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Global perspective on payments: The McKinsey Global Payments Map

Payments services generate worldwide revenues of more than $900 billion each year. Representing roughly 25 to 30 percent of total bank revenues, payments services provide a steady income stream in these troubled times as well as daily opportunities for banks to serve consumer and business customers and to reinforce their brand. At the same time, payments systems pose a heavy burden on overall bank operations costs, making them even more worthy of focus.

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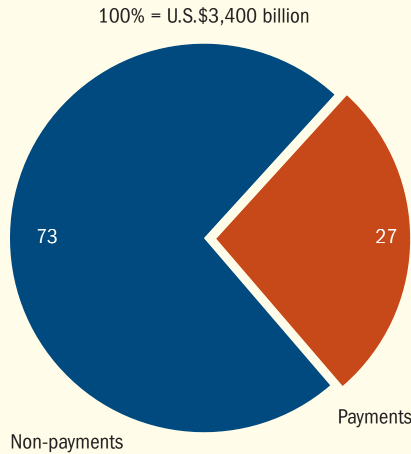
McKinsey's Global Payments Map marks a new analytical framework for understanding the payments business, offering a distinctively comparative approach in evaluating regional payments dynamics and revenue trends around the world. In separate articles in the current edition of *McKinsey on Payments*, we focus on recent developments in the U.S. and European payments markets; in forthcoming issues we will examine trends in Asia and Latin America. McKinsey's Global Payments Map, built over several years with quantitative data from a broad range of sources, reveals patterns in the evolution of payments behaviors over time. This market typology bears important implications for bank liquidity and revenue, and the McKinsey Global Payments Map will help banks to anticipate local market changes through comparison with markets that display similar patterns of change.

As payments is an increasingly *globalized* business, banks need to articulate local strategies to address global competitive threats, applying lessons from around the world to enhance the longevity and profitability of each customer relationship. As highlighted in previous papers, the interdependency of transactions and liquidities is a global characteristic of the payments business. (See "The hidden side of payments: Harnessing the value of liquidity," *McKinsey on Payments*, November 2008.) Transaction services attract customer deposits and loans and offer banks a lever to expand their franchise into new geographies, market segments and product groups. Past ex-

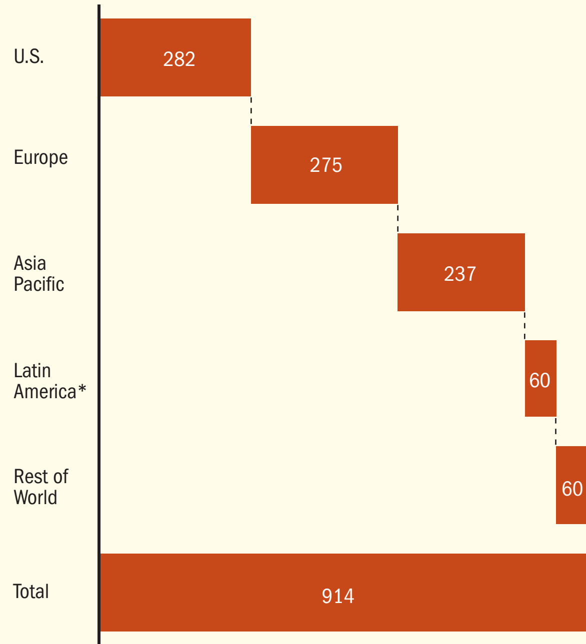
Exhibit 1

Payments represent one-quarter of total banking revenues or U.S.$900 billion

Total 2007 banking revenues breakdown
Percent



2007 payments revenues decomposition
U.S.$ billions



* Latin America data is for 2006

Source: McKinsey Global Payments Map

perience has shown, however, that "one size fits all" solutions (e.g., U.S.-style revolving card solutions in Europe) face major hurdles. Understanding the differences in the global payments landscape, therefore, enables bankers to rethink enterprise strategies to compete locally.

