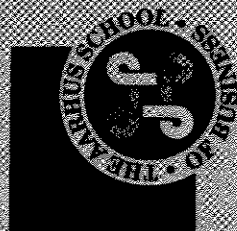


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WORKING PAPER 99-1

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CASH MANAGEMENT RELATIONSHIPS:
MARKET-BASED AND CREDIT-BASED FINANCIAL SYSTEMS

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Cash management relationships: Market-based and credit-based financial systems

by
Poul Houman Andersen¹, Niels Peter Mols² & Per Nikolaj D. Bukh³

Abstract

This paper explores the link between financial systems and the engineering of cash management relationships between corporate customers and commercial banks, using evidence from a survey covering more than 1000 large European firms. It is shown, that the number of bank relationships varies with type of financial systems whereas the corporate customers' choice criteria are indifferent across financial systems when it comes to selecting commercial banks. Furthermore, even if global financial systems are becoming increasingly similar, important differences in bank sourcing practices are detectable.

Introduction

Generally speaking, cash management is the process of planning and controlling cash flows in order to increase profitability while maintaining liquidity (e.g. Cooley & Pullen 1979). Especially in companies with operations in more than one country, cash management has become an increasingly important issue in recent years. The need for cash balances in subsidiaries must be coordinated with corporate activities and expected as well as possible unexpected changes in exchange rates must be taken into account. In order to implement corporate wide cash management systems large companies establish relationships with domestic banks as well as pan-European cash management banks drawing on recent developments in technology and European banking practices. Recent research has indicated, that cash management practices (Birks 1998) as well as companies criteria for choice of cash management banks (Mols *et al.* 1998, 1999) differ among countries. Some of these differences can be explained by differences in macro variables as size and industry but traditional contingency factors seem to offer an insufficient explanation of the nationwide differences.

This paper aims at providing an institutional explanation of the national differences in large firms sourcing behaviour and buying criteria with respect to cash management services.

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This is done by relating results from a pan-European survey of cash management practices to country-specific financial arrangements for raising corporate capital. Previous research (Bianco *et al.* 1997) has pointed out that rather than following one overarching economic logic, diverging financial arrangements exist for raising corporate capital in specific countries. Often, the structuring of these arrangements can be traced back to early industrialism (Bianco *et al.* 1997), where particular practices of cash management are generated and institutionalized through the strategic interplay between industrial and financial interests (Whitley, 1992, Zysman, 1983, De Long, 1990).

National differences in financial arrangements may also affect the role of cash management bank, as the structural contingencies of the financial system continue to constitute the task environment within which specific cash management practices unfold. The purpose of this paper is to explore the possible link between cross-national divergence in European financial systems and corporate customers' choice of cash management banking practices. Our theoretical point of departure is that financial systems can be regarded as social constructions reflecting the fundamental configurations of institutionalized business practices, which vary across national boundaries. Following this perspective we report results from a comprehensive study of cash management practices among 354 of the largest firms in France, Italy, Netherlands, Spain and UK.

The issue of actual cash management practices is highly relevant for corporate banking, which seeks to develop formalized practices for handling corporate relationships in a specific manner. For commercial banks, long-term relationships with corporate customers grant access to information advantages which create some form of ex post monopoly power in favour of the bank (Sharpe, 1990). By recurrently collecting private information on corporate customers, banks gradually develop their ability to screen profitable applicants. Thus, banks can generally be expected to prefer long-term customer retention with a selected customer portfolio over one-off transactions with a large number of customers. Consequently, many banks have appointed relationship managers, whose responsibility is to act as the interface between the various services offered by the bank and the corporate client (Payne *et al.* 1998). For this marketing approach to give meaning, attention must be paid to the exogenous circumstances of such relationship marketing approaches, which may be a crucial factor in determining the rate of commercial success for such - rather expensive - programmes.

The paper is structured as follows. First, a distinction between capital-market versus credit-based systems is developed. Secondly, a set of European countries are categorized according to the role of banks in corporate finance using OECD financial account data. Next, a number of propositions are formulated concerning the likelihood of finding specific cash management practices within these systems. These propositions are tested in the empirical part

of the paper, using data from the international survey of cash management practices. Finally, implications for theory and cash management practice are discussed.

