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A Perspective on the Houston Economy

# Slower Growth in Houston in 1999

*Given the dramatic reversal in oil markets in 1998, this article examines the implications for Houston's overall economic activity in 1999.*

What a difference a year makes. In December 1997 the price of West Texas Intermediate crude was $18.30 per barrel, ending a year that had averaged $20.18; in contrast, 1998 finished at $11.20 per barrel, averaging only $14.40 for the year. The price of natural gas held up better, averaging $1.72 in December 1998 compared with $2.32 in December 1997.

The depressed oil and gas prices have driven domestic drilling activity down by 36 percent—and worldwide drilling down by 29 percent—since December 1997. In both cases, the number of working rigs is now approaching an all-time low. In contrast to the shortages of oil-related skills and equipment experienced a year ago, layoffs, restructuring and consolidation have become common among Houston's oil and natural gas companies. Capital budgets are being slashed for the coming year.

The downstream part of the oil industry—refining and petrochemical production—often benefits from falling energy prices. Lower oil and natural gas prices mean lower feedstock prices and a lower cost of doing business. For petrochemicals, for example, the Asian financial crisis badly damaged many export markets, and prices have fallen steadily over the past 18 months. For much of 1997, however, energy prices fell faster than chemical prices, propping up profit margins for chemical products. Figure 1 shows how profit margins for ethylene, a basic building block on the Houston Ship Channel, jumped by nearly 10 cents per pound between late 1996 and mid-1997. Starting in mid-1997, however, and continuing into 1998, a profit squeeze began as ethylene prices con-

tinued to fall while energy prices stabilized. Expected continued low chemical prices will sharply reduce new chemical industry construction, expansion and maintenance along the Ship Channel until profits revive.

We don't have a definitive answer to the question of how much Houston's economy depends on the oil industry, but various estimates and rules of thumb suggest that oil and natural gas extraction, refining and petrochemicals still drive half or more of local economic activity. Given the dramatic reversal in oil markets in 1998, this article examines the implications for Houston's overall economic activity in 1999.

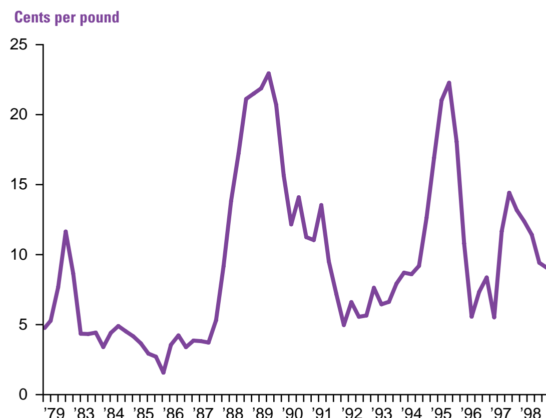
## NOT A RERUN OF THE 1980s

When oil markets turn down and questions arise about the Houston economy, one thinks first of the economic disaster that struck Houston in the 1980s. The oil bust—a five-year local economic decline lasting from 1982 to 1987—produced a tailspin that cost Houston 220,000 jobs, or roughly one-eighth of total employment. The speculative excesses of the 1980s were built on the premise that the world was running out of oil, that the price of a barrel of oil was headed to $50 or higher and that Houston was the best place to capitalize on a continuing oil boom, which fueled an overheated construction industry.

This time, similar excesses are not present in either the oil industry or the local real estate market. Oil producers in the early 1990s based their plans on oil prices at $15–$17 per barrel, and although these expectations have been disappointed by warm weather, the Asian crisis and the return of Iraqi oil to the market, the industry is not as seriously oversized as it was in the early 1980s. Adjustments will be painful, but they will occur on a smaller scale and in a shorter time frame.

A better parallel is the early 1990s, when Houston went through a similar period of oil-related economic adjustment. By 1990, Houston had restored all the jobs lost to the oil bust, and much of the restructuring and diversification of Houston's economy was complete. In 1991–92, the rig count plunged in response to falling oil prices after the Persian Gulf War and the collapse of natural gas prices following an unusually warm winter. The domestic rig count fell to all-time lows, moving briefly under 600 working rigs for the first time in over 50 years.

