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The Outlook for Prices

Price forecasters often rely heavily on "big events" such as large short-term price swings in supposedly key price series and broad price indexes such as the Producer Price Index and the CRB Futures Index (and more recently, trade-weighted exchange rates) to predict forthcoming changes in the general price level. Experience of the past several years shows, however, that even very sharp movements in such series may not result in the outcome expected by conventional analysis. The relative importance of different components is constantly changing; and opposite trends in individual series often offset each other, thus confounding the prediction of general price trends on the basis of short-term movements of any series or combination of series. Over the long run, our measures of monetary inflating have been a far more reliable indicator of the potential for increases or decreases in general prices — and these suggest that the possibility for further sharp price increases remains great.

Predictions of general price trends during the past 2 years often have followed — and been as volatile as — changes in the individual economic series or events that forecasters have deemed the "most important" at the time. Usually this has meant simply that they focused their attention on some prominent series that happened to show precipitous movement one way or the other — regardless of its actual relationship to overall price levels.

For example, when the dollar's foreign-exchange value dropped sharply after March 1985, it was argued that higher import prices would lead to accelerated rates of price inflation. Or, when sharp decreases in petroleum and commodity prices occurred during late 1985 and the first half of 1986, many business analysts forecast a deflationary collapse. As events turned, neither happened.

Similar attention has focused on the possible price implications of this season's "big events" — the stock market crash and the plummeting dollar. Among those predisposed to believe that the Crash of 1987 presages a second Great Depression, it is said that there will be "a DEFLATION . . . beginning almost immediately following the Crash itself."* Others, citing recent exchange-rate and commodity-price trends, say that because of the dollar's reduced purchasing power in international markets, a general resurgence of domestic price inflation now is inevitable.

The idea that the stock market crash will precipitate price deflation is bizarre. It apparently derives both from the expectation that the crash will foster a massive 1930's-type banking collapse and from confusion about the difference between the collapse of stock prices and "money shrinkage." We recently discussed elsewhere why, so long as monetary authorities have the power to create vast amounts of bank credit "out of thin air," a banking collapse is remote.† And, as we described in *Research Reports* for No-

vember 2, 1987, the collapse of stock prices and "money shrinkage" are *not* the same: "money" is not created or lost in the stock market, but flows *through* it; prices reflect adjustments in the valuations of stocks. There is no evidence that the Federal Reserve intends to engage in any massive contraction of the money supply. Rather, Federal Reserve Chairman Alan Greenspan has pledged to provide "all the liquidity needed" to sustain the financial markets — and immediately following the October crash M1 jumped sharply.

Recent commodity price trends, however, *would* seem to imply accelerating price inflation. As reported in *The Economist*, the all-items dollar Commodity Price Index in mid-December was 39.5 percent above its December 1986 level. Its industrials component was up 58.1 percent, and the metals subcomponent was up 78.8 percent. The major component series of the Producer Price Index also have increased sharply over their year-earlier (November 1986) levels: crude materials for further processing, crude materials less agricultural products, finished energy goods, and crude petroleum respectively increased 8.2, 16.1, 13.2, and 35.3 percent.

However, as shown in Chart 1A, even very sharp movements in the prices of some raw commodities (such as petroleum) do not necessarily translate into equivalently higher or lower prices for finished goods. And the magnitudes of rates of change in the broad Consumer Price Indexes shown in Chart 1B have been much smaller than those of the individual component series. In short, commodity price increases tend to promote higher prices; but taken alone they do not necessarily indicate general price trends.

An additional difficulty with projecting general price trends on the basis of movements of one or two series is that the relative importance of the various price series is continually changing — and often those changes are ignored altogether. For example, between December 1983 and December 1987, on a scale of 100, the relative importance of the "crude materials less energy" component series of the Producer Price Index dropped from 68.7 to 59.1. That is, although great attention is paid to commodity prices, changes in the prices of crude materials matter significantly less than they did 4 years ago. Moreover, commodity prices are much less consequential to overall consumer price levels than to producer prices. During the past 10 years, the relative importance of the "durable commodities" component of the Consumer Price Index decreased from 23.3 to 12.1.

