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Houston Business

A Perspective on the Houston Economy

Houston's Slowdown: National Recession or Oil Patch Slump?

Oil consistently has given Houston a helpful push just before the city has been subjected to weakness from a national recession. Houston's counter-cyclical behavior is…built on well-timed stimulus from oil prices.

Continuing the theme introduced in the July *Houston Business*, this article explores the role of the U.S. business cycle in Houston. Particular attention is paid to the relationship between the 1990–91 national recession and the past two years of slow job growth in Houston.

OIL AND THE ECONOMY

Among the ongoing controversies about the nation's business cycle is the question of what triggers U.S. recessions. One school of thought maintains that the pattern of post–World War II recessions is the result of Federal Reserve policy, as the Fed consistently—and perhaps inevitably—has tightened monetary policy at the peak of business expansions. William McChesney Martin, who spent more time as chairman of the Federal Reserve System than anyone else, once joked that "The Federal Reserve's job is to take away the punch bowl just when the party gets going."

A competing theory, however, holds that supply-side shocks—in particular, oil-price shocks—have also triggered national recessions. Indeed, every U.S. recession during the past 50 years, with the exception of the relatively mild 1959–60 recession, was preceded by a significant spike in oil prices. The typical lag between the price spikes and recessions was about nine months. This alternative explanation of the business cycle has been examined intensively, and models have been proposed to explain how a relatively small disruption in the supply of a primary commodity such as oil can exert surprisingly large effects on real output.

The pattern of large oil-price increases stands out clearly in the data, as small changes were smoothed away throughout this 50-year period by the either the Texas Railroad Commission or the Organization of Petroleum Exporting Countries (OPEC). Careful statistical analysis shows that it is highly unlikely that the timing of oil-price spikes and national recessions is random or unrelated. Oil prices might, however, be a symptom of an approaching economic problem, an endogenous feature of the business cycle; economic conditions near business-cycle peaks may force oil prices to rise. But the list of reasons for past oil-price spikes, given in Table 1, strongly suggests otherwise. Middle East politics, refinery strikes and European reconstruction bear little relation to the phases of the U.S. business cycle.

The relevance of a supply-side shock theory of the business cycle to this article stems from the timing of the oil-price spikes and their relationship to the *Houston* economy. In Houston, of course, oil-price spikes are a welcome development. The July *Houston Business* focused on the local economy from 1975 to 1993, and found the most dominant and powerful influence on local economic activity remains upstream oil and associated goods production. Oil's role has been reduced in recent years, but there is little reason to doubt its economic dominance throughout most of the past 50 years.

Table 1
Historical Causes of Increases in Crude Oil Prices

Years	Principal Factors
1947–48	Production and transportation infrastructure investment curtailed by World War II; European reconstruction.
1952–53	Iranian nationalization; strike by oil, coal, steel workers.
1956–57	Suez crisis.
1969	Strikes by oil workers; United States reserves peak.
1970	Rupture of Trans–Arabian Pipeline; Libyan production cuts.
1973–74	Arab–Israeli war.
1978–79	Iranian Revolution.
1980–81	Iran–Iraq war; U.S. price controls lifted.
1988–89	End of Iran–Iraq war; improved OPEC solidarity.
1990	Iraq invades Kuwait; Operation Desert Shield/ Desert Storm.

SOURCE: Adapted by the author from James D. Hamilton, "Historical Causes of Postwar Oil Shocks and Recessions," *The Energy Journal*, June 1986: 97–116.

Now consider the timing of oil-price spikes and Houston's history as an economy that runs counter to the national cycle. Shortly before each national recession—a factor our earlier analysis showed *would* slow the Houston economy, if other factors were left unchanged—the local economy gets a powerful and positive boost from increased oil prices. Oil consistently has given Houston a helpful push just before the city has been subjected to weakness from a national recession. Houston's countercyclical behavior is not based on inherent immunity to the national business cycle, but instead is built on well-timed stimulus from oil prices.