National Financial Systems as institutionalization of capital flow and the emergence of diverging cash management practices

For many years, the pervading idea in economic literature has been that inexorable and universal market pressures generate similar forms of business organization and development across socio-cultural environments (Chandler, 1990, Williamson, 1985, Child, 1987). The structures of cash management systems are susceptible to such pressures as the financial markets are those closest to the ideal market form of neoclassical economic thinking. Recently, however, these assumptions have been criticised for not taking differences in institutional settings seriously. Research has repeatedly shown, that different institutional settings restrain or foster a variety of financial practices (Zysman, 1983; Williamson, 1993) that often pertain to the nation-state, because of its dominant institutional role (Whitley, 1992).

One particular selection of institutional factors forming the development of specific cash management practices relates to the nature of the nation-specific financial system. Financial systems concern the institutionalized arrangements through which corporate funding is channelled (Zysman, 1983). They include the actors, i.e. corporate users and supplying financial institutions, and the corresponding practices of exchanging financial resources. From a macro-oriented level, these systems differ concerning the processes by which savings are transformed into investments and then allocated among corporate users. In the socioeconomic tradition of social science, students of financial systems operate with two ideal forms denoting the nature of capital markets with respect to corporate ownership: Market-based and credit-based systems (Zysman, 1983, Bianco *et al.* 1997, Whitley, 1992, OECD 1995, Christensen & Drejer, 1998).

Market-based financial systems are mainly characterized by market governance. The funding of operational capital is primarily organized through stock market emissions. Here, the relationships between banks and business clients tend to be short-termed and resting on price or formalized contracting, even though exchange transactions may be recurrent and at a high frequency, they do not denote mutual adaption or the formation of any specific ties between the buyer and the supplier. Banks and other financial institutions tend to allocate funds on a portfolio basis in order to balance their overall exposure. Hence, they are less concerned with individual customers and bank-business relationships tend to be impersonal and of an arm's length nature.

In credit-based systems on the other hand, most investment credits are provided by banks, which often owns significant proportions of their clients' shares. Consequently, the mutual dependence between banks and their clients develops, leveraging the development of more long-term and mutually committed bank-business client relationships. An overview of these types of

financial systems and their significant characteristics are provided below in table 1 (adapted from Christensen & Drejer, 1998).

Table 1: A typology of national financial systems

	Market-Based Financial System	Credit Based Financial System
Debt/equity ration in firms	Relatively low	Relatively high
Major corporate financing instruments	Retained earnings and to a lesser extent bonds and new equity issues	Loans and retained earnings
Price mechanism of capital allocation	Market processes determine key prices	Markets are imperfectly cleared by prices

The debt/equity ratio reflects the extent to which financial systems allows the firm to control external funds. In credit-based systems the debt/equity ratio is relatively higher, compared to market-based systems reflecting a closer relationship between banks and providers of funds and with it lower costs of monitoring the execution of influence through voicing their opinion rather than exiting the relationship (as in the case of market-based systems, Zysman, 1983).

The major corporate financing instruments concern the role of long- and short-term loans (in credit-based systems) versus bonds (in market-based systems) in forming the firm's liability mass. A relatively high percentage of bank credit indicates a credit-based financial system, whereas a relatively low percentage points to a market-based financial system. Given the relatively smaller role played by financial markets in credit-based systems, market processes only imperfectly signal prices for borrowing and lending corporate capital. Therefore, in credit-based systems, markets are only imperfectly cleared by prices. Hence, the final distinguishing characteristic of table 1, relates to the role played by market governance in determining the prices of lending and acquiring corporate capital.

Unfortunately, not all countries provide statistics on corporate finance aspects, which are sufficiently detailed in order to identify these characteristics. However, using the OECD financial statistics, quantitative differences in financial systems can be portrayed for a selected but significant group of countries. In total, these countries accounted for 42% of the 1997 world GNP (World Bank, 1999)

