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FOOD GRAIN AND ENERGY PRICES AND INFLATION

Since KASS work started in 1971 Korean monetary/fiscal concerns have shifted from preventing inflation to countering Korea's recession. The catch word now is "counter recessionary."

Since 1971 the won/dollar exchange rate has increased from 373 to 481₩ per dollar while the dollar has been devalued against the German Mark, French Franc and Japanese Yen, and the U. S. consumer price index has risen from 121.3 to 155.4 in December of 1974. In Korea the WPI has risen from 108.6 in 1971 to 210 in December of 1974 with the increase in 1974 being 44.6 percent. The Korean (all cities) CPI increased 28 percent in the one-year period ending in November 1974.

The Korean economy is experiencing difficulty with its exports, BOP and, hence, industrial employment. Counter-recessionary efforts include delayed tax collection, work relief projects and a speedup of government expenditures since late 1974. If resumed export growth and these fiscal measures do not bring the economy out of its recession by mid-1975, as assumed, the government will have to reassess its plans in the light of conflicting pressures to restrain import demand and maintain employment. Domestic credit is expected to increase 20 to 23 percent in the first half but is limited to a 32.4 percent increase in 1975 by the IMF Standby Agreement.

Before raising questions about increasing the supply and velocity of money in Korea to counter the Korean recession, it is worthwhile discussing relationships between price changes and inflation with considerable attention to food grain pricing policies and programs in Korea.

Prices Indexes, Inflation, and Deflation

Changes in the supply and velocity of money relative to the quantity of goods and services available influence prices and are reflected in price indexes. Thus, changes in price indexes are symptoms of deflation and inflation but are not inflation or deflation. Increases in the quantity times velocity (QXV) of money, given the quantity of goods and services, are inflationary; decreases in supply or increases in demand increase prices but are not inflationary unless there are linkages which increase the supply and velocity of money; conversely, increases in suppl and decreases in demand decrease prices but are not deflationary again unless the supply and velocity of money are decreased by linkages betweer the monetary/fiscal system and the price decreases. Thus, it is importar to distinguish between: (1) the direct effect of changes in the supply of commodities on price indexes, and (2) indirect effects of the direct changes in commodities on the supply and velocity of money. In connectic with the latter, it is necessary to look for and examine the linkages between changes in commodity prices and their causes, on one hand, and changes in the supply and velocity of money on the other.

World demands for food grains have increased to reduce the supply o food grains available to Korea. Also, the supply of petroleum products available to Korea has been reduced. These decreases in supply have increased prices but are not, in and of themselves, inflationary unless the necessary linkages to the money supply exist. If the supply and velocity of money remains unchanged, a decrease in the supply of food grains and petroleum would increase their prices while decreasing the prices of other commodities to leave the Korean CPI relatively unchanged. Similarly an increase in the supply of food grains or petroleum would decrease their prices while increasing other prices and leave the overall price indexes relatively unchanged. It is important to note that decreases in supply which increase the price indexes do reduce per capita real incomes without inflation while increases in supply do decrease price indexes and increase per capita incomes (without deflation). The increase or decrease in real per capita incomes takes place whether or not inflation or deflation takes place as supplies are increased or decreased. Merely controlling price indexes does not change what happens to real income though it may change the distributions of increases or decreases in real income among people. Attempts to control the distribution of changes in real income among groups are often camouflaged as counter-recessionary or counter-inflationary.

Inflation or deflation--changes in the quantity and/or velocity of money--result from:

(1) fiscal operations of government,

(2) the creation or elimination of money and near-monies by government and the banking system, and

(3) international money flows.

There are various linkages between individual commodity prices and markets, on one hand, and the above ways of influencing the quantity and velocity of money, on the other. Food grains and petroleum prices and markets are linked to the supply and velocity of money in various ways. These linkages influence food grain and petroleum prices indirectly by changing the quantity and velocity of money. From the standpoint of controlling inflation and countering recessions, these linkages are of greater importance than the direct influence of changes in the supply of food grains and energy on the levels of various overall price indexes.

In Korea, there are at least three possible linkages between food grain prices and the quantity and velocity of money as a result of:

(1) the food grain fund deficits,

(2) the monetary flows associated with the importation of food grains and,

(3) the responses of the economy to changes in food and energy prices which involve levels of unemployment, effective demand, productivity, etc.

Unlike countries with powerful labor unions, the Korean linkage is weak between food prices and the supply of money via the political pressures which large, well-organized unions can bring to bear on monetary/fiscal decisions and officials; however, Korean Governmental officials themselves are keenly sensitive to the relationships among food grain prices, levels of employment, productivity, etc., on one hand, and political stability, on the other.

