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Achieving High-Performance Banking in the 21st Century: Leading by Example

**A Financial Insights White Paper
Sponsored by IBM**

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WHITE PAPER

Achieving High-Performance Banking in the 21st Century: Leading by Example

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IN THIS WHITE PAPER

In this white paper Financial Insights analyzes how large banks are meeting the challenge of supporting ever-expanding processing requirements as their businesses grow. Market-leading banks have intensified their IT investments to reach new levels of operating effectiveness. The purpose of this white paper is to engage both business and IT executives at banks in a dialogue about how they address their institutions' vision of the future and the importance of intelligent IT investments.

During the spring of 2005, Financial Insights assessed the readiness of some larger banks in the United States, Europe, and Asia/Pacific to determine the readiness of their core banking applications and related technology platforms to meet or exceed bank expectations. Our analysis determined that these banks are at advanced levels of capabilities and performance by deploying key business applications on the iSeries server.

FINANCIAL INSIGHTS' OPINION

The growth challenge banks face is perpetual. That is, the senior management team at a bank knows that to succeed, and survive, the bank must be able to expand its business by every conceivable metric: assets, capital or equity, customers, employees, branches, and so on, at ever-higher levels of profitability. The quest for growth is never ending as today's profits become part of the bank's expanding capital base, which must then generate increasing profits in the following year. The senior management team's plans for the future must include the ability for its business units and IT organization to depend on solutions that will scale up as high as deemed necessary. Making the right, or wrong, choice will mean the difference between becoming a market leader or hitting the proverbial wall. This latter outcome is often resolved by being acquired by another bank. Financial Insights believes that:

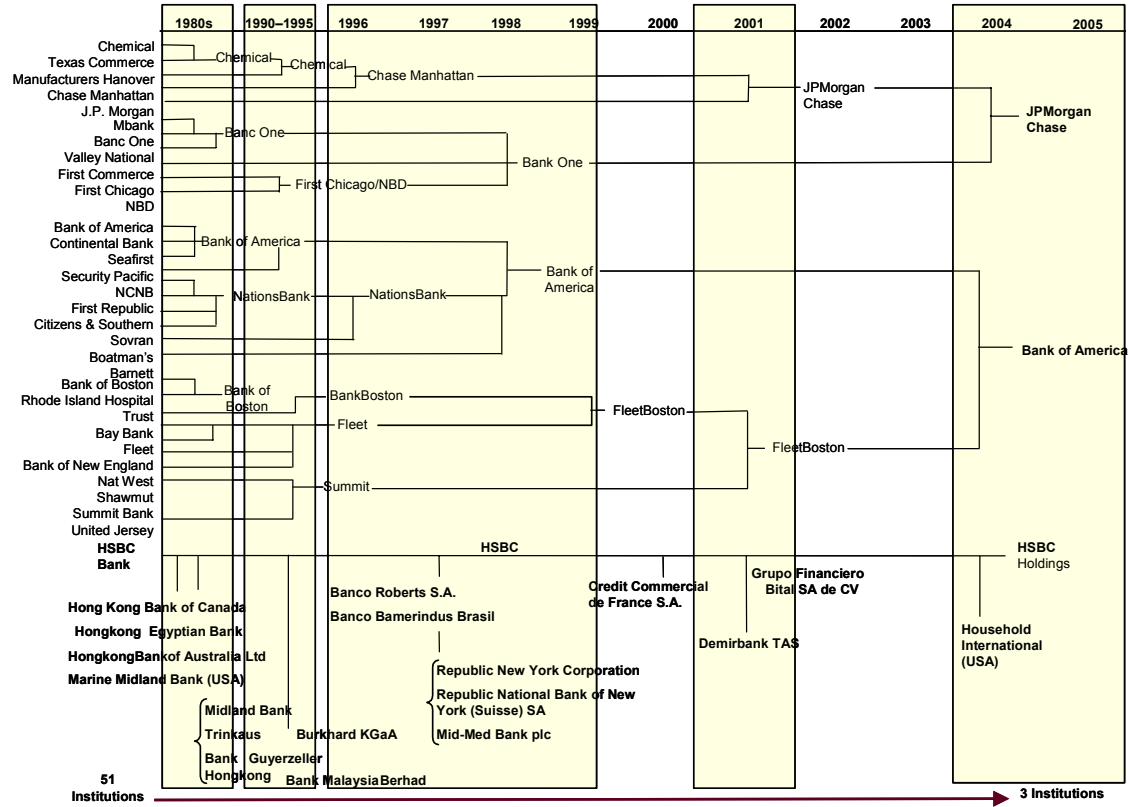
- ☒ C-level management at banks need to match their business mission and strategy with best-in-class strategic IT investments to achieve excellence.
- ☒ Achieving long-term operating cost advantages and supporting both organic and acquisition growth create competitive advantages.
- ☒ No single IT platform will support the demands at large banks, so IT investments need to support multiple platform requirements in a cost-effective manner.
- ☒ Planning to leverage IT infrastructure investments to support multiple business applications will lead to beneficial long-term operating efficiencies.

