# Reserved anonymity:
# On the use of telephones in the trading room.

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*NOTE: This contribution tries to trigger some useful comparisons from two different fieldworks. The first one is about exchange automation. It has been conducted between 1999 and 2001 and it constitutes the major topic of a PhD dissertation (France Telecom R&D and Paris School of Mines). Some results have been already exploited in several academic articles and communications. The second one is about trading room telephony. It is the result of an ongoing research at France Télécom R&D. This preliminary version of the paper concentrates on the results from the second fieldwork: telephone-based communication in the financial markets. A more elaborated version of this paper should bring more detailed elements about exchange automation, focused on the topic of anonymity.*

Abstract:

Exchange technologies in contemporary financial markets are likely to be described as a tendency towards a process of abstraction in where market coherence is strictly based on the disclosure of quotes. This enables comparisons with the most audacious metaphors of equilibrium theory, for which a blind, anonymous market appears to be the optimal mechanism for efficient price discovery and fair allocation. Our contribution tries to temper this kind of generalization by focusing on the concreteness of market organization. The topic of anonymity can be analyzed in regards to the specific locations in which it is considered in actual market formations. We confront here our previous research on exchange automation to another technology that constitutes, to a large extent, one of the most important tools in a trading room environment: the telephone. If anonymity is one of the keynote elements of exchange automation, identification seems to be the major characteristic of telephony. We will focus on three cases: 1) telephone interaction in an OTC or market-making environment; 2) the use of counterpart disclosure in an automated, order-driven environment; 3) client monitoring practices in a salesperson environment. We will study how the identification of the counterpart, as opposed to anonymity, happens to be a central feature of market formations in some segments of the trading process. A comparison with the effects of exchange automation will allow us to qualify the question of market anonymity.

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# Introduction.

Financial markets are one of the social spaces in where the correspondence between actual market formations and the conceptual categories of neoclassical economics is exploited the more. Exchange technologies' leitmotiv is likely to be described as the tendency towards second order transparency or phenomenal transparency (as opposed to literal transparency[1]): a process of abstraction in where market coherence is strictly based on the disclosure of quotes. This enables comparisons with the most audacious metaphors of equilibrium theory, for which a blind, anonymous market appears to be the optimal mechanism for efficient price discovery and fair allocation.

We have studied elsewhere an example of this kind of correspondence in the field where it seems to be the more effective: electronic double auction mechanisms[2]. The closure call auction mechanism implemented at Paris Bourse's electronic quotation system NSC ("Nouveau Système de Cotation") performs a kind of accuracy in price discovery that is close to the walrasian schemes of a blind market organized by a fictive auctioneer.

Do this means that technology can orient actual market formations towards the abstract market models that haunt neoclassical formulations? Our mentioned case study tended to show, on the contrary, that even if an exchange technology is led by a radical order-driven philosophy, the concrete arrangements that have to be made in order to raise an equilibrium price are far beyond the elusive abstractions of walrasian *tâtonnement*. "Walras himself could not have been so far as us in the *details*" (our emphasis), said one of the leading actors of exchange automation at Paris Bourse, referring to the complexity of the price discovery algorithm[3]. Moreover, a detailed analysis of a specific electronic trading system such as NSC can show the existence of elements that, in one way or in another, preservers the possibility for bilateral arrangements in an environment where, by definition, actors are meant to not to choose their counterpart (see below for the case of counterpart disclosure at Paris Bourse).

The correspondence between exchange technologies and economic transparency utopias are, thus, far from straightforward. Our purpose here is, indeed, to temper this kind of generalizations by focusing on the concreteness of market organization. At this point, the problem of anonymity seems to be fully relevant. The idea of anonymity is, perhaps, one of the most misleading leitmotivs of market organization, particularly when applied to financial markets. It evacuates too fast the question of the loss of the personal element[4] in economic communication. It evokes too fast the question of the automatic emergence of market order[5]. But the topic of anonymity can be analyzed in regards to the specific locations in which it is considered (or avoided) in actual market formations. We confront here our previous research on exchange automation[6] to another technology that constitutes, to a large extent, one of the most important tools in a trading room environment: the telephone. If anonymity is one of the keynote elements of exchange automation, identification (or recognition) seems to be the major characteristic of telephony.

