

# Houston Business

A Perspective on the Houston Economy

## Good Reading About Houston and Texas

**M**ore books have been written about Texas than all other states combined, excluding California. Even the number of books on California falls a distant second to those on Texas. As T. R. Fehrenbach, author of *Lone Star: A History of Texas and the Texans*, once pointed out, "We have a history; other states have a record of economic development."

The following books and articles were selected for their economic insights into the city of Houston. Some are specifically about Houston, some are about Houston as part of urban Texas, and others relate to important local industries or to our neighbor Mexico. History plays an important role throughout this list. To know where Houston and Texas stand today, and where we may be headed, it is vital to study the forces that shaped our great past.

### ***The Growth of a Refining Region***

**Joseph A. Pratt**

**(Greenwich, Conn.: JAI Press Inc., 1980), 297 pp.**

This is the best and most thoughtful book on the development of the Texas Gulf Coast. It explains Houston's role in the Texas and Louisiana Gulf Coast economy and shows that downstream chemicals and refining have shaped the region just as much as the more exciting upstream oil exploration.

Spindletop's discovery was the defining moment for Texas oil, of course, with the birth of Texaco and Gulf Oil and the construction of refineries in Beaumont and Port Arthur. In Houston, the development of a second refinery center along the ship channel was sure to follow, as was local petrochemical development during World War II. After Spindletop, the growing oil services and machinery industry needed an administrative center, and its shift to nearby Houston was inevitable. Houston's

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*—T. R. Fehrenbach*

long history as an important cotton trading center gave it the management and administrative skills required to build this new industry.

***The International Petrochemical Industry: Evolution and Location***

**Keith Chapman**

**(Oxford: Basil Blackwell, 1991), 322 pp.**

The petrochemical industry is the least understood of Houston's industries. This important industry turns oil and natural gas liquids into intermediate materials that eventually become plastics, synthetic rubber and other products. The industry complements refining, but different market forces drive petrochemicals.

This book is among the best overviews of the petrochemical industry. It provides a non-technical survey of its history, technology and geographic distribution, all geared to explaining why massing petrochemical plants in the same region can lower their operating costs. The book's references to the Gulf Coast put the local industry in perspective: natural gas liquids are a crucial regional advantage in attracting petrochemical plants; there are tremendous agglomerative economies associated with Houston's "spaghetti bowl" of pipelines; the industry's local economic impact is primarily backward into maintenance, construction and engineering; and only with great difficulty will we develop many forward linkages into plastics for such end-user industries as autos and construction.

**"The International Construction Industry in the 1980s,"**  
**by Barney Warf, in *Professional Geographer*, Vol. 43,**  
**May 1991, pp. 150-162.**

The international construction industry is another of Houston's poorly understood industries. Oil and natural gas—upstream and downstream—define much of the work of Brown & Root, M. W. Kellogg, John Brown, Fish, Litwin and other construction firms that operate out of Houston. The downstream work is often specialized in continuous process technologies for oil refining, chemicals and fertilizers.

This article tracks international construction contracts for the world's 400 largest firms from 1979 to 1988 and finds that U.S. firms dominate the international market. The largest American construction companies, this article reports, are in Texas and California. The Bechtel Group alone can explain California's prominence, although Fluor Daniel, the Parsons Group and Jacobs Engineering are also located in California. Houston dominates the statistics for Texas, and most

of the large California firms also maintain a significant presence here. The July issue of *Engineering News Record* updates these figures each year.

***Inside NASA: High Technology and Organizational Change in the U.S. Space Program***

**Howard E. McCurdy**

**(Baltimore: Johns Hopkins Press, 1993), 215 pp.**

A 1990 survey of former federal executives indicated that NASA was no longer regarded as a superstar agency. These executives put an organization that took us to the moon and on a tour of the planets on a par with the Federal Deposit Insurance Corporation and the Internal Revenue Service—competent but not among the elite.

This book examines NASA's roots and the superior culture created by the merger of excellent military and civilian aviation laboratories. It traces the decline of NASA, and the erosion of its morale and technical ability, to the continual short-term political compromises the agency must make to sustain its funding.

