Cases in Strategic-Systems Auditing

WELLS FARGO

Business-to-Business Electronic Commerce

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Introduction

Wells Fargo is a leader in the emerging field of e-commerce. By 1998, more than 800,000 online customers had conducted some 300,000 transactions per day making Wells Fargo one of the largest Internet banking institutions in the world.[1] Wells Fargo also is one of the first banks to offer retail customers the convenience of real-time home-equity credit decisions, online discount brokerage services, and electronic billing and payment.

Despite the success of the bank's innovations and high visibility in the retail marketplace, referred to as business-to-consumer (B2C) commerce, Wells Fargo management recognize that progress in B2C e-commerce is not likely to significantly impact the bank's near-term profitability. Online banking is extremely competitive and quickly becoming a commodity service. Therefore, investment in B2C e-commerce is partly defensive in nature—a necessity for customer retention—and charges for these services must be modest.

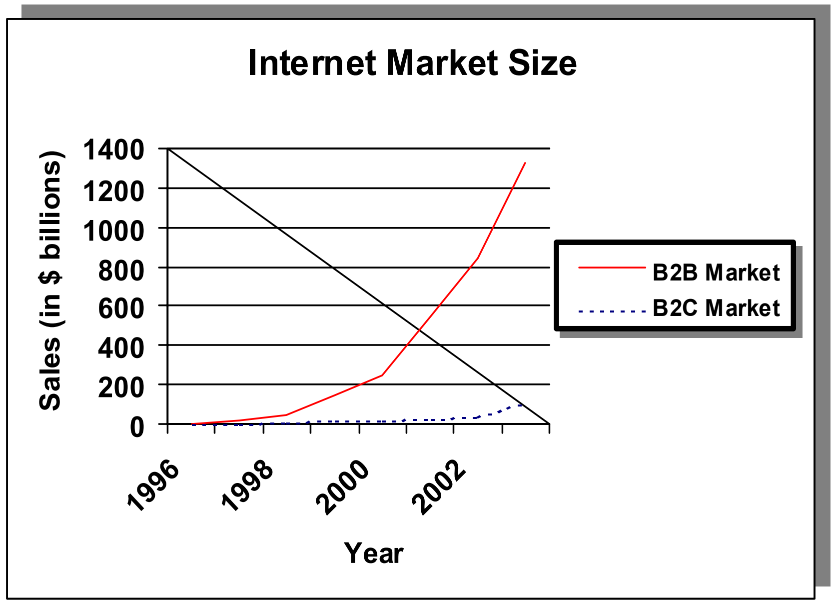


Figure 1. Predictions of Internet Market Size for B2C and B2B Purchases

Forecasts reveal a different potential for business-to-business (B2B) e-commerce. Researchers suggest that B2B Internet purchases will rise from the approximately $19 billion spent in 1997 to $1.3 trillion by 2003 (see Figure1).

A sizable increase also is predicted for B2C sales (i.e., $3 billion in 1997 to $108 billion per year by 2003), but such sales will not reach the extremely high levels of B2B sales. B2B commerce has always been larger than B2C commerce, but it also has been more complex. New technologies, systems, standards, and services continue to be developed to streamline interactions and automate business trade.

[1] *Wells Fargo 1998 Annual Report.*

Banks have long enjoyed a dominant market position with respect to payment transfers in B2B commerce because of their significant investment in sophisticated and secure systems for that purpose. Wells Fargo, like most large banks, has leveraged this strategic advantage to cross-sell a suite of other "cash management" services including assistance in corporate payments, collections, and information retrieval and dissemination services (a more detailed description of these services is given later in the case).

Expectations about the rapid growth of B2B Internet commerce, however, have brought new players into this market. Technological partnerships and research and development initiatives are starting to bear fruit in the form of provocative and innovative business models that could significantly reduce or eliminate the role of banks in B2B commerce.

The threat to banks was made salient in a noteworthy discussion between Bill Gates and Microsoft product manager, Jabe Blumenthal. Reporter Michael Meyer documented that discussion in the July 1994 issue of Newsweek.[2] According to Meyer:

> Talk … turned to broader trends in banking. Where is it going, what's in it for us. "Banks are dinosaurs," says Gates. "We can bypass them." The Raptor [product manager Jabe Blumenthal] is unhappy with an alliance involving a big bank-card company. "Too slow." Instead he proposes a deal with a small—and more easily controllable—check-clearing outfit. "Why don't we buy them?" Gates asks, thinking bigger. It occurs to him that people banking from home will cut checks using Microsoft's software. Microsoft can push all those transactions through its new affiliate, taking a fee for every one. Abruptly, Gates sheds his disappointment with Money [Microsoft's financial software]. He's caught up in a vision of Microsoft at the center of the "transformation of the world financial system." It's a "pot of gold," he declares, pounding the conference table with his fists, triumphant and hungry and wired. "Get me into that and [expletive deleted] we'll make so much money!" [3]

Four years later (1998), Microsoft, with its joint-venture partner, First Data Corporation, unveiled TransPoint, a service for banks that allows customers to view and pay bills at their bank's Web site. Although Microsoft describes TransPoint as a tool to help banks build closer customer ties, there is some concern that instead it will put Microsoft squarely between banks and their customers.

[2] "Culture Club," *Newsweek*, 7/11/94.

[3] Soon after this statement (October 13, 1994), Microsoft made an offer of $15 billion to acquire Intuit Inc., the publisher of the leading home-banking software. With this acquisition, Microsoft could have established Intuit as the architectural standard for e-commerce in the 1990s as it did for PC operating systems in the 1980s. By using this standard as a gateway to e-commerce, Microsoft could then earn billions of dollars in annual transaction fees. However, the acquisition attempt was abandoned in May of 1995 after the Justice Department pressed forward with an antitrust lawsuit. So far, Microsoft has shown no interest in being a bank, but it remains to be seen whether it will veer from Gates' enthusiastic vision.

The value of payment processing in today's market comes less from processing the transaction than from managing and distributing information obtained while processing such payments. These are value-added services from the corporate customer perspective and more profitable from the bank's perspective.[4] Given market dynamics, banks and other financial intermediaries see increasing benefit to competing in the information-services market. Wells Fargo, like other banks, must assess the impact of new technology on revenues and profitability, and whether the technology will dislodge the bank from its position as a between-businesses payment facilitator. Wells Fargo must devise and execute the right strategy to ensure a secure position in the emerging B2B e-commerce marketplace.

Company Overview

Wells Fargo, headquartered in San Francisco, California, is a diversified financial services company with $201 billion in assets, 5,836 retail locations (called stores), more than 6,200 automated teller machines (ATMs), and 102,000 employees.[5] Wells Fargo stores reach over 15 million customers in 50 states, and in foreign countries such as Canada, Latin America, and the Caribbean. Most of Wells Fargo's stores, however, are located in the fast-growing western United States.

As of the end of 1998, and after its merger with Norwest Bank, Wells Fargo ranked seventh in assets and third in stock market value for U.S. bank holding companies. In 1998, among its many U.S. market leadership positions Wells Fargo ranked first in financial services stores, commercial real estate lending, mortgage loan origination and servicing, Internet banking and online financial services, small business lending, agricultural lending, student loans, and auto financing. It also ranked in the top five for middle-market lending, correspondent banking, mutual funds under management, debit-card transactions, and number of ATMs.[6]

Prior to the Norwest merger, Wells Fargo had been recognized as an industry leader for its low-cost service delivery and consistent commitment to technological innovation. Wells Fargo's "high tech, low touch" focus supported its strategy to develop innovative applications of electronic technology to drive transaction costs down. For example, Wells Fargo shifted its business away from branch banks and toward ATMs and the Internet when industry data

[4] "Overlooked Exposure," *Banking Strategies*, September-October 1998.

[5] Exhibits 1 and 2 provide the consolidated income statement and balance sheet for the combined business operations of Wells Fargo for the period 1996-1998.

