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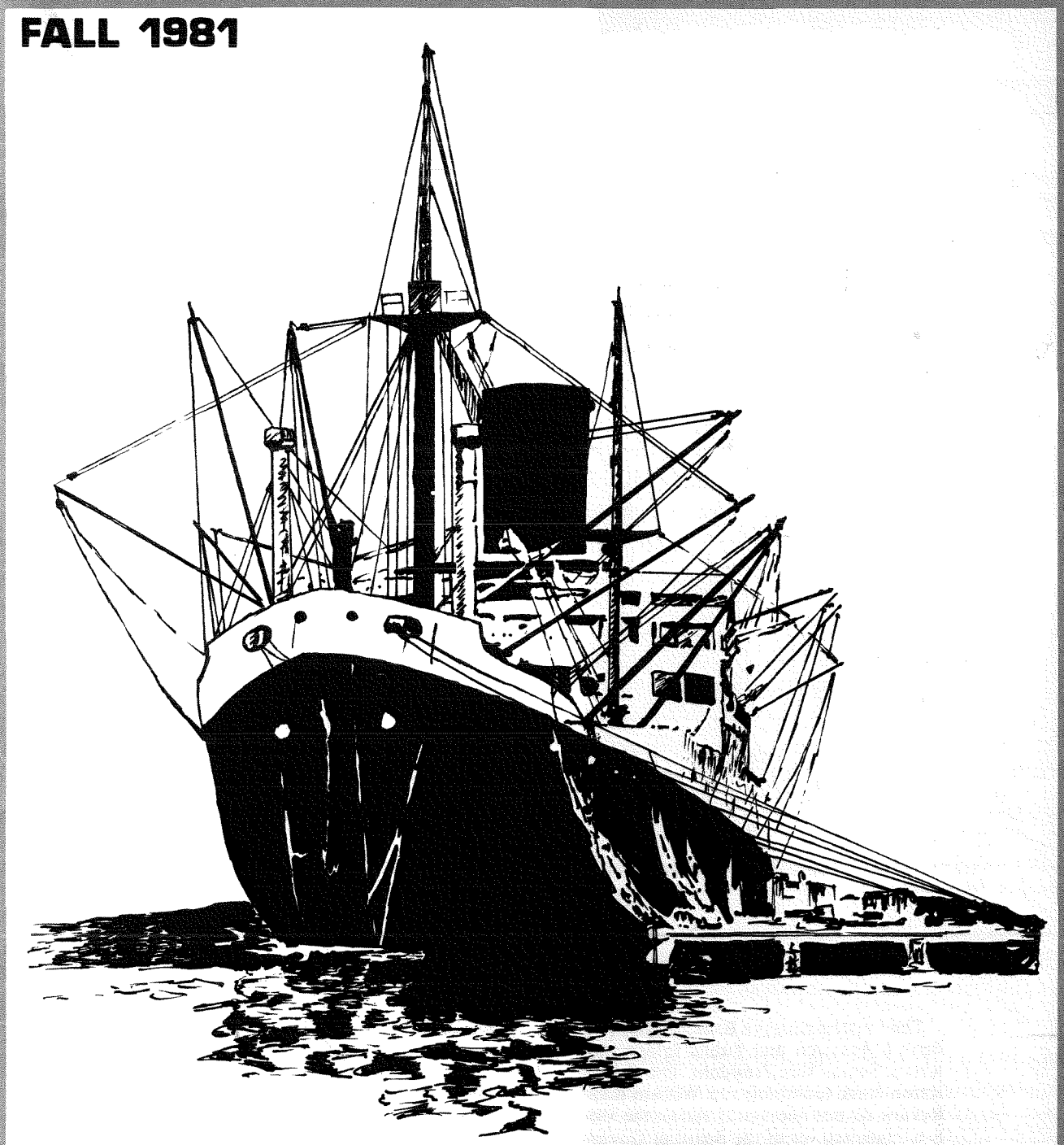

INFLATION, GROWTH AND EXCHANGE RATES

Inflation, Growth and Exchange Rates

The past decade's turmoil in the international economy has provided economists with a treasure trove of interesting research topics. Throughout this period, the developed nations of the Atlantic Basin have wrestled with problems of inflation, growth and exchange adjustment. Meanwhile, the developing nations — generally fast-developing nations — of the Pacific Basin have faced variations of the same problems. This issue of the **Economic Review** investigates several of these problems, and especially their effects on Pacific Basin economies.

Maxwell J. Fry notes that some developing economies have exhibited a negative correlation between long-run average inflation and real economic growth. He suggests one possible explanation — financial repression, that is, institutional interest rates fixed below their competitive, free-market equilibrium levels by administrative fiat. To test that thesis, he applies a small-scale model of inflation and economic growth to seven Pacific Basin developing countries that have utilized such financial restrictions.

Fry's analysis provides an important policy conclusion: "Flexible interest-rate policies in financially repressed economies can be used to counter inflationary shocks and accelerate the real rate of economic growth." An increase in the real deposit rate towards its competitive equilibrium level raises real money demand, so reducing inflationary pressures. At the same time, the availability of credit increases in real terms. Consequently, real economic growth rises, which increases real money demand some more. "Inflation drops; the virtuous circle is complete."

Fry notes the well-known policy dilemma: Lowering the rate of monetary expansion to bring down inflation raises unemployment and reduces real economic growth in the short run. "However, financially repressed economies can use both the money supply and nominal interest rates as independent policy instruments." Monetary deceleration could have a **permanent** inflation-reducing but **temporary** depressing effect on real economic growth. But raising nominal institutional interest rates towards their competitive equilibrium levels could have a **temporary** inflation-reducing but **permanent** growth-enhancing impact. "In combination, monetary deceleration with interest-rate increases could lower inflation and, simultaneously, raise the real rate of economic growth."