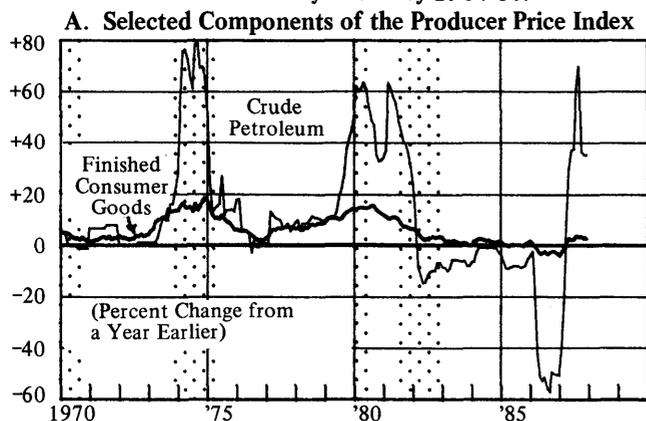
In short, the recent attention given to commodity prices by "inflation watchers" — as well as by monetary authorities who now seem to be turning in favor of some type of "commodity price rule" as a guide to monetary policy — would seem to give exaggerated importance to things whose market valuations are properly continually in flux and whose

* *Cycles*, December 1987, pp. 225-226.

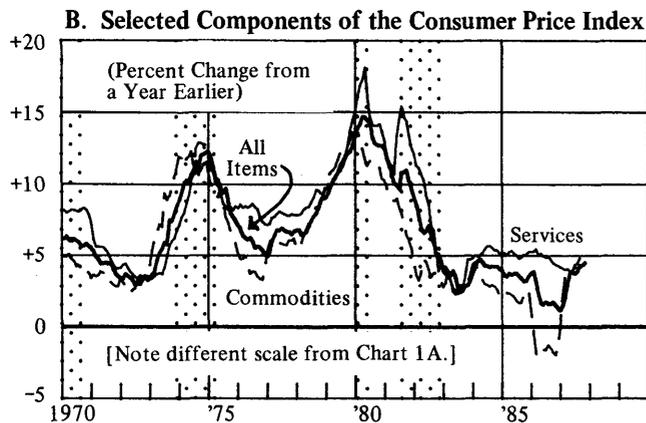
† See our September 1987 *Economic Education Bulletin*, "How Safe Is Your Bank?"

Chart 1
**SELECTED COMPONENTS
 OF THE PRODUCER PRICE INDEX AND
 THE CONSUMER PRICE INDEX**

A number of crude components of the Producer Price Index, such as petroleum, have fluctuated wildly during the past 2 years; but the changes in the prices of finished consumer goods have been much less extreme (A). In turn, the magnitude of rates of change in the broad component categories of the Consumer Price Index (B), have been miniscule in relation to those of individual crude component series – and now are at roughly their levels prior to the “disinflation” of 1984-86.



Latest plots, November 1987.



Latest plots: all items, November 1987; commodities and services, October 1987.

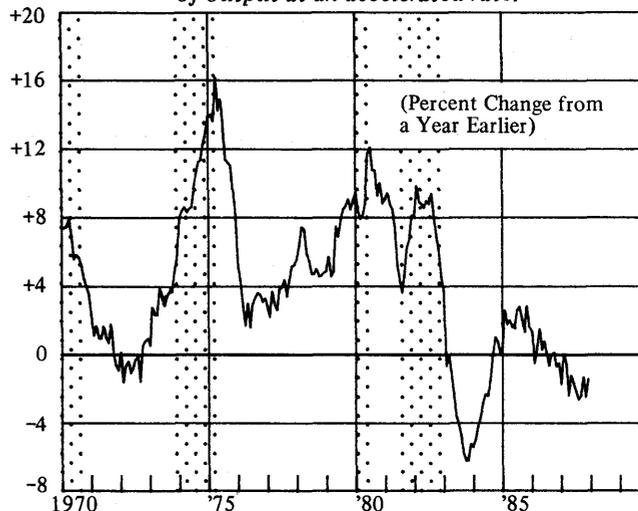
relative importance in recent years has declined sharply.

At the same time that they tend to overrate the significance of some factors, price forecasters often ignore countervailing developments. In the current situation, great attention is being given to the drop in the dollar's trade-weighted foreign-exchange rate and the increase in import values. Unquestionably, the decrease in the dollar's foreign purchasing power (about 18 percent in the past year and nearly 40 percent since its March 1985 peak) and consequent increase in unit import values (up 11.3 percent over a year ago) are major stimuli to domestic price increases.

However, offsetting factors, such as the marked decrease in labor costs shown in Chart 2, often are overlooked. Labor costs presently account for about two-thirds of the total cost of production, and are by far the largest expense of U.S. businesses. Plainly, the accelerating rate of decrease in unit labor costs over the past year has been a major price

Chart 2
INDEX OF LABOR COST PER UNIT OF OUTPUT, 1977 = 100

A major price depressant is the trend of labor costs, which for the past year have decreased per unit of output at an accelerated rate.



