Sahelian market in bleached and unbleached European-made calico cloth.[2]

What I am calling accounting documents are generally known in the nineteenth-century Central Sahara by the Arabic word "zimām," which was used to describe a ledger. We sometimes also see the verbal form of this word, "zammama/yuzammimu," usually in the context of a command "to record in the ledger." But the terminology is not particularly important; in Morocco at the same time, an account book was called a "kunnāsh;"[3] in Egypt and Sudan, a "daftar."[4] A ledger could record different things. Often, shipments of commodities included a list of items packed in the loads. Typically, one copy would be included with a letter, or incorporated into a letter, addressed by the sender to the intended recipient of the goods, while a second copy would be kept by the sender for his records. Another kind of ledger recorded commercial transactions for consigned goods in a particular market, usually with prices paid for different items, and other costs associated with the sales (transportation, taxes, market fees, etc.). There are also documents called ledgers that merchants used to record credits and debts, usually through the mechanism of a delayed sale (*salaf*) of commodities provided on credit. Curiously, there is only one document that records a "bill of exchange" (*ḥawāla*) in Timbuktu, which was a mechanism widely used for cash advances in some other parts of the Muslim world, including in nineteenth-century Sudan.[5] Altogether, these documents provide concrete evidence of actual

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[2] Heinrich Barth, *Travels and Discoveries in North and Central Africa: Being a Journal of an Expedition Undertaken under the Auspices of H.B.M.'s Government, in the Years 1849-1855* (New York: Harper & Brothers, 1857), vol. 3: 365-6.

[3] Paul Pascon, *La maison d'Iligh et l'histoire sociale du Tazerwalt* (Rabat: Société Marocaine des Editeurs Réunis, 1984), 48.

[4] Terence Walz, *Trade Between Egypt and Bilād as-Sūdān, 1700-1820* (Cairo: Institut Français d'Archéologie Orientale du Caire, 1978), 105.

[5] The one example in the sources available to me from Timbuktu is from 1849 (IHERI-ABT 12357). Heinrich Barth reported that he obtained a small sum of money from a Ghadames merchant in Timbuktu on the recommendation of the British consul in Ghadames, C.H. Dickson. The was presumably a *ḥawāla*, although it is not stated as such in Barth's text. At other times, Ghadames merchants in Timbuktu refused to make a money advance to Barth, perhaps suggesting that the practice was not widely undertaken in Timbuktu (See Barth, *Travels and Discoveries*, v.3: 356); Ghislaine Lydon argues that the ḥawāla was a common instrument in trans-Saharan trade, although she suggests that the small number of documented cases is a consequence of the paper recording the ḥalwāla losing its importance

commercial practice in Saharan and Sahelian West Africa in the nineteenth century, which differs from the abstract models of long distance trade. The advantage of these sources is that they allow us to see the actions and perspectives of traders themselves, and this suggests the possibility of new ways of understanding the history of commercial institutions, and the functioning of currencies and credit in the parts of Africa touched by Saharan trade. What Paul Pascon wrote decades ago remains largely true: "We remain largely ignorant of the practical conditions of Saharan trade—its internal mechanisms, and the actors responsible for managing finances and banking, chartering caravans, organizing security, and safeguarding commercial hubs. The institutional framework that enables the very existence of this trade is merely hinted at through brief allusions made by foreign travelers who ventured into these arduous regions during the nineteenth century."[6]

Context:

In Christopher Bayly's *The Birth of the Modern World*, he argues that the nineteenth century ushered in a period of global modernity characterized by the rise of global uniformities in the structure of institutions of politics, law, religion and economics on the one hand, and bodily practices, sartorial norms, and patterns of consumption, on the other hand. Bayly writes that in the nineteenth century "all local, national, or regional histories must, in important ways… be global histories."[7] Economic historians of Africa have long seen the beginning of the nineteenth century as an important 'commercial transition' between the ending of the trans-Atlantic slave trade and the advent of new cash crop production for export, especially in vegetable oils such as palm oil and groundnuts. In his *An Economic History of West Africa* published in 1973, A.G. Hopkins argued that the end of the Atlantic slave trade provoked a 'crisis of adaptation' that destabilized the power of political and economic elites who had dominated in the slave trade era. This opened space for new opportunities for smaller producers and merchants, expanded the West African consumer market for cheap, mass-produced

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when the debt was redeemed. It seems that a more straight-forward explanation is that this devise was not widely utilized in the nineteenth-century Sahara (See Lydon, *On Trans-Saharan trails: Islamic law, trade networks, and cross-cultural exchange in nineteenth-century Western Africa* [New York: Cambridge University Press, 2009], 318-9). On Sudan, see Anders Bjørkelo, *Prelude to the Mahdiyya: peasants and traders in the Shendi region, 1821-1885* (Cambridge: Cambridge University Press, 2003), 127.

[6] Pascon, *La maison d'Iligh*, 50.

[7] Christopher Bayly, *The Birth of the Modern World, 1780-1914* (Malden, MA; Blackwell, 2004), 2.

European manufactures, and ushered in the beginning of the modern economic history of West Africa, characterized by the predominance of small 'household' producers of cash crops for export. The parts of West Africa incorporated into the post-slave trade 'legitimate commerce' developed significant increases in linkages between the export and domestic economy, and there was a marked increase in the commercialization of labor and land. There was also an increase in the circulation of 'modern' money, especially British and French silver coins, in the key exporting areas. Hopkins' argument is that these changes occurred in West Africa a century before European colonial occupation, making them independent from territorial colonial conquest, not a consequence of it. His position has been broadly confirmed subsequently,[8] although there is still considerable debate around continuities with earlier eighteenth-century commercial exchange of non-slave commodities, elite commercial institutions, and the role of slave labor in the production of the nineteenth-century cash crops.[9]

It is widely understood that the trans-Saharan trade also experienced expansion in the nineteenth century, increasing the volume of industrially manufactured cotton cloth and other consumer goods like tea, sugar, medicines, decorative beads and paper sent south to West Africa.[10] Although far from the scale of the export economy in palm oil and groundnuts, demand for gum Arabic was an important stimulant of trans-Saharan trade from nineteenth-century Mauritania, Senegal to Morocco, and from Sudan to Egypt.[11] Likewise, there was a boom in the demand for commodities such as ostrich feathers peaking in the 1870s, and this stimulated

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[8] Robin Law, "Introduction," in *From Slave Trade to 'Legitimate' Commerce: The commercial transition in nineteenth-century West Africa*, ed. Robin Law (Cambridge: Cambridge University Press, 1995), 11-15; Martin Lynn, *Commerce and Economic Change in West Africa: the Palm Oil Trade in the Nineteenth Century* (Cambridge: Cambridge University Press, 1997), 58-81.

[9] On these issues see Gareth Austin, "Commercial agriculture and the end of slave-trading and slavery in West Africa, 1780s-1920s," in *Commercial Agriculture, the Slave Trade and Slavery in Atlantic Africa*, ed. Susanne Schwartz, Robin Law, and Silke Strictrodt (Woodbridge, Suffolk: James Currey, 2013), 243-265; Paul Lovejoy, *Transformations in slavery: a history of slavery in Africa* (New York: Cambridge University Press, 2011 [Third edition]); Mariana Candido, *Wealth, Land, and Property in Angola: A History of Dispossession, Slavery, and Inequality* (New York: Cambridge University Press, 2022)), 76-81; Angus Dalrymple-Smith, *Commercial Transitions and Abolition in West Africa 1630–1860* (Leiden: Brill, 2019), 6.

[10] Lydon, *On Trans-Saharan Trails*, 110; Daniel Schroeter, *Merchants of Essaouira: Urban Society and Imperialism in Southwestern Morocco, 1844–1886* (Cambridge: Cambridge University Press, 1988), 107; Ahmed Said Fituri, "Tripolitania, Cyrenaica, and Bilad as-Sudan Trade Relations During the Second Half of the Nineteenth Century" (Ph.D. diss., University of Michigan, 1982), 96. C. Newbury, "North African and Western Sudan Trade in the Nineteenth Century: A Re-Evaluation," *Journal of African History* 7. 2 (1966): 233–46; Stephen Baier, "Trans-Saharan Trade and the Sahel: Damergu, 1870–1930," *Journal of African History* 18.1 (1977): 37-60.

[11] Schroeter, *Merchants of Essaouira*, 105-6; Bjørkelo, *Prelude to the Mahdiyya*, 127.

increased trade volume from the southern edge of the Sahara to Morocco and Libya.[12] Using the evidence of merchant papers from Ghadames (in modern-day Libya), Urlich Haarmann divided nineteenth-century Saharan trade into three phases: the first ended in the mid-1850s as Ottoman abolition of the slave trade caused the market for slaves to decline. The British consul general in Tripoli in 1858 estimated that two-thirds of the value of the Saharan caravan trade had been in slaves. So the dramatic drop of this trade after Ottoman abolition was significant. At the same time, West African gold dust became rare in Saharan markets, perhaps because gold was partly diverted to the Atlantic. The second phase from the late 1850s until approximately 1880 saw a boom in demand for African products such as dyed cotton cloth, ivory, tanned skins of different colors, and ostrich feathers. The demand for ostrich feathers peaked in 1875, but declined thereafter, initiating a third phase characterized by lower volume of Saharan trade, and immiseration of some trade-dependent people in Saharan oases like Ghadames.[13] But even in the mid-1880s, the German traveler Paul Staudinger found that European cloth and beads brought across desert were cheaper in Kano than similar goods brought from the Atlantic, because the costs of Saharan transport were cheaper.[14] Marion Johnson has argued that the relatively low cost of Saharan transport meant that inexpensive European-manufactured consumer goods like cloth allowed for a similar growth in consumer demand in the desert side economies of West Africa that Hopkins identified along the Atlantic coast.[15] Colonial conquest of Timbuktu and the Hausa commercial cities like Kano disrupted the trans-Saharan trade, although shorter circuits in and out of the desert continued to function.

