

CHAPTER 8

UNITED STATES BANKING ENVIRONMENT

Objectives

After reading this chapter you will be able to:

- Understand the U.S. banking system
- Appreciate the role of the Federal Reserve
- Review the important legislation and the impact of deregulation
- Evaluate the account analysis statement
- Consider some practical ideas for improving a company's use of cash management services
- Understand UCC rules pertaining to banking services

Introduction

Bill Fold, the treasurer of GETDOE, has been asked to explain the U.S. banking environment to his colleagues from Europe. Now that the overseas divisions are being integrated into the U.S. company and the treasury is being centralized, it is important that the new businesses understand the context of the home office. Ann I Shade, Bill's cash manager, has been recruited to assist in preparing a document to explain how the banking system is structured, the major legislation and regulations affecting cash management, and the impact of deregulation on the industry.

The complex nature of the U.S. banking structure and the vast geographical territory covered gives rise to the need for sophisticated cash management techniques. The large number of depository institutions and intricate interbank payment networks required to handle the volume and rapid turnover has shaped the payment system. To ensure that these function efficiently and reliably, the Federal Reserve plays an important role in regulating and operating payment systems, in addition to providing payment services to financial institutions. The legislation that has been enacted over the years has also greatly influenced how the industry has evolved and the types of services the banks have developed to assist corporate treasuries in managing their cash flows.

The Role And Services Of Financial Institutions

Although the number is constantly changing, there are in excess of 18,000 financial institutions in the U.S. These are comprised of commercial banks

and thrift institutions, including credit unions, savings and loan associations, federal savings banks, mutual savings banks and cooperative banks.

Depository institutions play a central role in the payment system with the vast majority of payments originating from demand deposit, or checking accounts. Since the early 1980s, all depository institutions have access to the Federal Reserve payment systems. Commercial banks offer a wide range of services (see Exhibit 8.1), while thrift institutions play a more limited role accepting consumer deposits and lending money, primarily for home mortgage loans.

EXHIBIT 8.1
Commercial Bank Services

Checking Accounts	There are two types of checking account; <ul style="list-style-type: none"> • The demand deposit account (DDA), which traditionally does not pay interest; • The hybrid account that combines the features of a demand and savings account, such as the negotiable order of withdrawal (NOW) and money market deposit accounts.
Credit Services	Short and long term credit facilities as well as a range of special purpose loans, such as mortgages.
Payment and Collection Services	Clearing checks and effecting electronic transfers.
Investment Services	A wide range of investments from the overnight Sweep accounts to mutual funds and long term time deposits and certificates of deposit.
Risk Management Services	Swaps, options, forwards, futures and other derivatives to reduce or eliminate a customer's exposure to foreign exchange, interest rate or commodity price risk.
Investment Banking Services	Services associated with issuing Commercial Paper, the sale of loans, and private placements, and consulting services on mergers and acquisitions and corporate structure.
Trade Services	Services to assist in the financing and collection of trade obligations, such as letters of credit, documentary collections and bankers' acceptances (BAs).
Agent and Fiduciary Services	Managing assets whose title remains with the owner. Examples of these services are; registrar, transfer agent, paying agent, custody services, corporate pension plans, qualified employee benefit plans and corporate trustee.

Regulation of the Banking Industry

Traditionally, depository institutions performed an intermediation function, acting as a link between those with funds to invest and those with a need to borrow. Much of the legislation in the 1900s was enacted to protect that role and prevent conflicts of interest. It was only towards the end of the century that deregulation began to free up the industry and as a result, change the structure and nature of banks and banking in the U.S.

Functions of The Federal Reserve System

The Banking Panic of 1907 proved to be the most severe of four in the previous 34 years. The banking system was prone to bank failures and the currency was not responsive to changes in demand. Major bank reform was needed but it took until 1913 before the Federal Reserve Act established a central bank for the United States. Acting as an independent agency of the U.S. government, the Federal Reserve (Fed) undertook five principal roles:

- Conducting the nation's monetary policy, by expanding and contracting the money supply through open market activities involving the buying and selling of U.S. government securities.
- Supervising and regulating banking institutions and protecting the credit rights of consumers. The Fed has jurisdiction over all bank holding companies, all state member banks their non-bank subsidiaries, their foreign subsidiaries, and *Edge Act* banks (corporations through which banks conduct non-domestic business).
- Maintaining the stability of the financial system by assuring the smooth functioning and continued development of the nation's payment system. The Fed plays a key role in the following:
 - Fedwire. The Fed operates the domestic real-time gross settlement electronic transfer system.
 - Automated Clearing House (ACH) system. The Fed is the principal operator of the ACH net settlement system, which processes and clears low value batch payments.
 - Check clearing. The Fed clears checks through its network back to the drawee bank.
- Providing certain financial services to the U.S. government. The Fed acts as fiscal agent for the U.S. treasury by maintaining checking accounts at the Reserve banks, paying bills, collecting taxes and making transfers such as paying social security benefits.