In order to understand the differences among the world's major payments markets, we return to the basics: how customers make payments, how they fund these transactions and how banks charge them for the services rendered. Determining how to balance these three aspects of the payments business into a profitable mix is the key challenge for banks entering a new market or dealing with changing economic fundamentals. A tour of the payments globe, guided by McKinsey's Global Payments Map, provides valuable lessons for banks seeking to optimize income from balances while also optimizing the cost and revenue of transaction services.

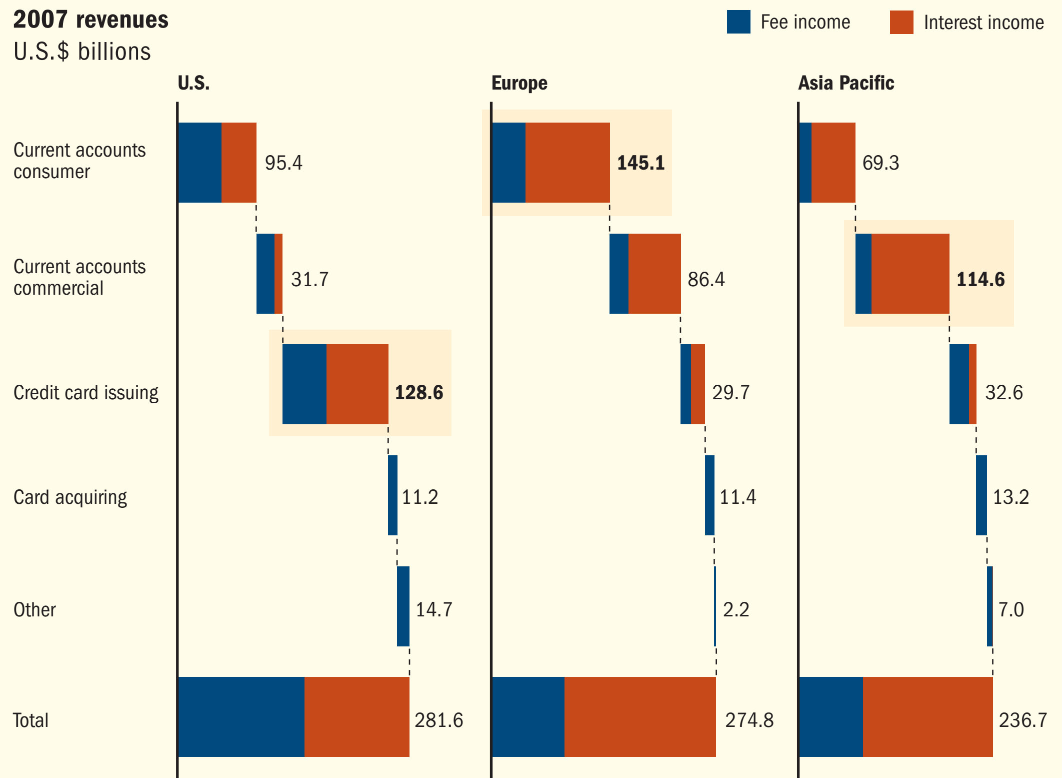
Global perspective on payments revenues

When looking at the Global Payments Map, the three largest regional markets by revenue are the U.S., Europe and the Asia-Pacific region. Together with Latin America, these regions represent more than 90 percent of banks' global payments revenues (Exhibit 1). Overall, fees and net interest income on payments-related accounts represent about 50 percent each of the revenue base, reinforcing the notion that payments is a "hybrid business": transaction services are fundamental to persuading customers either to carry loan balances (credit card or overdraft) or to increase their deposits.