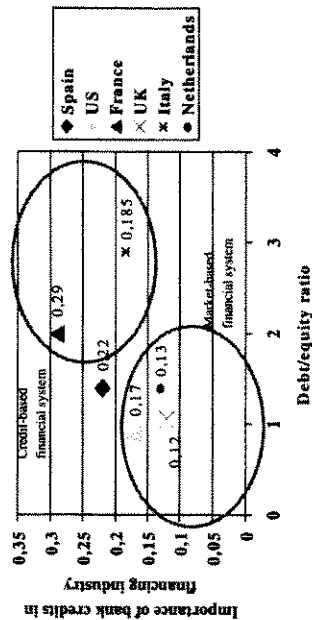


Figure 1: Financial system indicators in 1990

Source: calculated from OECD Financial Statistics 1996 - part III

It has been argued that the introduction of the European Monetary system and the continued deregulation and integration of financial markets in Europe and in the rest of the world have propelled and will continue to propel a process of convergence among national financial systems. Moreover, the growing presence of multinational companies, increases the role played by cross-border credits in corporate finance. Eventually, the MNC's ability to raise and reshuffle capital strengthens the conversion tendencies. Finally, the internationalization of the financial sector in itself, notably banks also support structural conversion (Johanson & Engwall, 1989; Engwall, 1992). These tendencies may be witnessed by taking another snapshot of financial system indicators in 1995 (the latest point from which comparable OECD data are available). This is done in figure 2:

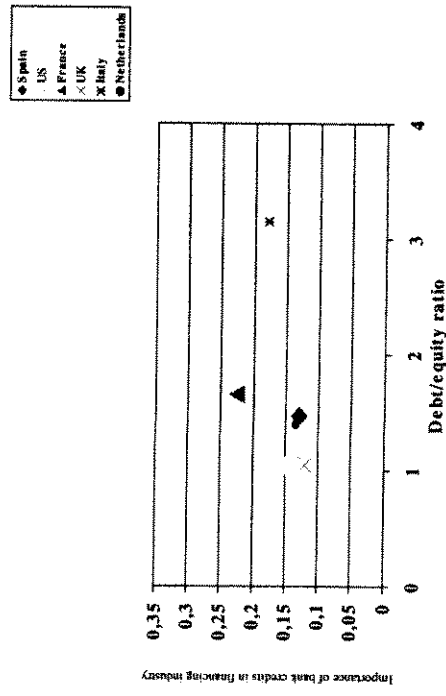


Figure 2: Financial system indicators in 1994

Source: calculated from OECD Financial Statistics 1996 - part III
note that in the cases of UK and the Netherlands data are only available up till 1992

As can be seen from the development of national financial systems regarding these two indicators, a conversion has taken place over the passed four years, especially when the differences in the debt/equity ratio are considered. Apart from the outlier Italy, where debt surmounts three times equity capital, it is difficult to divide the national financial systems in to distinct groups, based on the debt/equity ratio of corporate funding. The investigated financial systems are even more similar, when the role of bank credits in financing industry are concerned. Here, France is the outlier, as compared to the remaining group of countries.

Although quantitative indicators show an increasing conversion of nation-specific financial systems, qualitative differences still persist, leading to the establishment of different business recipes, when issuing venturing capital to firms (Christensen & Drejer, 1998; Bianco et al. 1997). Rather than portraying a one-sided movement toward one system or the other, the development can more be characterized as an intermingling between the two types of financial systems, where each type of system increases their use of financing means characteristic of their counterpart (cf. Christensen & Drejer, 1998, p. 13). Financial systems and corresponding practices have been shaped historically, and differences between credit- and bank-based systems, essentially witness that nations have followed different paths of industrialization (Chandler, 1990). The market-based system, represented by the UK, followed an industrialization strategy of specializing into small scale "light" sectors, limiting the need for external funding. This

situation favoured the development of a structure characterized by the separation between banks and industrial firms and more oriented towards short-term finance (Bianco et al. 1997). The credit-based system, represented by Germany on the other hand, was characterized by capitalist venturers investing in large-scale operations, financed by long-term loans. In these cases, banks were represented at the company board, and actively participated in the governance of the firm (Chandler, 1990). It is argued, that although conversion in terms of the structure of flows in corporate governance is found, these differences in historical development are still affecting the *modus operandi* of both firms and banks (Bianco et al. 1997, Christensen & Drejer, 1998, Whitley, 1992)

The differences observed also reflect different practices for financing and supervising investments (cf. OECD, 1994, p. 46). Hence, it can be expected, that institutions and corresponding recipes for bank-firm relationships still play a role, when it comes to explaining differences in firms' preferences towards choosing cash management banks and the development of cash management banking relationships between banks and firms. In the following section, we will develop a set of propositions regarding the link between cash management preferences and how they affiliate to national financial systems.