The Reserve banks also handle the operations involved in selling, servicing and redeeming marketable treasury securities.

- Developing and administering regulations that implement major federal laws.

When the Fed was originally established in 1913, lending reserve funds through the discount window was intended to be the primary vehicle for central bank operations. Today, open market operations have superseded the discount window as the principal instrument for implementing monetary policy. The discount window still plays an important secondary role by extending credit to relieve liquidity strains in the banking system, acting as a safety valve by alleviating pressure in reserve markets.

Organization of the Fed

The Fed is organized into three main divisions:

- *Board of Governors.* The Board's primary function is the formulation of monetary policy. In addition, the Board has broad supervisory and regulatory responsibilities over the activities of banks that are members of the payment system. Seven members serve a 14-year term. Appointment to the Board is by the President of the United States.
- *Federal Open Market Committee (FOMC).* The FOMC implements the Federal Reserve's national monetary policy by making key decisions regarding the conduct of open market operations. Through buying and selling of U.S. government and other securities the FOMC can inject or absorb liquidity into the market. In addition to the seven Board members, the FOMC consists of five Reserve Bank presidents, one of whom is the president of the Federal Reserve Bank of New York. The other four members serve on a rotating basis.
- *Federal Reserve District Banks.* The Fed conducts business through a nationwide network of twelve Federal Reserve Banks (see Exhibit 8.2 for a map of the Federal Reserve Bank Districts).

[Insert Exhibit 8.2 here]

The services provided to depository institutions are similar to those provided by banks to business customers. The district banks hold the cash reserves and make loans. They move currency and coin into and out of circulation and collect and process 18 billion checks a year. The district

banks also act as fiscal agent for the U.S. government by providing accounts for the U.S. treasury and issuing and redeeming government securities. In addition to the 12 Reserve banks, there are 25 branches of these banks and Regional Check Processing Centers (RCPCs) around the country to facilitate check clearing.

Other Regulatory Agencies

There are a number of other agencies that share the responsibility for supervising banks with the Fed. These are:

- *Office of the Comptroller of the Currency (OCC)*. The OCC grants charters to national banks and is directly responsible for their regulation and supervision.
- *Federal Deposit Insurance Corporation (FDIC)*. The FDIC directly supervises FDIC-insured state chartered banks and commercial banks that are not members of the Fed. The FDIC provides insurance on deposits of up to \$100,000 per personal or corporate account per insured institution. The FDIC is also usually appointed as the receiver in the case of a bank failure, and tasked with liquidating the bank's assets, paying insured depositors or finding an acquirer.
- *Securities and Exchange Commission (SEC)*. The securities market is regulated and supervised by the SEC which establishes the procedures and disclosure requirements for companies who sell their securities to the public. The SEC is the registering agent for public offerings of debt and securities and is also responsible for regulating investment advisors and mutual funds.
- *Department of Justice (DOJ)*. The Department of Justice plays a role in reviewing the impact of proposed bank mergers and acquisitions under the various antitrust laws, including the Sherman and Clayton Acts. Although originally instituted to protect family farmers from monopolies and oligopolies, the antitrust laws have broadened in scope to include all areas of business, including banks.

Dual Banking System

The U.S. has a dual banking system that allows commercial banks to elect to be federally or state chartered. The major difference used to be one of supervision and regulation. All banks, federal or state chartered, that are members of the Fed must also be insured by the FDIC and, therefore, will be regulated by a combination of the Board of Governors of the Fed, the OCC and the FDIC. Federally chartered banks must belong to the Federal Reserve System. State-chartered banks that are not members of the

Federal Reserve System, on the other hand, are supervised by the state banking boards and commissions, in coordination with the Fed.

In The Real World

Today, the difference between banks that are nationally or state chartered is minimal, as over 95% of all commercial banks are members of and, therefore, subject to supervision by the FDIC. Furthermore, all depository institutions are subject to oversight and reserve requirements imposed by the Fed.

Significant Legislation

Historically, legislation was introduced to resolve crises in the banking environment. With the passage of time, however, some acts have become less relevant in the current world. The following is a review of the major legislation that currently affects the banking industry and the impact of deregulation on cash management. Exhibit 8.3 summarizes the legislation that was important in shaping the U.S. banking environment.

Regulation of the Industry

Several laws have been introduced to regulate in the industry, usually in response to contemporary failures of the banking system. Some of the most important that are responsible for determining today's banking environment are:

- *Federal Reserve Act of 1913*

The *1864 National Bank Act* was the first act to attempt to regulate the industry by establishing a national banking system and the chartering of national banks. Unfortunately, widespread bank failures and panics continued until Congress adopted the Federal Reserve Act in 1913. The Act established the Federal Reserve System as the central bank of the United States. The purpose of the Fed was to provide a stable currency and to improve supervision of banking.

