

**THE INSTITUTIONAL FOUNDATIONS  
OF AL QAIDA'S  
GLOBAL FINANCIAL SYSTEM**

MATTHIAS SCHRAMM<sup>1</sup>  
University of Göttingen

and

MARKUS TAUBE<sup>2</sup>  
University of Duisburg

Keywords: Islamic Banking, institutional analysis, transaction cost approach

**ABSTRACT**

After the terrorist attacks on 9/11 the question was quickly raised how the needed funds could have transferred into the USA without alarming national security bodies. This article examines the century-old Islamic *hawala*-financing system, which was used by al Qaida group in preparing their attacks. Analysis of the functional principles will show that it is a highly efficient, extremely robust institutional arrangement for overcoming the risks of opportunism. Thus *hawala* is able to provide an institutional framework to assure enforcement of contracts without relying on any national law. Today, therefore, it is able to expand independently of existing laws.

---

<sup>1</sup> Dipl. Ök. Matthias Schramm,  
Georg-August-Universität Göttingen, Institut für Agrarökonomie,  
Platz der Göttinger Sieben 5, 37075 Göttingen, Germany,  
Phone: 0049 (0)551 / 394825  
Fax: 0049 (0)551 / 3912122  
E-mail: mschramm@uni-uaao.gwdg.de

<sup>2</sup> Prof. Dr. Markus Taube  
Gerhard-Mercator-Universität Duisburg, Institut für internationale und regionale Wirtschaftsbeziehungen,  
Mühlheimer Str. 212, 47048 Duisburg, Germany  
Phone: 0049 (0)203 / 3794188  
Fax: 0049 (0)203 / 3794157  
E-mail: markus.taube@uni-duisburg.de

## I. INTRODUCTION

The terrorist attacks in September, 2001, focused public attention on a worldwide financial system which had, until that point, existed largely out of the public view; that system is known as *hawala*. As cooperation among the intelligence agencies of the post-9/11 anti-terrorist alliance quickly brought to light, the terrorist groups responsible had availed themselves of the centuries-old *hawala* system, making it the backbone of their financial structure. But what exactly is *hawala*, how does it work, and why is it so difficult for investigating offices and enforcement agencies to get grip on this kind of financial dealings?

The following article will explain how *hawala* works, its historical origins, and its present distribution. In doing so, it will explore the micro-economic rationale and the institutional foundation behind the *hawala* financial system, its organization, and its embeddedness in the socio-economic context of the Islamic religious community.

## II. EMPIRICAL EVIDENCES: THE HAWALA FINANCIAL SYSTEM

The *hawala* financial system has its roots in early medieval commerce in the Near and Middle East, which contained a multitude of institutional incalculabilities. The economic agents of the time operated in an environment which was characterized either by the complete absence of formal organization or by formal organization and legal systems which were not sufficiently specified. Economic interaction was carried out in an environment characterized by the coexistence of smaller regions shaped primarily by tribal law. These regions were only loosely associated through Islam. Thus, the transaction radius within which business could be conducted under the

protective wing of a single community was comparatively narrow. Any transactions which reached beyond this radius were encumbered by the constitutional uncertainty inherent in operating in more than one legal system.<sup>3</sup> This problem was ameliorated only by common recognition of the values of the Koran and *shari'a* as—at least from a moral perspective—legally binding.<sup>4</sup> However, since a barter economy is by nature extremely inflexible, new methods of payment had to be found.

The search for a new institutional solution to the problem of coordinating economic interaction was decisively influenced by the Koran's directives as to how business was to be conducted. In particular, the Koran's ban on charging interest—the *riba*<sup>5</sup>—continues to shape Islamic financial dealings to this day.<sup>6</sup> This ban on interest forced institutional solutions to be found for the problem of coordinating economic interaction which differed fundamentally from modern market-oriented economic structures; in time an extensive group of institutions came into existence which are collectively referred to today as *Islamic Banking*. In medieval commerce, the most varied types of delayed payment and bills of exchange developed into the most common instru-

---

<sup>3</sup> Compare Schmidt-Trenz, H.-J., 1990. Außenhandel und Territorialität des Rechts: Grundlagen einer neuen Institutionenökonomik des Außenhandels, 104 *Wirtschaftsrecht und Wirtschaftspolitik*. Baden Baden, here p. 235.

<sup>4</sup> On the special meaning of the underlying social and religious influences at play here and on the proponents of a theoretical Islamic economics compare Gärber, A., 1992. *Islam, finanzielle Infrastruktur und wirtschaftliche Entwicklung*. Frankfurt, here p. 26.

<sup>5</sup> In the Koran *riba* is denounced as one of the worst sins a faithful Muslim can commit and strictly forbidden. However, the exact definition of *riba* is problematical: It is unclear whether the ban on *riba* refers to the levying of interest in general – the usual interpretation – or whether it targets only unreasonably high usurious interest. Amereller, F., 1995. Hintergründe des „Islamic Banking“. 71 *Schriften zum Internationalen Recht*, Berlin, here pp. 44-59

<sup>6</sup> The rationale that led to the original ban on interest—a institution found in numerous societies, including, for a long time, Christian cultures—originated in the peculiarities of premodern societies, in which no individual could be certain of not at some time being faced with a threat to his or her livelihood and becoming dependent on another's support. Posner, R. A., 1980. A Theory Of Primitive Society, With Special Reference To Law. *Journal of Law and Economics* 23, 14--15.

Given this background, the continuing ban on interest can be interpreted as an atavism of long overcome conditions of social coexistence. Naturally, this does not mean that it has not, in the meantime, taken over new functions in areas such as signaling and establishing identity. Carr, J. L., Landa, J. T., 1983. The Economics Of Symbols, Clan Names, And Religion. *Journal of Legal Studies* 12, 153--156 .

ments of payment.<sup>7</sup> In the end, the *hawala* system established itself as an efficient institutional arrangement.<sup>8</sup> In its original form, *hawala* served as a simple delegation of payment or transfer of a claim;

Person X owes a debt to Person Y, who in turn owes a similar sum to Person Z. In a *hawala* transaction, Person Y signs over his claim on Person X to Person Z. For X and Z, there is a change in the identity of their respective business partners but not in the amount of their obligation or claim. Y, on the other hand, has balanced his demands and obligations through this transaction and is therefore eliminated from the economic chain of interaction.

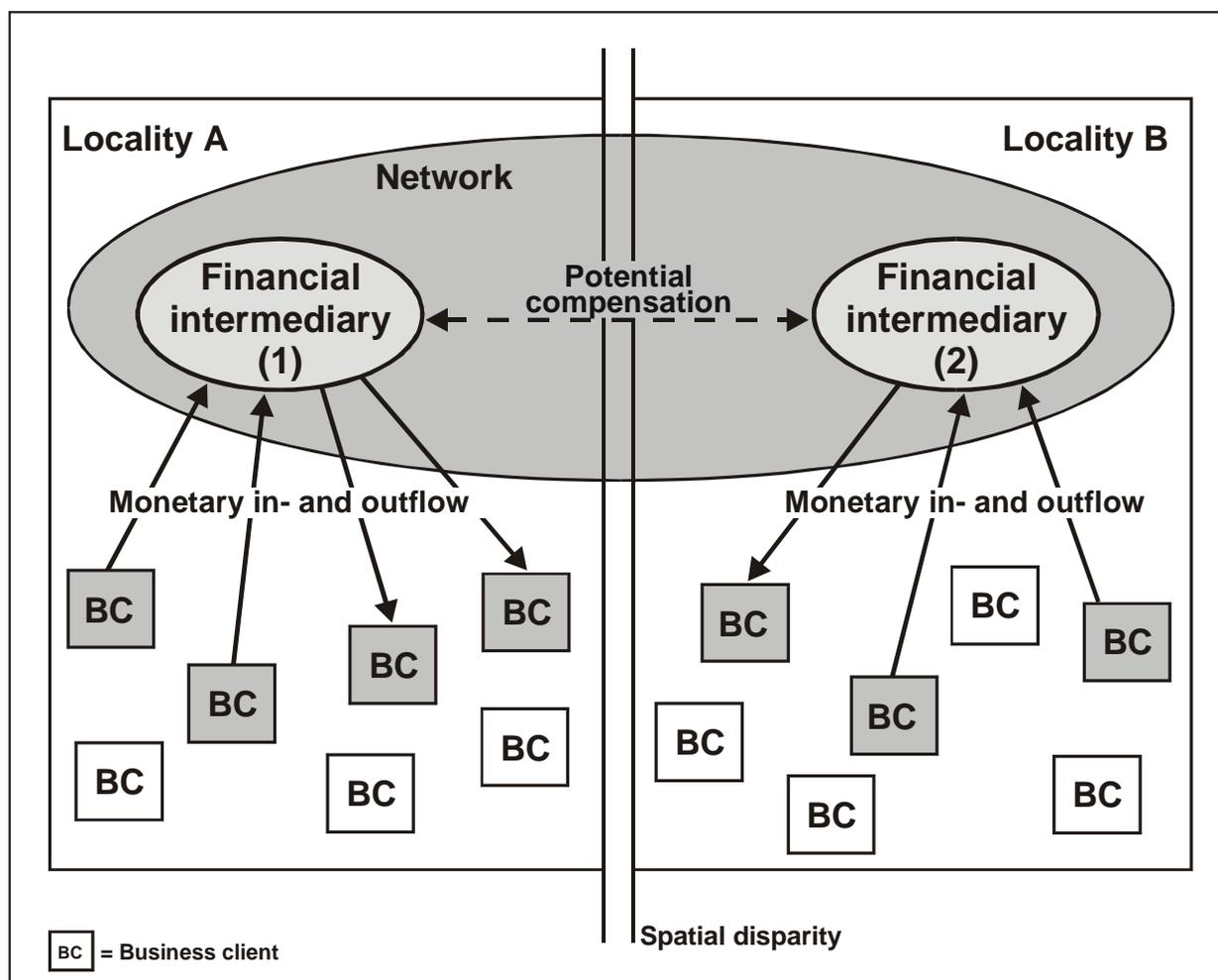
Based on this principle and in light of the fact that a debt transfer of this sort could take place even when the parties involved were in different locations, from this original interpretation of *hawala* there developed over time a complex and geographically limitless network for transferring sums of money which does not rely on a preestablished system of positive law. The transfer of funds within today's *hawala* financial network takes place according to the principle diagrammed in Figure 1.