SITUATION OVERVIEW

Despite the continuous demand to address tactical decisions in running a successful bank, executive management must have a plan to ensure the long-term success of the bank. The C-level management teams at leading banks have answered important questions about how their banks will be able to support ever-expanding horizons. These horizons include increasing market share, achieving customer delight-like service and world-class operating scale, expanding geographically, and advancing the effectiveness of business intelligence. Executives at other banks may reflect upon or wonder about answering these future demands. However, those bankers who delay the pursuit of the relevant solutions run the risk of becoming some other bank's next acquisition. Figure 1 illustrates the impact of acquisitions at three of the largest banks in the world during just the past 20 years. Their deal volumes magnify the importance of addressing the many issues mentioned above. Not coincidentally, all three surviving banks use the iSeries server to run important banking applications, including complex, global platforms for commercial lending.

FIGURE 1

Merger and Acquisition History at JPMorgan Chase, Bank of America, and HSBC



Source: Financial Insights

Source: Financial Insights, 2005

Beyond the dramatic effect of industry consolidation among the largest banks in the world is the turnover that occurs within the top-tier banks. Table 1 lists the top 20 U.S. banks in 1995 and 2005. Although only 10 years have transpired in this analysis, the fact that 55%, or 11, of the former top 20 U.S. banks have been acquired is quite remarkable. If the new members of the top 20 banks in 2005 need to think about surviving the additional turnover of the next 10 years, their obituaries are already cast. What types of attributes will the surviving banks have? Will the current top 10 have the ability to scale up their operations? Will they do so cost-effectively with low operating cost ratios? Will their business and IT management teams deliver high-performance banking to their customers? Tomorrow's bankers will find the answers.

TABLE 1

Comparison of Top 20 U.S. Banks (12/31/1995 Versus 12/31/2004)