Cash management practices across national financial systems: Some propositions

When deciding on the structuring of cash management systems, corporate customers may consider several different providers of cash management services and part of the solutions can be developed internally. The sourcing arrangements can generally, be oriented towards single sourcing, dual or multiple sourcing arrangements (cf. Mols et al 1999). When choosing among the alternative arrangements the customer might follow established, i.e. institutionalised, practices (Powell and DiMaggio 1991) or conduct some kind of a cost/benefit calculus, weighing costs against expected gains from selecting the appropriate cash management arrangement taking the technical environment into account (Thompson 1967; Scott & Meyer 1991).

In market-based systems, markets are said to be cleared by prices, assuming that available cash management services are comparable and can be ranked, using price as the main criterion. In these systems, costs of searching, contracting and monitoring (Coase 1937) are expected to be insignificant, as competitive pressures will refrain suppliers from behaving opportunistically.

In credit-based systems on the other hand, markets are characterized by less complete information, and the customer is not able efficiently to compare prices across suppliers. These conditions are expected to raise the costs of searching, as well of contracting and monitoring appropriate suppliers, reducing the set of suppliers used for this service.

Using the typology of national financial systems introduced in the previous section we propose for the purpose of this paper three main hypothesis which will be tested using data from

the survey of the European companies' cash management practices. First regarding the number of providers of cash management services used by the companies:

Proposition1: The number of providers of cash management services used by the firm co-varies with the national debt/equity ratio.

Within the area of bank marketing, the role of relationship marketing practices have attracted considerable attention (eg. Moriarty *et al.* 1983; Perrien *et al.* 1992; Mols *et al.* 1997). Relationship banking has been advocated as a successful strategy in commercial banking, as maintaining customers and maximizing profits in long-term relationships and increased shares of customers' financial transactions is mutual beneficial for both parties and therefore preferable to strategies based on continuously acquiring new customers and maximizing profits on each single financial transaction (Mols *et al.* 1997; Stone *et al.* 1996). Moreover, customers may benefit from long-term relationships with banks through reduction of administrative costs and through more tailored financial services. Key elements in a marketing relationship management process are the development of mutual trust and the lowering of uncertainty and transaction costs through repeated transactions and experience-building (Dwyer, Schurr & Oh, 1987).

However, the development of long-term relationships depends on whether the selling and the buying part see these as beneficial. Several factors, are expected to influence suppliers' and buyers' interests in forming long-term relationships (Blois, 1996) and thus moving towards dual or single sourcing cash management arrangements. Especially, when the banking context favour external financing, the development of buyer-seller relationships, which allows for dense exchange of information and the development of trust come to the fore. The financial regime, including the nature and importance of financial markets for the buyer may be expected to influence the attractiveness for both customers and suppliers of developing enduring relationships rather than transactions of arm's length nature. In the credit-based system, banks play a generally more significant role for corporate funding than in market-based systems. By acting as a primary source of financial means, these actors are expected to be acquainted with their customers. Therefore they can use their qualified expertise on the customers' business as a differentiating competitive weapon when developing market relationships with customers (Turnbull & Gibbs, 1987). In market-based systems on the other hand, corporate clients may enlarge this number of sourcing arrangements by applying a port folio perspective to their external funding needs. Hence, along with more general banks, used for all sorts of purposes, specialist banks are attached in a second-tier, allowing for the provision of special services (Holland, 1994). Hence, it can be proposed, that

Proposition2a: In credit-based financial systems firms are more likely to stress a relationship benefits as a decisive parameter in their choice of cash management banks, than firms in market-based systems

Proposition2b: In market-based financial systems, firms are more likely to stress pricing of cash management services as a decisive parameter in their choice of cash management banks, than firms in credit-based systems

As described earlier, quantitative indicators point towards a conversion of financial systems. Even so, studies of finance practices suggest that the institutionalized practices persist, sustaining the diversity of financial systems (OECD, 1995; Christensen & Drejer, 1998; Bianco *et al.* 1997). Institutionalists claim, that because social constructions inherently reflect a common understanding among parties with diverging interests, institutionalised practices tend to be stable (Meyer & Rowan, 1977; Whitley, 1992). However, prevailing financial practices may be challenged by new actors, including international banks and multinational companies expanding their business internationally and exposing the organizational field to new cash management practices. Therefore, even though differences between national financial systems are still found, over time these differences may decrease in importance.