In Hopkins' model of the nineteenth-century economic change due to 'legitimate commerce', he suggests that there were significant changes in commercial practices as commercial margins shrank, larger ex-patriot trading firms established themselves, and as older cowrie and copper currencies were superseded by European-issued money. The older system of accounting currencies such as the trade ounce and trade bar was also displaced by a more

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[12] Sarah Abrevaya Stein, *Plumes: Ostrich Feathers, Jews, and a Lost World of Global Commerce* (New Haven, Yale University Press, 2008), 88.
[13] Ulrich Haarmann, "The Dead Ostrich Life and Trade in Ghadames (Libya) in the Nineteenth Century," *Die Welt des Islams* 38.1 (1998): 9-94.
[14] Paul Staudinger, *In the Heart of the Hausa States*, trans Johanna Moody (Athens, OH: Ohio University Press, 1990), 227.
[15] Marian Johnson, "Calico Caravans: The Tripoli-Kano Trade after 1880," *Journal of African History* 17. 1 (1976): 19.

monetized system of exchange.[16] The literature on Saharan trade points to what we might think of as a similar monetary transition. Ghislaine Lydon has suggested that salt bars and cotton cloth continued to be the main commodity currencies in nineteenth-century Saharan trade, and that the gold *mithqāl* retained its role as the main unit of account. However, various silver dollar coins from Europe, Morocco and the Ottoman Empire became increasingly common in the correspondence of Saharan traders over the course of the nineteenth century, and the silver *mithqāl* became the unit of account by the late nineteenth century.[17]

One of the characteristics of European trading firms operating in West Africa in the nineteenth century was that they pursued strategies aimed at generating deeper vertical integration of the commodity chains they participated in, hoping to circumvent different layers of middlemen and brokers, who moved palm oil, for example, to the coast.[18] This resulted in a concentration of only a handful of large ex-patriot firms that dominated the sector, extending credit to brokers and producers, and eliminating competition from other buyers of the export commodities. Although it is not typically discussed in these terms in the literature, we will see that North African traders in major commercial entrepots like Cairo, Tripoli, and Essaouira followed similar strategies of trying to circumvent multiple layers of middlemen in the gum arabic and ostrich feather trade by extending credit to traders on the other side of the desert. Yet the nineteenth century was not just a time of commercial expansion and economic growth, it was also a time of expansionary political projects across the continent, often undertaken with the explicit aim of capturing commercially valuable territory. This includes early examples of European colonial expansion, such as that of the French in North Africa, or along the Senegal River Valley, or the British in Gold Coast and the island of Lagos in what would become Nigeria. Even more significant state building projects were undertaken in the hinterlands of the Mediterranean and Red Sea, often directly aimed at extending political control over trade networks by Moroccan, Ottoman, Ethiopian and Zanzibari political elites.

As already mentioned, the two principal North African destinations for trans-Saharan trade from West Africa in the nineteenth century were Essaouira on the Atlantic coast of Morocco, and Tripoli on the Mediterranean coast of Libya. Among the reasons for this was the

[16] A.G. Hopkins, *An Economic History of West Africa* (Harlow: Longman, 1973), 200.
[17] Lydon, *On Saharan Trails*, 250.
[18] Jairus Banaji, *A Brief History of Commercial Capitalism* (Chicago: Haymarket Books, 2020), 102.

role played by the state in Morocco and Ottoman Tripolitania in encouraging and taxing trans-Saharan commerce. The Ottomans had re-established control of Tripolitania in 1835 from the autonomous Karamanlī dynasty, and by 1842 had re-established nominal Ottoman control in Murzūq in the Fezzan, and then in Ghadames. Part of the motivation for Ottoman control of this stretch of the Sahara was competition with French colonial expansion next door in Algeria, and to encourage trade to pass through Libyan entrepots which fed north to Tripoli.[19] In 1875 it occupied and garrisoned troops in Ghat, in the far southwest of modern-day Libya. France also imagined that it could further develop trans-Saharan trade after it took control of the Mzab Valley, Laghouat and Touggourt in the northern Sahara in the 1850s.[20] But it was only in 1901 that the oases of Touat, Gourara, and Tidikelt were brought under colonial occupation. On the southern side of the desert, France began its colonial conquest of what is today Mali in 1880, conquering Timbuktu in 1893, and the rest of the Niger Bend by 1900. The British conquered the main northern Nigerian commercial towns of Kano and Katsina in 1903. The French struggled to 'pacify' the furthest reaches of the Sahara until the early 1930s when Spain consolidated its control over the Saqiat al-Hamra region of Western Sahara.[21]

The evidence of growth in trans-Saharan commerce in the nineteenth century is not new, but its acceptance and incorporation into broader African (and global) historical understanding has been hindered by the centrality of slave trading in perceptions of this history. Slavery was abolished in Tunisia in 1846, and in Ottoman Tripoli between 1855-57, although little was done to end slavery itself in these territories. The importance of European anti-slavery activism among explorers, and in the crafting of British foreign policy in the region, created a record of surveillance that was focused on the continuation of the Saharan slave trade throughout the nineteenth century. In his work on the nineteenth-century southern Moroccan commercial family of Bayruk which was very important in trans-Saharan trade to and from Morocco and Mauritania

[19] Lisa Anderson, "Nineteenth-Century Reform in Ottoman Libya," *International Journal of Middle East Studies* 16, No. 3 (1984): 325-348; Mustafa Minawi argues that nineteenth-century Ottoman control was never well developed outside of the main coastal cities, and that they relied on a symbiosis with the Sufi Sanūsiyya order that ran a series of zawāyā-s in the Sahara. These zawāyā-s acted as centers for political, religious and social life in the desert (*The Ottoman Scramble for Africa: Empire and Diplomacy in the Sahara and the Hijaz* [Stanford: Stanford University Press, 2016], 29-29.) See also Knut Vikor, *Sufi and scholar on the desert edge: Muḥammad b. ʿAlī al-Sanūsī and his brotherhood* (Evanston, IL: Northwestern University Press, 1995).
[20] Benjamin Brower, *A Desert Named Peace: The Violence of France's Empire in the Algerian Sahara, 1844-1902* (New York: Columbia University Press, 2009), 68-71.
[21] Bruce Hall, *A History of Race in Muslim West Africa, 1600-1960* (New York: Cambridge University Press, 2011), 130-172.

and Timbuktu, Mohamed Hassan Mohamed makes a grand critique of the abolitionist undergirding of much of the academic scholarship on these issues. Historians, he argues, have relied very heavily on nineteenth-century European accounts of trans-Saharan trade, which were pre-occupied with the orientalist ideas of Muslim and Arab slavery, often actively abolitionist in their motivations, and regularly seem to have conflated people who had black skin with slaves. Yet in the nineteenth-century Arabic commercial records that he consulted, he reports relatively few instances of transactions involving slaves in southern Morocco.[22] Anders Bjorkelo has made a similar argument about merchants in nineteenth-century Sudan: "It is noteworthy that a successful commercial career in the Sudan in the nineteenth century did not have to depend on or derive from slave trading, as is usually assumed."[23] While these observations must accurately reflect the commercial sources used by Mohamed and Bjorkelo, we must also be attentive to the dramatic decline in the Saharan slave trade in the second half of the nineteenth century, and the often contrary evidence from sources from desert-side West Africa in Timbuktu and Kano of the continuing importance of slaves as stores of value, and for doing the commercial work of trade.[24]

Nominally-Ottoman Egypt extended its political control into Sudan in 1821. According to Anders Bjorkelo, this political expansion stimulated changes in the commercial practices of Sudanese merchants, leading to many of the shifts that Hopkins noted for West Africa:

> When the Egyptians (actually the Ottoman rulers of Egypt) invaded the Sudan in 1821 they found a society based on agriculture (grain and vegetables, irrigated by flood, rain or artificially), animal husbandry (camels, cattle, sheep and goats), and trade (crafts and commerce). Production was largely' aimed at household subsistence and exchange was facilitated through barter rather than through cash payments. Some currencies such as Austrian and Spanish dollars were however in circulation, mainly in the towns, and with closer connections to Egypt and the world market after 1821 there followed a period of increasing monetisation. This process was assisted by the growing merchant class, particularly those with connections abroad, or those who enjoyed the patronage of Egyptian officials and foreign merchants.[25]

So, the extension of political control from Egypt into Sudan stimulated an increase in the volume of trade, and institutional changes in commercial practices which took the form of more explicit

[22] Mohamed Hasan Mohamed, *Between Caravan and Sultan: The Bayruk of Southern Morocco: A Study in History and Identity* (Leiden, Brill, 2012), 263; Pascon, *La maison d'Iligh*, 77.
[23] Bjorkelo, *Prelude to the Mahdiyya*, 129.
[24] Barth also noted that few slaves were exported northward into the Sahara when he was in Timbuktu in 1853-4 (Barth, *Travels and Discoveries*, v.3: 368).
[25] Anders Bjorkelo 1997 "Credit, Loans, and Obligation in the nineteenth-century Sudan," Historisk (1997): 170.

Islamic commercial instruments. This coincided with the increased availability and lower cost of industrially-produced paper in the Sahara, which encouraged more formal uses of paper in record keeping and commercial correspondence.[26] We can see this across the continent in the nineteenth century, and this contributed to the increasing commercialization of markets in land and real estate.[27]

The relationship between the availability of paper and economic 'modernity' is often overlooked in the literature on Saharan trade. There is a kind of ahistorical assumption that participants in Saharan trade always used letters to communicate, and to record the nature of their relationships, agency partnerships, inventories of consigned goods, prices, etc. They certainly did so in the nineteenth century. As we know most famously from the Cairo Geniza documents, but also from other medieval sources, North African merchants made regular use of letter writing in conducting their affairs.[28] But the first mention of a book market on the southern side of the desert is in Leo Africanus' "Description of Africa" completed in 1526. In it, he writes that in Timbuktu, which he claimed to have visited, "there are numerous judges, scholars and priests, all well paid by the king. Many manuscript books coming from Barbary are sold. Such sales are more profitable than any other goods."[29] Timbuktu was the first site in the southern Sahara to produce its own literary tradition, but Leo Africanus makes no mention of imports of paper from North Africa. Since there is no evidence of Saharans or West Africans making paper themselves, we must assume that paper needed to be imported for a book copying tradition to develop.