Upon closer examination, however, payments revenue models vary significantly from one region to another. In the United States fees account for more than half of total payments revenues. By contrast, in Europe and Asia-Pacific most payments-related revenues are derived from current

Exhibit 2

Revenue drivers differ strongly by region



Source: McKinsey Global Payments Map

account balances, with fees amounting to one-third of payments revenue in each region (Exhibit 2). High interest rates in 2007 contributed to a significant rise in interest income to the payments business, particularly in Europe and Asia-Pacific, where both consumers and businesses hold large cash reserves in current accounts. Given the recent shifts in global interest margins amidst the current economic crisis, it is reasonable to assume that payments revenue growth will moderate in 2008-09, or perhaps show some decline, particularly in countries with a heavy reliance on interest as a share of payments revenue. Nonetheless, the overall health of payments revenues is solid and their long-term status as 25 to 30 percent of total banking revenues is secure.

The contribution of retail versus commercial accounts also differs markedly by region. In the U.S. more than three-quarters of current account revenue is derived from consumers. In Asia-Pacific, however, the majority is generated by business accounts. In Europe the balance tilts toward retail accounts but not as heavily as in the U.S. Before examining more closely the composition of payments revenue in diverse markets, we discuss the customer payments preferences and liquidity practices that distinguish these markets.

Back to basics: Building a global payments strategy

The payments business fills three basic needs: transactions and liquidity for the user and, in return, revenue for the bank. Banks serve these needs with a narrow set of products. They serve customers' transaction needs with four main tools: cash, checks, cards and electronic payments.[1] As for liquidity, customers may fund these transactions immediately out of existing assets (deposits), defer transaction settlement (as with a charge card) or spend out of deficit (revolving balances on a line of credit). Cus-

[1] Electronic payments (debit or credit transfers) move funds directly from one account to another, either as a debit or credit transaction in the batch system or as credit transaction in the real-time gross settlement system (RTGS).

Regional scope of McKinsey payment pools

McKinsey's European Payment Pools reflect activities of the European Union countries (EU27) excluding Luxembourg, Latvia, Lithuania, Estonia, Malta and Cyprus, but including Norway and Switzerland.

The Asian Payment Pools comprise the entirety of the Asia-Pacific region, with detailed analysis of the following ten leading economies (in descending order of payments revenue): China, Australia, Japan, South Korea, India, Thailand, Hong Kong, Malaysia, Indonesia and Singapore.

Latin America is the most recent addition to McKinsey's regional payment pool initiative, consisting of economics for Brazil, Mexico, Argentina, Chile, Colombia and Peru. A further discussion of this region's dynamics will be provided in a forthcoming issue of *McKinsey on Payments*.

The prominent components of the Rest of World category include Russia, Turkey, Canada and the Middle East and Africa. Further analyses of these geographies are under way.

Currency translations are an unavoidable factor in determining regional shares and overall growth rates. We employ the U.S. dollar as the common denominator, using average annual exchange rates.

Due to the central banks' varied release schedules for key supporting data, we continue to refine our 2007 metrics. As a result, subsequent versions of McKinsey's regional profit pools may differ nominally from these figures.

For more information on McKinsey's Global Payment Pools initiative, please contact paymentspractice@mckinsey.com.

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tomers compensate banks for these services with either fees or interest, or a combination of the two. Whatever a given market's fundamental revenue model may be, banks in all regions operate certain services at a loss (in many cases, cash and check processing), others at a profit (usually deposits and lending). Banks therefore require complex tools to manage profitability across a diverse set of accounts and services.

