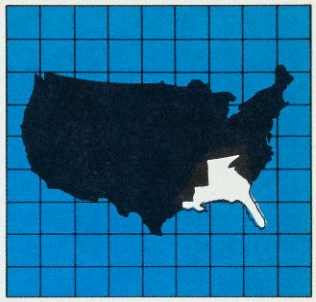
Economic Review



FEDERAL RESERVE BANK OF ATLANTA SEPTEMBER 1983

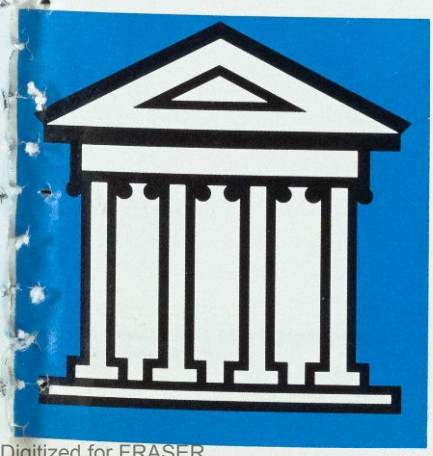
HIGH TECH Changing the Southeast

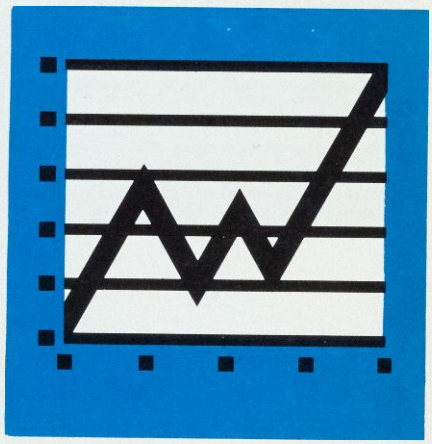
FINANCIAL SERVICES An Evolving Industry

PRODUCTIVITY The Micro Solution

BANK PROFITS Management's the Key

AUTO SALES On the Road Again





Economic Review

FEDERAL RESERVE BANK OF ATLANTA

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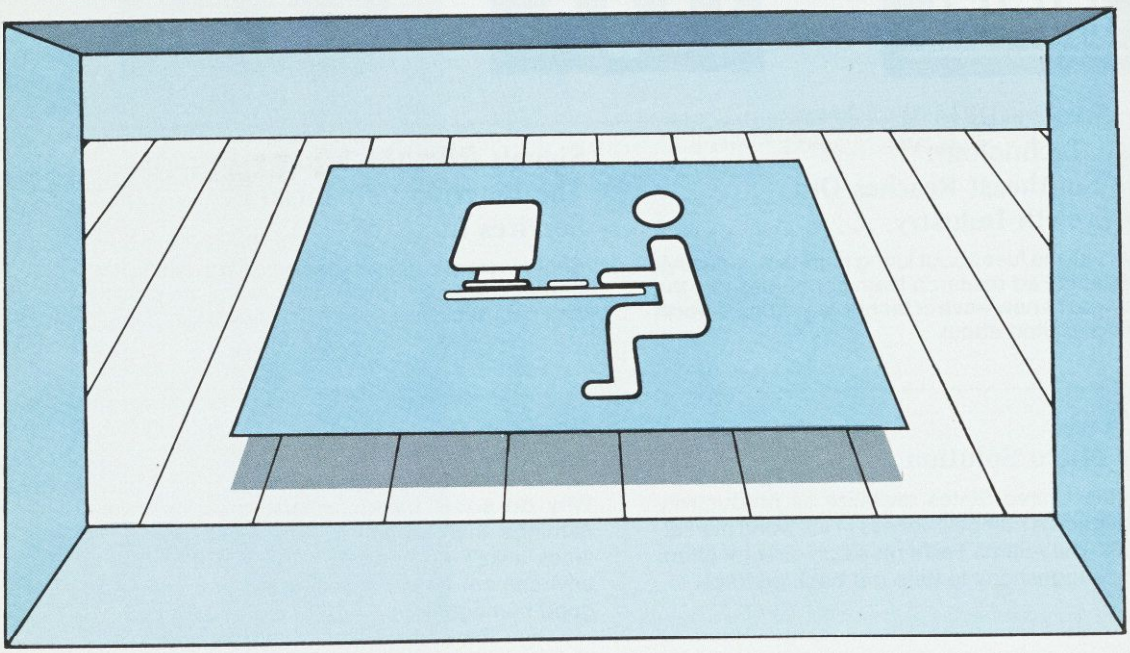
VOLUME LXVIII, NO. 9

High Technology: The Southeast Reaches Out For Growth Industry



High-tech industry is introducing new, enlightened management concepts as well as jobs into the Southeast. An Atlanta Fed research team takes a searching look at the industrial phenomenon that could change the region

Since 1970, U.S. companies have added more than 20 million people to payrolls. Yet surprisingly few of those jobs were created by large industrial corporations. In fact, total employment of the Fortune 500 companies declined between 1970 and 1982 from 14.6 million to 14.4 million.

Instead, small growth companies are the force behind the nation's employment gains. Many of these companies are in the high-technology industry where phenomenal success stories abound. At Apple Computer Inc. in Cupertino, California, for instance, employment doubles every year. In just six years, this company has expanded its two-man garage operation to a $600 million enterprise with over 3,400 people employed.

In an attempt to understand the high-tech industry and the potential it brings to the Southeast, we visited high-technology firms, venture capitalists, securities analysts, educators, regional economists, and even an executive search firm. Our interviews and extensive conversations distilled the elements critical to developing a high-tech industry and the benefits that result when a region becomes home to such firms.

Several factors stand out:

(1) High technology is a growth industry. The prospect of adding a vibrant, growing industry to the southeastern economic mix is exciting. The markets for electronic components, communications equipment, and computer services are growing in excess of 15 percent per year.

(2) The Southeast enjoys a comparative advantage in attracting and developing new industry. The region offers relatively low cost

Table 1. High-Technology Employment

	Manufacturing						Services		
	Employment			Percentage of Total Manufacturing Employment			Employment		
	1977	1982	Percent Change 1977-1982	1977	1982	Change 1977-1982	1977	1982	Percent Change 1977-1982
Alabama	26,701	33,368	24.97	7.54	9.90	2.37	3,605	6,125	69.90
Florida	85,995	126,087	46.62	22.58	27.42	4.84	10,679	21,298	99.44
Georgia	23,639	38,379	62.35	4.78	7.66	2.88	4,171	10,307	147.11
Louisiana	24,328	25,486	4.76	11.97	12.39	.42	1,978	4,218	113.25
Mississippi	9,510	9,210	−3.15	4.13	4.53	.39	1,109	1,662	49.86
N. Carolina	64,721	76,832	18.71	8.29	9.83	1.55	2,350	6,213	164.38
S. Carolina	45,778	48,733	6.46	12.04	13.45	1.41	838	2,395	185.80
Tennessee	71,951	69,778	−3.02	14.18	14.91	.73	2,533	5,542	118.79
Southeast	352,623	427,873	21.34	10.59	12.89	2.31	27,263	57,760	111.86
U. S.	3,098,500	3,780,600	22.01	15.74	20.06	4.32	225,298	464,578	106.21

Source: Bureau of Labor Statistics.
Annual average employment for selected high tech SIC codes. (see footnote 7 for specific SIC codes included in manufacturing employment). 1982 data are average employment for the 1 st 3 quarters of 1982, from unpublished BLS data. High-Tech service employment is limited to SIC codes 489 and 737 which include communication, computer and data processing services.

labor, the quality of life desired by professionals, a low tax burden, and a good transportation network.

(3) Several clusters of technology have already developed in the Southeast. These pockets of activity are in various stages of approaching the critical mass of human talent necessary to develop a true high-technology region. Having an established base of technical organizations, people and educators is essential in recruiting high technology from outside the region. It also breeds "home-grown" high tech—the development of new firms by entrepreneurs in the Southeast.

(4) As in most small businesses, new ventures often fail. Yet a growing number of southeastern high-technology firms can be considered successful. These firms share common characteristics that have contributed to their growth and profitability. Most firms have identified a market niche in which they maintain a comparative advantage in producing a product. This niching strategy, accompanied by a creative, innovative and flexible management style, most often seems to be the key to their success.

Building a Base of High Technology

Southeastern states and localities are competing aggressively for a piece of the high-technology pie. Like their counterparts throughout the country, southeasterners want their fair share of these environmentally clean industries that bring tremendous growth, profitability, and resilience to the business cycle. Behind the intense competition is the hope that high-technology firms will help revitalize state and local economies by diversifying the economic mix, producing state revenues to offset federal budget cuts, and absorbing workers left unemployed by a wave of plant closings in the last few years.

While everyone is talking about it, the term "high technology" eludes a precise definition. Many prefer the term "advanced technologies," arguing that technology is a continuum on which

High Technology As a Growth Industry

We are witnessing a revolution in the way we live, think, act and process ideas—a revolution led by emerging technologies. Just as the telephone promoted communication in the late 1800s, the automobile facilitated local travel in the 1920s and commercial airlines transformed business transportation in the 1940s, electronic technologies are changing the way people process information for business and personal use. Those three innovations—the telephone, automobile and airplane—allowed a diverse group of people to share ideas more easily. As electronic technology progresses, information will be exchanged even more freely.

"Computer-aided" processes are the newest trend in increasing productivity. Manufacturers are using computers to control inventories, to schedule production, to design optimal plant layouts, to design new products, to facilitate assembly and to analyze operating results. Office workers in all industries are using computers to analyze and produce information. Hospitals are monitoring and diagnosing patients using computer-aided systems. Schools are teaching children with the help of computer software programs. Computers are helping to train technicians, machine operators, pilots, and others. Consumers are using personal computers for entertainment, education, shopping, financial planning, and banking services.

The engine driving high technology is the microprocessor embedded on a silicon wafer the size of an infant's thumbnail. These semiconductor chips contain thousands of transistors that hold electrical charges. The semiconductor is at the heart of standard computer equipment, but its positive and negative charges can be "programmed" with the logic to provide any device with decision-making ability, memory for instruction, and self-adjusting controls. Chips are now used in watches, cash registers, pacemakers, thermostats, radios, gas pumps, and car engines.

Technological development in the semiconductor industry is the catalyst behind new applications. As more memory is squeezed onto a single chip and the cost per bit of memory drops sharply, price sensitive applications become feasible. Just 13 years ago, the 1K chip (1,024 memory cells) was the industry standard. Today the 64K chip is dominant, and soon 256K will prevail. A 256K chip can store 5,200 words of text compared to 1,300 on a 64K chip. A maximum of 500,000 transistors can be stored on a chip today; industry sources expect 15-20 million transistors to be compressed onto a single chip by 1990. Shipments of semiconductors produced in the U.S. are expected to grow by 16 percent a year in the next five years despite intense Japanese competition.[1]

If the semiconductor is the engine of the high-technology industry, then communications technology is the driveshaft. Major advances in satellite, microwave, lightwave, and fiber optics communication media allow computers to link together efficiently from remote locations. Shipments of communication equipment are expected to grow 9 percent a year through 1987 with satellite communications leading the industry at 20 percent a year.[2]

As semiconductors and communications equipment rapidly decrease in cost and increase in efficiency, the market for many high-technology products has improved. Shipments of computer equipment are expected to continue at a strong pace of 18 percent a year through 1987. Worldwide sales of desktop computers priced under $10,000 reached two million units in 1982—almost half of the five million units installed as of early 1983.[3]

Growth in computer equipment implies a strong demand for related services. Software suppliers, systems integrators, and technical educators should flourish. The Association of Data Processing Service Organizations reported that computer services revenues grew 18 percent in 1982. The software products segments surged 41 percent that year and integrated systems grew 21 percent.[4]

Many electronics sectors will be spurred by increased Department of Defense expenditures on electronic weaponry, surveillance and communication equipment. In 1979, almost half of the communications industry's output was used in defense applications. That market share is expected to increase to 63 percent by 1987.[5]

Compare these growth rates to the projected five-year growth rates in more traditional industries—lumber, 5 percent; food processing, 2 percent; and automobiles, 1 percent.[6] Large firms, entrepreneurs, venture capitalists, investors, state and local governments, and educators are all trying to capitalize on this growing industry.

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[1] **1983 U. S. Industrial Outlook,** Michael W. Kubiak and Jack Clifford, Science & Electronics Division.
[2] **1983 U. S. Industrial Outlook,** U. S. Department of Commerce (January 1983). Arthur Pleasants, Science & Electronics Division.
[3] Ibid. John McPhee and Tim Miles, Science & Electronics Division.
[4] Association of Data Processing Service Organizations, telephone conversation, August 1983.
[5] **1983 U. S. Industrial Outlook,** U. S. Department of Commerce (Janary 1983).
[6] Ibid. David K. Henry, Bureau of Industrial Economics, Adair A. Mitchell, Office of Basic Industries, Donald A. Hodgen, Office of Consumer Goods and Service Industries, and Robert V. Coleman, Office of Producer Goods.

it is difficult to separate high from medium and low. Describing high-technology firms is easier and more meaningful. Such firms are science-driven in that they develop marketable applications of science and technology in the form of new products and production processes. Compared to more traditional industries, high-tech firms devote a much larger share of their resources to research and development. They also are labor-intensive, employing a higher percentage of technicians, engineers and scientists.

Under the umbrella of "high technology" are organizations that develop new technologies, find new applications for existing technologies, manufacture the products incorporating advanced technology, market commercial products, and provide services related to high-technology products. The industry includes manufacturing plants, research and development operations, and service companies such as engineering, consulting and data processing.

Fields such as semiconductors, telecommunications, lasers, fiber optics, computer-aided design and manufacturing, bioengineering and robotics are easily identified as high technology. Because of heterogeneity among the firms within each industry and a lack of consensus on the definition of high tech, identifying all the broad industries to include is difficult. Analysts are usually forced by data availability to define high-tech in terms of the Commerce Department's Standard Industrial Classification codes. The industries categorized as "high technology" vary from study to study. Not surprisingly, employment estimates also vary widely.

Table 1 shows employment in those industries we have identified as best representing high technology for eight southeastern states and the U.S.[7] Between 1977 and 1982, high technology provided over 105,000 new manufacturing and service jobs in the Southeast representing 6 percent of the 1,828,000 new jobs created in the Southeast during the five year period.

Florida clearly has the strongest high-tech sector in the Southeast and ranks seventh nationally. High-tech in Florida is largely composed of the rapidly growing electronics, communications and aerospace industries. These dynamic high-tech industries are also dominant in Georgia, where high-tech manufacturing increased 62 percent between 1977 and 1982. Growth has been slower in Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee, where high-tech employment is more heavily weighted in the chemical and drug industries.

High-technology industries' share of total manufacturing employment has been increasing. Nationwide, high-technology employment (by our definition) accounted for 20 percent of total manufacturing employment in 1982, up from 16 percent in 1977. Florida, where high-tech employment comprises 27 percent of total manufacturing, is the only southeastern state exceeding the national average.

Compared to high-tech manufacturing, employment in the high-tech services such as communications, computer services, and data processing is small but rapidly growing. In 1982 almost 58,000 southeasterners were employed in these service areas, up 111 percent from 1977. Florida leads the Southeast in high-tech service employment, followed by Georgia.

"Clearly, not all communities pursuing high technology will succeed in reaching the dynamic critical mass."

But statewide figures fail to tell the whole story. First, aggregate employment figures are merely body counts and give no indication of the composition of activity, such as how many workers are in production and how many are in research and development. Second, in the Southeast as in the rest of the country, these companies tend to cluster in areas offering an ample supply of highly trained technical labor. Once an area accumulates a group of firms similar in technological expertise, processes, and products, this "critical mass" encourages new start-up firms and acts as a magnet in attracting related companies. Clearly, not all communities pursuing high technology will succeed in reaching the dynamic critical mass. The areas with the greatest chance of capturing a large share of future operations are those with an existing nucleus of activity.

The Southeast boasts several such pockets of activity. North Carolina's Research Triangle Park

[7] SIC codes included in high-technology manufacturing employment 281, 282, 283, 348, 351, 357, 366, 367, 372, 376, 381 382, 383, 384 385, 386, 387. The codes used are the manufacturing codes recommended in "Defining High Tech," an unpublished paper by Delsie M. Gandia, Maryland Department of Economic and Community Development, May 1983.

with its campus-like atmosphere has attracted a wide range of government and private R&D laboratories. The Triangle is often referenced along with California's Silicon Valley and Route 128 outside Boston as one of the top three technology centers in the United States. In Florida, high techology is becoming a significant sector in the state economy and is recognized nationally as one of the major new centers of high-tech activity. While NASA and government defense contracts were instrumental in building the base of technical expertise, the state has attracted or spawned commercial enterprises at rates unmatched in the Southeast. Other emerging centers in the Southeast include Atlanta, Huntsville, Alabama and Tennessee's Oak Ridge-Knoxville corridor.

There are two ways for a community to build a high-technology base and the infrastructure to support it. One way is to recruit from outside, inducing established firms to move existing operations into the market or place new ventures there. The other way is to "home grow" companies, encouraging the incubation and growth of new small firms from their embryonic beginnings to the point where they contribute substantial employment, income and tax revenues to the community.

"Southeastern states want a balanced mix of research and development facilities along with production and assembly operations."

Interestingly, the resources, amenities and "infrastructure" that tend to spawn and encourage home-grown firms are the same ones that make a site attractive to established firms. Whether recruited from outside or home-grown, high-technology companies are essentially "footloose." That is, their proximity to material suppliers or markets is unimportant. The environment conducive to their expansion contains, foremost, a broad pool of well-trained technical specialists from which to draw, plus the quality of life, educational and cultural attributes valued by the professional.

Key Location Factors

In a comprehensive report on location decisions of high-technology companies, the staff of the Joint Economic Committee of Congress confirmed that the availability of skilled labor is the primary consideration.[8] The staff reported that the most desirable location attributes for technology firms planning expansions are, in order of importance: the availability of a skilled work force, low labor costs, favorable business and tax climate, academic institutions, a high quality and low cost of living, and good transportation. Table 2 gives a ranked listing of locational attributes based on the JEC survey of 691 companies.

How does the Southeast stack up against these criteria?

1. Availability and Cost of Labor

Personnel needs cover a broad spectrum from the unskilled production line worker to the scientists and engineers in research and development. The mix varies with the type of operation. R&D facilities employ a high percentage of scientists and engineers. Production and assembly plants employ mostly unskilled and semi-skilled workers.

The Southeast's large pool of cheap unskilled and semi-skilled labor traditionally has made the region attractive for the production facilities of a wide range of industries. Manufacturing wages averaged $13,949 a year in 1982, compared to $17,194 nationwide.[9] While 25 percent of workers nationwide are unionized, only 14 percent of workers in the Southeast belong to a union.[10] Compared to six other regions, the JEC survey ranked the South first in "labor cost/availability."

But southeastern states want a balanced mix of research and development facilities along with the production and assembly operations. While high tech's light manufacturing element could help absorb some of the region's unemployed low-skilled workers, assembly operations are

[8] Robert Premus, "Location of High Technology Firms and Regional Economic Development," Staff Study prepared for the use of the Subcommittee on Monetary and Fiscal Policy of the Joint Economic Committee of the U. S. Congress (GPO, 1982).

[9] **Employment and Earnings,** U. S. Department of Commerce, May, 1983.

[10] United States Bureau of Labor Statistics, **Directory of National Unions and Employee Associations, 1971, 1975, 1979,** and unpublished data.

Table 2. High-Tech Companies' Location Choices

	FACTORS THAT INFLUENCE REGIONAL LOCATION CHOICES		RANKING OF THE SOUTH COMPARED TO SIX OTHER REGIONS
Rank	Attribute	Percent Significant or Very Significant[1]	
1	Labor skills/availability	89.3	1
2	Labor Costs	72.2	1
3	Tax climate within the region	67.2	1
4	Academic institutions	58.7	6
5	Cost of living	58.5	1
6	Transportation	58.4	6
7	Access to markets	58.1	6
8	Regional regulatory practices	49.0	1
9	Energy costs/availability	41.4	1
10	Cultural amenities	36.8	7
11	Climate	35.8	3
12	Access to raw materials	27.6	6

[1]Respondents were asked to rate each attribute as "very significant, significant, somewhat significant, or no significance" with respect to their choices. The percent of very significant and significant responses were added together to obtain an index of overall importance.

Source: JEC survey. See footnote 8.

perenially vulnerable to foreign competition or off-shore production by U.S. companies.

Expansion plans of the responding companies suggest that the Southeast should benefit from an increased share of the high-technology industry between now and 1986. Unfortunately the survey did not distinguish between R&D facilities and production facilities. To compete successfully for R&D facilities, the southeastern communities must be able to supply or attract skilled technicians and professional scientists and engineers.

One of the most important discoveries of the JEC survey was that the availability of technicians is more important than the availability of scientists and engineers for high-tech firms making location decisions. Technicians such as machinists, draftsmen, computer operators, and engineering technicians are highly immobile but essential to both research and production activities. The demand for skilled technicians can strain local labor markets in communities with a cluster of high-technology companies. Judging from the survey, relocating or branching companies recognize the potential shortages and carefully assess the availability of skilled technicians.

Professional scientists and engineers, on the other hand, are highly mobile. High-tech companies consider not just the existing pool of professionals in a location, but whether they will be able to recruit needed professionals to the area. The ease of attracting this group is a major consideration for most firms selecting a location.

One way to ensure a supply of highly trained technical and professional employees is to locate near other companies in the same or similar businesses. Southeastern communities with a cluster of high-tech activity are particularly attractive sites.

2. Business and Tax Climate

Like all businesses, high-technology companies are sensitive to an area's business climate, including the state and local tax structure, community attitudes toward business, available financing, and regulations governing business start-up and operations. And, from that standpoint, times have never been better for high-technology companies. In their zeal to lure such firms, states and communities offer an array of incentives including tax breaks and a streamlined process for obtaining permits and setting up business. Florida increasingly is regarded as one of the best states in which to do business. In fact, the Alexander Grant & Company business climate survey rated Florida's business climate the best in the nation in 1981 and 1982.

Two-thirds of the JEC survey respondents considered the region's tax climate a significant

location attribute, and ranked the South highest of any region on this attribute. While the survey did not consider personal and corporate taxes separately, our discussions with companies suggest that the state and local personal income tax is of primary concern because of its importance in relocating professional employees. State taxes on a per capita basis fall short of the U.S. average in all southeastern states, except Louisiana. Florida's state taxes compare favorably with those of other high-tech states. For example, companies recruiting professionals to Florida can boast a tax level 37 percent below California and 28 percent below Massachusetts, two states where high-tech job opportunities abound.[11]

3. Education

Quality education at all levels is important in attracting high-technology firms. Primary and secondary schools educate their staffs' children and provide the educational base for potential employees. Vocational schools provide the essential technicians. Universities with strong technical programs played a major role in the development of Silicon Valley and Route 128 and provide graduates, training, and professional networking relationships to the high-tech community. Much of the effort to attract high technology has been directed toward improving education at one or more of these levels.

"Many states have expanded and altered their vocational programs in response to the changing needs of industry."

Professional personnel hold quality primary and secondary education in high regard, primarily from a conviction that good education has been a key to their own success. While they can send their children away to college, the community must provide the early education. Good public education, particularly in math and science, is also important to the firm hoping to draw skilled and trainable employees from the local labor market. In Florida, the drive to upgrade public education has led to increased funding and differential pay for teachers in science and math. Some large companies also have channeled funds and manpower into education enhancement through programs such as the general education courses for secondary teachers sponsored by the Harris Corporation of Melbourne, Florida.

The growth of high-technology industries and the modernization of existing industry have increased the demand for engineering and science technicians. A study of vocational-technical schools found that the competition for highly trained technicians is so intense that in many states companies are hiring students before they finish their programs.[12] High starting salaries and career opportunities are attracting a growing number of students into the vocational education system, thus heightening its importance in training tomorrow's labor force. Many states have expanded and altered their vocational programs in response to the changing needs of industry. North Carolina has strengthened the technical programs offered through its re-organized community college network. Technical training has expanded in Florida, where per capita vocational education expenditures are the highest in the nation. South Carolina offers vocational training to employees of targeted industries that move into the state.

In attracting high-tech industry, how important is proximity to a good university with strong science and engineering programs? Clearly there are advantages to having a good technical university nearby. The graduates constitute a local supply of inexperienced professionals, simplifying the recruitment process. Universities offer continuing education and libraries stocked with technical materials to the professional trying to stay abreast of changes and developments in his or her specialty. Professionals who plan to start or resume an academic career often serve as adjunct professors in the universities. The schools also offer a network of specialists for consulting and

[11] **Book of the States, 1982-1983,** (Lexington, Ky.: The Council of State Governments).

[12] C. L. Aton, et al., **An Advanced Technology Study For Post-Secondary Area Vocational-Technical Schools,** Report submitted to the Division of Program Development, Office of Vocational Education, Georgia Department of Education, (Atlanta, Ga.: Georgia Institute of Technology) August, 1982.

joint projects. Finally, informal relationships between academic and industry professionals allow for a steady flow of ideas and information.

Many economic development specialists have taken the approach that proximity to a top-flight university with strong university-industry linkages is critical in attracting technology firms. The JEC study is frequently cited as providing evidence of the overwhelming importance of university-industry linkages. However, some analysts have questioned this widely held belief and argue that the JEC survey results are frequently misinterpreted on the point.[13]

The JEC survey included a question specifically asking companies what they look for from nearby universities. Companies responded that they primarily look for (1) college graduates; (2) degree programs for employees; and (3) access to libraries and information systems. These answers suggest that universities are important primarily as a provider of the all-important technical labor, and secondarily as a source of technical materials. But universities can meet these needs even if they are not located next door. In Florida, technology industries have been growing in areas not served by the state's major educational institutions, offering proof that dynamic clusters of activity can emerge without the benefit of a nearby university. Though the university system is not in close proximity to the high-tech centers, it is still attuned and responsive to their needs.

Despite such initiatives, the Southeast clearly remains handicapped by the perception of substandard education. In the JEC survey, respondents gave the South low marks for its academic institutions. Since technology professionals are the group most concerned about quality education, the Southeast's poor image makes it more difficult for it to compete for headquarters and R&D facilities.