Figure 1: The *hawala* financial system

---

<sup>7</sup> Inalcik, H. I., 1969. Capital Formation in the Ottoman Empire. *Journal of Economic History* 29, 97—140, here at p. 107.

<sup>8</sup> *Hawala* can be found as a legal concept as early as 1327 in one of the first systematic explications of Islamic law by the Hanafitic legal scholar Abu Bakr b. Mas'ud al-Kasani.



Note: The spatial disparity mentioned here and in Figures 2 and 3 can refer to two neighboring villages or two districts in one city, but can equally well take on intercontinental dimensions of thousands of kilometers.

A client who wishes to transfer a certain sum of money meets with the local *hawala* intermediary in his village, city or county and tells him the amount of the payment and where and when it is to take place. The *hawala* intermediary takes the sum and a small additional handling fee calculated according to the amount to be transferred and gives the client a code, for example, a simple word, a short combination of numbers, or a particular verse from the Koran. Then the intermediary contacts his partner in the relevant target area and tells him the code and the amount to be

paid out. In passing on this information, the *hawala* intermediary in the transaction's place of origin has completed his part in it. If it has been necessary for him to keep any written record of the transaction up to this time, it can now be destroyed.<sup>9</sup> The client, meanwhile tells the recipient of the money the code, which can indicate where the payment will be made. The recipient then goes to the *hawala* intermediary in the target area (whose identity is also indicated in the code), pass on the code, and accept payment.

Once the payment has been issued, if not before, the intermediary in the target area destroys any notes or other indications of the transfer. Most such *hawala* transactions are concluded within twenty-four hours leaving no bookkeeping notes or other evidence of the movement of money. Within the network, the financial intermediaries operate according to the "two-pot" system, resorting to a clearing process to balance the sums only if, due to unusually high one-time payment orders or other structural exceptions,<sup>10</sup> it is foreseen that in- and outgoing payments are not likely to balance each other naturally.<sup>11</sup> There is usually no attempt to rectify temporary imbalances in an intermediary's in- and outflow; instead, partners in the *hawala* network trust that, in the middle or long run, the balance will be restored.

Thus, the *hawala* financial intermediary does not depend on a complicated infrastructure. A *hawala* office can be hidden behind the credible façade of, for example, a retail shop, an import-export business, or even a religious or social institution. At the same time, the business can be conducted just as easily from a café table or park bench. This explains why it is impossible to

---

<sup>9</sup> The financial intermediary will probably keep a written record of the amount paid to him in order to balance the in- and outgoing payments and to keep track of his credit or obligation with his counterpart.

<sup>10</sup> This would be the case, for example, if the intermediary had his office in a poor area where most of his transactions were payments transferred by relatives working in other countries, such as Pakistani nationals working in the Gulf states.

<sup>11</sup> In practice, this clearing process is extremely rare. If it should become necessary, the sums are generally sent by courier in the form of cash or, more likely, jewels, gold or objets d'art. An alternative mechanism is the over- or underinvoicing of regular trade flows (i.e. making use of so called "transfer payments") between officially registered camouflage enterprises. Thus, it is practically impossible for an outsider to connect it to the

recognize the financial intermediaries in either the country of origin or the target country of the transfer as participants in a global financial network.

Considering the lack of transparency inherent in the *hawala* system, it is understandable that it has been legally banned in almost all the countries of the world—even those which are strongly Islamic, such as Pakistan and Iran. The most significant motive for this ban is the fear that *hawala*'s continued existence threatens central government's regulation and control of the nation's economy since *hawala* is beyond all of the classical instruments of macroeconomic policy.

A look at the sums of money that are regularly transferred within the network indicates that such concerns are by no means unfounded. Despite the bans, the volume of financial transactions in the *hawala* network at times substantially exceeds that in the formal banking sector. For example, Pakistan's finance minister, Shaukat Aziz, estimates that of the six billion U.S. dollars transferred within Pakistan in the year 2000 only \$1.2 billion were moved through the conventional banking system.<sup>12</sup> Between the important Islamic countries of Iran, Pakistan, Afghanistan, and the Arabian Peninsula, in the past few years, some \$30 billion have been moved through the *hawala* network.<sup>13</sup> In India about 50% of economic activity is said to be in some way connected with the *hawala* transfer system.<sup>14</sup> It is estimated by national and supranational organizations that every year approximately \$200 billion move around the globe through *hawala* networks without ever becoming subject to official regulation of any kind.<sup>15</sup> Comparing transactions of these dimensions with the \$200,000 that have been estimated as necessary to prepare and carry out the

---

earlier financial transaction.

<sup>12</sup> Compare: 2001a. Cheap and Trusted. *Economist*, Nov. 24, p. 77.

<sup>13</sup> Compare: 2001b. Im Untergrund verirrt, Spiegel-Online, <http://www.spiegel.de/wirtschaft/0,1518,166161,00.html>, visited November 5, 2001.

<sup>14</sup> Stern, B., 2001. Trois grands systèmes parallèles de fonds ont été identifiés. *Le Monde*, 2 October, 4.

<sup>15</sup> Compare 2001c. *hawala*, in Fachinformationsdienst intern.de, <http://www.intern.de/news/2171.html>, visited November 8, 2001.

devastating attacks in New York and Washington<sup>16</sup> makes it clear that *hawala* networks have no problem at all moving the moneys required to maintain international terrorism.

### III. AN MICROECONOMIC ANALYSIS OF HAWALA

*Hawala* networks can be seen as the product of evolution, as institutions that contributed to the further lowering of transaction costs in an economy with an already highly complex division of labor, thus enabling complex exchange relationships—especially in interregional and international commerce. Their ability to provide a mechanism for safeguarding transactions in an environment insufficiently regulated by law is just as relevant today as it was in the early middle ages. The *hawala* financial institution of today has continued to develop and adapt to current conditions, which are dramatically different.

#### A. Overview

The coordination problem solved by *hawala* can be seen—for both the historical and the present-day forms of the system—as the lack of a impartial third party who could oversee the fulfillment of the contractual arrangement on behalf of each of the interested parties.<sup>17</sup> The individual economic parties are thus forced to develop an institutional arrangement which makes it possible to ensure the fulfillment of their respective contractual obligations. This requires a situation in which each party involved in the transaction has a personal interest in the contract being fulfilled

---

<sup>16</sup> In the opinion of FBI experts on terrorism, this is the maximum amount necessary for the terrorists to have traveled to the United States and remained there for at least one year while receiving flight instruction. Compare 2001d. Auf der Suche nach Bin Ladins Geld, Frankfurter Allgemeine Zeitung, September 26, pp. 1--2.

<sup>17</sup> Whereas, in the early middle ages, the need resulted from the lack of formal regulatory mechanisms, today it continues because of the ban on *hawala* that exists in most nations. The actors who use *hawala* today are therefore acting outside the civil law in the countries in which they conduct their financial business. Therefore, they have no recourse to any protective entity which could enforce the contracts they have entered into. Naturally, this applies particularly to extremist terrorist groups who make use of *hawala* banking to finance their activities.

and considers a long-term continuation of the business relationship more useful than its opportunistic termination.<sup>18</sup> The need for this is clear, as it can be assumed that the (at least to some extent) rational economic parties, who are seeking to maximize their profits, will terminate contractual relationships when they anticipate that doing so will bring them greater benefit.<sup>19</sup>

From the perspective of the new institutional economics, this problem can be solved either through a relational contract on the basis of a horizontal interaction pattern or through the transfer of a transactional relationship in a hierarchical regulatory system.<sup>20</sup> *Hawala* networks represent a solution to the coordination problem based on chains of relational contracts coordinated by its various financial agents. These contractual chains, which are depicted in Figure 2, enable the intervention of financial intermediaries to break down a direct transaction between the economic parties (a) and (b) which would be encumbered by prohibitively high transaction costs and risks into a series of transactions, whereby transaction costs and risks are reduced to a level which does not impede completion.