[6] *1998 Wells Fargo Annual Report* (p. 4) and "Merger of Wells Fargo and Norwest Complete," Wells Fargo Press Release, 11/2/98.

indicated a transaction using a branch bank teller costs $1.07, compared to $.27 and $.01 for ATM and Internet transactions, respectively.[7]

Also, in 1997, when industry data indicated that transaction costs at banks located in grocery stores were lower than at branches, Wells Fargo closed or sold 329 traditional branches and replaced them with 241 in-store locations. These actions made Wells Fargo the largest network of in-store locations in the United States.[8] These "in-store" locations not only are convenient for customers but also provide a lower-cost delivery channel—the in-store model reduced space requirements by approximately 40 percent in the first year.[9]

Wells Fargo's merger with Norwest Bank further strengthened its position as a thought leader in the banking industry and in 1998 it was considered a top pick among financial-service company stocks.[10] Under Dick Kovacevich, former CEO of Norwest and current CEO of the merged bank, Norwest generated more than 15 percent annual growth in sales, 13 percent in earnings, and 15 percent in dividends during the ten-year period leading up to the merger. Only 11 companies in Standard and Poor's top 500 list had achieved this level of performance during the same time period. Norwest was widely recognized as an industry leader in customer service with a unique ability to cross-sell banking services. The average Norwest customer bought approximately four financial products—versus the industry average of two—and generated $113 profit-per-customer, about triple the amount of two-product purchase yields.[11] Kovacevich, a visionary and progressive leader, once stated, "Banking is necessary, banks are not."[12]

Product Lines

Wells Fargo is organized into four distinct groups:

- Community Banking
- Mortgage Banking
- Norwest Financial
- Wholesale Banking.

The Community Banking Group focuses on retail and business banking services, consumer checking, lines of credit, direct installment loans, residential mortgage products, investment

[7] "Sweetening the Appeal of ATMS," *Bank Systems and Technology*, November 1997.
[8] Wells Fargo *1997 Annual Report* (Letter to Shareholders).
[9] "Wells Fargo New Branch Model: Retail-Store Approach Works," *Bank Management*, March-April 1995.
[10] ABN AMRO, Inc. Buy-Sell Recommendation: Wells Fargo, 11/10/98.
[11] Ibid.
[12] "Is This Guy the Best Banker in America?" *Fortune*, 7/6/98.

management, brokerage, and fiduciary services.[13] Community Banking operates through a wide range of channels, including a network of traditional banking stores, banking centers, in-store banking centers, business centers, and ATMs. The Mortgage Banking Group originates and purchases residential mortgage loans for sale to investors, and services mortgage loans for others. The Norwest Financial Group primarily is involved in consumer and auto finance operations. Norwest Financial also provides accounts receivable, lease, and other commercial financing and provides information services to the consumer finance industry.

The Wholesale Banking Group, which is the primary focus of this case, provides a complete line of commercial and corporate banking services to businesses with annual sales in excess of $5 million, including commercial loans and letters of credit, international trade facilities, foreign exchange services, cash management and electronic products.[14] It also provides cash management and electronic B2B services. These services include the Interstate Depository Solutions product suite, Electronic Solutions, Deposit Management Solutions, and Disbursement and Fraud Prevention Solutions. (See Table 1.)

As shown in Exhibit 3, the Wholesale Banking Group's cash management solutions products accounted for a modest portion of the Wells Fargo revenue stream (14.9%, 15.5%, and 15.9% of 1998, 1997, and 1996, respectively). However, it made an impressive contribution to company net income--40.0%, 31.7%, and 32.8% of 1998, 1997, and 1996 net income, respectively. Noninterest income (mostly fee-based services to business customers) accounted for 39.9 percent, 39.5 percent, and 35.3 percent of the Wholesale Banking Group's 1998, 1997, and 1996 revenues, respectively. A major portion of the Wholesale Banking Group's noninterest income was obtained from cash management activities or deposit-related revenues.

[13] For more detail about the products included in each Wells Fargo line of business see, *Wells Fargo and Company 1998 Annual Report*, pp. 84-86.

[14] The income and expense figures, broken down by line of business, are shown Exhibit 3. Exhibit 4 provides greater detail on the types of services provided by each Wells Fargo business unit.

Table 1. Wells Fargo Wholesale Banking Group Product Suite (*Excerpted from wellsfargo.com—Commercial Banking/ Cash Management Solutions*)

<table>
<tr><th>Product</th><th>Description</th></tr>
<tr><td>Interstate Depository Solutions</td><td>The Interstate Depository Solutions product suite offers collection, payment, and a variety of related information products.

Collection Products:

• Interstate Depository Solutions Account allows a company to use a single account for deposits and check writing in any state in which the bank operates, eliminating the need for banking services across state lines.
• Wholesale LockBox accepts a company’s mailed payments into its account and provides related information electronically.
• Cash Vault provides secure cash deposits and coin and currency deliveries.
• Deposit Reconcilement tracks deposits by location for a single account using encoded deposit tickets, and allows for separate accounting of funds by location.

Payment Products:

• Controlled Disbursement allows customers to optimize their disbursement float by writing checks drawn on a specifically selected partner bank. The product provides early morning reporting of the total dollar amount of checks that will clear the customer’s account each day.
• Positive Pay reviews and analyzes a company’s checks to eliminate misappropriated assets through check fraud. (e.g., duplicate checks to same person in the same amount).
• PayCards are ATM cards that enable employees without bank accounts to go to any ATM to make pay check withdrawals.
• Zero Balance Accounts (ZBA) concentrate funds into a central pool to facilitate investment decisions and control payments. The ZBA pool is divided into sub-accounts matched to a company’s business units (plants, stores, projects, etc.) to enable deposits, check writing, or maintain separate balances. Target balances are set for each unit and for the total pool. Accounts meet the target balance at the end of each day, with excess funds being invested at higher rates.
• Wells FargoTax takes tax deposits and makes federal and state tax payments initiated by a personal computer or telephone.
• The Purchasing Card is designed to significantly reduce the paperwork associated with small-dollar (under $2,000) purchases of goods and services.</td></tr>
<tr><td>Electronic Solutions</td><td>Electronic Solutions consists of a diverse set of products, including electronic billing, receiving electronic or wire payments, making electronic payments, check imaging technology, and various electronic business desktop cash-management tools.</td></tr>
<tr><td>Deposit Management Solutions</td><td>Deposit management products are designed to accelerate funds availability, reduce customer expense in deposit reconcilement, maximize funds available for investment or minimize borrowing needs, and improve security and confidentiality. The product suite includes the Business ATM, Courier Check Service, and the Deposit Reconcilement Service.</td></tr>
<tr><td>Disbursement and Fraud Prevention Solutions</td><td>Disbursement and Fraud Prevention products include:

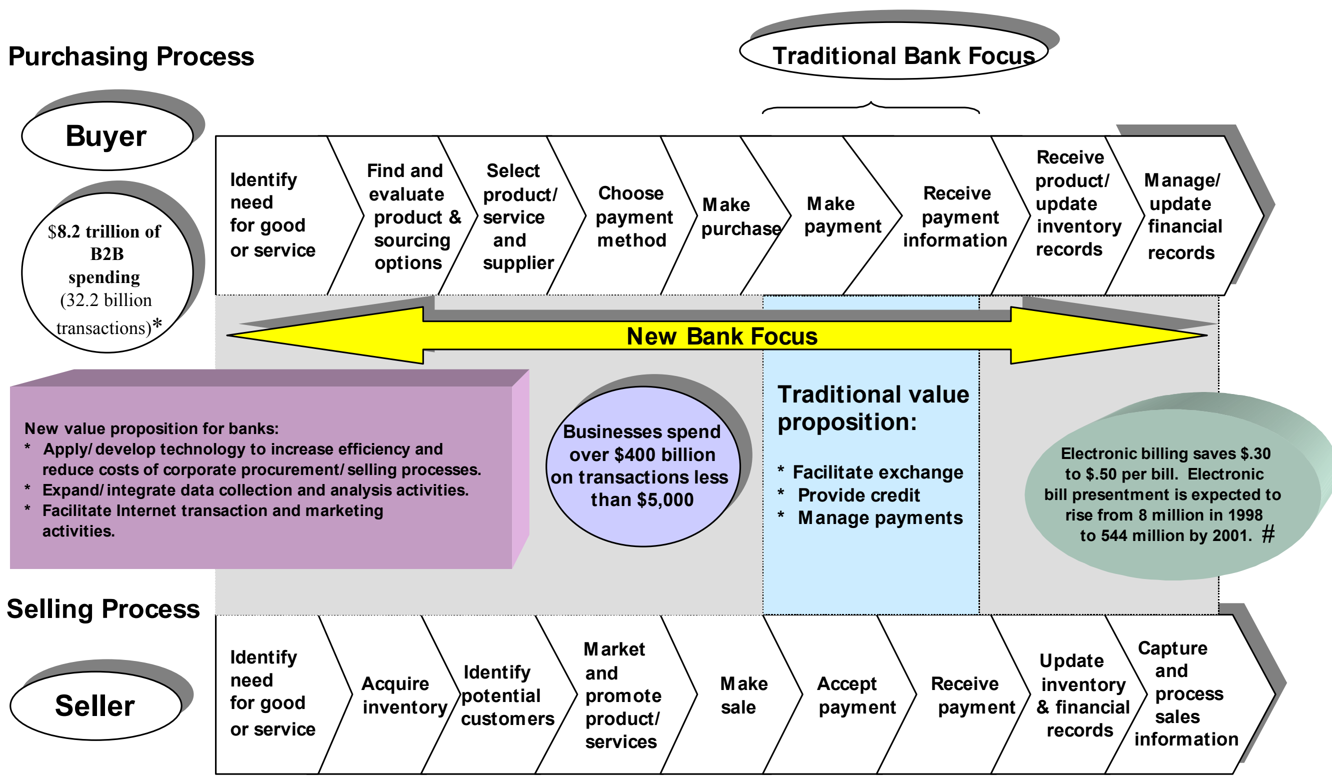
• Direct Deposit Service for transmitting an electronic payroll that credits employees’ accounts regardless of their location.
• Account Reconcilement compares the check issue information to the current paid check listing and generates a report noting checks outstanding and exception items.
• Maximum Dollar Authorization restricts payment of checks from an account above a pre-determined dollar figure set by the customer.
• Credit Sweep maintains a pre-determined balance for a business checking account by advancing funds from a line of credit or moving funds to a taxable money-market mutual fund.</td></tr>
</table>

Role of Banks in the B2B Value Chain

Traditional Role

Wells Fargo's traditional role in the B2B purchasing value chain primarily has been to transfer funds from a buyer's account to a seller's account or bank and to provide information to the buyer and seller regarding the completion of the transfer (See Figure 2.). For sellers with a lockbox arrangement, mailed-in payments are processed and deposited into the seller's account and a report is produced. In most cases, though, payment simply has entailed sending a demand deposit (check) through a check-clearing operation (such as the Federal Reserve) to collect funds from the buyer. In addition, Wells Fargo absorbs credit risk by providing loans to facilitate the exchange. More recently, Wells Fargo and other large banks have supported electronic payment methods, typically for larger customers.

Figure 2. Changing Bank Focus in B2B Purchasing/Sales Value Chain



* *Source: Online Banking Report*, December 1998.
\# *Source:* "Electronic Bill Presentment," *Bank Systems + Technology,* July 1998.

Electronic Data Interchange

Electronic Data Interchange (EDI) is a mature technology that began in the 1980s to facilitate the secure transfer of information (e.g., purchase orders, invoices, advanced shipping notices, etc.) between business partners in a standardized format. In the United States during 1998, there were more than 500 million EDI messages that resulted in a B2B-transaction dollar volume of more than $300 billion.[15] These transfers mostly were confined to large companies making repetitive, high-dollar purchases from major suppliers. A small subset, 30 million transactions, were paid via "financial" EDI (FEDI).

FEDI is linked to business transactions conducted via EDI and signals provider banks, such as Wells Fargo, to transfer funds and generate remittance information.[16] FEDI uses a broader and more complex network than EDI, involving payment instructions and remittance information that affect the trading partners, the payer's bank, the payee's bank, and the Federal Reserve Network. Given the sophistication of the network involved, only about 200 of the largest banks had invested in FEDI capabilities as of 1998.[17]

In general, businesses have resisted EDI because of the significant expense and time involved in establishing EDI partnerships with suppliers. Consequently, EDI and FEDI have yet to become as widely accepted as first predicted. Most B2B payments still are made the "old-fashioned" way —by paper check — at an annual volume of about 25 billion payments.[18] Further, weaknesses in proprietary EDI systems have stimulated interest in a standardized Internet-based version of EDI.

Competition in the B2B Value Chain

Businesses continue to press for technological improvements that will increase the efficiency of the purchasing process and lower the cost of buying goods and services. B2B Internet commerce platforms are being designed by companies, such as American Technologies, Ariba, CommerceOne, Elekom, Intelisys (a vendor of business procurement software one-half owned by Chase Manhattan Bank), and Oracle Corporation, to reduce procurement costs by automating:

[15] "E-Commerce: The Revolution," *ABA Banking Journal* (Supplement), December 1998.
[16] For more information on financial EDI see, "Electronic Commerce Today; Financial EDI Solutions for Tomorrow," *Management Accounting*, November 1997, and "Understanding Financial EDI," *Management Accounting*, November 1997.
[17] "E-Commerce: The Revolution," *ABA Banking Journal* (Supplement), December 1998.
[18] Ibid.

- bidding
- the purchase process (e.g., approval, limits on spending authority, and document retention and archival policies)
- catalog retrieval
- catalog creation and content
- payment.

For sellers, technology solutions focus on catalog content and management as well as software interfaces that accept payments, extract useful data from existing business systems during the sales cycle, and update those business systems when completing an order. Popular e-commerce sell-side technology providers include companies such as Broad Vision, IBM, Netscape, Connect, and Open Market.

B2B E-Malls

Other technology solutions focus on developing electronic trading communities or "e-malls." E-malls (see box) can be created by buyers, suppliers, or financial institutions trying to bring buyers and sellers together in cyberspace. The E-mall can reduce significantly the time buyers spend searching multiple print catalogs or Web sites to purchase available products at the best price.

B2B E-Malls

- Procurenet (http://www.ftg.net), created by Fisher Technology Group, is a specialized purchasing network with over 100 tenants that in the late 1990's was rated a top B2B electronic mall.
- NetBuy (http://www.netbuy.com) is a procurement network specializing in electronics and electro-mechanical components for electronics manufacturers.
- W.W. Grainger (http://www.grainger.com) is a large industrial supplies distributor.

Box 1

Trading Process Network Register (TPN). General Electric and Thomas Publishing have combined to create the Trading Process Network Register (TPN) (http://www.tpnregister.com), an electronic solution that enables buyers to browse or perform structured searches for products, order approved items, and create purchase orders electronically. TPNPost enables buyers to electronically select pre-qualified suppliers from a global database, create and send requests for quotations and drawings, as well as receive, compare, and analyze bids in a single or multi-round bidding process and notify bidders of the results. The TPN Trading Payment System allows EDI-suppliers to receive authorization and settlement for purchasing card transactions via their existing EDI interfaces. The TPN Buyer Service not only enables an employee to find and purchase products from approved suppliers, it also assists compliance with the specific pricing and contract terms that the buyer has negotiated with the participating supplier. Online requisition forms also are routed for electronic approval prior to transmission to suppliers.[19]

e-Citi-Commerce Solutions. In 1998, Citibank announced its intention to create e-Citi Commerce Solutions, which provides several services for sellers and buyers while creating a procurement arena for large corporate customers that will offer automated payment.[20]

Major Players in B2B Electronic Commerce

Figure 3 presents different industry segments, and major players within those segments, that compete in the B2B electronic commerce arena, including large banks like Wells Fargo, technology and nonbank financial services organizations, and competitors from other segments.[21]

Banks. Mergers have created very large banks that enjoy economies of scale and scope (e.g., service efficiencies and lower unit costs). Economies of scale make larger banks more competitive in a global economy. Scale enables large banks to spread the high cost of technology across a larger customer base, making new systems and services affordable to customers and profitable for the bank. Economies of scope enable banks to increase profits by cross-selling many products.[22]

