

## EXPORTS ON CONCESSIONARY TERMS AND THE RATE OF INFLATION

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Most American research since 1970, including recent research, assigns a dominant role to wages in the inflation process. The justification is that in the long run the relative shares of wage and investors' income are constant and that the price level is thus some function of labour cost. Certainly this was not a disproportionate emphasis up to mid-1972. But after that, during the precise year before the oil crisis, food prices rose 21.6 percent (from 3.9 percent) the annual rate for the preceding 12-month period\*\*)

In this paper, the author advances the hypothesis that the quantum jump in food prices and hence in general prices (in America at least) was due to a sudden increase in the exports of agricultural products and other essential consumer goods... on concessionary terms... and not due to the usual leapfrogging between prices and money wages. Such exports are exports *sui generis* in the sense that since they are on extremely liberal terms they are deductive from and add nothing to supplies *on current account* in the consumer sector

Finally, at the end of the paper the author illustrates the hypothesized permanent inflation-recession effects of concessionary exports on the economy by using the simple 45° diagram used to teach undergraduates. The diagram, however, is modified to show a *real-goods-and-services* constraint imposed on the consumer sector by the concessionary export sector at all levels of output — recession or prosperity. The politics of the situation is that the consumer at home is subject to »real crowding out« although he is not necessarily subject to »financial crowding out.«

### Implicit Concessionary Exports: A Special American Case

Before the Nixon devaluations, America was continuously able to export much of its potential inflation via the method of American multinational firms purchasing assets overseas with greatly overvalued dollars: European assets were bought; some Middle East assets were bought for practically free by investors — during the era before the devaluations. In the simple textbook version, such activity results in valuable foreign exchange accruing to the domestic economy of the multinational firm — in the form of repatriated profits. Total accumulated direct private investment overseas has been estimated to be in the approximate range of 160 billion (1970). But in that year, only 3.9 billion was repatriated as net investment income — about 2.4 percent on the total overseas investment.<sup>1)</sup> If overseas investment, which is really a form of offshore procurement, resulted in substantial amounts of foreign exchange accruing to the capital exporting country, then such activity would add to supplies in the consumer sector and reduce inflationary pressures there.

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\*\*\*) America's first experience with a two-digit inflation rate occurred then — October 1972 to October 1973. The rate was 10 percent before the oil crisis, not afterward. Source Relevant *Economic Indicators*.

<sup>1)</sup> Council of Economic Advisers, *Economic Report of the President*, February 1975, p. 350

However, there are side effects to consider that may promote inflation in the capital exporting country during later time periods. Some discussion is necessary:

It can be shown through a chain of causation that offshore procurement takes its place with other non-consumer oriented programs that cause inflation *in all countries concerned*:

1) Offshore procurement may take the form of adding to NATO infrastructure by actions of the federal government, say, in Japan or in West Germany.

2) Offshore procurement may take the form of direct private investment overseas by actions of the private sector.

In either case, the actions result in added dollar claims against the American economy on the part of foreign nationals, foreign commercial banks and foreign central banks. To prevent their own currencies from appreciating in value against the dollar (i. e., to prevent a decrease in their own exports and an increase in their own unemployment), foreign central bankers are obliged to buy up certain amounts of the dollars from their nationals and their commercial banks. In the process of buying these dollars, the central bankers in effect distribute greater and greater amounts of their own currency to their nationals and commercial banks, adding to inflationary pressures in their own country. In this manner, America's inflation of 1968—71 was technically transmitted to European countries and to Middle East countries.

Whit has been described in the paragraph above, of course, is the process of accumulating »Dollar-Überhang«. Typically, the Japanese and the West Germans use their dollar-overhang to buy soy-beans, poultry feed and animal feed from America. They did this before Nixon's devaluation but on a much larger scale afterward, leaving less and less feedgrains and cereal products to meet the requirements of, say, American feedlot owners, bakery owners, etc.

