

Chapter 15 -- Monopoly Power, Inflation and the Business Cycle

Table 15.1 – Inflation in Expansion and Contraction – the measure of price inflation is the implicit price deflator (which is computed from the GDP data). The Federal Reserve considers this a better measure of inflation in the economy than the consumer price index.

Change in Price per Quarter as a % of its Cycle Base

| <u>Cycle</u> | <u>Expansion</u> | <u>Contraction</u> |
|----------------------------------|------------------|--------------------|
| All non-war cycles 1891-1938. | 8.7 | -8.9 |
| 1949-1954 | 0.8 | 0.4 |
| 1954-1958 | 0.8 | 0.2 |
| 1958-1961 | 0.4 | 0.1 |
| 1961-1970 | 0.7 | 1.3 |
| 1970-1975 | 1.1 | 3.3 |
| 1975-1980 | 1.8 | 3.0 |
| 1980-1982 | 2.3 | 1.3 |
| 1982-1991 | 0.8 | 0.8 |

In business cycles prior to 1949, prices increased in expansions and declined in contractions. Cyclical price inflation is “demand-pull” type inflation. Aggregate demand rises faster than aggregate supply in expansions and vice-versa. This is the Keynesian version. The monetarists version of demand-pull inflation is that the supply of money (M) and the velocity of money (V) increase faster in expansions than the quantity of output (T) and vice versa.

However, the last contractions (1949-1991) have all shown increasing prices rather than declining prices. In the 3 contractions 1961-1970, 1970-1975 and 1975-1980 the price increases were actually higher in the contractions than the expansions. In fact, the relationship between unemployment and inflation changed as inflation rose as unemployment rose. This is largely attributed to “cost-push” inflation from the oil price shocks.

There is another form of inflation the text refers to as “profit-push inflation that results from monopoly power. Monopoly power may exist if the structure of the economy shows assets and sales concentrated among a relatively few giant corporations in each industry and in the aggregate economy. The premise is that a few firms may influence the prices and profits in an industry if only a few corporations own most of the productive assets and make most of the sales in an industry. This premise is highly controversial. Many economists do not accept the argument that concentration of assets or sales in a few firms necessarily means they have the capability to set prices or profits in that industry (think Wal Mart, Dell).

The data seems to support the conclusion that there is a high level of concentration in corporate assets in the U.S. The concentration of corporations as measured by the 100 largest corporations (based on assets) increased considerably in the 1970's, 1980's and 1990's.

Table 15-2 Distribution of U.S. Corporate Assets – from U.S. Statistics of Income: Corporation Tax Returns, U.S. Internal Revenue Service

| <u>Asset Size</u> | <u>Number of Corps.(1000's)</u> | <u>Amount of Assets (\$billion)</u> | <u>% of Corps</u> | <u>% of Assets</u> |
|-----------------------|---------------------------------|-------------------------------------|-------------------|--------------------|
| Less than \$100,000 | 1,692 | \$57 | 54% | 1% |
| \$100,000-\$1,000,000 | 1,152 | \$371 | 37% | 3% |
| \$1,000,000-\$25 mil. | 267 | \$974 | 9% | 8% |
| \$25 mil.-\$250mil. | 21 | \$1,157 | 0.6% | 12% |
| \$250 mil and above | 4 | \$9,852 | 0.1% | 77% |

This concentration of assets may have resulted from technological advances that make large scale production more profitable (economies of scale), internal growth and waves of mergers and consolidations. The last wave of mergers in the 1970's and 1980's was conglomerate mergers (mergers of unrelated firms).

Even the degree of concentration (as measured by concentration ratios which are the percentage of total industry sales controlled by X firms – sometimes 4, sometimes 8) in an industry is very difficult to determine.

1. the census industries are too broad and include products that are not competitors
2. international competitors are not included
3. conglomerates often control big firms in several industries
4. board of directors often overlap – interlocking boards
5. stock ownership may form important groups within an industry.

Why is it important to examine the degree of concentration or monopoly power? Prices and profit rates act differently over the business cycle in competitive sectors versus more concentrated (monopoly sectors).

