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American Economic Relations with the Federal Republic of Germany and with Japan

by Martin Bronfenbrenner, Durham/North Carolina *, Brighton/UK **

Disagreement on appropriate policies to reduce the American balance of payments deficit has been a major source of friction between the US, on the one hand, and the Federal Republic of Germany and Japan, on the other. Against this background Professor Bronfenbrenner presents a theoretical analysis of how deficit countries may proceed to solve their problems, passing on to point out, in terms of this general analysis, what the US is doing and what Germany and Japan would like it to do.

It is well known that the United States has developed over the past 15 years increasingly general negative or “unfavourable” balances of both trade and payments with the rest of the world, while Federal Germany and Japan have both developed positive or “favourable” ones. It is less well known that the negative US bilateral balance with Japan is the largest any country has had with any other in the history of international trade. It has become easy but it remains fallacious for America to interpret the entire American trade deficit to its relations with OPEC and Japan.

Deficit and surplus countries are often less than friendly to each other, particularly when, as in the US-Japanese case, three exacerbating features are involved: (1) the surplus country is highly protectionist, either in terms of tariff duties or in terms of non-tariff protection; (2) a large bilateral balance, inadequately absorbed by triangular trade, is an important feature of both the surplus and the deficit country’s over-all surplus and deficit positions; (3) the bilateral imbalance arose suddenly and unexpectedly. This is why the US-Japanese economic relationship is more strained than the US-German one, threatening in fact to develop into something close to a cold economic war.

When a country expands aggregate domestic demand, as by deficit financing and monetary ease, this will tend (other things equal) to reduce its trade surplus or increase its trade deficit, and induce downward pressure on the world valuation of its currency at the same time that it raises domestic income and employment. The US Government believes its own relatively expansive policies in the recovery from the “oil shock” recession (1974–75) have in this way weakened its international economic position, and also raised its domestic inflation rate, while permitting the rest of the world to increase employment through exports to the US.

This view is called the “locomotive theory”; it makes the US the “locomotive” of the world economy, or at least of the Western bloc. American proponents of this theory go on to believe that both Germany and Japan, in particular, should share the locomotive role more fully than they have done in the past, and accept the inflationary risks involved. The Germans, and to a lesser extent the Japanese, see their domestic policies as more successful than the American ones in mitigating the inflationary consequences of the oil shock. They therefore see no reason for abandoning these policies as a favor to the US, which should have been less “soft on inflation” throughout the recent past.

This disagreement, locomotive theory versus sound finance, has been the main source of friction between the US and the Federal Republic of Germany. The Japanese, in addition, are accused by American critics of expanding their exports (and reducing their imports) as substitutes for domestic expansion in keeping up their growth and employment rates, and of using a wide variety of “unfairly-competitive” devices for this purpose — quotas and other forms of non-tariff pro-

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tection against imports, “exchange dumping” ¹ for
exports being the most important. In the following,
a general analysis is presented of how deficit
countries like the US may proceed to solve their
problems. In terms of this general analysis it is
then pointed out what the US is doing and what
Germany would like the US to do.

**Theoretical Framework**

A country in balance of payments deficit may
react in one or more of five patterns:

1. Depreciate its currency, or permit it to float
downward (elasticity approach).

2. Manipulate its level of domestic aggregate
demand (absorption approach).

3. Reduce its domestic inflation rate by monetary
policy (monetary approach).

4. Increase its levels of protection to import-
competing industries and of subsidy to export
industries (protectionist approach).

5. Draw down its international reserves and await
assistance from abroad (passive approach).

In the present situation, the US is attempting to
combine (1) and (5), and threatening (4). Federal
Germany believes the US should concentrate
upon (2–3).

The theoretical background of all these policies
can be presented as a simple 4-quadrant geo-
metrical model of payments equilibrium (Figure 1).
The model has three parts, corresponding to three
of these quadrants, which can be combined to
give the fourth.

1. The country’s balance of trade B, in real terms,
is related inversely to its real national income Y,
for any given set of relative prices and protec-
tionist devices. It is drawn (quadrant I) as a
straight line b, but the linearity is a matter only
of convenience. The downward slope of b implies
the existence of a single income level Y such that,
for Y less than Y, B is positive and trade is in sur-
plus. And vice versa, for Y greater than Y.