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1 The opposition between "literal" and "phenomenal" transparencies can be inspired in many theoretical sources. We borrow here this precise formulation from architecture (Rowe and Slutsky, 1997). For an analysis of the ambivalence of the term "transparency" in economic matters, see Grossman, Luque and Muniesa (2002).

2 See Muniesa (2000).

3 Muniesa (2000), p. 151. See Teira Serrano (2001) for a comparison with the elliptic account of the organization of price discovery in Walras' theory, and Callon and Muniesa (2002) for a concrete market approach and the possibilities for describing the calculative character of economic markets.

4 For Simmel (1990), the loss of the personal element accompanies the tendency towards the abstraction of social relations through the mediation of monetary means.

5 Dupuy (1992) is a good introduction to the topic of automatic market order in economic liberalism. Guerrien (1999) provides an exhaustive account of the social utopias that lie above the schemes of neo-classical economics.

6 This research composes the core element of our PhD dissertation.

We will focus on three cases: 1) telephone interaction in an OTC or market-making environment; 2) the use of counterpart disclosure in an automated, order-driven environment; 3) client monitoring practices in a salesperson environment. We will study how the identification of the counterpart, as opposed to anonymity, happens to be a central feature of market formations in some segments of the trading process. A comparison with the effects of exchange automation will allow us to qualify the question of market anonymity.

# A word on trading room telephony.

Before dealing with our three case studies, we will provide the reader with a brief overview of trading room telephony. We have been able to study this kind of communication technology through a research fieldwork conducted for Etrali, a France Telecom subsidiary devoted to the world of professional financial communication systems[7]. Etrali is an European leader in the market of trading room telephony and one of major actors in the international scene. The Etradeal turret system is well known in French trading rooms. Trading professionals often refer to their telephony system as “the Etrali”. A more colloquial word is “the box” (“la boîte”, in French):

> “If you don’t have your brokers in the ‘box’, you are not in the market”.
> - An options trader and market maker in a derivatives trading desk (17/07/01[8]).

Users often define the telephony turret as their major tool for “being in the market”. The “box” is, more precisely, the interphone module were the operator can hold permanent lines with brokers and market makers (trading side) and/or with clients (sales side). Regular lines can be opened and closed through a tactile screen interface, where the names of interlocutors are displayed. Unlike conventional telephony systems (including conventional PABX), systems such as Etrali’s assure that all calls can be treated frontally, without queuing. An Etradeal turret allows to manage several simultaneous calls (up to 28).

Identification, as we have pointed out in the introduction, is the main feature of telephony in such contexts. Calls are, almost by definition, not anonymous. The absence of automatic queuing protocols (such as “first in first out”) gives the operator the position to recognize incoming calls, to discriminated them on the basis of heterogeneous strategies, and to manage them through a wide variety of choices (pass the call to a colleague, handle simultaneously several calls, hold the line with or without sound, etc.).

Identification, or recognition, is also at the heart of telephony’s back-office. In contemporary trading rooms, telephone activity is always accompanied by recording and control technologies. All conversations on the Etradeal system are recorded and saved on a secure server. In the case of trade mismatching or controversies about insider trading, for instance, this memory allows for a rapid identification of disputed calls. Oral trading activity remains fully traceable. In many trading rooms, the use of cell phones is forbidden for this very reason.

Recent technological developments including CTI (Computer-Telephony Interface) are often oriented towards an enrichment of identification. Etrali’s CRM (Customer Relationship Management) tool identifies the interlocutor on the Etradeal turret and automatically displays relevant information on the PC screen: information about the client or the counterpart, dealing history, etc.

If one compares the characteristics of telephone-based practices and technologies in trading rooms with the anonymity-based justifications of technologies such as ECNs (Electronic Communication Networks) or exchange automation at large, one finds a very interesting tension. While exchange automation usually calls for the benefit of anonymity and the performance of algorithmic principles for order matching and allocation (optimization of market clearing, price improvement, time priority, hidden

[7] This research is part of the collaboration between the UCE laboratory and Etrali’s marketing department. UCE is a laboratory inside France Telecom R&D (Department of Human Interfaces) specialized in the sociological account of new practices in the field of communication technologies. It develops several research projects both inside and outside France Telecom’s perimeter.

