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The Balance of Payments in 1970

IN THE FIRST ISSUE OF THIS JOURNAL, Lawrence Krause asked whether the trade balance was tracking its usual relationships to demand changes in the United States and abroad.[1] This question was posed in the face of concern about the possibility that the prolonged U.S. inflation in the late 1960s had permanently affected U.S. competitiveness. As Krause noted, the year 1970 would test whether the basic relationships had changed. In this report on 1970 balance-of-payments developments, I extend Krause's question to (a) the *basic balance*, defined as the current account plus the net direct investment account, and (b) the *balance on private financial capital*, that is, private capital flows other than direct investment.

With respect to exports and private financial capital flows, the answer is, "Probably yes"; the aggregate data yield no special evidence that past relationships have been altered by the inflation of the late 1960s. On the import side, however, it does seem that in 1970 imports were perhaps $3 billion higher than might have been expected on the basis of last year's growth in gross national product (GNP).

The Trade Balance in 1970

In 1970 the balance on merchandise trade was $2.2 billion, up from $0.6 billion in 1969. Exports rose from $36.5 billion in 1969 to $42.0 billion in 1970, an increase of $5.6 billion, or 15 percent. Adjusted for the 1969 dock

1. Lawrence B. Krause, "U.S. Exports and Imports: Are We Tracking?" *Brookings Papers on Economic Activity* (1:1970), pp. 141–46.

strike, which shifted exports from late 1969 into early 1970, exports rose by 12 percent in 1970, compared with 13 percent in 1969. Imports rose from $35.8 billion in 1969 to $39.8 billion in 1970, an increase of $4.0 billion, or 11 percent. Adjustment for the effects of the copper, dock, and auto strikes might reduce this increase to 10 percent.[2]

EXPORTS

From 1969:3 to 1970:3 the industrial production index (IPI) in the European countries of the Organisation for Economic Co-operation and Development rose 4.2 percent; in Canada, 2.1 percent; and in Japan, 16.3 percent. Weighted by 1970 values of U.S. exports, this yields an average increase in the IPI of 5.8 percent in this industrial area, which accounted for one-half of U.S. exports in 1970.

This increase was associated with an increase of 10 percent in total U.S. exports in 1970. These changes are consistent with past increments in U.S. exports relative to foreign industrial production, as illustrated in Krause's Figure 2.[3] If anything, the increase in exports was a bit high for the sluggish growth in foreign demand in 1970. So there is no evidence in the aggregate data that U.S. exports are not tracking earlier experience.

IMPORTS

The fraction of a change in the GNP that is absorbed by imports is, in general, positively related to the rate of increase of GNP. In part, this reflects the similar relationship between the rate of GNP increase and the proportion of that increase that is made up of goods (final sales and inventory accumulation); imports are linked to output of goods much more closely than to services. In addition, it reflects the greater likelihood of supply bottlenecks and domestic price increases when the GNP grows rapidly. Thus, for both these reasons, the marginal propensity to import will increase as the growth of GNP increases.

This relationship between the marginal propensity to import and the growth rate of GNP for the fifteen years 1956–70 is shown in the scatter diagram of Figure 1. With the exception of 1956 and 1970, the scatter is obviously fairly tight, and shows a sharply rising marginal propensity to