***Sawdust Empire: The Texas Lumber Industry, 1830-1940***

**Robert S. Maxwell and Robert D. Baker**

**(College Station: Texas A&M Press, 1983), 228 pp.**

A comprehensive history of the East Texas lumber industry, this book contains numerous photos of Texas' old-growth, longleaf pine forest and other historical subjects. Both Houston and Dallas were critically dependent on lumber and railroads to build their urban empires, and lumber and paper remain at the heart of the East Texas economy. The book recounts many important stories: the industry's early history in the Beaumont-Orange area, the lumber and railroad empire built by Houstonian John Henry Kirby, the advent of national forests on cutover Texas lands during the New Deal and the technical gamble of Ernest Kurth and the Southland Paper Mills that gave the southern United States a newsprint industry.

***Science on the Run: Information Management and Industrial Geophysics at Schlumberger, 1920-1940***

**Geoffrey C. Bowker**

**(Cambridge, Mass.: MIT Press, 1994), 191 pp.**

Drilling for oil brings together dozens of contractors at the wellhead who provide drilling, drilling mud, cementing, well-logging and other services. Schlumberger's key product was electrical well-logging—mapping out the geological strata penetrated by the driller's bit and showing that certain formations bore oil. Despite some early failures, the French firm carved out an important niche for itself in the United

States by the 1930s and returned to this country to play a key role in developing conservation methods in the East Texas oil fields.

This book is about Schlumberger's strategy of selling its new, "scientific" techniques to customers to create an aura of technological objectivity, but not selling so much science it left itself no room to adjust its interpretations. The company's geophysics was highly empirical, and Schlumberger used customers' wells to build a huge geophysical database. Much of this accumulated knowledge was transportable on Schlumberger's famous blue trucks, hence, the book's title—*Science on the Run*. The patent infringement suit, *Schlumberger vs. Halliburton*, is described at length. The distinction between science and industrial science is a continuing theme of this book and an important point to understand if you live in a city of engineers like Houston.

**"Host Regions and the Globalization of the Offshore Oil Supply Industry: The Case of Aberdeen,"**  
by C. Paul Hailwood, in *International Regional Science Review*, Vol. 11, No. 2, 1988, pp. 155–166.

Schlumberger was a French intruder in a traditionally American and Texan industry. This article reinforces the point that oil services remain a Texan domain.

In the 1960s, Aberdeen—with its year-round access to the oil fields and adequate air service—became the point from which the North Sea would be developed. As Aberdeen looked ahead to the day the oil would run out, it sought to build an international oil service industry—much like the one Houston has today. This article documents Aberdeen's failure to break into a technological core dominated by U.S. companies and protected by U.S. patents. This global industry is a crucial part of what Houston does best, and some observers have written it off too easily as part of an inevitable decline in the local oil industry.

***The Monterrey Elite and the Mexican State, 1880–1940***  
Alex M. Saragoza  
(Austin: University of Texas Press, 1988), 258 pp.

Monterrey is Mexico's third largest city, its second largest industrial city and the economic capital of northern Mexico. The city is highly entrepreneurial, enjoys a powerful industrial base built with local capital and exerts an influence on Mexico's economy out of proportion to its population.

This book traces Monterrey's business roots to the turn of the century and to its location near the U.S. border, from which it distributed U.S.

manufactured goods to interior Mexico. This distribution gave Monterrey continual local opportunities for import substitution. The first steel plant in Latin America and the Carta Blanca brewery became the foundation of Monterrey's industrial success.

This book documents these business successes and the interlocking pattern of investments that built Monterrey's family fortunes. It also tells how the Mexican government's growing centralist tendencies in the 1920s and 1930s threatened these businesses and how Monterrey's leaders provided a crucial capitalist counterweight to the government throughout this era. The climax is President Lazaro Cardenas' 1936 visit in support of a strike at the local glass factory.

**"The Rise of Urban Texas"**  
Char Miller and David R. Johnson  
In *Urban Texas: Politics and Development*  
Char Miller and Heywood T. Sanders, editors  
(College Station: Texas A&M Press, 1990), pp. 3–32.