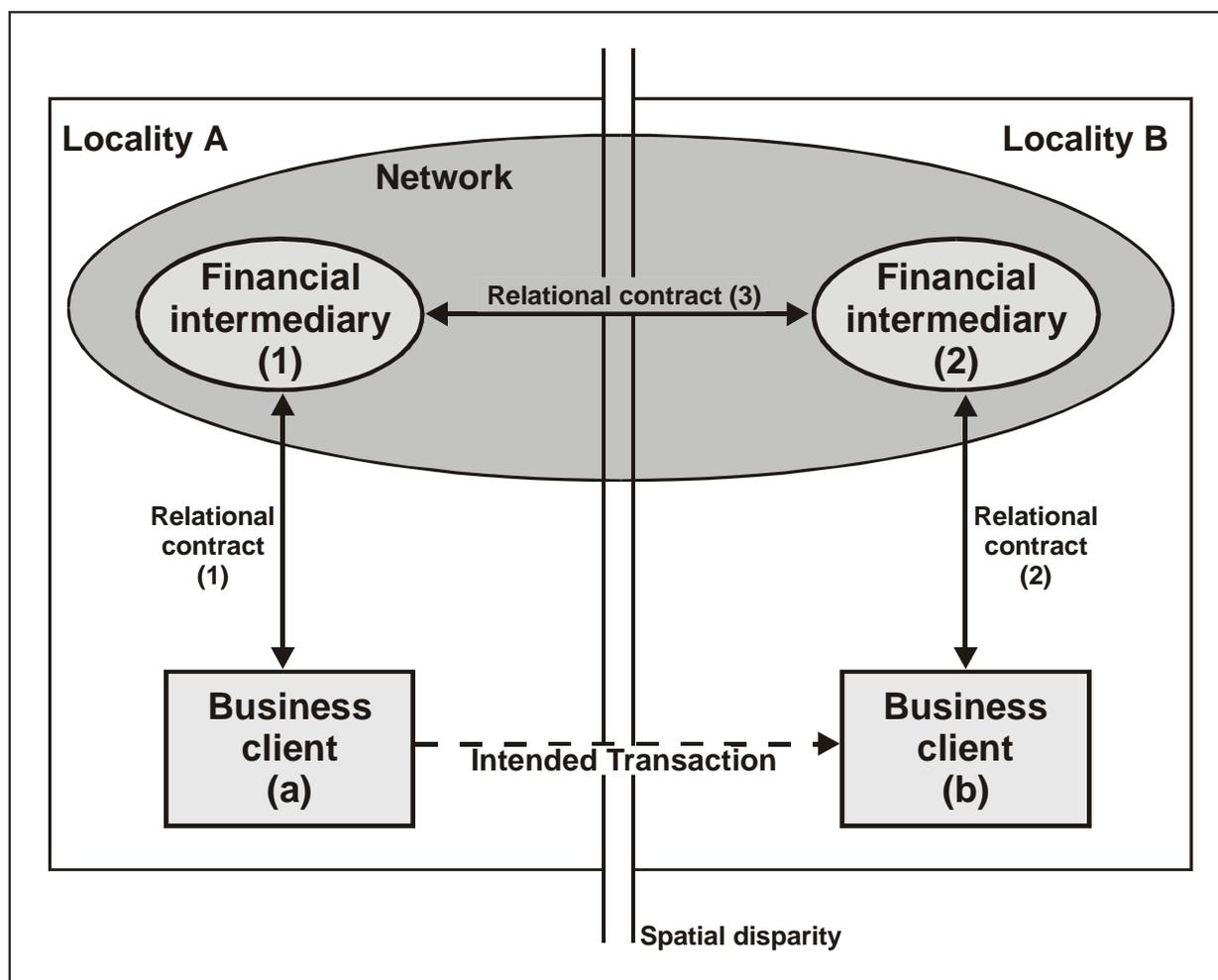
Figure 2: The Web of Relational Contracts in *hawala*

---

<sup>18</sup> Compare Telser, L. G., 1980. A Theory of Self-enforcing Agreements, *Journal of Business* 53, 27—44, here at p. 43.

<sup>19</sup> As Telser notes, “a party [...] calculates whether his gain from violating the agreement is greater or less than the loss of future net benefits that he would incur as a result of detection of his violation and the consequent termination of the agreement by the other party. If the violator gains more than he loses from the violation, then he will violate the agreement.” Telser, *supra* note 18.

<sup>20</sup> In addition to these two coordination mechanisms, the NIE considers the market a third elemental regulator in economic processes based on the division of labor. (Compare: Williamson, O. E., 1979. Transaction Cost Economics: The Governance of Contractual Relations. *Journal of Law and Economics* 22, 233--261, here at p. 248) In market-coordinated transactions, when money is short, the partners avoid investing in complex structures intended to minimize the risk of opportunism by their counterparts. To do this is possible only if the transaction takes place under the protective wing of a general societal consensus which particularly protects the property rights of the partners, either through informal rules of behavior or formal, institutionalized regulations. Market-coordinated relationships are therefore only suitable for the coordination of transactions as long as there is an externally imposed regulatory framework and, accordingly, cannot contribute to the regulation of tribal or cross-border transactions.



As shown in Figure 2, there are two basic forms of transaction relationship in a *hawala* contractual arrangement: The core transaction (relational contract [3]) between the financial agents and the peripheral transactions (relational contracts [1] and [2]) between the individual agents and their clients. These two types of transaction are subject to various coordination mechanisms, as will be more closely examined below. But first, the regulatory principles of the core transactions, which form the basis of the *hawala* financial system, will be investigated.

### B. Cooperation within the Core Transaction

Within the *hawala* core transaction cooperative behavior is guaranteed through the establishment of a special informal organization which permeates the entire business relationship.<sup>21</sup>

*Hawala* networks can be seen as **homogeneous clubs**<sup>22</sup> which guarantee their members the enforceability of available property rights in an institutionally disorderly environment as well as lower transaction costs (in the form of setup and various other management costs).<sup>23</sup> The *hawala* network establishes legal safeguards for its members in the disposition of property rights within the framework of economic transactions<sup>24</sup> in that it embeds one-shot games (one-time-only transactions between isolated economic parties), which are subject to opportunism, in an iterative system of multiple games (transactions with other club members).<sup>25</sup> Thus in an environment missing the provision of the public good contractual/legal security *hawala*-networks provide a club good solution to this problem. Finally, the system also ensures that people keep faith with their contractual obligations because of the rapid spread of information through the network as to who is trustworthy and who is not.<sup>26</sup> Trustworthy, cooperative behavior is rewarded by the continuing ability to carry out low-cost transactions with the network members. Opportunism, on the other hand, is pun-

---

<sup>21</sup> Williamson, O. E., 1985. *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*. London, at p. 72 and 90.

<sup>22</sup> Compare Buchanan, J. M., 1965. *An Economic Theory of Clubs*. *Economica* 32, 1--14.

<sup>23</sup> Such financial systems based on homogeneous clubs are also developed in other cultures in response to similar problems. In China during the Tang Dynasty (618-907 A.D.) an interregional payment system known as *fei qian* (flying money) was practiced for purposes of tax payment or commerce between provinces far removed from one another. Moreover, it is known that, in the medieval commercial center of Bruges, payments among businessmen were directed through a network of moneychanger, which follows the same inherent structure and principles as the *hawala* system. Roover, R. de, 1942. *Banking, and Credit in Medieval Bruges*. *Journal of Economic History* 2, 52--65, here at p. 62.

<sup>24</sup> In this context, the club, in accordance with Sandler, becomes a "nongovernmental alternative to the optimal provision of a class of public goods." Sandler, T., Tschirhart, J., 1997. *Club Theory: Thirty years later*, *Public Choice* 93, 335--355, here at p. 336.

<sup>25</sup> Compare Axelrod, R., 1983. *The Evolution of Cooperation*. New York, which shows that cooperative behavior becomes the dominant strategie only in an iterative play and can resolve the prisoner's dilemma.

<sup>26</sup> Goudie, A. W., Stasavage, D., 1998. *A framework for the analysis of corruption*. *Crime, Law and Social Change* 29, 113--159, here p. 135.

ished by the withdrawal of goodwill or even expulsion from the network.<sup>27</sup> Thus, the affected party suffers not only the loss of the investment necessary to join the network, but also a massive rise in the cost of future transactions<sup>28</sup> —in some cases at such a prohibitively high level that it may mean complete withdrawal from his field of operation with an implicit threat to his livelihood.<sup>29</sup> Thus, "performance is implicitly enforced by the threat of termination of the transactional relationship and communication of the contractual failure to the marketplace."<sup>30</sup> When this happens to one of the network members, it serves as a warning to the rest. Since the possible consequences of contractual failure are demonstrated so drastically, interest in opportunism is discouraged, and, thereby, general adherence to both formal and informal rules ensured.<sup>31</sup> Such punishments are also useful in that they convince the members of the credibility of the threat of punitive action; only credible threats of punitive action will function effectively as a deterrent.<sup>32</sup>

Determining the optimal size of such a club is central at this point.<sup>33</sup> The more members there are, the harder it becomes to guarantee the ubiquitous enforcement of sanctions against infringements. If the optimal club size is exceeded, it increases the cost to the

---

<sup>27</sup> For documentation of similarly constructed punitive practices in Chinese Guanxi networks of varying severity, see: Wank, D. L., 1999. Producing Property Rights: Strategies, Networks, and Efficiency in Urban China's Nonstate Firms, in: Oi, J., Walder A. (Eds.), *Property Rights and Economic Reform in China*, Stanford, pp. 248--272, here at p. 265.