The Southern Regional Education Board in June reported that southern states are moving toward the goal of quality education.[14] They note the initiative shown by state and local leaders and the increased focus on improving education. However, the educators acknowledge that, despite the gains, the South still lags in educational achievement. For example, achievement test scores of southern students still fall behind national norms. On the National Assessment of Educational Progress, the average score for 17-year-old southeastern students was 4 percent below the national average in reading and 7 percent in math.[15] Also, education levels are lower in the Southeast, where only 13.8 percent of the population are college graduates compared to 16.3 percent nationwide.[16]

Southeastern states have made closing the education gap one of their chief priorities. Even if high technology fails to provide the jobs and income anticipated by state officials, the increased quality of education alone will bring many long-term benefits to this region.

4. Quality and Cost of Living

In selecting sites for operations requiring many scientists and engineers, a company most often chooses an environment with educational, recreational and cultural amenities appealing to professionals and technicians. When considering job offers, engineers and scientists in high demand can afford to be selective about choosing an area with a high quality of life.

"...the increased quality of education alone will bring many long-term benefits to this region."

Preferences differ on the specific attributes that contribute to the "liveability" of an area. Undoubtedly, Florida's climate and recreational amenities have been major drawing cards to many professionals who have moved to the state and contributed to its rapid growth. Atlanta is attractive to many who prefer living in a major metropolitan center, while most employees in Research Triangle Park enjoy the slower pace and lack of congestion that area offers.

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[13] Jacques D. Bagur, "High Technology and the Universities: The Premus Study" Gulf South Research Institute, Baton Rouge, La.

[14] "Meeting the need for quality: action in the South," Progress Report to the Southern Regional Education Board by its Task Force of Higher Education and the Schools, June 1983.

[15] Ibid.

[16] U. S. Bureau of the Census, **1980, Census of Population and Housing, Supplementary Reports,** Series PHC8-S1-1, **Provisional Estimates of Social, Economic, and Housing Characteristics.**

The JEC survey gave the southern region of the U.S. the highest rating on cost of living. This is clearly one of the Southeast's major drawing strengths. Housing remains affordable throughout the region, particularly in comparison to major high-tech centers.

5. Transportation

Good transportation is another important consideration for the high-tech company. The high ratio of value to weight for most of its products and the need to transport people and components quickly and reliably place a high premium on airports and airline connections. Although respondents of the JEC study rated the South very low on its available transportation network, Atlanta is particularly well situated as the transportation hub of the Southeast, and South Florida benefits from a more extensive schedule of international flights.

"The key ingredient for recruiting a mix of headquarters and R&D laboratories is a critical mass of skilled and educated technical workers."

Recruiting from Outside

Most industry-hunting states and communities turn first to recruiting firms from outside. An established firm's move into an area attracts much more recognition and prestige, typically, than a locally-established operation that may grow to support the same jobs and income. So, despite the tough competition from throughout the nation, the visibility and immediate results have made outside recruiting the favored approach.

Attracting employers from outside is a familiar proposition in the Southeast, where most states diversified rural economies and raised income in the 1950s and 1960s by recruiting light industry to take advantage of an underemployed agricultural labor force. Their success is documented by the textile, apparel and auto component factories that now dot southeastern states.

But the "we did it with textiles; we can do it with semiconductors" approach of many southeastern communities appears unlikely to succeed. While this approach may work with some assembly operations, the key ingredient for recruiting a mix of headquarters and R&D laboratories is a "critical mass" of skilled and educated technical workers, which very few communities in the Southeast have or can hope to attract.

The vital nucleus of technical experts that has formed the base of many active high-tech centers has come from universities, public research facilities, and large scientific corporations. Each of the active and emerging centers in the Southeast was built on an existing pool of skilled technical workers. They provided the human capital for the companies and acted as a magnet in attracting similar enterprises to the area.

In Florida, the NASA build-up in the early 1960s drew the initial large pool of scientists and engineers into the state. Specialists working at NASA and large subcontractors such as Martin-Marietta Corporation and Harris Corporation provided the pool of trained professionals and a technical environment into which outside specialists have been willing to come. In the Atlanta area, the magnet unquestionably has been Georgia Tech and the thousands of Tech-trained engineers who have stayed in the Atlanta community.

In North Carolina the three universities in the Raleigh-Durham-Chapel Hill triangle formed the initial base. In fact, one major objective in forming Research Triangle Park was to provide in-state jobs for graduates of the three universities. The original base was augmented by employees and ex-employees of the major national corporations that located in the triangle in the 1950s and 1960s. In Huntsville, Alabama the skilled technical workers have come from NASA and the Army's Redstone Arsenal. In the Oak Ridge-Knoxville corridor in Tennessee, thousands of highly trained scientists were pulled to the corridor by Department of Energy research facilities.

Home-Grown High Tech

The other way to get high-tech jobs is to develop new businesses locally. This side of development gets less publicity. Its progress is gradual, and for every success there are several failures. Nevertheless, with intense competition to attract relocating firms, it may be the only way for many communities to develop a strong high-technology presence.

High technology, by its nature, is fast-changing. New applications and markets are developing

almost weekly in many fields. This gives an advantage to the small, responsive firm that can identify and exploit the market opportunity faster than larger counterparts, where time-consuming divisional and corporate approvals are typically necessary. While market opportunities promote start-ups of new firms, the turbulent and strongly competitive environment allows relatively few to enjoy long-term success. From our interviews with entrepreneurs, financiers and chief executive officers, we identified common experiences of the start-up firm and the critical elements required to succeed in the industry.

A peculiar kind of environment spawns the development of new high-tech companies. Just as in the case of corporate recruiting, a critical mass of technical professionals is essential. Most entrepreneurs come from this pool, which also provides professional reassurance and role models in the process of starting a new firm. It is easier to take the plunge into forming a company if friends have done it and succeeded. Home-grown high tech, at the spawning, almost never involves relocation. An engineer in Atlanta will start his firm in Atlanta; a scientist in Melbourne, Florida will start in Melbourne. The universities, major technical employers, and public research centers provide this pool of incipient technical entrepreneurs. Often an engineer in a large corporation will spot a market niche, become convinced of its importance, try unsuccessfully to get the corporation to exploit it, and finally resign in frustration to exploit the niche himself.

Ironically, personnel layoffs and uncertainties impart a positive impetus to the formation of new technology companies. The cutback of NASA operations in Huntsville left many engineers unemployed and therefore unusually willing to start their own companies, just as had happened in central Florida. There may be a silver lining even in clouds of technical dislocation.

To get a new business going takes money. The initial investment usually comes from the entrepreneur's savings, from family members, and friends—perhaps a successful entrepreneur who wants to help other fledging businesses. After a product has been developed, market demand tested and production ability proven, the entrepreneur usually seeks venture capital. Venture capitalists offer management counsel and funds for expansion in return for part ownership in a business. Those we spoke to place a strong emphasis on management skills and on the market niche the company is trying to exploit. They usually read a company's prospectus from the back to the front, focusing on the founders' skills, rather than on the stated purpose or the meaningless financials of a start-up company.

Many new businesses fail, in the high-tech field as elsewhere. When they fail, the critical missing ingredient appears to be business or management expertise, rather than technical knowledge. Often, the entrepreneur is dedicated to a particular process or technology, and is unrealistic about the success of its commercial applications. Many engineers have no knowledge about how to structure a business plan, finance a venture, or distribute a product.

Financiers often agree to grant venture capital only if a firm hires a particular skill that it lacks - such as a marketing person or a strong manager. The alliance between the technical entrepreneur and the professional manager can be an uneasy one, for each is generally convinced that his expertise is the essential ingredient of success. We talked to companies that had floundered for years, then became suddenly profitable and started growing when a strong manager was brought in. Other companies had gone through two or three presidents in search of the right entrepreneurial/managerial combination. Another group of companies was started by engineers and continues to be managed by engineers. These firms generally place more emphasis on technological perfection than on market demands.

"High technology, by its nature, is fast-changing."

Attracting venture capital can be a stumbling block for inexperienced entrepreneurs, particularly since the sources are almost always located outside the region. Universities in the region, notably Georgia Tech, are arranging contacts between small high-technology companies and venture capitalists. Commercial banks in the Southeast typically have shown little interest in such investments, because local institutions lack the expertise to analyze the inherent risks involved. Law firms and public accounting firms

are becoming increasingly interested in arranging such financing. These firms contribute an important part of the infrastructure to support home-grown high tech.

Certain characteristics and qualities dominate high-tech firms that have grown large and profitable enough to enter the realm of public financing. We visited various firms in the region, all of which had sales over $12 million and at least a 10 percent profit margin. Most were publicly held or had the ability to make a successful public offering sometime in the future. We found two common elements within most of these companies—a strong management team and a well-defined market niche.

Management Style

The management style of high-technology companies is similar in many ways to the styles described in Thomas Peters and Robert Waterman's **In Search of Excellence.**[17] Top officers are called by first names. The executive offices are generally not separated from other offices. The CEO's "office" in two of the companies we visited is a cubicle with no door and open at the ceiling. Decisions are pushed down to the lowest level. Formal memoranda are almost nonexistent.

"Successful companies have each identified something unique that they can bring to the marketplace."

These successful companies have an action bias. One CEO said an employee is never penalized for taking an action even if it is wrong. Only those who fail to act are asked to leave. Status and seniority seem unimportant. The people who can get results get rewards. People are given opportunities to grow. At one company assembly-line workers rotate as receptionists and every employee gets a chance to represent the company at a trade show.

Employees feel a strong sense of ownership. They act as owners, not workers. Employee stock ownership plans and bonuses based on profits are common. Company slogans are symbolized on pins worn by employees. Quality is stressed at every level of production.

The clean nature of the manufacturing process allows the production line and the office work to be housed in the same facility. Top management is close to the production process and can spot inefficiencies or opportunities for improvement early.

There are few layers of management. A few key players usually guide the direction of the firm. Organization charts and titles are relatively meaningless as the shape of the company changes regularly.

Market Niche

An essential ingredient for success is to find a "market niche"—a commercially viable new application for an established technology. The application should not be so big or so apparent that it will be immediately attractive to larger corporations with economies of scale in production. Small businesses rarely prosper by simply being in the right place at the right time. Careful attention to identifying a market niche is a continuous process. Particularly in the market for consumer electronics products, successful companies must plan on a product life-cycle as short as six months. The company must keep generating new "sub-niches" in response to small technical improvements or new interests on the part of customers.

The strength of the management team lies partly in its ability to identify a market niche. All the management, marketing and financing skills in the world are of no use unless the proper niche is identified. Sometimes this niche is in the form of a product; it also may be a process or a marketing strategy. But successful companies have each identified something unique that they can bring to the marketplace. What are some of the strategies that have made southeastern technology companies successful?

1. **Price Leadership** - Distinguish products from those of competitors through performance, technological innovation, or special service. This allows for pricing at the high end of the market. Harris Corporation of Melbourne, Florida has followed this strategy successfully even in the

[17] Thomas J. Peters and Robert H. Waterman, Jr., **In Search of Excellence** (Harper & Row, 1982).

exceptionally competitive semiconductor market.

2. **Brand Recognition** - In an intensely competitive market, distinguish the product through brand recognition, creative packaging and advertising. Quadram Corporation of Norcross, Georgia sells a microcomputer expansion board among a sea of competitors, capturing market share through name recognition, attractive packaging and heavy advertising. Hayes Microcomputer Products Corp., also of Norcross, is recognized as the industry leader in microcomputer modems. "Hayes" is often used as a generic name for intelligent modems. Peachtree Software of Atlanta uses a "peachy" theme along with attractive advertising to differentiate its basic software products.

3. **Automation** - Target an industry that needs to automate a specific process. Integrate hardware from reliable equipment manufacturers and write specific software. With this partially customized problem-solving package, a company can penetrate a virtually untapped market. HBO & Co. of Atlanta sells a turnkey system to hospitals to manage patient information systems. Its market is easily identified as all the hospitals in the U.S. currently without systems. Scientific Systems Services, Melbourne, Florida, markets integrated software and hardware systems specializing in control systems for the utility industry.

4. **Specialization** - Develop an expertise in a particular technology. Outfox competition by knowing more about the technology than anyone else. This can be done best in areas where cutting-edge technology is in demand—most often military and space applications. DBA Inc. of Melbourne specializes in photogrammetry and is awarded defense contracts with little competition. Electromagnetic Sciences Inc. of Atlanta has assembled a group of experts specializing in using magnetics to manipulate microwave signals.

5. **Technology Transfer** - The U. S. government contracts for research on technologies that may have some useful applications for military or space programs. Companies that conduct the research can then use their findings in commercial ventures. In essence, the R&D effort is subsidized and makes the introduction of new commercial products more cost effective. Harris Corporation has been successful at employing this strategy. Many of its commercial satellites and other communications products were developed in conjunction with government-funded research.

6. **Market Expansion** - A product may be useful to a broad market, but its price may prohibit its justification at the lower end of the market. A company can modify the technology to reduce both its performance and its price. The reduced capabilities may well be acceptable to the user who can afford only the lower price. Intelligent Systems Corp. of Norcross adopted this strategy at its inception. Entrepreneurs developed a color terminal to be used in process control systems—at less than half the price of existing terminals.

Conclusion

The positive forces generated by the presence of high-technology companies in the Southeast should help change the region's economic landscape. The promise of high technology is fostering a new sense of cooperation between legislators, educators, and businesses. Governments are putting resources into promoting industry growth and improving public education.

"High technology is not a cure-all for the southeastern economy."

While governments have emphasized attracting firms from outside the region, home-grown high-tech firms are just as likely to add to southeastern economic growth. Each successful venture by an entrepreneur generates millions of dollars of new wealth—which is inevitably reinvested in the same community.

High technology is not a cure-all for the southeastern economy. The areas likely to benefit most from this growth industry have already established some of the critical ingredients necessary to foster technical activity—an ample supply of skilled labor, a favorable business and tax climate, a superior education system, a high quality of life and access to markets through good transportation. Geographic areas that can offer all these assets to a relocating firm or to an entrepreneur starting a new company should be able to profit from the

tremendous growth opportunities in high-technology markets.

High-technology companies bring to a region not only new jobs, but also new ways of managing people to produce a product in a highly competitive environment. Our research brought to light a quiet revolution going on in American industry. Those companies on the cutting edge of technological change are also on the cutting edge of behavioral change. Successful high-technology companies are led by enlightened managements. They are disillusioned with traditional corporate structures. They believe there must be a better way to operate a business. The model they provide is one of integrating people with technology to get results.

The ingredients necessary for successful operation of a technology firm are increasingly becoming the same ingredients needed to operate successfully in traditional industries. High technology is a product of the information age. A management style conducive to this age naturally has developed. The age of mass production, standardization, and broad interpretations of customer needs appears to be nearing an end. High-technology producers have been forced to operate in a rapidly changing environment early in their development. Companies in traditional industries that recognize the need for a "renaissance" in management style and strategy can successfully embrace new challenges. The presence of a dynamic industry such as high technology may develop a pattern for others to follow as the Southeast's economic environment continues to change.

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FLORIDA

Florida's high-technology industry is by far the largest in the Southeast and is increasingly recognized as one of the nation's leading up-and-coming centers. The diversification of Florida's economy has resulted from the directed and cooperative effort of interested parties in state government, education, and business. Florida's favorable business environment and quality of life also have played a big role in the success.[18]

The presence of such companies strongly contributed to Florida's resilience during the last recession. With a heavy reliance on government defense contracts, Florida's industry has amassed a solid base of technology primarily in the areas of defense, satellite telecommunications, and aviation. The two heaviest concentrations are in Central Florida from Tampa through Orlando to Melbourne and along the Southeast coast.

In 1982, over 126,000 Floridians were employed in high-technology manufacturing, representing 27 percent of all manufacturing workers.[19] The five-year increase in high-tech manufacturing employment between 1977 and 1982 was 47 percent, over twice the nationwide growth rate. Much of the employment is concentrated in Florida's large companies. Florida's five largest manufacturing companies are all in high-technology industries. The state's two largest industrial employers, Harris Corporation of Melbourne and Martin Marietta Aerospace in Orlando, each employs over 10,000 in Florida facilities.

Florida also has a strong high-tech service sector. Over 21,000 Floridians were employed in data processing, communications, and computer service companies in 1982, up 100 percent from 1977 levels.

Florida's efforts to make the state more attractive must be working. Alexander Grant & Co. ranked Florida first in 1981 and 1982, up from twelfth in 1979 and eighth in 1980.

The same attributes that have made Florida a retiree's mecca have also helped lure technology to the state. Florida's rapidly growing companies say that Florida's climate and recreational amenities make recruiting professionals to the state easy. They say that the lure is strong enough to compensate in most cases for any perceived inadequacies in the state's education system and cultural activities. Though residential property is high-priced along southeastern Florida's Gold Coast, housing is still affordable in central Florida.

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[18] For a related discussion, see Hank Fishkind, "High Technology in Florida's Economy" **The Florida Outlook,** 1983, Vol. 7, No. 2 (June 1983).

[19] For our definition of high-tech manufacturing, see footnote 7.

Much of Florida's efforts to make the state more attractive are focused on improving education at all levels. Enhancing the universities' engineering programs is a priority. Large sums have been appropriated to improve the quality and number of engineering graduates. One goal has been to expand the Florida Engineering Education Delivery System that conducts masters level programs in electrical engineering statewide through tutored videotape instruction, electronic blackboards and live video links.

To help ensure that the state has an adequate pool of technical workers, Florida has created an Office of High Technology and Industry in the State Department of Education to coordinate the educational needs of industry. Florida's expenditures on vocational education per prime working age population are the highest in the nation and 82 percent higher than the national average.[20]

Florida now ranks 7th among the states in high-tech employment. Florida has achieved the desirable "critical mass" in its concentrated areas that are already spawning spin-off and new start-up firms, and the state is poised to benefit from the increased national emphasis on defense spending.

RESEARCH TRIANGLE

North Carolina's Research Triangle Park (RTP) covers 5,500 acres within the triangle formed by North Carolina State University in Raleigh, Duke University in Durham, and the University of North Carolina in Chapel Hill. As the world's largest planned research park, it is normally rated only behind Silicon Valley and Route 128 as a premier center of high technology.

From its inception, RTP has been supported by the state government, and the surrounding academic community. Its early start enabled RTP to attract quality organizations before the competition stiffened. IBM built a facility in the park in 1965 that has grown to a million square feet of lab space housing R&D in telecommunications and data processing systems. IBM, the park's largest employer, has other facilities in the surrounding area. Becton Dickinson & Co., a leading international manufacturer of medical instrumentation and health care products, moved to the park in 1968. Burroughs Wellcome, the British pharmaceutical firm, moved its American research headquarters from New York in 1970.

Today the park is home to a prestigious collection of around 40 industrial and governmental R&D laboratories employing about 20,000 people; annual payrolls total about $500 million. Other occupants include the EPA's Environmental Research Center, the agency's largest field installation employing over 400 scientists such as research physicians, engineers, veterinarians, and epidemiologists. Unlike other high-tech centers, the researchers usually are engaged in long-term, basic research rather than applied research to develop commercial products. The tempo is relaxed, and most employees stick to a 9 to 5 workday, a marked contrast to the frenzied, workaholic pace in other leading centers.

The academic nature of park research is reinforced by the campus-like appearance, which was the product of careful planning and controlled, focused development. Admittance has been selective, with occupancy limited to organizations engaged in research, development, and scientifically oriented production.

The park's "academic ambiance" has been a recruiting asset. It not only looks like a campus but increasingly functions like one. Researchers interact frequently, both professionally and personally. The park contributes to this air of collegiality by providing frequent seminars and public lectures.

The proximity to three strong universities obviously has contributed to the park's success, and the benefits seem to have been mutual. Many of the employees serve as adjunct professors while in the area. Maintaining contact with a university is particularly important for those planning to begin or to resume an academic career.

While North Carolina intends to preserve the park's pristine research environment by allowing very little manufacturing within its borders, the state actively recruits high-technology manufacturing for the surrounding areas and in other parts of the state. High-tech manufactuing in North Carolina currently provides almost 77,000 jobs, important in a state where textile industry declines have left many jobless.

North Carolina hopes more companies with R&D labs in the park will follow the example of Data General in locating its manufacturing plants nearby. Data General moved its R&D center to the park in 1976.

North Carolina aspires to become a leader in microelectronics. As a big step in that direction, the state is building a Microelectronics Center with $24 million from the state legislature and donations from the three universities and a few corporations. Plans for the center influenced General Electric to choose the park for its own microelectronics center, where GE will design and manufacture silicon chips to supply most of its internal demand.

ATLANTA

Atlanta was a late entry in the high-technology race and has been struggling to catch up. Though running a distant third behind Florida and North Carolina, Atlanta's high-tech has picked up in the last few years. Led by Technology Park/Atlanta in the northeast suburb of Norcross, technology parks have sprung up throughout the metropolitan area. Over 33,000 people in metropolitan Atlanta are employed by the 150-plus technology companies, which have a collective payroll over $500 million annually and revenues exceeding $2 billion.[21]

The majority of Atlanta's companies are in service areas such as computer programming, software, and

[20] Telephone conversation with Linda Klein, Florida Department of Commerce, Division of Economic Development, August 23, 1983.

[21] Jan Jaben Weiner, "High Tech: Taking over our lives, creating jobs, wealth, competition," **Atlanta Business Chronicle,** April 4, 1983.

data processing. The largest of these, Management Science America Inc., ranks among the largest and most successful independent applications software companies in the world. Another successful local company, HBO & Co., specializes in hospital information systems. These companies, plus those operating on a more modest scale in the software and programming area, provide about a quarter of the area's high-tech jobs.

Telecommunications provides many of Atlanta's high-tech jobs. Scientific-Atlanta, Inc., a leading supplier of products to the satellite communications and cable television industries, employs over 3,000. Northern Telecom and Continental Telephone are other strong telecommunications companies. Lockheed Corporation, with 13,000 employees, gives Atlanta a solid base in areospace production and R&D.

Atlanta gets high marks on some important locational attributes. The business climate is considered favorable primarily because of industrial tax incentives and the pro-business attitudes of state and local governments. Alexander Grant & Co.'s 1982 business climate analysis ranked Georgia sixth highest among 48 states. Atlanta's excellent transportation facilities, reasonable real estate prices, and quality of life also contribute to the city's attractiveness.

With strong programs in science, engineering and computer science, Georgia Tech is one of Atlanta's major strengths. The broadening of Tech's applied research program will increase its appeal to the technology community. Most of the activity in Atlanta to date was initiated by Georgia Tech faculty and alumni. The campus is home to the Advanced Technology Development Center, which promotes, recruits and supports high-technology companies. Established in 1980, the ATDC offers a place for new companies to incubate. Some of the services offered to the young companies include inexpensive building space on the Georgia Tech campus, access to the school's research facilities, and consulting by faculty and students on technical, managerial, and financial aspects of the business.

Atlanta has a strong base in some of the areas with the highest growth potential, including computer and computer services, communications, office automation, and avionics. Georgia Tech projects the number of job openings in high tech and related areas at more than 40,000 statewide during the next five years. With its strong technology base, Atlanta is well-positioned to capture the lion's share of new jobs.[22]

A recent study by Research Atlanta, a private research organization, concluded that the two primary inhibitors have been a shortage of trained workers and a leadership vacuum in planning and organizing to attract high tech. While there are strong local promoters of high tech, their efforts have not been coordinated and many seem to lack focus.[23]

Government, business, and education officials are now realizing the need for a more focused approach. A recent bid to capture the Microelectronics and Computer Technology Corp. was the first effort on the part of a group of interested parties to design collectively a path for Atlanta's technology growth. Although the bid was lost, the effort may pay off in future cooperation among the important segments contributing to the growth of the industry.

OAK RIDGE/KNOXVILLE

The most significant cluster of high-technology activity in Tennessee is in Oak Ridge/Knoxville. The backbone of the activity in the three large Department of Energy facilities operated by the Nuclear Division of Union Carbide. Oak Ridge National Laboratory opened in 1943 as the site of one of the world's first nuclear reactors. Today it is a diversified center of nonnuclear as well as nuclear energy R&D. It employs 5,800 people, 40 percent of whom hold technical degrees. The second DOE facility is a weapons plant that employs 5,000 people, the third a gaseous diffusion plant employing 6,000. The Tennessee Valley Authority (TVA) employs around 5,000 at its headquarters located in Knoxville and several facilities in the area. Including TVA and the DOE facilities, around 85 high-tech firms employing over 30,000 operate in the Oak Ridge-Knoxville area.

The area has a number of spin-off firms started by former employees of the Oak Ridge National Lab or the University of Tennessee. The energy research in the area has attracted related companies. Some of the national laboratories' major subcontractors such as Westinghouse, also have located facilities nearby.

The University of Tennessee in Knoxville offers technical and science programs. Around 10 percent of the employees of Oak Ridge National Laboratory are affiliated with the university as professors or post-doctoral students. The school's graduate students frequently participate in projects at the Lab.

In 1982 a Tennessee task force concluded that the area stretching 20 miles from Oak Ridge to just west of Knoxville has physical and institutional resources that make it an excellent location for high technology. One of the major resources is brain-power, for the area counts around 2,300 Ph.D.'s and 4,800 engineers. The existing cluster of laboratories and companies gives Oak Ridge/Knoxville strength in the areas of biotech and plant genetics; measurement technology and instrumentation; materials technology; energy systems and consulting services.

Hoping to capitalize on that cluster of technology, the state is actively promoting the area, now called the Tennessee Technology Corridor. Much of the Tennessee effort focuses on education, particularly increased funding for research at the University of Tennessee.

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[22] C. L. Aton, **op. cit.**

[23] Jacqueline M. Sweatt, "High Tech in Metropolitan Atlanta: Realizing Our Potential," Research Atlanta, Inc. 1983.

HUNTSVILLE

Alabama's most active area of high technology is in Huntsville, home of the Army's Redstone Arsenal and NASA's Marshall Space Flight Center. Huntsville was a government boom town in the early 1960s. As the missile and space programs declined, many unemployed government workers started their own companies. Though a large number depend on government contracts, their growth has reduced Huntsville's dependence on the federal government.