***Figure 1***
**Profit Margins for Ethylene**
*(Price less feedstock cost since 1977)*




SOURCES: *Oil & Gas Journal*; Wright Killen.

Parallel to the megamergers now reshaping the oil industry and the layoffs that will accompany these mergers, 1991–92 saw downsizing associated with a widespread reduction in domestic exploration. Major companies reshaped their exploration staffs to focus on foreign oil prospects and sold off domestic properties. And parallel to the current profit squeeze in petrochemicals, overcapacity and slack domestic demand for chemicals were hurting profits and cutting into capital spending.

Figure 2 shows the rig count and Houston's oil extraction employment, with both variables indexed at January 1989 = 1 to put them on a similar scale. The rig count is far more volatile—with a 37-percent decline between February 1991 and June 1992—but local oil employment did follow the rig count down, declining by 6,500 jobs, or 9.6 percent, in 1991–93. Oil-related and other manufacturing employment lost another 7,200 jobs by mid-1992.

## SLOW GROWTH/NO GROWTH

The Houston economy's overall response to these energy-related problems in 1991–92 was slow job growth in 1991 (1.6 percent year-over-year), followed by no growth in 1992. These energy problems were enough to halt a powerful expansion that had been under way in Houston since 1987—growth that had brought Houston back from the 1980s oil bust. For example, job growth in 1990, at 6 percent, was the best of the 1990s. Although Houston proved it was still susceptible to oil-related

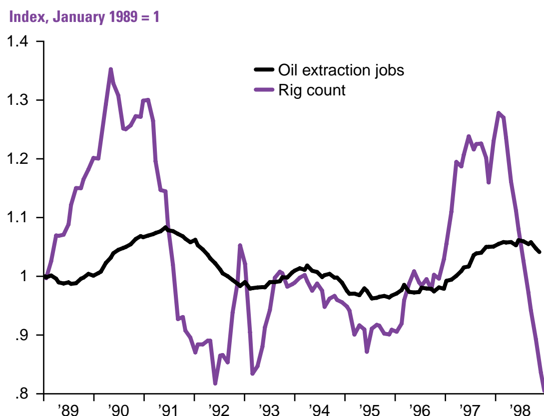
declines, no 1980s-style disaster emerged as growth resumed in mid-1993.

The parallel to 1991–92 is not perfect. First, the U.S. economy was weak in 1991–92, just beginning a slow recovery from a shallow recession; in contrast, the U.S. economy is currently strong and expected to remain so in 1999. Second, the dollar was a neutral factor in 1991–92, and international markets were not in a financial crisis; in contrast, the dollar is now very strong—a major handicap to a port city such as Houston with a large merchandise export base in machinery and chemicals.

In the June 1998 issue of *Houston Business*, we proposed a simple model that allowed us to estimate the effects on Houston employment of changes in the dollar, oil markets and the U.S. economy. Three scenarios were presented for Houston's economic outlook in 1998. Unfortunately for Houston, the weakest of the scenarios emerged last year, with the benefits of a strong U.S. economy offset by a strong dollar and continued decline in the rig count to near 750. So the question becomes, where do we go from here?

Table 1 shows Houston's prospects for 1999 under two new scenarios. Both foresee a strong U.S. economy. Scenario 1 is the more optimistic, assuming a slow 8-percent decline in the dollar in 1999, perhaps in response to more settled conditions in world financial markets. And it assumes that oil markets stabilize in the fourth quarter of 1998 and the rig count begins to slowly recover to 825 working rigs by the end of 1999. In contrast, Scenario 2 assumes more of the same—a continued strong dollar and a rig count that remains at or near 725 through the coming year.

**Figure 2**
**Rig Count and Oil Extraction Jobs, 1989 to Present***




* Data are seasonally adjusted.