<sup>28</sup> Kranton, R. E., 1996. Reciprocal Exchange: A Self-Sustaining System. *American Economic Review* 86, 830--851, here pp. 831, 845.

<sup>29</sup> As Buskens has determined, "Sanctions in social networks can go even further than the termination of business relationships with a trustee who has abused trust. [...] untrustworthy merchants can fall victim to social ostracism and lose all social and religious contacts. This sanction is so severe that, in this type of society, trust becomes almost self-evident and sanctions are hardly ever necessary." Buskens, V., 1999. *Social Networks and Trust*. Utrecht, here p. 18.

<sup>30</sup> Klein, B., 1985. Self-Enforcing Contracts. *Journal of Institutional and Theoretical Economics (Zeitschrift für die gesamte Staatswissenschaft)* 141, 594--600, here p. 595.

<sup>31</sup> Compare Schmidt-Trenz, *supra* note 3, at 284.

<sup>32</sup> Dasgupta, P., 1988. Trust as a Commodity. in: Gambetta, D. (Ed.), *Trust: making and breaking cooperative relations*, New York, Oxford, pp. 49--72, at p. 50.

<sup>33</sup> Compare Buchanan, *supra* note 22 (1965): pp. 3.

members of information concerning infringements by individuals,<sup>34</sup> and the punishment of bad faith can no longer always be guaranteed. In the case of *hawala* networks, the standing conferred by club membership and the initial investment required to join are both so high—as will be more closely described below—that crowding effects, for all intents and purposes, cannot occur.

This leads to a situation in which, for the most part, the increasing advantages of maintaining a long-term business relationship significantly outweigh any short-term profit which might result from an opportunistic breach of contract. Therefore, the network members behave in accordance with their contractual obligations.

Nevertheless, more than the purely economic incentive (low transaction costs) is needed to prompt the formation of such homogeneous clubs as *hawala* networks. In addition to economic factors, club membership must also endow the individual with a certain identity and reputation. Only in this way is it possible for trust to be established between the individual partners in a transaction, thus alleviating the uncertainty inherent in "faceless" transactions of this kind. This trust can be translated into secured expectations<sup>35</sup> only if the relevant transaction partner has been identified as a fellow club member.

Especially credible signals of trustworthiness are provided by **ethical and religious identifying features**.<sup>36</sup> Timur Kuran shows that

---

<sup>34</sup> Compare Carr; Landa, *supra* note 6, at 139-142.

<sup>35</sup> Dasgupta, *supra* note 32, at 50.

<sup>36</sup> Not least for this reason, today, despite extensive secularization, the importance of religion in social and, with it, economic matters is taking on increasing importance (Compare Iannaccone, L. R., 1998. Introduction to the Economics of Religion, *Journal of Economic Literature* 36, 1465—1496, here at p. 1466 ), and, "if a religious organization has its members spread throughout the world, economic advantages will occur to its members both in local and international trade." Carr; Landa, *supra* note 6, at 152.

"[a] factor that has fueled economic Islamization is that an Islamic subeconomy helps its participants cope with the prevailing adversities by fostering interpersonal trust. [...] Their shared commitment to Islam, even if partly feigned, keeps many of their activities within social circles in which information about dishonest behavior spreads quickly, thus providing a basis for mutual trust."<sup>37</sup>

Extremist groups like Al Qaida and the Taliban are especially suited to the formation of homogeneous clubs through their religious creeds and ideologies, since

"we should not expect the dominant religious organization in an area to form the basis of a trading group. If membership in a religious group is very large, the religious group may be far in excess of the optimal size for economic purposes. Too large a group may imply too small an ability to impose sanctions on those who breach contracts. If this is the case, preferential treatment will be given to fellow coreligionists."<sup>38</sup>

Examining the *hawala* networks in this light, one's attention is drawn to their strict adherence to Islamic law. *Shari'a* claims to represent a supranational code of law.<sup>39</sup> Therefore, in theory it can serve to secure transactions that go beyond "secular" legal jurisdictions, so that the regulatory problem which prompted the development of *hawala* networks in the first place should actually never have occurred at all. In practice, however, *shari'a* was and is handicapped in this role because, firstly, there is no supranational judiciary and executive to enforce it and, secondly, its validity is not recognized by all economic entities. Thus, in spite of its claim of universal validity, *shari'a* can only take on regulatory functions in religious "islands" where the community

---

<sup>37</sup> Kuran, T., 1995. Islamic Economics and the Islamic Subeconomy. *Journal of Economic Perspective* 9, 155--173, here at p. 168.

<sup>38</sup> Carr; Landa, *supra* note 6, at 152.

<sup>39</sup> "[T]here is no separate discipline which is entitled Islamic International Law or which has in its title the word 'international' altogether. What Islam has is Islamic *Shari'a* law which deals with every aspect of every possible human conduct regardless of its description as an internal/municipal or international conduct." Zahraa, M., 2000. Characteristic Features of Islamic Law: Perceptions and Misconceptions. *Arab Law Quarterly* 15, 168--196, here at p. 170.

recognizes its validity and enforces its legal principles. But since there are such religious communities, or at least members of them, scattered around the globe, *shari'a* continues to function as a rival to the mostly state-run legal systems of the world.

Against this background, at least a number of the *hawala* financial networks in existence—most probably including some run by Al-Qaida terrorist groups—are clubs which look to the Koran for their guiding principles and establish *shari'a* as the law for their members and execute it. Accordingly, Al-Qaida may be seen as a Mafia-like organization which takes over governmental functions inasmuch as it administers justice in an area in which the formal justice system is considered by definition to have no jurisdiction.<sup>40</sup> The basic characteristic in such a club that makes possible the identification of members and the development of trust between them would thus be mutual recognition of *shari'a* or identification with common religious principles and values.<sup>41</sup> Connected with this is the willingness to subject oneself to an automatic mechanism of sanctions with the threat of excessive punishment, whereby one's credibility as a trustworthy business partner is convincingly signaled within the religious community.

The attempts described above to establish and preserve one's reputation as a trustworthy club member can be seen as (specific<sup>42</sup>) **investments in social capital**.<sup>43</sup> In other words, the share capital in clubs like *hawala* networks is composed of accumulated social capital. This stabilizes

---

<sup>40</sup> Compare Anderson, A., 1995. Organised Crime, mafia and governments. in: Fiorentini, G., Peltzman, S. (Eds.) The economics of organised crime, Cambridge, pp. 33--54, here at p. 34.

<sup>41</sup> These can also comprise the refusal of secularly oriented Western social regulations, which, are perceived to be hedonistic and, due to their economic and technological competitiveness, a threat to the Islamic identity. In the context of Al Qaida terrorist groups, this aspect of a common ideology takes on particular significance, since, as Skaperdas und Syropoulos show "the long-rung success of gangs and primitive states depends heavily on the articulation and internalization by members, subjects and community of a workable ideology, a logically connected system of beliefs about the world." Skaperdas, S., Syropoulos, C., 1995. Gangs as primitive states. in: Fiorentini G., Peltzman, S. (Eds.) The economics of organised crime, Cambridge, pp. 61--82, here at p. 75.

<sup>42</sup> On the concept of asset specificity Compare Williamson, *supra* note 20, at 52.

<sup>43</sup> Compare Dasgupta, P., Serageldin, I., 1999. Social Capital. A Multifaceted Perspective, Washington.

the existence of the clubs in that it takes on the characteristics of sunk cost.<sup>44</sup> Any club member who were to be expelled from the club would irrevocably lose his social capital expenditures. Each member therefore has strong material incentives to behave in accordance with club statutes, not only in order to enjoy the returns on his investments but also to avoid the complete write-off of his invested capital.

However, investment in the social capital of a *hawala* network must also be seen from another perspective as a specific investment in Williamson's sense. The fact that the nature of *hawala* networks is at least to some extent religious renders the diversification of investments in social capital and with it the reduction of social risks impossible: The tie to a religious system of the radical nature described (and assumed) here is much the same as a high, specific investment that prevents (social) transactions with other religious or social groups from ever taking place. In other words, the choice of membership in such a club—and with it the construction and bond of social capital—is not only final but also exclusive. Diversification of transaction potential and, with it, risk reduction is not possible.<sup>45</sup> At the same time, however, the decision to join this kind of club is irreversible (indeed, bringing with it a potential threat to one's livelihood), so that the decision itself can be interpreted as a reliable and credible signal to other club members of one's trustworthiness.<sup>46</sup> After all, the punitive power of the club cannot be circumvented by substituting transactions carried out in alternative systems for the transactions with club members lost through opportunism.