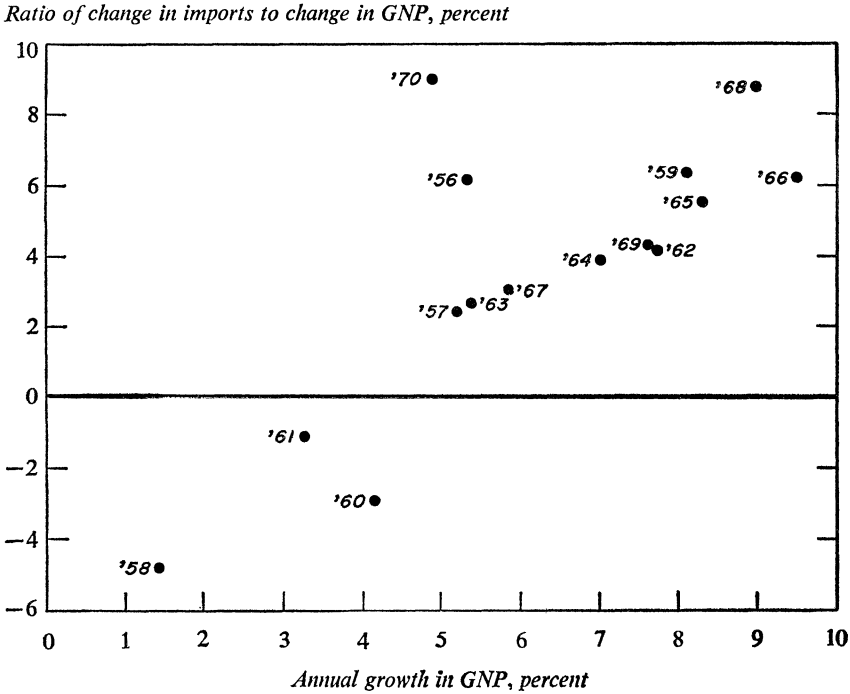
2. Evelyn M. Parrish, "The U.S. Balance of Payments: Fourth Quarter and Year 1970," *Survey of Current Business*, Vol. 51 (March 1971), pp. 36–37.

3. Krause, "U.S. Exports and Imports," p. 145.

import as the growth rate of GNP rises. The years 1956 and 1970 are out of line in the figure. They combined unusually poor performance of real output with substantial increases in the rate of inflation. This suggests that in periods when inflation rather than a real gain in output dominates the growth of nominal GNP, imports rise at an unusually rapid rate.

In 1970 the ratio of the change in imports to that in GNP was about 9 percent, while GNP grew by only 5 percent. In Figure 1, a 5 percent increase in GNP is normally associated with a marginal propensity to import of somewhat more than 2 percent, which would have yielded an increase in imports of $900 million in 1970, instead of the actual $4 billion. So in 1970 imports were off the track by perhaps $3 billion. While the import data

Figure 1. Relation of Ratio of Change in Imports to Change in Gross National Product and Its Growth Rate, 1956–70



Sources: *Survey of Current Business*, Vol. 50 (June 1970), and Vol. 51 (March 1971), Table 1, pp. 34–35 and 44, respectively; *Economic Report of the President, together with the Annual Report of the Council of Economic Advisers, February 1971*, Table C-1, p. 197.

for 1971 will be muddied both by the easing world steel situation and by the U.S. steel labor negotiations, it should reveal whether the 1970 import bulge reflected simply price inflation and supply bottlenecks in the United States or a structural change.[4]

Movements in the Basic Balance, 1956–70

One balance-of-payments measure that gives an idea of the basic long-term trend in the balance of payments and the position of the dollar is the "basic balance." As the Council of Economic Advisers said in February 1971, "The aim underlying the basic balance is to group together those balance-of-payments items which best reflect broad, persistent forces or underlying trends, treating more volatile classes of transactions among the financing items."[5]

The usual definition of the basic balance includes, above the line, the balance on current account plus net flows of private long-term capital, both direct and portfolio investment. However, recent empirical work on long-term portfolio investment—purchases of U.S. long-term financial instruments by foreigners, and the reverse—suggests that portfolio investment behaves more like short-term capital flows than like direct investment. Portfolio capital reacts to changes in interest differentials and credit market conditions, rather than real investment incentives.[6] Thus I include, in Table 1, only direct investment flows in the basic balance, grouping long-term portfolio capital with short-term capital in the next section.

As can be seen in Table 1, the balance on current account is composed of the balance on trade, the balance on services, and unilateral transfers. The 1960s saw a gradual increase in the trade balance from the strike-dominated year of 1959 to 1964, and then a deterioration through 1969. The balance on services includes two main components: net investment

4. I will be studying the disaggregated trade data during the coming months to see, among other things, if such a change has occurred. A report on this research will be presented in a subsequent issue of *Brookings Papers on Economic Activity.*

5. *Economic Report of the President, together with the Annual Report of the Council of Economic Advisers, February 1971*, p. 149.