2. The country’s net real capital outflow K includes
both the transactions of residents and foreigners,
both new investments and changes in the owner-
ship of existing capital across international bound-
aries. It is taken as an inverse function k of the
country’s real interest rate r, and again drawn
linear for convenience (quadrant II). The down-
ward slope of the k function implies the existence
of a single domestic real interest rate $r$ such that
there is a net outflow of capital when $r$ is less
than $\bar{r}$, and a net inflow when $r$ exceeds $\bar{r}$. Again
we are supposing exchange rates, relative prices,
and protective devices given; we also suppose
the interest rates of other countries to be given
as well.

3. The definition of balance of payments equilib-
rium (quadrant III) is that a positive trade bal-
ance B be offset by a positive capital outflow K
and vice versa. A rise in B raises the balance of
payments, but a rise in K reduces it; capital ex-
ports and commodity imports affect published
balances in the same ways.

4. Quadrant IV shows a locus of (Y, r) points, for
which the balance of payments is in equilibrium
with neither gain nor loss of international reser-
vies. This function, also linear, we label BP. Its
upward slope implies that a rise in income must
be offset by a rise in domestic interest rates to
avoid disequilibrating the balance of payments.

Figure 1

Balance of Payments Function

Problems arise, however, because no point on
BP may be consistent with domestic equilibrium.
Lord Keynes’ system of macroeconomics, as mod-
ified and elucidated by Sir John Hicks, includes
two other primarily domestic relationships in-
volving (Y, r) loci of real income and real interest.
These are called respectively IS (or commodity
equilibrium) and LM (or monetary equilibrium)
functions. The IS function involves equality be-
tween planned real saving S and planned real

¹ This is not the place to attempt a rigorous general definition of “exchange dumping”. The charge against the oligopolistic shosha (Japanese trading companies) is approximately as fol-

low. Following the weakening of the American trade and pay-
mants balances, the dollar gradually fell from Y 360 to Y 200 and
below. The shosha, however, protected Japanese export markets
by pricing Japanese exports in dollars below the current dollar-yen
rate. They lost money on this operation, but recouped
their losses while protecting Japanese producers against import
competition on the Japanese home market. They did this by
pricing dollar imports into Japan above the current dollar-yen
rate.
investment I\(^2\). It is drawn sloping downwards in Figure 2. A simple form of the supporting argument is that an increase in Y raises S, but for a corresponding increase in I there must be a fall in r. The LM function involves equality between the demand for and the supply of the society’s real money stock. It is drawn sloping upward in Figure 2. A simple form of the supporting argument is that an increase in Y raises the demand for liquid assets L, of which the most important is real money. The increase in demand must be balanced by an increased supply of M by its holders and creators (the banking system) which requires in turn and increase in r.

Indicate by the point E in Figure 2 the intersection of the IS and LM functions. This is a condition of domestic equilibrium, since the demands and supplies are equal for both the flow of goods and the stock of money. (It need not, however, involve full employment.) Let the co-ordinates of E on these diagrams be \((Y_e, r_e)\), with the subscript e signifying equilibrium \(^3\). If E also lies on BP — a case not shown diagrammatically — the equilibrium position of the economy is determined both domestically and internationally at \((Y_e, r_e)\), but there is no reason for this to be the case immediately.

We are interested particularly in cases like Figure 2, where E lies below and to the right of BP, because this represents a country with a payments deficit. A move to BP from E requires a rise in the interest rate to reduce capital outflow (or induce capital inflow), a fall in the income level to reduce imports, or usually both at once. To reach point E' for example, money might be tightened but public expenditure increased or taxes reduced. (Such operations are often called “fine-tuning”.)

### Currency Depreciation

We can now attempt to fit into our apparatus the five remedies assembled in the last section.

The first and perhaps the most nearly orthodox of these, at the present time, is to depreciate one’s “overvalued” currency — the negative balance of payments is itself evidence of overvaluation — or to permit it to float downwards in the foreign exchange markets.

On our diagrams, this leaves (IS, LM) unchanged except for the reaction (which we ignore) of any change in the trade balance B upon the commodity-equilibrium function IS. The initial intended effect is on B (shift to B' on Figure 3). If this occurs, BP will move to BP' on Figure 4, via the projective geometry of Figure 1.

Four points should be stressed especially in connection with this neo-orthodox approach, which the US sometimes appears to follow quite deliberately \(^4\) and at other times appears to have had forced upon it.