---

<sup>44</sup> Because investments in club-specific social capital take on the characteristics of sunk cost, they enter the calculation of the individual business clients as fixed costs. This block of comparatively high fixed costs contrasts with the low, variable transaction fees in the club society of the *hawala* network, where, with reduced club membership, further costly mechanisms to secure transactions and reduce risks can be dispensed with. The low level of variable fees produces an incentive for using the network as intensively as possible, since each additional transaction reduces the average costs for all transactions carried out in the *hawala* network.

<sup>45</sup> On the basic concepts of Portfolio Selection Theory compare Markowitz, H. M., 1965. *Portfolio selection: efficient diversification of investment*. New York.

<sup>46</sup> Compare Williamson, O. E., 1983. *Credible Commitments: Using Hostages to Support Exchange*, American

### *C. Cooperation in Peripheral Transactions*

Like core transactions, peripheral transactions, which are necessary for the development of the network of *hawala* intermediaries into a functioning financial system, must be subject to a security mechanism which prevents opportunism and ensures the fulfillment of contractual obligations.

Enforcement of the relational contracts between clients and *hawala* financial intermediaries (cf. Fig. 2) can only be guaranteed through an informal institutional arrangement since both parties are operating outside the national (or regional) justice system. *Hawala* has been banned almost everywhere, as explained above, so the parties have no recourse to a codified institutional framework which would ensure the fulfillment of contractual obligations.

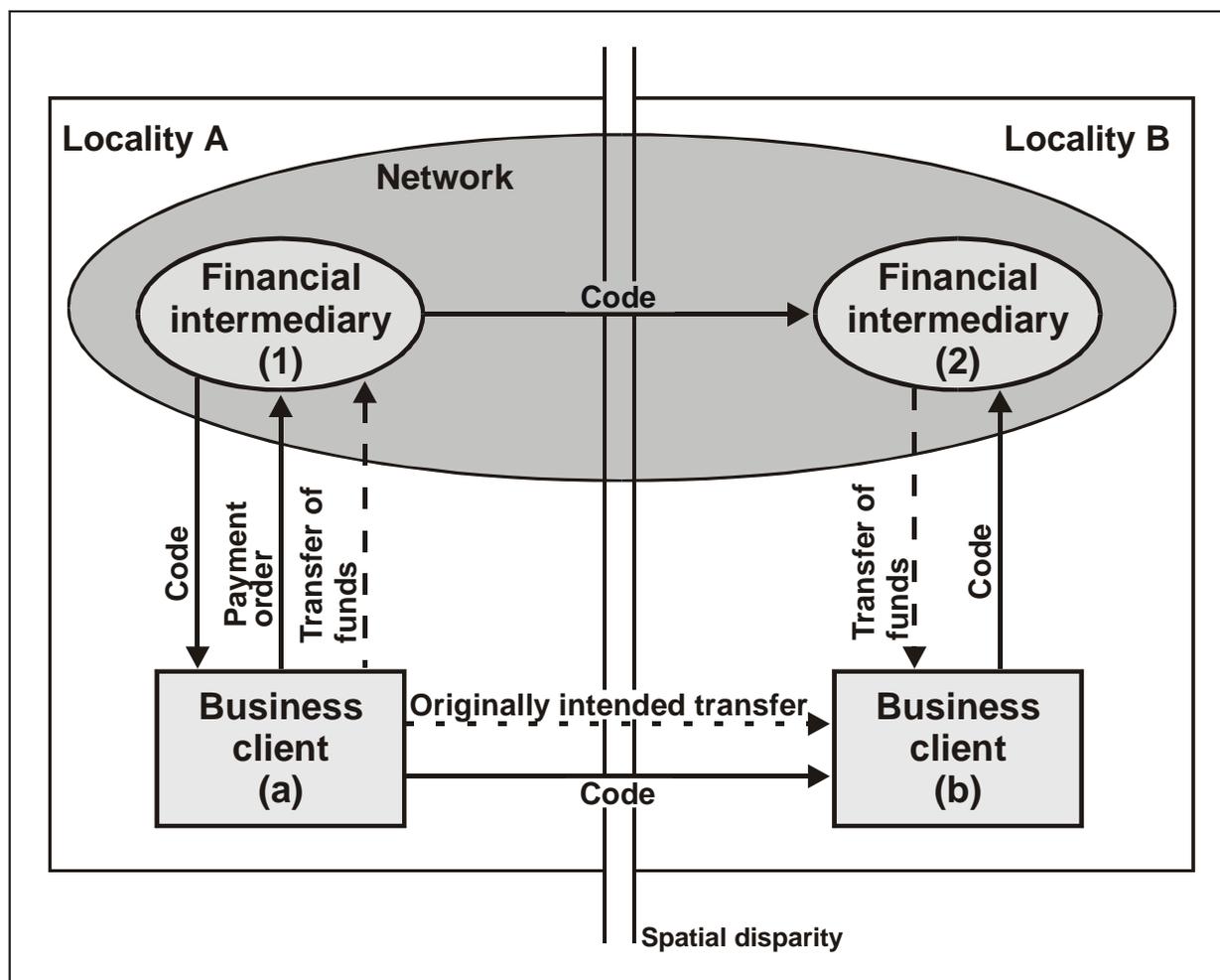
On the level of peripheral transactions, there are three basic forms opportunism might take:

- 1) FI (1) accepts a sum of money from BC (a), but does not instruct FI (2) to make payment to BC (b) or instructs FI (2) to make payment to BC (b) in a lesser amount than agreed upon with BC (a).
- 2) FI (2) pays BC (b) a lesser amount, claiming (falsely) that it is the amount he has been instructed to pay.
- 3) BC (a) falsely claims to BC (b) that he paid a higher amount to FI (1) than was ultimately paid out to BC (b), thus attempting to pass on the blame for his own mistake to FI (1) or FI (2).

At first sight, opportunism of this sort appears to be made possible by the distinctive **information asymmetries**: In a *hawala* transaction, over a relatively long period of time a potential information deficit develops to the detriment of the client, since he must first rely on the intermediary to fulfill his task. However, in the evolution of *hawala* networks particular solutions have been developed to resolve such problems. These solutions which counteract institutional incalculabilities and can decrease information deficits. Thus, there is inherent protection against possible information asymmetries because of the sophisticated communication system within the *hawala* financial network,<sup>47</sup> as shown in Figure 3.

---

<sup>47</sup> Compare on the structure of communication systems to reduce information asymmetries in medieval interregional commerce also: Greif, A., 1989. Reputation and Coalition in Medieval Trade: Evidence on the Maghribi Trades. *Journal of Economic History* 49, 857--882, here at p. 879.

Figure 3: Information flow and individual transactions in *hawala* banking

As pictured, the client (BC [a]) places an order with his financial intermediary (FI [1]) for the payment of a certain sum of money and gives him that amount plus the negotiated transaction fee. The *hawala* intermediary provides the client with a specific code, which the client must then pass on to the recipient of the money in the target area (BC [b]). The intermediary in the network hub where the payment is to be issued (FI [2]) also receives the code—both from his partner in the network and from business client (b). At this point, the circle of communication within the *hawala* network has been perfectly completed: Both business client (a), who has initiated the payment order, and business client (b), the recipient of the payment, know the sum to be trans-

ferred, so that neither FI (1) nor FI (2) has any informational leeway. Moreover, feedback is possible at all times on both levels—that of the clients and that of the financial intermediaries. The transaction between the financial intermediaries is safeguarded through the arrangements immanent in the network, as described in the preceding section. Should unintentional information asymmetries occur between the clients,<sup>48</sup> one can still assume that the information exchanged within the *hawala* network is roughly homogeneous.<sup>49</sup>

Nevertheless, even if the information asymmetry in the *hawala* system has been alleviated, from the point of view of the new institutional economics, in a situation of high institutional uncertainty such as this, the risk of opportunism continues to exist.<sup>50</sup> By handing over his money, the client in a *hawala* transaction is exposing himself to the risk of a hold-up by the financial intermediary, who, in the short-run of the unique transaction, needs fear no consequences from the opportunistic breach of contract.<sup>51</sup> However, there are recognizable safeguards on the level of the peripheral transaction which are capable of limiting such opportunism.<sup>52</sup> Here the **reputation** of

---

<sup>48</sup> That is to say, we rule out opportunism of type (3) in peripheral transactions. The plausibility of this assumption will be explained below.

<sup>49</sup> In a similar context, Greif shows that, in accordance with the theory of repeated games with imperfect monitoring, a multilateral punishment strategy in a network can enforce compliance with a contract even if its execution is not perfectly monitored. See Greif, A., 1993. Contract Enforceability and Economic Institutions in Early Trade: The Maghribi Traders' Coalition. *American Economic Review* 83, 525--548, here at p. 531.

<sup>50</sup> Compare Husted, who shows that, in the case of corrupt transactions, if "transactions occur outside the law, there are many opportunities for the parties to take advantage of each other." Bryan Husted, B., 1994. Honor Among Thieves: A Transaction-Cost Interpretation Of Corruption In Third World Countries. *Business Ethics Quarterly* 4, 17--27, here at p. 19.

