

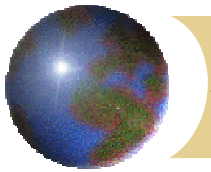


*DRIVERS OF NON-OPEC  
SUPPLY*

USAEE, MEXICO CITY

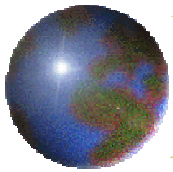
Michael C. Lynch

October 2003

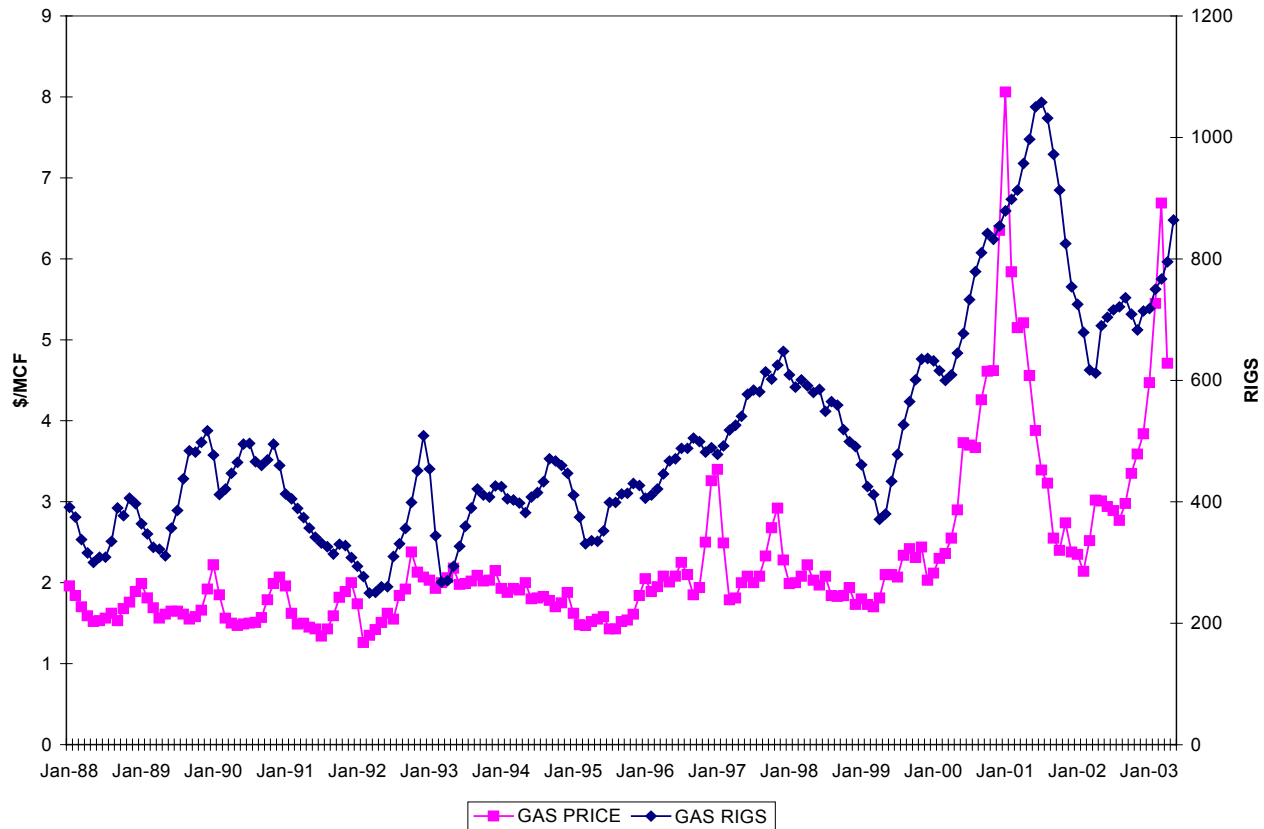


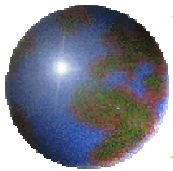
## *FEARS ABOUT SUPPLY*

- ❖ INVESTMENT/DRILLING NOT KEEPING UP WITH OIL PRICES
- ❖ US NATURAL GAS: PRICE INCREASE OF 150% DOESN'T LEAD TO SUPPLY INCREASE (OR DOES IT?)
- ❖ US OIL RIGS STILL DEPRESSED
- ❖ GLOBAL OIL RIGS SLIGHTLY SO
- ❖ NON-OPEC SUPPLY ANEMIC?