The food grain linkages to the supply and velocity of money have three dimensions. First, the Korean Government now sells or releases grains at prices lower than cost, thus contributing to the overall government deficit. In 1973, the food grain account deficit of 65 billion won was over twice the ROKG fiscal deficit or 29.4 billion; in 1974 it was 148 billion won and accounted for almost all of the overall fiscal deficit of 160 billion. In 1975 a deficit of at least 200 billion won is anticipated.

Second, food grains imports are sometimes financed with long term loans this permits receipts from food grain sales to be used to finance government operations, meaning that the deficit from domestic revenues are larger than the published deficits. In 1973, food grain imports were financed under PL 480 operations to the extent of 38 billion won but wer negligible in 1974.

In addition to the food grain account deficit, there is the fertilizer account deficit. Whether financed directly by government as a part of the nominal deficit or indirectly as part of the actual ROK budget deficit, the fertilizer deficit increases the supply of money. In early 1974 a fertilizer account debt of 42 billion won was taken over by the fiscal sector indicating approximately that much deficit financing for the preceding years. Little fertilizer is imported directly; however, the P_2O_5 and K_2O components as well as the energy used to fix nitrogen are almost entirely imported. Further, the capital equipment used to manufacture fertilizer is imported with long term financing. It is not likely that international financing of fertilizer materials, energy to fix nitrogen and fertilizer equipment has had a large inflationary impact.

The fertilizer fund deficit reduces food grain prices by contributing to food grain production. This along with the more important direct influence of the two deficits holds down the food component of the CPI and the fertilizer and food grain components of the WPI while freeing income to raise other components of those indexes. Though low food grain release prices are often advocated as necessary to prevent inflation, they control the price indices directly while the resultant food and fertilizer account deficits are inflationary and, perhaps, counter-recessionary. However, the low food grain release prices may redistribute real incomes ıy restricting food grain and fertilizer price increases and shifting ·he price increases to goods and services less important to low income ıersons. It must be pointed out that this redistribution conclusion is ıerely theoretical and is unsubstantiated by quantitative research.

For the country as a whole, the food grain and fertilizer account ıeficits to hold down prices only hide temporarily the fact that decreases in the supply of foreign goods and services decrease levels of living in importing countries such as Korea.

A third possible linkage between the supply and velocity of money, ɔn one hand and food grain deficits, on the other, involves the variables in the Keynesian analysis. That analysis concentrates on how to bring ɜconomies out of depressions and recessions by increasing employment, ɔroductivity and real per capita incomes through monetary/fiscal operations without inflation or, at least, without inflation so damaging as to offset the advantages of increased employment and productivity.

In considering this linkage, one can note that, external increases in food grains and energy prices have thrown the Korean economy into an ɜxport recession. It is argued that the recession should be countered with measures to increase the supply and velocity of money while holding down the prices of food grains and energy in the domestic Korean market. One of the difficulties with this argument is that much of the loss in demand for Korean products has taken place in her export markets where purchasing power has been drained off by petroleum and food grain exporters. Increasing the velocity and supply of money in the domestic economy does little to stimulate exports and inflates costs for the export sector to make further devaluations of the won necessary to compete in export markets. Korea cannot easily isolate herself from foreign markets because of her dependence on imported energy and her needs for export earnings to service her external debt.

The inflationary forces originating in the food grains and fertilize subsectors of the agricultural sector are small relative to her GNP and t the changes in Korea's CPI and WPI for 1973 and 1974. A rough appraisal of the inflationary forces being generated in Korea's domestic banking and international trade sector is found in the next section of this working paper. The last section examines the question of how much counter-recessionary effect is needed from agriculture as well as the question of whether the inflationary forces which can be generated in agriculture can also be counter-recessionary.

Counter Recessionary and Inflationary Forces Being Generated in the Nonagricultural Sectors

The nonagricultural sector of the Korean economy has generated much of the inflationary forces behind the price increases summarized earlier. Though the government general budget showed a surplus of 31 billion won for 1974, the deficit spending in the last half significantly reduced an earlier estimate of 100 billion won surplus for 1974. Extra-budgetary account deficits converted the regular budget surplus to a fiscal deficit of 160 billion. PL 480 imports of 38 billion won ($95 million) of agricultural products in 1973 provided revenues of approximately 28 billion won from the sales proceeds. (PL 480 imports in 1974 were negligible due to suspension of sales.)