The question of paper, copying, and the 'book trade' has been the subject of much speculation.[30] Literacy in Arabic may in fact have preceded the availability of paper, judging

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[26] Bjorkelo, "Credit, Loans," 169.
[27] On Angola, see Candido, *Wealth, Land, and Property in Angola.* On Zanzibar, see Fahad Bishara, *A sea of debt: law and economic life in the Western Indian Ocean, 1780-1950* (New York: Cambridge University Press, 2017).
[28] Shelomo Goitein, *A Mediterranean Society: the Jewish communities of the Arab world as portrayed in the documents of the Cairo Geniza*, Vol. 1. *Economic Foundations* (Berkeley: University of California Press, 1967); Jessica L. Goldberg, *Trade and Institutions in the Medieval Mediterranean: The Geniza Merchants and their Business World* (New York: Cambridge University Press, 2012). On other commercial letters from medieval Egypt, see Li Guo, *Commerce, Culture, and Community in a Red Sea Port in the Thirteenth Century: The Arabic Documents from Quseir* (Leiden: Brill, 2004).
[29] Published in John Hunwick, *Timbuktu and the Songhay Empire: Al-Saʿdī's Taʾrīkh al-sūdān down to 1613 and Other Contemporary Documents* (Leiden, Brill, 1999), 281.
[30] I have found the following useful: Terence Walz, "The Paper Trade of Egypt and the Sudan in the Eighteenth and Nineteenth Centuries and its Re-export to the Bilād as-Sūdān," in *The Trans-Saharan Book Trade: Manuscript Culture, Arabic Literacy and Intellectual History in Muslim Africa*, ed. Graziano Krätli and Ghislaine Lydon

from epigraphic evidence and analyses of the antiquity of different kinds of regional scripts.[31] Most of the paper used in the Sahara was manufactured in Europe and brought into and across the Sahara by merchants. Contemporary sources indicate that European paper imports into Egypt were destined not only for the Egyptian market, but also to be trans-shipped to Saharan and sub-Saharan Africa. Terence Walz has identified the first references to paper as a trade item in both the Eastern Sudan (modern-day Sudan and Chad) and the Western Sudan (West Africa) from the seventeenth century. Likewise, records from Tripoli, a major trans-shipment point to the central and southern Sahara beginning in the seventeenth century, show significant volume of Italian-made paper imported until the end of the nineteenth century. French-manufactured paper was the dominant import into Morocco, the main trans-shipment point for trade with what is today Mauritania.[32] Nineteenth-century commercial documentation from Saharan traders themselves regularly include paper as a commodity sent south on caravans.[33]

Sources:

This paper is based on selective use of the following sources:

- a corpus of 903 Arabic documents from a single merchant based in Timbuktu (Mali) in the second half of the nineteenth century, preserved in a public archive in Timbuktu.[34] These papers cover roughly sixty years of commercial activity of this family 'firm', from the establishment of a household in Timbuktu as early as 1846 (the earliest date in the documents) by the Timbuktu merchant ʿĪsā b. Ḥmīda.[35] He was variously referred to by his correspondents using the *nisba*-s al-Sināwinī, al-Shaʿwānī, and al-Ghadāmisī, each of which indicate a town of origin in modern-day Libya. He seems to have come from the small Saharan oasis of Sināwin, which consists of the hamlets of Sināwin and Shaʿwāʾ, 6 km apart from each other. The oasis is 140 km northeast of Ghadames on the road to Tripoli (all in modern-day Libya).[36] Letter writers who knew him from Timbuktu referred to him as ʿĪsā b. Ḥmīda al-Ghadāmisī—from Ghadames—whereas many

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(Leiden: Brill, 2011), 73-107; Ghislaine Lydon, "A Thirst for Knowledge: Arabic Literacy, Writing Paper and Saharan Bibliophiles in the Southwestern Sahara," in *The Trans-Saharan Book Trade: Manuscript Culture, Arabic Literacy and Intellectual History in Muslim Afric*a, ed. Graziano Krätli and Ghislaine Lydon (Leiden: Brill, 2011), 35-72; Lydon "Inkwells of the Sahara: Reflections on the Production of Islamic Knowledge in Bilād Shinīṭ," in *The transmission of learning in Islamic Africa*, ed. Scott Reese (Leiden: Brill, 2004), 39-71: Jonathon Bloom, *Paper Before Print: The History and Impact of Paper in the Islamic World* (New Haven: Yale University Press, 2001).

[31] Andrea Brigaglia and Mauro Nobili, "Central Sudanic Arabic Scripts (Part 2): Barnāwī," *Islamic Afric*a 4, 2 (2013):195-223.

[32] Walz, "The Paper Trade of Egypt and the Sudan," 94-99.

[33] Lydon, "A Thirst for Knowledge," 49.

[34] l'Institut des Hautes Etudes et de Recherche Islamique - Ahmad Baba, Tombouctou [hereafter IHERI-ABT].

[35] His full name is ʿĪsā b. Ḥmīda b. Muḥammad b. Mūsā b. Muʿizz al-Sināwinī

[36] In the late 1850s, the population of the whole district of Ghadanzis is computed at 6500, of which 4000 were in Ghadames Proper, 2000 in the town of Dirj, and 500 in Sinawin. See C.H. Dickson, "Account of Ghadamis," *The Journal of the Royal Geographical Society of London* 30 (1860): 257.

Libyan letter writers referred to him as al-Shaʿwānī—from Shaʿwāʾ—or al-Sināwinī—from Sināwin. This probably means that he was from Shaʿwāʾ. When James Richardson passed through Sināwin and Shaʿāʾ in 1845, he reported that there were only sixty people altogether in the two hamlets.[37] From Timbuktu, ʿĪsā participated in trading networks that connected Timbuktu to Tripoli, concentrated on the exchange of ostrich feathers for textiles. He also was active in the desert-side exchange of Saharan rock salt for West African gold, foodstuffs, textiles, and slaves. After he died in 1877, his son Aḥmad al-Bakkāy carried on his business but at a reduced scale.

- a collection of 300 documents from Ghadames published in Libya by Bashīr Qāsim Yūshuʿ in 1982 and 1995.[38] Largely letters exchanged by members of the Yūshuʿ extended family, these documents cover commercial exchange between Ghadames, Tripoli, Ghat, Kano, Katsina, Timbuktu, mostly in the nineteenth century.

- an unpublished 'ledger of debt' (zimām al-duyūn) from Katsina in Northern Nigeria in the nineteenth century by a merchant named Abū al-Ghayth b. Aḥmad al-Wājdawī al-Tuwātī, annotated by Yacine Daddi Addoun.[39]

- dozens of additional documents from Timbuktu private manuscript libraries available at the Hill Museum and Manuscript Library website (https://www.vhmml.org/).

Capital and 'Disorder':

Merchants viewed the Sahara as a dangerous region to move capital and commercial goods across. Comments about the disorder or chaos of the region are common in the commercial letters. In the letters from Ghadames, there are frequent versions of colloquial Arabic expressions such as 'the world is a mess' (*al-ḥāṣil la-dunyā mutakhalwida*) or 'the country is a complete disaster' (*al-bilād mutakhalwida ghāya*).[40] Better-educated Muslim scholars from the region sometimes characterized the region as a 'land of disorder' (*bilād al-sāʾiba*), an expression which carries a more political connotation of areas outside of the political order of Muslim rule. They regarded the Sahara as a country dotted by an archipelago of oases and desert-side settlements where Islam was practiced and reproduced because of the nexus of

[37] James Richardson, *Travels in the great desert of Sahara, in the years of 1845 and 1846. Containing a narrative of personal adventures, during a tour of nine months through the desert, amongst the Touaricks and other tribes of Saharan people* (London: R. Bentley, 1848), vol I: 81.

[38] Bashīr Qāsim Yūshuʿ, *Ghadāmis: wathāʾiq tijāriyya taʾrīkhiyya ijtimāʿiyya, 1228-1310 hijrī* (Tripoli, 1982); Bashīr Qāsim Yūshuyʿ, *Wathāʾiq Ghadāmis: wathāʾiq tijāriyya taʾrīkhiyya ijtimāʿiyya, 949-1343 hijrī*, volume 2 (Tripoli, 1995)

[39] Abū ʾl-Ghayth b. Aḥmad al-Tuwātī, "Zimām al-duyūn"/ "The Notebook of Debts. Abū al-Ghayth b. Aḥmad al-Wājdawī al-Tuwātī. Translation from Arabic with commentary by Yacine Daddi Addoun" (unpublished). See Yacine Daddi Addoun and Paul Lovejoy, "Commerce and Credit in Katsina in the Nineteenth Century," in *Africa, Empire and Globalization: Essays in Honor of A.G. Hopkins*, Toyin Falola and Emily Brownell ed. (Durham, NC: Carolina Academic Press, 2011), 111-24.

[40] Yūshuʿ 1995: 98; 110.

Muslim merchants and scholars, otherwise surrounded by oppression, violence and chaos.[41] It is perhaps not necessary to point out that the most powerful pastoralists did not view things in this way, and tended to lament cases where subordinates were able to loosen their dependence.[42]

For merchants however, pastoralists were indispensable to the mechanics of Saharan trade. As Rémi Dewière puts it, "Long-distance travel is not independent of pastoralist migrations and mobility. Instead, they are based on the routes, stops, and the structure of local mobility, especially the routes of transhumance which merchants followed according to the seasonal ebb and flow." Since it was the pastoralist populations of the Sahara that provided the pack animals for commercial caravans, the routes depended "on the pastures that were able to support the caravans and the time spent on the routes, so the path taken fluctuated depending on the year, the time of year, the type of caravan, the season and the political context."[43] They also depended very much on the political context of the lands they wished to cross. Many commercial letters mention caravans being robbed and pillaged by both Arab and Tuareg Saharan nomadic groups. These nomadic groups are often referred to by the Saharan merchants as either 'warriors' or 'bandits'. They exercised their power by extending protection to less powerful people, or by raiding those under other's protection. Political conflicts on both the northern and southern side of the Sahara also appear frequently as causes for roads being cut, goods being pillaged or taxed excessively, and for generally bad market conditions. Efforts at state building and imperial expansion, indigenous or imperial, also recur as causes of insecurity.[44]

The distinction between sedentary traders and pastoralists is sometimes overly sharp. The most common strategy of wealth accumulation for pastoralists was expanding their stock of camels, which were used in transportation services across the Sahara. But they also invested in commerce, slaves, irrigation rights and land for date palm cultivation. Likewise, sedentary people in towns like Ghadames, including merchants, invested in owning camels, which they

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[41] For more on this Hall, *A History of Race*, 74-104; Rainer Osswald, *Die Handelsstädte der Westsahara: die Entwicklung der arabisch-maurischen Kultur von Šinqīṭ, Wādān, Tīšīt und Walāta* (Berlin: Verlag von Dietrich Reimer, 1986).

[42] For example, this sentiment is evident among Mauritanian ḥassān groups in the middle of the nineteenth century who see their control over subordinates diminished as a consequence of market forces and demand for gum Arabic. See Raymond Taylor, "Of Disciples and Sultans: Power, Authority and Society in the Mauritanian Gebla" (Ph.D. dissertation, University of Illinois at Urbana-Champaign, 1996), 172.

[43] Rémi Dewière, *Du Lac Tchad à la Mecque: Le Sultanat du Borno et son Monde (XVIe-XVIIe siècle)* (Paris: Editions de la Sorbonne, 2017), 201.