6. See William H. Branson, "Monetary Policy and the New View of International Capital Movements," *Brookings Papers on Economic Activity* (2:1970), pp. 235–62; and Norman C. Miller and Marina v. N. Whitman, "A Mean-Variance Analysis of United States Long-Term Portfolio Foreign Investment," *Quarterly Journal of Economics*, Vol. 84 (May 1970), pp. 175–96, for empirical estimates of portfolio capital equations.

Table 1. Net Current Account and Direct Investment Balance, 1956–70
Billions of dollars

Year	Current account				Net direct investment	Basic balance
	Trade balance	Balance on services	Unilateral transfers	Total		
1956	4.8	−0.6	−2.4	1.7	−1.7	0.0
1957	6.3	−0.4	−2.3	3.6	−2.3	1.3
1958	3.5	−1.1	−2.4	*	−1.1	−1.1
1959	1.1	−0.8	−2.4	−2.1	−1.2	−3.2
1960	4.9	−0.8	−2.3	1.9	−1.5	0.4
1961	5.6	*	−2.5	3.1	−1.5	1.6
1962	4.6	0.6	−2.6	2.5	−1.5	1.0
1963	5.2	0.7	−2.7	3.3	−2.0	1.3
1964	6.8	1.7	−2.7	5.9	−2.3	3.6
1965	5.0	2.2	−2.8	4.4	−3.4	1.0
1966	3.9	1.4	−2.8	2.5	−3.6	−1.1
1967	3.9	1.4	−3.0	2.2	−2.9	−0.7
1968	0.6	1.9	−2.8	−0.3	−2.9	−3.2
1969	0.6	1.3	−2.8	−0.9	−2.2	−3.1
1970p	2.2	1.5	−3.0	0.6	−3.1	−2.5

Sources: 1956–68—David T. Devlin, "The U.S. Balance of Payments: First Quarter 1970," *Survey of Current Business*, Vol. 50 (June 1970), pp. 34–35; 1969–70—Evelyn M. Parrish, "The U.S. Balance of Payments: Fourth Quarter and Year 1970," Vol. 51 (March 1971), p. 44. The data come from Table 1 of both articles, as follows: trade balance, line 3 plus line 15; balance on services, line 24, less trade balance; unilateral transfers, line 26; current account total, line 31; net direct investment, line 33 plus line 52. The basic balance is the sum of the current account total and net direct investment.

Note: A minus sign indicates an outflow; absence of sign, an inflow.

* Less than $50 million.

p Preliminary.

income, which contributed a rising trend through the last fifteen years; and other services, including insurance, shipping, and tourism, some of which tend to move with the trade balance. With the drain of unilateral transfers steady but growing a bit over the fifteen-year period, the cyclical variation in the balance on current account is seen to be due mainly to swings in the trade balance. The most significant trend among the components is the upswing in the balance on services, especially investment income.

The basic balance adds the net inflow on direct investment to the balance on current account. From 1956 to 1968, movement in the direct investment balance was due mainly to changes in U.S. investment. Foreign investment in the United States was small, averaging about $140 million annually, and steady, fluctuating between zero in 1963–64 and $300 million in 1968. However, in 1969 and 1970, foreign investment in the United States rose to $800 million and $900 million, respectively. This jump improved the net direct

investment balance in 1969 and held it in 1970 at about the 1967–68 level as U.S. outflows rose from $3.1 billion in 1969 to $4.0 billion.

After reaching a peak surplus of $3.6 billion in 1964, the basic balance fell to a deficit of more than $3 billion in 1968 and 1969. The decline was interrupted only by the pause in business activity in 1967. But in 1970, the current account improved by $1.5 billion, so that with the direct investment deficit increasing by $0.9 billion, the basic balance deficit shrank to $2.5 billion. As noted earlier, this improvement in the basic balance came in spite of an unusually large increase in imports. While the data will be obscured by the threat of a steel strike beginning in August, this improvement in the basic balance should continue in 1971, especially if the underlying import situation improves.