Table 15.4 Prices in Monopoly and Competitive Sectors – The competitive sector is defined as all those industries in which the concentration of sales by 8 firms is less than 50%. The monopoly sector is defined as all those industries in which concentration of sales by 8 firms is over 50%.

Expansion Amplitudes – price index rise from initial trough to cycle peak as a % of its average level over the whole business cycle.

| <u>Dates of Expansion</u> | <u>Prices in Monopoly Sector</u> | <u>Prices in Competitive Sector</u> |
|-----------------------------|----------------------------------|-------------------------------------|
| October 1949-July 1953 | 13.6%*** | 11.1% |
| May 1954-August 1957 | 11.0%*** | 4.6% |
| April 1959-April 1960 | 2.1% | 3.0% |
| February 1961-December 1969 | 8.3% | 16.3% |
| November 1970-November 1973 | 10.2% | 23.4% |

Conclusions: The results for the first two cycles are unusual. In next three cycles prices in the competitive sector rose faster than in the monopoly sector.

Contraction Amplitudes – price index decline from cycle peak to next trough as a % of its average level over the whole business cycle.

| <u>Dates of Contraction</u> | <u>Prices in Monopoly Sector</u> | <u>Prices in Competitive Sector</u> |
|-----------------------------|----------------------------------|-------------------------------------|
| November 1948-October 1949 | -1.9% | -7.8% |
| July 1953-May 1954 | +1.9% | -1.5% |
| August 1957-April 1958 | +0.5% | -0.3% |
| April 1960-February 1961 | +0.9% | -1.2% |
| December 1969-November 1970 | +5.9% | -3.0% |
| November 1973-March 1975 | +32.8% | +11.7% |

Conclusions: Note that prices in the 1969 and 1973 recessions have risen even in a contraction. Inflation remained persistent until 1982. The 1948-1949 recession is typical of the business cycles that preceded it (1929-1937) where prices in the competitive sector declined more than prices in the monopoly sector. In the three cases 1957, 1960 and 1973, the prices in the competitive sector fell slightly, but prices in the monopoly sector rose slightly. In the 1970 recession, competitive prices fell significantly and prices in the monopoly sector rose significantly. In the 1973 recession, monopoly prices rose substantially. The text states that this caused the rise in competitive prices because competitive firms have to buy some commodities from the monopoly sector. This is unproved.

Explanation of this Price Behavior

The text presents a plausible explanation for the price behavior shown above. Why would prices in the monopoly sector in the four contractions since 1953? Empirical studies of monopoly sectors show that in most cases a single large firm sets prices in the industry and all the other companies follow it. The price is set based on cost-plus.

- In an expansion, the giant corporations do not maximize their short-term profits by setting prices as high as possible. They set prices with a target profit level for the best long-term growth of profits.
- In an expansion, their prices may be below what the market would bear in order to discourage rivals (competition), widen their market share, dampen union demands for higher wages, discourage government anti-trust actions and stabilize long-term dividend payments (thereby stabilizing stock prices). In the long-term, this may give the controlling firms more power to maintain or even raise prices in the future (even in a contraction).
- In a contraction, the firm may try to maintain its total profit target level by raising prices (i.e., the markup) as unit volume declines. Of course, the firm may lose some customers, but it is probable that their market control via branding, desire by most firms to maintain relationships for the next expansion, etc. is very strong. The extent of the firms' market power depends on:
 1. How many customers are willing to switch to a substitute product
 2. At what price point or profit level will new firms enter the industry?
 3. How high are the barriers to new firms?
 4. How likely is government intervention?

There is considerable evidence that monopoly or oligopoly firms do not change their prices as frequently as competitive firms and that these firms try to maintain profit margins above costs.

In an expansion, the competitive firms rise more rapidly and change more often, and in a contraction the competitive firms drop their prices more rapidly regardless of the effect on profits. In a contraction, the monopoly firms may have to cut more production and employment than the competitive firms to maintain their profits.