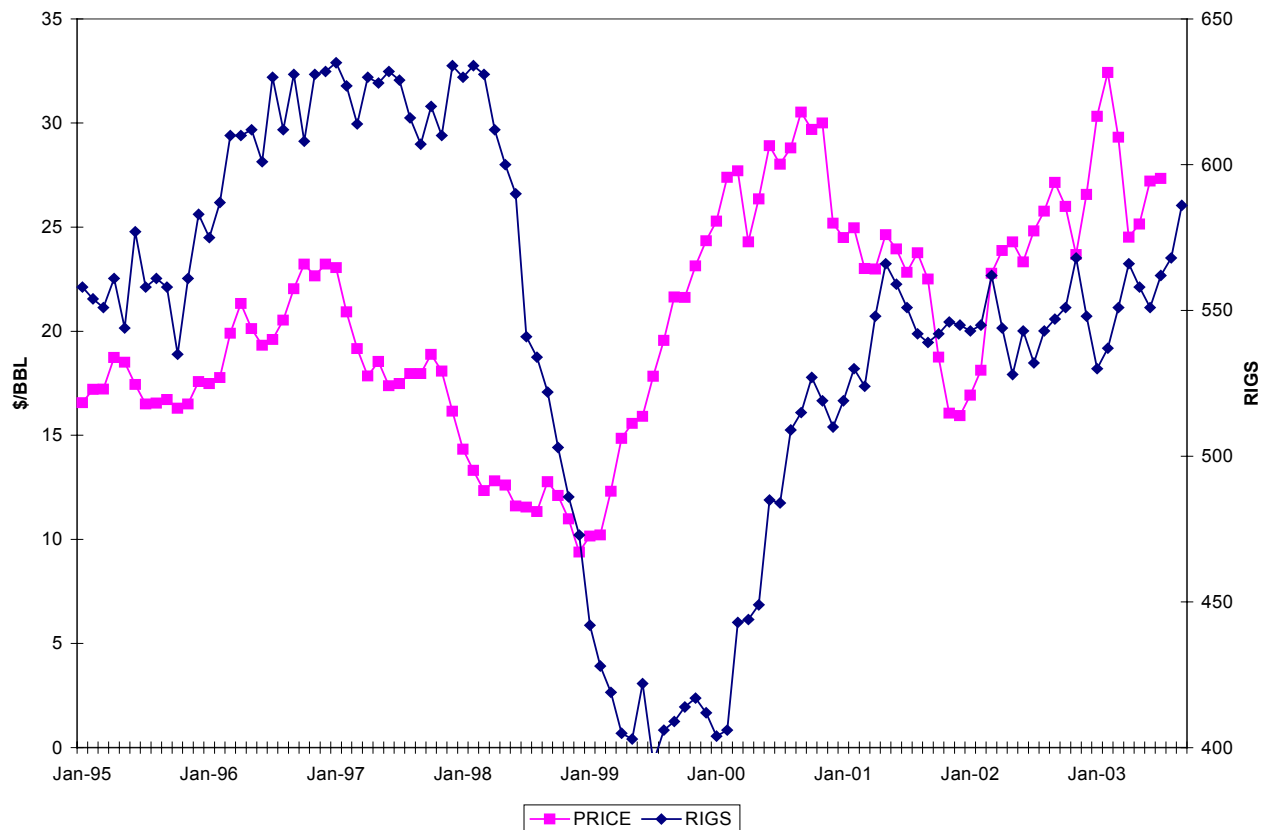


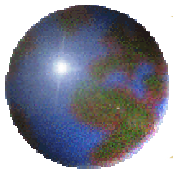
# US GAS PRICE AND RIGS



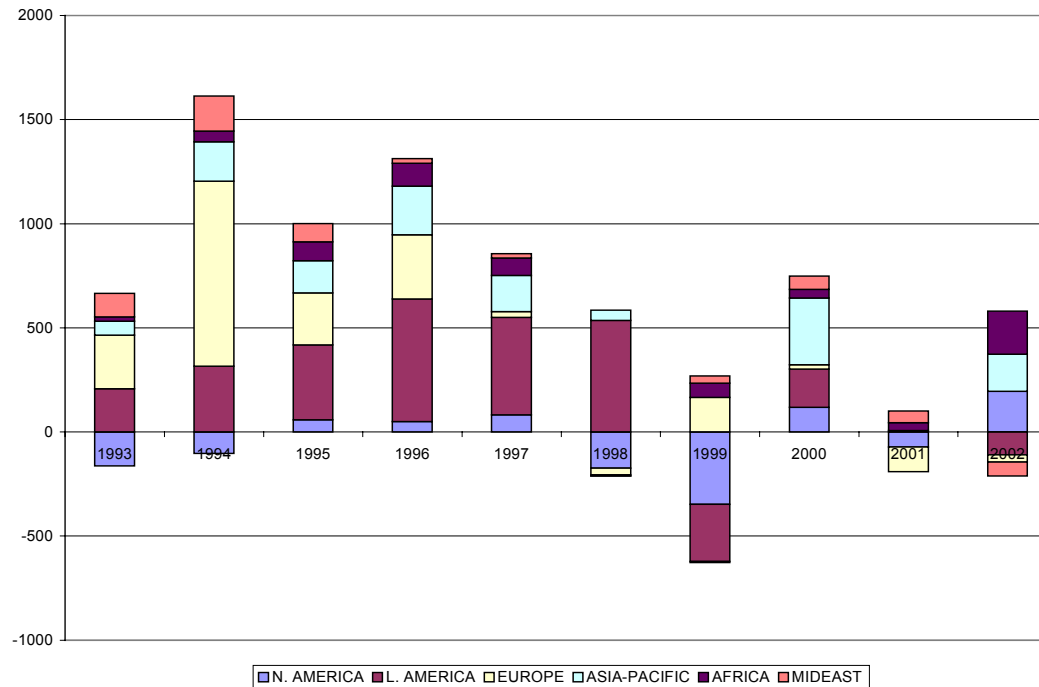


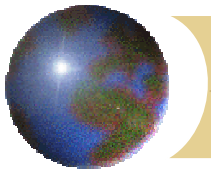
# *NON-NAM OIL RIGS*





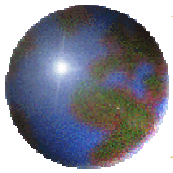