[44] Many examples could be cited, but Haarmann lists some examples from Yūshuʿ (Haarmann, 32f145).

consigned to the care of pastoralists. So there was a complex interdependence that we get some sense of from an account by late nineteenth-century Berber-speakers in Ghadames:

> The inhabitants of Ghadames own camels, which they entrust to the Arabs to graze. From time to time, members of the Hoggar Tuareg seize their animals; local notables intervene, the raiders return their plunder, and peace is immediately restored between the two parties. If they spot the very Tuareg who stole the camels walking through the town, they say nothing to them. No action can be taken against them, for when most Ghadamesa transport their goods to Ghat, Sudan, or Fezzan, they hire Tuareg guides; it is these men who travel alongside them on the trade routes and lead the caravans from the Sudan across the Sahara. Consequently, any Tuareg who come to Ghadames are offered hospitality, and not a word is ever said against them.[45]

But the idea of 'disorder' was a trope that could survive such interdependence. A Muslim scholar from the southern Saharan town of Arawān, in modern-day Mali, used the idea of a pervasive 'disorder' as an argument for not contesting or fleeing the initial French occupation of what is now Northern Mali:

> In these countries, we do not know of any place to where we could flee for the sake of religion, or where we could emigrate for the pleasure of God, because [every such place] is pervaded by oppression. The warriors must be avoided because settling amongst them is forbidden since that would make fighting them obligatory just as in the case of the polytheists. There is no guarantee that one will be safe from them when they are at a distance, let alone when you are close by, because they are one of the three types against whom fighting is obligatory, namely the polytheists, the warriors, and the bandits.[46]

These claims appear widely in local Arabic writing. As one prominent Timbuktu scholar put it in his historical account of the region written in 1932,

> Know that prior to the entry of the French, this Sudanic country and other lands beside it such as the Azawād and its surroundings, were engulfed in killing and severe oppression, plundering of wealth and spilling of blood. These things occurred one after the other, all in violation of God's laws, enticed by the devil into committing major sins and iniquities. The needy were oppressed while rightful owners were deprived of their rights. The sincere person was considered a bad omen and the indigent treated as a criminal. The just judge was harmed while the oppressor was granted mercy. The minister (*wazīr*) was an oppressor and the amīr a tyrant. This one was oppressed without a cause, that one killed without wrongdoing, this one plundered of his wealth, that one deceived of his family.[47]

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[45] Adolphe de Calassanti-Matylinshi, *Le dialecte berbère de R'edamés* (Paris : Ernest Leroux, 1904), 70-1. Cited by Haarmann 33f154.
[46] K. Turjumān, fl.53. quoting Maḥmūd b. Muḥammad Lmūḍi b. Aḥmad ag Addā (d.1902), "Fatwā fī shaʾn al-hijra ʿan al-naṣārā" [IHERI-ABT ms. 1909]).
[47] K.Turjuman, fl.70-71.

So even as we might suspect that some of these kinds of legal and historical arguments are somewhat ideological, they are hard to miss in Saharan writing.

How did Saharan merchants account for instances of 'disorder' in their bookkeeping practices and is there any evidence of change over time? Merchants hired Saharan pastoralists to organize caravans, paying for transportation services (typically referred to by the general term *kirāʾ* - 'wages'). On shorter circuits, or perhaps when confronted with unexpected costs, the cost of the transportation services was sometimes documented. But most of the letters from Ghadames to Timbuktu of Kano do not provide cost information for transport.[48] Perhaps they were negotiated separately or were an established by a fixed or customary price. The British consul at Ghadames from 1849-54, C.H. Dickson, reported the following costs in Tunisian piastres (riyāl)[49] per load of transport from Ghadames:[50]

| | Tunisian Piastres [*riyāl*] | Days |
|---|---|---|
| The Jebel Mountains | 14 | 7 |
| Tripoli | 22 | 12 |
| Ghat | 30 | 20 |
| Kano | 250 | 110 |
| Tuwat | 63 | 22 |
| Timbuktu | 300 | 60 |
| Souf | 28 | 18 |

Merchants also paid a combination of other fees with various names: protection fees (*mughram*), tribute taxes (*ghafra*), customs taxes (*ʿushr*), and sometimes also additional tolls assessed collectively (*mudārāt*) or individually (*maks*, pl. *mukkās*) by political authorities.[51] We know about these fees and taxes from narrative sources like chronicles and from letters reporting these activities. But again, the enumeration of the amounts in particular cases often comes in cases where they are unexpected or unreasonable.

The papers of the merchants reveal a lot of information about the costs of pastoralist raids, tolls, and taxes. For example, a ledger was made of the losses caused by a serious of raids that took place in 1875 against Ghadames merchants by two Tuareg groups, the Kel Hoggar and

[48] Haarmann 63f363.
[49] One Tunisian piastre was worth approximately 1/8 of a Maria Theresa Thaler at that time.
[50] Dickson, "Account of Ghadamis," 260.
[51] See K. Turjuman fl 46

the Manghasāten, a subgroup of Azjar Tuareg mostly present east of Ghadames close to the town of Dirj.[52] At this point, Ghadames was under Ottoman rule as part of the pashalik of Tripoli. The Ottoman-appointed municipal council arranged for the compilation of "a registry (*taqyīd*) of that which was registered in the memorandum authorized by ʿĀsīm Pasha, [to be sent] to Tripoli."[53] These losses involved 45 individuals or groups of partners, and amounted to losses of 1,385,220 *qirsh*, which would be approximately 138,522 Maria Theresa dollars in 1875. The largest losses were for camel loads of women's wraps (*milḥaf* pl. *malāḥaf*), gold dust, ostrich feathers, 'merchandise for the Sudan', and working camels. The largest single claim was for 447,000 *qirsh*, the smallest for 900 *qirsh* for a loss of 5 *mithqāl* of gold dust. I do not know if the Ottoman government offered any compensation for these losses, but it seems likely that such a registry would not have been produced in the absence of an Ottoman state in the region.

On the southern side of the Sahara, another ledger (*zimām*) was produced by a commercial agent to account for losses incurred from Tuareg seizures and irregular tolls during a commercial venture on a trip up-river from Timbuktu. I quote it in full to give a sense of how the list of costs (losses) is attached to the different stages of the trip:

> This is a ledger (*zimām al-tafākir*) against forgetting which enumerates what the Tuareg seized from us on the road:
>
> - first, 6 *cachabia*-s [a camel-hair garment] and 2 straight tusks of ivory (*lanṣāṣuta*).
>
> - then, when the cavalry (*goum*) of Sāmata[54] reached us, they seized a green *cachabia* and one woolen blanket (*ḥirāma*) which we had purchased for 8000 [cowries].
>
> - Then, they seized one embroidered blanket (*kāla*) which we got from you.
>
> - Then, when we reached Niafunké at the place of Hamma Hādī, he seized one block [of salt] from me.
>
> - Then, when we reached Youvarou, they forced all the travelers to give a present to ʿAlī b. ʿĀbid, which was one block for every three foreigners. They considered us to be foreigners… [unreadable]

[52] On the Manghasāten, see H.T. Norris, *Arabic Historical Literature from Ghadāmis and Mali: Documents from the 18th to 20th Century* (Leiden: Brill, 2020), 3.
[53] Yūshuʿ 1995 : #122.
[54] Samata was a leader of the Kel Denneg Tuareg (Iwillimmiden) in the last the last third of the nineteenth century. See Ghubăyd ăgg-Ălăwjḙli and Karl-G Prasse, *Histoire des Kel-Denneg avant l'arrivée des français* (Copenhagen: Akademisk Forlag, 1975); Djibo Hamani, A*u carrefour du Soudan et de la Berbérie: le Sultanat Touareg de l'Ayar* (Paris: L'Harmattan, 2006).

- Then the ‘master of the foreigners’ (*aṣḥāb ghārib*) raised 25,000 [cowries]… [unreadable] 7000 cowries from us, and the 18,000 that remained came from the two other foreigners.

- Then, we entered the fees (*kirāʾ*) paid to transport our blocks from Youvarou to Māsina, which was 27,500 cowries, which we added altogether with the 7000 cowries which were seized from us by the ‘master of the foreigner’.

- Then the rest that was taken out was 8 *shugga*-s [white cloth].

- Then we took out 23,000 [cowries] for the toll (*mudāra*) of the road.[55]

Altogether, this trip between to Māsina in the Middle Niger from (we presume) Timbuktu cost 7 cachabia-s, 8 shugga-s, 2 pieces of ivory, an embroidered blanket, a woolen blanket, 2 40kg blocks of rock salt, in addition to 30,000 cowries in fees and tolls, and 27,500 cowries in transportation costs. The value of a 40kg block of rock salt ranged from about 8,000 to 12,000 cowries over the course of these commercial letters, so we can estimate the two blocks taken from them were worth between 16,000-24,000 cowries. Although this document is not dated, if we use the commonly reported exchange rate of 3000-1 between cowries and Maria Theresa dollars or Spanish silver dollars,[56] the reported losses in cowries was equal to 15-18 silver dollars, in addition to the textiles and ivory.

Most often, the reporting of losses because of excessive and unexpected tolls of various sorts—‘banditry’ or ‘oppression’ as it is often called—was mostly for the purposes of internal accounting. But in at least one case, in which ʿĪsā was involved in transporting goods belonging to Aḥmad al-Bakkāy al-Kunti (d. 1865), the dominant political figure in Timbuktu in the middle of the nineteenth century, an account of losses was made with an eye on legal compensation at some point in the future.

> This document confirms and bears witnesses that ʿĪsā b. Aḥmad al-Ghadāmisī is actively lodging a formal legal claim against whosoever seized any part of his property without any valid justification under the sharīʿa, from what belonged to al-Shaykh Sīdi Aḥmad al-Bakkāy b. al-Shaykh Sīdī Muḥammad on the river, entirely without his permission, consisting of illegal river customs taxes (ʿushūr) and forced tribute (mudāra) extracted on the river that were not owed or legally valid. He maintains the full legal intention to prosecute this claim the moment it becomes practically possible for him, or when his legal path becomes clear, or when divine justice and truth prevail. Despite the delay in formalizing this record relative to the event, the unlawful seizure of the cargo containers,

[55] IHERI-ABT, ms.5546.

[56] Jan Hogendorn and Marion Johnson. *The shell money of the slave trade* (Cambridge: Cambridge University Press, 2003), 136-8.

> provisions, and livestock has been fully witnessed and verified. Dated at the end of Shaʿbān 1285 [December 1868]. Written by al-Bakkāy b. Muḥammad al-Kuntī [copied by] the servant of his lord Matīḍan b. Aḥmad al-Ghadāmisī.[57]

We will discuss the question of appeals to legal rights below.