Rank	Top 20 U.S. Bank Holding Companies	Dec. 31, 1995 (\$B)	Rank	Top 20 U.S. Bank Holding Companies	Dec. 31, 2004 (\$B)
1	Chase Manhattan Corp., New York	\$304.10	1	Citigroup Inc., New York	\$1,484.10
2	Citicorp, New York	\$256.90	2	JPMorgan Chase & Co., New York	\$1,157.30
3	BankAmerica Corp., San Francisco	\$232.40	3	Bank of America Corp., Charlotte, N.C.	\$1,112.00
4	NationsBank Corp., Charlotte, N.C.	\$194.70	4	Wachovia Corp., Charlotte, N.C.	\$493.30
5	J.P. Morgan & Co. Inc., New York	\$184.90	5	Wells Fargo & Co., San Francisco	\$427.80
6	First Union Corp., Charlotte, N.C.	\$131.90	6	U.S. Bancorp, Minneapolis	\$195.10
7	First Chicago NBD Corp.	\$122.00	7	SunTrust Banks Inc., Atlanta	\$159.90
8	Fleet Financial Group Inc., Boston	\$114.50	8	HSBC Holdings PLC, London	\$140.20
9	Wells Fargo & Co., San Francisco	\$108.40	9	National City Corp., Cleveland	\$139.30
10	Bankers Trust New York Corp.	\$104.20	10	Royal Bank of Scotland Group, Edinburgh	\$137.20
11	Banc One Corp., Columbus, Ohio	\$96.70	11	ABN AMRO, Amsterdam	\$102.90
12	PNC Bank Corp., Pittsburgh	\$73.40	12	BB&T Corp., Winston-Salem, N.C.	\$100.50
13	Norwest Corp., Minneapolis	\$72.10	13	Bank of New York Co. Inc.	\$94.60
14	KeyCorp, Cleveland	\$66.30	14	FifthThird Bancorp, Cincinnati	\$94.50
15	Bank of Boston Corp.	\$59.50	15	State Street Corp., Boston	\$94.00
16	Bank of New York Co. Inc.	\$53.70	16	KeyCorp, Cleveland	\$90.70
17	SunTrust Banks Inc., Atlanta	\$46.50	17	Regions Financial Corp., Birmingham, Ala.	\$84.40
18	Wachovia Corp., Winston-Salem, N.C.	\$45.00	18	PNC Financial Services Group, Pittsburgh	\$79.70
19	CoreStates Financial Corp., Philadelphia	\$44.50	19	North Fork Bancorp, Melville, N.Y.	\$60.70
20	Republic New York Corp.	\$43.90	20	Sovereign Bancorp Inc., Philadelphia	\$54.50

Note: NationsBank, First Union, and Norwest kept the names of the acquired bank.

Source: Financial Insights and FDIC, 2005

Strategic Requirements

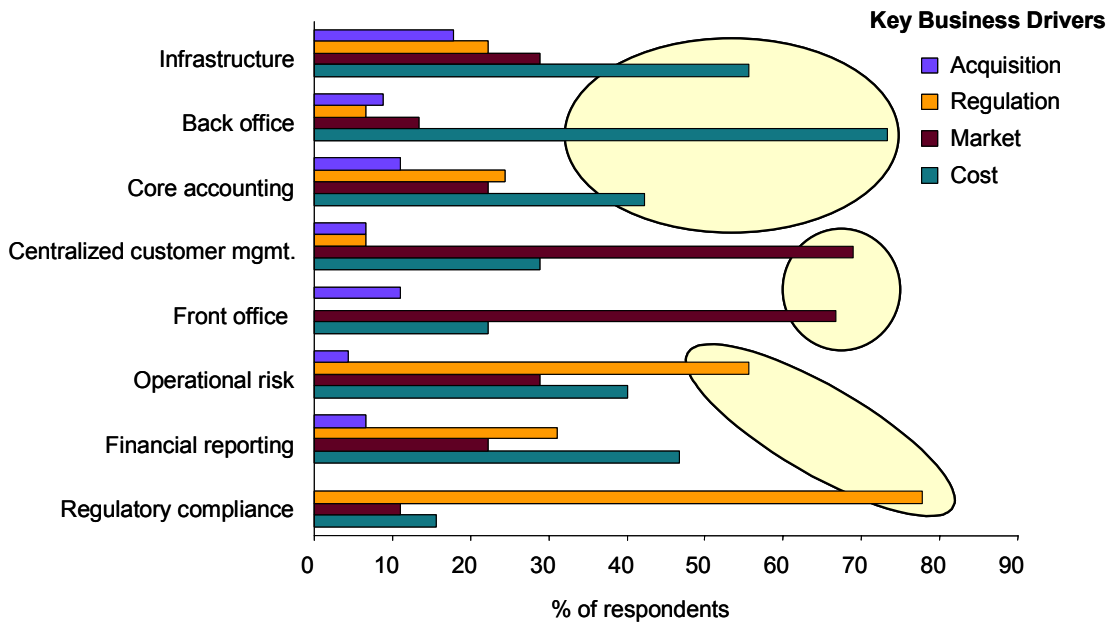
As C-level executives think about the success criteria for their banks, there must be an explicit recognition that the bank's mission and its strategic IT investments must be aligned. Over the past 10 years, these priorities have been influenced by:

- Stronger competition for market share
- Nonbanks entering the market and attracting customer assets and credit needs
- Ease of switching banks for customers to move funds between institutions
- Regulatory requirements that mandate business process changes

These factors require banks to become more responsive to market and regulatory forces through better customer service, more attractive financial products, and more transparent business processes. In addition, pressure to continue expanding profitability within this competitive environment requires each bank to minimize operating costs at every opportunity. Figure 2 depicts results from a Financial Insights survey that demonstrate how business priorities and related drivers are affecting investments in technology. These results are based on a survey of 45 bank executives in North America, Europe, and Asia/Pacific. One of the significant conclusions from this survey is that cost is rated consistently a key driver for IT investments in infrastructure, back office, and core accounting. Also noteworthy is the fact that market forces are driving IT investments in centralized customer management and front-office or channel solutions. Not surprising, but still significant, is the impact of regulatory forces that resonate around operational risk and compliance requirements for bankers.

FIGURE 2

IT Investment Drivers for Banks Worldwide



n = 45

Source: *Financial Insights 2004 IT Spending Survey*

Executive Expectations

In 2004, a Financial Insights white paper, *Transformation Meets the Banking Industry: Which Banks Are Ready for the 21st Century?*, analyzed the relevance of tightly linking a bank's business and IT strategies to fulfill its vision. In this context, the white paper described the role of banking solutions that utilize the capabilities of IBM's eServer iSeries server. The interviews with bank executives in 2005 underscore the key requirements that were described in that document. In addition, the interviews uncover important expectations the bankers believe are critical to high-performance banking:

- Operating performance and efficiency at world-class levels
- Stability and reliability on a 24 x 7 basis
- Flexibility and support for quick time-to-market business requirements
- Adaptability, with the capacity to support multiplatform requirements

Table 2 summarizes the key business initiatives that bankers must address, along with the iSeries server software partners. Finding the right partner is a critical need, and its importance cannot be underestimated.

TABLE 2**IBM iSeries Server Software Partners by Key Initiative**

Key Initiative	Independent Software Vendor Partners
Core systems transformation	ERI (Olympic), Fidelity Information Services (Horizon ACBS), Fiserv (CBS Worldwide, ITI Premier), Jack Henry (Silverlake, 20/20), Silverlake System (SIBS), Misys (Equation, Midas, Trade Innovation)
Multichannel transformation	Fiserv (CBS Worldwide, ITI Premier), Fidelity Information Services (Horizon), Jack Henry (Net Teller), Misys (Equation), Finatix (OneWealth, Branch Innovation, Financial Components), Silverlake System (SIBS)
Customer insights	Information Builders (WebFOCUS), Dimensional Insight (DI Atlantis), Fair Isaac (Blaze), NSS Corp. (NSS Perspective), InfoManager Oy (InfoManager Business Intelligence)
Payments	EuroNet Worldwide (card management, POS, EFT, ATM solutions), Jack Henry (imageMAX, SuperIMAGE), CBA (IBAS modules), TietoEnator Financial Solutions AB (Entra Card)
Risk and compliance	All of the core banking vendors offer risk and compliance capabilities, Focus Technology (Kite Detector), System 2000 (UCDBS), Distributed Management Systems (CASQUE)

Source: Financial Insights and IBM, 2005

Core banking is an essential requirement for the banks that were interviewed. This solution makes the business case an increasingly compelling one. Although there are no guarantees offered by IBM or the software partners, the business results of banks that successfully deploy one of these solutions cannot be dismissed as a fluke. Figure 3 includes a listing of the key core banking solutions running on the iSeries server. In each case, the core banking vendor continues to support higher levels of business volumes. The benchmarking efforts of some of these vendors suggest that ample room to grow is available to support their largest bank clients well into the next decade.