# *INCREMENTAL NON-OPEC SUPPLY*



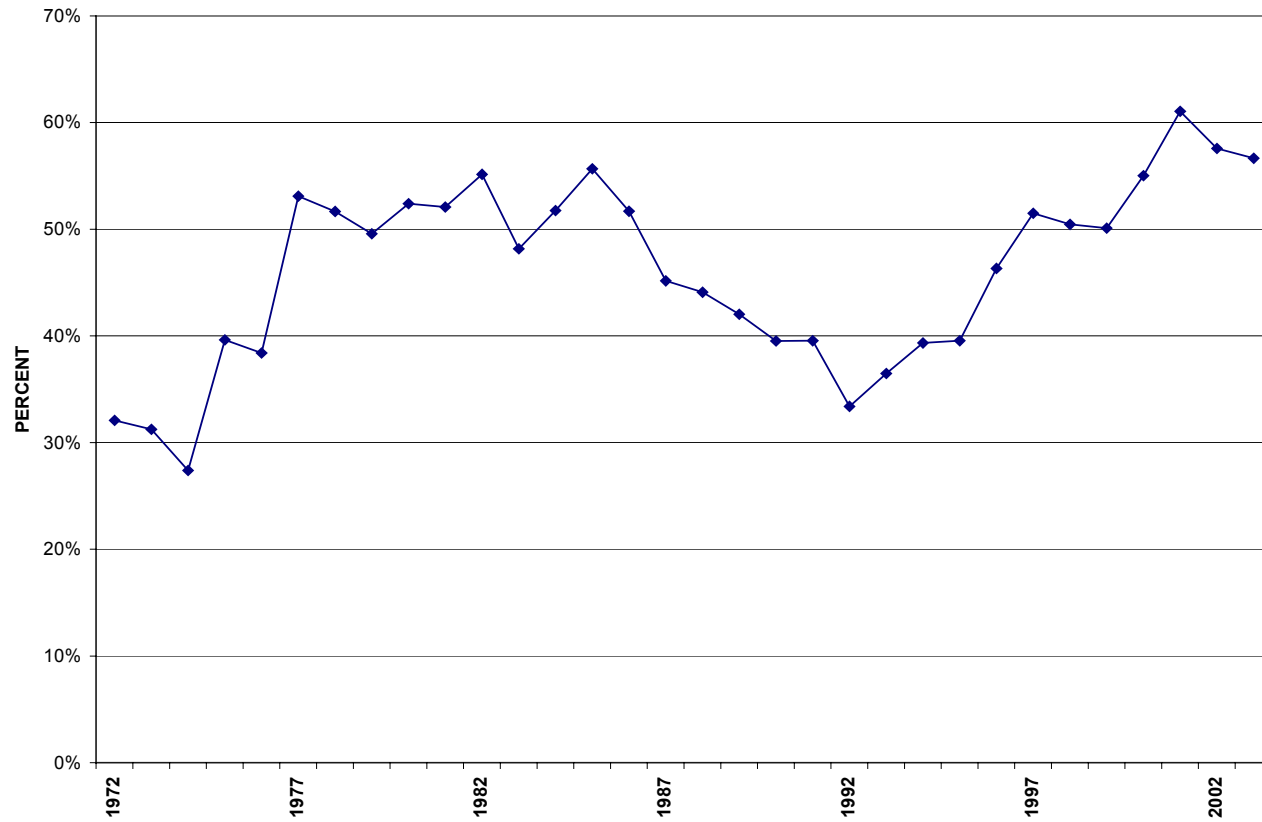


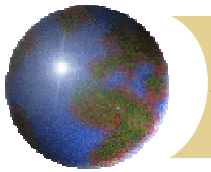
# *MEASUREMENT PROBLEMS*

- DISCOVERY SIZE LAG
  - CAMPBELL 1997: DISCOVERIES BELOW CONSUMPTION FROM 1980
  - CAMPBELL 2003: DISCOVERIES BELOW CONSUMPTION FROM 1990
  - IHS ENERGY 2003: NOT
- NOT ALL RIGS EQUAL
  - DEEPWATER, HORIZONTAL, ETC.
- NOT ALL DOLLARS EQUAL
  - MERGERS MEAN MORE EFFICIENCY?
  - \$1 IN CASPIAN > \$1 IN TEXAS