How customers make payments

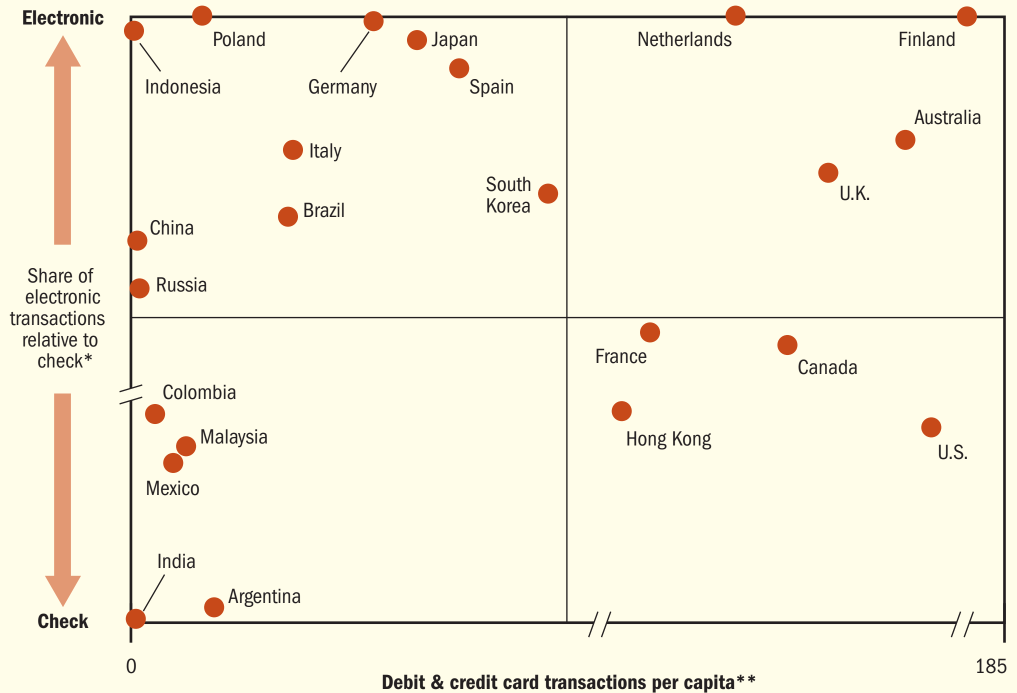
General payment preferences by region

In the U.S., credit cards and checks – despite the latter's steady decline among consumers – stand out as particularly important for consumers and businesses alike. The situation in Europe and Asia-Pacific is more diverse, as countries differ strongly in their preference of cash versus cards for point-of-sale (POS) transactions and checks versus electronic payments for bill payments. Some markets, such as France, Canada and Hong Kong, show a preference pattern not unlike that of the U.S., with relatively high usage of checks and cards and less use of electronic transfers.

In Europe, a major gap separates countries that are highly electronified, both in transfers and card usage, such as the Nordic and Benelux countries, and those with an enduring strong preference for cash, such as Italy, Spain and Germany. Similarly, Japan and Indonesia show no attachment to checks, relatively high usage of electronic payments, but also a clear bias towards cash rather than cards. Thus, as Exhibit 3 shows, countries that are geographically and culturally close often follow diverse trajectories toward full payments electronification, due not only to varying customer preferences but also to differences in government regulation, the distribution of payments technology and the pricing of cash versus cards. (For more on this, see "ATMs: Complex weapons in the war on cash," *McKinsey on Payments*, November 2008.)

Exhibit 3

Basic typology of payments markets



* Electronic consists of credit transfers and direct (ACH) debits; for this purpose it excludes card transactions

** Excluding ePurse and prepaid

Source: McKinsey Global Payments Map

Cash: Important everywhere

Although cash usage is shrinking across the world, it remains the most frequently used payment instrument in most countries and is particularly strong in some of the world's largest developing markets: China, India, Brazil and Russia. Cash is also prevalent in several mature economies such as Japan and Germany. In the United States, cash accounts for an estimated 57 percent of total payments volume[2] and, in Europe, ranges from 47 percent (Finland) to almost 95 percent (Poland). The variation in cash usage between "cash economies" and "electronifying economies" in Asia-Pacific is similarly wide, from 61 percent in Hong Kong and Australia to 99 percent in India (Exhibit 4 on page 10). Banks in diverse markets can advance the "war on cash" (and reduce the costs of cash processing) by promoting electronic and card payments and alternative payment channels, such as Globe's GCash, a mobile payments initiative in the Philippines. (For more on mobile payments, see "Mobile payments: Ringing louder" on page 34 of this issue.)