Credit and Currency Circuits:

In the Hopkins' model of the nineteenth-century economic changes in West Africa, increasing monetization in the medium of European silver coins was a key factor in expanding African production for export and increasing demand for important consumer goods. According to Akinobu Kuroda, the production and circulation of international silver dollars like the Maria Theresa thaler increased in the second half of the nineteenth century.[58] The reason for the increased demand was that silver dollars were very useful as a complementary currency linking local and international circuits of exchange that simultaneously used other currencies. Kuroda has shown very compellingly how the Maria Theresa dollar played this role in the Red Sea hinterland of Yemen and Ethiopia in the late nineteenth and early twentieth centuries:

> …we can find three layers of monetary circulation. Above the layer of the dollar's circulation, the pound sterling or its convertible rupee flowed in international and interregional circuits. At the boundaries between the two layers, depending on fluctuating exchange rates, native exchangers such as shroffs and traders engaging in interregional trade competed for profits through speculation. At the same time, below the dollar's flow, a variety of smaller monies, such as the 10-lira note, copper coins, rifle cartridges, cloth, salt bars and beads, were in circulation with strong regional preferences. At the border between the lower two layers, there were many small but prosperous businesses interchanging the currencies. Whether in the international market or local markets, the Maria Theresa dollar and other currencies were exchangeable, but without fixed rates. The rates fluctuated from day to day and differed by region. In the triple-layer monetary system, the Maria Theresa dollar might well have worked as a buffer between international and local currencies.[59]

Kuroda argues that the Maria Theresa dollar served as a device that "switched local markets on or off the international market according to whether conditions were favourable or unfavourable for export."[60]

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[57] IHERI-ABT 12347.
[58] Akinobu Kuroda, *A global history of money* (Abingdon: Routledge, 2020), 153-4.
[59] Ibid., 162. See also Akinobu Kuroda, "The Maria Theresa dollar in the early twentieth-century Red Sea region: a complementary interface between multiple markets," *Financial History Review* 14.1 (2007): 89-110.
[60] Kuroda, *A global history*, 165

Various silver dollars circulated across many regions of Africa in the nineteenth century, including in the region which is the focus of this paper. In Ghadames, the Maria Theresa dollar and the Spanish silver dollar (*riyāl*) were of more or less equivalent value. According to Heinrich Barth, people in Ghadames tended to hoard silver coins.[61] Philip Curtin suggests that much of the early demand for silver coins in eighteenth-century Senegambia was as a commodity to melt down for the making of jewelry.[62] But by the nineteenth century, the northern entrepots in the Saharan trade had become more monetized with greater circulation of various silver and bronze coins. As Ghislaine Lydon shows, at least one southern Saharan intellectual wrote a legal opinion on how to think about the circulation of credit and debts in different silver currencies.[63] But there do not seem to have been very many silver dollars in nineteenth-century Timbuktu or Kano. There were some, recorded in testaments and witnessed by travelers,[64] but nothing like the scale of the Red Sea region explored by Kuroda.

Might the reason for this be obvious, in that it was a longstanding adaptation to 'disorder' in the Sahara to minimize monetization? The literature on Saharan trade uses terms like barter, or counter trade, to describe a process by which commodities were exchanged for each other, or commercial profits were invested directly in other trade commodities, thereby avoiding the need for cash.[65] The idea of barter in this case is somewhat misplaced because it is very obvious from the papers of merchants that trade commodities functioned as currencies and that value was recorded using currencies of account such as the *mithqāl* and cowries. In the commercial papers, the *mithqāl* can be a virtual currency of account or a commodity currency measuring a weight of gold dust (*mithqāl al-dhahab al-ʿayn*). It is never a physical coin. In southern Morocco, the *mithqāl* was worth 10 Moroccan silver *dirhām*-s in cash;[66] in Ghadames in 1877, a gold *mithqāl* was worth 16 silver dollars.[67] Likewise, cowries are either a virtual currency of account or physical currency depending on the context. Most of the main trade commodities in the Saharan trade, like cloth, salt, grain, and even enslaved people, took on the role of fungible currencies

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[61] Haarmann 22f74.
[62] Philip D. Curtin, *Economic Change in Precolonial Africa: Senegambia in the Era of the Slave Trade* (Madison: University of Wisconsin Press, 1975), 238.
[63] Lydon, *On Saharan Trails*, 255-6.
[64] Haarmann
[65] Haarmann 39; Hopkins 67-8;
[66] Pascon 61-3.
[67] Haarmann 21f72.

across the spaces drawn together by this commerce.[68] If barter was part of Saharan exchange, it was as a response by people highly accustomed to monetary exchange who for one reason or another found themselves with no access to currency.[69]

One of the ways that the issue of currency has been approached in African economic history is to distinguish between different currency zones with interfaces between them. According to James Webb, from the eighteenth to the mid-nineteenth century, there were three distinct currency zones along the southern edge of the Sahara: "the monetized metal zone centered in the Islamic Mediterranean to the north; the cowry zone in sub-Saharan Africa to the east and south; and the zone of mixed commodity money, principally of glassware, iron, silver coin, and cloth, along the Atlantic coast to the west. These currency zones had discrete boundaries, or frontiers, past which the currencies which predominated in one zone became either less culturally acceptable or too expensive due to transport costs."[70] All three of the zones converged along the southern desert edge in what is today Mauritania, Senegal and Mali. But at least in the commercial papers that are used in this paper, Atlantic commercial networks played little role in Timbuktu or Kano.

While the idea of currency zones is one way of representing the regional differences in commercial economies, it implicitly suggests that the difference between regions is one of currency type, rather than the degree of monetization or the extent of the development of institutions needed to facilitate exchange. In the context of the 'disorder' in the nineteenth-century Sahara, the physical movement of currencies was minimized as much as possible and there was a premium placed on financialization through mechanisms of credit, agency and partnership. In the trade between desert-edge towns such as Timbuktu and sub-Saharan markets to the southwest along the Niger Valley, trade goods were denominated in cowries, but Saharan merchants and their agents preferred to directly exchange commodity currencies such as salt, cloth, gold dust, and slaves rather than accumulate and transport bulky cowries. Looking at the broader exchange across the circum-Saharan region, we can see that there were multiple

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[68] On the role of slaves as a currency, see Jan Hogendorn, "Slaves as money in the Sokoto Caliphate," in *Credit, currencies and culture: African financial institutions in historical perspective*, E. Stiansen, and J. I. Guyer ed., 62-77.
[69] David Graeber, *Debt: The First 5,000 years* (Brooklyn: Melville House, 2011), 40.
[70] James L.A. Webb Jr, "On currency and credit in the Western Sahel, 1700-1850," in *Credit, currencies and culture*, ed. Endre Stiansen and Jane I. Guyer (Uppsala: Nordiska Afrikainstitutet, 1999), 44.

currencies working at the same time, often tied to moving particular commodities along different circuits. Kuroda calls these 'currency circuits', by which he means,

> …a circuit of trade dealing with particular goods often appears to pair with a particular currency… A combination of three conditions generates a currency circuit. First, a large number of independent dealers must be engaged in the exchanges, since a small number of traders do not always need to use currencies to make transactions. Second, exchanges must be dominated by spot transactions (one-time transactions), as deferred payments or future trades do not require payment in currency. Third, traders must find it difficult to provide a currency on demand, otherwise, they would prefer to use a universal currency.[71]

I suggest that this rubric of commodity and currency circuits offers a more useful way of thinking about the economic history of different parts of Africa than currency zones because it allows us to distinguish between systems of exchange which required money to function, and those that did not. Monetization did not occur evenly across nineteenth-century Africa; but that does not mean that commercial institutions that Hopkins called 'modern' had not developed. If silver dollars did not do the work of moving capital across the Sahara, what did?

In the commercial papers used in this paper, we can identify four distinct circuits of exchange that came together in Timbuktu in the nineteenth century. Each of them covers circuits into and out of the Sahara, but only one of them is fully trans-Saharan. Although it is *trans*-Saharan trade that attracts most of the attention of historians interested in this connection between sub-Saharan Africa and other parts of the world, it must be emphasized that the overwhelming bulk of what was exchanged by Saharan traders in the nineteenth century, and presumably before this, was part of shorter, regional trade circuits in and out of the desert. This is true of the north side of the desert where pastoralists and agriculturalists performed regular exchanges of cereals for animal products. On the southern side of the desert, similar exchanges occurred between pastoralists and agriculturalists, but with the essential added production and movement of Saharan salt to the south.

For heuristic reasons, I am going to distinguish these circuits according to the main commodities exchanged and the currencies that facilitated this exchange of goods:

1. Timbuktu to/from Taoudenni; salt – grain; currency: salt block (*raʾs*)

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[71] Kuroda, A Global History, 60.

2. Timbuktu to/from the Middle Niger: salt, European cloth – gold dust, African cloth, slaves; currency: cowries
3. Timbuktu to/from Ghadames: European and African cloth – gold dust; currency: gold *mithqāl*

4a. Ghadames to/from Tripoli: cloth – ostrich feathers, tanned skins; currency Tunisian or Tripoli piastre (*qirsh*)

4b. Timbuktu to/from Tripoli: cloth – ostrich feathers, tanned skins; account currency: ?

These circuits overlapped in practice. Commodity currencies moved along each of these circuits and were at the center of exchange. Only the second circuit, from Timbuktu to the Middle Niger, was significantly monetized, with cowries serving as the primary currency for participants in this circuit of exchange. But even here, high value exchange took place using commodity currencies rather than cowrie money. All of the others were dominated by a variety of credit and agency/partnership structures that minimized the need to transact in cash. The difference between the circuits is not primarily a result of trading across currency zones, but instead has to do with the larger number of traders active in the second circuit where barriers to entry into the market were significantly less significant that that of Saharan traders, who numbers were much fewer.