On the surface, the transactions described above appear to be two-way trade involving a mix of merchandise and capital flows. It can be shown that this is not the case whenever there is large accumulation of Dollar-Überhang. For example, if net foreign balance — in concept equal to net exports of goods and services in the national income and product account — were nearly zero, as it was in 1971, it might appear that since net foreign balance is almost zero merchandise exports are nicely balanced by merchandise imports. However, considering the amount of Eurodollars or Asiadollars (generalized by dollar-overhang) accumulated around the world even before the oil crisis, at least X-amount of exports from America was sure to be financed by a decrease in Dollar-Überhang. To the degree that exports are financed in this way, they do not add to supplies in the consumer sector but rather are a front-end deduction from domestic *current* consumers' supplies. On the other hand, M-amount of imports had to be financed by an increase in Dollar-Überhang. The net effect of the transactions starting with offshore procurement (1) and offshore procurement (2) above was first to transmit American inflation abroad and second to place a real budget constraint in the form of increased exports on the American consumer at home. In any case, to the extent that exports and imports were financed by decrea-

ses and increases in Dollar-Überhang, no valuable foreign exchange was generated with which to buy necessitous imports. Not mentioned in the chain of causation given above is the fact that the initial inflation caused abroad by the purchase of foreign assets with overvalued American dollars triggered the wage-price leapfrogging process in those countries. Later, as explained above, unusual exports triggered the wage-price leapfrogging process in America after mid-1972. The combined effects in all concerned countries were compounding, positively regenerative in the system-exploding sense, and not amenable to correction except possibly through exhortatory wage-price policies on the part of the leaders in the concerned countries as in 1972:4 through 1973:4.

Exhortatory wage-price policies, however, have never worked, at least in America. This is the theme of a 1975 Brookings Institution book based on careful archival research of data and events concerning wage-price policy from 1945 through 1971 under five presidencies.<sup>2)</sup>

#### **A Simple Arithmetic Model Showing the Effects of an Increase in Concessionary Exports on Prices in the Consumer Sector**

First, consider an economy that has only one sector — a consumer sector. However this is not the usual consumer sector (i.e.) to be found in modern and recent economic literature as one sector of a two-sector model. The latter typically shows a consumer sector *versus* a capital goods sector (or) consumer sector *versus* agricultural sector as though the consumer sector were competing with these other sectors... when, as a matter of fact, a large portion of the capital-good and agricultural sectors is in *direct support* of the consumer sector. Investment in these sectors, especially inventory increases, add to supplies in the consumer sector and help *on current account* to hold down consumer prices.

Accordingly, the consumer sector in the simplified *Tableau économique* (below)... is global, self-contained and has its own investment sector in support of consumers complete with capital plant and equipment, workers, inventories, etc. But a number of assumptions, some simplifying and some heuristic, must be made as shown below:

- (1) Endogenous changes in investment are self-correcting in the short run.
- (2) Exogenously-induced changes in investment are assumed not to exist (i.o.) such as discretionary actions by central banks, etc.
- (3) Analogous to the American case, the average propensity to consume is fairly steady, year in and year out and decade after decade. From 1950 to 1974, the average propensity to consume varied from 92 to 94 per cent.
- (4) Because of (3) above, the marginal propensity to consume is fairly stable over time. For simplicity, we will assume that it is constant.

<sup>2)</sup> C. D. Goodwin, «A Report of the Conference», in *Exhortation and Controls*, C. D. Goodwin, ed., The Brookings Institution, 1975, p. 397. On November 1 and 2, 1974, a conference consisting of «the most star-studded cast of movers and shakers in economic policy-making» met and discussed the research conclusions of the above book. Former Director of the Budget, Charles Schultze, said «the American economy doesn't generate much inflation... Its major problem is that when it does generate inflation, it can't get out of it».

- (5) Because of (1) and (2) above, there are no significant business cycles in the hypothetical economy.

Under assumptions (1), (2) and (4) above, the much discussed demand pull inflation, which in the Keynesian framework is represented by  $P = Q(I, c)$ , would be eliminated from the model. Also — cost inflation, which in the Keynesian framework is represented by  $P = Q(O, W)$ , would be eliminated for the following reason:<sup>3)</sup> because of (5) above, the economy is stable at full-employment utilization of human resources. . . . In the Keynesian reference, output  $O$  above is measured by the amount of labour employed. Therefore, the economy is operating at full employment of both labour and technological capacity — provided of course there are no increasing returns from technology and no increases in productivity per manhour, and likewise no decreases. Since there are no business cycles and no changes in production or productive capacity, the model has no *caus ex machina* to trigger inflation or deflation. It is clear from the cost equation above that costs rise as output  $O$  increases. This relationship may be set aside, however. Since the theory and hence the model is short run, and in the short run there is no appreciable decrease in the marginal productivity of labour, there is no hiking up of costs with increased output on that account.