[8] All original interviews have been conducted in French (translation into English by F. M.).

quantities or reserve books, etc.), telephony definitely avoids such arguments and points to the enhancement of human reactivity and the fast mobilization of one-to-one networks.

In the following sections, we explore several cases of telephone interaction in the trading room that could bring evidence of this, and help us temper and localize the status of anonymity in concrete markets.

## Optimizing the bid-ask spread in a market-making environment.

Most bond markets work on an OTC (Over The Counter) basis or on a market-making basis (when the scale of the issuer, the liquidity perspectives and the stability of the product are important). Market makers can publish their indicative quotes on specific dealing interfaces developed by companies such as Bloomberg or Reuters. Some trading interfaces, that allow deal taking on a simple click on the market makers quote, have been developed recently (on Bloomberg, for instance). But, despite of the presence of screen-based tools, exploratory and trading activity is mostly handled on the telephone.

While exploring the market for a counterpart, the trader will check such information sources (indicative bid-ask spread displayed on the Bloomberg interface), but not exclusively nor exhaustively:

> "It's not centralized. You have to go and compare yourself. Comparing between several electronic systems is not so used, because it's quite new. But comparing on the telephone is a normal activity."
> - A corporate bond trader in an investment bank (07/11/00).

The use of telephone contact gives the trader the feeling of actually being negotiating, as opposed to trading in an order-driven platform:

> "For the future contracts [traded on NSC electronic platform] you don't have any negotiation power. You can't ask them for a better price. With the market-making system, you can say "Listen, you're joking with such a price, try to get a better one, I can find a better one elsewhere". You can get in touch with the salesperson, or directly with the market maker if he's at our own bank."
> - A corporate bond trader in an investment bank (07/11/00).

This can lead to interesting interactions in where the recognition of the counterpart is used, precisely, to improve the quote for a particular deal:

> "If you call a sales, you ask for a price, and you say 'Listen, could you get a better price for me?', sometimes you can ear him talking to the market maker, if he keeps his box opened, 'Hey! Could you give me a better price? It's for [name of the bank].'"
> - A corporate bond trader in an investment bank (07/11/00).

It is thus possible to talk about a certain stability of trading networks, and a certain reluctance to savage comparison and exhaustive quote optimization:

> "If an idea is coming from Morgan Stanley, it is quite fair to go and deal with Morgan Stanley. You see? It's fair play. Because they pay for their research, in order to bring such ideas. They give you the idea, so you should deal with them. Well, they won't try to find out if you dealt with JP Morgan instead, but… it's a kind of a moral obligation. Of course, if their price is really bad, you go elsewhere. But it is not usual."
> - A corporate bond trader in an investment bank (07/11/00).

In such environments, the use of the market can then be triggered from the very use of telephony turrets. Or, put in other words, in a networked market, the address book is the main trading tool. An operator will complain, for instance, if she is not allowed to customize the parameters of the tactile screen, or if she has lost the configuration of her turret.

# Constructing a counterpart below the order book.

The Parisian organized markets run on an order-driven electronic platform: NSC ("Nouveau Système de Cotation"). This includes stock exchange (Paris Bourse, now Euronext, and Nouveau Marché) and derivatives (MATIF and MONEP). This means that quotation is handled through a centralized double auction mechanism, without the intervention of market makers or specialists. Each stock or product is, thus, traded on an public, electronic order book: a single price is determined by an order matching algorithm, market participants do not "trade" with each other but with this electronic auctioneer.

But there are several limits to this order-driven philosophy. On one hand, block orders can be traded on a parallel OTC platform, where deals are concluded on the basis of bilateral negotiation[9]. On the other hand, some market participants are authorized to develop market-making functions. This includes managing positions at both buy and sell sides of certain stocks or products, in order to activate market liquidity. Of course, unlike in quote-driven markets, this kind of "market makers" will be trading on the single, public order book of each stock. It is not a proper market-making institution: those actors will permanently compete with (and in) the electronic order book.

A third circumstance, more technical, also contributes to temper the blind, multilateral protocol of an order-driven exchange in this case: the disclosure of counterpart's identity in the limit order book. The electronic order book was not strictly anonymous until full anonymity was introduced in April 2001. An agent code identifying the order's origin was displayed on the trading screens. Traders could know the identity of potential counterparts that were posting limit orders in the order book.