Cards: Extending their reach

Rapid improvements in national telecommunications infrastructures reduce the cost of extending card acceptance technology to merchants of various sizes, even in remote locations. Thus, card growth is strong in emerging markets, particularly in cash-intensive India and China, but usage continues to grow at close to double-digit rates even in highly developed markets, e.g., Scandinavia. Expanding acceptance to public and semi-public agencies (e.g., hospitals) and other high-volume locations can spur card growth significantly, as is happening in Japan, where the growth rate of card transactions has increased more than threefold since 2005.

While levels of card usage and the resulting revenue each depend on a variety of factors (including interchange rates, mix of debit/credit and annual maintenance fees),

[2] "Volume" throughout this article refers to the total number, not value, of transactions.

those countries where card usage is relatively low may see the greatest opportunity for growth in both card transactions and revenue. For example, Germany's 36 card transactions per capita per year is low by European standards, and China's one transaction per capita is distorted by a high unbanked population. Card transaction revenue in these countries (i.e., debit and credit, excluding interest) accounts for 6 percent and 10 percent of total payments revenue, respectively, suggesting an untapped reserve of revenue from transaction volume. By contrast, in markets like the U.S., with 177 card transactions per capita per year, and South Korea, with 63, (a relatively high figure compared to the Asian peer groups) cards contribute 33 percent and 44 percent of total payments revenue, respectively, and the prospects for further revenue growth from cards are more measured.

Checks: Declining but impossible to ignore

While checks have long provided the main alternative to cash in certain countries, their relative importance globally is declining rapidly. In countries such as Finland or the Netherlands, checks have actually ceased to exist, which is expected to happen soon in most of northwest Europe as well. As a result of these trends, check usage is now increasingly concentrated in North America, a few European countries (e.g., France and the U.K.) and Latin America, where the product proves difficult to replace, due pri-

International glossary of payments

While the core offerings of a payments franchise are consistent from one region to another, different markets use a variety of English-language terms to identify the same services. Bankers, therefore, need not only to understand the distinct behaviors and conventions of local markets but also regional differences in the payments lexicon. The glossary below lists the alternative names for the products discussed in this article.

Service	Alternative names	Description
Card acquirer	Merchant acquirer	The bank that provides merchants and billers with technology for accepting card transactions and processes card payments on their behalf. Acquirer revenue is based on technology implementation and taking a small portion of the "discount rate" on each transaction.
Charge card	Deferred debit card, credit card	Card allowing holder to charge purchases to a card account up to an authorized limit. Card does not offer extended credit and the full amount of the debt incurred is settled at the end of a specified period. Most cards referred to as "credit cards" in continental Europe are actually "charge cards."
Credit card	Revolving credit card	Card allowing holder to charge purchases against a line of credit up to an authorized amount, with the option to pay a portion of the balance at the end of a specified period and "revolve" the remaining balance indefinitely. Customer pays interest on the revolved balance. In countries where deficit spending is prevalent, credit card holders tend to be "revolvers"; in countries where consumers maintain high current account balances, they tend to be "transactors," using credit cards as a form of "deferred debit."
Credit card issuer		The bank that issues the credit card and associated credit line to the customer. Card issuer revenue comes from interchange (merchant discount rate), and interest on revolving balances (in some countries) or membership fees (in other countries), as well as incidental fees (for late payment and transactions that exceed the credit limit).
Credit transfer	ACH credit (in the U.S.); also (in Europe) giro payment and direct credit	Electronic payment where both payment instructions and funds move from payor bank to payee bank via batch-transfer system. Traditionally low-value.

marily to existing corporate billing systems. Two countries, France and the United States, account for nearly two-thirds of worldwide check volumes.