- *The Securities Laws of 1933, 1934 and 1940*

In the wake of the Great Depression and recognizing the need to bring supervision and regulation to the securities industry, these laws established the Securities and Exchange Commission, with powers to oversee and govern the issuance of securities.

Leveling the Playing Field

For many years, foreign banks operating in the U.S. were not subject to the same controls and regulations as domestic banks. Several laws have

been introduced to both subject foreign banks to U.S. regulatory supervision and to provide U.S. banks with a more equal competitive footing. The most important act to cash managers is the Edge Act.

- *Edge Act of 1919*

After the First World War, Americans came home with a different view of the world and an interest in developing business internationally. The Edge Act permitted banks to conduct international business across state lines as a means of enabling them to better compete with foreign banks that were not restricted by state boundaries. One of the newest Edge Act banks is CLS Bank Inc. established to process the foreign exchange transactions for the new Continuous Link Settlement (CLS) process. CLS was developed to remove the risk inherent in delayed settlement in the foreign exchange markets (see Chapter 7)

Deregulation

Deregulation of the banking industry has been ongoing for the last twenty years, although the legacy of prior legislation continues to influence the current day environment. The following are some of the most significant acts that have attempted to dismantle legislation that has become outdated.

- *Depository Institutions Deregulation and Monetary Control Act of 1980 (DIDMCA)*

The era of deregulation during the Reagan Administration led to many sweeping and significant changes as implemented by the DIDMCA, principally:

- To allow banks to compete more effectively with thrift institutions for funds, negotiable orders of withdrawal (*NOW*) accounts were created. *NOW* accounts are checking accounts that pay interest on balances and are available to individuals, governments and not-for-profit organizations.
- Interest rate ceilings on deposits imposed by Regulation Q were partially phased out for all groups except corporate accounts.
- The Depository Institutions Deregulation Committee was established to prescribe rules governing the payment of interest and dividends and the establishment of classes of deposits or accounts.
- All deposit institutions were required to maintain reserves at the Fed and the deposit insurance ceiling was raised to \$100,000.
- In return for maintaining reserves, all depository institutions were allowed access to Fed services such as the discount window and check clearing.
- Previously free services were priced at market rates.

- The Fed was mandated to take steps to either reduce or price payment system float. This had a significant impact on the disbursement services offered by banks.
- *Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 (IBBEA)*

The *McFadden Act* was introduced in 1927 in an attempt to protect local state banking business by prohibiting branching and accepting deposits across state lines. This effectively established the state boundary as the primary limit for bank expansion and allowed the states to decide the extent of branching within and outside state borders. The Act was amended by the *Douglas Amendment* (also known as the Bank Holding Company Act) in 1956, which allowed banks to merge across state lines if jointly approved by the individual states. In 1994 the IBBEA took deregulation the final step and permitted banks, effective June 1997, to merge across state lines provided they were adequately capitalized and managed. Individual states were allowed to opt out of adopting the legislation.

Impact of IBBEA

The IBBEA is expected to restructure the nation's banking industry. The large multi-state bank holding companies that are currently being formed are increasingly concentrating the volume of payments being processed through fewer channels. This provides the banks with opportunities for economies of scale and technological efficiencies in their back-offices.

Nationwide branching provides significant cash management benefits to companies in terms of efficiencies in collection, concentration and disbursements. Using a bank with country-wide branches means that cash flows will no longer need to be managed through complex collection and concentration structures; and the mail float associated with disbursements will disappear because all deposits and disbursements will be treated as local items. Efficient interstate banking may be one of the major motivators in moving the payments industry towards greater use of electronic payments.

It seems unlikely, however, that the U.S. will have a true nationwide retail banking system in the near term. This is partially due to the extreme fragmentation of the banking industry. Those few banks with coast-to-coast presence (albeit limited in terms of branching) have also had to deal with massive conversions of legacy systems to uniform platforms.

The mergers of the last decade have either been to consolidate existing regional strength, such as Wells Fargo/ First Interstate/Norwest and Fleet

/Bank of Boston, or to complement core competencies, such as Deutsche Bank/Bankers Trust and Chase/J. P. Morgan. While expansion of territory has been achieved in some of the more recent mergers, and several banks now have a significant retail presence in multiple states, such as Wells Fargo, Bank One, Wachovia and Bank of America, no one bank can claim to be truly nationwide.

