Appendix A
Historical data and projections of world trade

This Appendix explains the system for analysis of world trade used in Chapter 1 of this *Review* and provides summary tables of historical data and alternative projections up to 1985*. The analysis uses a set of precisely defined variables for which annual data have been obtained, covering the period 1960 to 1978, together with a model comprising identities and structural or behavioural hypotheses. The variables have been selected to permit a simple description of the level of economic activity and the changing structure of trade between eight major trading countries or groups of countries which make up the world economy. These eight blocs comprise the United Kingdom, the European Economic Community (EEC) excluding the UK, the United States, Japan, other developed countries, the Organisation of Petroleum Exporting Countries (OPEC), other developing nations and centrally planned economies. The definition of each group is that adopted by the UN Statistical Office and is given in detail below.

The growth of world trade is treated as being demand-determined, the level of demand in the world as a whole being constrained by the balance of payments positions of individual countries and the way these interact. The level of world output and trade is assumed not to be closely governed in the medium term by a pre-determined aggregate supply of energy, food and raw materials, provided at least that world GNP does not grow exceptionally fast. The model is a specific quantitative implementation of the scheme of analysis proposed in Chapter 4 of our *Economic Policy Review* no. 4, published in March 1978.

The system is constructed around a decomposition of the current account balance of payments of each bloc into three elements of trade (manufactures, food and raw materials, and fuels) plus invisibles. Certain aspects of the structure of these elements, notably shares in the markets for manufactures and potential supplies of food, raw materials and fuels, are regarded as being largely exogenously determined in the medium term. These structural aspects provide a strong constraint on the behaviour of other variables in the system.

* A manual of the model with full historical annual time series for 1960-78 on trade, GNP and balances of payments will be available in May 1979 from the Department of Applied Economics, Sidgwick Avenue, Cambridge, CB3 9DE, price £5.00.

The flows of visible trade all depend on endogenous as well as exogenous relationships, linking trade to GNP, balance of payments and to changes in terms of trade. The most important relationship of this kind is that for manufactured imports, which are closely linked to GNP. Aside from balance of payments elements, the other main variable in the system is the volume of GNP, which is treated formally as an exogenous variable. The level of GNP is assumed to be governed by national policies, determined in the light of changes in trade and current balances. These national policies differ fundamentally, depending on whether or not the balance of payments forms a significant constraint on the achievement of internal policy objectives.

This system of relationships, specified more formally below, forms our representation of the world economic system. It is used to obtain projections of the future conditional on different assumptions about external circumstances and strategic policy decisions.

Concepts and variables

Two concepts of income are distinguished. GNP at constant prices is obtained by deflating the current price series for each country using its own domestic GNP 'deflator'. Real national income is obtained by adjusting constant price GNP for the effects of changes in the world terms of trade between commodities and manufactures, and hence expresses GNP in terms of buying power, as opposed to production volume.

The remaining variables relate to the current balance of payments, all measured in current dollars deflated by a world dollar price index for manufactures (1975 = 100). In other words, balance of payments items are measured in terms of their purchasing power for traded manufactures at 1975 world prices. Imports are measured on an f.o.b. shipment, rather than arrivals, basis so that for the world as a whole they sum to the total of exports. There is therefore a timing discrepancy between imports as measured here and imports as measured in national balance of payments statistics. For manufactures exports and imports are separately distinguished. Trade in fuels and in food and raw materials is shown on a net export basis. Net fuels and food and raw materials are measured in both value and

'volume'; the latter is obtained by dividing net export values by world price indices for fuels and other commodities respectively relative to manufactures. Although these are referred to as 'volume' series, they include relative price effects where prices of national exports or imports diverge from world prices, as for example when UK food import prices are increased above world levels by the Common Agricultural Policy of the EEC.

Invisible items are a residual determined on the one hand by the balance of trade as measured by United Nations data on an f.o.b. shipments basis, and on the other by OECD data on current balances of payments. This residual measure of invisibles includes several sources of discrepancy. Firstly it fluctuates as a consequence of fluctuations in the value of trade. For example, when the value of trade is rising rapidly the timing difference between the recording of an export and its subsequent recording as an import causes the total value of imports recorded in national trade accounts to be lower than that of exports recorded for the same year. Thus fluctuations in the value of trade on the high seas are reflected in changes in our invisibles residual. Secondly, discrepancies arise because invisibles are not recorded precisely nor on the same basis by each country. Countries vary in their measurement of profits received from or due abroad; multinational companies may not always report profits earned in one country as a credit to any other country and may divert some of their income into offshore capital inflows. There may also be problems about the consistency of measurement of international aid flows.