It is clear from Table 1 that the inflation of the late 1960s caused a serious deterioration in the basic balance. There is nothing in the aggregate data to suggest that the deficit will not be eliminated by a reduction of the rate of inflation to 3 percent or so, accompanied by a gradual expansion of demand.

The Balance on Private Financial Capital

In the wake of the sharp decline of interest rates that began in 1970, there occurred a substantial outflow of private financial capital in 1970, which will probably continue, at a diminished rate, in 1971. Table 2 gives the total quarterly net flow of private financial capital, which is defined as portfolio capital, short-term capital, and errors and omissions;[7] it shows a net outflow of $7.1 billion in 1970. Could this have been expected?

Recent empirical work on capital movements suggests that a drop in domestic interest rates and in the income velocity of money will lead to a large stock-shift outflow of capital as portfolios are adjusted to the new set of interest rates, and then to a smaller continuing outflow as portfolios grow. Initial estimates of stock-shift multipliers for changes in U.S. assets were presented in my article in *Brookings Papers on Economic Activity* (2:1970), and a set of multipliers for the complete private financial capital account are given in a later paper by Branson and Hill.[8]

7. Addition of this balance to the basic balance, discussed in the previous section, gives roughly the official settlements balance less transactions in government capital and "special financial transactions."

8. William H. Branson and Raymond D. Hill, "Capital Movements among Major

Table 2. Private Financial Capital Movements, 1970
Billions of dollars

Year and quarter	*U.S. funds*	*Foreign funds*	*Errors and omissions*	*Total net flow*
1970:1	−0.3	−1.2	−0.2	−1.7
2	−0.5	0.6	−0.8	−0.7
3	−0.5	−1.2	−0.5	−2.2
4	−1.1	−1.6	0.2	−2.5
Year	−2.4	−3.4	−1.3	−7.1

Sources: *Survey of Current Business*, Vol. 51 (March 1971), Table 2, p. 45, as follows: U.S. funds, line 32 less line 33; foreign funds, line 51 less lines 52, 57, 58, and (from Table 3, p. 46), line 11; errors and omissions, Table 2, line 63.
Note: A minus sign indicates an outflow; absence of sign, an inflow.

The latter estimates suggest that the drop in the rate on new issues of three-month Treasury bills by 2 percentage points—from 7.3 percent to 5.3 percent—from 1969:4 to 1970:4 should have caused a net stock-shift outflow on the financial capital account of $2.6 billion. The drop in velocity—GNP divided by the narrowly defined money supply—of 0.143 over the same period should have added $1.0 billion to the outflow, and the 1.2 percentage point drop in the interest rate on three- to five-year government securities should have contributed another $2.0 billion outflow. Thus the outflow of private financial capital that should have been expected from the interest rate decline in 1970 would sum to about $5.6 billion, if average relationships from 1960 through 1968 held.

The actual outflow of private financial capital of $7.1 billion in 1970 is not sufficiently different from the expected $5.6 billion outflow to suggest that the financial capital equations were not "tracking" in 1970.[9] However, the large outflows in 1970 may also indicate that extremely rapid changes in monetary conditions may cause stock shifts that are greater than those that come from slower changes that add up to the same magnitude.

OECD Countries: Some Preliminary Results," *Journal of Finance*, forthcoming May 1971. See the multiplier table 4 for the particular numbers discussed in the text. The coefficients are estimated on quarterly data from 1960:1 through 1969:4.

9. The $7.1 billion outflow in 1970 includes the effects of movements of variables other than those discussed above, including continuing portfolio growth. Thus, with a root-mean-square error of $800 million on the annual equation for net private financial capital flows, the $5.6 billion estimated effect of monetary ease is not inconsistent with a $7.1 billion actual outflow. See Branson and Hill, "Capital Movements among Major OECD Countries," for the root-mean-square error estimate.