(a) Depreciation lowers at least temporarily the relative foreign prices of the depreciating country’s exports, and raises at least temporarily the relative domestic prices of one’s imports. (The word “relative” means in the first case “relative to the prices of foreign-produced export-competing goods”.) Whether it also raises the depreciating country’s supply of foreign exchange and lowers its demand for foreign exchange depends upon the price elasticities of world demand for its exports and of its own demand for imports. The more elastic (responsive to price changes) is either of these demands, the more effective is depreciation in remedying a trade deficit. If the elasticities are sufficiently low, depreciation may actually increase the deficit instead of eliminating it \(^5\). In the American case, it has appeared that the

\(^2\) Saving actually includes tax payments. Investment includes government purchases of goods and services, and also net expenditures by foreigners for goods and services (the trade balance B). In what follows, however, we shall treat I and the IS function as independent of B.

\(^3\) This discussion assumes that no supply restrictions can prevent \(Y_e\) being produced, or in other words that the full employment position \(Y_f\) (not shown) does not lie to the left of \(Y_e\).

\(^4\) The Bretton Woods system of international finance (1945-71) based world currencies on gold and US dollars. This meant that the US could only depreciate its currency by raising its gold price. It also meant that its trading partners could nullify this American action by raising their own gold prices in the same proportion. Escape from this constraint was one of the principal aims of the so-called “Nixon shock” (August, 1971) which marked the demise of the Bretton Woods system.

\(^5\) The famous Marshall-Lerner condition for a depreciation to reduce the trade deficit is that the sum of these elasticities be at least unity. (The algebraic derivation ignores possible supply limitations of either country’s exports.)
relevant elasticities have been quite low in the short run but higher in the long run; the diagrammatic result is the famous Brookings Institution "J-curve" which to me resembles a soup ladle rather than the letter J. According to this empirical relation, between 15 and 18 months are required for an American depreciation to operate in reducing the American trade deficit. (Over this period, the US dollar will presumably continue to float down, setting up new J-curves at every step!)

(b) Depreciation or floating is not expected to affect the depreciating country's capital outflow K. But depreciation imposes exchange losses on foreigners who have invested in the depreciating country's assets, and provides capital gains to depreciating-country citizens who have invested in foreign assets. It is likely, as a result, to lower "confidence" in the depreciating country's economy, particularly insofar as it arouses anticipations of further depreciations to follow. In such cases, benefits on the trade side are offset, and may even be more than offset, by some combination of increased capital exports (capital flight) and decreased capital imports. This may be occurring in the contemporary US case, to judge by newspaper accounts of OPEC countries' reluctance to hold their mounting reserves in dollar assets.

(c) The US is often accused in Germany, in Japan, and in many European strong-currency countries, of maliciously permitting the dollar to slide downwards. This slide is supposed to distress these surplus countries' export industries, and also their import-competing domestic industries. These distressed industries are then expected to pressure their governments into stimulating their economies, raising inflation rates, and letting the resulting increase in demand for American goods raise the dollar and balance American trade. I should be surprised if this "conspiracy" theory were correct, because of the prospective effect of the weak dollar upon the American price of energy, and also because of the capital-movement effect just considered. (American industry is concerned with possible capital shortages delaying recovery from the 1974—76 recession as well as lowering its longer-term growth rate.)

(d) During the 1930s, depreciation in Country A was followed by competitive depreciation in Countries B and C. It was the resulting breakdown of world trade and payments that the Bretton Woods system was planned to prevent. It is by no means certain that a regime of "dirty floating" in particular, can prevent the lapse into competitive depreciation which nobody desires.

Domestic Absorption

Consider the ultra-simple equation, \( Y = A + B \). Here it means that real national income \( Y \) is the sum of domestic absorption \( A \) and the trade balance \( B \). (Domestic absorption is defined as the sum of domestic consumption, private investment, and public expenditure for goods and services.)

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6 A "dirty" float is a market in foreign exchange which is manipulated by large purchases and sales, ostensibly to prevent "disorder", by Treasuries, Central Banks, and other monetary authorities of individual countries.
Balance of Payments

The implication of this equation is clear. If $B$ is sufficiently negative to make the entire payments balance negative, or insufficiently positive to balance a capital outflow, the deficit country should manipulate its domestic demand for goods and supply of money — on our diagrams, its (IS, LM) functions — so as to reduce $A$, increase $Y$, or both, while holding the exchange rate at its initial par value.