Latest plot, October 1987.

Source: U.S. Department of Commerce, Bureau of Economic Analysis and Board of Governors of the Federal Reserve System.

depressant. The point is that increases in import prices and decreases in labor costs *both* are powerful influences on domestic prices, but at this time no one can predict which might have the stronger effect.

In view of such uncertainties, predicting general price trends on the basis of short-term movements in the prices of one or more commodities, goods, or services – or even of dramatic changes in currency valuations – seems highly unreliable. At present, the many “offsets” confound such conventional price analysis. Over the long run, changes in our indicators of monetary inflating, which are discussed in the article that follows, have been a far more reliable guide to general price trends than any of the “big events” that usually are deemed significant.

THE HARWOOD INDEX OF INFLATING

Increases in the Harwood Index of Inflating during the past 5 years or so reveal that inflationary distortions are accumulating in the economy. Official predilections for intervention and the lack of dollar convertibility into anything of tangible value strongly suggest that accelerating price inflation lies at some point ahead.

Unlike some “hard money” analysts, we believe that the function of commercial banking is essential to a modern economy. Without the ability of commercial banks to create and cancel purchasing media in response to the varied and changing needs of commerce, industry, and agriculture, much of the efficiency of our systems of production and distribution would be lost. However, as our readers should be well aware, fractional reserve banking is subject to abuse via inflating: the creation of purchasing media “out of thin air” for purposes other than bringing things to market.

For example, when a bank lends funds to a retailer to finance inventory, the purchasing media so created will be noninflationary inasmuch as they are matched by goods offered for sale. But, a bank loan to a consumer to purchase a house or an automobile will be noninflationary *only* if the

funds used to make the loan were savings entrusted to the bank by other consumers who did not wish to purchase anything for the time being. The bankers' temptation to make the latter type of loan by simply creating deposits or issuing bank notes has always been great. But such excesses were usually corrected by market forces sooner or later, and the bankers who made the unsound loans bore the brunt of the correction. However, during the past 50 years or so, such loans have been actively encouraged and supported by official policy, which has led not only to extraordinarily high levels of inflating but also has shielded the bankers from the consequences of their excesses.

As far as we are aware, the Harwood Index of Inflation is the only attempt to measure the extent to which the money and credit system has distorted economic processes. The index is calculated as the ratio of total purchasing media in use to the portion that is noninflationary. As such it is a measure of *relative* inflating, *i.e.*, the impact of creating an additional dollar of purchasing media in an inflationary manner on the index of inflating will depend on the *bona fide* requirements of the economy at the time.

When E. C. Harwood developed the index during the 1920's, its calculation was relatively straightforward and it was made entirely from the records of the banking system as reported. The total amount of purchasing media was derived from the banking system's liabilities for currency and checking deposits. The amount of noninflationary purchasing media could be determined in either of two ways.

The "long way" was to total the "investment-type assets" (mainly mortgages and bonds at that time) and to deduct the total of "savings-type liabilities" (time deposits and bank capital). The difference was the inflationary purchasing media that the banking system had created and was the measure of *absolute* inflating. The total amount of purchasing media less inflationary purchasing media was deemed to be noninflationary purchasing media. The "short way" was to estimate the noninflationary component directly from the banking system's holdings of gold (which was then continuously offered for redemption) and short-term commercial, industrial, and agricultural loans. Under either method, the index was the ratio of total purchasing media to its noninflationary component.

In other words, the determination of the Harwood Index involves allocating the assets of the banking system between investments and items that reflect or finance things offered in the market and allocating the banking system's liabilities between savings and claims used as purchasing media. Data for the banking system continue to provide the starting point for the calculation of the Harwood Index. But changing banking and payments practices have necessitated several adjustments over the years.

The earliest of these, which first arose during the 1930's, was made in recognition of the fact that the banking system's currency and demand deposit liabilities overstated purchasing media in use to the extent that some of these were hoarded or idle. We have estimated this amount of "inactive purchasing media" by a variety of means over the years. At present we exclude all obsolete currency issues (such as silver coins) that are still included in the M1 monetary aggregate as well as bills in the denomination of \$100 or more. The latter are excluded not only in recognition of the fact that a large, but indeterminate, portion of U.S. currency is hoarded or exchanged hand-to-hand outside the United States, but also because many transactions involving large denomination bills are illicit or "off the books" and presumably are not adequately reflected in the official data on economic activity (which we now use to estimate the noninflationary component of purchasing media in use).