The Center for High Technology Management and Economic Research at the University of Alabama at Huntsville estimates Huntsville's high-tech employment at almost 20,000 and the number of firms at over 200. Based on a survey of one-third of these firms, the Center projects that such employment will exceed 23,000 by the end of 1983 and over 35,000 by 1987.[24]

Huntsville has been recruiting aggressively. The focus for new development is on Cummings Research Park, where approximately 900 acres are available for research, development and light manufacturing. Development of the park began in 1961, with IBM and Teledyne Brown Engineering its first two occupants. Currently 34 private and government organizations have facilities in the park. Park developers expect 10 to 15 new occupants in 1983.

The scientific and engineering curricula at the University of Alabama were developed to support Army and NASA programs, so they are well suited to the needs of high-technology industry. The school's research strengths are in the areas of energy, solar-terrestrial, laser optics, and missiles.

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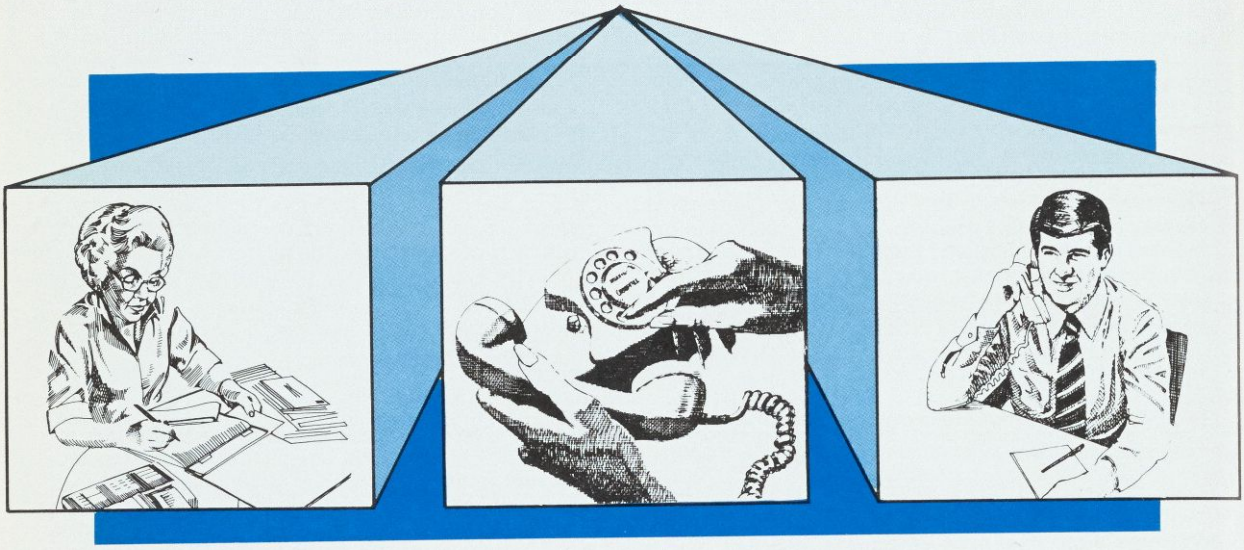
[24] Chris Paul, "An Inventory of Alabama High-Technology Firms, Employment, and Payroll by County," Center of High-Technology Management and Economic Research, the University of Alabama in Huntsville. Employment includes both manufacturing and service companies in the following SIC codes: 348, 36, 372 376, 38, 481, 483, 489, 737, 891, 892, 899.

Signals From the Future: The Emerging Financial Services Industry



A recent symposium brought together innovators—leaders who emphasize action rather than ideas—representing many segments of the evolving financial services industry. Here's a report from that session, organized by the Atlanta Fed.

Demands of the market are playing a dramatic role in reshaping the financial services industry: That was the message that Federal Reserve System economists and analysts heard at a recent meeting of the System Research Committee on Banking and Financial Structure.

Part of the program, at the San Francisco Federal Reserve Bank, was arranged by the Atlanta Fed to bring together authorities from a variety of fields to discuss the evolution of financial services. Donald L. Koch, the Atlanta Fed's senior vice president and director of research, is chairman of the System committee.

Participants on the July 18-19 program occasionally disagreed on the results of the expected shakeout. But they echoed one another frequently in sounding the death knell for restrictions against interstate banking. And they all agreed that the lure of profits has enticed others into the financial services arena once shared only by banks and thrift institutions.

"Banking is no longer the sole province of banks," as the transition was summed up by Harry Freeman, senior vice president of American Express Company and one of the six speakers on the program. He said the emerging financial services industry has grown to include computer companies, retail merchandise chains and other firms engaged in managing, protecting, and transferring assets, credit and financial information.

The growing sophistication of the consumer and the emergence of high technology stimulated these dramatic changes in financial services, Freeman said. In response to the economic storms of the 1970s and early 1980s, battered consumers emerged wiser and tougher, looking for ways to get their assets to higher ground.

Banking firms and bank regulators should realize that interstate banking is a reality in this country, agreed Ronald G. Steinhart, president of Interfirst Corporation of Dallas, Texas. Customers who are accustomed to the improved communications provided by technological advances are demanding the best financial deals available. There is no way laws can prevent customers from

going where they think they can get the greatest economic reward, he said.

As long as this country operates a free market society, banks will find ways to bypass outdated regulations, Steinhart said, adding that he thinks regulators should be involved in instituting formal deregulation.

John F. Fisher, senior vice president of Banc One Corporation of Columbus, Ohio agreed that geographic restrictions in the banking business have fallen. The only restrictions remaining are those against branching, and electronics is fast replacing branching, he said.

Automated teller machines, which have been soaring in popularity since the first was installed in 1970, will be eclipsed by the end of the century by home delivery services, according to Fisher. Shared branches, such as those found where grocery and department stores have started offering space to financial firms, will run a close second in popularity to home delivery. One innovation on the horizon is the all-purpose, universally accepted debit card, which will make cash as available as bottled soft drinks, he said.

Fisher focused primarily on the promises of videotex, the two-way interactive home delivery technology that will offer information, transaction processing, electronic mail, home shopping and a new advertising medium.

Anthony Frank discussed the unique problems and advantages encountered by a savings and loan association operating in three states. When his firm, First Nationwide Financial of San Francisco, merged with thrifts in Florida and New York, it faced the question of which regional Federal Home Loan Bank should regulate, hold balances and provide advances for the firm. Allowing a multi-state financial firm to choose its Federal Home Loan Bank district promises to inject an element of private enterprise into regulation, he said.

Frank said he believes the future will bring consolidation and a continued blurring of the distinctions among financial service firms. He foresees only 15 to 20 major financial companies remaining by the end of the next decade.

Another example of the growing diversity of financial services was represented at the meeting by Publix Supermarkets, a leader among Florida retailers in installing automated teller machines. Publix operates 95 ATMs and expects to have one in each of its 265 stores by the end of 1984, said Charles H. Jenkins Jr., vice president of the firm based in Lakeland. The ATMs offer full services with cash withdrawal, deposit taking, balance inquiry and inter-account changes.

Banks seem to believe the grocery store chain is intruding into their business, Jenkins said, but he noted that Publix is already cashing 30 million checks each year for its customers. He said Publix is trying to provide an efficient way to make cash available to customers to spend in the grocery chain's stores.

Michael Laub of the American Bankers Association discussed how industry pressure induces Congress to change financial laws. He looked at how that pressure shapes the financial services that will be demanded in the future and the structure that will deliver those services.

Liberalizing financial laws will lower geographic barriers against interstate banking and allow banks to acquire more capital through mergers, he said. Consolidation also may be an answer for financial institutions that need more capital.

A Bank Bigger Than Texas

Ronald Steinhart of Interfirst Corp. said managers of his bank holding company, which ranks as the 14th largest in the country and holds $22 billion in assets, want to take advantage of the benefits they see in expanding banking beyond the Texas state borders. Both banking institutions and regulators should realize that de facto interstate banking is a reality in this country, he said.

"As I look at the trends that have developed over the past 10 years and the reasons for this de facto deregulation, I can point to several reasons, one being of course our changing and shrinking world," said Steinhart. Banking especially is taking advantage of changes in communication that have had a dramatic impact on our world: television, advances in cable TV, the telephone's ease of long distance direct dialing and the use of 800 numbers, home computers giving any customers access to tremendous data bases whether they're in the most distant rural area or a large urban community, and the distribution of periodicals like **The Wall Street Journal** and **USA Today** across the nation on a timely basis.

"The greatest factor has been the technological change that increases the ability of the banking system to serve its customers."

Steinhart said he sees a parallel change in customer attitude associated with improvements in providing service. Increased mobility is breaking the traditions that bound Americans to one

section of the country. Generation after generation of a family no longer grow up within miles of each other. As people move across state lines and across the country, they take with them increased banking knowledge and a demand for banking services.

"One of our 66 banks is in a small farming and retirement community of Clifton, Texas. When we purchased that bank about five years ago, most of the money was in demand deposits and in 5 percent savings. Gradually, the population became more aware of different types of certificates of deposit. But in a review about a year ago, we noticed a tremendous amount of deposits leaving the local community."

Steinhart said that an investor in Clifton, Texas can buy the morning **Wall Street Journal** and know the current rates offered by money market funds in New York before the local bank opens for business.

"And they've already called that 800 number of New York and transferred money around. No longer does the rural customer look to the traditional relationship with his banker. Now he is looking to a very impersonal relationship with a telephone and with a banking institution that might be located on the East or West Coast."

A trend toward impersonality can be found among companies as well as individuals. Paine Webber surveyed Texas middle market companies with assets between $5 million and $100 million to find which banking organizations were doing the best job of marketing to middle market companies. "These were companies that you would think would have the old traditional relationship with their bankers, much like their family doctor. Yet the number one reason they gave for choosing a bank was pricing flexibility," said Steinhart.

"Another indicator of the changing attitudes of the commercial markets was that 70 percent of the companies said they did not look to their banker for financial advice in running their company."

Steinhart said there is no way statutes can prevent people from going where they think they can get the greatest economic reward. Economic incentive encourages financial institutions to find loopholes in the laws restricting interstate banking and reshapes the market place, he said. In discussing the emergence of de facto interstate banking, Steinhart pointed to Associates Corporation of North America, headquartered in Irving, Texas, as the first to avoid holding company regulations by purchasing a California bank and divesting their acquisition's commercial loans.

Associates has now opened three loan production offices in Dallas by converting former consumer loan offices of Associates Corporation of North America and renaming them Associates National Bank of California. The move allowed Associates to avoid a Texas statute against branching and to close loans in California, thereby skirting Texas' more stringent usury statutes.

One of the most active ways of crossing state lines is the solicitation of credit cards through the mail. Individual states have also provided interstate banking opportunities with reciprocal branching laws like those of Alaska and Maine and permits for special-purpose banks in Delaware and South Dakota.

Steinhart said he believes regulators should play a role in determining how interstate banking is formalized.

"As long as we maintain a free market society, the national institutions and others will find ways to bypass outdated regulations, and I think that evidence is conclusive," he said. Referring to regulators' concerns about the safety and stability of the system due to the possible introduction of interstate banking, Steinhart said, "I definitely do not see any measurable concern in this area."

"Statutes cannot prevent people from going where they think they can get the greatest economic reward."

"We must realize that we are talking about geographical deregulation, the extension of present services over a broader area. We are not talking about product deregulation, offering products we might not be familiar with. And we're not talking about pricing deregulation; the funding cost of pricing deregulation certainly could affect the capital bases of many of our organizations, though that is a risk of the free-enterprise system. I think in interstate banking we're talking about geographical deregulation and extending existing services. To me, there is no risk to the system."

Another question is whether interstate banking might lessen competition or threaten the viability

of the small banks, according to Steinhart. From his vantage point, the introduction of large, well-managed, imaginative out-of-state banking organizations could actually increase competition.

"Though Texas is competitive in commercial markets, we have been somewhat less competitive in consumer areas. Texas was very slow in offering ATM service, even though probably the largest initial company in this industry was Docutel Corp., headquartered in Irving. Consumer loans have shown little growth in the major holding companies in Texas. Credit card programs have been quite conservative. I do not believe any major credit card program of a major banking organization has ever solicited cards outside of my state."

On the other side, Steinhart said he thinks small banks will continue to prosper by target marketing in profitable segments and by offering personal service. He pointed to Texas and California as competitive states with many large financial institutions where new banks are chartered every day.

"There are some very significant changes afoot and technology probably is driving these changes more than anything else."

Finally, on the nonbank financial conglomerates that are getting so much attention, Steinhart said they can be construed as either a threat to the banking system or as the financial institution of the future.

"They will be the financial institutions of the future, at least in the form they are taking, whether or not they are part of the banking system. The simple reason is that they are providing what our customers want. Unless we construct purely artificial barriers, they will succeed in meeting our customers' needs. In my estimation, the marketplace is succeeding in deregulating itself, and this cannot be precluded through either regulation or statute."

"We will be doing a real disservice to the banking industry through the continuation of antiquated statutes. You are certainly familiar with our new competitors: Merrill Lynch, Prudential-Bache, Dreyfus, Sears and so on. But the main point is that their overwhelming public acceptance and tremendous success should be conclusive evidence that, if the banking industry is not legally allowed to cross over state borders, the crossover will be done by others."

When Banking Will Be Everywhere

Discussions about lifting geographic restrictions in the banking business are academic because those barriers have already fallen, according to John F. Fisher of Banc One Corporation.

"About the only thing we're still restricting is the branch facility. And you know, that's dead," said Fisher. "Oh, not quite, but it's certainly on its last legs."

"I think a lot of the things that we are pondering are going to see the light of day. Maybe not precisely the way we are talking about them, but certainly options of what we're talking about are going to occur, for our society is not willing any longer to accommodate the restrictions of the past. I concur that there are some very significant changes afoot and technology probably is driving these changes more than anything else."

Fisher traced the life-cycles of the financial industry's basic ways of getting its services into the market place.

"Back in 1950 the main office was where most of us used to be serviced. We'd go to the main office to do our banking. There was no other way to do banking." Then branching arrived and the number of branches grew to outnumber main offices. But Fisher said he thinks the bricks and mortar delivery system has reached the zenith of its popularity.

"They're being replaced, as you recognize, by electronics. That's why I think the geographic restrictions we're discussing today are a moot issue," he said. "It began in 1970 with the installation of the first automatic teller machine in American banking." But popularity of the ATM will peak in another 10 years, he said.

By the end of the century, the delivery of services into the home through computer terminals or TV linkups will become the single most important method of access to the bank, he said. Fisher believes the automated clearing house (ACH) will become the second most important access to data by the year 2000. It will be the principal method of soliciting deposits and handling much of the payment mechanism. The

shared branch will be another important distribution system.

Explaining how Banc One is approaching the shared branch experimentally, Fisher said "we went to Nationwide Insurance about a year ago and introduced an experimental effort to install insurance agents in several of our branches and to have Nationwide lease space from us."

Fisher's bank believes there are some synergisms in a full-service financial center as opposed to a single branch bank, and "we believe the market place will respond favorably. Prudential-Bache says now that they'll enter into an agreement to put one of their brokers in bank lobbies around the country under a similar kind of shared branch facility."

He pointed to other examples of shared branching. Kroger entered into an experimental agreement with Capital Holding in Kentucky to open financial service centers in supermarkets so shoppers can buy annuities and money funds at Kroger stores. In addition, First Nationwide Savings has announced it will enter into a shared concept with J.C. Penney.

"We're going to be doing banking everywhere. And anybody's going to be able to do it. We're going to install teller devices anywhere, everywhere, and share them with anybody and they can be owned by anybody. The market place is going to pay for that because that's what can best benefit the consumer.

"So the day of branch restriction being applied to where and how financial transactions are delivered is over," Fisher added. "Technology is the revolutionary trigger that has driven most of the changes, certainly in the retail side of the banking business."

The industry is on the brink of introducing an all-purpose, universally accepted debit card, he said. Florida has the Honor Card, and Visa recently announced it is introducing electronic developments that promise eventually to permit the use of debit cards worldwide.

"There are all kinds of new terminals arriving on the market for people with these new electronic debit cards to use," Fisher said. "Every bank in America will have to be proficient in the next two years at issuing an interchangeable debit card that is acceptable worldwide, used not just in automatic teller machines the way they have begun but used also at the point of sale.

"My belief is that we're going to have cash as available as bottled soft drinks, just every kind of dispensing machinery that you can find, anywhere you want to find it. Banking service is going to be wherever the customer wants it in the future. And the cost of being able to deliver it is going to be no cost compared to the high cost of the branch systems of the past."

Turning again to the home delivery of financial services, Fisher looked at videotex, which he said promises that the average customer someday will be able to operate a terminal and access a bank account from the home. Videotex promises to link together two of today's readily acceptable technologies, the television and the telephone, and allow customers to call up on their home screen distant data bases of interest or value to them.

"First you have to understand what's clearly going on in the home today and the environment that is there. There are three principal developments, and you must keep them separate in your mind. If you try to think of them as a whole, you'll get lost. But if you segregate them as video, personal computers and videotex, I think you can see where this development is beginning," said Fisher.

"The industry is on the brink of introducing an all-purpose, universally accepted debit card."

"First, video is principally entertainment. It's the cable, it's the video disc, video tape, video games. It generally has nothing to do with information and in my mind cannot be confused with what's beginning to develop that will serve the financial needs of our society.

"The second development has to do with the personal computer that is principally being developed for the office but now is also being distributed into the home.

"Now the personal computer is data processing, separate and distinct from the video concept in the home. It is in-house processing and it uses discs and printers. It's expensive, difficult to operate, and it has a typewriter kind of keyboard. It is data processing and it will be important to delivering financial services in the future in the home.

"But the most important of all will be videotex. That's the technology that was born in England about 1976. It is now being experimented with around the world and is being launched commercially in our country this year."

"Videotex is two-way interactive. It uses the TV adapter, a 1200-baud telephone line. It is generally a hunt and peck keyboard that has full graphics; there is no additional TV set that you have to buy. You can use the existing set in the home. It is remote processing in all cases to remote computers, distant computers. And it's going to be easy to use," Fisher continued.

Videotex promises to provide five basic services, according to Fisher. First, it can supply unlimited information for display on the home screen. Second, it also will provide transaction processing—not just banking functions but also the ability to call up on the home screen the TWA schedule from San Francisco to Columbus, book a seat on a flight and charge the ticket to a credit or debit account at that time. The service also includes electronic mail and home shopping. Videotex is also going to create a new advertising medium as well. It's anticipated that the advertiser will pay a large share of the service's costs, along the lines of today's newspaper advertisers.

"Banking service is going to be wherever the customer wants it in the future."

The corporations funding early development of videotex services are linking together homes requesting the service with information providers through a communications distribution system. Today Knight-Ridder in Miami stands ready to launch the nation's first commercial application of videotex in April. Times-Mirror in Los Angeles is ready to launch the second major commercial application next June. CBS, which has just finished a major test with AT&T in Ridgewood, New Jersey, is getting ready to announce a national information network using its affiliates around the country. KeyCom—a Chicago-based joint venture between Field Enterprises, Honeywell and CenTell, the nation's fourth largest independent telephone company—has a major project planned next year in its home city.

Banc One recently announced the formation of Video Financial Services, a joint venture that plans to put together a national data processing company owned by a limited number of banks. It will deliver financial services from any bank, savings and loan or credit union into any home through new videotex networks.

Video Financial Services will offer electronic bill paying and provide unlimited account information instead of just the checking account balance, the most banking information offered electronically today. The product will be known as Applause, the home-delivered video financial service. The home can be served by the Knight-Ridder and Times-Mirror network computer, but since the network computer can access other computers, the home video financial computer will be able to access banks, savings and loans and credit unions as well.

Supermarket Banking

Publix Supermarkets Inc. has been in the banking business since the regional supermarket chain cashed its first customer's check 50 years ago, said Charles Jenkins, Jr., vice president of the company. In illustrating that point, he offered these statistics: the chain, whose sales last year totaled $2.5 billion, incurred costs of $7 million net of the fees it charged to cash 30 million checks for its customers and handled 175 million customer transactions.

To help customers obtain ready cash for their shopping, Publix has been a leader among Florida retailers in installing automated teller machines. The typical Publix Teller is installed in the front of the grocery because managers want their ATMs to be 24-hour facilities. Today Publix operates 95 machines and expects to have one machine in each of its 265 stores by the end of 1984, with possibly two in high volume locations.

"We offer full service with cash withdrawal, deposit taking capabilities, balance inquiry and inter-account changes. We charge 40 cents to the bank for cash withdrawal, 60 cents for deposit, 15 cents for a deposit inquiry, and we have a $5,000 initiation fee. That is the extent of our fee structure, very simple and straightforward," Jenkins said.

Publix is preparing to enter the point of sale arena, he said, by issuing customers private label

debit cards equipped with a magnetic stripe coding device. Jenkins explained how the new debit cards will work, saying the plastic card, inserted in a machine at the "point of sale," will automatically transfer funds out of the customer's account into the store's account.

"We don't actually have this in operation yet," said Jenkins, "but we are very close to an actual point of sale test."

"There are a lot of advantages to point of sale, I think, for all the players involved—the retailer, the bank and the customer," he continued. "From our standpoint, it will reduce our risk of bad checks and also our exposure to robberies when we no longer have to keep a great deal of cash in the store. The debit card will give us immediate use of the funds and this, of course, will be a plus from our cash management standpoint."

Jenkins said he believes Publix's customers will like the point-of-sale operation. He pointed to a study performed by a supermarket association showing that 39 percent of those responding ranked fast checkout ahead of low prices as the most important reason for selecting a market.

"The thing that really bogs down our checkout operation is check cashing at the counter, where the customer gives us a check for more than the exact amount of a purchase, the kind that we do not accept right at the register. This takes an extremely long time to transact and sometimes involves the cashier having to run over to the manager's office and get the check okayed," said Jenkins.

"However, the customer is also going to perceive, I think, that where we have gained the advantage of float, they have lost it. This is why I feel that the point-of-sale system cannot work if there is any cost disadvantage compared with paper-based systems. In other words, if we charge customers more to do this than to give us a check, then they simply are not going to do it and they're going to continue to give us a check for petty cash."

Publix has proposed to Florida banks that the supermarket chain purchase, install and maintain the in-store equipment and utilize the existing ATM switch (the electronic device that links banks and stores) to move transactions to the various banks. The necessary point of sale contract would be very similar to the ATM agreements Publix has already drawn up with banks. Moving into point of sale would be easy once an ATM relationship is in place, he said.

Jenkins added that Publix plans to test point of sale at one store with various private label cards through its existing ATM network. If the test scheduled to begin this month goes well, Publix anticipates 3,000 installations by the end of 1984.

Turning to the regulatory environment, Jenkins noted that "the prohibition against interstate banking, the McFadden Act, does in effect limit the deposit-taking potential of the national shared networks; it's not any problem for us. There was an active effort in Florida this past legislative session to pass reciprocal interstate banking with New York. This failed, but I'm sure that it will be back next year.

"One Florida statute that complicates our lives somewhat requires nonbanking concerns such as us to go through a sponsor bank to access the various national ATM networks," he said. But Jenkins added that he does not expect the statute to be long-lived.

"One problem we foresee in our point-of-sale program occurs in Regulation D's definition of a transaction account. Our reading is that, if you don't have a transaction account, you can't use the point-of-sale system. A lot of customers in Florida are customers of S&Ls. One of our large S&L members did a survey and found that 56 percent of their accounts would not be transaction accounts and therefore would not be eligible for our point-of-sale system. So we see this as probably the biggest regulatory stumbling block to the system, particularly with the account structure that exists in Florida.

"The shared national ATM networks, of course, are interstate banking in a sense except for the deposit-taking capabilities, so it does appear that we're a long way toward interstate banking, whether we call it that or not," Jenkins concluded.

"The point-of-sale system cannot work if there is any cost disadvantage compared with paper-based systems."

Problems of Coast-to-Coast Mergers

Anthony Frank of First Nationwide Financial of San Francisco outlined how his California savings

and loan association merged with West Side Savings and Loan in New York and Washington Savings in Florida to produce First Nationwide Financial.

"We determined that we wanted to run one institution, we did not want feudal duchies. We did not bring any new people in; we did not bring any California people into New York and Florida."

"We formed tripartite committees to look at every aspect of the operation. In many cases we changed what we were doing in California to conform to some better way being done in New York or Florida, which helped morale enormously."

"But we are now one institution; it took quite a while. We may be the only institution in the country that is on one data processing system, which offers a lot of advantages. We have the same systems and procedures, the same pay schedules, the same interaction."

"Of course these three institutions have vastly different corporate cultures. It's quite something to integrate that. One of the exciting things is to be able to tell New Yorkers and Floridians that they can do business with one institution. That was always our game plan. People buying a home and planning to retire to Florida, people having parents down there, and people spending long vacations have all been an important source of business for us. We are the only California or New York association that can offer that type of direct service in Florida."

"Customers don't care very much about the name; people care a great deal about the service and the outreach that they get."

Frank told his audience that First Nationwide has encountered a dilemma: Which regional Federal Home Loan Bank should regulate, hold balances and provide advances for the firm that now operates in three districts? "And that's the question that all these Federal Home Loan Banks are going to have to ask each other," he said.

"We are a member of the Federal Home Loan Bank of San Francisco. We are not members of Atlanta or New York. And that creates a lot of difficulty and a lot of pluses.

"We borrow all the money from this bank. All of our deposits, I believe, are counted as California when the figures come out, because it's done by the headquarters city. And when there's a dispute, or when there's a merger or when there's something that takes on-site inspection, somebody from Calfornia goes to Florida or New York and does it.

"We learn that customers don't care very much about the name; we learn that people care a great deal about the service and the outreach that they get. We are making good money with the institutions; we're growing, we've almost doubled in size in Florida in terms of deposits. We've done a lot of branching in Florida; we've opened only one branch in New York and we've sold five branches in California," Frank said.

"Whenever you get confused about what the future will bring, just remember two words, consolidation and blurring. We think that seven to 10 years from now, there will only be 15 to 20 major players, just as there are five major players in Canada. We would like to be one of those players.

"We have three or four ambitions in addition to that. One, we want to be a national institution. Two, we want to serve the middle class. It is hard to keep them in mind, because you never hear anybody talk about them any more.

"Three, we would like to serve that middle class through one-stop financial shopping. And fourth, we'd like to do all this at little or no risk to ourselves."

Frank said First Nationwide has been told that there are no more supervisory mergers available. And he indicated he does not think highly of regular mergers.