The first, and almost certainly the oldest and most important circuit of exchange, is the trade of Saharan rock salt for West African grain. The corpus of commercial papers from Timbuktu is filled with transactions in rock salt produced in a Saharan mine called Taoudenni, located 650 km north of Timbuktu. This salt was transported by camel to Timbuktu (and other desert-side market towns, and then sent on to commercial towns in the Niger Bend and along the Niger River from where it was distributed across the whole subregion. Timbuktu's relationship with Saharan salt mines at Taoudenni, and before that at Taghāza (70 km northwest of the mines at Taoudenni), seem to date to the establishment of the town around 1100 CE, and was the essential commodity needed by the town's merchants in order to operate the trade networks that linked trans-Saharan with local circuits of exchange.[72] But salt could also be brought directly to the Middle Niger from Taoudenni, skipping Timbuktu altogether. Caravans from the northern Sahara often stopped in Taoudenni to pick up salt blocks to carry to Timbuktu. According to Daniel Schroeter, southbound caravans from Morocco in the latter half of the nineteenth century mustered at Tindouf and would leave with only twenty percent of the camels fully loaded with

[72] Elias Saad, *Social history of Timbuktu* (Cambridge: Cambridge University Press, 1983), pp. 28-29.

trade goods while the others were used to carry salt from Taoudenni to Timbuktu. Twenty percent of the caravan's camels would be sold at Timbuktu rather than cross the desert again without being fully loaded.[73] Caravans from Ghadames would often travel via the Touat and then to Taoudenni on the way to Timbuktu for the same reason. Similar circuits of exchange of Saharan salt to the south existed to the west in modern Mauritania where salt was mined at Ijil, and in modern Niger where salt was produced by evaporation of brine at Bilma.[74]

In the nineteenth century, Timbuktu was essential to the regional salt-grain trade because it was capital from Timbuktu that financed the mining of the salt and organized the transport of the workers and the salt blocks. It was also from Timbuktu that grain was sent to pastoralist communities in the southern Sahara that provided much of the transportation services for the salt mine. Because of the insecurity of the region that the salt passed through, capital was pooled by many investors who provided advance payment of grain to transporters and miners (or their owners if the miners were slaves) for the mining season. The salt caravan from Taodenni to Timbuktu was called the *azalai*, and it embarked only once or twice a year to carry salt blocks to Timbuktu. However, smaller caravans carried salt south throughout the year. Transport was controlled by Arab pastoralists who lived in the desert north of Timbuktu, although sedentary merchants also owned camels that were used in moving salt. This *azalai* salt caravan was always subject to potential raids by rival Saharan groups who sometimes captured camels and the commodities they carried.[75] Once the salt was delivered to Timbuktu, it could be given as credit to other people as a form of loan (formally a delayed sale, or *salaf*), or retained and sent on consignment to be exchanged for commodities in the market towns up the Niger River to the southwest. The importance of the Taoudenni salt to the functioning of commerce in Timbuktu is perhaps underlined by the fact that salt production and trade continued unabated after the colonial conquest (and after the political independence of Mali) whereas the trans-Saharan trade largely ended as the infrastructure of colonial Atlantic trade developed.

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[73] Schroeter, *Merchants of Essaouira*.
[74] E. Ann McDougall, "The Ijil Salt Industry: Its Role in the Pre-colonial Economy of the Western Sudan," (Ph.D. siddertation, University of Birmingham, 1980); Stephen Baier, *An Economic History of Central Niger* (Oxford: Clarendon, 1980), 68; Paul E. Lovejoy, *Salt of the Desert Sun. A History of Salt Production and Trade in the Central Sudan* (Cambridge, Cambridge University Press, 1986).
[75] On the detailed history of raids on salt caravans see Muḥammad Maḥmūd al-Arawānī, *Taʾrīkh al-ṣaḥrāʾ waʾl-sūdān wa-balad Tinbuktu wa-Shinjīṭ wa-Arawān fī jamīʿ al-buldān*, al-Hādī al-Mabrūk al-Dālī ed. (Benghazi: Akādīmīyat al-Fikr al-Jamāhirī, 2010), pp.125-163. .

In the commercial papers that we have access to from the family of ʿĪsā b. Ḥmīda, there are two primary ways that credit functioned with respect to Taoudenni salt. On the one hand, salt mining itself was financed through the advance of credit to salt minors (whether enslaved or free), in the form of cash, grain, tools and clothing. Credit in grain and commodities such as cloth was also advanced to the salt transporters who looked after the camels that carried the salt through the desert to Timbuktu. The credit was re-paid by the delivery of salt blocks to the creditor in Timbuktu. We find documents that list the outstanding debts, denominated most commonly in salt blocks (*raʾs*), which was a more or less standard size, weight and salt quality of approximately 40kg, but also in gold *mithqāl* and units of cloth. For example, in document which is called "an accounting of the legal transactions (*ʿuqūd*) obligated to ʾĪsā b. Ḥmīda al-Shaʿwanī" large and small debts are enumerated, mostly in salt blocks (*raʾs*). Some of the lines are crossed out, which presumably means that the loans were paid back.

> Praise God, accounting for the legal transactions belonging to ʿĪsā bin Ḥmīda al-Shaʿwānī, in their essence (*bāṭin*), on the date of the last day of Ṣafar, in the year 1278 [Friday, Sept 6, 1861].
>
> First, this is the registration (*rasm*) of the stake (*khaṭar*) of al-Qanānī wuld Aʿlīyū for 66 bars of salt, [of which] he paid the stake of al-Qanānī of 37 [bars of salt].
> The registration of Aḥmad Nūr is one bar of salt.
>
> [verso #2]
>
> The registration of Sālim bin Aʿlī is one bar [of salt].
> The registration of Abīnā Aḥmad wuld Muḥammad al-Ghaylānī is 12 bars of salt.
> The registration of Ḥammād bin Muḥammad Fāl 5 bars [of salt].
> The registration of Al-Ḥājj ʿAbd al-Qādir ??
> Babān 4 bars [of salt].
> Sīdi al-Amīn bin Sīdi Muḥammad 4 mithqāl [of gold].
> Al-Bakkāy bin Aḥmad al-Maddūk-l 43 bars [of salt] and his wife Imān has 8 wraps (*malāḥaff*) and 2 white [unreadable] 17 was paid per bar [of salt].
> Muḥammad bin al-Shaykh Sīdi al-Mukhtār bin al-Shaykh Sīdi Muḥammad 12 bars [of salt]…[76]

This is an accounting document used by the merchant to manage his affairs, not a document that carries legal liability for the parties to these debts.

[76] IHERI-ABT 5535.

On the other hand, there are many legal documents of individual debts, usually structured as a delayed sale (*salaf*) and using standardized legal language, including the date at which the second part of the sale is to be completed, the date of the transaction, and the name of witnesses. An example of this more formal document records a similar issuing of credit in rock salt to be repaid in a value denominated in gold *mithqāl*, and the date at which it is to be repaid, presumably after the debtor has been able to sell the goods he has obtained.

> There has been legally established against the personal liability and estate of al-Nawwār b. ʿAbd Allāh al-Ḥājj, exactly thirty gold mithqāls in kind, due to his creditor ʿĪsā b. Ḥmīda al-Ghadāmisī. This liability became incumbent upon the first party in favor of the second party arising from a legally binding purchase of salt, executed after mutual consent and the physical transfer of possession. The repayment deadline fixed between them is forty days, with the final settlement due during the month of Ṣafar. It was written by the one who was brought to witness it, while the debtor is in a state of full legal competency required for a valid attestation on the date of the middle of the month of Dhū al-Ḥijja 1264 [Nov 12, 1848], written by the servant of his Lord Matīḍan b. Ḥamad b. Matīḍan b. Aḥmad al-Ghadāmisī.[77]

The legal validity of this type of document, of which there are many examples in the extant commercial papers of this family, suggests a role of Islamic law and Muslim legal authorities in guaranteeing loans. Whether the Muslim courts could compel repayment of a loan, or the completion of a *salaf* sale, depended on many factors, including location and social affiliation of the debtor. There are a number of examples of ʿĪsā designating colleagues as agent/partners (*mufawwaḍ*) empowered to collect outstanding debts,[78] but this does not appear to be at the behest of any Muslim judge.

From Timbuktu, the salt blocks in this circuit were exchanged for grain in villages with agricultural markets. One example is apparent in a letter written to ʿĪsā b. Ḥmīda's slave and commercial agent, Anjay:

> So then, full greetings and general blessings from Sīdi Muḥammad b, Abī Bakr to the most blessed Jī [Anjay] ʿĪsā after a thousand greetings. You must know that what you sent to me, which was 8 blocks [of salt] has reached us. Then, we bought 23 units [of

[77] IHERI-ABT 12350.
[78] For example, IHERI-ABT 12342.

> grain which are] in the possession of Muḥammad Abū Bakr, 15 of pearl millet, 2 of sorghum and 6 of shelled rice.[79]

Some of this grain was moved north from Timbuktu to the communities directly involved in the salt production and transport.

Stephen Baier described a similar basis for a nineteenth-century merchant-broker in Zinder (modern-day Niger) named Malam Yaro, who financed salt production and transport in Bilma, in the larger Saharan Kaouar oasis complex, by forwarding millet to Tuareg pastoralists who then brought the salt to Zinder. When he obtained tanned skins and ostrich feathers, he traded these with Ghadames merchants for commodities like cloth that they had brought across the desert. But it was the salt-grain circuit that undergirded his commerce and raised capital he needed for transactions in other goods.[80] Likewise, Yacine Daddi Addoun has edited a 'ledger of debts' of the wealthiest Saharan merchant in nineteenth-century Katsina, a man named Abū ʾl-Ghayth b. Aḥmad al-Tuwātī, which is held in the Nigerian National Archives in Kaduna.[81] In this set of debts made between 1829-45, Abū ʾl-Ghayth recorded each of the loans he made in a single ledger, using the same legal formula discussed above. He also owned mortgages on houses and was a primary source of loans for the amīr of Katsina.

There is some evidence that ʿĪsā was involved in real estate transactions, although he does not seem to have provided mortgages for houses in Timbuktu. Where mortgages appear in his papers, it is in the context of commodities or slaves pawned to him in return for credit. As mentioned above, ʿIsā does appear to have been involved in financing Aḥmad al-Bakkāy al-Kuntī, the leading political figures in Timbuktu in the first decades of his stay in the city. Not only did he partner with Aḥmad al-Bakkāy in the commercial venture that was subjected to unreasonable tolls, but he also acted as a banker for members of Aḥmad al-Bakkāy's family, including one of Aḥmad al-Bakkāy's daughters named Sayyida Zaynab. An undated accounting ledger records a series of transactions including a deposit of 150 gold mithqāl from an unrelated person to her account, a line of credit extended to her of 50 mithqāl, and a series of purchases or luxury items, cloth, and foodstuffs, in addition to hiring a blacksmith to make jewelry according

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[79] SAV BMH 33741. The mention of silver dollars (*riyāl*) later in the letter suggests that this undated latter was written in the early colonial era.
[80] Baier 68-9.
[81] Daddi Addoun and Lovejoy, "Commerce and Credit," 111-24.

to her design, and the role of enslaved agents in carrying out many of the deliveries and actions of an elite women who was presumably secluded at home (although the document does not say this).[82]

In the second currency circuit in our scheme, which extended from Timbuktu into its West African hinterlands, especially up the Niger River to the southwest, we see the salt blocks traded for cowries and *mithqāl* of gold dust, and that the main currency in this circuit is cowries, which appears capable of acting as an interface between Saharan salt blocks and calicos, and West African gold dust, as well as slaves. Because these markets acted as an interface between the circuit centered on Timbuktu, and the Mande circuits from the south and southwest, we see evidence of a variety of currencies functioning here. Gold dust and salt both functioned as commodity currencies, as did smaller denomination commodities like European made calicos and a West African-made cotton strip called a *tāri*. In a letter written to one of his enslaved commercial agents in the mid-1870s by a son of ʿĪsā b. Ḥmīda named Aḥmad al-Bakkāy, we get a glimpse of the main commodities that the Timbuktu merchant is interested in procuring in this circuit:

> This is from the servant of his Lord Aḥmad al-Bakkāy bin ʿĪsā bin Ḥmīda al-Ghadāmisī to his brother and then his slave Ṣanbu. Greetings to you and the mercies and blessings of God. So then, you must know that our brother Muḥammad b. ʿAlī b. Māma is coming to you with three loads, one of which has their entrusted commodities in it, the second of which is tobacco, and [the third] is a load of plenty (*saʿa*) in which there are 30 calicos (*bayṣa*)… Sell all of it for gold dust and send it to me with the carrier of the letter. What you are able to sell from the commodities goes to their owner in his account. Send me 200 *mithqāl* of gold dust (*ʿayn*) or its value in good (*zayn*) slaves.[83]

In another letter written in 1876, we can see how commodity currency in gold dust and cowries are sent from the town of Youvarou by boat to Timbuktu using enslaved messengers. But here, the *mithqāl* refers to a measure of gold dust, while other costs are recorded in cowries. In later parts of the letter that are not quoted here, it is clear that these purchases were made in exchange for salt blocks brought from Timbuktu:

> This is written by Muḥammad bin Lʿabīd bin Bilḥāj to he whom God has been most generous and not spared the benefits of the blessings of our Beloved, ʿĪsā b. Ḥmīda b. Muḥammad Mūsā. A thousand greetings to you and God's mercies and blessings. The

[82] IHERI-ABT 11353.
[83] IHERI-ABT ms. 5475.