This hybrid architecture sets the scene for an interesting game involving telephone interaction. At Parisian stock and organized derivatives markets, some trading practices are based on "going around" the electronic order book. The mixture between public activity on the order book and private telephone communication is quite usual. Several practices are based on the recognition and use of the agent code displayed in the order book:

> "Take the Nouveau Marché, for instance… here [showing the order book of a stock on the screen]… you have the market maker's prices for this stock. If you want to give him a call, you just have to click, and his name and telephone number is displayed on the screen."
> - A trader at a stocks trading desk in a brokerage house[10] (28/02/00).

> "You're in front of me, you are agent number 512, I am 521. I know you are willing to sell. I see it. You sell systematically. What I do is that I call you. And I tell you 'Ok, I'm a buyer for 100 000. You're here for which quantity?'. You're going to tell me 'Listen, I sell 100 000'. 'So, mine'. We make a deal. It's done. We are not in the order book anymore. We do this on the ACT."
> - A market maker (Nouveau Marché), at the trading desk of a brokerage house (23/10/00).

The electronic order book is thus used to make signals about potential deals. Traders can be interpreting its content in search of an opportunity for a block order. An agent posting recurrent small orders, hiding her global size while waiting for an interesting counterpart to come-up, will be contacted by an interested colleague. They can match their overall volume in the order book itself. I f they want to avoid any risk of mismatching (due to the presence of third parties or "intruders" in the order book), they can use the parallel OTC system for block orders (ACT).

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9 In 1994, a block trading facility was introduced, based on Nasdaq's ACT system ("Automated Confirmation & Transaction"), now replaced by a new technology called TCS ("Transaction Confirmation System").

10 In this trading room, an in-house development allows traders to match the agent code on the screen with the identity and telephone number of the counterpart. The agent code identifies the investment bank, brokerage house or intermediary placing the order.

But, since the implementation of the new Euronext[11] market model (April 2001), the disclosure of agent codes has been removed from the order book in the Parisian markets. Why was this privilege removed? We first have to ask why this privilege existed in an electronic environment were anonymity could have been easily enforced from the beginning.

The main purpose of the automation program undertaken at Paris Bourse in the early eighties was to subdue the traditional world of open outcry: abolishing the connivance practices that characterized the closed culture of brokers and introducing a trading device where, by definition, agents did not choose their counterpart. The CATS system ("Computer Assisted Trading System"), developed in the early seventies at Toronto Stock Exchange, was introduced in Paris in 1986 with a new acronym: CAC ("Cotation Assistée en Continu"). The redefinition of the forces at work in the market was a difficult task: along with the technological innovations, the actors involved deployed a whole program of social engineering. The divergent interests of brokers and bankers had to be managed carefully to prevent strong reactions against the modernization of the exchange institution[12].

The disclosure of agent codes in the trading screens was one of many elements of this technical and political operation. One way to enroll brokers in exchange automation was to let them keep the privilege of recognizing each other in the trading screen, so to reproduce certain aspects of their open outcry culture.

This configuration as made Paris Bourse stand as one of more transparent (in a literal sense) markets in the world. But this same argument could turn into critique and explain why big investors and big brokers use to prefer the London Stock Exchange: they are likely to prefer a quote-driven market where it is easier to go anonymous.

The attitude of big brokers (notably the "MGM": Merrill Lynch, Goldman Sachs and Morgan Stanley) is likely to be at the origin of the transition to anonymity in Paris Bourse. The Euronext merger (Paris, Brussels and Amsterdam) appeared to be a good occasion to introduce this modification of the trading system (Brussels was already proposing full anonymity).

This new anonymity policy has triggered the protests of some Parisian brokers:

> "The removal of the code identifying the intermediary placing orders on the order book, introduced yesterday with the new Euronext market model, has provoked some protests from several operators in the Parisian marketplace. It will be more difficult indeed for small brokers to follow market trends. According to some market professionals, this will lower market liquidity and will represent a disadvantage for arbitrageurs. As Alexandre Sochos, risk arbitrage fund manager at Dexia, puts it, 'It was quite useful to know which brokers were at buy or sell side. It was possible to contact interested counterparts directly'."
> - "L'anonymat gène les professionnels" ("anonymity bothers professionals"), *La Tribune*, 24 April 2001 (translation by F. M.).