"One, you get branches. You've already heard about the future of branches. And number two, you get a fixed-rate mortgage portfolio, which is almost as bad. So you're making book on the future course of interest rates, which I am unwilling to do. Our basic philosophy is that we do not know the future course of interest rates and we operate the institution accordingly. And, may I say, it's been amply validated that we do not know the future course of interest rates.

"So how can an organization become national, a major player, serve the middle class, and do one-stop shopping without taking any risks? Well, we've identified two ways. If they work, terrific; if they don't, we'll go on to something else."

"Under an agreement with J.C. Penney, we've opened five offices in their stores in northern

California since May 15. In those stores, we offer all savings and loan services, plus the J.C. Penney insurance operation. We're not ready to make any conclusions, we're experimenting and probing and changing all the time. But I would say preliminarily it's going well."

He noted that J.C. Penney has 1,700 stores all over the nation, open 84 hours a week, with 27 million credit card holders— almost triple the number of American Express cardholders.

"And J.C. Penney does business with 100 million Americans a year," Frank pointed out. "Might that be a distribution system for retail banking in the future? Answer: We don't know, but we're going to try to find out."

"The second area that we're experimenting in is dealing with the myriad small and medium sized savings banks and S&Ls around the country that are beginning to see that they're the dinosaurs that can no longer reach the grass, that they cannot provide an image of size and strength and modernity to their customers and that they no longer have a chance to offer all the products and services that their customers are demanding."

Frank said research shows the average customer deals with 22 different financial shops during the year. "That's no longer pleasurable for individuals who don't have the time, and it's no longer pleasurable for the institutions, because they can't make money on the dribs and drabs of middle class America's business."

"So I see a consolidation and the family's going to have to choose one of those 22 to do their business with. And these small institutions see that there's a pretty good chance that they're not going to be the one. And so they're starting to think about merging out, and indeed they are."

"I would like to offer them an alternative to merging out, with its grave consequences. I think it's very much in the interest of our country to have locally owned and managed institutions. I don't like this consolidation that I'm seeing.

"The consequences are pretty unbelievable. The diminution of home loans and loans to small shops, corporations, and farms, will change the whole fabric of this country. I'd like to offer a choice and that choice is to franchise. We began selling a franchise called the First Nationwide Network that will help give small and medium size institutions the size and image of a large institution. They can offer their customers face-to-face interaction and obviously can make available to them many products and services that the institution could not begin to develop on its own.

"How can a small or medium size institution—between $300 million and $1 billion—develop these products over and over and over again? The answer is that they can't and so they're thinking of merging out."

"So, we're in the business of franchising. We are a pretty small institution. We were $3 billion when we made the merger in 1981, and we're about $8 billion now. That's not big enough to become a major player if the future as I see it means 15 or 20 major players in this country. We're not going to be one of them and we want to be, so this is our answer."

Pressures for Legislative Change

"Financial laws are never changed until there is pressure from the market place, because Congress doesn't like to get out in front on banking laws," Michael Laub of the American Bankers Association told the meeting.

Laub, saying he wanted to examine pressure points on those financial laws, asked what types of financial services will be demanded in the future, and what are the best forms of industry structure? How should institutions be organized to deliver these services? Two other very important influences will be demographic and economic factors.

"Research shows the average customer deals with 22 different financial shops during the year."

"Those who deal extensively in consumer financial services are very aware of demographic changes and the effect these changes have on demand for their products and services," said Laub, "People live longer and accumulate more money. They are concerned with economic volatility and the safety of their funds. A specific aspect of that is concern about the Social Security system. People who are younger have a different set of concerns."

Citing factors that affect the supply of services, Laub mentioned economies of scale and delivery of services—which he said are becoming much more important—economies of joint production

and distribution, management concerns about risk, and changes in technology and regulation.

Laub said he thinks that a continued liberalization of financial laws lowering interstate barriers will enable banks to strengthen their capital positions through mergers. In addition, institutions need to obtain capital, and consolidation might be the answer. Laub said he is not sure he agrees with Frank's predictions about the extent of future consolidation. But he agreed the trend is certainly there and certainly one way to obtain capital is to merge with an institution that has more capital relative to its assets than your institution does. Thrift institutions and non-depository providers will continue to strengthen their market position vis-a-vis banks because of more liberal product and service powers.

Economic conditions will have a significant effect on demands for services and the ways institutions structure themselves to meet those demands. Technology that lowers the cost of transmitting information has greatly increased the economies of joint production and distribution of services, one of the factors driving pressures towards consolidation of financial services. Laub said he sees a need for diversification, a need for sophisticated product mix, and for enough flexibility to meet changing economic conditions.

"The uniqueness of the branch as a marketing tool has significantly decreased."

"Around 1980 or 1981, for our purposes, thrift institutions became as good as banks. They won a great, significant expansion in their powers on the asset side in the recent Garn-St. Germain Act. Even prior to that, they had some increase with respect to liabilities," he said.

The same period also saw the continued expansion of automated teller machines. Laub pointed to two important characteristics of these devices. "Many ATMs are at branches," he said. "More than 31 percent of them are shared. The net result is that the uniqueness of the branch as a marketing tool has significantly decreased.

"Now what was the reason for all this increase in branching in the 1970s?" he asked. "As market rates climbed higher and higher and depository institutions weren't allowed to compete on the basis of rate, their reaction was to compete by offering more convenience and building more branches. ATMs offered a way out of this dilemma because they are a cheaper and more efficient delivery system. But I think it's safe to say the country as a whole is over-located and over-branched," he said.

Branches became very expensive, particularly in a high rate environment. At the end of the 1970s, the best way to compete for deposits was by yield, the second way was by electronics and the third way was by the full-service branches.

If disinflation continues and stability returns, logically the nation should see a resurgence of full-service branches as a tool, Laub said. But he added that he would be cautious about making that prediction. Even with a return to stability, it will take a long time to work out the excess capacity in branches.

In researching an ABA study of the evolution of non-local competition, Laub said he found large banks were using holding companies to promote interstate banking. The Edge corporation was viewed as a convenient vehicle at the wholesale level and the finance company as a convenient vehicle at the retail level.

"The strategy being pursued, of course, was to change gradually the powers and products and services offered by these institutions so that they would look more and more like banks. And this has gone on significantly. This reinforces the idea that generally there are enough banking locations around," he said.

Capital ratios of banks declined throughout the 1970s, with most of the decline taking place at large and medium size institutions.

"The bulk of that decline was at institutions offering a more complex array of services, which generally means they need more capital. Accompanying this was the natural reaction of regulators—more worried about capital— who were seeking to enact stricter capital standards."

"What can we conclude from this? I think it's safe to say that the high interest rates with rate ceilings in the 1970s promoted too many branches," said Laub. "Today branches are a less powerful marketing tool, even in a low rate environment, than they used to be, and capital is putting pressure on financial institutions. It's hard to separate the need for new products and services from industry consolidation when the simple issue is changing interstate banking laws."

Several informal affiliations have involved joint provision of services, such as the network of some check cashing services, among institutions on the West Coast. In response to this, some interstate banking restrictions at the state level have tumbled. The McFadden Act does not prohibit interstate banking but says the states will govern when actual full-scale interstate banking takes place. Institutions can now engage in reciprocal interstate banking in several states in New England, and even without a reciprocal arrangement in Alaska.

Banks have expanded into brokerage operations on a discount basis, which tremendously multiplies the locational presence of brokerage services all over the United States. There have been judicial interpretations liberalizing the Glass-Steagall Act or, in the case of state non-member banks, simply recognizing that it is not binding.

Laub also cited the sale of insured deposit accounts by non-depository institutions. Merrill Lynch is doing this for California savings and loans; Prudential-Bache is doing it for Citibank. Some securities firms are setting up electronic systems through ATMs to link bank accounts and mutual funds. He pointed to the cash management account developed by Merrill Lynch in cooperation with Banc One as another example. Securities firms are moving into commercial lending, as are insurance companies.

"Thrift institutions are much more advanced than banks with respect to interstate mergers for a couple of reasons. One, they don't have the restrictive laws that govern banks. Two, they've just gone through a very severe financial crisis," said Laub. "I think it's certainly fair to say that, for the thrift institutions as a whole, their capital problems are much more severe" than those of banks.

"In addition, thrift institutions have much more liberal product and service restrictions than banks through their service corporations and in some cases the institution itself. These combinations of factors are putting pressure on the interstate banking laws *per se*," he said.

"What is needed?" Laub asked. "There is possibly a need for some interstate deposit taking facilities in some metropolitan areas, but it is hard to see that as a nationwide need. Capital is needed by many depository institutions, and this will become more important as the product and service mix changes. Economic conditions will also make capital more important.

"The decade taught us that financial service demands of customers can change very rapidly in response to changing conditions and that institutions have to be flexible enough to meet those demands," he said.

The Birth of a New Industry

Harry Freeman of American Express opened his address by listing the non-bankers who appeared June 27 in Washington before the Senate banking committee's hearing on the issue of deregulation of the banking industry: Edward R. Telling, CEO, Sears, Roebuck and Co., Roger E. Birk, chairman of the board of Merrill Lynch, Robert A. Beck, CEO of Prudential Co. of America, Finn Caspersen, chairman of the board of Beneficial Corporation, and James D. Robinson III, chairman, American Express Co. There were also two "real" bankers' bankers, Freeman said, Walter B. Wriston, chairman, Citicorp and Samuel H. Armacost, CEO, BankAmerica Corp. "But even they aren't your traditional bankers, and they are busy expanding their reach into areas where banks have never before trod."

"The decade taught us that financial service demands of customers can change very rapidly...and that institutions have to be flexible enough to meet those demands."

Banking is no longer the sole province of banks, Freeman declared. A new industry has indeed been born, not completely recognized by most people, but called the financial services industry. There are new companies coming into this industry—computer companies, retail merchandise chains; generally they're all companies involved in managing, protecting and transferring assets, credit and financial information.

Freeman described the dramatic changes in financial services as a response to powerful and inter-related forces: the growing sophistication of the consumer, the emergence of high technology and the economic storms of the 1970s. He reminded the group that with inflation rising so rapidly and interest rates veering so wildly, consumers were profoundly and permanently shaken.

So much so, he said, that any type of interest rate stability or economic recovery will not alter the high interest rate psychology "burnt into the psyches" of the baby boom group. "These people took their assets to higher ground for fear of seeing them washed away. The battered consumer emerged far wiser, tougher and more sophisticated. People began talking about T-bill rates who never knew they existed before."

Freeman said his company's research indicates that consumers will become continually more sophisticated. "They've permanently changed, according to our research." In other words, the American consumer's financial sophistication is not a momentary fad. Consumers are much more aggressive and more tuned in to higher rates. The emergence of money market deposit accounts in December and then in January the shifting of $300 billion by individual consumers is, Freeman said, "really an incredible thing, I think a good thing, but it really shows just how volatile individual financial assets can be and how rate-seeking they can be. That $300 billion moved very, very rapidly and was probably unprecedented, even in adjusted dollars."

"The rules that stand in the way of innovation should be modified."

Freeman observed that consumers are demanding and receiving many new products and services from which they can choose their desired level of liquidity, convenience, level of risk and level of return. These consumer-driven changes will continue, he said. Another set of changes is being driven by technology. For example, electronic clearing has eliminated billions of paper transactions. The plastic charge card links the holder to a massive electronic network that literally erases time and distance. And since all parts of financial services deal in information processing, technology is quick in bringing together the once discrete parts of the business.

Saying the wheels of deregulation have begun to turn and many traditional boundaries have blurred, Freeman told the group that *de facto* deregulation has far outpaced *de jure* deregulation as witnessed by a tremendous wave of mergers and acquisitions between non-banks and financial institutions.

How should the Federal Reserve System and the federal government respond? Freeman identified some principles that ought to guide this decision-making process. "First off," he said, "we hope that Congress will resist the game of competitive advantage through regulatory restriction. That is usually the game that institutions play, namely let's get a regulation or a law which gives us an advantage, although not verbalized in those terms. We believe it should be the business of Congress to modify the financial framework for years to come, but Congress should not be in the business of picking winners or losers. We believe partial relaxation of restrictions is desirable."

Consumers need certain essential protection, Freeman said. "The rules that stand in the way of innovation should be modified. The difference between 1920s and now is that everybody assumes there is a safety net, particularly for individuals, and to a certain extent for financial institutions as well. People in the 1920s did not assume that. Bear in mind that consumers are really the beneficiaries of this innovation. In the old days they were limited to savings bonds and passbook savings and a relative handful of other instruments. Today innovation, creativity and product design ignited by competition have brought us the greatest variety of firms offering the greatest variety of products and services to consumers in the history of the country."

Therefore, Freeman said, "all of us should be encouraging and facilitating this explosion of innovation and bringing this perspective to the deregulation debate."

In the final analysis, Freeman said, regulation is intended largely, if not entirely, to protect the consumer, not the leaders of any one industrial segment.

Opponents say that bank deregulation will recreate the very conditions that led to the 1929 crash and the banking crises of the early 1930s. Freeman's response is that no one is suggesting a return to the free-wheeling 1920s. "We all assume the safety net will be there. As we jettison unnecessary and inappropriate regulations, we also should keep a safe and sound banking system. Reforms, for example, should not weaken appropriate legislation against conflict of interest, self dealing and abuse of customers' funds. Most importantly, it should be Congress that makes

these decisions on a comprehensive basis rather than leaving it to individual regulators or regulatory institutions or individual states to handle on a piecemeal basis."

Freeman said, "It's really impossible to construct a level playing field because that field by definition would be eroded overnight. You try to give competitive freedom with protection to the consumer. We've never really had a level playing field. We probably can't have one now. How do you really develop a set of rules to cover Prudential, a company that doesn't have shareholders in the real sense, and at the same time regulate Merrill Lynch, which is its competitor, and American Express, which is a competitor in the insurance business and the securities business? The name of the game is not to create some sort of illusive playing field."

Freeman argued that government should evolve rules or principles that permit the broadest array of choices to the largest number of firms, encourage competition and foster innovation. He rejected the idea that if the government doesn't take action soon a few huge companies will dominate the country's financial structure. "We don't expect to see the financial landscape dominated by a few juggernauts."

Freeman looks for a large number of financial institutions of all sizes. Because small banks can buy many services, there is no great advantage in a competitive sense of big versus small. "As a matter of fact," Freeman said, "the personal financial asset market we're talking about totals $4 trillion or $5 trillion and there should be plenty of room for different kinds of institutions and plenty of them. We think with more than 70,000 financial institutions involved in the industry right now, it could be that some will perish. More of them will change. But we look for a very diversified and only somewhat smaller industry in the future."

American Express, according to Freeman, does not intend to be a one-stop supermarket. "We like to think of ourselves as the best stop for each of our products."

Freeman concluded by emphasizing that the consumer is forcing this rapid pace of change: "The consumer will continue to emerge the real winner with more choices of more products. We hope our government has the foresight to recognize the nature of the changes now unfolding and to create an environment that fosters innovation while preserving the safeguards we feel are essential to the financial industry."

This article was written by Linda Parham from the transcribed remarks of symposium speakers at the San Francisco meeting of the System Research Committee on Banking and Financial Structure.

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The Micro Solution

The battle to regain America's competitiveness must be won in the corporate office and on the shop floor, not in Washington, according to Atlanta Fed Research Director Donald Koch.

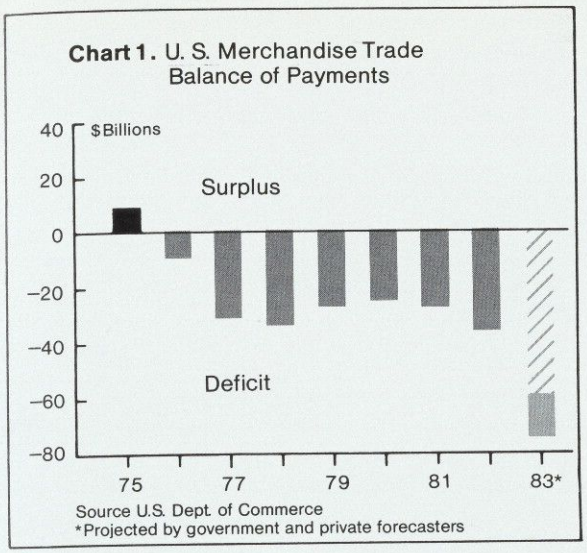
How does a great nation find its way once it has wandered off the track? The United States has reason to ponder that question in September 1983, as we consider the multitude of problems—many of them economic—confronting us.

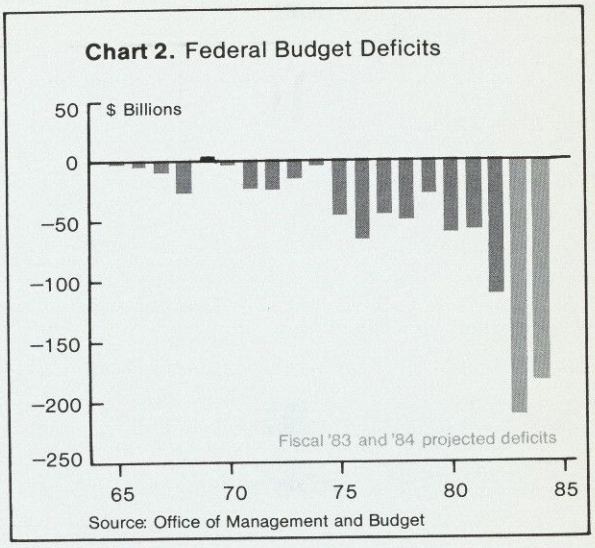
We were a favored land at the end of World War II. The war, tragic though it was to many Americans, had helped mobilize our physically unscarred nation into the greatest industrial machine in the history of man. We were characterized, and accurately so, as the world's assembly line. Our products were cherished around the globe, from our stylish fashions to our marvelous electrical gadgetry and our sleek chromed automobiles. Our productivity was the envy of less-blessed nations, our managements the most professional, our plants the most modern.

But beginning in the 1960s, during that turbulent era of Vietnam and flower children and urban rioting, we seem to have lost our national sense of direction. Things began to go wrong with the very factors that had made our industries proudest. Our vaunted productivity, our reputation for management expertise and those plants that had seemed so advanced to a post-war world, all seemed to lose ground through the 1970s.

If you want to take a nostalgia trip, try to remember back to when we used to joke about the quality of goods bearing the label, "Made in Japan." We used to have a lot of fun with the Japanese, who during the 1950s acquired a reputation for cheap merchandise that drew absolute scorn from American business people and consumers alike.

But, in what seemed to be an abrupt about-face, we have seen the roles played by the United States and Japan reversed. Suddenly, we are the ones defending the quality of our products. Our own consumers have become our companies' harshest critics, judging from the way





they have deserted American-made products ranging from watches to apparel and television sets.

Similarly, foreign buyers are purchasing fewer of our goods in global markets today, except for specialized areas that we continue to dominate such as food and defense products. America's competitive decline is reflected in the fact that our growth has been slower than that of our trading partners for the past decade. Even as we accumulate huge balance-of-trade deficits—expected to reach $60-$75 billion this year—we are rolling up record deficits in our federal budget. The latest estimates warn that we face an appalling deficit in excess of $200 billion this fiscal year (Charts 1 and 2).

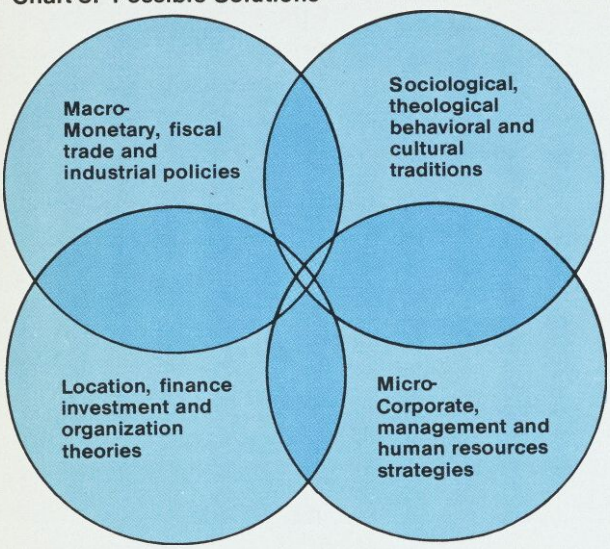
More bad news? Our investment rate, crucial to our ability to rejuvenate our plants and equipment, remains lower as a percentage of gross domestic product than most of our trading partners. Our savings rate ranks the lowest among the industrialized nations—pretty bad for the society that produced Benjamin Franklin and a dedication to thriftiness. Our industrial production slumped 8.1 percent last year, and our gross national product declined by 1.9 percent, figuring at constant 1972 prices.

Unemployment, though edging downward as the recession fades, still remains high with around 10.6 million Americans out of work. And although inflation has slowed dramatically over the past couple of years, it still must be considered a sleeping monster that may waken to surprise us if we don't remain alert.

How do we as a nation address such problems and find solutions to what adds up to a sobering dilemma? Are the solutions macro? Can we resolve our problems by tinkering with monetary and fiscal policy, trade policy and industrial policy? Can we do it, for instance, through monetary policy—by fine-tuning the way we manage the money supply seeking to achieve low inflation and stable employment? Are the solutions structural? Or are the solutions micro, carried out on the factory floor rather than on Capitol Hill? There is persuasive evidence that the latter comes closer to the mark—that micro solutions offer our greatest hope—and we'll address that later. But first, let's look at a schism among professionals that has helped divert us from adopting a national approach to tackling our problems. Economists, as well as other professionals, must bear a share of the blame for delaying that solution.

Each profession, it seems, has viewed our national malaise only in terms of its particular discipline. Each identifies our dilemma in terms of its own expertise. The theologians, for instance, see the problem as growing from a cultural decline of cherished values. Ethical scholars fear that we have lost our adherence to principles, that we respond too much in a situational manner. Behavioralists, on the other hand, think our culture has lost its ability to adapt to change. Finance specialists? They speak of it as a problem of underinvestment — failure by industry to reinvest enough capital to renew our creative and productive capability. Business scholars see

Chart 3. Possible Solutions



it as an organizational problem that calls for a restructuring to maximize output. Security analysts often speak of it as a locational problem, arguing that it doesn't make sense to build cars in Detroit if you can build them in Tennessee at a lower labor cost. And we economists like to dwell on the importance of macro policy—of achieving enlightened monetary policy or trade policy.

Unfortunately, while each of these professional areas is focused on seeking solutions, the different disciplines seldom talk to each other to share perspectives. They even seem polarized, jealous of their own turf and suspicious of encroachment by intruders. As a result, our vast nation, with its awesome problem-solving capacity, finds itself starving for answers because there simply isn't enough integration of information. And information, as history shows us, tends to be cumulative. Therefore, we find our society striking back with overengineered solutions that further compartmentalize the problems, rather than adopting a holistic solution broad enough to encompass them in their entirety.

What are the problems that we must address? Let's touch on some major ones.

First, there's the question of American productivity, once the world's model. Our productivity remains the world's highest, but our standing says more about past achievements than about recent performance. We registered the smallest manufacturing productivity increase among the major nations between 1977 and 1982—a mere 4 percent, based on output per man hour. By contrast, Japan's manufacturing productivity soared about 28 percent over that period—suggesting why American comedians don't poke fun at our friendly rivals these days.

Our savings rate also has become an embarrassment. We've been saving only about 6 percent of our earnings each year, the poorest rate of any industrialized nation. The Japanese, with a financial and economic climate that encourages the highest personal savings rate in the world, boast a 1983 rate exceeding 18 percent, three times as high as ours.

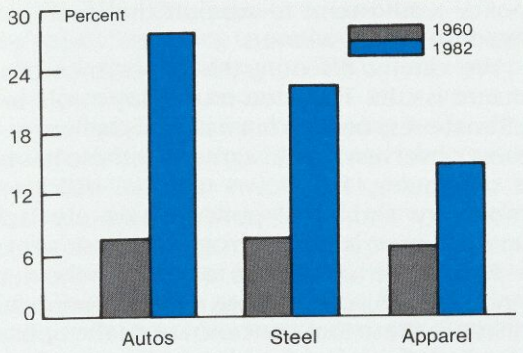
We can blame our low savings rate on a number of factors. Inflation discourages savings, of course, and so do illogical taxing policies that reward people who spend and punish those who save. As individuals, we must share the blame because of our penchant for consumption. But whatever the factors are, we find that we as a nation are left with less to channel into productive new plants and equipment.

Those federal budget deficits also have eroded our investment pool, forcing corporations to bid against the U.S. Treasury for investment dollars. Consider that our federal budget deficit, which seems likely to approach $210 billion this fiscal year, now represents fully 6 percent of our gross national product.

Our trade deficits are a bit scary too, although the pattern has been repeated so often now that we are becoming hardened to the annual report that our trading partners have outperformed us. This year we appear hell-bent toward a record deficit as a flood of foreign merchandise pours onto our showrooms and department store shelves. Ironically, our recently strengthening dollar has become something of a competitive liability in world trade. But what is most sobering is that our competitors no longer rely on low prices to undercut our products; more and more often, they beat us in the world marketplace by offering products that corporate and private consumers perceive as being superior to our own.

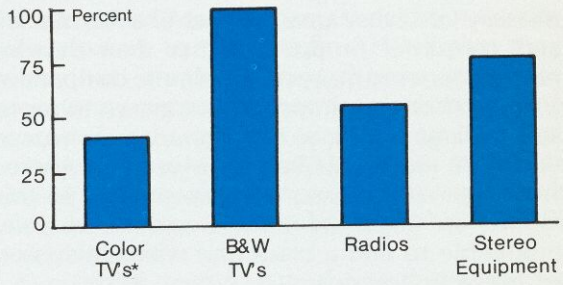
"Our vast nation, with its awesome problem-solving capacity, finds itself starving for answers because there simply isn't enough integration of information."

Chart 4. Imports As Percent of Total Sales in the U. S.



Source: U. S. Dept of Commerce

Chart 5. Consumer Electronics
Imports as Percent of Total Sales in U.S.-1982



*Includes Imports and TV's produced in U. S. by foreign-owned firms

Source: U. S. Dept of Commerce

Not only are those foreign products cutting into our foreign markets, where our exports have declined from a 15 percent share in 1965 to a dismal 11 percent, but, with increasing frequency, foreign manufacturers selling everything from shoes and shirts to steel and electronic appliances to TVs are taking larger shares of our own domestic markets (Chart 4).