Tips and Techniques

The advent of interstate banking will present treasury managers with many cash management benefits. The total number of banks can be reduced and integrated, uniform banking platforms will provide more efficient collections, concentration and disbursement of funds. It is possible to envisage that pooling opportunities (see Chapter 7) will be available in the future. Today, companies with an extensive regional business may already benefit by consolidating their business with one of the super-regional banks that has extensive retail and commercial presence in a number of contiguous states.

- *Gramm-Leach Bliley Act (GLB) of 1999*

The *Glass-Steagall Act* of 1933 (also known as the Banking Act of 1933) was another measure introduced to protect the economy from future market crashes by separating commercial banking from investment banking and eliminating conflicts of interest. The act shaped the development of the banking industry and structure of financial institutions for the next 60 years until repealed in 1999 by GLB. The law creates a new financial holding company, and while there are certain restrictions on the non-financial activities in which the new company can engage, they are authorized to:

- Engage in underwriting and selling insurance and securities
- Conduct both commercial and merchant banking
- Invest in and develop real estate and other “complementary activities”

GLB also allows national banks to underwrite municipal bonds and introduces significant consumer protection provisions, preventing the unauthorized disclosure on non-public information to unaffiliated third parties

Customer Rights

As part of its role in supervising and regulating the industry, the Fed has always been concerned with defining and protecting consumers' rights. Below are some of the most significant acts that have impacted business banking.

- *Electronic Funds Transfer Act of 1978 (EFTA)*

Rapid developments in technology and the increased use of electronic services such as ACH and automated teller machines (ATMs) led to Congressional mandates regarding usage. This act defines the rights and responsibilities of individuals with respect to electronic funds transfers (including debit cards) with the exception of wire transfers. It covers direct deposits such as payroll, social security benefits and preauthorized payments, e.g. automatic payment of utility bills. Individuals have the right to stop a preauthorized payment as long as the financial institution is given three days notice. The liability on cards is limited as long as the card is reported lost or stolen.

An amendment in 1996, the electronic funds transfer (EFT) provision of the *Debt Collection Improvement Act*, required that most Federal payments, with the exception of tax refunds, be made by EFT in lieu of paper checks. This resulted in banks developing electronic services for payment of corporate taxes; and NACHA launched the TXP message type specifically for ACH tax payments.

The provisions of this act are incorporated in Federal Reserve Regulation E which was revised in 2001 to require the disclosure of certain fees associated with automated teller machine (ATM) transactions. It was further revised in 2002 to cover electronic check conversion and authorization of recurring debits.

- *Expedited Funds Availability Act 1988 (EFAA)*

In an attempt to curb some of the abuses that were occurring in the banking industry, Congress passed EFAA to reduce the time a financial institution can hold a check before making the funds available to a depositor. The EFAA established new standards for expedited funds availability, as well as return procedures for payable through drafts and checks. The provisions of this act are incorporated into Regulation CC.

- *Electronic Signatures in Global and National Commerce Act 2000*

Recognizing the growing use of the Internet, e-commerce and cross border transactions this Act gave digital signatures the same authority as ink signatures. The Act also provided for the enforceability of electronic transactions.

EXHIBIT 8.3
Chronology of Major Banking Legislation

The Federal Reserve Act of 1913	Established the Federal Reserve System, creating a central bank for the United States.
Edge Act of 1919	Permitted banks to conduct international business across state lines.
McFadden Act 1927	Prohibited branching and accepting deposits across state lines.
Glass-Steagall Act of 1933 (Banking Act of 1933)	Separated commercial banking from investment banking and established them as separate lines of business. It created the FDIC as a temporary agency to guarantee deposits. The act put in place interest-rate ceilings and prohibited the payment of interest on demand accounts.
The Securities Laws of 1933, 1934 and 1940	Established the Securities and Exchange Commission (SEC) to supervise and regulate the securities industry.
The Banking Act of 1935	Established the FDIC as a permanent agency of the government.
Douglas Amendment of 1956	Allowed banks to merge across state lines if jointly approved by individual states.
International Banking Act of 1978	Brought foreign banks within the federal regulatory framework. It required deposit insurance for branches of foreign banks engaged in retail deposit taking in the United States.
Electronic Funds Transfer Act of 1978 (EFTA)	Established the roles and responsibilities of the parties involved in electronic funds transfers (except wire transfers). Also limited consumer liability for fraudulent transactions at ATMs and POS terminals.
Financial Institutions Regulatory and Interest Rate Control Act of 1978 (FIRIRCA)	Created the Federal Financial Institutions Examination Council, to promote uniform supervisory and examination policies for federally insured depository institutions, including a uniform system for rating banks. It also established limits and reporting requirements for bank insider transactions.
Depository Institutions Deregulation and Monetary Control Act of 1980 (DIDMCA)	Established NOW accounts; abolished interest rate ceilings for all but corporate demand accounts; raised FDIC insurance to \$100,000; required all depository institutions to maintain reserves; allowed all depository institutions access to Fed services; priced Fed services at market rates; mandated a reduction in payment system float.
Garn-St. Germain Act of 1982 (Depository Institutions Act)	Expanded the powers of the FDIC to assist troubled banks. It established the Net Worth Certificate Program and extended the powers of thrift institutions. In response to the flood of bank failures in the early 1980s, it also began to chip away at the McFadden act by allowing the