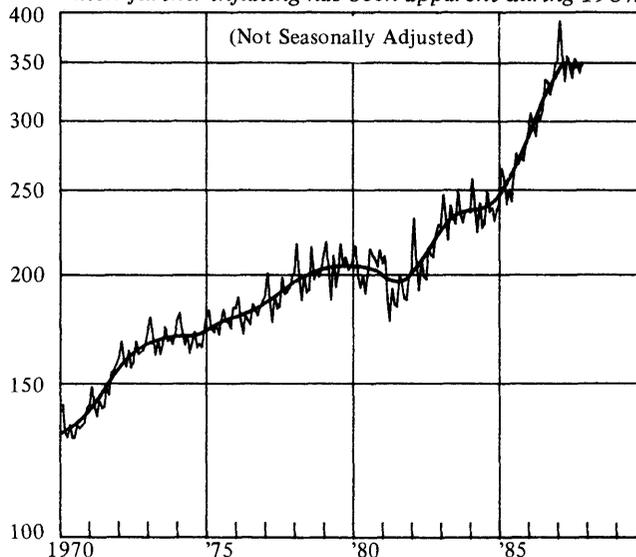
More recently, we have had to adjust the banking system's liabilities for innovative banking practices that we believe have significant effects on the amount of purchasing media in use. At present we remove two-thirds of the "other checkable deposits" component of the M1 monetary aggregate. These are mainly interest-bearing accounts held by households that, although they may be drawn upon in the same fashion as checking accounts, have turnover rates only about one-third of ordinary demand deposits. This leads us to conclude that about two-thirds of such accounts (mainly NOW and SuperNOW accounts) are saved purchasing media. Oppositely, we add all of the "overnight" Euro-dollar and repurchase agreements held by businesses, which are not included in M1, because we believe that since these amounts become available to their holders at the start of each business day they should be considered as purchasing media in use.

On the asset side of the balance sheet, after President Nixon suspended the convertibility of dollars into gold, U.S. gold holdings were no longer offered for sale on demand and they, in effect, became investment-type assets of the banking system. Also, during the past 2 decades or so bank lending practices have changed so that the officially reported totals for loans and investments no longer have the significance they once did. Today, many banks report funds that borrowers actually used for investment or speculative purposes as commercial and industrial loans. Accordingly, for some time now, we have not used the banking data to estimate noninflationary purchasing media. Instead, we use one-half of monthly manufacturing and trade sales (in current dollars), as reported by the Department of Commerce. This series was usually within a few billion dollars of the reported total of commercial, industrial, and agricultural loans during the period 1945 through 1965, when bank lending and reporting practices were less "innovative."

The results of our calculations are shown in Charts 3 and 4. Before commenting on the current situation we should stress that our efforts reflect several "heroic" assumptions

Chart 3
INFLATIONARY PURCHASING MEDIA IN USE
(Monthly and Smoothed*)

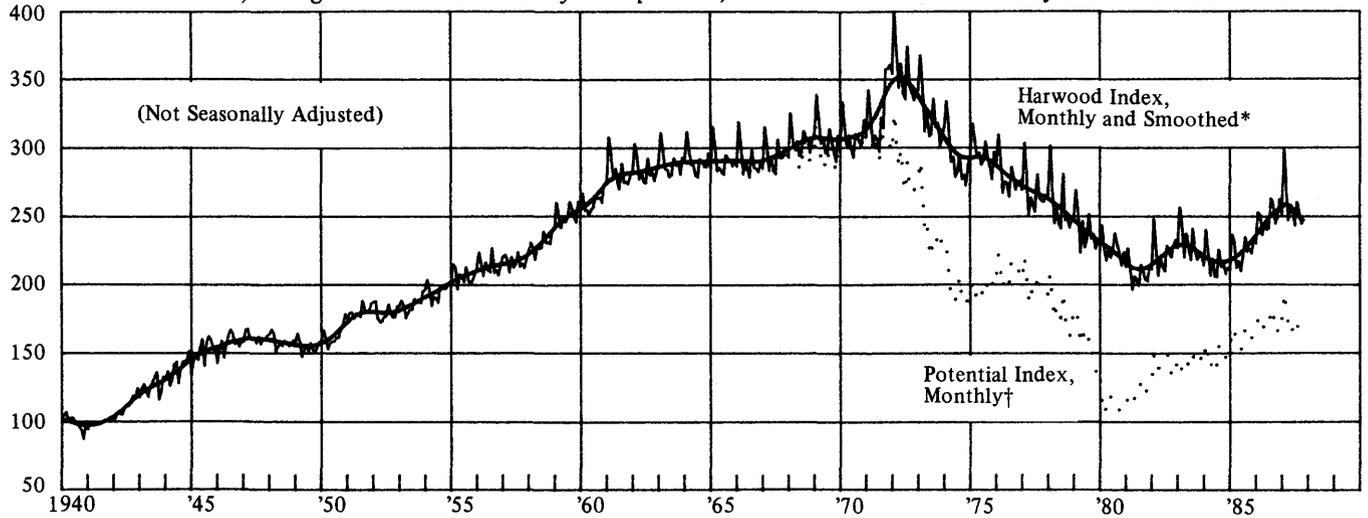
Roughly \$100 billion of excess purchasing media were created in the United States during 1985 and 1986, but little further inflating has been apparent during 1987.