Troubled Industries

Automobiles, of course, offer a glaring example of this. A colleague recently noted a bumper sticker on an American car that read, "Imports are Hazardous to America's Health." He did a quick count and noted that the next six cars in line behind that protester had been assembled in foreign factories. If that bumper sticker is correct—and there certainly is cause to fear that it is—our economic health indeed appears to be in trouble! In fact, it's been estimated that foreign car sales in this country contributed to the indefinite layoff of more than 300,000 auto workers in 1982. Many Japanese cars, of course, are cheaper than domestic models, partly because it takes the Japanese about 100 hours to make a car, versus 175 hours for a typical U.S. car.*

*An estimate by Martin Anderson, executive officer of MIT's "Future of the Automobile" program, cited in **Fortune**, August 1983, p. 22.

The auto industry has launched a major effort to regain sales by improving both the efficiency of its plants and the quality of its vehicles. Industry executives also are enlisting the aid of their workers and their union representatives in a campaign to reestablish the industry's reputation for workmanship, which has been pretty badly tarnished. We will return later to the theme of enlisting employees as part of the solution process, an effort that appears to be crucial if we are to achieve an industrial renaissance.

While such industries begin to face up to their weaknesses, there is a real danger that our knee-jerk reaction may be to seek protection rather than to seek improved quality. Such protectionism could trigger a new round of trade wars like those that aggravated the Depression of the 1930s. It's distressing that we are hearing appeals for protection from such industries as textiles and apparel. Yet it's not surprising. Those firms, whose aging mills have been notoriously labor intensive, have watched foreign competitors bore steadily into their U.S. markets. If current penetration levels continue, imports could claim as much as 40 percent of our total textile and apparel market by 1990.

Another deeply worried sector is steel, one of the prized "smokestack" industries that stoked our nation into a superpower. Only recently, President Reagan imposed new restrictions on specialty steel imports from Europe in an effort to aid the domestic industry. Steel imports have grown from a mere 5 percent of our domestic market in 1960 to 22 percent in 1982.

What's more, a combination of foreign imports and after-shocks from our recent recessions increased the number of unemployed steelworkers to a peak of 165,000 in late 1982. Furthermore, big American steel firms have moved to diversify into other areas, such as finance, banking and consumer products, rather than develop new processes to make our steel more competitive.

In another area, imports have grown to represent a large share of our domestic consumer electronic markets (Chart 5). More than half of the radios and stereo equipment sold in this country are imported models, and it is virtually impossible to find a black and white television set made in America.

We have all heard the argument that many of these hard-pressed U.S. industries have just cause to seek protection—that they have been victimized by a collaboration of foreign governments and foreign industries. Some endangered U.S. industries have gone to court or have sought Commerce Department assistance because they say certain foreign governments and industries raid our markets while closing their own; that foreign governments shelter their national producers through a host of protectionist tactics including non-tariff barriers. Certainly our government must work aggressively through diplomacy to tear down any unfair barriers erected by the Japanese—or any other foreign nation—that deny our companies the right to compete without discrimination in their markets.

But will diplomacy solve our problems? Not when even our own consumers snap up foreign merchandise rather than buy American-made goods. Diplomacy can no more cure our national ills than a group of lawyers in Washington can solve our problems by legislating change. In fact, many of us believe that we may have too many lawyers and that their penchant for litigation has contributed to our problems.

None of this should suggest that macro policies aren't vital to this nation's economic health. Certainly we must look at such things as fiscal policy, which our massive deficits suggest needs some corrective action. Our trade policies need to be scrutinized carefully; should we, for instance, try to manipulate the dollar to force its value down vis-a-vis other national currencies and thus make our goods more attractive to purchasers overseas? And clearly we must look at the need for an industrial policy—do we, as some have advocated, try to redevelop the Rust Bowl? Do we invest millions attempting to reinvigorate the Detroits of our nation, trying to restore our auto and steel industries to world dominance? Many economists are skeptical of such a nostalgia-based industrial policy; they feel that such a policy would tend to support the losers at the expense of the winners.

We cannot discount the importance of such macro issues. They too must play a role in the ultimate response to our national challenges. But most observers would agree that there has been a continuing, full-blown national dialogue on monetary and fiscal policy. If we are lacking something, it is not verbiage on those subjects!

Rather, we have failed to focus on the details. And successful corporations and successful nations alike are those that concentrate on the operating details. What has created great American firms in the past is a willingness to pay attention to their knitting. By focusing on detail and staying true to their principles, superior companies have been able to achieve outstanding performance in revenues and profits, and to continue that performance through the years, even through recessions and changes in top management. They have a vision and they have a mandate because their people —and we may include either a company's employees or a nation's citizens in this category— feel an ownership that makes the relationship important to them.

"Diplomacy can no more cure our national ills than a group of lawyers in Washington can solve our problems by legislating change."

Management itself often has proved a hindrance in improving corporate performance. Consider management's frequent arrogance, its conviction that all answers must come from the top down and that solutions seldom rise from the bottom up. That probably is true. But it is true only because management rarely solicits answers from its troops on the front lines—and, because of management's arrogance, seldom can it convince those troops that their suggestions will receive a fair hearing even if they submit them.

Maybe the vast schism between American executive salaries and workers' pay has contributed to management's royal view of their corporate domains. It is interesting that an American chief executive officer customarily earns 40 times

as much as a worker in one of his plants—perhaps drawing $600,000 a year while the worker may start at $15,000 or less. In Japan, that salary coefficient is only half as great, something like 20 to 1 for the largest companies.

We're just beginning to see corporate managements and workers taking the first tentative steps toward meaningful cooperation after years of virtual warfare over the bargaining table. The recent economic slowdown prompted labor unions to hold the line or even cut back pay scales in some industries, or to give back other benefits won in the past. And we've seen managements take a new interest in the opinions of their employees, in some cases for the first time in a decade or more. We have seen the "quality circles" concept spread, giving workers a rare opportunity to participate in the corporate problem-solving process. What a contrast with the pre-recession era! Some executives considered themselves egalitarian if they so much as posted a suggestion box where employees could volunteer ideas —knowing full well that the ideas usually were doomed to be ignored because they didn't come from the management side of the organizational chart. Our old-fashioned negative definition of quality too often resulted in products that were "just barely" acceptable. The quality circles, on the other hand, promote pride in workmanship and a thorough knowledge of the final product.

Concessions won or surrendered under the pressure of recessions and plummeting earnings are a unique situation, however. They aren't necessarily representative of a born-again commitment to corporate enlightenment. It will be interesting to see what happens to wage demands and to executives' cooperative spirit now that we have weathered the recession and companies are looking foward to better times. Prosperity, it seems, poses a far greater challenge to corporate cooperation than does recession.

If we are to establish a new commitment that endures through all economic seasons, we need to revisit the idea of working together so we can be unified in strength. For too long, our corporate staffs have been polarized and fragmented. We cannot have the engineers segregated away in an ivory tower engineering things, the workers on the factory floor making things, the managers off somewhere else issuing instructions and the corporate chieftans isolated from those activities in their air-conditioned executive offices. That kind of formalized, pyramidal organizational structure just doesn't make sense in an era when workers' input can make the difference between a corporation's success and its failure.

When we speak of recognizing employees' contributions, an important question of perspective is involved. Managements shouldn't patronize their workers to make them THINK that they count, but should provide them a legitimate opportunity to contribute to the decision-making process. We have every reason to believe that employees can contribute more to their employers' success than simply performing routine assembly line chores that a robot probably could execute as well.

Executives need to spend more time in their plants, sharing ideas and perspectives with blue-collar and white-collar workers who are closer to

"If we are to establish a new commitment that endures through all economic seasons, we need to revisit the idea of working together so we can be unified in strength."

the operation than an officer can ever be. Officers should relish the opportunity to get a close-up look at the production process that they never could find time for when they were chasing an MBA. Engineers also need to be on the shop floor, close to the equipment that they designed or that they maintain, watching it demonstrate its strengths and weaknesses as it turns out products for real-world buyers.

We need corporations where workers on the assembly line don't think, "This is his problem" or "that is her problem"; rather, employees should think, "This is OUR problem." Certainly it is vital that we go through a consensus process to arrive at a solution quickly because all of our jobs are at stake. This is a new way of looking at problems—it is much more organic, much more behavioral, much more micro—and it involves searching for internal answers, not waiting for a ready-made, all-purpose hand-me-down solution from the executive suite —or from Washington.

Companies love to boast in their annual report about how valuable their employees are to them. Publicists snap colorful photographs of smiling workers on the job and write complimentary blurbs about their importance. Unfortunately, once the photographers have left the shop, a lot of firms tell the workers to march back to their

desks, or to their stations, and get on with their work.

Despite our lip service to the idea that employees are valuable, it appears that we still have a lot to learn about training and utilizing people. Maybe we can even learn a lot from the Japanese. They learned from excellent teachers themselves, you know; we taught them all we knew about management in the 1950s and then were surprised when they proved to be such apt pupils! (Isn't it interesting that some of our current executives, who thought they had all the answers and didn't need their employees' contributions, are having to swallow their pride and learn from Japan a thing or two about human resources?)

"We seem to have lost sight of the emphasis on detail that can make both corporations and nations great."

In talking about the importance of concentrating on details, there is no better illustration than the area of human resources. A critical initial step is to acknowledge that employees are in fact a company's most valuable asset, whether it proclaims that in an annual report or not. Employers need to be rigorous in their recruiting to assure that they employ only the best people — and to remember in the process that attitude certainly is as important as skill. Skills, after all, can be learned; an attitude may persist for a lifetime.

Managers also should devote energy to educating people before they ever begin work so they'll know precisely what they must do, why it is important, and the standards they must meet. That is part of the process of buying employees' minds as well as their bodies, assuring that they can play a role in finding corporate solutions. Management needs to follow up by training the new workers on the job and cultivating their contributions to productivity. It needs to focus on cross-training and job sharing to impart multiple skills and develop versatile employees. In Japan, such on-the-job training time averages considerably longer than in the U. S.

Success also involves establishing trust, rather than an adversarial relationship, between workers and management. It means a management that encourages workers to experiment in search of new answers, even if they sometimes fail—as pathfinders inevitably fail, on occasion, in breaking new ground. And it demands an emphasis on management selection and promotion, elevating and rewarding the corporate heroes and not the palace politicians.

The burden, of course, isn't all on management. The employee must know that he or she can expect to be paid only if he produces something that someone —the all-important consumer— wants. There is no right of a job, just as there is no right of survival for a company that fails. The job, like the company's survival, is contingent on the value of its contribution, its sensitivity to the market. Inherent in that comment is the truism that companies can't afford nonproducers. A small but competent staff can achieve more than a fat staff loaded down with deadwood.

If workers and managements work together more closely, we can go a long way toward eliminating the polarization that has handicapped our companies for too long. So often we seem to be engaged in a self-destructive economic civil war. Again, perhaps we need to look to the Japanese model. The Japanese have achieved an impressive degree of cooperation between management, labor and government as well. Those three sectors surely have their differences, but they are responsible enough to team up when confronted by an external competitor.

Perhaps we should question just how much this difference in attitudes is influenced by our far greater reliance on attorneys when it comes time to negotiate labor issues. Personnel questions, after all, are sensitive matters that cry out for a spirit of teamwork, not confrontation. Maybe we, like the Japanese, can learn that our competition around the globe is too challenging for us to squander our energies on destructive infighting.

A Critical Oversight

In the continuing dialogue over our nation's macro issues we seem to have lost sight of the emphasis on detail that can make both corporations and nations great. This is an oversight that could prove fatal for a company, or even for a nation. Once we begin focusing on the micro solutions, we will begin impacting such issues as culture and ethics and behavior as well.

How can we accomplish the micro solution and restore our national competitiveness? For

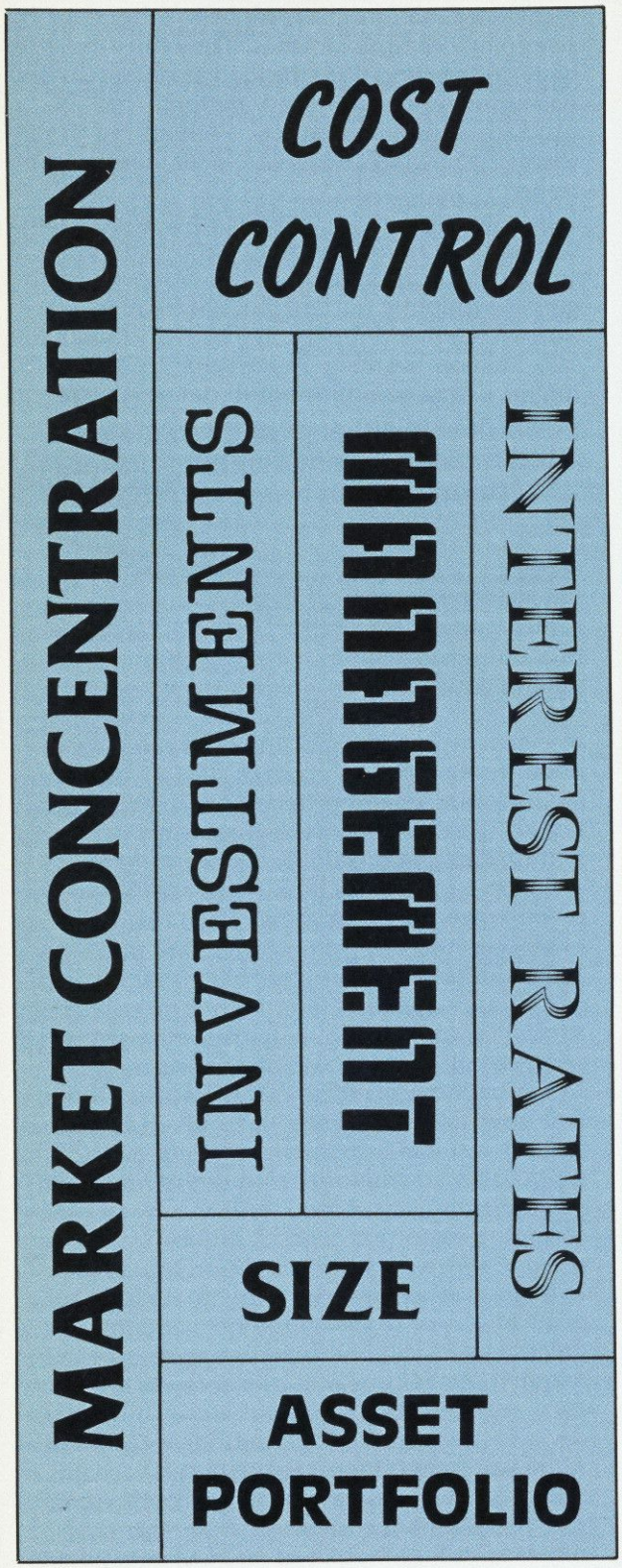
one thing, of course, we need to integrate the information from a multitude of disciplines and bring it to bear on our problems. We must, certainly, direct our attention to the sensitive area of human resources—learning again to treat our employees as professionals whose enthusiasm for doing their jobs well and for helping management find solutions can make or break a company. A giant step toward that increased respect would be a renewed emphasis on education at all levels. In the U.S., literacy may actually be declining. Along with that commitment to education, we must restore trust between management and labor as a crucial step toward restoring pride to the assembly line. Hopefully, that in turn can contribute to the rebirth of an American tradition of product quality recognized worldwide.

It seems clear that we can't expect to see the answers to our national dilemma come from Washington, whether from legislators or macroeconomists. The battles we are fighting today to regain our national stature won't be won by sweeping omnibus policies. They must be won daily on the shop floor through a concern for the consumer and through a national resolve to produce superior products. Perhaps we are already coming to recognize what needs to be done.

But the fight is an ongoing one, which starts with each of us. Attention to detail is inherent in successful corporate cultures. Success in the global economic warfare that we are engaging in now will demand the resolve of every one of the 100 million working Americans. That resolve begins with a commitment to detail; it results in excellence.

—Donald L. Koch

This article is based on a speech delivered in July to members of the National Association of Business Economists in Denver.



Why Are Some Banks More Profitable?

Despite major changes in the financial services industry over recent years, effective management remains the most important element in determining banks' profitability—overshadowing either bank size or market concentration.

A bank's profitability may be affected by numerous factors, including its asset and liability portfolio management, its management's control over operations costs, its size, the concentration in its local market, its local market conditions and its luck. Moreover, the relative importance of these factors can change over time. This study is the first of a two part series that examines the determinants of bank profitability. This part first seeks to exclude the effects of luck and regional factors on bank profits, and then compares some key financial ratios to determine which of the remaining factors have had a significant impact on profitability.[1] We will address the question both by looking for changes in the important factors over two periods (1972-1977 and 1978-1981) and by examining changes in bank balance sheet ratios between those periods. The second study will use statistical cost analysis to determine if we would observe profitability differences across banks even if their portfolios were identical.

Our study indicates that in both periods the key factor behind high profitability was good management. Neither bank size nor market concentration played a significant role in bank profitability. The study also implies that recent changes in the banking environment have not

[1] This paper summarizes a Federal Reserve Bank of Atlanta working paper with the same title.

significantly affected the determinants of bank profitability.

Concerns of Managers and Regulators

An understanding of the relative importance of the determinants of bank profitability is important to bank managers and to regulators who are concerned with banks' safety and soundness. Both groups can use this information to focus their attention on the most important elements of a bank's operations. For example, if controlling operating costs is relatively more important to bank profitability in practice than is the bank's asset mix, then managers and regulators should make a point of carefully analyzing the bank's control over operating expenses even if it means they can spend less time looking at its asset portfolio.

The effect of bank size and market concentration on profits also has important implications for public policy towards banking. Some people believe that large banks enjoy significant economies of scale that allow them to earn a higher rate of return than smaller banks. Others believe that small banks are closer to their customers and can act more quickly, allowing them to earn higher rates of return. If large banks do have significant economies of scale and if deregulation increases competition between banks, then deregulation potentially might drive small banks out of business. If large banks do not enjoy economies of scale, then small banks need not fear deregulation.

The degree of concentration in a market is important because regulators use that factor in bank merger cases as a proxy for the intensity of competition in a market. If a small number of firms dominate a particular market, then that market is said to be highly concentrated. High degrees of concentration in a market in theory are associated with decreased competition between banks and with high levels of profits. Regulators carefully scrutinize mergers in highly concentrated markets. If concentration does not actually have a significant effect on bank profits, then either concentration is a poor measure of the competition between banks or else competition between banks does not affect bank profitability (perhaps because of competition from nonbank financial firms). In either case, if concentration has no significant effect on bank profits, then the justification for its use in bank merger cases is weakened.

Bank Profitability Studies

Previous studies on the determinants of bank profitability can be split into three groups: studies of economies of scale, studies of the effect of market concentration, and studies attempting to identify the ratios most closely linked with bank earnings performance. Studies have found no economies of scale for banks in excess of $100 million.[2] Studies of market concentration typically have found that higher levels of concentration are associated with bank profits that, statistically, are significantly higher, but that the quantitative effect is small.[3]

Several previous studies have attempted to identify the ratio or ratios most closely identified with bank earnings performance.[4] These studies have compared a variety of bank income statement and balance sheet ratios to identify ratios that are significantly related to a bank's profitability. These studies have generally found that expense ratios, particularly non-interest expense ratios, are significantly lower at the highly profitable banks. All of these studies, however, suffered from one or more flaws that limited their ability to identify the underlying factors influencing bank profitability. One flaw was a failure to recognize that banks affiliated with holding companies may operate differently from independent banks.[5] Another flaw was that most of the studies ranked banks according to their results over a one or two-year period, thus diluting the tests of other factors by allowing random luck to influence the tests. We have tried to avoid these flaws in this study. Our sample consists of independent

[2] See the November 1982 issue of this **Economic Review** for a discussion of economies of scale.

[3] Rhoades (10) summarizes recent studies of market concentration. A recent study by Kwast and Rose (9) using an expanded statistical cost model also concludes that market concentration—but not bank size—affects bank profitability.

[4] Among these studies are studies by Ford (2), Gady (4), Haslem (5, 6), Haslem and Longbrake (7) and Kwast and Rose (8).

[5] There are several problems with trying to include independent and affiliated banks in the same study of bank profitability. One problem is that affiliated banks' portfolios may be more specialized or more risky than the portfolios of independent banks because other holding company affiliates can counterbalance any unusual features. Another problem is that it is not always clear whether the assets of the bank or the assets of the holding company offer the best measure of the size of the entity. A third problem is that affiliated banks may also upstream their earnings through management fees rather than dividends which will distort comparisons of operating expense ratios.

banks with consistent profitability records over a 10-year period and total assets between $50 and $500 million in 1982.[6]

The applicability of prior bank ratio studies for bank profitability also is suspect because they have focused on bank operations in the 1960s and early 1970s. During that period, interest rates were relatively stable and deposit rate regulation limited banks'—particularly small banks'—ability to compete for funds. The environment of the late 1970s and early 1980s has been characterized by higher and more volatile interest rates and by deposit rate deregulation. Therefore, even if non-interest expenses were the prime determinant of a bank's profitability earlier, they may not be the key to profitability in the 1980s. We split this study into two periods, 1972-1977 and 1978-1981, to see if the factors determining bank profitability have changed with the changing environment.[7]

Determinants of Bank Profitability

This study looks at several factors that can influence a bank's profitability (as measured by the ratio of the bank's net income to total assets): its market concentration, its size, its asset portfolio, its liability portfolio and its cost control. We assess the relative importance of these factors with multiple linear regression.[8] The first step in the analysis is to determine the relative importance of concentration, size, and managerial factors. When managerial factors turn out to be more important, further analysis is conducted to determine the relative importance of the bank's asset portfolio, its liability portfolio and its cost management.

The statistical evidence indicated that in both periods the primary reason some banks were more profitable is that they were managed differently (Table 1).[9] The regressions provided only very weak evidence in support of the hypotheses that the bank's size and the average degree of concentration it faced were significantly related to its profitability.[10] This suggests that size and average market concentration do not affect bank profitabiliy, but this issue is also explored in the second part of this series using a superior theoretical model. This evidence on the effect of size and concentration is in general accord with other studies that find that these factors have little or no influence.

Table 1. Determinants of Bank Profitability

	1972-1977		1978-1981	
The most profitable banks:	**Yes**	**No**	**Yes**	**No**
1. are in more concentrated markets		x		x
2. are larger		x		x
3. are smaller		x		x
4. are managed differently	x		x	

Source: Federal Reserve Bank of Atlanta

Our finding that bank size does not affect bank profitability is subject to one important qualification: the sample used in this study is limited to banks with between $50 and $500 million in assets in 1981. Within this size range, however, evidence suggested that the more profitable banks are managed differently from less profitable banks. This result agrees with the findings of numerous studies, including our November 1982 **Economic Review**, that large banks do not have lower costs than small banks. It suggests that large banks will not be able to drive small banks out of existence by virtue of size alone.

A bank's management can exert its influence in a variety of ways that affect both the bank's revenues and expenses. We analyzed management's effect on profits in a two-step process: first we compared the adjusted revenues and the expenses of high and low profit banks, then we

[6] See the Appendix for a more detailed description of the sample selection process. While limiting the scope of this study to banks with consistent profitability records reduces the role of luck, it may obscure some valuable information about bank profitability. Specifically some changes in profitability rankings are due to non-random factors which may be of interest. For example, banks that performed well during the early 1970s may have had a problem adapting to the new environment of the late 1970s and early 1980s.

[7] The choice of 1978 to begin the second period is somewhat arbitrary, but it is used because that is the year that significant deposit rate deregulation began.

[8] See the Appendix for a more detailed discussion of the statistical analysis.

[9] The statistical analysis actually compared the most profitable banks, ranked by return on assets, with three other groups of progressively less profitable banks. The comparisons between the most profitable and each of the three other groups of banks are in general, however, identical. Therefore the three groups of less profitable banks are treated as one group in this discussion. One important exception to the findings discussed below is that the non-interest expenses of the second most profitable group of banks are not significantly greater than those of the most profitable banks in the 1978-1981 subperiod.

[10] No evidence of any size or concentration effects are found when the quartile dummy variables are excluded in the regression. If the quartile dummy variables are included, the only coefficient significant at the 5 percent level in a profitability equation is the coefficient on market concentration in the 1978-1981 return on equity equation.

Table 2. Revenue and Expense Differences

The most profitable banks:	1972-1977 Yes	1972-1977 No	1978-1981 Yes	1978-1981 No
1. have higher interest revenues		x		x
2. have higher non-interest revenues		x		x
3. have lower interest expenses	x		x	
4. have lower non-interest expenses	x		x	
5. have lower taxes relative to their operating income		x		x

Source: Federal Reserve Bank of Atlanta

formulated and tested hypotheses relating bank operations to revenue or expense differences.[11] The statistically significant differences between the banks showed up in their non-interest and interest expenses in both the 1972-1977 and 1978-1981 periods (Table 2). The differences in the banks' non-interest and interest revenue are insignificant. Furthermore, the most profitable banks were no more efficient in turning pretax income into after-tax income than were the less profitable banks. Apparently the most profitable banks are able to hold down costs without sacrificing revenue.

Non-Interest Costs

A bank's non-interest costs may be influenced by its mix of assets, its mix and amount of liabilities and the effectiveness of its management in controlling operating expenses.[12] Table 3 presents hypotheses relating each of these potential influences and the results of those tests.

The mix of assets can affect the bank's non-interest costs because some assets, such as loans, are more expensive to service than are other assets, such as securities. An extreme example of this is the difference in the servicing

Table 3. Reasons for Lower Expenses

The most profitable banks have lower non-interest expenses because:	1972-1977 Yes	1972-1977 No	1978-1981 Yes	1978-1981 No
1. their asset portfolios are less costly to service	x		x	
2. their liability mixes are less costly to service		x		x
3. they rely more on equity financing	x		x	
4. they have better controls on operating costs	x		x	
The most profitable banks have lower interest expenses because:				
1. their liability mix contains more non-interest bearing liabilities	x		x	
2. they rely more on equity financing	x		x	

Source: Federal Reserve Bank of Atlanta

costs of securities and credit cards. According to the Federal Reserve's 1981 Functional Cost Analysis (FCA) data, credit cards are 10 to 13 cents more expensive per dollar invested to service than are securities. The evidence from our study suggests that the most profitable banks do have asset portfolios that are less expensive to service. The most profitable banks had more securities especially state and local securities, and fewer loans than did less profitable banks.[13]

The mix of liabilities is also important because some liabilities are more expensive to service than others. For example, demand deposits are 3.3 to 3.4 cents more expensive per dollar to service than are time and savings deposits according to the 1981 FCA data. We did not find that the liability mix at the most profitable banks contributed to their lower non-interest expenses. In fact we found the exact opposite, that most profitable banks have more demand deposits and fewer time deposits than less profitable banks.[14] The higher non-interest costs of the liability portfolio approximately offset the lower non-interest costs of the asset portfolio.