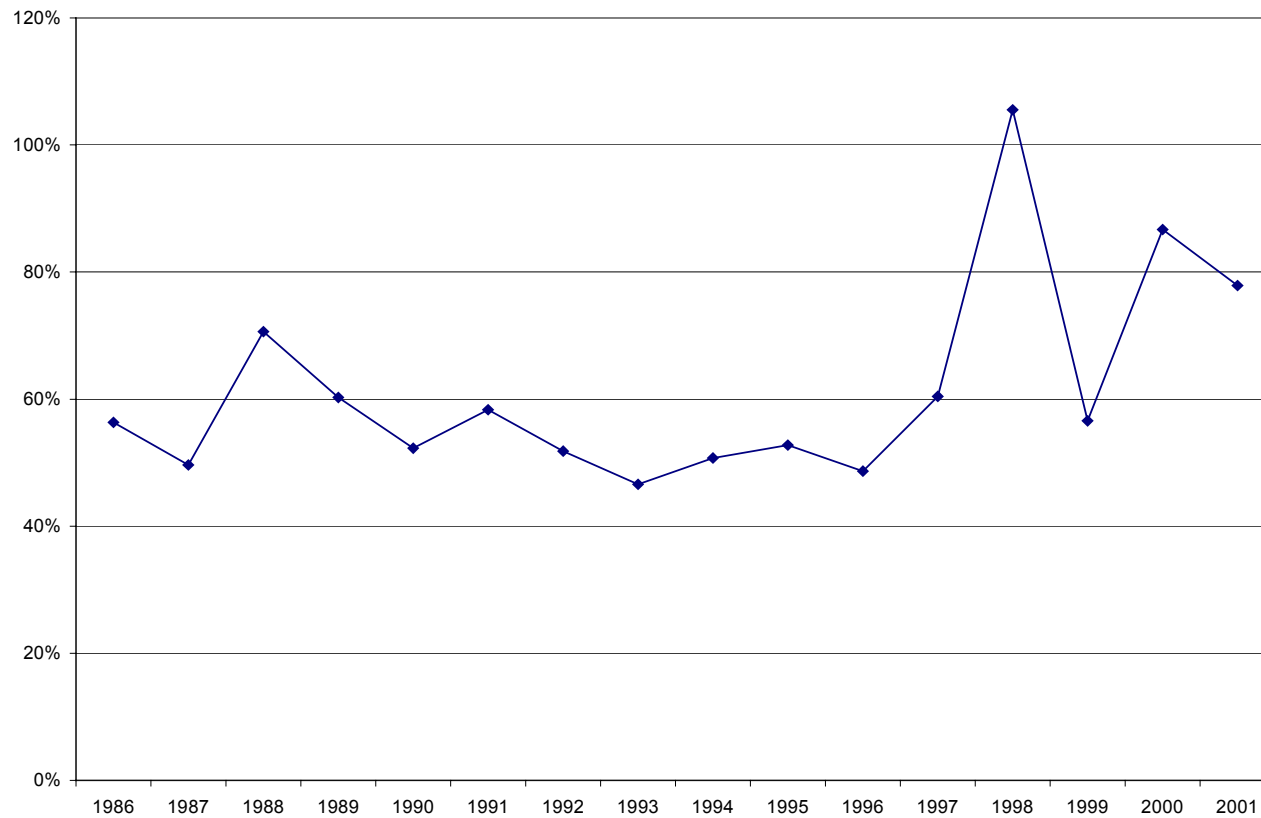


# *US RECYCLE RATIO*

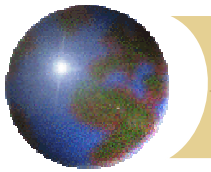




# *FRS RECYCLE RATIO*

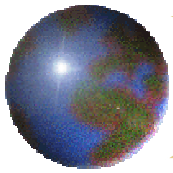




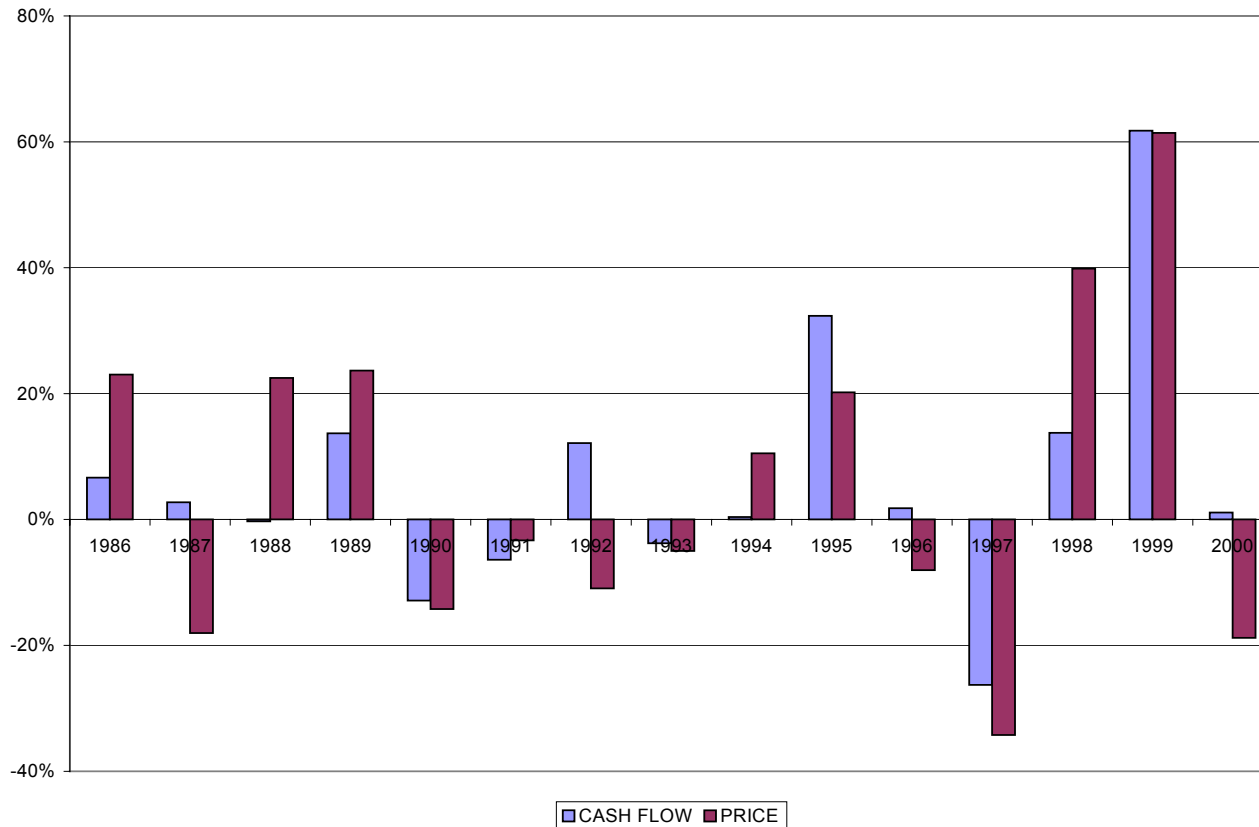


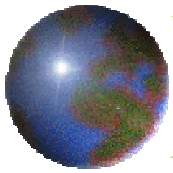
# *FOCUS ON REVENUES*

- PRICE IS NOT REVENUE
  - TAXES & ROYALTIES
- REVENUE A BETTER PREDICTOR OF INVESTMENT OUTSIDE HIGH-COST AREAS
  - WHAT ARE HIGH-COST AREAS?
- SOME INERTIA