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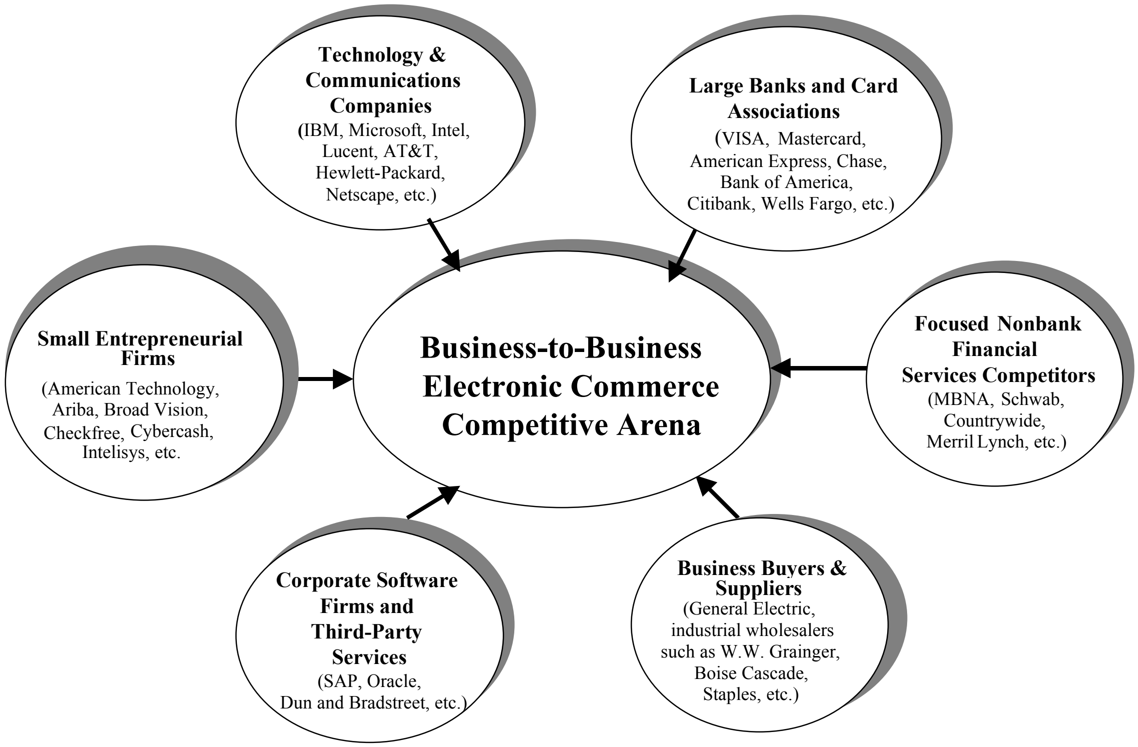
[19] See, "GE Lighting Selects TPN Register for Full Rollout of Internet Procurement Solution," GE Press Release 1/13/99

[20] "Citibank Gears Up Its Internet "Community," *Bank Systems + Technology*, December 1998.

[21] In 1998, Travelers Group acquired Citicorp to create Citigroup, the world's largest bank with combined assets of $697 billion. Other large mergers followed soon after, including NationsBank and Bank of America (creating the world's fifth largest bank with combined assets of $572 billion), Banc One and First Chicago ($230 billion), and Wells Fargo and Norwest ($196 billion). Europe is also in the midst of significant bank merger activity. In 1998, Swiss Bank Corporation and Union Bank of Switzerland merged to create UBS AG, Europe's largest bank. This was followed in early 1999 when two French banking powerhouses, Societe Generale and Paribas, merged to create Europe's second largest bank.

[22] See, "Big Banks: The Trial of Megabanks," *The Economist* 10/31/98.

Figure 3. Competitors in B2B Electronic Commerce



Technology Companies and Nonbanks. Technology companies in the B2B electronic commerce arena include large multinational computer software and hardware and communications organizations (e.g., Microsoft, IBM, AT&T, Lucent, and others), small entrepreneurial firms (e.g., Ariba, and CommerceOne), and management information systems companies (such as Oracle and SAP). Nonbank financial institutions have entered into what was once exclusive bank territory and "cherry-picked" lucrative bank product lines with low-cost, high volume, customer-driven products and strategies (for example, MBNA in credit cards and Countrywide Credit in mortgage lending). The success of some of these organizations at capturing product-specific market share has led banks to refer to such boutique financial service outfits as "category killers." Both technology and nonbank financial service companies possess high levels of technical and operational skills and resources. They also are free of the costs of legacy systems and regulations that burden traditional bank players.

Other Competitors. Competitors can come from any industry to "disintermediate" banks (i.e., eliminate banks as the interface between customers and suppliers). Companies that want greater control over the financial aspects of their transactions can enter the B2B arena. For example, General Electric (GE) Lighting piloted the company's first online procurement system in 1996. Its extranet, developed by GE Information Services, lowered its purchasing costs by 30 percent and its material costs by 20 percent. By the year 2000, GE aims to have all of its business units purchasing materials via the Internet. W.W. Grainger, a $4 billion dollar supplier of maintenance, repair, and operating (MRO) supplies, not only sells its goods on its Web site, it also has a business unit that will take over the entire inventory management function at the buyer's site.[23] Additionally, some companies have sought to exploit banking regulations by acquiring a savings and loan, thereby establishing their own systems for transaction processing, information management, and customer loyalty incentives.[24]

Industry Response

One outcome of these new competitive threats has been an effort by the banking community to identify its core business competencies in the emerging B2B marketplace. Banks are concerned that technology providers, such as Microsoft, will view the payment portion of the purchasing value chain as a natural extension of their value proposition. On the other hand, banks (as technologically sophisticated participants of the information services industry) can fend off competition by expanding their reach in the purchasing value chain and competing directly with technology providers. The final resolution may hinge on the ability of banks (as payment technology experts) to provide superior software and value-adding services needed to integrate purchasing value chain activities, compared to the offerings crafted by information technology providers for their customers.

As noted in the September 1998 *ABA Banking Journal*:[25]

> The quick emergence of the Internet as a payments and product distribution channel is compelling strategists at all banks to make some tough decisions. Do we go it alone, or in partnership, or do we dare ignore the Internet? . . . Nothing less than the future identity, viability, and profitability of many commercial and consumer banking institutions is at stake.

[23] See, "The Emerging Digital Economy," U.S. *Department of Commerce*, 1998.

[24] The 1996 law requires that only 65 percent of assets (mortgages or credit cards) be devoted to consumer loans. Between January 1997 and July 1999, 78 nonbanks applied for charters including Wal-Mart, Nordstrom's and Ford Motor Company. Wal-Mart had planned to open bank operations in five Wal-Mart supercenters in 1999 (see "Retailers Use Legal Wrinkle to Link Sales, Bank Services," *Wall Street Journal*, 2/8/99 and "Wal-Mart Banking Gambit May Work," *Southern Illinoisan*, p. 5B, 7/4/99). Legislation passed by Congress and awaiting President Clinton's signature, however, establishes a barrier between commercial companies like Wal-Mart and financial firms. Specifically, while numerous regulatory restrictions that were part of the Glass-Steagall financial services law will have been removed, nonfinancial companies are prevented from operating unitary savings and loans other than those for which they had sought charters before May 4, 1999. Further, nonfinancial companies are precluded from chartering or buying thrifts in the future. While what the future will bring remains uncertain, this legislation is a clear illustration of financial services market de-regulation and the advantages that can accrue to early movers.

[25] "Who Will Control Electronic Payments?" *ABA Banking Journal*, September 1998.

Wells Fargo: An Aggressive Posture in B2B E-Commerce

Table 2 presents the electronic commerce initiatives that were active or in development at Wells Fargo during 1998. While some banks believe it would be a costly mistake to invest in an immature market, Wells Fargo has taken an aggressive position and allocated resources accordingly.