A third way that profitable banks reduce their non-interest expenses is by reducing their use of

[11] Adjusted revenues are revenues adjusted to arrive at expected tax equivalent revenues. The two adjustments made are that income from securities exempt from federal taxation is increased by the bank's marginal federal tax rate and loan losses are deducted from revenue.

[12] Another factor which could influence bank expenses is the amount of costly services it provides to its customers. If one bank is providing more costly services to its customers than another bank then it should have higher non-interest revenue unless it is giving away the service for free. As is noted above, there is no significant difference in the non-interest revenue earned at most profitable banks versus that earned at less profitable banks. This suggests that less profitable banks are not providing more services to their customers. There is, however, no way to tell from the Reports of Income and Condition data if one bank is giving its customers more free services than another bank.

[13] This analysis is not meant to suggest that the marginal net return on securities is higher than that on loans at the most profitable banks. This comparison of financial ratios is not powerful enough to draw such a conclusion. The only conclusion that can be drawn is that the most profitable banks' gross earnings **on all of their assets** is not significantly different from that of the other banks but that the most profitable have asset portfolios that appear to have lower non-interest costs.

[14] The difference between the high and low profit banks liability mixes narrowed, however, from the 1972-1977 to the 1978-1981 periods.

liabilities and using more equity funding. The accounting costs of equity funding are small compared to those of liabilities. Thus, a bank with more equity will report larger profits and a larger return on assets.[15] The most profitable banks have significantly higher equity to total asset ratios than the less profitable.

Indirect evidence suggests that managers of the most profitable banks also exercise more control over their operating costs.[16] The magnitude of the difference in non-interest costs between the most profitable banks and less profitable banks cannot be explained by differences in the mix of assets, the mix of liabilities and the amount of liabilities issued by the respective groups of banks.

Interest Costs

A bank's interest costs are determined by the mix and amount of its liabilities. Some liabilities, like time deposits, pay interest while other liabilities, such as demand deposits, are paid for through the provision of "free" services to customers. A bank that has relatively more demand deposits and fewer time deposits will pay less interest than a bank with fewer demand deposits and more time deposits. The most profitable banks have more demand deposits and fewer time deposits, which helps explain their lower interest costs.

Another determinant of a bank's interest expense is its relative mix of debt and equity. The more equity a bank has, the lower its interest expenses will be. The most profitable banks have more equity than the less profitable banks. Thus the most profitable banks have lower interest costs because they use more equity funding and rely more on demand deposits than on time and savings deposits.

Overall these results suggest that bank asset, liability and cost management are all important, and (as detailed in the next section) that recent changes in the banking environment have not significantly affected the determinants of bank profitability. The most profitable banks held asset portfolios that were less costly to service than those of the other banks, yet yielded the same amount of interest revenue. The most profitable banks held a mix of liabilities that generated lower interest costs, yet these banks also had lower non-interest expenses. Finally, these banks lowered their costs by relying more heavily on equity funding than did the less profitable banks.

Comparison of Changes Through Time

The banking environment changed dramatically from the early 1970s to the early 1980s. Market interest rates rose, new nonbank competitors emerged, and banks received new powers to compete with each other. We will look at banks in four different profitability groups to see if they responded in the same way to the changing environment. This section focuses on the banks' balance sheets because the increase in market interest rates would change the income ratios even if bank behavior did not.

The previous sections suggest that banks in all four profitability groups experienced similar reactions to the environmental changes; this finding is supported by the data in this section. Banks in all four groups showed decreases in their demand deposits and increases in their other assets; time and savings deposits; and federal funds (Tables 4-5). Groups 1, 3 and 4 showed a drop in their other securities. Group 1 also showed decreases in cash and increases in their total loans, and their equity to total asset ratios. Group 3 had decreases in their state and local securities portfolio and increases in their total loan portfolio.

The remarkable similarity of the changes in banks' portfolios is in accord with the comparisons discussed above. Those comparisons also failed to turn up many dramatic changes between the two periods. These findings suggest that the road to consistently high bank profitability (as measured by banks' return on assets) has not changed in recent years.

Conclusion

This half of the two-part study of bank profitability suggests that a bank's management policies—its assets and funding practices, and its non-interest cost controls—all have a significant effect

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[15] This is not to suggest that bank shareholders are automatically better off if the bank replaces its outstanding liabilities with debt. While an increase in bank equity increases the bank's return on assets, it will usually dilute the bank's earnings and lower its return on equity. There are good reasons for believing that every bank has an optimal debt to equity ratio and that too much equity actually lowers returns to bank stockholders. Barnea, Haugen and Senbet (1) discuss the debt/equity decision for corporations in general and Taggard and Greenbaum (11) discuss the effect of deposit insurance on the optimal debt to equity ratio at banks. The optimal debt to equity ratio for corporations in general and banks in specific is very hard to determine in practice and we can not therefore say whether any of the banks in this survey are over or under capitalized.

[16] Note loan losses are included as a part of adjusted revenue and are not in this measure of non-interest expenses.

Table 4. Changes in Selected Assets as a Proportion of Total Assets From 1972-1977 to 1978-1981

	Quartile 1	Quartile 2	Quartile 3	Quartile 4
Cash	−0.01227 (0.0002)	−0.00521 (0.2482)	−0.00174 (0.7323)	−0.00179 (0.6022)
U.S. Govt. Securities	−0.01411 (0.0518)	0.00334 (0.7720)	−0.00951 (0.2914)	−0.00176 (0.8190)
State and Local Securities	−0.00796 (0.0523)	−0.00680 (0.3704)	−0.01166 (0.0200)	−0.01392 (0.0528)
Other Securities	−0.00142 (0.0347)	−0.00380 (0.0534)	−0.00408 (0.0207)	−0.00763 (0.0388)
Federal Funds Sold	0.00326 (0.3365)	0.00550 (0.3194)	0.00656 (0.2268)	0.00499 (0.4704)
Other Assets	0.00389 (0.0094)	0.00371 (0.0082)	0.00525 (0.0036)	0.00542 (0.0516)
Total Loans	0.02851 (0.0004)	0.00325 (0.7497)	0.01507 (0.0580)	0.01100 (0.1639)

The two statistics are the mean change and its significance.

Source: Federal Reserve Bank of Atlanta

Table 5. Changes in Selected Funding Ratios From 1972-1977 to 1978-1981

	Quartile 1	Quartile 2	Quartile 3	Quartile 4
Equity/Assets	−0.01103 (0.0001)	0.00292 (0.0776)	0.00098 (0.5684)	0.00074 (0.6024)
IPC Demand Deposits / Liabilities	−0.05045 (0.0001)	−0.05155 (0.0001)	−0.04644 (0.0001)	−0.03242 (0.0001)
IPC Time and Savings Deposits / Liabilities	0.05907 (0.0001)	0.05828 (0.0001)	0.04359 (0.0001)	0.03154 (0.0009)
Federal Funds Purchased / Liabilities	0.01183 (0.0004)	0.01165 (0.0066)	0.02541 (0.0019)	0.02469 (0.0002)

The two statistics are the mean change and its significance.

Source: Federal Reserve Bank of Atlanta

on its profitability. It also suggests that neither a bank's size nor the average market concentration it faces appears to affect profitability. The most profitable banks hold more securities, which reduces their non-interest expenses while earning the same revenue as more costly sources. They rely more on equity funding, which reduces their interest and non-interest expenses. They have more demand deposits, which reduces their interest expense. Finally, the difference between the most profitable and the less profitable banks' non-interest costs is so large that variations in the banks' asset and liability portfolios cannot explain the difference. This suggests that the most profitable banks maintain better cost controls.

We found no evidence to support the hypothesis that changes in the banking environment have yet changed the primary factors that affect consistent bank profitability.

—Larry D. Wall

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Appendix

This study seeks to identify the primary determinants of bank profitability through statistical analysis of the financial ratios of selected banks. Most of the data in this article are taken from the Reports of Condition and Income that insured commercial banks file with the federal bank regulators. Data from the reports have been modified at the Board of Governors to reflect bank mergers.[14] The data on bank market concentration are taken from the Summary of Deposits data for every year from 1972 through 1981. The measure of concentration used is the average Herfindahl Index facing the bank, which is the sum of the squared market shares of the banks in the market. The average Herfindahl Index for those banks operating in multiple markets in this study is the weighted average of the Herfindahl Indices of all of the markets the bank operates in with the weights equal to the proportion of the bank's total deposits derived from the market.[15]

The banks in the sample were chosen by a two-step process: first a pool of banks with common characteristics was selected and then the banks with consistent profitability records within the pool were chosen for further analysis. The criteria for inclusion in the first pool were that the bank had to be unaffiliated with a holding company, between $50 and $500 million in assets in 1981, headquartered in an SMSA, a member of the Federal Reserve and could not have changed its charter class.[16] We divided this pool of banks into four equal sized groups based on their return on assets (the ratio of net income after taxes to total assets) in each of the 10 years. Those banks that fell into the same profitability quartile for seven of the 10 years and always fell into that quartile or an adjacent quartile were selected for the sample.[17] This sample selection singled out those banks that have demonstrated consistent profitability in a variety of economic conditions.

The statistical methods used in this study seek to identify the factor or factors that most influence bank profitability and to see if the factors have changed from 1972-1977 to 1978-1981. The important profitability factors are identified by regressing various bank ratios in every year on a set of quartile dummies, the bank's average Herfindahl, a measure of its size, a set of region dummy variables, and a set of year dummy variables.[18] The changes in the factors explaining bank profitability are explored in two ways: the bank ratio regressions are run for each of two subperiods, and t-tests of the differences in certain bank balance sheet ratios between the two periods.

The regressions to identify the primary determinants of bank profitability are of the form:

$$C = a + Q * B_1 + H * B_2 + (100/A) * B_3 + R * B_4 + Y * B_5 + e$$

with

C = a bank characteristic
Q = a set of quartile dummy variables
H = the bank's average Herfindahl
A = the bank's total assets in 1972 dollars
R = a set of region dummy variables[21]
Y = a set of year dummy variables
e = a random error term

The advantage of this multiple linear regression equation is that it controls for the various possible determinants of a characteristic so that the coefficient on each of the variables picks up only the effect due to that variable.[22] For example, if the tests looked only at bank profitability and size, and large banks were found to be more profitable one could not say that big banks *per se* were more profitable because large banks may be concentrated in the most prosperous regions of the country.

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[17] The modifications attempt to match each bank's income with the assets used to produce that income.

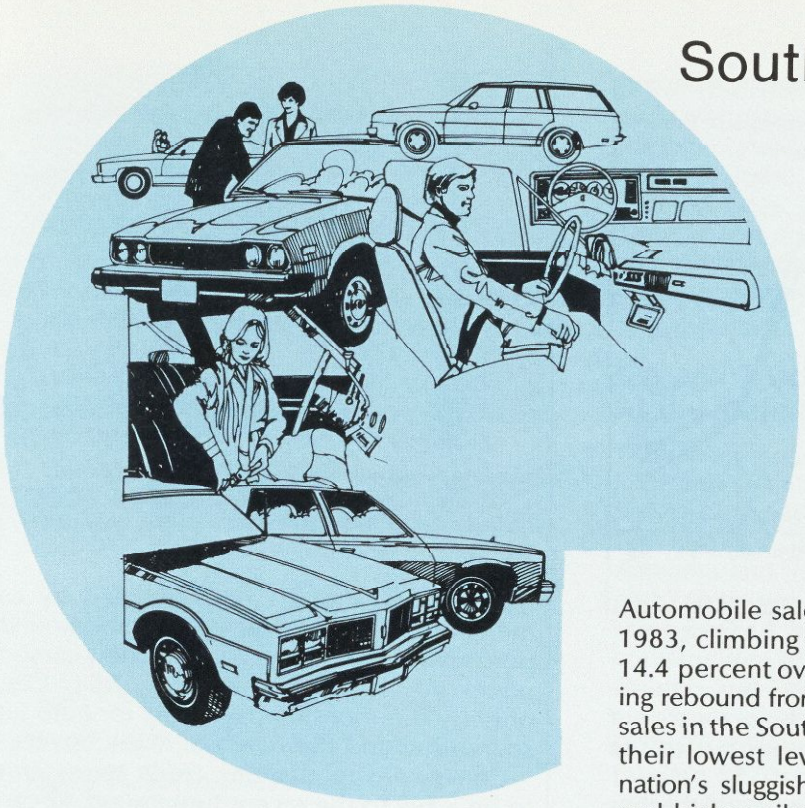
[18] Bank markets are defined as the SMSA if the bank branch is in an SMSA otherwise it is defined as the county that the branch is in.

[19] The asset range of $50 to $500 million is arbitrary, but there are good reasons for excluding very small and very large banks from the study. The problems with including large banks is that they operate in a variety of regional and national markets and any measure of market concentration for these banks is suspect. Relatively small banks are not included because of the problems created by analyzing manager owned banks. These managers can take their profits out of their bank by paying themselves low salaries and high dividends; or by paying themselves high salaries and low dividends. Thus even though two small banks may be equally profitable they can report different levels of income.

[20] For example, a bank that fell in the top 25 percent of the banks in seven of the ten years and which always fell into the first or second profitability quartiles would be included.

[21] The region dummy variables pick up some of the local market influences, but will not capture all of these factors.

[22] This method is similar to that used by Haslem (5) except that Haslem did not have a market concentration variable.



Southeastern Motor Vehicle Sales: On the Road Again

Auto sales, stalled in recent years, suddenly are off and running again—with full-size cars providing much of the momentum. What's more, the Southeast is showing up as a bright spot in the industry's recovery.

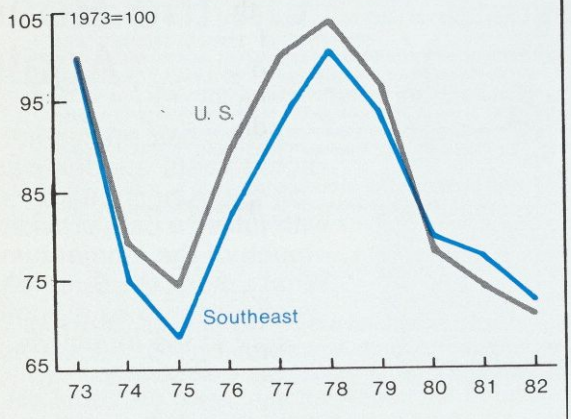
Automobile sales have been growing rapidly in 1983, climbing during the first seven months by 14.4 percent over a year ago. That's an encouraging rebound from 1982, when new motor vehicle sales in the Southeast and the nation slumped to their lowest level in almost two decades. The nation's sluggish economy, higher lending rates, and higher oil prices combined to depress the market for new cars. Domestic car sales in 1982 lagged almost 40 percent below the high levels of 1978. At the same time, consumers continued to show strong preference for foreign models. Imported car and truck sales enlarged their shares of the U. S. market from only 15.3 and 3.6 percent, respectively, in 1970 to 28 and 16 percent in 1982.

But it appears that the nation's automobile industry is finally shifting out of low gear. In the Southeast, the new models introduced in the latter part of 1982 and early 1983 have lured crowds into showrooms and boosted dealers' optimism. Surprisingly, the recovery in the southeastern region's automobile markets has been largely attributable to consumers' increased demand for full-sized cars and light trucks.

The United States is currently far and away the world's largest market for motor vehicles, accounting for 38 percent of the world's automobiles. The Southeast region, in turn, accounts for more than 14 percent of the nation's car market.[1] Although the region's automobile buying trends have been determined largely by swings of the

[1] In this article, the "Southeast" refers to the six states all or partially within the Sixth Federal Reserve District: Alabama, Florida, Georgia, Louisiana, Mississippi and Tennessee.

Chart 1. Motor Vehicle Registrations in the Southeast and the Nation



Source: R. L. Polk and Company

national business cycle, market characteristics of some areas stand out in sharp contrast to the nation's overall trend.

How special is the Southeast market? How has demand for new vehicles changed over the years? What do dealers in the region have to say about recent buying trends? What are the reasons behind the surge in full-sized cars, light trucks, and foreign car sales? And finally, how will 1983's auto sales recovery affect the region's economy?

The Southeast's Automobile Market

Motor vehicles in the region have enjoyed a sales recovery that has outpaced even the nation's sales growth during the first five months of 1983. Southerners registered 657,550 new cars and trucks from January through May, reflecting an increase of 13 percent from a year earlier and 2 percent above the nation's comparable rise.

But in 1982 new car registrations in the Southeast were the lowest in seven years (Chart 1). The region's motor vehicle market dropped 30 percent in 1982 from the most recent peak in 1978. Three major economic factors depressed sales performance during 1982: (1) personal income growth decelerated, reflecting the weak economy; (2) potential buyers were clearly disturbed by economic uncertainties and rising unemployment, which reached a postwar record high of 10.7 percent in the third quarter of 1982; and (3) many consumers apparently could not afford the higher costs. Interest rates charged by commercial banks on new car loans stayed around 16 percent throughout the year, and new car sticker prices advanced sharply from 1981. Consequently the monthly payments for auto loans soared beyond the reach of many buyers.

Table 1. Automobile Loans at Southeastern Commercial Banks ($ millions)

	June 1979	March 1983	Percent Change In Current $	Percent Change In 1979 $
	(Amount Outstanding at the end of period)			
Alabama	1,252.5	961.8	−23.2	−43.6
Florida	2,919.5	3,370.6	15.4	−15.2
Georgia	1,632.9	1,970.2	20.6	−11.3
Louisiana	1,079.4	1,088.3	0.8	−25.9
Mississippi	833.6	731.7	−12.2	−35.5
Tennessee	1,595.8	1,213.9	−23.9	−44.1
Total Southeast	9,313.8	9,336.5	0.2	−26.3

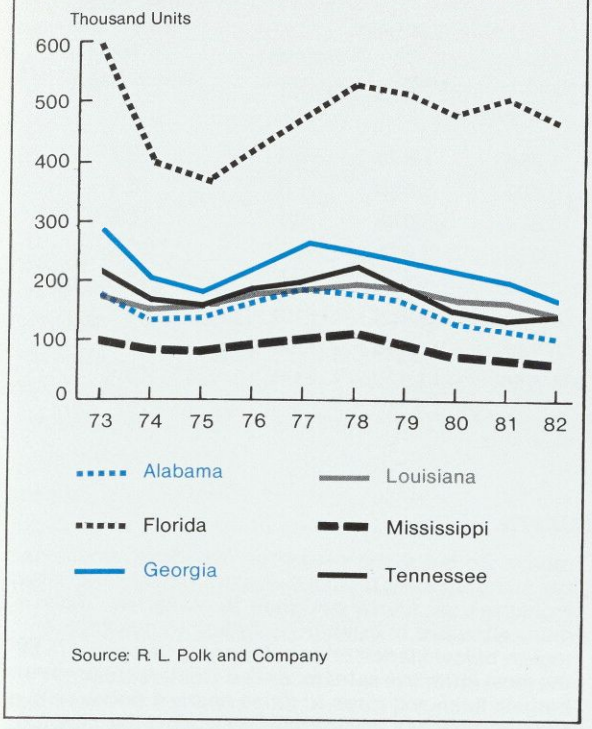
Source: Federal Reserve Bank of Atlanta.

Conversely, moderating credit terms proved to be a key to the recent turnaround. Recently, buyers found that more attractive financing deals were available in dealerships than in some banks and other financial institutions. Promotional financing offered by domestic car manufacturers effectively undercut the rates offered by most commercial banks, normally the prime source of auto financing. Total auto loans at commercial banks actually declined since June 1979 after they were adjusted to a comparable automobile price index (see Table 1). Much of this decline was a result of the weakened car market rather than the competition from nonbank financing.

But the news isn't all bad for the region's commercial banks. Some banks' loan portfolios are tied to prospering local foreign car dealerships. Other banks that had entered loan participation agreements with auto manufacturers' finance companies (GMAC, for example) have experienced growth in loan portfolios as demand for domestic-made autos has revived. Despite the recent slowdown, southern bankers are optimistic about the future of the automobile credit market that at the end of 1982 totaled almost $9.5 billion, more than one-tenth of the total outstanding or new loans of regional banks.

But before looking further into the statistics of the region's car market, let's examine the two sides of this market—consumers and dealers.

Chart 2. New Car Registrations in the Southeast



Source: R. L. Polk and Company

During the last decade, rapid population growth in most southeastern states has made the region a good market for automobiles. The region's potential car buyers, measured in terms of the number of people with valid driver's licenses, were estimated at 21 million at the end of 1982. The number grew at an annual rate of 4.5 percent during the 1970-1982 period, almost two percentage points above the comparable national rate. Much of the increase reflected new residents who have converged on cities such as Miami, Atlanta and New Orleans. These cities, in turn, have developed as the region's strongest car marketing spots. The number of cars and trucks in circulation was estimated at 23.1 million. Theoretically, each qualified driver in this region owned at least one vehicle during 1982, slightly above the nation's average car-ownership rate.

Car dealerships traditionally have been among the retail operations most sensitive to changing business conditions. Rising interest rates, for example, often have a negative effect on car dealerships because of their direct impact on the cost of maintaining vehicle inventories, in addition to the negative impact on sales. In the Southeast, the recent recession forced 116 new car dealerships out of business in 1982 alone (see Box on the performance of car dealerships in the Southeast). In some areas of the region, dealership attrition rates exceeded the nation's average. The greatest number of dealers closed in states with significantly high unemployment and severely depressed business conditions.

Car and Truck Sales Trends At the State Level

Differing economic conditions from state to state and even from city to city have produced a variety of special market trends within the region. For example, auto sales peaked in 1977 in Alabama and in 1978 in Louisiana, Mississippi, and Tennessee, whereas in Florida and Georgia sales peaked in 1973 (see Chart 2). A major construction boom during the early 1970s in Georgia and Florida coincided with the peak in auto sales in those areas. The burst of oil activity in the Gulf States accounted for brisk car sales in the late 1970s. A look at sales patterns within individual states reveals other differences among states:

Alabama. During 1982, Alabamians bought 101,000 cars and 39,000 trucks, a 44 percent drop from the peak levels registered in the state six years earlier (Table 2). The level of car sales in the state in 1982 was the lowest in 20 years, down 10 percent from 1981. Despite the declining trend of earlier years, truck sales in the state rebounded in 1982 with an 11 percent jump from 1981. Both car and truck sales look brighter for 1983. During the first five months of 1983, registrations were up 15 percent from the year-ago level. Alabama's car dealers report that full-sized cars are likely to lead sales growth in both 1983 and 1984.

Florida. During the recent recession, car and truck sales in Florida declined less dramatically than in the Southeast and the nation. In fact, Florida's automobile sales in 1982 were down only 21.4 percent from 1973, when auto sales reached an all-time peak. Florida's car and truck sales have shown significant improvements during 1983. Registrations during the January-May period were 11 and 9 percent higher, respectively, than a year earlier. Dealers are confident of a strong sales turnaround in 1983 and 1984, based on the recent performance of domestic full-sized models and some foreign cars.

	Dealership Count			New Car Sales			Auto Sales as Percent of Total Retail Sales
	Dealerships as of 1-1-83	Percent Attrition Rate				Percent	
		81/82	82/83	1981	1982	Change	
	(units)			($ millions)			
Alabama	346	−3.6	−12.4	1,995	1,873	−6.1	13.1
Florida	715	−1.5	−1.4	8,502	8,586	1.0	16.4
Georgia	593	−1.6	−1.2	3,381	3,086	−8.7	12.6
Louisiana	375	−3.1	−1.3	3,026	2,915	−3.7	15.8
Mississippi	336	−3.1	−3.2	1,262	1,191	−5.6	13.3
Tennessee	451	−6.7	−7.0	2,941	2,895	−1.6	14.7
Southeast	2,816	−3.1	−4.0	21,107	20,546	−2.6	14.3
United States	24,725	−3.4	−3.8	146,555	143,920	−1.8	13.4

Source: National Automobile Dealers Association, Industry Analysis Department.

DEALER SURVEY

The wheels of the nation's auto industry are really turned by what happens inside dealers' showrooms. In fact, nothing moves in the industry until a new deal is struck and a new order is placed to rebuild inventory. But buying decisions and inventory levels are highly dependent on business conditions and market strength for individual cars. In recent years, for example, the sputtering national economy discouraged consumers and car sales dropped dramatically. Automobile dealerships throughout the country suffered one of the worst crises in years from high interest rates and deteriorating economic conditions. Fortunately dealership traffic and sales have recently begun to revive as sales incentives and improved consumers' attitudes brightened the car market.

Auto dealerships throughout the region were surveyed to obtain current dealer perspectives on the following:

1) recent sales performance;
2) important new market developments; and
3) sales outlook for 1983-1984.

Southeastern 1982 car sales down; more dealers out. In 1982, car dealerships in the Southeast declined 4 percent from the year before. The attrition rate was particularly high in Alabama and Tennessee. In addition, the region's total auto sales in dollars declined faster than the nation's because of large drops in Georgia and Alabama. Areas with depressed business conditions, in particular, reported that consumers' lack of confidence about their future earning power was a major contributor to weak auto sales. This was especially true in Alabama and in some rural counties in Georgia, where unemployment soared during 1981-1982. A spokesman for Georgia's automobile dealers stated that in some rural areas of the state—south Georgia counties in particular—the dealership attrition was unusually grave, resulting in significant losses to local business communities.

However, most dealerships managed to stay afloat, thanks to strong sales of used cars, parts, service, and repairs. To battle the weakened economic conditions, car manufacturers provided dealers with several sales incentives packages designed to make new models more attractive to buyers. According to dealers in the region, below-market rates of financing turned out to be the most attractive sales incentive. Dealers credited the bargain financing rates, at times nearly 4 points below conventional bank lending rates, for much of the improved showroom traffic and sales during 1982.