Proposition 3a: Over time, increasing similarities in debt/equity ratios will enforce conversion of choice criteria towards cash management banks

Proposition 3b: Over time, increasingly similarities in the role played by bank credits in corporate funding will lead to conversion of corporate customers' cash management sourcing practices

Data and Methodology

Since 1994, a survey of cash management practices has been conducted biannually among large European companies. The survey deals among other issues with large corporations' choice of cash management banks and allocation of business between banks. The analysis in this paper is primarily based on the survey from 1996 supplemented with data from the 1998 survey.

In 1996 the questionnaire was sent to the largest firms in 20 European countries, totalling to 5783 respondents. A total of 1,129 questionnaires was returned, amounting to a response rate of 19,5%, differing from country to country. Summary data as well as supplementary details

concerning cash management organization and structure, the methods used for payments, collection and liquidity management and the specific character of cash management practices in large European firms is described by Middleton and De Caux (1997) and Birks (1998). In the 1998 study, 17 European countries were surveyed, and a total of 1079 partially or fully completed questionnaires were received, corresponding to a 18.6 percent response rate.

Results and discussions

Unfortunately, there is no published material which categorises all European financial systems and makes comparisons possible. Furthermore, no available statistical source makes it possible to develop such a categorization. However, a number of studies have described and categorized a selection of national financial systems for which such data are available (Zysman, 1983; Whitley, 1992; Høpner, 1996 & 1999; Bianco et al, 1997, OECD, 1995). Based on these studies the categorization in table 2 is constructed.

Table 2: A categorization of financial systems

Credit-based	Market-based
Italy, France, Spain	UK, US, The Netherlands

The propositions developed has been tested using Kendall's tau-b zero-order correlation coefficient procedure. This is a non-parametric statistical technique which allows for direct correlation tests of rank-order data. Because Kendall's tau-b is a non-parametric measure of association between variables, it only requires that it is possible to rank the answers. This makes it sufficient with an ordinal scale, it eliminates the effects of outliers, and it does not require knowledge of the distribution of the variables to be able to interpret the probability-tests. The problem with the application of the Kendall's tau-b is connected to the use of the zero-order correlations. This means that both the direct and indirect effects between the variables are measured. This is though regarded as a minor problem given the exploratory nature of the study and the guiding hypotheses. The statistical analysis was computed, using the SAS software package for statistical analysis. The results of testing each proposition are presented and discussed below.

Testing proposition one, our statistical analysis show that the number of bank relationships co-varies significantly positive ($\tau=0.52$ and $\tau=0.43$) with the debt/equity ratio of the national financial system (cf. Table 3). This is surprising, given our initial expectation, that credit-based systems (signified by a large debt/equity ratio) would lead to long-term relationships with selected suppliers and market-based systems would lead to transaction-oriented exchange regimes, involving one-off transactions with multiple suppliers. The data, however, points at a

reverse relationship between the number of bank relationships and the financial system. For the five countries the average number of bank relationships per corporate customer is 7.25, with a standard deviation of 8.8. As the results of the correlation analysis in Table three show, there is also a highly significant positive correlation between the importance of bank credits and the number of encountered bank relationships.

A competitive line of reasoning can be made to the one initially developed, which may provide a possible explanation for the surprising result. In market-based systems internal sources of credits prevail over external funds, as these systems are less adapted and useful for the corporate treasury function. Therefore in these systems, the need for cash management is limited, reducing the need for financial linkages. In credit-based systems on the other hand, the external ration is relatively high, suggesting that a higher risk is related to providing large funding for corporate clients. In this case, port folio and risk concerns would lead the individual bank to reduce its risk exposure with each individual customer, and share this with other banks. This would raise the total number of bank relationships per corporate customer. Indeed, this latter suggestion is supported by studies of the Italian banking sector, suggesting a two-tier system of general and specialist banks are used by especially larger Italian firms (Barca et al, 1997)

Table 3: Descriptive statistics of variables and Kendall's tau-b zero-order correlations