FIGURE 3

IBM iSeries Server Core Banking Software Partners

<u>Vendor</u>	<u>Application</u>	<u>Business Focus</u>	<u>US</u>	<u>LA</u>	<u>EMEA</u>	<u>AP</u>
ERI	Olympic	Private banking, asset management			●	
Fidelity Info. Services	Horizon	Full-service banking	●			
	ACBS	Commercial lending	●	●	●	●
Fiserv CBS Worldwide	CBS	Full-service banking	●			
	ICBS	Full-service banking		●	●	●
Fiserv ITI	ITI Premier	Full-service banking	●			
Jack Henry	Silverlake	Full-service banking	●			
Misys	Equation	Universal retail banking		●	●	●
	Midas	Universal wholesale banking	●	●	●	●
Silverlake System	SIBS	Universal full-service banking			●	●

Source: Financial Insights and IBM, 2005

Proof Points at Large Banks

Large banks must show that they can realize benefits by running business applications on platforms that provide stable and reliable low-cost environments. The ability to achieve these benefits separates the leaders from the laggards in the banking industry. Among the results of bankers' choices that were uncovered during our interviews were the operating benefits of leveraging the multiplatform capabilities of the iSeries server. Both ABN AMRO and BRI are utilizing this capability with desired savings and performance gains. Banks can even rehost legacy applications written in COBOL, as noted in the summary of ABN AMRO's case (see below). Table 3 provides a demographic summary of the five banks that are profiled in this white paper.

TABLE 3

Large Banks Banking on the iSeries Server

Bank	Region	Business Focus	Assets as of 12/31/04 (US\$B)
ABN AMRO	Europe	Wholesale banking	823.0
ALFA Bank	Europe	Retail banking	6.0
Bank Rakyat Indonesia	Asia/Pacific	Enterprise banking	3.4
North Fork Bank	United States	Enterprise banking	60.7
Republic Bancorp (MI)	United States	Enterprise banking	2.5

Source: Financial Insights, ABN AMRO, ALFA Bank, Bank Rakyat Indonesia, North Fork Bank, and Republic Bancorp, 2005

ABN AMRO, headquartered in Amsterdam, Netherlands, is one of the world's top 15 banks, ranked by assets. The bank's European wholesale banking operations, which cover 25 countries, have relied heavily on the iSeries server to run a complex portfolio of 30 business applications, internally labeled "Score." This portfolio includes proprietary applications as well as packaged applications from vendors such as Misys. This operation has allowed the bank to centralize the IT platform while supporting local market operations by using the iSeries server partitioning capabilities. What has made this strategy work is the bank's insightful use of the i5/OS support for ANSI 85, a capability that allows COBOL applications to run on the i5/OS without recoding. In addition, the bank has ported Unix applications onto the iSeries server, using either AIX or Linux in separate partitions. The alternating peak processing demands for the Unix (intraday) and i5/OS applications (end of day) allow the bank to optimize its Series processing capacity.

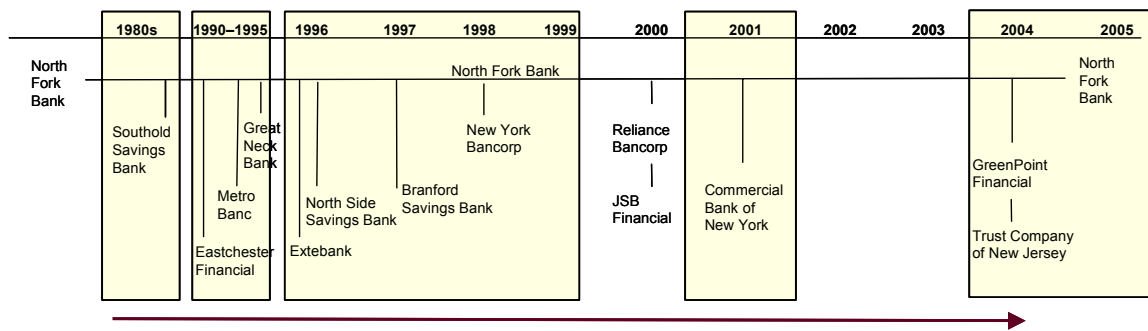
ALFA Bank is a rapidly expanding, innovative bank that was launched in 1990. In 15 short years the bank has grown organically to US\$6 billion in assets. Such rapid organic growth in the Eastern European marketplace has a variety of challenges. ALFA Bank selected Equation, the integrated banking application from Misys, as its retail banking platform, running on the iSeries server. In 2005, this platform is supporting about 3 million transaction, savings, and loan accounts for just under 1 million customers. The 8,500 end users — 6,000 of whom also use Lotus Notes on the iSeries server, including Domino for Documents and Workflow — have benefited from the 24 x 7 environment that ALFA Bank's IT group delivers on the iSeries server. ALFA Bank delivers these capabilities across 12 time zones and plans to triple the customer base by the end of 2007 while delivering real-time banking. To manage peak processing requirements, the bank utilizes IBM's Capacity on Demand services.