This innovation has produced important modifications in the telephony practices in Parisian trading rooms. The management of telephone contacts in order to find a proper counterpart cannot count on this kind of screen practices anymore. Only big actors, with considerable and stable networks of contacts, will be able to deploy a important counterpart monitoring activity.

# Client monitoring in the salespersons desk.

As we have seen, the reluctance to anonymity can be found at work in the trading side of the market process. But there is another side one should not forget in the overall trading process: the commercial side. We refer here to the salespersons desk in a trading room: the location where orders are taken

[11] Euronext is the new, pan-European platform resulting from the merger of Paris, Brussels and Amsterdam stock exchanges.

[12] See Muniesa (2002).

from clients, the segment where the actual skills and specializations of the trading room are sold to the big investors.

In this kind of activities, the telephone is a major tool. This technology can coexist with new computer developments. But, unlike in trading desks, those developments are far from being oriented towards anonymity. We think, as mentioned above, about new CTI (Computer-Telephony Interface) technology and CRM (Customer Relationship Management) solutions developed by firms like Etrali, Siebel or Syntegra[13]. Identifying the client, so to automatically trigger the relevant information on the workstation's screen, is, to a large extend, the main characteristic of this kind of tools.

The marketing arguments upon which these new customer relationship technologies rely are often based on knowledge relevance and real time: to know the customer, to focus on her precise needs, to optimize data availability with time constraints, to enhance proactive contact. In other words, it is a matter of refining the salesperson response in a context where there exist a strong tension, in the course of action, between relevance and urgency.

A salesperson in a trading room handles a reduced number of clients:

> "Each sales will handle no more than 20 clients. If we only consider the good clients, the ones that are contacted on daily bases, we can talk about 6 or 8 clients per sales."
> - A sales desk manager at a currency (Foreign Exchange) dealing room (22/01/02).
>
> "I have 15 clients in my box. This is too much. The best would be 3 or 4 big clients, plus 4 or 6 less important".
> - A sales at a fixed income desk (18/12/01).

Moreover, the treatment of the client is far from being distant. The salesperson will meet personally her client on regular bases. Close sociability is a generalized practice. But, even in such circumstances, client monitoring is far from straightforward:

> "He [a client] wanted to know what we were doing with [name of a stock]. We know that there is a broker trying to sell at 3.24. My client just asked me to sell a big amount at 3.25. He asks me to sell, so I guess he have bought somewhere else. Not with us, anyway. We cannot grasp his full strategy."
> - A sales at a brokerage house (28/11/01).

The client (other banks, treasury departments, fund managers, etc.) will usually distribute her strategy among several intermediaries. In many cases, it is virtually impossible for one salesperson to monitor the client's strategy. At this point, the knowledge about the client will mobilize heterogeneous, and sometimes informal, sources:

> "A month ago, my client told me that he had an exposure in Argentina. Now, there are big disorders with the Argentinean peso. I can try to anticipate my client's needs and give him a few ideas about how to cover this currency risk. […] I can also guess about his exposure in Argentina by other means. For instance, I can take a look at his firm's balance sheet, and look for subsidiaries in Argentina".
> - A sales desk manager at a currency (Foreign Exchange) dealing room (08/01/02).

This explains, in part the difficulty for the proactive contact. Proactive sequences often take place in the early morning: the salesperson will call her client and report some relevant news, some information from her trading room's morning meeting, and some comment about possible trends and strategies. The possibility of customizing this kind of information will vary on the basis of several elements, including the sales knowledge about the client's needs and strategies. During the rest of the day, it will be harder to find such sequences. The sales will be operating on a passive basis, waiting for her

[13] We have followed the construction of Etrali's CRM offer at a particular stage of the innovation process: the software is fully operational, but a reflection about new functionalities is being conducted in order to adapt the solution to concrete trading room environments (deal tracking, warnings, client and counterpart monitoring, etc.).

client’s requests, and managing the subsequent deals with the trading side (inside or outside her trading room).

The possibility to keep a memory of the interests expressed by the client, that could eventually be translated into a definite order when the requested circumstances are give, is at the center of many in-house computer-based tools or commercial solutions such as the ones evoked above. A specific alert can be targeted on the quantitative market information flow (coming from sources such as Reuters or Bloomberg) and trigger a reminding message associated to a particular client.