Cell key: Kendall's tau-b Prob. Under H_0 No. of observations	1.	2.	3.	4.	5.	6.	7.	8.	Cell key: Mean S.D. n
1. Number of relationships 96									7.25 8.82 342
2. Importance of relationship 96	0.16 0.0001 341								3.41 1.83 353
3. Importance of pricing 96	-0.07 0.1029 342	0.01 0.7769 353							2.60 1.51 354
4. Debt/Equity Ratio 94	0.52 0.0001 342	0.29 0.0003 353	-0.02 0.6726 354						1.50 0.90 354
5. Debt/Equity Ratio 90	0.43 0.0001 342	0.25 0.0001 353	-0.01 0.7584 354	0.86 0.0001 354					1.45 0.76 354
6. Importance of bank credits 94	0.41 0.0001 342	0.23 0.0001 353	-0.02 0.6982 354	0.78 0.0001 354	0.92 0.0001 354				0.143 0.032 354

7. Importance of bank credits 90	0.45 0.0001 342	0.23 0.0001 353	-0.03 0.4993 354	0.72 0.0001 354	0.57 0.0001 354	0.65 0.0001 354	0.165 0.052 354
8. (4*6)	0.52 0.0001 342	0.29 0.0001 353	-0.02 0.6726 354	1.00 0.0001 354	0.86 0.0001 354	0.78 0.0001 354	0.235 0.186 354
9. (5*7)	0.50 0.0001 342	0.26 0.0001 353	-0.02 0.6132 354	0.92 0.0001 354	0.78 0.0001 354	0.86 0.0001 354	0.261 0.182 354

Note: The last column contains mean values (Mean), standard deviations (S.D.) and number of observations (n). The other columns contain Kendall's tau-b zero-order correlation coefficients, the probability that the correlation coefficient is zero and the number of observations used for the calculation of the correlation coefficient. For the variables: importance of pricing and importance of relationship they were measured by asking the respondents from a list of criteria to rank the top 5 criteria that they use in allocating business between their existing cash management banks (1=most important criteria down to 5=5th most important).

Proposition 2a and 2b proposed that differences in customers' preferences are associated with affiliation to financial system. However, the results presented in Table 3 offer mixed results regarding this association. The importance of pricing as a choice criterion for cash management banks is insignificantly correlated with both debt/equity ratios and importance of bank credits. Importance of relationships is positively correlated with both debt/equity ratios and importance of bank credits. Because importance of relationships is measured with a scale 1=most important criteria down to 5=5th most important this indicates that the higher the debt/equity ratio and the more important bank credits are, the less important is the relationship with the cash management banks. In other words, the data indicate that in credit based financial systems large firms are less likely to stress a positive relationship as a decisive parameter in their choice of cash management banks, than firms in market-based systems. Thus, we have to reject both propositions 2a and 2b.

Table 4: Convergence in choice criteria towards cash management banks

Country	N 1996	N 1998	Importance of relationship 1996		Importance of relationship 1998		Importance of pricing 1996		Importance of pricing 1998	
			Mean	Diff.	Mean	Diff.	Mean	Diff.	Mean	Diff.
UK	142	111	2.75	0.786	2.92	0.464	2.58	0.012	3.04	0.248
Netherlands	49	91	3.14	0.396	3.49	0.106	2.53	0.062	2.46	0.332
Spain	68	105	3.94	0.404	3.98	0.596	2.54	0.052	2.38	0.412
France	25	46	3.40	0.136	3.04	0.344	2.60	0.008	3.25	0.458
Italy	70	119	4.45	0.914	3.49	0.106	2.71	0.118	2.83	0.038
Average			(17.68/5) 3.536	(2.636/5) 0.5272	(16.92/5) 3.384	(1.61/5) 0.3232	(12.96/5) 2.592	(0.252/5) 0.0504	(13.96/5) 2.792	(1.488/5) 0.2976

Note: Diff. = difference from average mean. A lower average difference from mean indicates lower difference

between the firms in the five different countries regarding their choice criteria towards cash management banks. For the variables: importance of pricing and importance of relationship they were measured by asking the respondents from a list of criteria to rank the top 5 criteria that they use in allocating business between their existing cash management banks (1=most important criteria down to 5=5th most important).