Bank Rakyat Indonesia (BRI) is the largest bank in Indonesia, serving a diverse retail and microfinance marketplace. The bank serves 65 million accounts for about 30 million customers, over 50% of whom use the Internet. Management wanted to consolidate its data and improve operational decision making. After deciding to run Silverlake's Integrated Banking System (SIBS) core banking solution on the iSeries server in 1999, the bank developed a multiyear conversion plan. In 2005, about 1,200 branches and 30 million accounts have converted to SIBS on the iSeries server. BRI uses MIMIX to provide disaster recovery, with less-than-30-minute switchover capabilities. The bank is also using the iSeries server to support branch and Web servers running Linux in separate partitions. Future plans include adding POS, ATM, SMS banking, telephone banking, and cash management to the iSeries server.

North Fork Bank entered the 1980s as a modest, but successful savings bank in the suburbs of New York City. With a new management team in place, the bank made what turns out to be a very intelligent long-term IT investment when it selected the CBS application as its core banking platform. At the time, its assets were less than \$500 million served by fewer than 20 branches. Figure 4 illustrates the 13 banking acquisitions completed in the past 17 years. North Fork is still running the CBS application (now part of Fiserv) on the iSeries server. This bank has expanded its assets and branches by a factor of 20 without having to convert to another core banking application. North Fork converted its most recent acquisition of GreenPoint Financial, a \$22 billion bank with 95 offices, just five months after closing the deal. It comes as no surprise that North Fork's operating efficiency ratio (36%) is the lowest of the top 20 banks (refer back to Table 1) by a wide margin. In 1Q05 its profit more than doubled over that of 1Q04.

FIGURE 4

North Fork Bank Acquisition History



Source: Financial Insights, 2005

Republic Bancorp has been operating on Jack Henry's Silverlake core banking application since 2000 after replacing another iSeries server solution that Jack Henry acquired. This bank is another consolidation example. Republic has integrated the operations of its predecessor banks and acquired banks to form a \$6 billion bank in 2005. Republic's IT group is exceptionally efficient; a six-member staff runs the iSeries server platform, including MIMIX for real-time mirroring. Republic's IT team also integrates the operating data from source applications for mortgage servicing and mortgage origination to serve the customer-centric views in Silverlake and for end-user access to digitized online reports. In addition, other business applications for GL, HR, ATMs, POS, and item processing for check images also run on the iSeries server. This approach allows Republic a better-than-average operating efficiency ratio in the mid-40s.

FUTURE OUTLOOK

There is a sense of certainty that the future will contain a blend of surprises, unforeseen developments, and the expected. Bankers who are focused and able to successfully execute their business and strategic IT plans have the best odds for achieving high-performance banking. These bankers realize that working with the right set of partners and suppliers is an important component in achieving market leadership. Tuning a bank's plan requires an appreciation for the complexities and nuances that determine the future trends in banking. Just as important is a forward-looking set of parameters that allows a bank to build upon the best IT infrastructure and business applications with a high level of comfort for the long term.