In some developing markets checks never really took hold due to limited negotiability and expense. Checks in China, for example, are only valid in the region of the drawer's bank rather than nationwide. As checks are now becoming obsolete, emerging economies can safely avoid investing in new check infrastructure.

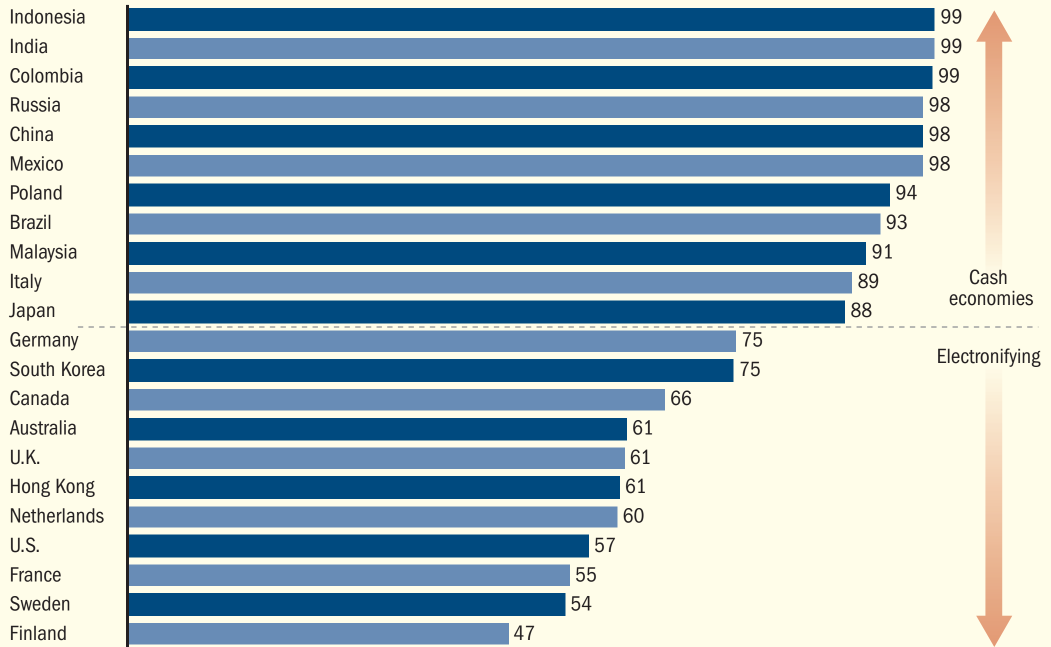
Electronic transfers: Strong in most developed economies

Electronic payments are an operationally efficient solution and have become a fixture in many developed markets, both for consumer and corporate payments. Although in the U.S., France and Canada migration has been less successful. Reasons can be found in systemic restrictions on consumer-initiated transfers or the reluctance of consumers to share account numbers, the process layout for batch-transfer electronic payments, and higher fees. In the U.S. and France banks make around $1.00 per electronic payment versus just below $0.40 in Germany or Brazil.

Electronic payments processed through batch-transfer systems (e.g., ACH) pose both challenges and opportunities for banks. As more people in emerging markets are integrated into the banking system, electronic payments are often the best alterna-

Service	**Alternative names**	**Description**
Current account	Demand deposit account (DDA) is more common in the U.S.	Fully liquid deposit account allowing, without systematic limits for transactions, payments to all other endpoints. In some cases, current account balances earn interest.
Debit card		A card linked to a deposit account (usually a current account, in some cases a savings account) and used for POS purchases and ATM cash withdrawals. Transactions are funded immediately (with PIN-based authorization) or at the end-of-day (with signature-based authorization).
Direct debit	ACH debit	Pre-authorized batch-transfer electronic payment where payment instructions move from payee bank to payor bank and funds move in the opposite direction. Traditionally low-value.
Overdraft	NSF/OD (Non-sufficient funds/overdraft)	A debit transaction that exceeds the amount of funds in the account. The bank may either reject the transaction or pay it by extending credit to the customer (whether by previous arrangement with the customer or as a "courtesy"). Bank may charge a fee and/or interest (e.g., in the U.S. there is a higher tolerance of "incident" fees than in other regions). Typically *overdraft* refers to the incident in the U.S. and to the resulting balance in Europe.
RTGS (real time gross settlement) payment	Wire transfer (in the U.S.)	Real time transfer of funds, executed individually on an order-by-order basis. Mostly high-value, business-to-business transactions and often executed through SWIFT system (except in the U.S.).
Volume		Refers to the total number of transactions (e.g., check items processed). This differs from *value*, which for the purposes of the Payments Map refers to the dollar (or other currency) flow represented by those transactions.