THE 1990–91 RECESSION

The latest national recession matches the previous pattern. In the first two quarters of 1989, the real refiner-acquisition cost of crude oil rose by 50.4 percent. This rally in oil markets resulted from the end of the Iran–Iraq war and renewed OPEC discipline; the U.S. economy slipped into recession in the third quarter of 1990. The second half of 1990 brought another oil-market shock, as Iran invaded Kuwait and real oil prices jumped 58.8 percent; a national recovery began in the second quarter of 1991, but job growth since has been slow and disappointing.

Oil prices had already made one abortive attempt to increase in early 1987, only to fall back again in 1988. Houston employment in upstream operations followed this early increase in oil prices (*Figure 1*), but also fell back. Then as the 1989 oil price increases fell into place, employment in oil services and oil machinery rose rapidly until June 1991. The peak in oil-service and machinery employment coincides with the peak in total employment in Houston. The third sector in Figure 1, crude oil and gas, is made up of producers and operators, and in Houston it includes many headquarters establishments. Despite the many headlines about corporate restructuring by major oil companies, this sector shows less decline than the other two. Certainly companywide cutbacks are occurring among the majors, but corporate consolidation continues to favor Houston.

Employment in Houston continued to grow throughout the national downturn. Houston's own job losses began only after the U.S. recession ended, and then followed the downward course of the oil sector. Many oil-service and machinery companies built up their staffs during the Persian Gulf war, taking advantage of cash flows generated by high oil prices. In early 1990, many analysts predicted that the natural gas bubble had burst and that a boom in natural gas drilling was imminent. (Yes, exactly like the forecasts being made again today.) This period was seen as an opportunity for companies to position themselves for a surge in domestic drilling. The surge never came, of course, as both the price of natural gas and the rig count fell to modern lows over the next two years. Cuts in oil services and machineries, the sectors of the oil industry that most depend on having the bit in the ground, were unavoidably deep at this juncture.

RECESSION OR DRILLING DOWNTURN?

The statistical work discussed in the last issue of *Houston Business* isolated separate roles within Houston for oil and the U.S. business cycle. According to these results, the influence of the U.S. economy has grown in recent years, but oil remains a dominant force in Houston. We can also use these results to isolate the role of oil *vis-à-vis* the U.S. economy over the course of the 1990–91 recession and recovery.

Consider the following hypothetical situation: suppose there was no U.S. recession, and the national unemployment rate remained at 5.4 percent from 1991:1 to 1993:1; meanwhile, the burst of drilling activity that accompanied the Persian Gulf war and the later downturn in drilling occurred exactly as observed. Alternatively, suppose the U.S. recession occurred on the actual schedule, but the rig count reached 1,000 working rigs in 1990:2, stayed there through 1993:1, and the record low drilling rates of 1992 were avoided. Which would be better for Houston—no national recession or avoiding a big drop in drilling?

The answer, revealed in Figure 2, clearly favors drilling. The lowest line in Figure 2 shows private-sector employment in Houston from 1990:1 to 1993:1, when Houston added an average of only 16,000 jobs per year. The other two lines plot employment under the more favorable scenarios of either no drilling downturn or no national recession. Skipping the U.S. recession pushes Houston's private employment growth up to 33,000 jobs per year; keeping the rig count at 1,000 pushes job growth to 60,000 jobs per year, even as the U.S. downturn continues. Less attention should be paid to the number of jobs predicted in these hypothetical circumstances than to the two bigger lessons to be drawn from the general pattern of Figure 2. First, Houston *is* sensitive to the U.S. economy; second, these business-cycle developments are still easily overshadowed by developments in the oil patch.