	FDIC to arrange cross-state bank mergers if suitable in-state partners could not be found.
Competitive Equality Banking Act of 1987 (CEBA)	Formally legitimized the rights of existing nonbank banks such as Sears, Roebuck & Co and American Express, which were now able to operate limited-service banks in direct competition with commercial banks.
Expedited Funds Availability Act of 1988	Defined procedures and timing for returning checks and the maximum periods before deposited checks become available for withdrawal.
Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA)	Restored the public's confidence in the savings and loan industry. It gave the FDIC the responsibility for insuring the deposits of thrift institutions. FIRREA expanded prohibitions against insider activities and created new Truth in Savings provisions and gave the FDIC increased flexibility in raising the insurance premiums it charged to banks and thrifts.
Federal Deposit Insurance Corporation Improvement Act (FDICIA) of 1991	Amended FIRREA by mandating a least-cost resolution method and a prompt action approach to the problem of failing banks and ordered the creation of a risk-based insurance assessment. It established higher standards for financial institution safety and required the FDIC to declare insolvent any bank or thrift that failed to maintain equity capital to 2 percent of its assets.
Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 (IBBEA)	Effective 1997, permitted banks to acquire banks and merge across state lines in states that passed legislation permitting branching, and provided they were adequately capitalized.
Gramm-Leach Bliley Act of 1999 (GLB)	Established the creation of new financial holding companies that are allowed to engage in underwriting, selling insurance and securities, commercial and merchant banking, developing real estate, and other "complementary activities".
Electronic Signatures in Global and National Commerce Act of 2000	Established the legality of electronic, or digital signatures in e-commerce transactions.

Federal Reserve Regulations Affecting Cash Managers

The payments system in the U.S. is governed by a patchwork of federal and state laws, Federal Reserve Regulations and case law. The Federal Reserve Regulations are how the Board of Governors implements the

laws pertaining to banking and financial activities. Exhibit 8.4 summarizes the regulations that most impact cash managers.

EXHIBIT 8.4
Summary of Federal Reserve Regulations

REGULATION	TITLE
A	<p>Extensions of Credit By Federal Reserve Banks</p> <p>Governs borrowing by depository institutions at the Federal Reserve window. Subsequent amendments address changes in the basic discount rate.</p>
B	<p>Equal Credit Opportunity</p> <p>Prohibits lenders from discriminating against credit applicants. It establishes guidelines for gathering and evaluating credit information and requires written notification when credit is denied.</p>
D	<p>Reserve Requirements of Depository Institutions</p> <p>Sets uniform requirements for all depository institutions to maintain reserve balances either with their Federal Reserve Bank or as cash in their vaults. By setting different levels of reserves for different types of deposit, the Fed can use this mechanism to control the supply of money.</p>
E	<p>Electronic Funds Transfers</p> <p>Establishes the rights, liabilities, and responsibilities of parties in electronic funds transfers (EFT) and protects consumers when they use such systems. In 2001, an amendment became effective that requires banks to disclose fees for using automated teller machines. In 2002 revisions addressing electronic check-conversion transactions and electronic authorization of recurring debits become mandatory.</p>
J	<p>Collection Of Checks And Other Items By Federal Reserve Banks And Funds Transfers Through Fedwire</p> <p>Establishes procedures, duties, and responsibilities among a) Federal Reserve Banks, b) the senders and payors of checks and certain other items and 3) the senders and recipients of wire transfers.</p>
K	<p>International Banking Operations</p> <p>Governs the international banking operations of U.S. banking organizations and the operations of foreign banks in the United States.</p>
M	<p>Consumer Leasing</p>