Table 2. Electronic Commerce Initiatives at Wells Fargo

Electronic Banking	Electronic Transactions Processing
• home banking • payment systems • electronic funds transfer • cash management systems • smart cards	• traditional EDI and ACH • forms processing • traditional and Web-based credit card transaction processing • electronic billing and payment • transaction validation • loan application submission, approval, and delivery of funds
Electronic Storefronts	**Online Services**
• catalog shopping • merchandising • wholesaling • distribution • online catalogs • kiosks	• discount brokerage • content management • billing systems • marketing support • customer service

In essence, Wells Fargo's strategy has been to invest in numerous technology options to capitalize on B2B e-commerce opportunities as they arise.

Examples of some of these investments include:[26]

- corporate purchasing card
- joint ownership to establish Mondex and its "stored value" (smart) card technology
- technology partnership enabling Wells Fargo to present bills to customers electronically, and customers to make payments electronically
- minority stake with PaymentNet in a Web-based credit-card payment process
- technology collaboration to offer turnkey "virtual store" services to retailers
- opening of cyberbanks.

Corporate Purchasing Cards

Wells Fargo provides corporate purchasing cards (p-cards) to over 300 of their medium and large business customers. P-cards have been touted by major financial institutions, banks, and bank-

[26] Details of these and other e-commerce initiatives can be found at wellsfargo.com and in the *Wells Fargo 1998 Annual Report*.

card associations as a tool to allow medium and large business customers to simplify the process of acquiring and paying for low-value noninventory supplies. The "end-to-end" internal processing cost of a purchase transaction is approximately $90, but with p-cards the process is simplified dramatically and the cost drops to approximately $15.[27]

As Internet B2B commerce heats up, many suggest that p-cards are the most likely method for settling Internet purchase transactions. As of 1998, Bank-card associations reported that only about $25 billion of the potential $300-$400 billion p-card market had been captured. However, p-card spending had doubled each year over the past three years, and it was expected to increase at 40 percent to 50 percent per year over the next few years.[28] At Wells Fargo corporate customer spending on the p-card in the 1997-1998 time frame grew by 204 percent.

Smart Card Technology

In December of 1996, Wells Fargo took the lead stake (30%) in a joint venture to implement an electronic cash system and formed Mondex USA Services LLC (Mondex USA).[29] Wells Fargo's joint-venture partners are AT&T, Chase Manhattan, First Chicago NBD, Mastercard, Morgan Stanley Dean Witter Discover (NOVUS), and Michigan National Bank.

Using Mondex USA technology, Wells Fargo created the "Wallet," which is electronic cash digitally stored on a reloadable and highly secure microprocessor computer chip. The chip is embedded in a plastic card that looks and feels similar to a debit or credit card. Though the "Wallet" looks like any other plastic card, it acts similar to cash because it can perform "chip-to-chip" transfers of electronic cash from one smart card to another. No third-party intermediary (e.g., VISA or Mastercard) clears or processes the smart-card transactions, and the cash value is immediately accessible by the seller.

Electronic Bill Presentment and Payment

Prior to about 1998, consumer interest in paying bills electronically was limited because it had not been possible to consolidate bills for concurrent review and payment. Additionally, bill presenters had been reluctant to develop expensive Internet delivery systems because consumers had not yet moved to the Web to receive bills. Further, individual banks had been reticent to

[27] Deloitte and Touche, *Purchasing Card Market Best Practices Management Guide*, 1998 and "Results of the Corporate Purchasing Card User Benchmark Survey," an AICPA-funded study by Richard Palmer, 1998.

[28] "Purchasing Card Best Boasts Huge Potential," *Bank Technology News*, February 1998.

[29] See www.mondexusa.com

invest in electronic bill presentment and payment (EBPP) because they doubted their ability to acquire a sufficient mass of companies willing to electronically present bills. However, by 1999 EBPP was viewed as a major opportunity—with market analysts projecting that consumers paying bills electronically would increase from the current 10 percent to 50 percent by the year 2005.[30]

EBPP involves five different activities:

- bill creation/publishing
- bill distribution
- bill presentment
- payment
- remittance processing.

During bill creation, pertinent data are extracted from vendors' billing systems and published electronically so that the information can be accessed by a bill aggregator. During bill distribution, a billing aggregator collects the total amounts due from many billers and reports the amounts electronically in one summary billing statement. The summary billing statement, with hotlinks to detailed billing information, is sent to intermediaries such as banks, or for B2C, to high–traffic Internet portals. Bill aggregators can be banks, or nonbanks that provide this service to banks or deal directly with corporate customers (e.g., Blue Gill Technologies, Transpoint, or CheckFree).[31] Bill presentment is the delivery of these billing summaries via a Web browser, bank-branded personal financial management software, phone, ATM, or WebTV. As an alternative to the billing aggregator model, businesses can bill customers directly through e-mail.

Payment involves a click of the button and can be funded or unfunded. For unfunded payments, the aggregator sends an automated clearinghouse (ACH) debit authorization to the billing company's bank. If the transaction gets returned for insufficient funds, it's the biller's responsibility. With funded payments, the aggregator, usually a bank, validates that the customer has available funds and remits guaranteed-good funds. Remittance information is sent back to the

[30] "Simplifying the Payments Maze," *Bank Technology News*, May 1999.
[31] For a flowchart of TranPoint's e-billing process, see www.transpoint.com/partner.html

biller or the biller's retail lockbox in a standard format such as ACH or EDI or in the company's proprietary receivables system format.[32]

By the late 1990s, Wells Fargo, Chase Manhattan Bank, and First Union together formed a new for-profit company to exchange electronic bills and, in the future, provide money transfers.[33] The new company, called Spectrum Venture (Spectrum), will provide a secure infrastructure to streamline the presentment of bills between companies and their customers. Spectrum will function as a hub that allows members to route electronic bills through a single connection to other Spectrum members. Until Spectrum offers money transfers, customers pay using their own financial institution. The three founders together have 60 million customers, including small businesses, and have relationships with more than 59,000 corporations and institutions.[34]

Spectrum is an attempt by Wells Fargo, Chase, and First Union to seize a "gatekeeper" role in the emerging Internet market. It will be in direct competition with third-party EBPP service providers, such as CheckFree and TransPoint, who also are pursuing partnerships with Web portals (such as Yahoo) to move into B2C. Critical issues in EBPP relate to transaction economics and control over the customer interface. Banks are concerned that third-party control over the customer interface will undermine or usurp their relationships with customers. To date, the market has responded positively to Spectrum.

The July 1999 issue of the *American Banker* noted:

> From a business and technical perspective, [Spectrum] represents a superior model, as it relies on open standards and a biller directory to promote the open exchange of bill data…Over time, if successful, this model will eliminate the need for [bill] consolidators like CheckFree and TransPoint.[35]

Further, it was noted in the *New York Times* on the Web in August of 1999:

> The Spectrum effort is noteworthy in that banks see online billing as a crucial market for them in the future… if banks can attract consumers to their Web sites to pay bills—and actually provide that service to billers instead of allowing CheckFree or another competitor to do it—they can start to position themselves as a one-stop resource for online

[32] Within the banking industry, the activities tend to be divided into two different groups: (1) billing service providers, who assist merchants in taking bills to the Web, and (2) consumer service providers (CSPs), who aggregate a variety of bills and deliver summarized statements to consumers. For more detail, see "Electronic Bill Presentment," *Bank System + Technology*, July 1998.

[33] "Chase, First Union, Wells Fargo to Form New Company to Drive Rapid Growth in Electronic Billing," Wells Fargo Press Release, 6/23/99

[34] "Chase Manhattan, Wells Fargo, First Union Setting Up Venture Called "The Exchange,"" *American Banker*, 6/24/99.

[35] Ibid.

financial services *while remaining relevant to their merchant customers*.[36] (Emphasis added.)

Web-Based Credit-Card Processing

Wells Fargo and AT&T Ventures recently provided venture capital funding to PaymentNet, the industry's only single-source, automated, multi-payment, secure gateway that provides real-time processing for multiple media: credit cards, purchase cards, electronic checks, etc.[37] In layman's terms, PaymentNet is a Web-based credit-card payment processor for sellers. The advantage of the model is that the seller's telecommunications costs associated with card acceptance are reduced and the Web and browser-based technology eliminates the need for costly card processing equipment at multiple seller locations.