The strategy for recognizing a client within this kind of tools is then to couple her identity with some heterogeneous information. This information can comprehend market events associated to her interests, but this information matching could embrace other elements: information about dealing activity (deal tracking, order status, etc.), about the characteristics of the product sold (in the case of complex, multi-underlying derivative contracts), the information about the client’s account (information from the risk management department, etc). This information is available, and the professional salesperson does not need a reminder about its relevance: what she needs (or, at least, what this kind of tools can suggest as a need) is reducing the time consuming costs of pointing to this information. It is not, though, a pure matter of cognitive relevance, but a attempt to handle the tension between relevance and urgency:

> “The problem is that we cannot make the client wait on the line too long while searching for the good information. That’s why any tool that will point to the right place when we receive a call should be most welcome.”
> - A sales desk manager at a currency (Foreign Exchange) dealing room (22/01/02).

# Concluding remarks: the tension between anonymity and recognition.

The tension between anonymity and identification (or recognition) seems to be a useful way to characterize one particular market formation. In most of the cases, these two elements do not constitute two alternative options, but two poles between where the actual market configuration can be located or, more precisely, two aspects that can be deployed in several settings within a single market process (broker’ side, trader’s side, salesperson’s side, etc.). Of course, this analytical tension can interact with many others. But, for us, it is quite an interesting tool for dealing with the usual typologies. The classical distinction between quote-drive and order-driven microstructure has been widely used in the literature, our own analysis meets some of the conclusions of such microstructure analysis. But one of the empirical limits of such a typology is that, in many cases, the analysis of a concrete market formation calls for the use of “hybrid” frames: this is the case of the NYSE, for instance, or Paris Bourse (order-driven, auction based markets, but with some levels of market-making, etc.). A similar problem can appear when dealing with the opposition between electronic exchange and open outcry.

The tension between anonymity and recognition, understood as an analytical tool, help us to deal with such difficulties. Keeping this tension in mind, we can usefully complete the description and qualification of some aspects of market process. Anonymity will enhance the definition of public protocols (clearinghouse-type), while recognition will allow for private arrangements (OTC-type). The tension between those two poles can define different solutions to the problem of liquidity. In some cases, an electronic, order-driven market will allow for the construction of bilateral counterparts below the order book in order to improve liquidity. In others cases, the solution will consist on the optimization of the auction protocol (switch from continuous double auction to call auction). Also, a market based on bilateral counterparts in where there is a tendency of quote homogeneity, with a clear decrease of arbitrage opportunities, public protocols (with a tendency to order-driven technology) can be established as a means to re-organize clearing procedures[14]. On the other hand, trading new complex derivatives products will insistently call for recognition strategies[15]. It is somehow clear that

[14] This can be the case of mature markets like the spot market at the Foreign Exchange, were electronic dealing is now becoming a widespread resource (EBS Dealing Spot System).

[15] See Lépinay and Hertz (2001) for the description of multi-underlying derivatives dealing.

the technology for liquidity enhancement (and thus the tension between anonymity and recognition) depends, among other circumstances, on the stability of the product[16].

Apart from liquidity matters, the analysis provided here could be mobilized in dealing with political questions. The issue of anonymity is, as a matter of fact, deeply connected with banking secrecy. From the other side, recognition meets the concerns of accounting and market surveillance: a proper forensic procedure require orders to remain fully traceable through the market process. Several recent events (including September 11th) have triggered reflections and policy determinations that involve quite directly the political management of the tension between anonymity and recognition. This is the case of the determination to track suspected accounts announced in Wolfsberg (Switzerland) by twelve big banks together with the organization Transparency International[17]. One of the principle of the Wolfsberg group is clearly borrowed from CRM (Customer Relationship Management): "Know your customer". Unfortunately, no simple statement for or against anonymity will be capable of embracing the complexity of the localized tension between anonymity and recognition. In our opinion, such political concerns would constitute a fine occasion to test the kind of analytical framework that we have illustrated here.

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[16] This is an argument that could be easily defended within the analytical framework proposed in Callon and Muniesa (2002).

[17] See "Douze grandes banques décident d'enrayer le financement du terrorisme international" ("Twelve big banks decide to fight against international terrorism's financial support"), *Les Echos*, 29 January 2001.