	<p>Implements the consumer leasing provisions of the Truth in Lending Act by requiring meaningful disclosure of leasing terms.</p>
P	<p>Privacy of Consumer Financial Information</p> <p>Implements the provisions of the Gramm-Leach-Bliley Act that prohibits a financial institution from disclosing non-public personal information to third parties that are not affiliated with the financial institution.</p>
Q	<p>Prohibition against Payment of Interest on Demand Deposits</p> <p>Prohibits member banks from paying interest on demand deposits. The DIDMCA lifted this restriction from all parties except corporations in 1980. It is expected that the remaining provisions will be phased out in the near future.</p>
Y	<p>Bank Holding Companies and Change In Bank Control</p> <p>Governs the bank and non-bank expansion of bank holding companies, the divestiture of impermissible non-bank interests, the acquisition of a bank by individuals, and the establishment and activities of financial holding companies.</p>
Z	<p>Truth in Lending</p> <p>Prescribes uniform methods for computing the cost of credit for disclosing credit terms, and for resolving errors on certain types of credit accounts. The amendments in 2001 add provisions to implement the Home Ownership and Equity Protection Act of 1994</p>
AA	<p>Unfair or Deceptive Acts or Practices</p> <p>Establishes consumer complaint procedures and defines unfair or deceptive practices in extending credit to consumers.</p>
CC	<p>Availability of Funds and Collection of Checks</p> <p>Establishes availability schedules, as provided in the EFAA, under which depository institutions must make funds deposited into transaction accounts available for withdrawal. The regulation also provides that depository institutions must disclose their funds availability policies to their customers. In addition, Regulation CC establishes rules designed to speed the collection and return of checks and imposes a responsibility on banks to return unpaid checks expeditiously. The provisions of Regulation CC govern all checks, not just those collected through the Federal Reserve System.</p>
DD	<p>Truth in Savings</p> <p>Requires depository institutions to provide disclosures to enable consumers to make meaningful comparisons on deposit accounts.</p>

Source: The Federal Reserve Board : Regulations May 15, 2002

The Account Analysis

Regulation Q (noted above) prohibits the payment of interest on corporate DDAs. In understanding the impact of this regulation on bank billing practices, it is necessary to review the standard invoice used by commercial banks – the account analysis. The term is derived from the evaluation of the account for the purpose of determining the account's surplus or deficit position when consideration is given to two categories of activities:

- The account's balances
- Cash management service charges

Although interest cannot be paid on the corporate DDA, banks will allow an "earnings credit" to be offset against service charges based on the level of balances in the account.

Account Balances

Any idle balances in bank DDAs are assigned an earnings credit allowance or rate (ECR) in lieu of the direct payment of interest (due to Reg Q), based on the 3-month U.S. Treasury bill rate. The ECR calculation that follows in exhibit 8-5 assumes an ECR of 2.5%, which was typical during the late 1990s. Although each bank uses its own account analysis format, the top portion of the account analysis is often organized as follows:

EXHIBIT 8.5
 Illustrative Balance Presentation in Bank
 Account Analysis Statement

<u>Description</u>	<u>Definition</u>	<u>Illustrative Amount</u>
Average <i>ledger</i> balance	Average daily balance based on the ledger sum of debits and credits; does not reflect funds that can be used immediately by the account holder.	\$230,110
Less: Average <i>float</i>	Average funds in the process of collection through assigned availability	- \$208,173
Equals: Average <i>collected</i> balance	Average funds that are usable for transactions or investments, the bank having received funds settlement.	\$21,937
Less: Reserve requirement (currently 10%)	The amount set by the Federal Reserve to support the banking system's liquidity. This amount cannot be lent to borrowers and does not earn an ECR credit.	- \$2,194
Equals: Average earning balance	The amount on which the corporate customer earns an ECR credit.	\$19,743
ECR (earnings credit rate)	An interest allowance against positive balances in a corporate DDA, often pegged to the 91-day U.S. Treasury bill rate.	2.5%
ECR allowance	The calculated dollar earnings credit amount	* \$40

*Using an ECR allowance of 2.5%, calculated as $(\$19,743) \times (.025) \div (12)$

Cash Management Service Charges

The cash management portion of the account analysis will vary by bank. Depending on the variety of services used, this section can be several pages long. An illustrative configuration is shown below.

EXHIBIT 8.6
 Illustrative Cash Management Service Presentation in
 Bank Account Analysis Statement

<u>Service</u>	<u>Refer- ence</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Price Extension</u>
Account maintenance	1	2	\$20.00	\$40
Deposits – unencoded	2A	140	\$0.18	\$25
Deposits – encoded	2B	600	\$0.12	\$72
Returned items	3	50	\$3.00	\$150
Checks paid	4	400	\$0.18	\$72
ACH debits/credits	5	100	\$0.15	\$15
Fed wires	6	4	\$12.00	\$48
Total charges	7			\$422
Net due for services	8			\$382

References:

1. *Account maintenance* is the fixed charge assessed to cover the bank's overhead costs associated with a DDA.
2. *Deposits* are checks presented for deposit. *Unencoded* checks do not have the dollar amount encoded in the MICR line; *encoded* checks have been imprinted by the corporate depositor with the dollar amount using an encoding machine. Encoded checks usually have a lower unit price.
3. *Returned items* are checks not honored by the drawee bank, either due to insufficient funds or a stopped payment by the maker.
4. *Checks paid* are disbursements written against the account.
5. *ACH debits/credits* are automated clearinghouse debits and credits to the account.
6. *Fed wires* are same-day electronic transfers of funds through the Federal Reserve System.
7. *Total charges* are the sum of the price extensions for all cash management services.
8. *Net due for services* is the difference between total charges and the ECR allowance based on the balances in the account.