Given the difference in price behavior, what happens to profit rates over the business cycle for the competitive sectors versus the monopoly sectors?

Table 15.6 Amplitudes of Monopoly and Competitive Profit Rates

| Cycle | MONOPOLY SECTOR | | COMPETITIVE SECTOR | |
|-----------|---------------------|-----------------------|---------------------|-----------------------|
| | Expansion Amplitude | Contraction Amplitude | Expansion Amplitude | Contraction Amplitude |
| 1949-1954 | 32.1 | -30.8 | 45.8 | -56.9 |
| 1954-1958 | 21.6 | -41.3 | 32.1 | -47.8 |
| 1958-1961 | 33.5 | -28.6 | 36.6 | -47.1 |
| 1961-1970 | 25.0 | -35.1 | 49.0 | -32.3 |
| Average | 28.0 | -34.0 | 40.9 | -46.0 |

The monopoly and competitive sectors are defined by the same concentration ratio defined before (8 industries and 50%).

Table 15-6 shows that profit rates in the competitive sectors generally rise and fall more than profit rates in the monopoly sectors.

Table 15.7 Amplitude of Profit Rates by Size

Average of Four Cycles, 1949-1970

| Asset Size | Expansion Amplitude | Contraction Amplitude |
|-----------------------------|---------------------|-----------------------|
| Less than \$250,000 | +83% | -83% |
| \$250,000-\$1 million | +39% | -55% |
| \$1 million - \$5 million | +37% | -52% |
| \$5 million - \$100 million | +28% | -27% |
| \$100 million and over | +22% | -27% |

Average of Three Cycles, 1970-1982

| Asset Size | Expansion Amplitude | Contraction Amplitude |
|------------------------------|---------------------|-----------------------|
| Less than \$5 million | +49% | -58% |
| \$5 million – \$ 25 million | +38% | -39% |
| \$25 million - \$100 million | +34% | -41% |
| \$100 million - \$1 billion | +25% | -37% |
| \$1 billion and over | +24% | -33% |

SOURCE: U.S. Census Bureau, *Quarterly Financial Reports of Manufacturing Corporations* (Washington, D.C.: GPO, 1949-1988).

NOTE: Profit rate for 1949-70 is percentage of profit (before tax) to sales for all U.S. manufacturing corporations. Profit rate for 1970-82 is percentage of profit (before tax) to stockholders' equity for all U.S. manufacturing corporations. All amplitudes are for specific cycles.

Why are the profit rates of monopoly (or oligopoly) firms more stable than competitive firms in both expansions and contractions?

1. Monopoly firms set their prices to provide stable profits targets.
2. Monopoly firms have the market power to make their prices stick.
3. In expansions, monopoly firms keep constant prices or raise prices slowly to keep or expand a high market share. In contractions, monopoly firms maintain their prices or reduce them very slowly by cutting production and employment.
4. The unit costs for large firms are stable over a wider range of output. Unit costs for small firms may rise rapidly below optimum capacity. There are economies of scale in production, distribution and national advertising.
5. Small firms borrow at higher rates of interest than large firms and small firms borrow a higher percentage of total capital.
6. Large corporations are more diversified and may be better able to withstand a contraction in a specific industry than a small firm that makes products in a limited number of industries.

The data in Table 15.5 (p288) support the above conclusions. The profit rate on investment rises monotonically by asset size.

Conclusions:

An economy with a large percentage of monopoly sectors will have more stable prices and profits over the business cycle than an economy with a large percentage of competitive sectors. Therefore a monopoly economy may have less stable output and employment. This larger decline in output and employment in the monopoly sectors can deepen a business cycle contraction (increased cyclical unemployment).

The monopoly sectors further de-stabilize the competitive sectors as they sell their production at higher prices to small business and buy their input labor and material from small businesses at lower prices. Instability in the competitive sectors may be a contributing factor to the business cycle over-production and subsequent contraction.

The recent price inflation during recessions is not due to just commodity price shocks. It is also due to the increasing concentration of monopoly power in the U.S.(and possibly international as well).