Diagrammatically (Figure 5) the fine-tuned move from $E$ to $E'$ represents a contraction of $A$, while that from $E$ to $E''$ represents an expansion of $Y$. The first move is contractive, the second expansive. In most cases, however, the expansive move to $E''$ is physically impossible because of crucial shortages or "bottlenecks" — skilled labor or plant capacity under full employment, or energy under OPEC restrictions. In practice, therefore, the only move is the contractive one to $E'$, which involves recession conditions and increased unemployment. This explains the unpopularity of this approach, in, for example, labor circles.

There have been no intentional changes in the functions we have labelled ($b$, $k$, $BP$). In practice, there may be a fall in $k$ (capital-outflow function) if the deficit country can remedy its position without resorting to depreciation. The rubric for this outcome is a resurgence of confidence in the country's currency and its ability to "hold the line". On the other hand, a deliberate recession can set off the sorts of social discontent, culminating in riot and revolution, which operate in precisely the opposite direction. On our diagram (Figure 1) only the first (favourable) outcome is illustrated. The shift from $k$ to $k'$ represents increased confidence and a capital inflow. An upward shift to $k''$ (not shown) would represent the opposite reaction.

International Monetarism

Our third school of international macroeconomic thought can be motivated most easily as a reaction against the elasticity approach (currency depreciation) in countries with inflation rates already higher than the inflation rates of their trading partners and fearful of accelerated inflation following devaluation. It is, however, a positive doctrine of its own as well.

This positive doctrine is that much demand both for foreign goods of all kinds — particularly durables — and for investment assets located overseas, should be interpreted as a flight from domestic liquid assets in the presence or anticipation of domestic inflation. (The capital-asset case...
is clearer than the durable-goods one, but con-
consider the entrepreneur or consumer intent on
beating the next round of price increases! If this
is correct, a reduced inflation will reduce a pay-
ments deficit from both the trader and the capital
side. The "trade" reduction is from reduced im-
ports, the "capital" reduction from reduced out-
flows.

The attack on the elasticity approach springs from
the argument that "the world is one market". By
this is meant that the relative prices of any coun-
try's exports and of that country's imports are
basically determined uniformly on world markets
(apart from transport costs and protective duties).
If this is true, exchange-rate changes can affect
the ratio only temporarily, unless they succeed in
changing the composition of the import and ex-
port "market-baskets" or "bills of goods".

The higher import prices come about early as per
the elasticity approach, but (according to the
monetarists) percolate through the economy as
costs of production for other industries and as
sources of wage demands by labor. Export prices
eventually rise pari passu with import prices, and
the country returns to essentially the same pay-
ments deficit that it suffered before the depre-
ciation. Another depreciation produces another
round of similar effects, "and so proceeds ad in-
finiment" in real terms. All that has changed is the
price level, which has been raised, and possibly
also the inflation rate, which may have been ac-
celerated.

Our geometry is in real terms, and the applicable
diagram (for the positive argument) is again Fig-
ure 4. The favourable changes (from a reduced
inflation rate) have come this time from both trade
and capital aspects, not from trade alone as in
the analysis which led to Figure 4. We have there-
fore used Figure 1, to illustrate the theme. (On
all quadrants, the primed functions represent
changes brought on by tighter money and dis-
inflation.) Also, contrary to our previous practice,
we indicate the effects of the trade balances
upon IS along with those of disinflationary mon-
eyary policy upon LM.

Such is the medicine currently prescribed for the
US by the Federal German and the Japanese gov-
ernments, as well as by the majority of Western
European countries, many of which never ingest-
ed it themselves in earlier periods of "dollar short-
age", and (one may suspect) might not be able to
stomach it if their balances of payments turned
negative. An equivalent discipline was of course
imposed more or less automatically by the pre-
1914 gold standard, but its imposition is more
painful when opponents can blame flesh-and-
blood central bankers and financial technocrats
rather than disembodied market forces for its
more unpleasant rigors.

Protectionism

A fourth and penultimate method to combat a pay-
ments deficit is an obvious one for the public
press, including financial journalism. It is protec-
tion for import-competing domestic industries.
Under the same head of protectionism many
writers include controls over capital outflows and
technological information ("export of jobs"), as
well as subsidies to export industries; I shall fol-
low their example. Protection may be direct and
overt, as by tariffs and quotas on foreign imports.
Covert forms, such as Japanese "administrative
guidance" to potential domestic customers, Amer-
ican arm-twisting to secure "voluntary" export re-
strictions by Asian trading partners, and nearly
everyone's discriminatory administration of safe-
ty, health, and environmental regulations against
the competitive foreign product, are apparently
gaining in both frequency and importance.