The last line, *net due for services*, is significant because a company must pay the bank this amount as a fee for cash management products used. Companies are effectively charged in two forms for bank services: the balances left on deposit and the fee for services. In this example, the company pays by leaving about \$22,000 on average in collected balances and a fee this month of \$382.

In the Real World

The economic cost of banking is far greater than the explicit charge of \$422 (reference 7, above), because the balances left on deposit should be valued at the company's cost of capital. Assuming 12% as the cost of capital, the balances are valued at \$220 ($12\% \div 12 \text{ months} \times \$22,000$). With the fees costing \$382, the total implicit monthly banking cost is about \$600, about 30% higher! The real cost of leaving balances at the bank is so significant that the cash management function should devote a major effort to reducing them to nearly zero.

Tips and Techniques

Unless large balances are left in the account, the typical ECR allowance provides minimal relief for a company using several bank services. Furthermore, each service has a bank-specific definition. Request a glossary of terms used from your bank and request assistance in understanding and evaluating each charge.

Banks occasionally make mistakes in constructing the account analysis:

- Charges may be incurred for services that have been discontinued.
- Banks may fail to apply the correct price per transaction.
- Volumes may be in error. Some volumes can be traced relatively easily:
 - The number of deposits and checks deposits can be tracked from deposit tickets.
 - Wire transfer activity can be verified from wire logs.
 - The approximate volume of disbursements can be calculated from the check register, by comparing the first and last check numbers issued in a month. This assumes that the number of outstanding checks will be similar over time.

If uncertain of the appropriateness of any bank charge ASK!

Using the Account Analysis to Review Cash Management

The account analysis is more than an invoice and a monitor of balance activity. It is also a report to treasury on banking products used, which should be carefully reviewed to determine if the optimal mix of services have been selected. The following ten suggestions can help improve usage of cash management services and eliminate unnecessary expenses.

Collections

Here are three collection ideas.

- If funds are collected in field offices ... review where those funds are deposited. Using a local bank branch may be convenient, but the deposit may be too late in the day for same-day ledger credit. Most banks have early branch cut-off times, because their courier makes one stop each day at the branch; see the discussion in Chapter 3. One solution to the problem is to deposit where there are later closing times, such as at the main bank or the operations center. Remember, one day missed on an average \$15,000 deposit for each field office account is worth \$1,500 a year (at a 10% cost of capital).
- If bank lockboxes are used ... carefully examine how the bank processes mail, the check deposit, and the transmission of daily activity. Lockbox costs add up quickly, and some of the current unbundled charges may not be required to efficiently manage the work. Here are some examples:
 - Review the standard operating instructions to reduce the occurrence of exception processing which can cost higher fees; e.g., allow checks within \$5 of the invoice amount to be deposited, and resolve the difference later with the customer; accept any name on the payee ("pay to the order of ...") line.
 - Ask the bank to review the deposit schedule to optimize availability. Don't require multiple deposits if one captures most of the daily activity.
 - Decide if extra check copies are really needed, or the stapling of check copies to remittance documents, or courier delivery of remittance documents, or any other service that may not significantly impact accounting activities.
- If collection flows haven't been reengineered recently ... consider having the entire lockbox workflow imaged by the bank or a vendor. This will force a reexamination of how the current process works, and will ultimately provide same-day electronic file delivery of lockbox receipts. It may be determined that the invoice design needs to be streamlined, or that the mailing address can be confused with the company address, or that there are too many requests for payment (e.g., invoice, monthly statement, reminder notice), or that there are other collection inefficiencies.

Concentration

Here are three concentration ideas.

- If more than 20 bank accounts are maintained ... examine why these accounts are open. Companies often have idle accounts that are infrequently used. Balances may be moved into an account earning a higher return, and the idle accounts can then be closed, saving the monthly maintenance charge and other fees. Each idle bank account closed, assuming the balances are \$5,000, is worth about \$1,000 a year (\$600 for the value of the earnings + \$400 a year for the maintenance and other charges).
- If a sweep investment product is used (see Chapter 5) ... it may be more cost-effective to leave balances to earn the ECR rate, given the historic upward slope of the yield curve. ECR's are tied to the 91-day Treasury bill rate, and in mid-2002 were earning about 1½%. A sweep costs about \$150 a month but only yields about 3%. Assuming a daily balance of \$5,000, the incremental 1½% earned is worth only \$75 a year (\$5,000 times 1.5%). The sweep would actually cost \$1,725 (\$150 times 12 months less \$75).
- If a credit line is constantly being used for working capital ... move money back to the lender whenever there is an excess of cash, to minimize interest costs.
 - When the same bank is used for credit and cash management services, excess funds can repay borrowing through an intrabank transfer based on standing instructions. These transfers cost about 50 cents, and can move on a same-day basis.
 - When different banks are used for credit and cash management services, develop a cash forecast of inflows and outflows, and keep a reasonable balance in the bank to cover emergencies. Move funds back to lenders through a PC terminal-based ACH transfer for next-day credit.