The system of relationships

The principal identity in the model disaggregates the balance of payments on current account. In symbols,

$$B \equiv X - M + A + F + R$$

where X and M are respectively exports and imports of manufactures, A is net trade in food, drink, tobacco and raw materials, F is net trade in fuels and R is net invisibles. Exports and imports of manufactures, it must be emphasised, are gross flows, while the other items are net flows. All these variables are measured in current dollars deflated by the dollar price index for world manufactured exports.

For any one country or trade bloc, exports of manufactures are determined as a share of total demand for manufactured imports by each trade bloc in the following manner. The value of exports of manufactures of bloc i is

$$X_i \equiv \sum_j S_{ij} M_j$$

where S_{ij} is the proportionate share held by bloc i of the manufactured imports of bloc j. The sum across all markets gives total manufactured exports of each exporting country. The proportionate shares, S_{ij}, measured directly for the past, are projected into the future by fitting a trend to past values of

$$r = ln\,(S/1 - S)$$

where S is the proportionate export share, as before. This transformation ensures that projected shares cannot fall below zero or exceed 100%. The shares are projected individually for each exporter with subsequent reconciliation to ensure that shares in any one market sum to 100%.

Since the export shares are exogenously determined in the light of previous trends or on the basis of specified policy options, they provide a strong element of structure constraining the movement of the other variables in the system. A second important structural element in the model is the pattern of propensities to import manufactures. Imports of manufactures are determined as:

$$M_i \equiv \mu_i Y_i$$

where Y is real national income and μ is the import propensity. Import propensities are related to past trends and to the short-run growth of income. As with export shares, the import propensity is transformed for the purposes of projections. The transformed import propensity is defined as:

$$\hat{\mu} \equiv \frac{\mu . \mu_{max}}{\mu_{max} - \mu}$$

where μ_{max} is an upper limit to the level of manufactured import penetration, here set at 50% of GNP. This transformation ensures that projected import propensities stay below the upper limit.

The transformed import propensity for any one country or bloc is projected in the following manner:

$$\hat{\mu} = (\beta_0 + \beta_1 \frac{Y_1}{Y} + \beta_2 \frac{Y_2}{Y})\, e^{\gamma t}$$

where Y is GNP and the term in brackets determines cyclical dynamics of the import propensity around the non-linear trend. The structure of the equation implies that manufactured import propensities are projected to move through time along an s shaped trend with a ceiling determined by μmax and with cyclical fluctuations dependent on the growth of GNP.

Although both export market shares and import propensities for manufactures are exogenously determined either wholly or in part, they are not fixed constants. Aside from changes reflecting the continuation of past trends, they are also altered in certain projections by precisely defined assumptions related to different policy options such as medium-term exchange rate changes or import restrictions.

Net exports of fuels and of food and raw materials are each treated in the same way. Taking fuels as an example, the value of net exports of any one trade bloc is

$$F_i \equiv P_F \cdot F_i$$

where P_F is the world price of fuels relative to manufactures and F_i is the 'volume' of net fuel exports of the bloc in question. The volume of net fuel exports is projected as

$$\bar{F}_i = \text{exogenous term} - \alpha_i Y_i - \lambda_i \Sigma F_i^*$$

The exogenous term incorporates the effects of changes in fuel supply capacity and structural changes in fuel demand, while α_i is a coefficient relating marginal net imports to GNP. Separate net export projections for each bloc have no particular reason to sum to zero for the world as a whole, but result in a world surplus or deficit, defined as

$$\sum_i F_i^*$$

where

$$F_i^* = \text{exogenous term} - \alpha_i Y_i$$

The coefficients λ_i, which are imposed *a priori* in such a way as to sum to unity across trade blocs, indicate how any potential world surplus or deficit is absorbed. In the case of fuels, the OPEC countries are judged likely to supply 70% of any excess demand, or alternatively to reduce output by 70% of any projected surplus of supply over demand. The other major suppliers, the centrally planned bloc and other developing market economies, are assumed to absorb most of the rest of any imbalance. In the case of food and raw materials potential imbalances are assumed to be absorbed largely by three major suppliers: the USA; 'other developed countries' including the former Commonwealth dominions, Southern Europe and Scandanavia; and non-oil developing countries.