*Table 1*
**Houston Employment Growth by Sector in Two Scenarios (Year-over-year percentage change)**

| Sector/Scenario | 1997 | 1998 | 1999 |
|---|---|---|---|
| **Total employment** | | | |
| 1 | 5.1 | 2.3 | –.6 |
| 2 | 5.1 | 2.3 | –2.2 |
| **Construction** | | | |
| 1 | 3.9 | 2.4 | –4.0 |
| 2 | 3.9 | 2.4 | –6.3 |
| **Oil and gas mining** | | | |
| 1 | 6.9 | –.9 | –4.8 |
| 2 | 6.9 | –.9 | –6.9 |
| **Manufacturing** | | | |
| 1 | 6.0 | –.4 | .8 |
| 2 | 6.0 | –.4 | –3.1 |
| **Private services** | | | |
| 1 | 5.4 | 2.9 | –.3 |
| 2 | 5.4 | 2.9 | –1.4 |

The raw figures from the model show a modest decline in jobs under both scenarios (–0.6 percent or –2.2 percent). The more optimistic Scenario 1 arrives too late to halt or reverse Houston's slowdown, although it paves the way for a better year 2000. Both scenarios see local mining, manufacturing and construction hurt the worst.

An analyst's judgment is sometimes allowed to override raw model results, however, and the model may be overly pessimistic. The experience of 1991–92 suggests Houston showed more resilience than the model recognizes, and falling interest rates, powerful momentum in local housing markets and a large local construction agenda for schools and other public works suggest more overall strength in 1999 than Table 1 indicates. The model is pointing us in the right direction, however, and a no-growth year such as 1992 could well be in the offing. If, as expected, oil markets do not improve, Houston will struggle to keep job growth positive in 1999.

Houston saw significant deterioration in its energy sector over the past six weeks, with widespread layoffs, capital budget cuts and huge mergers. The effects of these energy cuts have yet to spread to other sectors of the local economy, however; retail, auto and housing sales continue to indicate widespread confidence in the strength of Houston's economy.

## RETAIL AND AUTO SALES

The holiday season turned out to be less than retailers had hoped for, as warm weather kept shoppers home. Late cold weather, along with promotions and price reductions, brought in enough last-minute business to keep holiday sales above last year's levels. Profit margins and inventories remained at acceptable levels.

Auto sales have continued to soar, with November figures the strongest in history. Total auto and truck sales in the first 11 months of 1998 were enough to exceed all of 1997's record-breaking numbers.

## OIL AND NATURAL GAS PRICES

Crude oil prices remained in a range of \$11–\$13 per barrel over the last six weeks of 1998; warm weather left inventories at very high levels. Natural gas prices sagged to under \$2 per thousand cubic feet through most of December for similar reasons—warm weather and inventories 16 percent above last year. Colder weather arrived with the New Year, pushing oil and gas prices modestly higher. However, since the first quarter is typically the weakest for oil markets, it will take much more cold weather to significantly reduce inventories and push prices upward before spring.

Low energy prices left drilling activity in free fall, with the rig count dropping by 60 in the last six weeks of the year. The weakest segment is oil-directed drilling, where only 155 rigs are active. Offshore drilling in the Gulf of Mexico, most of which is directed to natural gas, has held up best. Drilling activity outside North America is at record lows, with Latin America leading recent cuts. The domestic rig count will test all-time lows this spring.

Producers continue to cut back on capital spending, canceling projects and leaving service companies with rapidly shrinking backlogs. Layoffs are widespread, as the industry tries to shrink to match a drilling market that has fallen by 35 percent to 40 percent in the last 12 months.

## PETROCHEMICALS AND REFINING

Petrochemical prices have stabilized after falling during much of 1998, although the chemical market remains weak. Margins improved slightly for ethylene and other base petrochemicals as the price of feedstocks declined. Downward pressure on prices is expected to grow in the next few months because of rising imports and numerous additions to current capacity.

Refiners remain at the mercy of the market, facing a glut of both basic feedstock (crude oil) and their main products (gasoline and heating oil). Crude prices have moved with weather or Iraqi air attacks, and product prices have followed crude up or down with a lag. The result has been the unpredictable buffering of profit margins—already at weak levels—by external events.

## REAL ESTATE

Houston added 16,000 new apartments in 1998 and already has 10,000 units under construction in 1999. Apartment rents began to flatten out in the second half of last year, and the combination of a large new supply and much slower job growth suggests no rent increases this year. Rental rates for offices also jumped in the first half of 1998 but have since stabilized. Little new office construction is expected in 1999. Rents remain unchanged for industrial and commercial tenants, and construction levels are similar to last year's.

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