<sup>51</sup> It should not be overlooked at this point that the *hawala* intermediary is himself subject to a "hold-up" by his client. Even though there is hardly any record of the transaction which might be used against him, the client, with his first-hand knowledge of the proceedings, could report the intermediary to the authorities.

<sup>52</sup> In addition to the safeguards described here, it could also be argued that the mere existence of the *hawala* network is enough to prevent opportunism between the financial intermediaries and their customers—although the latter transactions do not fall directly within the secured sphere of network operations—since, if a financial intermediary were to indulge in opportunism (see types [1] and [2] listed above), he would automatically be discredited. Such damage to the business partner's integrity and reputation could be interpreted as a violation of the *hawala* behavior code and thus activate club sanctions.

the individual financial intermediary plays a particular role. Reputation, understood in the sense that it "emerge[s] if an actor's future partners are informed on his present behavior,"<sup>53</sup> can function as a credible signal of his trustworthiness to potential customers.<sup>54</sup> At this point, the special Islamic underpinning of the *hawala* financial system in general and the *hawala* networks in particular takes on significance: Belonging to a network of this sort involves, as described above, high specific investments. These investments not only establish a foundation of social capital within the network, but also serve to build the public reputation of the individual financial intermediary. The tie to the religious system of sanctions implemented by *hawala* networks on the basis of *shari'a* can be interpreted by the relevant small social groups of (potential) clients as credible evidence (signal) of trustworthiness.<sup>55</sup> At the same time the construction of reputation also leads to a rise in the costs of opportunism in that it raises the actor's visibility (prominence) in the social group. Thus,

"reputation effects enlarge the long-run costs of exploitation; these long-run costs become greater the faster an actor's reputation spreads in his interaction network. In this way, mutual abstention from attempts to exploit partners, based on conditional cooperation, can become individually profitable."<sup>56</sup>

---

<sup>53</sup> Raub, W., Weesie, J., 1990. Reputation and Efficiency in Social Interactions: An Example of Network Effects. *American Journal of Sociology* 96, 626--654, here at p. 626.

<sup>54</sup> Closely associated with the reputation of the actors is the fact that peripheral transactions do not take place in the facelessness of anonymous business relationships; instead, everyone involved can be identified. Ben-Porath points out the particular importance of the identity of the partners in transactions which are characterized by a lack institutional security. In such a context, the mutual identification of the partners can prevent market failure and encourage lower transaction fees. Compare Ben-Porath, Y., 1980. The F-Connection: Families, Friends, and Firms and the Organization of Exchange. *Population and Development Review* 6, 1--30, here at p. 5.

<sup>55</sup> An example of the importance of reputation in carrying out transactions in small groups is given by Coleman in his study of Jewish diamond dealers in New York City: „A given merchant community is ordinarily very close, both [sic] in the frequency of interaction and in ethnic and family ties. [...] It is essentially a close community. [...] [T]hese close ties, through family, community, and religious affiliation, provide the insurance that is necessary to facilitate the transaction in the market. If any member of this community defects...he would lose family, religious, and community ties.“ Coleman, J., 1988. *Social Capital in the Creation of Human Capi-*

It must also be noted that simply being a member of a *hawala* network generates no pay-off from the latent social capital. It is the integration of these investments in the peripheral relationships of the system that make it possible to obtain a pay-off. However, that makes it necessary for the individual *hawala* intermediary to carry out as many transactions as possible in his social environment. In an iterative game it is possible for both sides to punish opportunism; thus, cooperation and compliance with contractual obligations becomes the dominant strategy.<sup>57</sup>

Furthermore, because of their strongly ideological embedding in the social context, such transactions often take place only within very small groups. The likelihood that clients and financial intermediaries will meet again and opportunism will be punished is therefore extraordinarily high. The fact that the *hawala* intermediary is usually an important part of the social community (within a village or a region, for example) is enough on its own to prevent opportunism.

This **social embeddedness**<sup>58</sup> of the institutional structure of the *hawala* financial system in the Islamic social hierarchy is a further functionally significant factor. In the context of the entire social system, neither the selection nor the organization of formal or informal institutions takes place solely on the basis of economic criteria of efficiency; both are also subject to cultural and social-religious influences.<sup>59</sup> As Uzzi notes,

---

tal. *American Journal of Sociology* 94, 95--120, here at p. 99.

<sup>56</sup> Raub; Weesie, *supra* note 53, at 647.

<sup>57</sup> Axelrod, *supra* note 25.

<sup>58</sup> Compare Granovetter, M., 1985. Economic Action and Social Structure: the Problem of Embeddedness. *American Journal of Sociology* 91, 481--510.

<sup>59</sup> Paul DiMaggio, P., 1994. Culture and Economy, in: Smelser, N., Swedberg, R. (Eds.) *The Handbook of Economic Sociology*, Princeton, pp. 21--57, here at 38.

"embeddedness is a logic of exchange that shapes motives and expectations and promotes coordinated adaptation. This logic is unique in that actors do not selfishly pursue immediate gains, but concentrate on cultivating long-term cooperative relationships"<sup>60</sup>

The entire Islamic banking and financial world is particularly subject to this social embedding. The special conditions and limitations governing Islamic banks do not result from economic necessity—on the contrary, from that point of view, they are hard to defend—but rather from a comprehensive religious understanding.<sup>61</sup> As an informal institution which resulted from an evolutionary process, the *hawala* financial system can therefore be considered significantly more strongly interwoven with the social-religious fabric of society. This, however, means that the informal safeguards described above as well as the norms and values affiliated with the entire system may gain a self-reinforcing element due to their particular embeddedness.

From the previous discussion, it can be deduced that it serves the self-interest of FI (1) and (2) to avoid opportunistic treatment of their clients, BC (a) and (b). At the same time, the third potential form of opportunism in the context of peripheral transactions also becomes unavailable. Since one can assume with a confidence bordering on certainty that the financial intermediaries will not engage in opportunism with regard to the relational contracts (1), (2), and (3), a false assertion from BC (a) to BC (b) would immediately be exposed as dishonest. Since such an attempt would obviously fail on this level as well, it simply will never occur in the first place.

---

<sup>60</sup> Uzzi, B., 1996. The Sources and Consequences of Embeddedness for the Economic Performance of Organizations: The Network Effect. *American Sociological Review* 61, 674--698, here at p. 693.

<sup>61</sup> Compare Kuran, T., 1996. The Discontents of Islamic Economic Morality. *American Economic Review* 86, 438—442, here at p. 438.

#### IV. CONCLUSION

Analysis of the functional principles of the Islamic *hawala* financial system has shown that it is a highly efficient, extremely robust institutional arrangement for overcoming the risks of opportunism among the partners in a transaction. It is an institution which was developed over the course of centuries against the backdrop of a lack of formal regulatory systems and which today, therefore, is able to expand freely outside and independently of existing regulations.

The central regulatory principle of the *hawala* financial system comprises chains of relational contacts which break down basic business dealings that would otherwise be encumbered by prohibitively high risks into several individual transactions, the risks and transaction costs of which have been reduced to such a degree that it becomes possible to carry them out. Within this chain of relational contracts it is possible to distinguish various regulatory mechanisms for the core and peripheral transactions.

In the area of core transactions, the problem of regulation is solved through the formation of homogeneous clubs. These clubs—the *hawala* networks—create lock-in situations through which extremely risk-laden exchange relationships can be transformed into self-fulfilling contracts. Through the high expenditure of investment in social capital that accompanies membership, all parties provide credible documentation of their commitment. Their investment will only return a profit if future transactions are carried out in the interests of all the contractual partners. Due to their high stock of sunk capital, *hawala* networks create governance structures analogous to vertical integration solutions which force the transaction partners to abide by the contract.<sup>62</sup>

---

<sup>62</sup> Thus they approximate the ideal microeconomic solution to the problem of coordination. Compare Reja, B., Talvitie, A., 2000. The Industrial Organization of Corruption: What is the Difference in Corruption Between Asia and Africa, paper presented at The Annual Conference 2000 of the International Society for New Institutional Economics, Tübingen, September 2000, at pp. 5-8.

The trustworthiness of club members results from secure expectations about their rational, purpose-oriented behavior.

Removed from economic calculation, the common Islamic creed plays a central role in the development and long-term existence of *hawala* networks. It defines a set of values shared by all club members which provides stability for the network not only on the economic-material level of maximizing profits, but also on the religious-ideological level. On this level, through the dissemination of fundamentalist and anti-Western ideologies, extremist groups like Al Qaida and the Taliban are able to set very specific accents in forming club identities which, because of their radicality, are particularly effective in stabilizing such club communities.

Peripheral transactions are safeguarded by the prevention of information asymmetries, effects on reputation, and the high degree of probability in small social groups that dishonesty will be punished. The embeddedness of the transaction activity in the Islamic religious community secures the transaction even more effectively than purely rational economic calculation.