New market developments: Full-sized models' sales booming. Despite the sluggish economy, sales of full-sized and luxury models held steady during 1982 and have surged so far this year as the economy gained strength. These models have been the prime beneficiaries of consumer rebates and low financing deals. Full-sized automobiles, which usually carry the highest profit margins, are credited with having saved many dealerships during 1982.

Large cars are now accounting for a higher portion of the region's car market—dealers estimate as much as 25 to 30 percent, up from 15 to 16 percent in 1980-1981. Dealers agree that large and luxury models were the only units showing substantial improvements from a year earlier during the first part of 1983. However, the demand for foreign-made vehicles, particularly Japanese-made, has also continued strong. Gasoline prices undoubtedly will determine the future size of cars sold.

The Sales Outlook. Southeastern car dealers believe the sales outlook in the region is quite promising. They feel large and luxury car sales are likely to lead much of the sales growth during 1983-1984. Dealers believe there is a pent-up demand in this region that is awaiting the appropriate time to be satisfied. Demand will be augmented by an above-average population growth rate in the Southeast as well as the relatively large number of licensed drivers under 40 years old. Dealers believe that drivers within the 29-40 age bracket will be the dominant force in the future automobile market in the region.

Table 2. New Motor Vehicle Registrations
(in thousands of units)

	1982 Registrations (in thousands)		Change in 1982 Registrations from the Peak of the most recent 10-year period				Registrations during January-May			
			Cars		Trucks		1983		Percent Change from January-May 1982	
	Cars	Trucks	Year	Percent Change	Year	Percent Change	Cars	Trucks	Cars	Trucks
Alabama	101	39	1977	−43.6	1978	−44.3	47.0	18.5	15.4	13.2
Florida	466	117	1973	−21.4	1973	−14.6	215.1	54.6	11.0	9.3
Georgia	163	58	1973	−42.0	1973	−33.3	81.8	29.8	33.4	39.4
Louisiana	142	71	1978	−24.9	1978	−16.5	58.5	28.5	−3.3	−10.4
Mississippi	57	29	1978	−44.7	1978	−44.2	26.8	13.7	19.5	13.3
Tennessee	131	47	1978	−41.3	1978	−48.9	61.0	22.2	14.4	18.4
Total	1,060	361	1973	−30.5	1978	−30.3	490.3	167.3	13.5	11.3
U. S. Total	7,754	2,430	1973	−31.7	1978	−38.7	3,390.1	1,090.0	10.8	11.3

Source: R. L. Polk Company and Motor Vehicle Manufacturers Association **Facts and Figures '82 and Earlier Years.**

Georgia. Motor vehicle sales in Georgia were unusually depressed in 1982. Car sales were down 42 percent from the peak in 1973, reaching the lowest level in 19 years. Sales in rural areas were particularly hard hit as some localities were hurt not only by the recession but by an unusually troubled agricultural sector. Truck sales were 33 percent below the peak of 1973 but grew by 3.6 percent over 1981's level.

The outlook for car and truck sales in 1983 and 1984 is more promising. Georgia's car and truck registrations increased dramatically in the first five months of 1983. The respective 33 and 39 percent increases in registrations from a year earlier reflect, by and large, the performance of the Atlanta car market. Large-sized models as well as imported subcompacts and trucks are leading much of the state's 1983 sales growth.

Louisiana. The best year for motor vehicle sales in Louisiana was 1978, when the state registered 189,000 new cars and 85,000 new trucks. In 1982, however, the state's new car registrations dropped 25 percent from 1978's level, while new truck sales fell nearly 17 percent. Louisiana's 1982 sales slump was, in fact, less severe than the nation's and the region's declines. Louisiana's 1983 sales have been hampered by severe flooding and the continuing recession in the oil industry in the Gulf Coast area. New motor vehicle registrations during the January-May period dropped almost 6 percent from the comparable period in 1982. Despite recent adverse circumstances, however, the dealers' outlook for the 1983-84 period is promising; they predict that full-sized and subcompact models will lead much of the upcoming sales growth.

Mississippi. Mississippians bought 45 percent fewer cars and trucks in 1982 than during the peak year of sales in 1978. Serious problems in the state's economy, battered by high unemployment and weak economic growth, were clearly reflected in motor vehicle sales. Truck sales in 1982 plunged 11 percent from 1981. In early 1983, the state's motor vehicle market improved moderately. Through May, Mississippi's car and truck registrations were 19 and 13 percent higher, respectively, than a year ago.

Tennessee. Last year, 41 percent fewer new cars were registered in Tennessee than during the state's best sales year in 1978. In 1981 and 1982 consecutively, car sales in the state dropped to their lowest levels in 18 years. Truck sales in 1982 were down nearly 49 percent from 1978 levels, the largest percentage decline of any

state in the region. However, the new truck markets showed improvement from 1981 to 1982, thanks to the increasing demand for light economy trucks. New motor vehicle registrations are rising rapidly during 1983. Year-to-date car and truck registrations through May were up 15 percent from a year ago.

Is the Consumer Switching Back to Full-Sized Models?

According to the U. S. Department of Commerce, public preference for smaller cars has cooled from the steady growth pattern of recent years.[2] Increased gasoline prices in the late 1970s and availability of fuel-efficient vehicles—both domestic and foreign—weakened the demand in the Southeast for full-sized and intermediate models. Prior to 1982, sales of those larger models had plummeted while small car sales grew. In 1982, however, the full-sized group outsold all other models. In contrast, sales of compact cars (both domestic and foreign-made) dipped, although they continued to account for fully half of the region's total auto sales.

The nation's car industry radically altered the capacity of passenger car engines in its move to smaller, fuel-efficient vehicles. For the model year 1981, for example, eight-cylinder engines accounted for only 22 percent of the engines installed in new cars, down from approximately 76 percent four years previously. In contrast, four-cylinder engines were installed in about 38 percent of the industry's new vehicles, up from only 6 percent in 1977.[3] The extensive retooling and restructuring of automobile factories required to produce small cars is now almost complete. The huge expenses involved in these changes took a heavy toll on manufacturers' earnings. Thus, it is unlikely that the industry will again revert to producing mostly full-sized autos. An increasing number of the new vehicles designed by Detroit will be relatively lighter front-wheel drive (FWD) cars. FWD cars, featuring a lighter engine and drive train—which maximize the car's fuel efficiency—continue to be the industry's hope to deter the growing competition from overseas.

Full-sized models, of course, will not be excluded totally from industry drawing boards. These heavier cars also have benefited from engineering advances that have improved gas mileage significantly. Recently, one of the Chevrolet division's large models delivered 31 mpg at a steady 55 mph test drive, thanks to devices such as fuel injection, a computer-controlled engine, and a four-speed automatic transmission with overdrive gearing.[4]

Full-sized models traditionally have sold quite well in the Southeast. Southerners' recent demand for full-sized and intermediate vehicles reportedly has exceeded the comparable demand for large cars at the national level. In addition, dealers in the Southeast reported substantial sales gains for the large and luxury models and a weakened demand for subcompact models in 1982.

Dealers indicated that auto markets were boosted, particularly for larger cars, when manufacturers introduced sales incentive programs such as cash rebates and below-market finance rates. Affluent consumers discovered that 1982 and 1983 were good years for buying larger cars. In addition to rebates and subsidized financing, lower gasoline prices and an approximate 15 percent cut in the marginal tax rate during those years also have stimulated demand for larger automobiles.

The incentives apparently were less successful at stimulating sales in other categories. Most reports indicated that sales of other models generally fluctuated from "same as" to "worse than" performance in previous years.

The divergence of sales is dramatized by the southern region of Ford Motor Company's Lincoln-Mercury Division. That division reported that its large car sales have surged dramatically in recent months, following a year in which sales of large models such as the Lincoln Mark VI, Continental, and Mercury Grand Marquis rose 34 percent. Yet Lincoln-Mercury's small car sales were down 20 percent in 1982.

Sales of domestic-made subcompacts, however, face a challenge from the growing market penetration of high-quality, relatively low-priced Japanese cars. Sales of imported cars currently amount to nearly 50 percent of the total volume of subcompacts. Four-fifths of that volume originates in Japan. In the future, the U. S. automobile industry will face much greater challenges as the car market gradually converges into a more

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[2] U. S. Department of Commerce, Bureau of Economic Analysis, **Survey of Current Business**, October 1982.

[3] Motor Vehicle Manufacturers Asssociation, **Facts and Figures '82**, pp. 18 and 38.

[4] **Consumer Reports**, April 1983, p. 191.

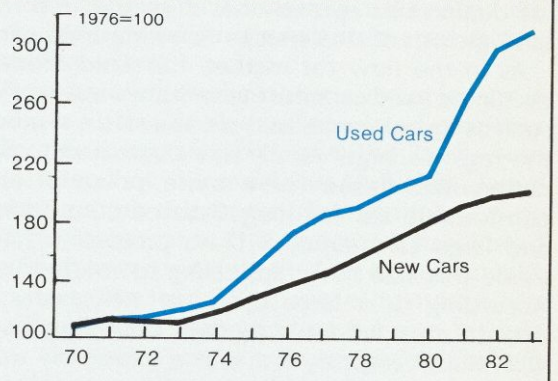
Table 3. The Number of Autos in Circulation for Each New Car Purchased[1]

	1970	1973	1977	1981	1982	Percent Change 1970-82
Alabama	13.9	10.7	11.2	19.1	22.2	59.7
Florida	10.2	7.6	10.7	12.6	14.1	38.2
Georgia	11.0	9.0	10.9	15.2	18.2	65.4
Louisiana	11.2	9.2	9.6	12.4	14.0	25.0
Mississippi	13.6	10.2	11.4	19.8	21.0	54.4
Tennessee	11.8	9.1	11.8	18.8	22.2	88.1
Southeastern States	11.3	8.8	10.8	14.8	17.0	50.4
United States	10.6	9.0	10.5	14.7	16.1	51.9

[1]These ratios reflect the total number of cars registered, and thought to be in circulation, divided by total new cars registered each calendar year.

Source: R. L. Polk & Company and Motor Vehicle Manufacturers Association, **Facts and Figures 1983 and Earlier Years.**

Chart 3. Average Annual Consumer Price Indexes for New and Used Cars (1970-1983)



Source: Bureau of Labor Statistics

homogeneous product. The downsizing trend of new domestic-made models, for example, coincides with Japanese manufacturers' attempts to size-up new design models to bid for other segments of the U. S. car market. Future competition more than ever will be based on factors such as cost, quality, and vehicle performance.

Used Car Market

While the new car market suffered from the effects of a weaker economy, used car sales flourished, particularly during 1982. The nation's used car market, which is estimated to be about twice the size of the new car market in vehicles sold, performed well during the recession even though the typical used car sold in 1982 had logged higher mileage than in previous years.[5]

It was the 40 percent drop in new car volume in 1982 that fueled much of the sales activity for used cars. Slow new car sales usually mean a low volume of trade-ins. Dealers are then forced to purchase additional used cars to balance their inventory; and prices rise as a result of additional bidding at wholesale auctions scattered throughout the country.

Used cars were an especially hot sale item in the Southeast during 1982. Taxable sales reported by revenue departments in Georgia and Tennessee indicated that used car dealerships outperformed dealerships that specialized in new cars. Used car sales in these states increased an average of 11 percent in 1981-1982, while new car sales rose by only 6 percent. Because motorists are keeping cars longer, the nation's average vehicle age moved up from six years in 1977 to about seven years in 1982. Increased attention to proper care and maintenance is likely to further lengthen automobile life. Areas of the Southeast hardest hit by the economic slowdown show a relative increase in the number of older cars on the roadways.

For each new car registered in the region in 1982, there were 17 cars in circulation compared to a ratio of 11.3 cars in 1970 (see Table 3). The ratios of old to new cars were much higher in Alabama, Mississippi, and Tennessee, where the average car age far exceeded both the region's and the nation's comparable ages. In Georgia, cars in circulation per new car registered increased by a whopping 65 percent from 1970 to 1982.

Prices of late model used cars have risen with the accumulation of older models still in service. According to the Bureau of Labor Statistics, used car prices during the 1979-1982 period rose 2½ times faster than new car prices (see Chart 3). In 1982, the nation's average used car price jumped 15.3 percent from 1981, whereas the corresponding rise for new cars was only 3.9 percent.[6]

[5]Hertz Corporation's annual survey of auto expense estimates reported that the typical used car sold in 1982 had about 15,000 more miles than corresponding units three years ago.

[6]Unlike the used car index, the new car index often is adjusted downward for quality reasons. These adjustments, however, narrow the gap between new and used car price trends only slightly.

However, as new car sales revived during the first months of 1983, used car prices began to steady. The growth in receipts from taxable sales at new car dealerships recently has also matched the sales growth of dealerships handling used cars.

As in the new car market, full-sized models dominate used car sales in the Southeast. Factors such as the automobile's role as a status symbol, the region's larger family size compared to the nation, the desire for a more powerful and comfortable car for long-distance commuting, and large cars' superior crash protection have made this size more appealing to southerners. According to a large used car wholesaler in Atlanta, most full-sized models, excluding those with diesel engines, are selling extremely well. He expects this trend to continue as long as gasoline prices remain low. In contrast, sales of smaller models are weak, particularly for domestic cars, although the movement of small sporty models recently has picked up some steam.

The future of the used car market also will depend also on how fast aging cars are replaced or scrapped. Factors such as real incomes of middle-class people, gasoline prices, the cost of service and repairs, and the pace of new car sales will influence market trends. Within the region and in some hard-pressed areas in particular, used car sales will continue to be important as long as the cost of new car ownership keeps rising faster than income levels.

Truck Sales in 1982: Small is Beautiful

The rebound in light truck sales has been one of the few pleasant surprises in the nation's motor vehicle industry. The enthusiastic acceptance of the domestic industry's new compact pickups is the primary reason for the strong performance.

The sales increase of 13.6 percent for all truck models in 1982 lifted dealer profits and compensated for losses in other sale units. The sale of domestically produced light trucks went up 53.7 percent in 1982 from the previous year's level.[7] Foreign-made trucks, which accounted for 88 percent of the compact pickup category in 1981, ended up 1982 with only 53 percent of the market.

In the Southeast, the turnaround in truck sales began late in 1982. Some district sales offices reported that compact pickups were clearly their leading sales unit during 1982. The increase in truck sales in the region even outpaced the nation's rise. The Atlanta sales district area, which encompasses most of Georgia and Alabama and parts of Tennessee and North Carolina, was one of the strong markets in the region. According to a regional spokesman with Ford Motor Company, buyers in this part of the country now view light trucks as excellent utility units and as a second family vehicle.

Renewed interest in dual or multipurpose vehicles also has stimulated the market for vans, classified by the industry within the truck market. The decline in gasoline prices and the availability of a new fleet of well-equipped domestic vans have made this vehicle another hot selling item.

The truck market's attractiveness has inspired some foreign manufacturers to design new strategies to compete with domestic producers for a greater share of the U. S. market. Nissan Motor Company of Japan, for example, has built a new truck plant in Smyrna, Tennessee, that just began production in June. When the Smyrna plant reaches full production, it will employ 2,100 workers. The plant has made Smyrna the state's fastest-growing town.

Future light truck sales will be stimulated by the improved national economy and the fact that trucks are gaining public acceptance. Future sales, however, are dependent on favorable financing rates, a factor that has proven to be a major determinant of truck sales volume.

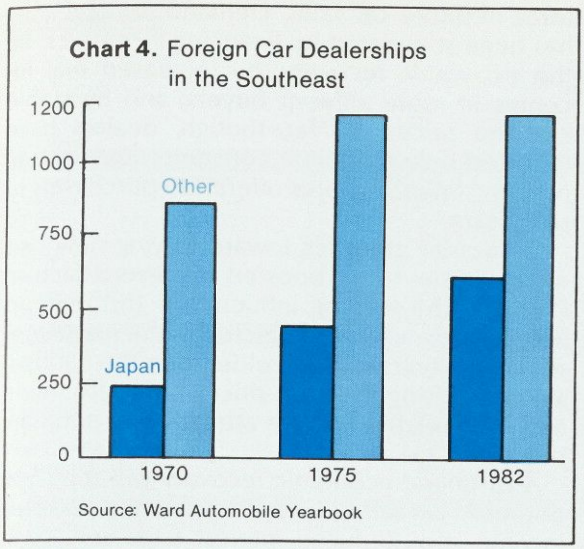
Southeastern Demand for Imports On the Rise

The Southeast has witnessed a deep penetration by foreign cars into domestic markets in recent years. Besides being one of the nation's fastest-growing automobile markets, the region has also become an important international distribution center. Imported cars have virtually flooded into the Port of Jacksonville, now the nation's largest car import center. Officials report that cars represent about 60 percent of the Florida port's total import tonnage and are responsible for about 6,000 jobs.[8]

In 1982, weak consumer spending and Japan's voluntary import agreement, caused foreign car sales in the Southeast to drop from a year earlier.

[7] **Automotive News**, January 17, 1983.

[8] Jacksonville Port Authority, **Annual Report for Fiscal Year 1982.**



However, the import share remained high in most states of the region. In Georgia and Florida, two of the best automobile markets, imports accounted for a larger share than they did in the nation. Several foreign car dealerships reported that they have problems obtaining an adequate supply of cars. In Florida, for example, some dealers have complained that they can't get enough additional vehicles allocated to them each year. These dealers consider annual supply increases of 10 percent too small for adequate service to a market that has shown tremendous growth.

A bright outlook for import sales in the region produced a dramatic increase in the number of foreign car dealerships from 1970 to 1982 (see Chart 4). Total foreign car dealerships in the region increased 64 percent from the 1970 count, with Japanese models leading much of that growth. Dealers for Japanese autos increased from 236 in 1970 to 613 in 1982. Currently, more than one third of the region's total foreign car dealers handle Japanese models exclusively. That portion would be even higher if domestically-sponsored import outlets such as Chrysler-Mitsubishi were included.

Most experts agree that cost differentials and quality remain Japan's clearest advantages, even though American manufacturers have improved quality substantially. Many consumers also feel that American-made cars offer superior safety features. Costs for Japanese cars at port-side in the United States recently were estimated to be 26.8 percent lower than comparable U.S. models.[9] These important cost advantages are not based solely on Japan's lower wage structure; they also reflect a highly efficient managerial system and technological advances in automated manufacturing.

The large and growing penetration of Japanese cars into U. S. markets has stimulated pressures from labor organizations and the U. S. auto industry to limit shipments. In April 1981, Japan agreed to limit shipments of cars to the U. S. to 1.68 million per year. This agreement has slowed the flow of new units into the Port of Jacksonville. However, the leading Japanese manufacturers have expanded their product lines to include more expensive luxury and sport models, which yield higher per unit profits. The increase in these higher-priced models has kept many Japanese car dealerships profitable while some other foreign-car dealers were closing due to poor sales. These new models are competing with domestic full-sized and luxury vehicles, and have triggered new competition in the sports car market.

The Outlook for Motor Vehicle Sales

Improved economic conditions and lower gasoline prices have brightened the short-term outlook for motor vehicle sales. A recent auto industry forecast predicted that nearly nine million cars will be sold in the nation in 1983 and over 10 million in 1984.[10] These projections represent sales gains of approximately 12 and 14 percent, respectively, from previous year's levels. Sales through July indicate that this year's projections should be met easily. However, the auto industry will still be a long way from full recovery and far below the peak sales levels achieved in 1973 and 1978. The domestic industry can take some comfort in the fact that the additional one million cars projected to be sold in 1983 will come largely from American manufacturers. With Japan still restricted to a 1.68 million quota, total imports will continue to be limited to only 2.2 million cars this year.

In June, sales of domestic new cars reached an annual rate of 7.5 million units, the highest level in 22 months.[11] This annual rate was 6 percent higher than the industry itself had projected for calendar year 1983.

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[9] Jose Gomez-Ibanez and David Harrison, Jr., **Imports and the Future of the U.S. Automotive Industry,** May 1982 **American Economic Review.**
[10] **Automotive News,** June 20, 1983
[11] **The Wall Street Journal,** July 1983.

The increased demand for large, luxury type cars is responsible for much of the brightened outlook for domestic automobiles. With stable gasoline prices, the market for full-sized cars is expected to grow steadily through 1984. However, sales growth in full-sized cars may be constrained by limited manufacturing capacity. Responding to earlier demand for small cars, some domestic car producers now have twice the small car capacity they need but only limited capability to increase full-sized car output quickly.[12] Manufacturers who plan to increase their output of large-sized models must consider potential problems in complying with federal regulations such as the "corporate average fuel economy" (CAFE). CAFE standards require that the fleet average for new U. S.-made cars attain a minimum fuel economy of 27.5 miles per gallon by 1985. In order to comply with CAFE standards, car makers need to preserve the share of fuel-efficient small autos in their total manufacturing mix. Keeping small cars in proper balance to maintain overall fuel economy has proved difficult in times of stable or declining gasoline prices and weakened demand for small fuel-efficient vehicles.

What about the southeastern car market? The region's recent car buying spree is outperforming the nation's car sales growth so far in 1983. Based on recent data from some sales offices, the region seems assured of posting a 15-20 percent sales increase in 1983. Most southeastern automobile dealers see full-sized cars as the leading force in future car sales. Demand for large cars has been stimulated by financing incentives, by the economic recovery, by increased real incomes of more affluent buyers, and by stable gasoline prices. So far, though, dealers have reported only moderate consumer response to reduced financing rates offered to purchasers of small cars.

Consumer attitudes toward buying new cars will continue to be boosted by several factors. Probably the leading influence is the pent-up demand for new cars reflected in the number of southern vehicles much older than the national average. Rising used car prices have also made new cars relatively more attractive to potential buyers.

A sustained economic recovery will stimulate domestic car sales as employment and personal income rise. Reduced interest rates and lower gasoline prices also would stimulate sales. After years of coping with new environmental and safety requirements, manufacturers feel the absence of additional government regulations will allow them time to catch up with current requirements and avoid new expenses from further mandates. All in all, the auto industry finally appears to be entering a smoother stretch of the road.

—Gene D. Sullivan and Gustavo Uceda

[12] **Business Week**, April 18, 1983.

FINANCE

STATISTICAL SUPPLEMENT

$ millions	JUL 1983	JUN 1983	JUL 1982	ANN. % CHG.		JUL 1983	JUN 1983	JUL 1982	ANN. % CHG.
UNITED STATES									
Commercial Bank Deposits	1,283,385	1,256,964	1,153,704	+ 11	Savings & Loans				
Demand	324,563	296,622	296,964	+ 9	Total Deposits	612,257	605,886	534,299	+ 15
NOW	81,752	77,885	58,573	+ 40	NOW	17,744	16,627	10,488	+ 69
Savings	344,658	339,938	151,527	+127	Savings	186,991	187,206	93,202	+101
Time	580,339	576,573	681,420	- 15	Time	411,194	404,931	432,044	- 5
Credit Union Deposits	59,391	57,830	49,551	+ 20		**MAY**	**APR**	**MAY**	
Share Drafts	5,325	5,027	3,306	+ 61	Mortgages Outstanding	464,646	467,213	505,000	- 8
Savings & Time	47,559	45,857	42,209	+ 13	Mortgage Commitments	29,886	27,663	16,549	+ 81
SOUTHEAST									
Commercial Bank Deposits	144,694	141,832	124,585	+ 16	Savings & Loans				
Demand	37,266	34,781	34,790	+ 7	Total Deposits	87,616	87,278	78,685	+ 11
NOW	10,441	10,010	7,615	+ 37	NOW	3,949	2,769	1,699	+132
Savings	38,019	37,572	14,875	+156	Savings	24,009	24,436	11,666	+106
Time	63,479	62,919	71,134	- 11	Time	61,426	60,754	65,538	- 6
Credit Union Deposits	5,518	5,352	4,633	+ 19		**MAY**	**APR**	**MAY**	
Share Drafts	452	413	329	+ 37	Mortgages Outstanding	66,004	65,739	74,295	- 11
Savings & Time	4,564	4,439	3,873	+ 18	Mortgage Commitments	4,330	3,986	3,242	+ 34
ALABAMA									
Commercial Bank Deposits	15,284	14,999	13,828	+ 11	Savings & Loans				
Demand	3,897	3,584	3,527	+ 10	Total Deposits	5,361	5,292	4,521	+ 19
NOW	922	908	653	+ 41	NOW	138	127	89	+ 55
Savings	3,194	3,151	1,569	+104	Savings	916	907	553	+ 66
Time	7,896	7,817	8,711	- 9	Time	4,375	4,325	3,905	+ 12
Credit Union Deposits	840	826	818	+ 3		**MAY**	**APR**	**MAY**	
Share Drafts	79	74	64	+ 23	Mortgages Outstanding	3,627	3,607	3,962	- 8
Savings & Time	685	672	660	+ 4	Mortgage Commitments	178	150	59	+202
FLORIDA									
Commercial Bank Deposits	50,341	49,005	40,823	+ 23	Savings & Loans				
Demand	13,251	12,408	12,318	+ 8	Total Deposits	52,452	52,591	47,524	+ 10
NOW	4,411	4,190	3,332	+ 32	NOW	2,064	1,964	1,171	+ 76
Savings	17,195	16,952	6,276	+174	Savings	16,202	16,671	7,768	+109
Time	16,795	16,513	20,036	- 16	Time	34,568	34,294	38,660	- 11
Credit Union Deposits	2,492	2,400	2,133	+ 17		**MAY**	**APR**	**MAY**	
Share Drafts	237	219	186	+ 27	Mortgages Outstanding	38,944	38,718	45,525	- 14
Savings & Time	1,897	1,829	1,653	+ 15	Mortgage Commitments	3,079	2,919	2,650	+ 16
GEORGIA									
Commercial Bank Deposits	20,713	20,107	17,448	+ 19	Savings & Loans				
Demand	7,080	6,501	6,158	+ 15	Total Deposits	10,210	10,002	9,916	+ 3
NOW	1,382	1,314	1,094	+ 26	NOW	291	266	184	+ 58
Savings	4,668	4,601	1,653	+182	Savings	2,226	2,224	1,203	+ 85
Time	8,843	8,715	9,508	- 7	Time	7,828	7,651	8,596	- 9
Credit Union Deposits	1,168	1,138	839	+ 39		**MAY**	**APR**	**MAY**	
Share Drafts	54	47	29	+ 86	Mortgages Outstanding	8,137	8,176	9,279	- 12
Savings & Time	1,026	1,006	757	+ 36	Mortgage Commitments	366	289	180	+103
LOUISIANA									
Commercial Bank Deposits	24,993	24,680	22,598	+ 11	Savings & Loans				
Demand	6,032	5,784	6,102	- 1	Total Deposits	9,287	9,229	7,858	+ 18
NOW	1,378	1,342	1,041	+ 32	NOW	176	163	109	+ 61
Savings	5,307	5,184	2,473	+115	Savings	2,515	2,460	1,236	+103
Time	12,877	12,891	13,595	- 5	Time	6,678	6,675	6,535	+ 2
Credit Union Deposits	116	114	124	- 6		**MAY**	**APR**	**MAY**	
Share Drafts	13	12	10	+ 30	Mortgages Outstanding	7,494	7,417	7,260	+ 3
Savings & Time	110	109	115	- 4	Mortgage Commitments	468	413	267	+ 75
MISSISSIPPI									
Commercial Bank Deposits	11,497	11,392	10,234	+ 12	Savings & Loans				
Demand	2,481	2,303	2,354	+ 5	Total Deposits	2,633	2,618	2,438	+ 8
NOW	784	794	563	+ 39	NOW	88	80	51	+ 73
Savings	2,459	2,433	747	+229	Savings	502	504	225	+123
Time	6,128	6,122	6,899	- 11	Time	2,085	2,068	2,175	- 4
Credit Union Deposits	N.A.	N.A.	N.A.			**MAY**	**APR**	**MAY**	
Share Drafts	N.A.	N.A.	N.A.		Mortgages Outstanding	1,987	2,019	2,185	- 9
Savings & Time	N.A.	N.A.	N.A.		Mortgage Commitments	42	34	19	+121
TENNESSEE									
Commercial Bank Deposits	21,866	21,649	19,564	+ 12	Savings & Loans				
Demand	4,525	4,201	4,331	+ 4	Total Deposits	7,673	7,546	6,428	+ 19
NOW	1,564	1,462	932	+ 68	NOW	192	169	95	+102
Savings	5,196	5,251	2,157	+141	Savings	1,648	1,670	681	+142
Time	10,940	10,861	12,385	- 12	Time	5,892	5,741	5,667	+ 4
Credit Union Deposits	902	874	719	+ 25		**MAY**	**APR**	**MAY**	
Share Drafts	69	61	40	+ 73	Mortgages Outstanding	5,815	5,802	6,084	- 4
Savings & Time	849	823	688	+ 23	Mortgage Commitments	197	181	67	+194

Notes: All deposit data are extracted from the Federal Reserve Report of Transaction Accounts, other Deposits and Vault Cash (FR2900), and are reported for the average of the week ending the 1st Wednesday of the month. This data, reported by institutions with over $15 million in deposits as of December 31, 1979, represents 95% of deposits in the six state area. The major differences between this report and the "call report" are size, the treatment of interbank deposits, and the treatment of float. The data generated from the Report of Transaction Accounts is for banks over $15 million in deposits as of December 31, 1979. The total deposit data generated from the Report of Transaction Accounts eliminates interbank deposits by reporting the net of deposits "due to" and "due from" other depository institutions. The Report of Transaction Accounts subtracts cash in process of collection from demand deposits, while the call report does not. Savings and loan mortgage data are from the Federal Home Loan Bank Board Selected Balance Sheet Data. The Southeast data represent the total of the six states. Subcategories were chosen on a selective basis and do not add to total. N.A. - fewer than four institutions reporting.