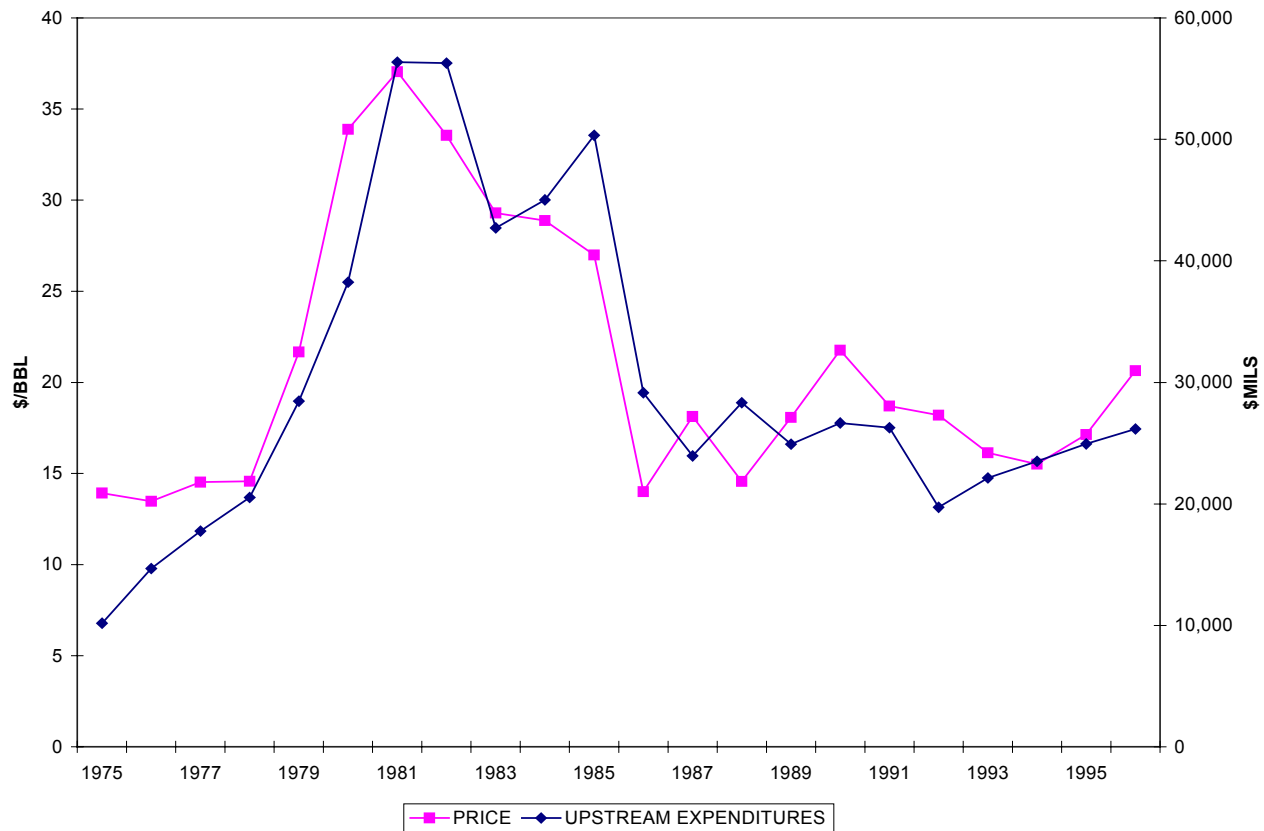


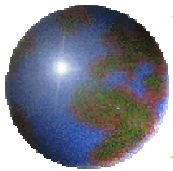
# *RELATIVE VOLATILITY, PRICE AND REVENUE*





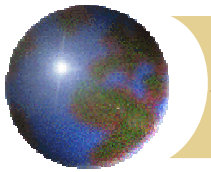
# PRICE AND N. AMERICAN E&P





# PRICE AND OTHER E&P





# *CONCLUSIONS*

- WATCH REVENUES, NOT PRICE
  - $REVENUES = F(PRICE)$
- NO SIGN OF CHANGE IN INVESTMENT
- LAG TIME MEANS HIGH PRICES  
2002/2003 WILL HAVE MORE IMPACT  
SOON
- NEXT PRICE COLLAPSE WILL BE ???