Future Trends in Banking

Bankers comprehend that most financial services offerings can be dissected into commodity-like components. Changing market forces, economic variables, and the evolution of IT solutions are all moving parts in a complex operating environment. Focusing on the core issues yields two key principles:

- ☒ Bankers need a continuous process for integrating data and business processes within and across their business applications.
- ☒ IT architectures, infrastructures, and application development processes must support Internet standards and information integration requirements as well as connect the bank's past with its future.

A bank that achieves high-performance levels will leverage its IT investments more effectively than its counterparts, regardless of whether its mission is to be a low-cost operator, innovator, or customer-centric institution. During business slowdowns, such banks often take the opportunity to widen the gap over their competition. As the largest banks seek to explore opportunities for operating scale advantages, we have observed increasingly open minds to explore the best long-term investments.

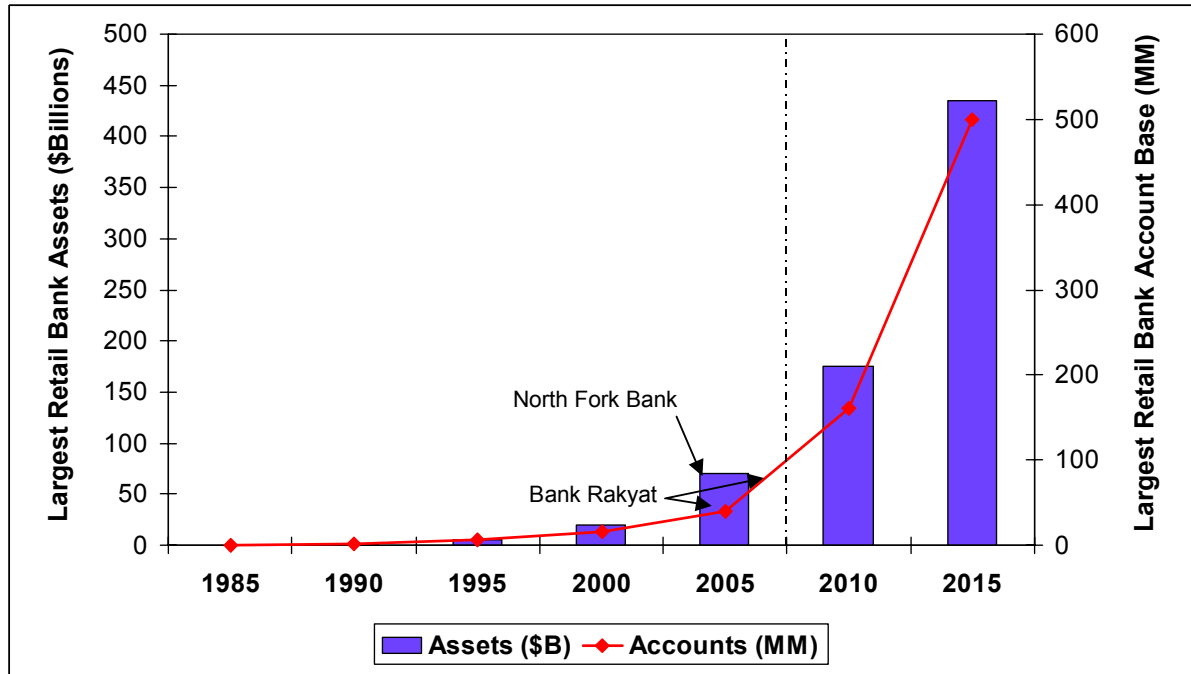
Opportunities at Large Banks for the iSeries

A constantly changing set of demands that focuses on performance, operating efficiency, effective risk management, fulfillment of customer needs while delighting customers, and generation of organic growth must be enabled by IT investments. Over the past 15 years, the world's largest banks have become familiar with the iSeries server, in most cases at a departmental or product application processing level. Times are changing, in dramatic fashion.