Figure 1
Employment Change in Houston's Three Oil and Gas Sectors, 1987 to 1993

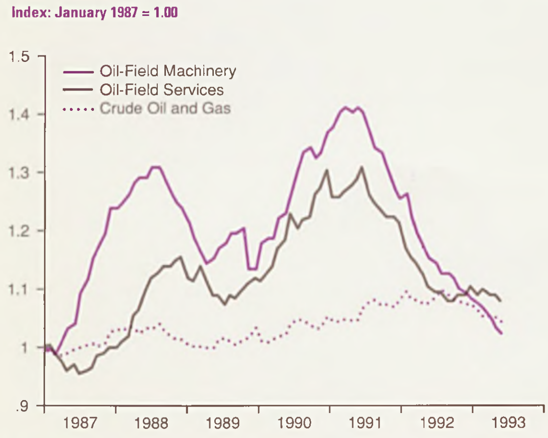
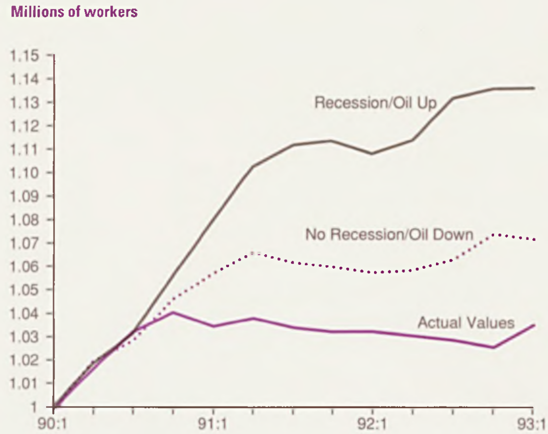


Figure 2
Private Wage and Salary Employment Houston: 1990:1 to 1993:1



The Houston economy remained sluggish in July. Apart from normal seasonal increases, employment data continued to be very weak. Seasonally adjusted mining, durable manufacturing and construction jobs continued to decline; employment in retail and services declined in each of the past several months. Prospects for improved drilling for natural gas provided the only bright spot in Houston's outlook, and even this was overshadowed by weakness and volatility in oil markets. Virtually every respondent commented that uncertainty surrounding the proposed changes in federal tax and spending policies slowed local economic activity this summer.

OIL AND NATURAL GAS

Natural gas prices remained strong through July. This strength continued despite several negative factors: demand for gas had not grown as much as expected, there was substantial switching to fuel oil by utilities and industrial boilers, and record injections returned natural gas storage to normal levels. Some spot prices slipped in recent weeks, but the futures markets remained strong.

Oil prices recovered to almost $19 per barrel in late June but briefly fell below $16 per barrel during wide price fluctuations in July. Speculation about Iraqi reentry into oil markets and continued OPEC overproduction drove the market. West Texas Intermediate returned to almost $18 per barrel by early August. A steady slide in oil prices since spring hurt producer's revenues and dimmed the prospects of improved drilling in the second half of this year, despite stronger natural gas prices.

REFINING AND PETROCHEMICALS

Output from refiners (including those along the Texas Gulf Coast) surged in recent weeks, resulting in a glut of gasoline and putting severe pressure on margins. Spot prices for gasoline in July were 13 percent lower than last year and 7 percent below prices in early June. In Dallas and Houston, the pump price of gasoline over the Fourth of July weekend was about 9 cents per gallon less than the price a year ago.

Problems in commodity chemical markets continued, reflecting severe overcapacity problems. The economic downturn in Europe continued to pressure margins.

WOOD PRODUCTS

Lumber prices on the Gulf Coast came down in recent weeks and continued to fall; supply was ample, with at least some of the decline in price attributable to slack demand. Demand for most paper products remained flat, with the exception of modest increases in demand for corrugated boxes.

RETAIL AND AUTO SALES

Houston retailing seems to perk up briefly then plateau with no improvement. July was another flat month, with slow sales and inventories that cleared out only with significant markdowns. Most retailers looked forward to an improved fall season. Auto sales in June were at the highest level of the year but ran 2 percent below the pace of June 1992. On a year-to-date basis, Houston auto sales were still 1 percent ahead of 1992.

REAL ESTATE

Gross leasing of office space continued at a good pace, but large amounts of space continued to come back on the market. Vacancy rates were up, and rents were still falling, especially downtown and in the Galleria area. Industrial leasing was extremely weak; even with improvement in the last two quarters, industrial leasing in 1993 could easily be off 25 percent from 1992.

New home sales stalled in May and were off even more sharply in June. With new-home inventories building to a three-month supply, builders pulled back hard on starts. Existing home sales were up 5 percent over June 1992, but the inventory of homes on the market remains very large. Traffic through homes on the market, calls to agents and other contacts seem to indicate a high and continuing interest by consumers in home-buying. One respondent said more purchasers are getting off the fence now, but with any bad economic news they will hop back on it. The Houston apartment market is unchanged, with rents and occupancy remaining flat.

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