> message is for you. We arrived safely at Awru [probably Youvarou], praise be to God, but we found that there was little to buy. Asking about news of the salt, you will see two *aflawāṭ* [some kind of cowry container] of cowries carried by ʿArāf Muḥammad which, upon bringing them to you, should number 200,000 by the reckoning of Timbuktu. This is your transport cost which I paid to them in your name, and it is that which is allotted from my side. With God's preservation and protection, you will see with Mūsā, slave (*ghulām*) of our beloved al-Ḥājj Muḥammad Khamur, bringing 79 and ¼ *mithqāl* of gold [purchased] using your consigned goods that were with ʿAbd al-Raḥmān, and also 21 and ¼ *mithqāl* that are from the side of the ledger, and the rest that is for you is 4 *mithqāl* less a sixth, and 41,000 cowries in the ledger. You will see with Mūsā an *aflawāṭ* that has 10 cotton stips (*tawārī*, pl of *tārī*, W.Afr cotton strip) [rolled up] in a mat (*khaṣīr*). He said to you that he bought them outside of what was in the ledger, and so the rest [of the capital in the ledger?] is for you. Know that there are ostrich feathers in an *aflawāṭ* with the cotton strip (*tārī*) rolls (*mākūr*). He said that it is from your consigned goods. You will also see an *aflawāṭ* of cotton stips in a mat from ʿAbd al-Raḥmān and 2 *aflawāṭ* of cowries with Bāgim. Mūsā, the slave (*ghulām*) of Khamur, will know him in the boat of al-Midān, the slave of Mhammad al-Akmal and the slave of al-Māghīl. He said to you that it is from your consigned goods and that you will see them with your name written "ʿĪsā" on the two *aflawāṭ* of cowries and on the *aflawāṭ* of cotton strip rolls.[84]

The accounting in this document, and the reference to the ledger, is a means of reckoning the credit offered to the agent or partner as a consignment of goods to sell. In Youvarou, the agent or partner received the commodity currency of salt blocks and exchanged it for the commodity currency form of the *mithqāl* as gold dust, and for containers of large amounts of cowrie currency, in addition to several other commodity currencies of lesser value like African-made cotton strips. What is important to note is that while cowries are clearly the main currency of account in this circuit, they also function as a form of cash that is physically transferred from Youvarou to Timbuktu.

The third currency circuit is the trade from Timbuktu to the Saharan oases towns of Ghadames, Tuwāt, Ghāt, etc. As we have discussed above, our sources from Timbuktu do not support the received story that Saharan commerce in the second half of the nineteenth century was dominated by the movement of enslaved people into and across the Sahara from the south to the north, although enslaved people were still available for sale or transport. It may be that other routes were more important for the slave trade than those that came together in Timbuktu. The most important commodities in the trade moving south to north were gold dust, West African cotton textiles, tanned skins, and especially ostrich feathers. From north to south, the highest

[84] IHERI-ABT ms. 5454.

volume and value goods were European textiles, North African clothing, silk, sugar, tea, paper, and jewelry, in addition to Saharan salt and tobacco.

The first and second circuits required currencies (or commodity currencies) which could be used by West African grain producers and merchants, and Mande merchants of gold dust, to make other transactions among themselves. It was therefore important that settlements of their exchanges in these circuits be made in cash rather than credit. The third circuit was quite different. Often controlled by people closely connected to each other by family ties or some form of partnership, the currency circuit between Timbuktu and the Saharan oases such as Ghadames was based on the gold *mithqāl* as its currency of account. Meticulous accounting was especially important because this circuit was based on systems of credit rather than cash. Because there was a high degree of social cohesiveness among the merchants and agents who participated in this circuit, they were able to rely on a system of exchange that deferred payments. But the forms of credit offered in this circuit were not principally about profiting from interest in deferred payments of settlement; instead they were offered without interest primarily as a means of mitigating the risks of 'disorder' in the Sahara. Credit in this case acted as a substitute currency.[85]

The trade to and from Timbuktu and the northern Saharan towns such as Ghadames was carried out largely by northern Saharan traveling agents who were not enslaved,[86] yet seem not to have been close family members of ʿĪsā, although they share a similar background and know each other's families. We know of other examples of brothers and cousins acting as partners and locating in towns across the Sahara. As with the letters of the second circuit written to/from West African markets, those in the third circuit also pay a lot of attention to the details of shipments sent. But these shipments are not always given values in any currency. A shipment from Ghadames will include a list of commodities included, viz. six loads of a certain style of calicos, other kinds of Saharan and North African textiles and clothing, a certain amount of tea, or sugar

[85] On this see Kuroda, *A global history*, 12-3.
[86] It should be noted that there are examples however of enslaved commercial agents working in this third circuit. See Baier, *An Economic History*, 67; Alī b. Barka is called an "ʿabd zanjī," who belongs to the merchant Muḥammad b. Ibrāhīm al-Thanī. Muḥammad b. ʿUthmān al-Ḥashāʾishī, *al-Riḥla al-Ṣaḥrāwiyya ʿabr arāḍi Ṭarābulus wa-bilād al-Tawarāq*, ed. Muḥammad al-Murzūqī (Tunis: al-Dār al-tūnisiyya li-ʾl-nashr, 1988), 170. The French translation is Mohammed Ben Otsmane el-Hachaichi, *Voyage au Pays des Senoussia à travers la Tripolitaine et les pays Touareg*, V. Serres and Lasram, trans., 2nd edition (Paris: A. Challamel, 1912), 221.

or a reem of paper. The fact that the letters often do not provide the monetary value of the commodities suggests that there was some form of partnership between the sender and the recipient of the goods, and that the partner is given the authority to get the best value for the consigned goods. The values would be recorded later after the sale of the West African commodities recorded in *mithqāl*. But in other cases, values are enumerated. In an 1835 example from the published Ghadames letters in Libya, we can see an effort to indicate the value in the accounting currency of *mithqāl* of everything that is included in a shipment, even as the letter writer, who we presume is in a West African commercial center like Timbuktu or Kano, also uses cowries:

> Praise be to God. This is the register (*zimām al-tafākīr*) and copies of the assets (*imtāʿ*) in our possession in the year 1251 AH, on the 15th of Rabīʿ al-Awwal [July 11, 1835].
>
> - Added to the inventory: Two *nūfī* garments and a *sāmī* pair of trousers for a total of 140 [*mithqāl?*], including also 60 women's wraps (*malāḥaf*).
>
> - then its 'sister' load to the one [mentioned] above contains 63 women's wraps, two nufi garments, and 25 men's wraps (*harām*) worth 100,000 [cowries?], and 37,000 [cowries?]
>
> - the bale covering (*li-sutra*) added three silk *zanayāt* wraps, valued at 12 [mithqāl?]
>
> - then another bale contains 63 wraps with a value of 108,000.
>
> - then 52 men's wraps with a value of 40 [*mithqāl*?]
>
> - then 4 short men's wraps at a value of 3,400 cowries
>
> - the total for all is 151 [*mithqāl*] and four carats
>
> - then the bale covering is 30 [*mithqāl*?] and five carats…[87]

The mix of currencies is confusing in this letter, but I think we are being provided with equivalences between cowries and *mithqāl*, and it is the *mithqāl* that is the shared currency of account in this circuit.

The following passage from a letter written to ʾĪsā b. Ḥmīda in Timbuktu from the northern Sahara in 1872 explains how the proceeds from a previous cargo sent by ʿĪsā from Timbuktu were spent.

> You will see with ʿAbd al-Raḥmān, trusting in God and His protection, three loads of commodities of Maḥmūd…. The silk which I saw I bought [in the styles] of

[87] Yūshuʿ 1982: #101.

> Maḥmūd and Shaṭrawān. In the end, everything in the returns (*dakhl*) went into the loads, and this is seen in the accounting of ʿAbd al-Raḥmān which we prepared for you between him and the profit (*karam*) made between Tripoli to Tuwāt, which are 271 *mithqāl*, and you will uncover that we bought for you in kind (*al-ʿayn*). May God make compassion more abundant! Know that it is from 100 *mithqāl*. All of the buyers that we mentioned to you previously were cash sales (*bayʿ dahaban*) of the 271 [*mithqāl*] and it was accounted for between us, me and Muḥammad your brother, and he wrote [a document?] of advance payment (*ma-sulfati-hi*) toward the investiture (*makīn*) of *mithqāl*, and he returned to us 100 in Tripoli and calico (*bāf*) which we mentioned to you in the accounting. You do not need to appoint an agent (*waṣiya*) for the commodities that you have with you. We think that the ostrich feathers are between us on the road. You will see Sīdī ʿAbd al-Raḥmān coming to you and he will give you all of the news and all of the news that you will hear from those besides us. As for the load of black cloth (*akḥāl*) which is with you and about which you spoke in your letter to uncle al-Ḥājj Aḥmad, they are your consignment so you do not need to appoint an agent (*waṣiya*). As for me, I will sell from them for 106 and 2/3 *mithqāl* as an advanced payment (*sulfa*) for the entrustee (*maʾmūn*). 20 *mithqāl* were given to al-Ḥājj ʿAbd Allāh Shrīfa and the remainder is 87. As soon as I no longer have anything from the advanced payment of 50 [*mithqāl*] in cash, I will want more than the 107 before an uncle who has come to have a debt paid off in Timbuktu and we are made to come after the uncle […][88]

The letter makes clear that commodities are being forwarded in both directions between the partners in this enterprise, but cash is only obtained on the other end from the sales of those commodities. Goods are consigned, and accounts are kept in *mithqāl*, as credit across the third circuit. There is no mention of delayed sales or other mechanisms of circumventing interest prohibitions.