Increased protection, primarily through the instru-
ment of import quotas, is currently threatened by
the US in an oblique manner as a remedy for its
payments deficit. Important segments of orga-
nized American labor and agriculture have been
pressing for increased protection with mounting
vehemence since the oil shock raised their pro-
duction costs and American corporations began
moving offshore to produce for the American
market by American methods. The American gov-
ernment has been professing inability to resist
such pressures in the future unless its trading
partners increase their purchases of American
exports. Whether the American negotiators are
exaggerating their domestic weakness as a form
of international threat, as they are occasionally
accused of doing, is anyone's guess.
Protection operates like devaluation (Figures 3–4) upon the protectionist country’s balance of payments with the additional features of attracting foreign investment in “tariff factories” and discouraging or limiting the outflow of domestic capital.

A more macroeconomic and finely tuned variety of protectionism — which is also, however paradoxically, a less-protectionistic variety — has arisen at the English Cambridge, and will presumably cross the Atlantic in the near future if it has not already done so. The stress of this variant is on the commodity-equilibrium (IS) effects of the trade balance B and of shifts therein. (These our diagrams have generally ignored, as has our verbal analysis.) This shift from IS to IS’ (Figure 6) is a consequence of the shift from BP to BP’ in the same figure, which is itself a more direct consequence of the rise in B. The shift in IS is expected to increase aggregate domestic demand, income, and employment in the deficit country, even though a tighter monetary policy may be simultaneously disinflating the economy as by the leftward shift of LM to LM’ (also on Figure 6).

The mechanism suggested particularly by Mr. Wyn Godley to capture all these benefits is an over-all surcharge on imports, even those complementary with domestic production. The size of this surcharge should be calibrated to offset the marginal propensity to import, so that the total import volume should remain unchanged as income rises and expansion should not be threatened by payments constraints. Since imports are to be maintained, not reduced, the policy should not greatly injure the deficit country’s trading partners as a group; some individual partners will suffer if the deficit country’s demand for their particular exports is highly price-elastic, which usually means that these exports compete with home production in the deficit country. Some deficit-country’s domestic and export industries would also be injured insofar as they rely on imported raw materials or imported components.

A note on petroleum may be in place here, since so many European attacks on the US permissiveness toward its payments deficit concentrate on this commodity. That is to say, they concentrate on American reluctance either to reduce imports of OPEC oil directly or to increase domestic production by paying OPEC prices for domestic oil. Analytically speaking, its inclusion within the above protectionist framework is not difficult. A tariff or quota on imported petroleum, or a price stimulus to domestic production, operates like any protective instrumentality, even though it may not be protective in precisely the usual sense of the term.

Turning to more substantive aspects of the energy crisis, I believe the European and Japanese critics are understandably insensitive to certain specifics of the American position. They seem to be assuming implicitly — although they usually know better — that in America, as in Germany or Japan, efficient public transport systems of adequate size are, or could soon be, in place in all large and medium-sized cities, that only the peak of the aristocracy live more than, say, 5 km from their work or from a major train, bus, or tram station. These conditions have not held since 1945, and this is why the adjustment called for by America’s critics is quantitatively different from the adjustment required for their own conservation-type adjustments to OPEC in 1973-74, at least in the short term.

**Muddling Through**

Our fifth and last policy alternative is really no policy at all, or sometimes a “policy” of leaving it to surplus countries among one’s trading partners to change their own policies so as to eliminate one’s own deficit.

Of course, the primary reason for a monetary authority, be it a Treasury or a Central Bank, to hold dead-weight reserves of gold, convertible currencies, or foreign balances, is precisely the provision of time to diagnose payments deficits as they occur, and also time to permit random, seasonal, or similar short-term payments deficits to right themselves with no need for policy adjustments. The US in particular, held some $25 bn in gold as of 1950, evaluated at $35 per ounce, and so could largely ignore its deficits for nearly 20 years. Meanwhile its gold stock fell to $10 bn, but substantial gold price rises (not recognized in the US accounts) would raise this to perhaps $55 or even $60 bn at current prices.