The size and direction of potential world imbalances provide some indication of likely changes in commodity prices. These indications provide a basis for making informal adjustments to projections of world prices of fuels and food and raw materials relative to manufactures, although our adjustments are conservative and no attempt is made to estimate price changes necessary for full market clearing.

The last element of the current balance is trade in invisibles. This is defined essentially as a residual and is for the time being projected for the future on the basis of past trends.

The final variables in the system are GNP and real national income. Real national income was defined above as real GNP adjusted for terms of trade effects. GNP is determined exogenously, effectively as a policy instrument. This treatment is adopted because growth of income in each country is regulated by fiscal and monetary policy in conjunction with trade and private sector demand. In the last resort the growth rate can be altered by policy measures and to this extent GNP is a proxy for fiscal and monetary policy. In general terms there can be said to be two main kinds of policy objective relevant to demand management in each country or bloc. These are:

(i) internal objectives such as economic growth, full employment or the reduction of inflation;

(ii) balance of payments objectives, especially maintaining the current account balance at or above a manageable level.

The latter objective is especially important for countries which can be described as having current accounts vulnerable to persistent deficit, either because of a debt problem (as in most developing countries) or because the exchange rate is hard to maintain at a stable level in the face of speculative capital outflows. A depreciating currency may matter, because it usually makes it difficult to meet the internal objective of low inflation rates, due to rising import prices and high export profits which encourage employers to pay higher wages.

The dichotomy of policy objectives described above is used in solutions of the model in the form of a crude classification of countries/blocs into:

(a) those constrained by balance of payments current account deficits which have to adjust GNP to prevent the deficit from becoming excessive;

(b) those unconstrained by balance of payments considerations which adjust GNP by policy measures governed mainly or wholly by domestic objectives.

This distinction is intended to apply only to the medium term. From year to year, policy adjustments are a hit-and-miss affair often based on out of date information, and short-run developments reveal miscalculations which are subsequently corrected. The logic of our distinction is only appropriate to the medium term, in which such fluctuations can reasonably be ignored.

Properties of the model

Once policy objectives have been set for constrained and unconstrained blocs the model is solved numerically. The character of solutions can be described as follows. First note that the level of world trade in manufactures is given by

$$W \equiv M^* + \hat{M}$$

where the superscript * indicates unconstrained blocs and superscript ^ denotes those classified as being constrained by balance of payments deficits. Each of these two import terms is determined by a different process. In the case of unconstrained blocs

$$M^* \equiv Y^* \mu$$

where the level of GNP, Y^*, depends on internal objectives, and may be regarded as an exogenous determinant of the system.

For constrained blocs,

$$\hat{M} \equiv \hat{X} + T\hat{D}M$$

where $T\hat{D}M$ is their trade deficit in manufactures. Here the value of imports is constrained by the purchasing power of exports and the size of the trade deficit in manufactures which is compatible with a manageable balance on current account. The manufactured trade deficit depends not only on the current account target, but also on the balance of non-manufactured trade and invisibles, which itself depends on changes in the volume of trade and on changes in the terms of trade. For instance, a commodity price boom would be likely to induce constrained primary commodity exporters to expand

their deficits on manufactured trade.

The value of manufactured exports by constrained blocs is determined by their share of world trade, i.e.

$$\hat{X} \equiv (1 - \alpha^*) W$$

where α^* is the export share of the unconstrained countries.

This gives rise to a multiplier process analogous to the Keynesian consumption-income multiplier. Thus

$$\begin{aligned} M &= \hat{X} + T\hat{D}M \\ &= (1 - \alpha^*) W + T\hat{D}M \\ \text{and} \quad W &= M^* + \hat{M} \\ &= M^* + (1 - \alpha^*) W + T\hat{D}M \\ &= (M^* + T\hat{D}M) / \alpha^* \end{aligned}$$

The level of world trade in manufactures is seen to depend on the level of imports by unconstrained countries together with the constrained countries' deficit on trade in manufactures, multiplied by the reciprocal of the unconstrained countries' share of world manufactured exports.