Exhibit 4
Cash remains important everywhere



* 2006 data for Brazil, Colombia and Mexico
Source: McKinsey Global Payments Map

tive to cash for bill payment. Furthermore, in many countries, consumers can initiate one-time credit transfers to both businesses and individuals alike. In India, the government is promoting electronic payments as a way to reduce the number of cash payments and extend control and transparency to the informal economy. The fast growth of electronic volumes in the emerging markets of China and India has important implications for fee revenue in the Asian payments business, as electronic payments are already a major source of fee revenue.

How customers fund transactions

Each payments instrument is linked to a source of liquidity – cash on hand or debt financing through a credit line. Funding can be attached to different instruments: a current account, a credit line or a sock drawer.

General funding preferences by region

The way customers of a given region fund transactions and manage their liquidity parallels in a very general way each region's trade balance. The success of credit cards in the U.S. payments system is unquestionably linked with the dependence of the U.S. economy on deficit spending. Year after year, credit cards have added steam to the U.S. economy by allowing consumers to buy now, pay later. In Europe and Asia-Pacific, however, consumers are net lenders to the banking system, saving up more than they borrow and managing their spending through current accounts, where they tend to hold relatively large balances.

Different funding preference also determines market preference for either debit or credit cards. In the United States, Ireland, and the U.K., as well as Asia-Pacific countries such as Australia, Hong Kong and South Korea, where credit card use is strong, customers frequently finance purchases by revolving balances. Continental European markets including Germany, the Benelux and Nordic countries, as well as

major Asian countries including China, show a preference for debit, paying for purchases out of their current accounts. Consumers in France, Spain and Japan, meanwhile, prefer to use credit cards as a "deferred debit" instrument. That is, they defer settlement of the transaction to the end of the billing cycle, often with an automatic debit out of their current account.

In many European and Asia-Pacific markets, current account balances exceed the amount needed to fund routine transactions even in peak spending months. The ability of banks to retain excess balances in high-margin accounts helps sustain their profitability, and signs of erosion of such surpluses amid the current financial crisis are emerging in some markets. Non-transactional fees (account maintenance fees plus interest income) on current accounts range from more than $600 per capita for much of Western Europe, to $400 to $500 per capita in developed markets of Asia-Pacific and Latin America, to less than $200 per capita in the U.S.

Changes in corporate liquidity management

As debt is often an integral part of corporate liquidity structure, treasurers may seek to offset interest expense with higher returns on liquid reserves. Poor current performance of alternative investments and reduced credit are, however, forcing corporations to hold more on liquid reserve. Indeed, the current financial crisis is changing corporate behavior rapidly, especially in Asia-Pacific. Commenting on new challenges to long-established practices in corporate cash management, one Asian bank executive told us, "The changes of the past three months [4th quarter of 2008] are greater than those of the previous ten years." Corporations, whose large current account balances have been the single largest source of cash management revenue for Asia-Pacific banks, are increasingly eager to optimize their use of funds. This could signal an important shift in the revenue stream for the Asia-Pacific payments business, as treasurers look for higher returns, minimizing balances in current accounts, using netting systems and working capital optimization tools to reach a higher return.