Hang-Sheng Cheng discusses the policy dilemma faced by the People's Republic of China, especially in the current environment of inflation. "Over the years, tight controls have strangled work incentives and caused serious waste and inefficiency; yet under the present institutional set-up, administrative controls appear to be indispensable for combating inflation." Then he asks: In the long run, do the authorities have adequate policy instruments for fighting inflation without administrative controls? The answer to this question will to a large extent depend on whether China can forge an effective monetary policy that does not rely primarily on direct controls.

Cheng argues that money has a significantly lesser role in the Chinese command economy than in the typical market economy, and that monetary policy thus has a more restricted role than it does elsewhere. China's monetary policy has been circumscribed, first, by a nearly complete reliance on administrative controls for regulating monetary growth, and second, by the monetary authorities' lack of independence from both central- and local-government authorities with respect to credit allocation. Other complications arise from the

authorities' mechanical reliance on the quantity equation of money for determining money-growth targets — and also from their reliance on a narrow definition of money, limited to currency, which tends to lead to an underestimate of the inflationary pressures on the economy.

Cheng says that monetary policy is coterminous with credit policy, given China's exclusive reliance on administrative controls for regulating money growth. In this regard, official thinking continues to be guided by the "real bills doctrine" and by the so-called "separation principle," even though theoretical support for these principles is found wanting even in the Chinese context. These principles, moreover, require continued reliance on administrative controls for enforcing compliance. "Their replacement by a flexible interest-rate policy would not only be more in tune with the spirit of Modernization, but also would help support the development of an effective monetary policy, operating through market forces rather than administrative controls."

Charles Pigott next reviews the experience of several major industrial countries since the beginning of flexible exchange rates in 1973. He asks, "To what extent have **real** factors — factors such as tastes, productivity, and oil costs, determining relative commodity prices in the **long-run** — actually affected these exchange rates?" He points out that nominal exchange rates can be divided into two components — one reflecting the ratio of national price levels as determined (mainly) by money supplies and demands, with the other 'real' or 'terms-of-trade' component reflecting the relative prices of individual commodities. He notes, however, that the 'terms-of-trade' is potentially affected not only by real factors but also by real interest fluctuations or other influences leading to **temporary** changes in relative commodity prices.

Pigott shows that fluctuations in nominal exchange rates about their trend have largely represented terms-of-trade changes in recent years. And for the floating-rate period as a whole, variations in the terms of trade have tended to be highly persistent, suggesting they mainly reflect real-factor influences. "Thus, real factors have represented a major source — in some cases the single largest source — of exchange-rate fluctuations about trend over the last eight years." He adds that this conclusion, although tentative, suggests that models of exchange-rate determination which consider only financial-market conditions while ignoring fundamental commodity-price determinants will inevitably miss an important aspect of actual exchange-rate behavior.

Pigott warns, however, that the importance of real factors creates difficulties for interpreting actual movements in exchange rates. "This is particularly the case as neither real interest rates nor the long-run factors influencing relative commodity prices are directly observable." He notes that U.S. officials have used foreign-exchange market conditions as a major policy guide in recent years, partly reflecting a belief that these markets convey early signals of developing inflation pressures. "But the analysis here indicates that exchange-market signals normally are highly ambiguous, reflecting as they do a variety of factors. Since the appropriate response to one source of exchange-rate variation may be inappropriate in another case, policy-makers at the least should be very cautious in using foreign-exchange market developments as a regular guide to policy."

Kenneth Bernauer turns to another aspect of exchange rates — specifically, the effectiveness of exchange-rate changes on the Japanese trade account. He notes that analysts no longer take for granted the view that exchange-rate movements will be completely passed forward into export and import prices. In his analysis, therefore, he first considers the impact of an exchange-rate change on the prices of exports and imports, and then considers the effects of these price changes on the quantities demanded of exports and imports. This two-stage procedure permits him to trace out the "J curve" measuring the effects of a yen depreciation on the Japanese trade account. The curve is so named because the initial deteriora-

tion and subsequent improvement in a depreciating country's trade account resemble the letter J when the trade account is plotted on the vertical axis against time on the horizontal axis.

Bernauer measures this effect by estimating volume and price equations for four separate commodity categories. His results show that a 10-percent yen depreciation would lead to about a 3.8-percent deterioration in the terms of trade. With no change in export and import quantities, this terms-of-trade effect would then lead to an initial deterioration in the trade account. The duration of the worsening trade balance — the duration of the first segment of the J-curve — would depend upon the time lag between movements in quantities and prices, and upon the size of the price elasticities of demand for exports and imports.

Turning to the actual trade results, Bernauer shows that a 33.6-percent effective yen depreciation between the third quarter of 1978 and the first quarter of 1980 was followed by a 17.6-percent rise in Japanese export volume between 1979IV and 1980IV — and by a 6.8-percent decline in Japanese import volume. Ironically, the export upsurge occurred almost simultaneously with a 16.6-percent appreciation of the yen against the dollar and major European currencies between 1980I and 1980IV. "From the evidence, though, the reverse J-curve effects stemming from the yen's appreciation made only a modest contribution to the improvement in Japan's trade account. The expanding surpluses of 1980 and 1981 stemmed largely from an improvement in Japan's price competitiveness, leading to robust export-volume gains." Bernauer thus sees little prospect of a reduction in the U.S. bilateral-trade deficit with Japan, given the continued erosion of U.S. price competitiveness during 1981. The U.S.-Japanese controversy over trade matters consequently may not subside in the foreseeable future.