The authors compare the early economic development of Houston, Dallas and San Antonio, seeking reasons for San Antonio's fall from being the largest Texas city in the 1930 census. They find the answer in cities that for decades threatened the existence of Dallas and Houston—Fort Worth and Galveston. These rivalries motivated Houston and Dallas, and private collective action repeatedly saved these cities from decline. The creation of the ship channel in Houston and the location of a Federal Reserve Bank in Dallas are among the results. San Antonio was a natural distribution center for South Texas and without an urban rival. Nothing in the San Antonio experience taught city leaders the value of collective action, and leadership never coalesced around economic development issues, as it did in Houston and Dallas.

***Indianola: The Mother of Western Texas***  
Brownson Malsch  
(Austin: State House Press, 1988), 351 pp.

Every Houstonian knows the story of the Galveston hurricane of 1900, which killed more than 6,000 people and still ranks as the worst natural disaster in American history. The disaster gave the inland port and ship channel in Houston instant credibility. Less known is that Galveston was the second large Texas city on the Gulf destroyed by hurricane. Indianola was an important 19th century Texas port, a rival to Galveston and the entryway to Victoria, San Antonio and much of West Texas. Hurricanes in 1875 and 1884 wiped Indianola from the map.

**B**eige book respondents indicate moderate growth for Houston. Texas Employment Commission reports show job growth of less than 2 percent for 1994. Final data now becoming available for 1993 indicate Houston's job growth was close to 50,000 jobs—or 3-percent growth, sharply higher than originally reported. We can expect 1994 data to be revised upward early next year.

### RETAIL AND AUTO SALES

Retailers report poor results in September, blaming hot weather for killing the sales of many standard autumn items. Sales improved in October as the weather became cooler. Retailers expect holiday sales 3 to 5 percent above last year's, but they are also counting on heavy promotions and sales to lure customers into stores. Retailers with multiple stores across Texas continue to point to Houston as among the slowest and most competitive markets in the state.

Houston auto sales were off 3 percent in September from a year earlier, leaving year-to-date figures flat compared with those for 1993. Dealers report good margins and profits on individual sales, although total sales in the city are not up as sharply as they are elsewhere in the nation.

### UPSTREAM OIL AND NATURAL GAS

For most of the past six weeks, the price of light sweet crude has remained firmly between \$17 and \$18 per barrel, only briefly moving out of that range. Global demand remains strong, and respondents feel OPEC will not increase quotas to match growing demand. The result should be firmer prices ahead. Natural gas prices remain weak. The next-to-expire futures contracts have been consistently between \$1.45 and \$1.70 per thousand cubic feet over most of the past six weeks, although the December contract strengthened to near \$2 in late October.

The domestic rig count was up by 54 rigs in late September but has since stalled and continues to lag behind last year's. Work in the Gulf of Mexico remains stable but very strong, with the highest activity levels since 1990. Day-rates remain poor for rigs working in the Gulf, but other

oil service and machinery suppliers report strong demand, good prices and good profits. International work remains slow except in Canada and in an improving Latin America.

### DOWNSTREAM REFINING AND CHEMICALS

Gasoline prices were extremely weak much of October, the result of the end of the heavy driving season and the dumping of "old" gasoline before new winter rules require reformulated products. Refinery margins were described as the worst in recent memory. Flooding on the Houston Ship Channel turned the market around, as a break in a local pipeline briefly disrupted the delivery of large quantities of fuel to the East Coast and forced production cuts at several large local refineries.

Flooding also affected several chemical facilities on the ship channel and further disrupted an already extremely tight market. Earlier accidents had reduced petrochemical inventories, and customers remain on allocation programs from suppliers. Demand for all petrochemicals remains strong, and price increases continue.

### REAL ESTATE

Houston housing markets were surprisingly strong in September, even as local mortgage rates moved to the 9-percent level and beyond. Both existing and new homes sold about 3-percent faster than they did in September 1993.

The market for industrial warehouse space continues to be strong, although functionally obsolete space keeps the overall vacancy rate at 11 percent or higher. Dock-high warehouse space is in strong demand, with several build-to-suit projects under way and one speculative project under construction in Northwest Houston. Rents are up sharply from a year ago.

Retail construction remains strong, especially west of the city. Office space remains the softest market in the city, although we will see modest net absorption of space in 1994. Rents have finally stabilized after falling for the last two years. New apartment projects continue to lease up strongly. Citywide apartment occupancy has improved slightly in recent months, and rents are keeping pace with inflation.

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