Virtual Stores

Wells Fargo is collaborating with Digital Equipment, Microsoft, and Verifone to offer the VirtualStore program. Aimed at large and mid-sized companies, the VirtualStore is designed as a turnkey system for retail sales and marketing on the Internet. Wells Fargo's role in the collaboration is to provide Internet credit-card clearing services using Microsoft Internet commerce software.[38] Though the focus at this point is retailers, the concepts can have broad application to other businesses, particularly in the wholesaling and distribution categories.

Cyberbanking

In September of 1998, Wells Fargo opened the first bank branch in the Northwest devoted exclusively to online banking. The Wells Fargo "cyberbranch" is in Seattle's University District and features five computer stations that customers can use, free of charge, to access a host of Internet-linked banking services. The Seattle cyberbranch is fully staffed, equipped with three ATMs, and has longer hours to accommodate the student population. While the first cyberbranch targets a segment of retail customers, Wells Fargo plans to open four Puget Sound branches dedicated to small-business banking.[39]

[36] "Major Banks Set to Test Online Billing," *Technology Cybertimes* (New York Times Web Service), 8/11/99

[37] "PaymentNet Gets Venture Capital Funding From Wells Fargo, AT&T," *American Banker*, 3/1/99

[38] "Wells Fargo and Digital Offer Web Commerce Package," *Newsbytes News Network*, 9/9/97

[39] According to globalchange.com, an Internet news source, cyberbanking is exploding in the retail market. From September 1994 to July 1996 the number of banks on the Internet grew from 20 to 1,178. By May 1997, the number was over 2,000 and growing at 350-400 cyberbanks per quarter. The number of financial institutions offering full Internet transaction capability leapt from 15 in October of 1996 to 70 in March of 1997. See also, "Nothing But Net," *Business Week*, 8/2/1999.

New Directions, New Risks

Despite its present profitability, banking is essentially an industry in decline. In 1975, for example, the typical American household had 36 percent of its financial assets in a bank; now that number is 17 percent.[40] The decline of commercial banking is even more pronounced. Commercial paper and bond markets have hurt the commercial loan business. The emergence of nonbank financial boutiques has forced traditional commercial banks to cut costs, accept lower margins, and look for alternative sources of income.[41] The need for new sources of income has led banks to diversify into riskier businesses such as pensions, insurance, asset management, and investment banking. Additionally, nonbank financial boutiques now can be created with tools as simple as a phone, a computer, and the Internet. With virtually no barriers for new entrants to the banking industry, there has been a rethinking of the competitive advantage banks have enjoyed in their traditional role. Remarking on the changes in traditional bank activities, Dick Kovacevich, concluded, "As a stand-alone business, banking is dead."[42]

Having committed to a competitive strategy, Wells Fargo recognizes that as its e-commerce product line expands, so does the nature and amount of its business and technology risk. A general statement about the elements of risk is communicated in the *Wells Fargo 1998 Annual Report* wherein it states:

> This Annual Report (including information incorporated by reference herein) includes forward-looking statements about the Company's financial condition, results of operations, plans, objectives and future performance and business. These statements generally include the words "believe," "expect," "anticipate," "estimate," "may," "will" or similar expressions that suggest the statements are forward-looking in nature.
>
> These forward-looking statements involve inherent risks and uncertainties. The Company cautions readers that a number of factors—many of which are beyond the control of the Company—could cause actual results to differ materially from those in the forward-looking statements. Among these factors are changes in political and economic conditions, interest rate fluctuations, *technological changes* (including the "Year 2000" data systems compliance issue), *customer disintermediation*, *competitive product and pricing pressures in the Company's geographic and product markets*, equity and fixed income market fluctuations, personal and commercial customers' bankruptcies, inflation, changes in law, changes in fiscal, monetary, regulatory and tax policies, monetary fluctuations, credit quality and credit risk management, mergers and acquisitions, the integration of merged and acquired companies, and success in gaining regulatory approvals when required. (Emphasis added.)

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[40] "Banking Is Necessary—Banks Are Not," *Fortune* , 5/11/1998.

[41] More information on the threat posed by financial boutiques can be found in remarks by Jack Guynn, President and CEO of the Federal Reserve Bank of Atlanta, in his speech entitled, "Technology in Banking: Paradise or Purgatory," given to the Georgia Bankers Association meeting on May 4, 1998. (http://www. atl.frb.org/sp_press/speeches/sp050498.htm)

[42] Ibid.

Notwithstanding the commitment to new technology and its associated risk, Wells Fargo (similar to other banks) also has an incentive to maintain the status quo. Banks earn three-fourths of their revenue from net interest income on deposit and credit card accounts. The remainder largely stems from the industry's dominance in payment processing. In 1997 alone, consumers, businesses, and the government generated nearly 650 billion paper payments having a total value of $22 trillion. The intermediaries that handled the payments received approximately $190 billion in revenue, 53 percent of which (about $100 billion) accrued to banks.[43] Until the paperless society is a reality, banks will continue to benefit from paper transactions. This issue was addressed in a 1997 article in *Banking Strategies*:[44]

> Banking strategists will be sorely tempted to delay electronic payments ventures, which often have lower margins, so as to prolong the rich returns they now enjoy from paper-based operations. To the extent that banks help hasten the electronic revolution, the logic goes, they are hastening the obsolescence of their own prized systems, built up over decades.

Wells Fargo management is convinced that B2B e-commerce is inevitable. Wells Fargo must offer e-commerce value-added services to its business customers to protect and maintain its payments business and relationships. A recent joint study by the Bank Administration Institute and PSI Consulting supports this conviction, concluding that:[45]

> [Banks have already lost significant ground to nonbank players in investments and lending]. The payments business represents the third – and last – major bank franchise, and it is a franchise at risk. New players are aggressively pressing their cause, and banks simply cannot afford to lose this epic battle.

Market analysts already are suggesting that direct access to the low-cost and secure Federal Reserve payment settlement facilities should be given not just to banks, but also to corporations and nonbank information processors.[46] In fact, nonbank access to banking's standard messaging service already has begun. A recent vote by the Society for Worldwide Interbank Financial Telecommunications (S.W.I.F.T.) enables nonbanking corporations to have limited direct access to the standard banking messaging network. The network, which has some 6,500 participants in 180 countries, carries financial traffic including trade confirmations and, most importantly, payment data. The new rules allow Fortune 200 conglomerates direct access to S.W.I.F.T. for foreign exchange, money market, and derivatives confirmations. Smaller corporations will be able to use a service provider. Part of the logic for admission to the network was that the

[43] "Prevailing in Payments," *Banking Strategies*, September-October 1997.
[44] Ibid.
[45] Ibid.
[46] See, "Unleashing Electronic Payments," *Banking Strategies*, November-December 1998, for analyst discussion. For more information, see "Corporates Gain New Access to Globe-Spanning Bank Wire," *Future Banker*, July, 1999.

complexity of certain business sectors—for example, autos, real estate, and credit cards —made these corporations act more like banks. Notably, however, corporations still won't be able to send messages carrying payment data.

Despite its considerable expertise and best efforts, Wells Fargo (or any bank for that matter) could quickly find itself behind a major technology shift. The financial strength and resources of many of the new players in e-commerce, such as IBM, General Electric, AT&T, and Microsoft, are truly impressive. The implications of falling behind could be sudden and severe. Business customers are considered to be less forgiving of a major stumble by their bank and more inclined to take their business to the institution that provides world-class service at a reasonable price. And conventional wisdom is that first-mover advantages on the Internet are more pronounced than in the traditional business environment. Wells Fargo is now in a fast-paced, high-stakes technology game where the winner might take all. The situation was poignantly described by Gary Craft, head of e-commerce research at Bank of America. He states:[47]

> When an industry is fundamentally changing, as is banking in the era of electronic commerce, the risk of being stranded in a dying business is great.