The letter calls attention to a feature of the medieval Geniza letters noted by Goitein and Udovitch, among others, which is the significance of the informal language of friendship between the medieval Jewish merchants who wrote those letters, and the ways that friendship, where it existed, substituted for formal institutions of agency, compensation, etc.[89] The relationships were used extensively to carry out unremitted commercial favors and were rarely based on family ties.[90] As Udovitch put it, "Each individual merchant was at the center of a

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[88] IHERI-ABT 5459

[89] Goitein, *A Mediterranean Society*, Vol.1, 164; A.L. Udovich, "Formalism and Informalism in the Social and Economic Institutions of the Medieval Islamic World," in *Individualism and Conformity in Classical Islam*, amin Banani and Speros Vryonis ed. (Wiesbaden: Otto Harrassowitz, 1977), 61-81.

[90] Udovich, "Formalism and Informalism," 74; Goldberg

particular web of relationships. Informal business cooperation was a constellation of individual relationship whose skeins could tie together a fairly large number of people; but those bonds were never expressed in terms of membership in a group abstractly defined; rather groups, insofar as they were defined, were defined in terms of individuals."[91] This idea captures well the way that ʿĪsā b. Ḥmīda's partners interacted with each other through this third circuit.

The fourth and final circuit is the only one that can be understood as fully trans-Saharan. The letter quoted above mentions that "We think that the ostrich feathers are between us on the road." Beginning in the 1870s, there was a boom in the global demand for ostrich feathers, which had become an important fashion accessory in Europe and North America. Because the highest quality ostrich feathers were those of the so-called 'Barbary ostrich', whose habitat lay along the southern edge of the Sahara Desert, existing commercial links to this region were used to send increasing amounts of commercial capital across the desert in exchange for larger and larger amounts of feathers. Sarah Stein has told the story of how different transnational Jewish networks came to dominate the ostrich feather trade, from the purchasing and processing of feathers in North African ports like Tripoli (Libya) and Essaouira (Morocco), to efforts to raise ostriches in South Africa, to the dying, finishing and marketing of feathers in Paris, London and New York. From 1870 until the industry went spectacularly bust in 1914, ostrich feathers were one of circum-Saharan Africa's most valuable exports.[92] In Tripoli, the peak of demand and prices was in 1875, and this created incentives for merchants there to seek to trade directly with merchants like ʿĪsā b. Ḥmīda in Timbuktu. The fourth currency circuit then is this effort to bring ostrich feathers directly to Tripoli from Timbuktu.

We can see from the previous letter that Northern Saharan merchants were able to sell sub-Saharan commodities sent from Timbuktu for cash in the Northern Sahara. There was an especially strong demand, as we have seen, for ostrich feathers. The financing of the ostrich feather trade was international, working through Italian Jewish and Maltese brokers and wholesalers, who prepared sub-Saharan products like ostrich feathers for export, and who forwarded European imports to Ghadames merchants to sell south of the desert.[93] The commercial documents from Ghadames and Timbuktu suggest that these transactions were

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[91] Udovitch, "Formalism and Informalism," 74-75.
[92] Stein, *Plumes.*
[93] Baier, *An Economic History*, 71.

monetized, and that commodities were bought and sold for cash. Certainly by the 1870s, Ghadames had been incorporated into a monetized economy in which Ottoman and European coinage was in wide supply. So if we were to identify a currency circuit between Ghadames and Tripoli, its primary commodities were ostrich feathers and calicos and other manufactures, and its currency was the Tunisian or Tripoli piastre (*qirsh*).

But at least at the height of the ostrich feather boom, there were attempts to create a Tripoli-Timbuktu circuit, based on formal partnership arrangements in which commodities such as European textiles were sent directly to merchants like ʿĪsā b. Ḥmīda in Timbuktu, without any accounting by value, in the expectation that large quantities of ostrich feathers would be sent north in exchange. In a letter sent from Tripoli in 1871 by a Muslim merchant named Muḥammad al-ʿArābī[94] to ʿĪsā b. Ḥmīda in Timbuktu accompanying a consignment of commodities, he writes: "we require from you—and we desire from you—that, just as you have done before, you sell these commodities in exchange for ostrich feathers, whether male (*ẓalīm*), smoke-colored (*adkhan*?), or large white ones (*salāṭīn*?), but not the black ones (*takhal*)." The large white feathers (*salāṭīn*) were clearly the most valuable, and the Tripoli merchant directed his Timbuktu counterpart to purchase 4,200-and-a-half pounds of these feathers and send them to him. So far, this is not unusual except that the shipment is from Tripoli rather than Ghadames. But in this letter sent all the way from Tripoli, the merchant designates his Timbuktu counterpart as his substitute or legal proxy (ʿiwaḍ), invoking Islamic legal language meant to guard against the possibility that transactions would produce unequal exchange, and therefore fall into a form of usury.[95] By designating his commercial counterpart in this way, he turns him into a partner in the larger transaction, and avoids the potential dilemma of providing (or being provided) unequal 'exchange value' or 'compensation' in return for the commodities he had sent with the letter. Such a designation obliges each of the contracting parties in a sale to ensure that the price and the thing sold are each the *ʿiwaḍ* of the other.[96]

The Tripoli merchant seems to acknowledge that the expected practice in the commercial services he is demanding would normally be more informal, and that business partners would

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[94] His full name in the letter is Muḥammad al-ʿArābī b. Muḥammad b. Muḥammad b. ʿAbd al-Wāsiʿ. The letter is held in Timbuktu, IHERI-ABT, ms.5478.

[95] Bruce S. Hall, "Saharan Commerce and Islamic Law: The Question of Usury (ribā) in the Nawāzil literature of Mali and Mauritania, 1700-1929," *African Economic History* 41 (2013): 1-20.

[96] Linant de Bellefonds, Y., "ʿIwaḍ", in: *Encyclopaedia of Islam*, Second Edition.

refer to each other in the informal terms of friendship and that gifts and presents would be part of any transaction. He says: "Friendship (*zamāla*) follows equally for those who want to carry something solid for us in equal return for presents (*qādir ʿalā ʾl-rufūd*). You are our legal proxy (*ʿiwaḍ*) in all our affairs and the authorized agent (*mufawwaḍ*) of the matter is you in the selling and buying for yourself and others, and in the sending [of goods], and the mandate for the [non-commission] partnership (*ibḍāʿ*), and in all that is needed from them." The explicit announcement by the Tripoli merchant that his Timbuktu counterpart is the authorized agent (*mufawwaḍ*) introduces another legal formality. Normally in these kinds of letters, an agency relationship is unstated or designated by a less formal term for agent in general (such as '*wakīl*'). However, Ghislaine Lydon has argued that the *mufāwaḍa* partnership was a standard institution used by Saharan traders. In this arrangement, partners pool their investments, and one partner is commissioned with the authority to conduct trade with the others' capital. Profits and losses are commensurate with the investment of capital, labor and equipment made by each partner, and the agent is not liable for any loss or seizure of mandated property.[97] The specificity of the agency type is somewhat unusual in this correspondence.

In the schema we have employed in this paper, the currency of the Tripoli-Timbuktu circuit is difficult to see. Because the Tripoli merchant sends his commodities to Timbuktu as a consignment without even enumerating any value, he seems to be placing full trust in his counterpart to make the best possible transactions that will send him thousands of pounds of feathers. It is as if this circuit is extending the circuit of credit that connected Timbuktu and Ghadames all the way to Tripoli, further demonetizing the Saharan circuits extending to Timbuktu, even as we know that the circuit between Ghadames and Tripoli was highly monetized in piastres and silver dollars. The Tripoli merchant says at the end of his letter, "You are now informed. For you, we are [people] of legal contracts and friendship, God willing." Perhaps we should understand this fourth circuit as one that emerged out of the high demand for ostrich feathers in the 1870s, and the need to find better ways to make more capital flow across the desert. As such, it represents an innovation in the more established circuits linking Timbuktu with Ghadames, and Ghadames with Tripoli.

[97] Lydon, *On Trans-Saharan Trails*, 292; 324.

Conclusion:

The question of the functioning of markets, currencies and credit in precolonial Africa is an old one, bound up with efforts to build a countermodel to the substantivist framework associated with Karl Polanyi, who insisted that formal, market-centric economic approaches failed to explain precolonial African economic activity, in particular in the state of Dahomey which rose to prominence in the context of the height of the eighteenth-century Atlantic slave trade.[98] Polanyi's work is well known for its insistence that the domination of modern market rationality in Europe by the nineteenth century was the consequence of a particular set of historical changes and state actions, rather than a natural phenomenon. Africanist economic historians took the challenge of Polanyi's arguments in the opposite way, seeing in them an afront to the place of Africa in world history, in line with denigrations of Africa at least as far back as Hegel. As such, Hopkins and others devoted considerable attention to demonstrating the applicability of formal economic models, and the functioning of markets, especially in West Africa. As Paul Lovejoy put it in an early article, the economic formalists successfully demonstrated that contrary to the prevailing view that pre-colonial Africa was essentially "subsistence oriented, non-market directed, and basically static," it was clear that virtually everywhere there were "economies sufficiently developed to require the use of circulating mediums of exchange and units of account." The question then for Lovejoy was how to understand African monetary structures in order to evaluate "the extent to which credit institutions and a capital market developed."[99] The generation of African economic historians trained by Anthony Hopkins and Phillip Curtin all presumed that formal market rationality lay at the root of African economic behavior, and made general use of that purported logic in the work that they produced.

I have no argument with the underlying premises of much of this work. But it is difficult to completely avoid a stadial analysis that presumes, however unwittingly, a hierarchy of economic complexity in Africa, and how African institutions compare with other parts of the world. One of the things that the commercial papers of merchants in nineteenth-century West

[98] Karl Polanyi, *Dahomey and the Slave Trade: An Analysis of an Archaic Economy* (Seattle: University of Washington Press, 1966).
[99] Paul Lovejoy, "Interregional monetary flows in the precolonial trade of Nigeria," *Journal of African History* 15.4 (1974): 563-4.

Africa and the Sahara allow us to better understand is that the interesting questions are not the 'development' of credit institutions or 'capital markets', but instead the ways that African economic actors made creative use of these institutions and markets to meet the particular circumstances that they found themselves in. This may be a step in rethinking African economic history outside of the grand systems of civilization or divergence that tend to find African wanting.