Disbursement

Here are four disbursement ideas.

- If information is known the previous day on the next day's wires ... consider terminal-based ACH the previous day. The company may be using Fedwires for loan repayments, to make deposits into

employee savings programs (such as 401ks), for tax payments, or for major vendor disbursements (such as a progress payment on a construction project). These are all suitable applications for ACH payments. Most banks will allow ACHs to be released until late in the afternoon, allowing funds to be transferred for next-day settlement. As ACHs cost about 1% of Fedwires, there can be a significant savings.

- If the bank's full reconciliation service has not been selected ... reexamine this decision, particularly if the positive pay product is used. A daily issued file is already being sent to the bank for matching against clearing items, so the bank has the necessary data to provide full recon. The additional charge averages about 4 cents an item, while partial recon (a listing of cleared item that must be manually reconciled), which the company is likely receiving, costs about 2 cents per item. The incremental 2-cent cost is far below likely internal accounting costs.
- If purchasing cards are not being used ... probably far too much is being spent on each buying decision. Studies indicate that each buying cycle, including the purchase order, the receiving report and the payment, costs between \$50 and \$100. Purchasing cards cost about \$1-\$2 per transaction, and have various safeguards embedded in the card to prevent misuse or fraud. Your credit card company or your bank can explain how the product works.
- If checks and other vendor disbursements are being issued ... consider comprehensive payables (discussed in Chapter 4). A payment cycle averages \$4 - \$5 per transaction, while banks are bidding the product at about 60 to 80 cents (including postage). A company issuing 2,000 non-payroll disbursements a month would save nearly \$100,000 annually!

Tips and Techniques

A good approach to reviewing cash management fees is to carefully examine each account analysis item. Each charge should be examined to determine whether it is required in the conduct of your business. Have the bank explain each service used, and ask whether there might not be a better approach. In bidding banking business (as discussed in Chapter 9), carefully explain, itemize and diagram the current system, and ask the bidders to suggest the optimal system. A fresh look can be worth hundreds of thousands of dollars each year!

The Uniform Commercial Code (UCC)

One of the other formative influences on the U.S. business-banking environment is the Uniform Commercial Code (UCC). The UCC is a set of regulations covering commercial transactions adopted by the individual states, sometimes in a slightly different form. Drafted in 1953, it was originally designed to cover paper-based payments, but, in recent years, has been expanded to address large-dollar electronic funds transfers as well. The UCC defines the rights and duties of the parties in commercial transactions and provides a statutory definition of commonly used business practices. The articles that are most relevant to the cash manager are:

- Article 3 - Negotiable instruments. This section covers drafts, checks, certificates of deposit and notes. The article defines what constitutes payment in full and the liabilities of the parties in the event of unauthorized signatures.
- Article 4 – Bank deposits and collections. This article defines the roles and responsibilities of the parties involved in the deposit and collection process. It determines the obligations of both the bank and the company in conducting business, including the company's obligation to inform the bank of any unauthorized signatures and to examine bank statements within 30 days of the statement being sent.
- Article 4A – Funds transfer. This statute addresses the risks, rights and obligations of the parties involved in electronic funds transfers, which includes Fedwire, CHIPS and ACH. The major provisions concern the security procedures that are made available to customers when making electronic transfers. It specifically deals with the issue of bank and customer liability and protects banks from consequential damages for losses incurred as a result of a bank error.
- Article 5 – Letters of credit. This section defines the roles, responsibilities and obligations of parties engaged in commercial letters of credit that require documentary drafts or documentary demands for payment. It does not cover standby letters of credit.

Summary

The history of U.S. banking legislation helps to explain how the banking environment evolved and the priority placed on cash management. The collection and mobilization of funds through multiple layers of banks, the

management of idle balances and reliance on payment by check are legacies of the state banking laws and the Glass-Steagall Act. Deregulation of the industry is still too recent to have fundamentally changed the complexity of the collection and disbursement process in the U.S.

Bill Fold was able to help his colleagues understand the U.S. banking environment. Bill and Ann reviewed the nature of the different types of financial institutions, the structure and the role of the central bank, and the major legislation and regulations that have shaped the banking industry. His associates could now appreciate why the complexity of the multi-layered payment system, combined with the geographical expanse covered, required sophisticated tools and vehicles to manage cash flows efficiently.