Or perhaps the competitive reality was stated more succinctly by Bill Gates himself when he said, "Give me a piece of the transaction business and banks are history."[48]

Banks that want to compete in the B2B e-commerce market must have a clear and compelling business and technology strategy. That strategy would require these important questions to be resolved:

- In what e-commerce technology should Wells Fargo invest?
- What companies should Wells Fargo select as technology partners?
- From whom should Wells Fargo acquire technology?
- Does Wells Fargo's organizational structure need to change to support Internet banking?
- How much of Wells Fargo's focus should be on Internet channels, as opposed to traditional business channels?

And most importantly:

- In what business should Wells Fargo be?

[47] "NetCentric Banking," *Banking Strategies*, March-April 1998
[48] "Baked Beans and Bacon from a Hole in the Wall," *The Independent*, 11/10/96

The answers to these questions will ultimately decide whether Wells Fargo, other banks, or technology providers will become the largest and most profitable participants in B2B Internet commerce.

Exhibit 1. Wells Fargo 1998 Consolidated Statement of Income (*Source: 1998 Annual Report.* Reprinted with permission from Wells Fargo & Co.)

WELLS FARGO & COMPANY AND SUBSIDIARIES
CONSOLIDATED STATEMENT OF INCOME

(in millions, except per share amounts)	Year ended December 31,		
	1998	1997	1996
INTEREST INCOME			
Securities available for sale	**$ 1,844**	$ 2,063	$ 1,950
Mortgages held for sale	**898**	490	529
Loans held for sale	**371**	312	328
Loans	**10,685**	10,539	9,854
Other interest income	**257**	198	180
Total interest income	**14,055**	13,602	12,841
INTEREST EXPENSE			
Deposits	**3,111**	3,150	2,911
Short-term borrowings	**777**	610	562
Long-term debt	**1,097**	1,093	1,140
Guaranteed preferred beneficial interests in Company's subordinated debentures	**80**	101	6
Total interest expense	**5,065**	4,954	4,619
NET INTEREST INCOME	**8,990**	8,648	8,222
Provision for loan losses	**1,545**	1,140	500
Net interest income after provision for loan losses	**7,445**	7,508	7,722
NONINTEREST INCOME			
Service charges on deposit accounts	**1,357**	1,244	1,198
Trust and investment fees and commissions	**1,068**	954	775
Credit card fee revenue	**520**	448	350
Other fees and commissions	**946**	826	689
Mortgage banking	**1,106**	927	844
Insurance	**348**	336	280
Net venture capital gains	**113**	191	256
Net gains on securities available for sale	**169**	99	12
Other	**800**	650	365
Total noninterest income	**6,427**	5,675	4,769
NONINTEREST EXPENSE			
Salaries and benefits	**4,416**	3,811	3,624
Equipment	**900**	739	724
Net occupancy	**764**	719	688
Goodwill	**421**	433	339
Core deposit intangible	**243**	273	265
Net losses on dispositions of premises and equipment	**325**	76	45
Operating losses	**152**	374	189
Other	**3,358**	2,565	2,850
Total noninterest expense	**10,579**	8,990	8,724
INCOME BEFORE INCOME TAX EXPENSE	**3,293**	4,193	3,767
Income tax expense	**1,343**	1,694	1,539
NET INCOME	**$ 1,950**	$ 2,499	$ 2,228
NET INCOME APPLICABLE TO COMMON STOCK	**$ 1,915**	$ 2,456	$ 2,143
EARNINGS PER COMMON SHARE	**$ 1.18**	$ 1.50	$ 1.38
DILUTED EARNINGS PER COMMON SHARE	**$ 1.17**	$ 1.48	$ 1.36
DIVIDENDS DECLARED PER COMMON SHARE	**$ .70**	$ .615	$ .525
Average common shares outstanding	**1,621.5**	1,634.6	1,553.3
Diluted average common shares outstanding	**1,641.8**	1,657.8	1,570.5

Exhibit 2. Wells Fargo 1998 Balance Sheet *(Source: 1998 Annual Report.* Reprinted with permission from Wells Fargo & Co.*)*

WELLS FARGO & COMPANY AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEET

(in millions, except shares)	December 31, 1998	1997
ASSETS		
Cash and due from banks	**$ 12,731**	$ 13,081
Federal funds sold and securities purchased under resale agreements	**1,517**	1,049
Securities available for sale	**31,997**	27,872
Mortgages held for sale	**19,770**	9,706
Loans held for sale	**5,322**	4,494
Loans	**107,994**	106,311
Allowance for loan losses	**3,134**	3,062
Net loans	**104,860**	103,249
Mortgage servicing rights	**3,080**	3,048
Premises and equipment, net	**3,130**	3,311
Core deposit intangible	**1,510**	1,737
Goodwill	**7,664**	8,062
Interest receivable and other assets	**10,894**	10,076
Total assets	**$202,475**	$185,685
LIABILITIES		
Noninterest-bearing deposits	**$ 46,732**	$ 40,206
Interest-bearing deposits	**90,056**	87,450
Total deposits	**136,788**	127,656
Short-term borrowings	**15,897**	13,381
Accrued expenses and other liabilities	**8,537**	6,236
Long-term debt	**19,709**	17,335
Guaranteed preferred beneficial interests in Company's subordinated debentures	**785**	1,299
STOCKHOLDERS' EQUITY		
Preferred stock	**547**	543
Unearned ESOP shares	**(84)**	(80)
Total preferred stock	**463**	463
Common stock–$1⅔ par value, authorized 4,000,000,000 shares; issued 1,661,392,590 shares and 1,630,640,939 shares	**2,769**	2,718
Additional paid-in capital	**8,673**	8,126
Retained earnings	**9,045**	8,292
Cumulative other comprehensive income	**463**	464
Notes receivable from ESOP	**(3)**	(10)
Treasury stock — 17,334,787 shares and 10,493,685 shares	**(651)**	(275)
Total stockholders' equity	**20,759**	19,778
Total liabilities and stockholders' equity	**$202,475**	$185,685

Exhibit 3. Wells Fargo 1998 Operating Segments Report *(Source: 1998 Annual Report.*
Reprinted with permission from Wells Fargo & Co)

Note 17 Operating Segments

(income/expense in millions, average balances in billions)	Community Banking	Wholesale Banking	Mortgage Banking	Norwest Financial	Reconciliation column (7)	Consolidated Company
1998						
Net interest income (1)	**$6,192**	**$1,344**	**$ 254**	**$ 1,303**	**$ (103)**	**$ 8,990**
Provision for loan losses (2)	**653**	**148**	**4**	**752**	**(12)**	**1,545**
Noninterest income (3)	**4,186**	**892**	**1,078**	**303**	**(32)**	**6,427**
Noninterest expense (3)	**7,109**	**787**	**986**	**878**	**819**	**10,579**
Income (loss) before income tax expense (benefit)	**2,616**	**1,301**	**342**	**(24)**	**(942)**	**3,293**
Income tax expense (benefit) (4)	**972**	**521**	**125**	**(5)**	**(270)**	**1,343**
Net income (loss)	**$1,644**	**$ 780**	**$ 217**	**$ (19)**	**$ (672)**	**$ 1,950**
1997						
Net interest income (1)	$6,313	$1,343	$ 69	$ 1,167	$ (244)	$ 8,648
Provision for loan losses (2)	752	156	18	332	(118)	1,140
Noninterest income (3)	3,579	877	961	303	(45)	5,675
Noninterest expense (3)	5,750	731	774	758	977	8,990
Income (loss) before income tax expense (benefit)	3,390	1,333	238	380	(1,148)	4,193
Income tax expense (benefit) (4)	1,309	541	87	138	(381)	1,694
Net income (loss)	$2,081	$ 792	$ 151	$ 242	$ (767)	$ 2,499
1996						
Net interest income (1)	$5,655	$1,307	$ 98	$ 1,067	$ 95	$ 8,222
Provision for loan losses (2)	652	141	1	247	(541)	500
Noninterest income (3)	2,867	713	874	280	35	4,769
Noninterest expense (3)	5,451	650	778	692	1,153	8,724
Income (loss) before income tax expense (benefit)	2,419	1,229	193	408	(482)	3,767
Income tax expense (benefit) (4)	952	499	68	143	(123)	1,539
Net income (loss)	$1,467	$ 730	$ 125	$ 265	$ (359)	$ 2,228
1998						
Average loans	**$ 64**	**$ 32**	**$ 1**	**$ 9**	**$ —**	**$ 106**
Average assets	**97**	**39**	**23**	**11**	**18**	**188**
Average core deposits	**110**	**9**	**5**	**—**	**—**	**124**
Return on equity (5)	**24 %**	**23 %**	**16 %**	**— %**	**— %**	**10 %**
Risk-adjusted efficiency ratio (6)	**69 %**	**35 %**	**74 %**	**55 %**	**— %**	**— %**
1997						
Average loans	$ 65	$ 30	$ 1	$ 8	$ —	$ 104
Average assets	100	37	13	9	23	182
Average core deposits	107	10	3	—	—	120
Return on equity (5)	22 %	25 %	18 %	20 %	— %	13 %
Risk-adjusted efficiency ratio (6)	58 %	33 %	75 %	52 %	— %	— %