Consequently, the main variable cost of production is money wages  $W$  (in the equation above). In other words, if there is cost inflation, it is due to changes in  $W$  brought about by strong wage demands. But in the model as hypothesized, strong wage demands are suppressed inasmuch as (1) in a closed consumer-oriented economy there is no external *caus ex machina* to get them started and (2) there is no internal stimulus either — except possibly excessive transfer payments to non-productive persons.

Accordingly, in the first model or *Tableau économique* given below, initially at least, there is no demand inflation and there is no cost inflation. Foreign demand triggers cost inflation at home, however, as soon as exports on concessionary terms are begun.

### Introducing Inflation to an Inflationless Model

(Single-sector closed economy of the type Keynes wrote about in the *General Theory*)

Consumer  
Sector

National income is 100 money units (annually)
Output is 100 units (annually)
Price per unit of output is 1 money unit

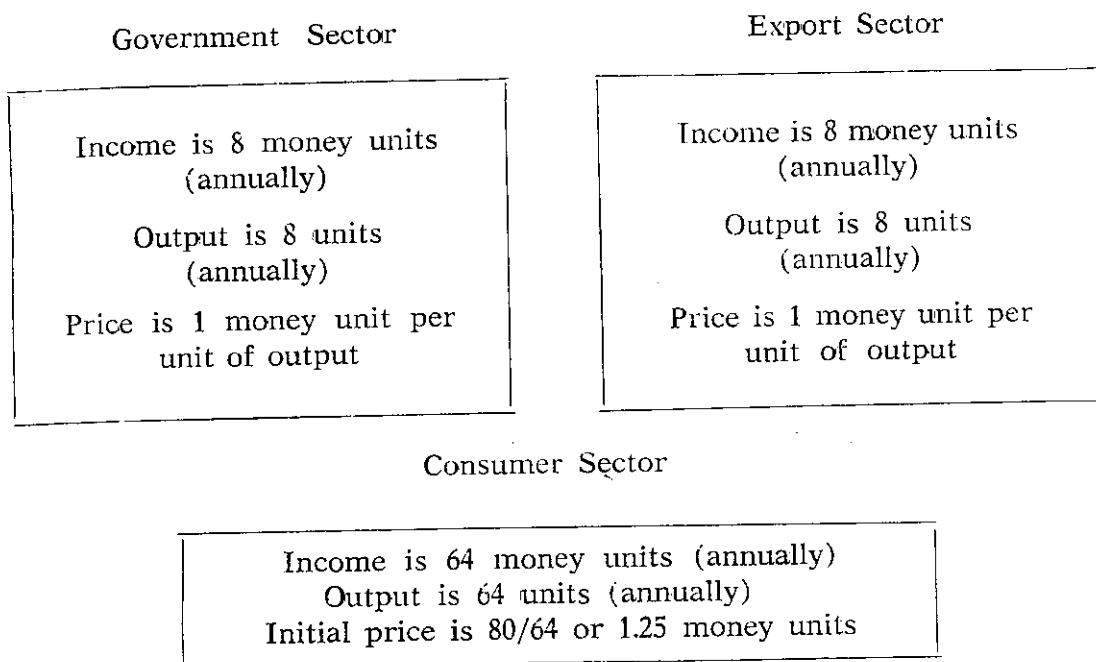
Now, consider the following sequence of events:

<sup>3)</sup> In the equations above,  $P$  is the price per unit of output,  $I$  is real investment,  $c$  is the marginal propensity to consume out of real income and  $W$  is the money wage. There is no savings in this model. The reason is that if marginal propensity to consume is relatively constant as shown in (4) above, the marginal propensity to save is also relatively constant. Consequently, its impact on price changes is greatly suppressed.

- 1) Suddenly 9.09091 units of output are exported to Amalek on concessionary terms. Exports on concessionary terms generate no valuable foreign exchange with which to buy necessitous goods on current account. Therefore, the economy is left with 90.90909 units of output for home use, *currently*.
- 2) Unit price of output now rises to  $100/90.90909$  or 1.10 money units.
- 3) This is a 10 per cent increase over the old price. Workers, who don't exactly suffer from money illusion, wish to retain their old real income and purchasing power. They seek to increase national income by 10 per cent on the average. If they are successful, money wage settlements will result in a new national income of 110 money units.
- 4) The new price per unit of output after successful money wage settlements for the workers is  $110/90.909$  or 1.21 money units — 21 per cent higher than the original price of 1.00.