On the whole, it is clear that *hawala* financial systems are capable of providing a complete transaction infrastructure within which the business partners can protect themselves from ex post opportunism by any one party. The ability to provide informal mechanisms for safeguarding transactions outside the jurisdiction of national regulations makes it possible to conduct just about any transaction on the supranational level. This and the "invisibility" of *hawala* financial intermediaries, who can conceal their activities behind the façade of legal businesses, really do make the *hawala* financial system the optimal organizational form for terrorist groups like Al Qaida, who need an efficient financial infrastructure to support their global activities. In addition, the fact that the anyway minimalistic documentation of *hawala* transfers is usually completely

destroyed once the transfer has been executed satisfies these terrorist groups' request for not only confidential but also "traceless" financial transactions.

The global anti-terrorist alliance, who have made it their goal to bring to justice the terrorist groups responsible for the mass murder on 9/11 and to prevent further acts of terrorism, are likely to find it difficult indeed to shut down the financial infrastructure of criminal groups like Al Qaida.<sup>63</sup> While those financial transactions carried out through the formal banking system can be discovered and stopped comparatively easily<sup>64</sup>, a second, informally organized financial infrastructure will continue to exist in the *hawala* financial system. This system has not only handled the majority of financial transactions for terrorist groups up until now, but it is also in the position to absorb those monetary flows which are being pushed out of the formal banking system. However, because of its specific institutional structure, the *hawala* financial system is well-prepared to elude surveillance and regulation by anti-terrorist units. Already in 1994 the US-congress passed a law forcing all *hawala* intermediaries doing business in the USA to register. However, how they should be encouraged to freely expose themselves to the government was not stipulated within the regulation. Thus, it was never used by investigating offices. The extreme sanctions imposed on those practicing *hawala* which have long existed in Islamic countries have posed no threat to the system's continued existence, either. Moreover, it is questionable, considering the informal organization of *hawala* networks, whether there are any imaginable restrictions which could force its individual members—in light of their high specific in-

---

<sup>63</sup> Cf. FitzGerald, V., 2002. Global Financial Information, Compliance Incentives and Conflict Funding. paper presented to the DIW workshop 'The Economic Consequences of Global Terrorism', Berlin 14-15 June 2002, pp. 12-19.

<sup>64</sup> A sum of nearly 50 Mio \$ on accounts owned by 150 persons and organizations in over 40 countries was frozen shortly after the 9/11 attacks. For some of the many intricacies still involved in tracking 'terror money' in the formal financial system see: FitzGerals (2002) supra note 63; and Schneider, F., 2002. Money Supply for Terrorism – The hidden financial flows of Islamic terrorist organisations: Some preliminary results from an economic perspective. paper presented to the DIW workshop 'The Economic Consequences of Global Terrorism', Berlin 14-15 June 2002.

vestments—to give up their involvement in the system. The most likely tactic would be to influence the cost-profit calculation of the customer of the *hawala* financial system—because of by tightening controls or by providing alternatives; customers are seldom integrated into the broad networks, but use *hawala* only as a low-cost (and ideological) alternative to the formal banking system. Without these "small" customers, however, the functional capability of the system would be reduced since without them it would be difficult to maintain balanced accounts.

Lastly, it can be assumed that, in spite of the initial military successes of the anti-terrorist alliance in Afghanistan, Al Qaida's (financial) ability to act has hardly been reduced at all. The internal construction of their institutional basis as depicted here would, rather, lead one to believe that Al Qaida will be able to reestablish itself quickly in new territories.

## BIBLIOGRAPHY

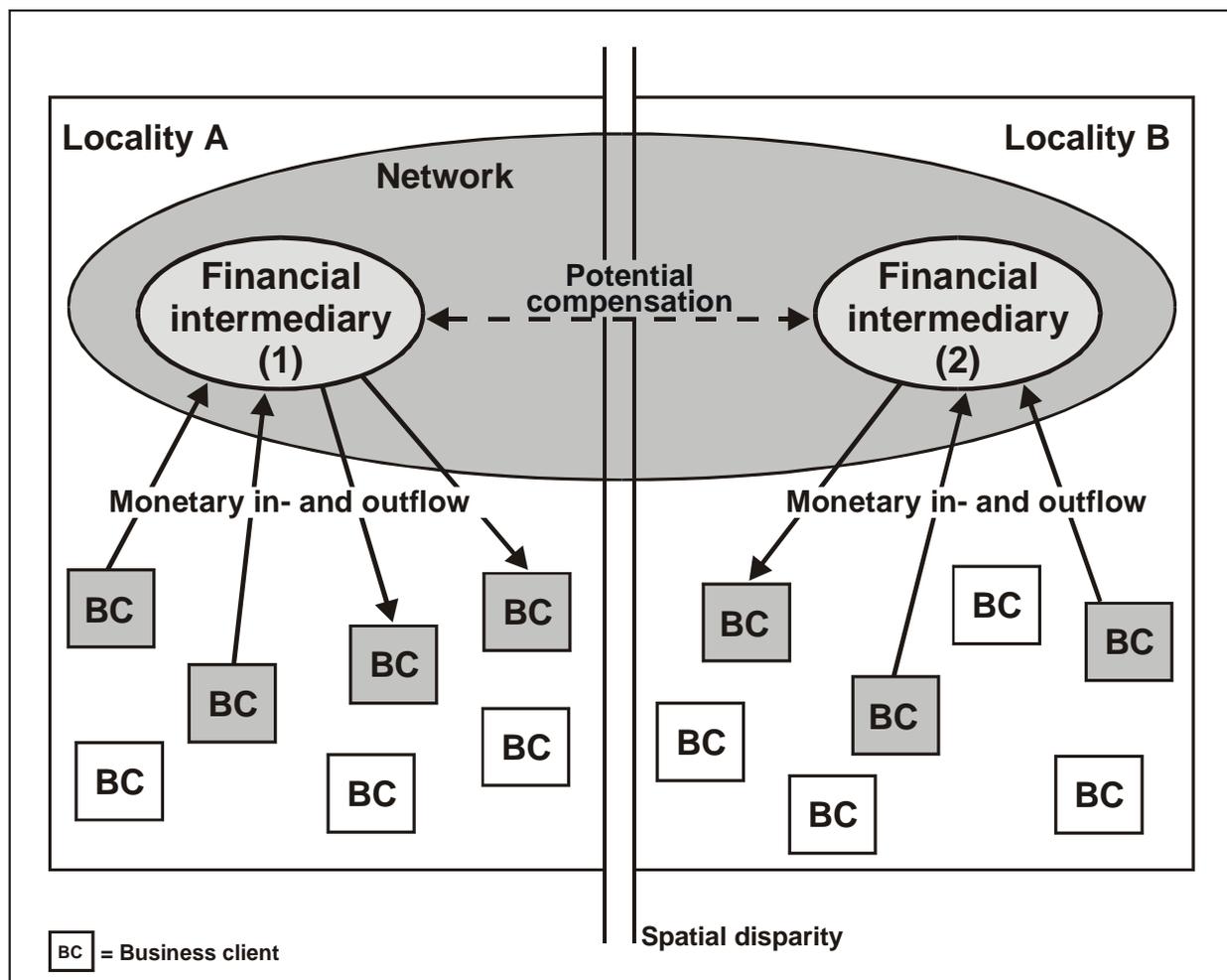
- Amereller, F., 1995. Hintergründe des „Islamic Banking“, Schriften zum Internationalen Recht, Bd. 71, Berlin, 1995.
- Anderson, A., 1995. Organised Crime, mafia and governments, in: Fiorentini, G.; Peltzman, S. (Eds.), *The economics of organised crime*, Cambridge, pp. 33-54.
- Axelrod, R., 1983. *The Evolution of Cooperation*, New York, 1983.
- Ben-Porath, Y., 1980. The F-Connection: Families, Friends, and Firms and the Organization of Exchange. *Population and Development Review* 6, pp. 1--30.
- Buchanan, J. M., 1965. An Economic theory of Clubs, in: *Economica*, Vol. 32, pp. 1-14.
- Buskens, V. 1999. *Social Networks and Trust*, Utrecht.
- Carr, J. L., Landa, J. T., 1983. The Economics Of Symbols, Clan Names, And Religion. *The Journal of Legal Studies* 12, pp. 135--156.
- Coleman, J. 1988. Social Capital in the Creation of Human Capital. *American Journal of Sociology* 94, pp. 95--120.
- Dasgupta, P., 1988. Trust as a Commodity, in: Gambetta, D. (Eds.), *Trust: making and breaking cooperative relations*, Basil Blackwell, New York, pp. 49--72.
- Dasgupta, P.; Serageldin, I., 1999. *Social Capital. A Multifaceted Perspective*, Washington.
- DiMaggio, P., 1994. Culture and Economy, in: Smelser, N.; Swedberg, R. (Eds.), *The Handbook of Economic Sociology*, Princeton, pp. 27--57.
- FitzGerald, V., 2002. global Financial Information, Compliance Incentives and Conflict Funding. paper presented to the DIW workshop “The Economic Consequences of Global Terrorism”, Berlin 14-15 June 2002.
- Gärber, A., 1992. *Islam, finanzielle Infrastruktur und wirtschaftliche Entwicklung*, Frankfurt.
- Granovetter, M. (1985): Economic action and social structure: the problem of embeddedness, in: *American Journal of Sociology*, Vol. 91, pp. 481-510.
- Goudie, A. W., Stasavage, D., 1998. A framework for the analysis of corruption. *Crime, Law & Social Change* 29, pp. 113--159.