(1) Net interest income is the primary source of income for most of the operating segments. Net interest income is the difference between actual interest earned on assets (and interest paid on liabilities) owned by a group and a funding charge (and credit) based on the Company's cost of funds. Operating segments are charged a cost to fund any assets (e.g., loans) and are paid a funding credit for any funds provided (e.g., deposits). The interest spread is the difference between the interest rate earned on an asset or paid on a liability and the Company's cost of funds rate. (Mortgage Banking's net interest income comprises interest revenue of $1,023 million, $549 million and $567 million for 1998, 1997 and 1996, respectively, and interest expense of $769 million, $480 million and $469 million for 1998, 1997 and 1996, respectively.)

(2) The provision allocated to the operating segments is based on actual provisions and adjusted in certain lines of business for management's current assessment of what would have been a normalized net charge-off ratio for these businesses. In any particular year, the actual net charge-offs can be higher or lower than the normalized provision allocated to those operating segments that were adjusted. The difference between the normalized provision and the Company provision for these lines of business are included in the reconciling column.

(3) Community Banking's charges to the product groups are shown as noninterest income (intersegment revenues) to the physical distribution channels and noninterest expense (intersegment expenditures) to the other operating segments. They amounted to $35 million in 1998 and 1997, and none in 1996. These charges are eliminated in the reconciliation column in arriving at the Consolidated Company totals for noninterest income and expense. All other noninterest revenues and expenses are derived from external sources.

(4) Businesses are taxed at the Company's marginal (statutory) tax rate, adjusted for any nondeductible expenses. The differences between the marginal and effective tax rate are in the reconciliation column.

(5) Equity is allocated to the operating segments based on an assessment of the inherent risk associated with each business so that the returns on allocated equity are on a risk-adjusted basis and comparable across operating segments.

(6) The risk-adjusted efficiency ratio is defined as noninterest expense plus the cost of capital divided by revenues (net interest income and noninterest income) less normalized loan losses.

(7) The material items in the reconciliation column related to the revenue (i.e., net interest income plus noninterest income) and net income consist of Treasury activities, eliminations and unallocated items. Revenue includes Treasury activities of $125 million, $87 million and $185 million; eliminations of $(101) million, $(127) million and $(2) million; and unallocated items of $(159) million, $(249) million, and $(53) million for 1998, 1997 and 1996, respectively. Net income includes Treasury activities of $64 million, $46 million and $107 million; eliminations of $(39) million, $(54) million and $(27) million; and unallocated items of $(697) million, $(759) million and $(439) million for 1998, 1997 and 1996, respectively. The material items in the reconciliation column related to noninterest expense include goodwill and nonqualifying CDI amortization of $549 million, $566 million and $484 million for 1998, 1997 and 1996, respectively. The material items in the reconciliation column related to average assets include investment securities in Treasury of $10 billion and $14 billion and goodwill and nonqualifying CDI of $8 billion and $9 billion for 1998 and 1997, respectively.

Exhibit 4. Wells Fargo Business Groups (*Source*: *1998 Annual Report.* Reprinted with permission from Wells Fargo & Co.)

The Community Banking Group offers a complete line of diversified financial products and services for consumers and small businesses including retail and trust services. These services include retail and business banking services, consumer checking, lines of credit and direct installment loans and residential mortgage products. Community Banking offers a full array of consumer loan. Community Banking offers a full array of consumer loan products, including credit cards, transportation (auto, recreational vehicle, marine) financing, home equity lines and loans, lines of credit and installment loans. Community Banking, through affiliates, also offers insurance, securities brokerage, and investment banking services. Community Banking offers consumer and business deposit products, which include checking and savings deposits. Community Banking provides access to customers through a wide range of channels. The Group encompasses a network of traditional banking stores, banking centers, in-store banking centers, business centers and ATMs. Community Banking serves consumers and small business customers through its 24-hour telephone centers, the Telephone Banking Centers and the National Business Banking Center. Online banking services include Wells Fargo Fargo's Online Financial Services, the Company's personal computer banking service, and Business Gateway, a personal computer banking service exclusively for the small business customer.

A full range of credit products and financial services are offered to small businesses and their owners. These include lines of credit, receivables and inventory financing, equipment loans and leases, real estate financing, SBA financing, cash management, deposit and investment accounts, payroll services, retirement plans, medical savings accounts and credit and debit card processing. Community Banking customers are individual consumers and small businesses with annual sales up to $10 million in which the owner is also the principal financial decision maker.

Community Banking distributes credit products in all 50 states and Canada through national direct marketing and 140 commercial loan specialists in small business lending offices in 22 markets in the western United States. Community Banking jointly owns a merchant card processing alliance with First Data Corp. which acquires customers through a 150-person sales force.

The Community Banking Group is also responsible for the sales and management of
savings and investment products, investment management and fiduciary and brokerage services to institutions, retail customers and high net worth individuals. This includes the Stagecoach and Advantage family of mutual funds as well as personal trust, employee benefit trust and agency assets. It also includes product management for market rate accounts, savings deposits, Individual Retirement Accounts (IRAs) and time deposits. Within this Group, Private Client Services operates as a fully integrated financial services organization focusing on banking/credit, trust services, investment management and full-service and discount brokerage.

The Wholesale Banking Group serves businesses with annual sales in excess of $5 million and maintains relationships with major corporations throughout the United States. The Wholesale Banking Group provides complete line of commercial and corporate banking services. These include traditional commercial loans and lines, letters of credit, international trade facilities, foreign exchange services, cash management and electronic products. It includes the majority ownership interest in the Wells Fargo HSBC Trade Bank which provides trade and Eximbank (a public corporation offering export finance support programs for American-made products) financing, letters of credit and collection services. The Group also supports the commercial real estate market with products and services such as equipment leasing, construction loans for commercial and residential development, land acquisition and development loans, secured and unsecured lines of credit, interim financing arrangements for completed structures, rehabilitation loans, affordable housing loans and letters of credit. Secondary market services are provided through the Real Estate Capital Markets Group. Its business includes senior loan financing, mezzanine financing, financing for leveraged transactions, purchasing distressed real estate loans and high yield debt, origination of permanent loans for securitization, loan syndications and commercial real estate loan servicing.

The Mortgage Banking Group is comprised of Norwest Mortgage Banking. The group's activities include the origination and purchase of residential mortgage loans for sale to various investors as well as providing servicing of mortgage loans for others.

Norwest Financial includes consumer finance and auto finance operations. Consumer finance operations make direct loans to consumers and purchase sales finance contracts from retail merchants from offices throughout the United States, Canada, the Caribbean and Latin America. Automobile finance operations specialize purchasing sales finance contracts directly from automobile dealers and making loans secured by automobiles the United States and Puerto Rico. Credit cards are issued to its consumer finance customers through two credit card banks. Norwest Financial also provides accounts receivable, lease, and other commercial financing and provides information services to the consumer finance industry.