In 2005, new milestones have been reached that have cracked the top end of the banking leagues. As noted above, North Fork Bank is now the 19th largest bank in the United States and is pushing \$70 billion in assets with about 1,000 branches. In Asia/Pacific, BRI has reached 30 million accounts processed on a 24-way iSeries server on its conversion path to reach 65 million accounts. Figure 5 plots the retail banking milestones for the iSeries server (and AS/400) from 1985 to 2005, including North Fork and BRI. The rate of growth in these operating milestones is expected to gradually ease up, but our forecast for 2010 and 2015 continues along an impressive arc. Banks should factor this forecast into their plans.

FIGURE 5

Forecast for High-End Banking on the iSeries Server



Source: Financial Insights, 2005

CONCLUSION

Executives at large banks realize the long-term value of achieving a market-leading position in operating efficiency. Although being the low-cost provider is not always enough to survive, this position permits management to explore strategies that will benefit a bank's long-term performance. Market-leading customer service and time-to-market advantages coupled with strong operating cost ratios that are not bound at the high end of the scale are the best of all possible scenarios. That set of factors can put a bank's destiny on a solid course, one that is envied and emulated as much as possible by other bankers.

Over the next 10 years, more large banks will successfully base their business proposition and value on the iSeries server. By 2010, in the United States alone, we expect the iSeries server will triple its market share in running the core banking operations of the top 100 banks. This expanding penetration will be the result of the effective combination of the iSeries server and its key core banking application ISVs, namely Fiserv (CBS), Jack Henry (Silverlake), and Fidelity Information Services (Horizon).

In Asia/Pacific, we expect that the iSeries server will continue to expand its presence running the core banking platforms for the largest banks in India, China, and Malaysia and for banks that operate across the ASEAN region. In this market, key ISVs are Silverlake System, Fiserv (ICBS), and Misys (Equation and Midas).

In EMEA, we expect more of the same result, except that established banks will be able to use the iSeries server multiplatform capabilities to support a variety of banking applications, both proprietary and vendor packages that were originally developed for other platforms, based on COBOL, C, C++, and other development environments.

In Latin America, we expect the iSeries server will repeat the experience in Asia/Pacific as regional banks contend with large global banks that operate in this region.

ESSENTIAL GUIDANCE

Bank executives know the requirements for high-performance banking in the 21st century are based on intelligent decisions and execution excellence. Producing only one or the other is not good enough. After realizing the need for both, coupled with the knowledge that change is necessary, bankers often ask, what could go wrong? What is the downside? What are the odds that we will be better off than we are right now? Simply put, the answers are that a lot could go wrong; the downside is steep; and the odds are no better than 50/50. The answers, however, are not a reflection of any one IT investment. Instead, these questions reflect the state of mind and disposition of the bankers asking the questions.

What should financial institution management teams be considering at this point? A simple or universal answer is too general and leaves most executives unsatisfied. Instead, bank executives should answer the following questions:

- ☒ Where will your institution be in three years using its current set of applications and processing platform(s) with respect to its ability to address, with a high-level of confidence, all of the relevant business drivers we listed earlier in Figure 2?
- ☒ Does your institution know with that same high-level of confidence with whom and how it will proceed?

If an institution is satisfied with its answers to these questions, then execution quality is the next step. If uncertainty exists around answers to either or both questions, then the C-level management team needs to focus on its IT strategy to get the best answer(s).

- ☒ If the plan is to continue with business as usual, then the focus is probably on operating costs, productivity, and staying even with competitors. Banks that need to improve on any of these fronts should assess their core banking solution(s) and related platform(s). If current performance needs improvement, an integrated core banking application (customer, deposits, loans at a minimum) operating on the best platform should be one of the options considered.
- ☒ If the plan is to gain ground against competitors, then bankers need an IT infrastructure and business applications that will allow their staffs to deliver better customer experiences and competitive prices to build market share and margins.
- ☒ Business and IT executives should leverage every element of their IT infrastructures to support current and new requirements.
- ☒ Finally, if new solutions and platforms could be part of the answer, bankers should evaluate solutions used by successful banks that are raising the performance bar. If not, why not?

LEARN MORE

- ☒ *Transformation Meets the Banking Industry: Which Banks Are Ready for the 21st Century?* (Financial Insights white paper, July 2004)

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