The really critical elements in determining the level of world trade are now seen to be the following:

(i) Which countries will fall within the unconstrained category;

(ii) How fast they will grow and thus expand their imports;

(iii) Whether their share of world trade in manufactures rises, hence depressing the share of the remaining countries;

and finally

(iv) Whether the constrained countries have to reduce their deficits on trade in manufactures, or alternatively find themselves able to expand them.

On these considerations hangs the question of whether world trade contracts or expands. Much depends on the unconstrained countries, which have the greater freedom of choice. It is important to emphasise that countries remain in the unconstrained category either if they remain in surplus or if they have a strong reserve position. An occasional current account deficit would be insufficient to constrain in any genuine sense a country which is usually in current account surplus. In the case of constrained countries the causation proceeds from an insufficient share of world trade which is difficult to increase, to a GNP growth rate constrained by the need to prevent excessively large payments deficits. These countries are not in a position to significantly increase world trade, due both to the balance of payments constraint itself and to their inability to increase their share of trade in the face of competition from the unconstrained countries.

Assumptions underlying projections

Using the model outlined above, it is possible to generate a number of projections for the future based on alternative policy options. The projections are obtained firstly by imposing a maximum size for the balance of payments deficit sustainable by constrained countries, and secondly by assuming a target rate of growth of GNP for each country. It is assumed that those countries which tend to run persistent current account deficits will take deflationary action to prevent deficits from rising above this level. In projections up to 1985 all blocs except Japan are found to be constrained in one or more cases. For most blocs maximum sustainable deficits are assumed to be close to the level of actual deficits for 1978. Japan is unconstrained in all projections and is therefore assumed to achieve its target growth of GNP.

World oil prices are assumed to rise 3% p.a. and food and raw materials 1% p.a. relative to prices of manufactures in slower growth projections (1, 2 and 6 below); in faster growth projections (3, 4 and 5 below) they are assumed to rise 1% p.a. more.

Projections shown in the tables differ from each other as follows:

Projection 1. The UK, other developed market economies, and other developing market economies are assumed to have maximum balance of payments deficits close to or slightly above the actual 1978 level. In addition the OPEC bloc is assumed to be constrained by a maximum deficit of $8 billion at 1975 values and the EEC (excluding the UK) by a target *surplus* of $2 billion. The most important assumption is that the US deficit must fall from $19 billion in 1978 to $5 billion by 1985.

For this and most other projections the targets for annual GNP growth are assumed to be 4% for the USA and EEC including the UK, 6% for Japan and other developed market economies, and 8% for OPEC members and other developing market economies.

Projection 2. The assumptions are as above except that the US balance of payments deficit is assumed to remain at its 1978 level, and the EEC (excluding the UK) is assumed to accept a small deficit of $1 billion at 1975 values.

Projection 3. In order to meet its GNP growth target of 4%, while simultaneously holding its balance of payments deficit to the 1978 level in real terms, the USA is assumed to introduce restrictions on imports of manufactures. The degree of restriction is determined within the model to meet the growth target and balance of payments constraint. The remaining assumptions are the same as for projection 3, but the EEC excluding the UK is no longer balance of payments constrained.

Projection 4. In addition to projection 3's assumption of US import restrictions, several further measures to control trade are assumed here, judged so as to enable all blocs to achieve fast growth of GNP without large balance of payments deficits. Japan's share of each manufactured export market is assumed to be cut back by 6% per year below the trend projected hitherto, with the effect that its exports grow at little over half the rate of world trade as a whole. The EEC excluding the UK is assumed to raise its GNP growth to 5% a year and to discriminate strongly in favour of manufactured imports from non-OPEC developing countries. The USA is assumed to discriminate in favour of manufactured imports from non-OPEC developing and other developed countries (excluding the EEC and Japan), while restricting the overall

growth of its manufactured imports so as to reduce its current account deficit progressively to $5 billion (in 1975 values) by 1985 and simultaneously reflating to maintain 4% a year GNP growth. OPEC, the EEC and Japan are found to achieve their GNP growth targets without infringing balance of payments constraints.