- Greif, A., 1989. Reputation and Coalition in Medieval Trade: Evidence on the Maghribi Trades. *The Journal of Economic History* 49, pp. 857—882.
- Greif, A., 1993. Contract Enforceability and Economic Institutions in Early Trade: The Maghribi Traders' Coalition, *The American Economic Review* 83, pp. 525--548.
- Husted, B. 1994. Honour Among Thieves: A Transaction-Cost Interpretation Of Corruption In Third World Countries. *Business Ethics Quarterly* 4, pp. 17--27.
- Inalcik, H. I. 1969. Capital Formation in the Ottoman Empire, *Journal of Economic History* 29, pp. 97--140.
- Iannaccone, L. R., 1998. Introduction to the Economics of Religion. *Journal of Economic Literature* 36, pp. 1465-1496.
- Klein, B., 1985. Self-Enforcing Contracts. *Zeitschrift für die gesamte Staatswissenschaft. Journal of Institutional and Theoretical Economics* 141, pp. 594--600.
- Kuran, T., 1995. Islamic Economics and the Islamic Subeconomy. *Journal of Economic Perspectives* 9, pp. 155--173.
- Kuran, T., 1996. The Discontents of Islamic Economic Morality. *The American Economic Review* 86, pp. 438--442.
- Kranton, R. E., 1996. Reciprocal Exchange: A Self-Sustaining System. *The American Economic Review* 86, pp. 830-851.
- Markowitz, H. M., 1965. *Portfolio selection: efficient diversification of investment*. New York.
- Posner, R. A., 1980. A Theory Of Primitive Society, With Special Reference To Law. *Journal of Law and Economics* 23, pp. 1--53.
- Raub, W., Weesie, J., 1990. Reputation and Efficiency in Social Interactions: An Example of Network Effects. *American Journal of Sociology* 96, pp. 626--654.
- Reja, B.; Tavitie, A., 2000. The Industrial Organization of Corruption: What is the Difference in Corruption Between Asia and Africa, paper presented at The Annual Conference 2000 of the International Society for New Institutional Economics, Tübingen, September 2000.
- Roover, R. de, 1942. Banking, and Credit in Medieval Bruges. *Journal of Economic History* 2, pp. 52--65.
- Sandler, T., Tschirhart, J., 1997. Club Theory: Thirty years later. *Public Choice* 93, pp. 335--355.

- Schmidt-Trenz, H.-J., 1990. Außenhandel und Territorialität des Rechts: Grundlagen einer neuen Institutionenökonomik des Außenhandels, in: Wirtschaftsrecht und Wirtschaftspolitik, Bd. 104, Baden Baden.
- Schneider, F., 2002. Money Supply for Terrorism-The hidden financial flows of Islamic terrorist organizations: Some preliminary results from an economic perspective. paper presented to the DIW workshop "The Economic Consequences of Global Terrorism", Berlin 14-15 June 2002.
- Skaperdas, S., Syropoulos, C., 1995. Gangs as primitive states, in: Fiorentini, G., Peltzman, S. (Eds.), The economics of organised crime, Cambridge, pp. 61--82.
- Stern, B., 2001. Trois grands systèmes parallèles de fonds ont été identifiés. Le Monde, 2 October, p. 4.
- Telser, L.G., 1980. A Theory of Self-enforcing Agreements. Journal of Business 53, pp. 27--44.
- Uzzi, B., 1996. The Sources and Consequences of Embeddedness for the Economic Performance of Organizations: The Network Effect. American Sociological Review 61., pp. 674--698.
- Wank, D. L., 1999. Producing Property Rights: Strategies, Networks, and Efficiency in Urban China's Nonstate Firms, in: Oi, J., Walder, A. (Eds.), Property Rights and Economic Reform in China, Stanford, pp. 248--272.
- Williamson, O. E., 1979. Transaction Cost Economics: The Governance of Contractual Relations. Journal of Law and Economics 22, pp. 233--261.
- Williamson, O. E., 1983. Credible Commitments: Using Hostages to Support Exchange. The American Economic Review 73, pp. 519--540.
- Williamson, O. E., 1985. The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting, London 1985.
- Zahraa, M., 2000. Characteristic Features of Islamic Law: Perceptions and Misconceptions. Arab Law Quarterly 15, pp. 168--196.
- 2001a. Cheap and Trusted, in: The Economist, Nov. 24<sup>th</sup> 2001, p. 77.
- 2001b. Im Untergrund verirrt. Spiegel-Online visited 05.11.2001, URL: <http://www.spiegel.de/wirtschaft/0,1518,166161,00.html>.
- 2001c. hawala, in: Fachinformationsdienst intern.de, visited 08.11.2001, URL: <http://www.intern.de/news/2171.html>.
- 2001d. Auf der Suche nach Bin Ladins Geld, in: Frankfurter Allgemeine Zeitung 26.09.2001, pp. 1--2.

## Figures

Figure 1: The *hawala* financial system



Note: The spatial disparity mentioned here and in Figures 2 and 3 can refer to two neighboring villages or two districts in one city, but can equally well take on intercontinental dimensions of thousands of kilometers

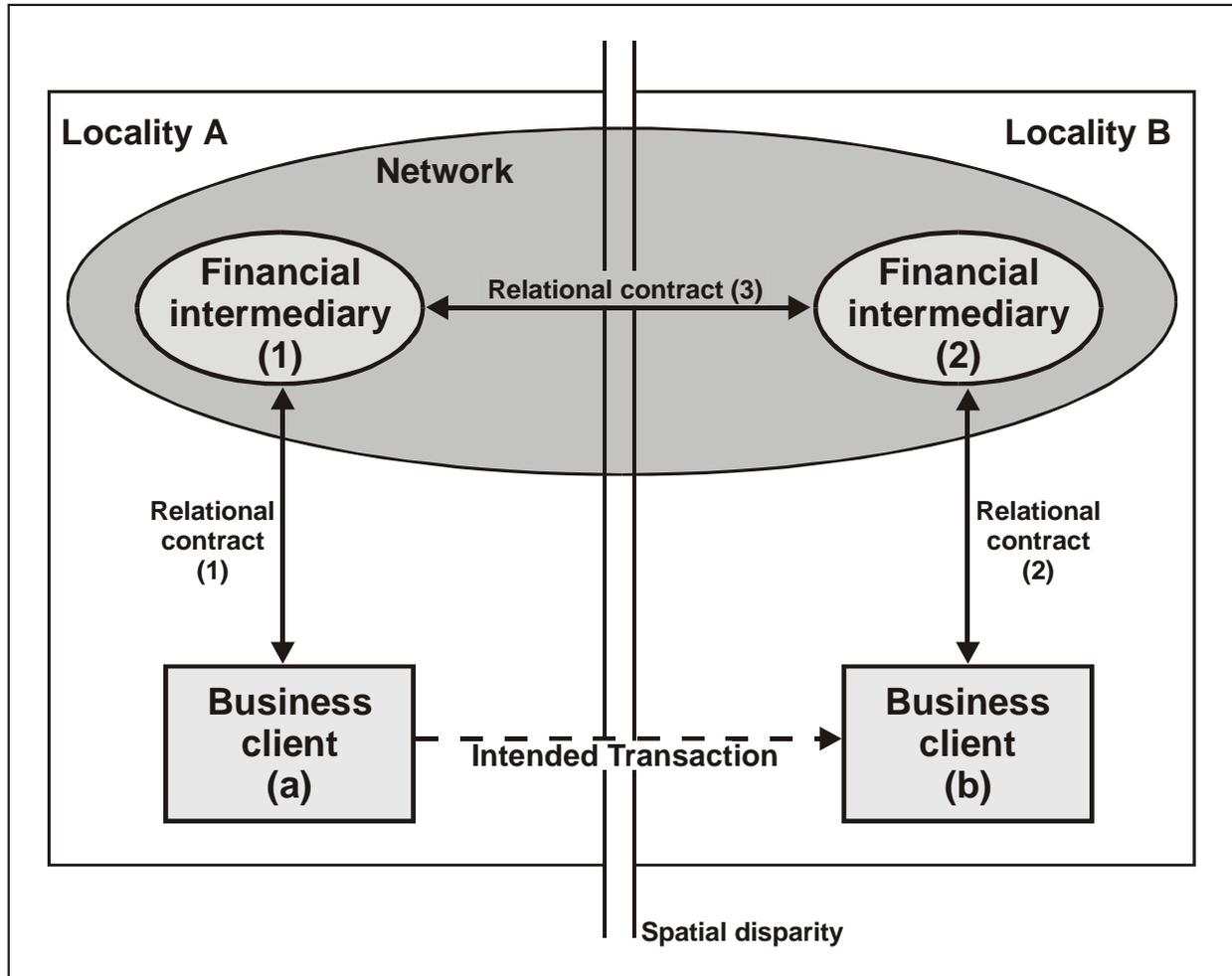
Figure 2: The Web of Relational Contracts in *hawala*

Figure 3: Information flow and individual transactions in *hawala* banking