### Inflation in a Three-Sector Economy of the 1972 Variety

(Model with a consumer sector, government sector and export sector)



In the *Tableau* above there are no savings. The reason is that, in the very short run, when inflation is taking place very currently, investment or capital goods in the same very short run are indestructible. Then, in the very short run, relatively, *if* investment is not needed savings are not needed either except to quench inflationary fires that may be raging at the moment. But a model of current conditions need not necessarily show efforts to put off the inflation — the *caus ex machina* assumed here to be the sudden increase in exports on concessionary terms (1972:3 — 1973:3) in the economic history of America, again before the oil exporting countries raised their prices.

Once again, consider a sequence of events starting with initial conditions:

*Initial conditions:* Total national income was 80 money units. Output in the consumer sector was 64 units. Therefore, price per unit of output in the consumer sector was  $80/64$  or 1.25 money units assuming that workers in the government sector and in the export sector sent their income on consumer goods.

- 1) The government makes the decision to export 5.818182 units of consumer sector output to Amalek, leaving 58.181818 units for consumers at home. Again, exports are made on a concessionary basis — such as credits of five years or more maturity — so that no valuable foreign exchange is generated by this transaction with which to buy needed consumers' supplies.
- 2) Unit price of output in the consumer sector now rises to  $80/58.181818$  or 1.375. This is a 10 per cent increase in the consumer price level over initial conditions.
- 3) Workers in all three sectors who spend their incomes solely in the consumer sector realize that they have lost real income. In the short run, at least, they do not suffer from money illusion of the Keynesian type. So, they demand on the average an increase of 10 per cent in their money wages, which will increase total national income in all three sectors to 88 money units.
- 4) Assuming that workers in all three sectors are successful in their bargaining for higher money wages, the unit price in the consumer sector will rise to  $88/58.181818$  or 1.51250 money units, 21 percent higher than the price under initial conditions before exports were stepped up.

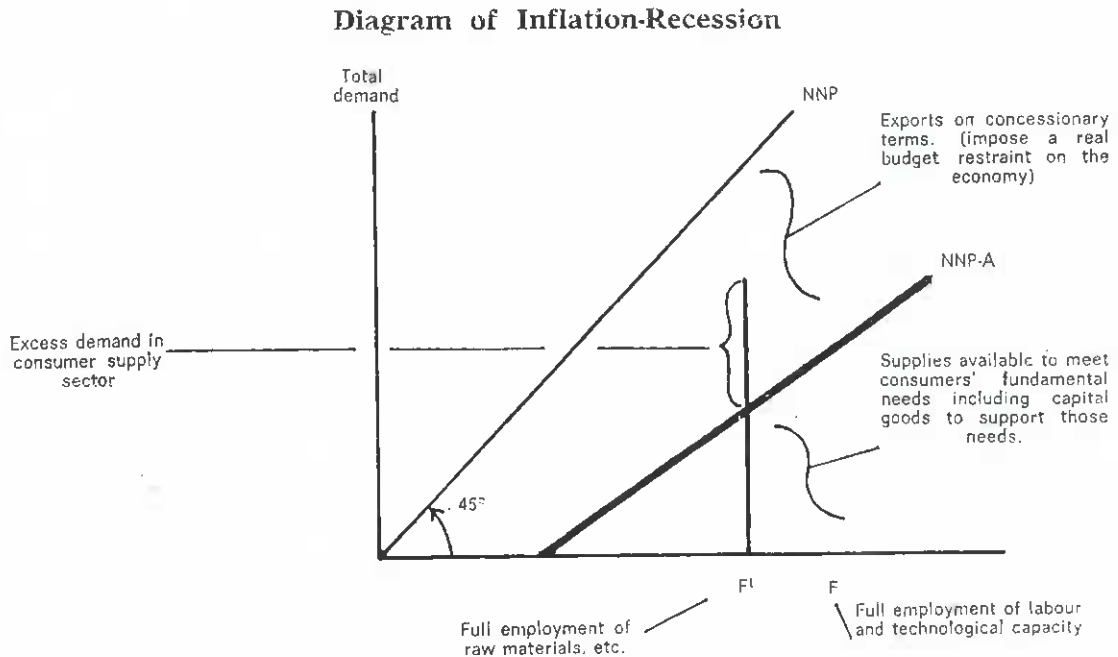
Several things are demonstrated by the two simple arithmetic examples given above:

First — any percentage increase in consumer prices is likely to be transmitted rather quickly in the form of higher money wages to all other sectors of the economy. Secondly, the above is true no matter how large or how small the consumer sector is compared to the other sectors and no matter how many other sectors there are or what they produce. Thirdly, once prices in the consumer sector are pushed up, the familiar price-spiral or leapfrogging between wages and prices is set in motion. *Fourthly, the wage-price leapfrogging is more apt to be triggered in the consumer sector especially as in this case by a sudden or unusual increase in exports out of the consumer sector.*

Finally, exports on concessionary terms, on long-term low-interest credits, etc., of primary products like corn and wheat that support supplies in the consumer sector and *that affect their prices* are plainly more inflationary than concessionary exports from other sectors. This is especially the case when domestic supplies are low and prices are already high. The Farm Bill of 1973 practically ensures that supplies of grain will not build up in America. For example, under the Law's provisions, if supplies in America are short and domestic prices are correspondingly high compared to world prices, American grain exporters are paid the difference between the two prices in order to encourage them to export.

### Continuous Inflation-Recession in America

The simple diagram below shows in somewhat exaggerated fashion how exports of primary goods, raw materials, etc., on medium-run or long-run credits can truncate the economy so that there are more-or-less permanent inflation-recession conditions.



In the diagram above, recession conditions are indicated by the short-fall of  $F'$  from  $F$ . The heavy line  $NNP-A$  is a real budget restraint on the consumer sector representing real crowding out of the consumer. This is different from the familiar *financial* crowding out frequently cited in economic literature.

In the diagram, consumer demand more-or-less permanently reaches above the real budget restraint  $NNP-A$ . The reason for this is that in the American economy humane measures of supporting incomes, even when people are not working, continuously supports consumer demand at a fairly high level. Thus, consumers are not *financially* crowded out but they do suffer from *real crowding out*. The amount of real crowding out depends upon the size of  $(A)$  in the real budget restraint ( $NNP-A$ ).

### IZVOZ POD KONCESIONIM USLOVIMA I STOPA INFLACIJE

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#### Rezime

Većina američkih istraživača od 1970. godine naovamo — uključujući tu i njihove najnovije radove — u procesu inflacije dominantnu ulogu pripisuju nadnicama. Autor smatra da je takvo isticanje troškova rada kao de-

terminante nivoa cena opravdano, ali samo ako je reč o periodu do sredine 1972. godine. Međutim, posle toga, tačno u godini koja je prethodila naftnoj krizi, cene prehrambenih proizvoda skočile su za 21,6% u odnosu na 3,9%, koliko je iznosila godišnja stopa rasta u prethodnom dvanaestomesečnom periodu.

U ovom radu autor zastupa hipotezu da je ovakav snažan skok cena prehrambenih artikala i sledstveno tome opšti porast cena (bar kad se radi o Americi) uzrokovan naglim povećanjem izvoza poljoprivrednih proizvoda i ostalih osnovnih potrošnih dobara pod koncesionim uslovima, a ne uzročnim odnosom u kome — kako se to uobičajeno smatra — stoje cene i nominalne nadnice. Takav izvoz je izvoz sui generis u tom smislu da on — budući da se odvija pod izvanredno povoljnim uslovima za stranog partnera — ništa ne dodaje nego samo oduzima kod pojedinih stavki u tekućem računu potrošnog sektora.

Konačno, u drugom delu ovog rada, autor ilustruje hipotetičke trajne inflaciono-recesione efekte koncesionog izvoza na privredu u celini, koristeći se pri tom jednostavnim 45 dijagramom. Dijagram je, međutim, modifikovan tako da može da pokaže ograničenja izražena u realnim dobrima i uslugama koje potrošnom sektoru nameću sektor koncesionog izvoza i to na svim nivoima proizvodnje, tj. i u fazi recesije i u fazi prosperiteta. Uz pomoć ovako modifikovanog dijagrama autor zaključuje da u slučaju izvoza pod koncesionim uslovima domaći potrošači dolaze u situaciju »stvarne« iako ne obavezno i finansijske degradacije.