Proposition 3a proposed that over time increasing similarities in debt/equity ratios will enforce conversion of choice criteria towards cash management banks. The convergence of the financial systems was illustrated by Figure 1 and Figure 2. The convergence of importance ranking of relationships is illustrated in Table 4. The difference from the mean ranking in each country is much lower in 1998 (diff.=0.32) than in 1996 (diff.=0.53). This indicates a convergence in the ranking of relationship as a criterion for choice of a cash management bank, and thus it supports proposition 3a. However, the opposite tendency can be registered regarding the importance of pricing as a choice criterion. The differences from the mean ranking in each country are increased from 0.0504 in 1996 to 0.2976 in 1998. Hence, proposition 3a can only be partly supported.

Table 5: Convergence in sourcing practices towards cash management banks

Countries:	Number of relationships					N	
	Mean		Diff.		Mean		
France	11.3	2.78	7.1	0.36	7.1	24	46
Italy	15.2	6.68	12.8	6.06	12.8	64	118
Netherlands	3.5	5.02	3.3	3.44	3.3	48	90
Spain	9.7	1.18	7.3	0.56	7.3	68	103
UK	2.9	5.62	3.2	3.54	3.2	138	119
Average	8.52	(21.28)	6.74	(13.96)	6.74	2.792	

Note: Diff. = difference from average mean. A lower average difference from mean indicates lower difference between sourcing policies in the different countries.

Proposition 3b stated that over time, increasingly similarities in the role played by bank credits in corporate funding will lead to conversion of corporate customers' cash management sourcing practices. Again the convergence of the financial systems was illustrated by comparing Figure 1 and Figure 2. The convergence of corporate customers' cash management sourcing practices is illustrated by Table 5. In the table Diff. is the difference from average mean. The lower average difference from mean from 1996 (diff.=4.256) to 1998 (diff.=2.792) indicates a lower difference between sourcing policies in the different countries between 1996 and 1998. In other words, the

data shows a convergence in sourcing practices from 1996 till 1998. Hence, proposition 3b is supported by the data.

In order to further validate the results presented here, it may be relevant to control for intervening or background variables. In particular size and internationalisation effects are relevant. The issue of size effects propose a competitive line of reasoning to the one associated with financial systems. Hence, differences in relative firm size vis à vis the size of commercial banks may be a factor of relevance to the results. Another aspect concerns the role of international corporate customers. How does this group of customers fit in the overall picture? Do they follow the overall standards of the financial systems in the country where they are located? Or do they follow a unified principle of corporate banking irrespective of national contexts? Moreover if so, does this practice reflect their country of origin? In a related paper (Mols *et al* 1999), the sourcing practices of large European firms were analysed taking size, industry type and market coverage effects into account. The results indicated that besides their operating country neither size, industry type nor market coverage holds any impact for the results presented here.

Implications for management and academia

This study has investigated the importance of financial systems in explaining differences in corporate customers behaviour and choice criteria when conducting business with banks. For the commercial bank, several lessons may be taken from the results of the presented study. First, for the banks seeking to develop market relationships to corporate customers, the road is more complex than relationship marketing theory would lead us to believe. Markets are not susceptible to the pressures of financial systems, and no generic type of banks-corporate client relationship develops automatically, from the presence of specific external contingencies. This was clearly demonstrated by the confirmation of proposition one (in part) and the rejection of proposition 2a and 2b.

Secondly, for the banks with pan-European cash management strategies, the relative success of following a relationship marketing strategy depends on the national financial system context. Rather, than following a global recipe, aspirations and practices of customer retention must be adjusted in that respect. Financial systems seem to be a fairly accurate predictor of such differences.

From an academical viewpoint, the study presented here confirms that financial systems account for some differences in commercial bank-corporate client relationships. Disregarding that not all propositions were confirmed, the results indicate that institutional contexts matter when explaining the behaviour of corporate customers (and to some extent also commercial banks). Hence, although some reshuffling of practices may have taken place, leading to a more unified

way of handling banking relationships it confirms the prevalence of national institutions when explaining the differences in business environments and the limits of global conversion into singular market standards and business practices.

To further investigations in this field, a possible next move may be to obtain a more detailed understanding of decision-making process of the treasury personnel in the lending firms. Uncovering the cognitive structures of decision-makers by the aid of laddering interviews may be one avenue to pursue in future research venues. Moreover, future questionnaires may support the development of time-series data which will make it possible to trace better the entangled web of causal relationships between changes in the financial system and the development of choice criteria among corporate customers for selecting banking relationships.

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