Such a change in corporate behavior could result in a loss of interest income to a bank's payments business, but banks that offer new liquidity management options may still be able to retain corporate deposits and even attract new deposits. For example, some banks in Asia-Pacific have recently been promoting working capital management accounts for small businesses, offering small and medium-size enterprises (SMEs) more flexibility in funds management and providing higher returns than traditional current accounts. As SMEs account for two-thirds of cash management revenue worldwide, banks should be careful to retain their deposits, even if this means shifting revenue away from the transactional business. Banks' ability to offer transaction services represents a means for them to attract additional liquidity, provided banks are seen as safe havens.

How customers compensate banks

As shown in Exhibit 2 on page 5, payments revenue in Europe and the Asia-Pacific region consists mainly of interest income, while in the U.S., fees contribute the larger portion. Within Europe, fee levels vary strongly, and sensitivities to different types of fees are apparent. Asia-Pacific customers, both consumers and businesses, tend to compensate banks with high balances, and fees represent a substantial portion of revenues only on corporate accounts.

While at first glance, Exhibit 2 suggests that U.S. consumers are more tolerant of fees than their peers in Europe and Asia-Pacific, they have, in fact, essentially rejected periodic "maintenance" and "membership" fees, which have become rare both for current accounts and credit cards. On the other hand French and German customers generally avoid transaction fees, but are comfortable paying account "maintenance" or card

"membership" fees upfront. In turn, U.S. consumers pay out higher credit card interest, receive lower returns on current account balances, and pay higher incident fees for the convenience of using ATMs, overdrawing a current account, exceeding a credit limit or making a late payment. In other words, U.S. consumers compensate banks more readily for the debt financing aspect of liquidity management than for transactions funded with cash reserves. A similar structure holds in the U.K. Consequently, interest on revolving credit card balances accounts for approximately 25 percent of total payments revenues in the U.S., Mexico and Hong Kong but less than 2.5 percent in "deposit-oriented" countries like Germany, the Netherlands and Japan.

Some markets resist fees more strongly than others, and the balance of fee and interest income that works in one country may work poorly in another. However, countries that look extremely different in payments behavior and revenue models can actually be very close in total revenue relative to operational output. For example, whereas the total payments revenue per non-cash transaction ranges from $1.50 to over $15.00 across all markets, markets as different as Brazil, the U.S., South Korea, the U.K. and France fall within a 10 percent range of each other.

Successful innovations in Japan may work better in Germany than in the U.S.; Mexico may learn more from Malaysia than from Brazil.

Comparative market analysis of customer behaviors and their ways of compensating banks can provide crucial lessons to banks as they seek to optimize the return from each relationship while also strengthening customer loyalty. This is the only way for global banks to protect their payments franchise from specialists that seek to "cherry pick" the profitable products and services and threaten to reduce full-service banks to loss-making payments "utilities."

* * *

The payments market is changing in fast, dramatic ways, and the forces of globalization, combined with the current restructuring of the financial services sector, demand a more structured approach to balancing profit across multiple accounts and services. Transaction services serve both to tie customers to the bank and to encourage them to leave more on deposit with the bank, and this link between payments and liquidity is vital in any market. The key challenge for any payments franchise is striking the optimal balance of interest income and fee income for a specific market.

When rethinking the strategy for payments accounts and services or introducing a new technology to a local market, a comparison with behaviors observed in other markets can be instructive. It is crucially important, however, to base a search for useful comparisons on market similarities in payments behavior, rather than less pertinent factors such as mere size or geographical proximity. Successful innovations in Japan, for example, may work better in Germany than in the U.S.; Mexico may learn more from Malaysia than from Brazil. Each market is unique, and the course it will follow toward electronification will vary according to cultural, economic and regulatory factors. Bankers who take a global view of payments can chart the various possible trajectories a given market may follow as cards and electronic volumes grow and cash gradually declines. Think globally, act locally.

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