* Centered, weighted 23-month moving average. Latest monthly data, October 1987.

Chart 4
THE HARWOOD INDEX OF INFLATING

*This measure of relative inflating remains well below its all-time peak.
 But, during the current business-cycle expansion, it has returned to the levels of the late 1970's.*



* The smooth curve is a centered, weighted 23-month moving average of the monthly data. Latest monthly data, October 1987.

† Index level if convertibility were restored at the average market price of gold for the months plotted and if the "profits" from the higher valuation of official gold stocks were used to retire Treasury securities held by the banking system.

regarding the creation and use of purchasing media, mainly because few other analysts are interested in viewing the situation from our perspective (and none of those are involved in the collection and compilation of the data). However, sharply varying these assumptions (for inactive purchasing media, other checkable deposits, noninflationary purchasing media, etc.) only serves to modify the current and historic levels of the index. *The direction of change and the timing of turning points of the index change very little.*

In other words, under plausible assumptions relating to money and credit developments over recent decades, it is clear that the Harwood Index rose nearly continuously from the end of the Great Depression of the 1930's to the early 1970's reaching a peak in August 1971 (when U.S. gold reserves officially ceased to be continuously offered for redemption, as noted above). Thereafter, it decreased to a 1981 trough and subsequently increased.* These trends are evident in Chart 4.

What Moves the Index?

Historically, the Harwood Index increased when inflating occurred. The index usually only decreased when inflationary purchasing media were withdrawn from circulation or were canceled, typically during recessions or "panics." It is also possible for the index to increase if economic activity contracts faster than purchasing media in use or for it to decrease if economic activity increases faster than purchasing media in use. (The trends of purchasing media in use and general economic activity have seldom diverged for long.)

However, once the dollar became an irredeemable currency, another possibility emerged. Without a link to anything of tangible value, there was no constraint on the price

level and each round of price increases led to marked increases in the amount of purchasing media required to purchase the goods offered in the markets, *i.e.*, the noninflationary component of purchasing media in use became whatever was sufficient to pay the going price level rather than the long-term gold-exchange value of the goods available.

This is what occurred between 1971 and 1981. As shown in Chart 3, the amount of inflationary purchasing media in use (*absolute* inflating) continued to increase during this period, but the Harwood Index (*relative* inflating) decreased as prices soared. Since then, absolute inflating has increased markedly as shown in Chart 3 and the deceleration of price increases from the "double-digits" of the early 1980's has sent the Harwood Index upward again.

We believe it is likely that politicians and monetary authorities will continue to do everything in their power to prevent the traditional corrective mechanisms for inflating (bank failures, canceling purchasing media, etc.) from operating, which means that the excess of inflating will sooner or later become manifest in prices. How soon is impossible to estimate. The very recent "leveling off" of both the amount of inflationary purchasing media in use and the Harwood Index (which mainly reflects recent relative monetary "restraint") suggests that officials are attempting to postpone the day. But the virtual collapse of the dollar against other currencies suggests that the chickens may be coming home to roost.

PRICE OF GOLD

	1986 Dec. 30	1987 Dec. 23	1987 Dec. 30
Final fixing in London	\$388.75	\$481.50	\$483.10

* The fluctuations (upward during the 1981-82 recession and downward during the first 2 years of the current business-cycle expansion, upward again during 1985 and 1986 and leveling off during 1987) cannot be deemed to be significant. They probably reflect the fact that, as presently constituted, the index is sensitive to cyclical fluctuation in manufacturing and trade sales that may be more volatile than the *bona fide* commercial and industrial loans for which they are a proxy.

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