CONSTRUCTION

	JUN 1983	MAY 1983	JUN 1982	ANN % CHG		JUN 1983	MAY 1983	JUN 1982	ANN % CHG
12-month Cumulative Rate									
UNITED STATES									
Nonresidential Building Permits - $ Mil.					Residential Building Permits				
Total Nonresidential	45,983	45,100	50,117	- 8	Value - $ Mil.	5,463	51,047	34,819	- 84
Industrial Bldgs.	5,014	5,012	6,242	- 20	Residential Permits - Thous.				
Offices	11,268	10,874	14,617	- 23	Single-family units	752.6	702.5	466.8	+ 61
Stores	5,726	5,512	5,653	+ 1	Multi-family units	573.8	541.9	381.1	+ 51
Hospitals	1,926	1,857	1,646	+ 17	Total Building Permits				
Schools	845	930	879	- 4	Value - $ Mil.	100,746	96,147	84,936	+ 19
SOUTHEAST									
Nonresidential Building Permits - $ Mil.					Residential Building Permits				
Total Nonresidential	7,076	6,891	6,606	+ 7	Value - $ Mil.	9,719	9,120	6,648	+ 46
Industrial Bldgs.	621	638	816	- 24	Residential Permits - Thous.				
Offices	1,616	1,532	1,420	+ 14	Single-family units	154.0	145.7	95.0	+ 62
Stores	1,048	999	1,059	- 1	Multi-family units	116.0	108.9	86.9	+ 33
Hospitals	418	397	301	+ 39	Total Building Permits				
Schools	166	168	91	+ 82	Value - $ Mil.	16,795	16,011	13,255	+ 27
ALABAMA									
Nonresidential Building Permits - $ Mil.					Residential Building Permits				
Total Nonresidential	371	371	401	- 7	Value - $ Mil.	328	321	240	+ 37
Industrial Bldgs.	30	35	82	- 63	Residential Permits - Thous.				
Offices	60	68	41	+ 46	Single-family units	6.8	6.9	4.1	+ 66
Stores	59	54	70	- 16	Multi-family units	5.6	5.5	5.1	+ 10
Hospitals	29	29	32	- 9	Total Building Permits				
Schools	4	5	8	- 50	Value - $ Mil.	699	692	642	+ 9
FLORIDA									
Nonresidential Building Permits - $ Mil.					Residential Building Permits				
Total Nonresidential	3,620	3,537	3,340	+ 8	Value - $ Mil.	5,579	5,211	4,272	+ 31
Industrial Bldgs.	327	345	406	- 19	Residential Permits - Thous.				
Offices	799	766	658	+ 21	Single-family units	80.3	75.3	51.7	+ 55
Stores	593	584	553	+ 7	Multi-family units	66.5	62.5	55.3	+ 20
Hospitals	253	233	169	+ 50	Total Building Permits				
Schools	54	54	18	+200	Value - $ Mil.	9,199	8,748	7,612	+ 21
GEORGIA									
Nonresidential Building Permits - $ Mil.					Residential Building Permits				
Total Nonresidential	1,083	1,046	1,056	+ 3	Value - $ Mil.	1,959	1,851	1,055	+ 86
Industrial Bldgs.	144	142	177	- 19	Residential Permits - Thous.				
Offices	271	247	256	+ 6	Single-family units	35.6	34.2	20.7	+ 72
Stores	108	93	119	- 9	Multi-family units	20.0	18.6	9.9	+102
Hospitals	24	29	27	- 11	Total Building Permits				
Schools	25	27	35	- 29	Value - $ Mil.	3,041	2,897	2,111	+ 44
LOUISIANA									
Nonresidential Building Permits - $ Mil.					Residential Building Permits				
Total Nonresidential	1,133	1,107	920	+ 23	Value - $ Mil.	912	853	555	+ 64
Industrial Bldgs.	60	57	88	- 32	Residential Permits - Thous.				
Offices	354	322	282	+ 26	Single-family units	15.4	14.6	9.2	+ 67
Stores	121	116	166	- 27	Multi-family units	12.8	11.4	7.6	+ 68
Hospitals	59	58	29	+103	Total Building Permits				
Schools	66	68	24	+175	Value - $ Mil.	2,045	1,960	1,476	+ 39
MISSISSIPPI									
Nonresidential Building Permits - $ Mil.					Residential Building Permits				
Total Nonresidential	156	162	189	- 17	Value - $ Mil.	240	231	144	+ 67
Industrial Bldgs.	7	8	23	- 70	Residential Permits - Thous.				
Offices	15	17	44	- 66	Single-family units	4.4	4.3	2.9	+ 52
Stores	29	31	40	- 27	Multi-family units	2.9	2.8	1.9	+ 53
Hospitals	14	14	6	+133	Total Building Permits				
Schools	8	7	1	+700	Value - $ Mil.	395	393	333	+ 19
TENNESSEE									
Nonresidential Building Permits - $ Mil.					Residential Building Permits				
Total Nonresidential	713	668	698	+ 2	Value - $ Mil.	701	651	381	+ 84
Industrial Bldgs.	54	51	39	+ 38	Residential Permits - Thous.				
Offices	117	113	139	- 16	Single-family units	11.6	10.7	6.3	+ 84
Stores	137	122	111	+ 23	Multi-family units	8.6	8.1	5.9	+ 46
Hospitals	40	34	29	+ 38	Total Building Permits				
Schools	8	8	6	+ 33	Value - $ Mil.	1,415	1,320	1,080	+ 31

NOTES:
Data supplied by the U. S. Bureau of the Census, Housing Units Authorized By Building Permits and Public Contracts, C- 40. Nonresidential data excludes the cost of construction for publicly owned buildings. The southeast data represent the total of the six states. The annual percent change calculation is based on the most recent month over prior year. Publication of F. W. Dodge construction contracts has been discontinued.

GENERAL

	LATEST DATA	CURR. PERIOD	PREV. PERIOD	YEAR AGO	ANN. % CHG.
UNITED STATES					
Personal Income ($bil. - SAAR)	1Q	2,640.5	2,616.1	2,499.8	+ 6
Taxable Sales - $bil.		N.A.	N.A.	N.A.	
Plane Pass. Arr. 000's		N.A.	N.A.	N.A.	
Petroleum Prod. (thous.)	JUL	8,695.0	8,687.5	8,701.0	- 0
Consumer Price Index 1967=100	JUL	299.3	298.1	290.6	+ 3
Kilowatt Hours - mils.	MAY	158.2	163.7	158.4	- 0
SOUTHEAST					
Personal Income ($bil. - SAAR)	1Q	318.0	314.5	296.4	+ 7
Taxable Sales - $ bil.		N.A.	N.A.	N.A.	
Plane Pass. Arr. 000's	JUN	4,387.5	4,326.9	4,192.5	+ 5
Petroleum Prod. (thous.)	JUL	1,407.0	1,409.0	1,389.0	+ 1
Consumer Price Index 1967=100		N.A.	N.A.	N.A.	
Kilowatt Hours - mils.	MAY	24.8	25.4	24.9	- 0
ALABAMA					
Personal Income ($bil. - SAAR)	1Q	35.1	34.7	33.0	+ 6
Taxable Sales - $ bil.	MAY	26.9	26.5	25.2	+ 7
Plane Pass. Arr. 000's	JUN	99.1	118.2	112.9	-12
Petroleum Prod. (thous.)	JUL	54.0	55.0	56.0	- 4
Consumer Price Index 1967=100		N.A.	N.A.	N.A.	
Kilowatt Hours - mils.	MAY	3.3	3.4	3.4	- 3
FLORIDA					
Personal Income ($bil. - SAAR)	1Q	118.6	117.4	108.9	+ 9
Taxable Sales - $ bil.	JUL	69.9	69.2	66.8	+ 5
Plane Pass. Arr. 000's	JUN	2,142.1	2,087.3	2,056.9	+ 4
Petroleum Prod. (thous.)	JUL	62.0	63.0	76.0	-18
Consumer Price Index - Miami Nov. 1977 = 100		JUL 160.8	MAY 159.4	JUL 155.1	+ 4
Kilowatt Hours - mils.	MAY	6.8	6.9	7.0	- 3
GEORGIA					
Personal Income ($bil. - SAAR)	1Q	56.0	55.3	52.0	+ 8
Taxable Sales - $ bil.	1Q	39.9	39.4	38.2	+ 4
Plane Pass. Arr. 000's	JUN	1,676.7	1,641.8	1,564.1	+ 7
Petroleum Prod. (thous.)		N.A.	N.A.	N.A.	
Consumer Price Index - Atlanta 1967 = 100		JUN 302.3	APR 297.6	JUN 291.1	+ 4
Kilowatt Hours - mils.	MAY	4.2	3.9	3.7	+14
LOUISIANA					
Personal Income ($bil. - SAAR)	1Q	45.4	44.7	43.1	+ 5
Taxable Sales - $ bil.		N.A.	N.A.	N.A.	
Plane Pass. Arr. 000's	JUN	272.9	283.0	259.4	-15
Petroleum Prod. (thous.)	JUL	1,205.0	1,205.0	1,164.0	+ 4
Consumer Price Index 1967 = 100		N.A.	N.A.	N.A.	
Kilowatt Hours - mils.	MAY	3.9	4.0	4.3	- 9
MISSISSIPPI					
Personal Income ($bil. - SAAR)	1Q	20.5	20.4	19.3	+ 6
Taxable Sales - $ bil.		N.A.	N.A.	N.A.	
Plane Pass. Arr. 000's	JUN	32.5	35.9	33.0	- 1
Petroleum Prod. (thous.)	JUL	86.0	86.0	93.0	- 8
Consumer Price Index 1967 = 100		N.A.	N.A.	N.A.	
Kilowatt Hours - mils.	MAY	1.6	1.7	1.6	0
TENNESSEE					
Personal Income ($bil. - SAAR)	1Q	42.4	42.0	40.1	+ 6
Taxable Sales - $ bil.	MAY	30.3	29.2	29.1	+ 4
Plane Pass. Arr. 000's	JUN	164.2	160.6	166.2	-12
Petroleum Prod. (thous.)	JUL	N.A.	N.A.	N.A.	
Consumer Price Index 1967 = 100		N.A.	N.A.	N.A.	
Kilowatt Hours - mils.	MAY	5.0	5.5	4.9	+ 2

	JUL 1983	JUN (R) 1983	JUL 1982	ANN. % CHG.
Agriculture				
Prices Rec'd by Farmers Index (1977=100)	131	134	136	- 4
Broiler Placements (thous.)	81,240	83,554	81,835	- 1
Calf Prices ($ per cwt.)	60.40	64.30	60.40	0
Broiler Prices (¢ per lb.)	30.7	28.3	28.1	+ 9
Soybean Prices ($ per bu.)	6.11	5.91	5.99	+ 2
Broiler Feed Cost ($ per ton)	217	217	217	0
Agriculture				
Prices Rec'd by Farmers Index (1977=100)	113	122	123	- 8
Broiler Placements (thous.)	31,576	32,758	30,879	+ 2
Calf Prices ($ per cwt.)	56.36	59.61	57.08	- 1
Broiler Prices (¢ per lb.)	30.1	27.3	27.7	+ 9
Soybean Prices ($ per bu.)	6.24	6.12	6.12	+ 2
Broiler Feed Cost ($ per ton)	206	197	218	- 6
Agriculture				
Farm Cash Receipts - $ mil. (Dates: APR, APR)	569	-	603	- 6
Broiler Placements (thous.)	10,362	10,793	10,136	+ 2
Calf Prices ($ per cwt.)	54.60	58.00	55.50	- 2
Broiler Prices (¢ per lb.)	30.0	27.0	26.5	+13
Soybean Prices ($ per bu.)	6.11	6.00	5.97	+ 2
Broiler Feed Cost ($ per ton)	215	195	225	- 4
Agriculture				
Farm Cash Receipts - $ mil. (Dates: APR, APR)	1,948	-	2,007	- 3
Broiler Placements (thous.)	1,982	2,091	1,931	+ 3
Calf Prices ($ per cwt.)	66.20	66.80	60.60	+ 9
Broiler Prices (¢ per lb.)	30.0	27.0	27.0	+11
Soybean Prices ($ per bu.)	6.11	6.00	5.97	+ 2
Broiler Feed Cost ($ per ton)	230	235	225	+ 2
Agriculture				
Farm Cash Receipts - $ mil. (Dates: APR, APR)	803	-	805	- 0
Broiler Placements (thous.)	12,518	13,067	12,630	- 1
Calf Prices ($ per cwt.)	50.50	55.75	54.00	- 6
Broiler Prices (¢ per lb.)	29.5	27.0	27.0	+ 9
Soybean Prices ($ per bu.)	6.31	6.03	6.25	+ 1
Broiler Feed Cost ($ per ton)	200	190	215	- 7
Agriculture				
Farm Cash Receipts - $ mil. (Dates: APR, APR)	423	-	473	-11
Broiler Placements (thous.)	N.A.	N.A.	N.A.	
Calf Prices ($ per cwt.)	56.50	59.30	59.10	- 4
Broiler Prices (¢ per lb.)	31.5	28.5	31.0	+ 2
Soybean Prices ($ per bu.)	6.20	6.19	6.19	+ 0
Broiler Feed Cost ($ per ton)	265	270	250	+ 6
Agriculture				
Farm Cash Receipts - $ mil. (Dates: APR, APR)	589	-	599	- 2
Broiler Placements (thous.)	6,714	6,807	6,181	+ 9
Calf Prices ($ per cwt.)	55.00	59.20	59.60	- 8
Broiler Prices (¢ per lb.)	31.0	28.0	30.5	+ 2
Soybean Prices ($ per bu.)	6.22	6.13	6.07	+ 2
Broiler Feed Cost ($ per ton)	180	179	205	-12
Agriculture				
Farm Cash Receipts - $ mil. (Dates: APR, APR)	607	-	542	+12
Broiler Placements (thous.)	N.A.	N.A.	N.A.	
Calf Prices ($ per cwt.)	54.00	57.60	53.70	+ 1
Broiler Prices (¢ per lb.)	29.0	27.0	28.0	+ 4
Soybean Prices ($ per bu.)	6.40	6.20	6.14	+ 4
Broiler Feed Cost ($ per ton)	200	220	188	+ 6

Notes:
Personal Income data supplied by U. S. Department of Commerce. Taxable Sales are reported as a 12-month cumulative total. Plane Passenger Arrivals are collected from 26 airports. Petroleum Production data supplied by U. S. Bureau of Mines. Consumer Price Index data supplied by Bureau of Labor Statistics. Agriculture data supplied by U. S. Department of Agriculture. Farm Cash Receipts data are reported as cumulative for the calendar year through the month shown. Broiler placements are an average weekly rate. The Southeast data represent the total of the six states. N.A. = not available. The annual percent change calculation is based on most recent data over prior year. R = revised.

EMPLOYMENT

	JUNE 1983	MAY 1983	JUNE 1982	ANN. % CHG.		JUNE 1983	MAY 1983	JUNE 1982	ANN. % CHG.
UNITED STATES									
Civilian Labor Force - thous.	113,383	110,308	111,569	+ 2	Nonfarm Employment- thous.	90,571	89,827	90,585	- 0
Total Employed - thous.	101,813	99,543	100,683	+ 1	Manufacturing	18,684	18,464	19,039	- 2
Total Unemployed - thous.	11,570	10,765	10,886	+ 6	Construction	4,104	3,890	4,092	+ 0
Unemployment Rate - % SA	10.0	10.1	9.5		Trade	20,580	20,369	20,573	+ 0
Insured Unemployment - thous.	N.A.	N.A.	N.A.		Government	15,767	16,039	15,982	- 1
Insured Unempl. Rate - %	N.A.	N.A.	N.A.		Services	19,869	19,643	19,195	+ 4
Mfg. Avg. Wkly. Hours	40.3	39.9	39.3	+ 3	Fin., Ins., & Real Est.	5,506	5,431	5,395	+ 2
Mfg. Avg. Wkly. Earn. - $	355	350	334	+ 6	Trans. Com. & Pub. Util.	5,037	4,991	5,140	- 2
SOUTHEAST									
Civilian Labor Force - thous.	14,499	14,233	14,226	+ 2	Nonfarm Employment- thous.	11,474	11,449	11,403	+ 1
Total Employed - thous.	13,034	12,797	12,829	+ 2	Manufacturing	2,160	2,151	2,187	- 1
Total Unemployed - thous.	1,464	1,435	1,397	+ 5	Construction	633	622	665	- 6
Unemployment Rate - % SA	9.7	10.4	9.3		Trade	2,709	2,707	2,681	+ 1
Insured Unemployment - thous.	N.A.	N.A.	N.A.		Government	2,160	2,171	2,130	+ 1
Insured Unempl. Rate - %	N.A.	N.A.	N.A.		Services	2,307	2,301	2,233	+ 3
Mfg. Avg. Wkly. Hours	41.0	40.3	39.8	+ 3	Fin., Ins., & Real Est.	663	661	651	+ 2
Mfg. Avg. Wkly. Earn. - $	312	308	292	+ 7	Trans. Com. & Pub. Util.	698	693	703	- 1
ALABAMA									
Civilian Labor Force - thous.	1,724	1,729	1,730	- 0	Nonfarm Employment- thous.	1,315	1,312	1,326	- 1
Total Employed - thous.	1,326	1,504	1,480	-10	Manufacturing	330	330	343	- 4
Total Unemployed - thous.	218	225	251	-13	Construction	60	59	60	0
Unemployment Rate - % SA	12.0	13.2	13.1		Trade	266	266	268	- 1
Insured Unemployment - thous.	N.A.	N.A.	N.A.		Government	295	295	291	+ 1
Insured Unempl. Rate - %	N.A.	N.A.	N.A.		Services	219	219	216	+ 1
Mfg. Avg. Wkly. Hours	41.1	40.5	39.6	+ 4	Fin., Ins., & Real Est.	59	59	59	0
Mfg. Avg. Wkly. Earn. - $	310	307	289	+ 7	Trans. Com. & Pub. Util.	71	70	72	- 1
FLORIDA									
Civilian Labor Force - thous.	4,957	4,748	4,721	+ 5	Nonfarm Employment- thous.	3,851	3,847	3,754	+ 3
Total Employed - thous.	4,522	4,335	4,359	+ 4	Manufacturing	467	467	459	+ 2
Total Unemployed - thous.	434	412	362	+20	Construction	249	243	258	- 3
Unemployment Rate - % SA	8.8	9.1	7.5		Trade	1,014	1,020	988	+ 3
Insured Unemployment - thous.	N.A.	N.A.	N.A.		Government	645	644	636	+ 1
Insured Unempl. Rate - %	N.A.	N.A.	N.A.		Services	940	940	894	+ 5
Mfg. Avg. Wkly. Hours	40.8	40.4	39.4	+ 4	Fin., Ins., & Real Est.	292	290	281	+ 4
Mfg. Avg. Wkly. Earn. - $	299	294	275	+ 9	Trans. Com. & Pub. Util.	235	233	230	+ 2
GEORGIA									
Civilian Labor Force - thous.	2,702	2,695	2,682	+ 1	Nonfarm Employment- thous.	2,253	2,239	2,212	+ 2
Total Employed - thous.	2,517	2,502	2,470	+ 2	Manufacturing	503	500	502	+ 0
Total Unemployed - thous.	185	193	212	-13	Construction	106	102	107	- 1
Unemployment Rate - % SA	6.2	7.4	7.6		Trade	536	531	524	+ 2
Insured Unemployment - thous.	N.A.	N.A.	N.A.		Government	440	444	433	+ 2
Insured Unempl. Rate - %	N.A.	N.A.	N.A.		Services	394	389	375	+ 5
Mfg. Avg. Wkly. Hours	41.5	40.8	39.4	+ 5	Fin., Ins., & Real Est.	120	120	117	+ 3
Mfg. Avg. Wkly. Earn. - $	293	285	265	+11	Trans. Com. & Pub. Util.	147	146	147	0
LOUISIANA									
Civilian Labor Force - thous.	1,881	1,859	1,871	+ 1	Nonfarm Employment- thous.	1,585	1,588	1,616	- 2
Total Employed - thous.	1,640	1,624	1,671	- 2	Manufacturing	191	191	205	- 7
Total Unemployed - thous.	241	236	199	+21	Construction	114	116	125	- 9
Unemployment Rate - % SA	12.1	12.8	11.0		Trade	365	365	370	- 1
Insured Unemployment - thous.	N.A.	N.A.	N.A.		Government	310	311	305	+ 2
Insured Unempl. Rate - %	N.A.	N.A.	N.A.		Services	307	308	303	+ 1
Mfg. Avg. Wkly. Hours	40.7	39.9	41.6	- 2	Fin., Ins., & Real Est.	80	80	80	0
Mfg. Avg. Wkly. Earn. - $	395	391	389	+ 2	Trans. Com. & Pub. Util.	124	124	131	- 5
MISSISSIPPI									
Civilian Labor Force - thous.	1,073	1,064	1,063	+ 1	Nonfarm Employment- thous.	790	790	792	- 0
Total Employed - thous.	927	937	944	- 2	Manufacturing	203	200	208	- 2
Total Unemployed - thous.	146	127	119	+23	Construction	41	41	41	0
Unemployment Rate - % SA	12.1	12.6	10.3		Trade	162	162	163	- 1
Insured Unemployment - thous.	N.A.	N.A.	N.A.		Government	177	181	174	+ 2
Insured Unempl. Rate - %	N.A.	N.A.	N.A.		Services	125	124	120	+ 4
Mfg. Avg. Wkly. Hours	40.7	39.8	39.5	+ 3	Fin., Ins., & Real Est.	33	33	33	0
Mfg. Avg. Wkly. Earn. - $	270	264	252	+ 7	Trans. Com. & Pub. Util.	39	39	40	- 3
TENNESSEE									
Civilian Labor Force - thous.	2,162	2,138	2,159	+ 0	Nonfarm Employment- thous.	1,680	1,673	1,703	- 1
Total Employed - thous.	1,922	1,895	1,905	+ 1	Manufacturing	466	463	470	- 1
Total Unemployed - thous.	240	242	254	- 6	Construction	63	61	74	-15
Unemployment Rate - % SA	10.8	11.7	11.2		Trade	366	363	368	- 1
Insured Unemployment - thous.	N.A.	N.A.	N.A.		Government	293	296	291	+ 1
Insured Unempl. Rate - %	N.A.	N.A.	N.A.		Services	322	321	325	- 1
Mfg. Avg. Wkly. Hours	41.0	40.6	39.2	+ 5	Fin., Ins., & Real Est.	79	79	81	- 2
Mfg. Avg. Wkly. Earn. - $	306	304	281	+ 9	Trans. Com. & Pub. Util.	82	81	83	- 1

Notes: All labor force data are from Bureau of Labor Statistics reports supplied by state agencies.
Only the unemployment rate data are seasonally adjusted.
The Southeast data represent the total of the six states.
The annual percent change calculation is based on the most recent data over prior year.

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