In 1974, Korea imported goods and services, which exceeded the value of her exports by around 840 billion won, which was about 12 percent of

Korea's GNP. These relatively large imports of goods and services undoubtedly did much to hold down increases in the WPI and CPI. In 1974, net foreign credit and money transactions were around 800 billion won to Korea. A substantial amount of this was used to finance the purchase of Korea's net imports valued at 840 billion won without reducing won in circulation in Korea. In addition Korea expanded its money supply (M_1) (excluding quasi-money (M_2)) by 216 billion won or 30 percent. Thus, the inflationary pressure on domestic prices in 1974 include 800 billion won from foreign financing, 216 billion from domestic monetary expansion and a 160 billion won budget deficit. Offsetting this was the 840 billion net inflow of goods and services.

Before adding these figures up, we should multiple the increase in money supply by 7 as the won in the money supply were used an average of 7 times in generating Korea's 1974 GNP of 6,943 billion won. The resultant total is 1,622 billion won which is over 23 percent of GNP and compares with a 44 percent increase in the WPI and about a 30 percent increase in the CPI for the same year. The food and fertilizer accounts deficits accounted for less than 15 percent of the 1,622 billion.

Since January of 1975 there has been a small contraction in the supply of "narrow money" (M_1) and a slowing down in the rate of expansion of "quasi-money" (M_2) while the total of M_1 and M_2 has continued to expand. This expansion is being reinforced with "front end loading" of government expenditures and revenue collectors under which collections are delayed and expenditures speeded up. The expansion in money supply is also reinforced with an anticipated 1975 budget deficit by the ROKG estimated in late 1974 at 240 billion won, 180 billion of which was to originate in the Grain Management Fund account. However, the latter deficit will probably exceed 200 billion won, despite the recently announced increase in food grain release prices. In addition the fertilizer subsidy deficit is now estimated at 150 billion rather than 90 billion won.

The Counter Recessionary and/or Inflationary Roles of Food Grain Deficits in Korea

Korea's recession is primarily in her export sector. The domestic sector is growing rapidly, is at near capacity within its present structure and is experiencing rapid price increases.

At this point, a question must be raised about the counter-recessionary value of increases in the quantity and velocity of money. Superficially one would expect that, domestically, price increases rather than production increases would result from increasing the supply and velocity of money as the unutilized capacity of this recession has been mainly in the export sector.

Empirically however, the seasonally-adjusted index of industrial production (1970=100) expanded from a general low of 222.4 in November of 1974 to 248.1 in January which was above its July 1974 level. Fairly similar patterns have been followed by the components--mining, electrical, and manufacturing production. Export oriented subsectors stood (in January of 1975) above November 1974 in the cases of textiles, electrical products, and wood products but below in the cases of garments and rubber products. All categories of mixed domestic and export and of domestic were above November 1974 levels in January of 1975. Also in January of 1975 two of five export subsectors were producing above July 1974 levels.

In the case of the mixed domestic/export subsectors, four of the five subsectors were producing above July 1974 levels while both of the two domestic subsectors were above the July 1974 levels. Clearly, expansion of the domestic money supply has been associated with increased production in domestic subsectors and in some of the export subsectors.

The expansion in domestic production has probably come about, in part, by devoting unemployed labor and other resources from export subsectors to production in mixed or domestic subsectors. Some of the expanded production of the export subsectors may be in response to expanded demands from the domestic markets. A crucial question is whether the expanded production of textiles, wood products, transportation equipment, industrial and other chemicals, iron and steel, and refined oil products has been marketed at home or abroad. Until Korea's exports reach satisfactory levels she will not be able to buy the inputs she needs, or make the debt payments on which her credit worthiness depends. In the meantime, reservations must be maintained concerning the success of increasing the domestic supply of monies and near monies to counter an internationally induced recession in Korea's export subsectors.

Whether or not the food grain and fertilizer accounts are inflationary villains or counter-recessionary blessings is not clear. It looks as if they are not the major cause of inflation. They are not an important means of bringing the economy out of an externally induced export recession. The value of maintaining low food grain prices to aid the poor is even questionable as we know so little empirically about the net distributive effect of subsidizing food imports and how incomes of the rural poor are affected relative to the urban poor.

It seeems clear that KASS and GMP projections will require very careful "off-line" interpretation before being used to argue that different ways of handling food grain and fertilizer prices and accounts have either counter-inflationary or counter-recessionary values.

Clearly what Korea needs is an expansion of world demand for her exports. It should be pointed out that the capacity of Korea to produce for both the domestic and foreign markets can be increased by making structural changes in technology, institutions, and people as well as by manipulation of her monetary/fiscal affairs though deficit financing (domestically and internationally and governmentally as well as privately) may be helpful in making such structural changes. Parts of the Saemeaul movement involve projects and programs to develop human skills and motivate people. Other parts of the movement involve the creation of public and private capital with fixed underutilized human, land and capital resources. To do this may require structural changes in Korean institutions. Other desired changes in productive capacity may require technological change.