Projection 5. This projection assumes that, with the US maintaining its balance of payments deficit at the 1978 level of $19 billion (at 1975 values), depreciation of the dollar and appreciation of the Yen and stronger European currencies continue fast enough to increase the US share of manufactured exports above its trend by 3% p.a. in each market, while Japanese shares fall relative to trend by 3% p.a. and shares of EEC countries (excluding the UK) fall by 2% p.a. Where shares adjusted in this way do not sum to 100%, any shortfall or excess is accommodated by an equal proportionate adjustment to the projected share of every bloc. The remaining assumptions are the same as for projection 2. Japan, OPEC and the EEC excluding the UK are all found to be unconstrained.

Projection 6. Japan and the EEC excluding the UK are assumed to increase their rate of GNP growth to 8% and 5% per annum respectively. Balance of payments targets are the same as in projection 2. Japan, OPEC and the EEC are again unconstrained.

Data sources and construction

An integrated set of annual statistics on trade flows has been brought together from several sources; considerable work was required to secure reasonable consistency over the eighteen-year period, 1960-1978. The basic data include series on the dollar value of trade by major commodity groups by source and destination between the eight trading blocs (these figures include intra-trade where the blocs are made up of several countries). They also include series for GNP in dollars at constant and current prices, as well as current account balances of payments and net invisibles.

The main source for data on trade flows by commodity between the eight trading blocs is United Nations trade matrices published in the *Yearbook of International Trade Statistics,* the UNCTAD *Handbook of International Trade and Development Statistics* and occasionally in the UN *Monthly Bulletin of Statistics.* These matrices are most nearly complete in terms of our geographical areas for the period 1971-76 (see for example UN *Monthly Bulletin,* Vol. XXIX, No. 7, July 1975, Special Table D). Particularly for earlier years and for 1977 and 1978 the UN matrices are supplemented by country data from the *Yearbook of International Trade Statistics,* as well as UK *Overseas Trade Statistics,* trade statistics of the EEC published in *Eurostat,* trade statistics of the USA from the US Department of Commerce *Statistical Abstract,* and OECD *Statistics of Foreign Trade,* Series B.

The UN trade matrices are broken down by commodities. We have distinguished separately food, beverages and tobacco (SITC 0 and 1), raw materials (SITC 2 and 4), fuels (SITC 3) and manufactured and unclassified goods (SITC 5 to 9). In the UN matrices these groups do not in general sum to equal total trade, nor do figures by source and destination sum to area and world totals. We have allocated residuals by commodity to the manufactured goods category and residuals by source or destination according to a defined hierarchy. Missing data have been interpolated and a rather complex reconciliation process has been used to assure correct aggregation where, particularly with linked data, the sources are inconsistent.

GNP series have been assembled from four sources: United Nations *Yearbooks of National Accounts Statistics,* EEC National Accounts *(Eurostat), International Financial Statistics* published by the IMF and OECD *Economic Outlook.* Data are complete for seven out of the eight major regions of the world. The exception is 'other developing countries', for which GNP series were constructed from a scaled-up 70% sample of the countries involved.

The major sources for data on the current balance of payments were *International Financial Statistics* (IMF) and OECD *Economic Outlook.* For the year 1978 the latest OECD forecast of invisibles (adjusted to our definitions) was adopted, unless very recent evidence suggested the need to revise it.

The eight blocs into which the world economy has been divided are as follows:

(1) The United Kingdom.
(2) The other eight members of the EEC.
(3) The United States.
(4) Japan.
(5) Other developed market economies, comprising Australia, Austria, Canada, Finland, Iceland, Israel, New Zealand, Norway, Portugal, South Africa, Sweden, Switzerland, Yugoslavia.
(6) The Organisation of Petroleum Exporting Countries (OPEC), comprising Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libyan Arab Jamhiriya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates and Venezuela.
(7) All other developing countries except those under 8 below.
(8) Centrally planned economies, comprising the USSR, Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland, Romania, China, Vietnam, Laos, North Korea and Cambodia.

Table A1. Structure of world trade in manufactures 1961-1985

(percentages)

	1961	1965	1969	1973	1978	1982[a]	1985[a]
Shares of world exports of manufactures							
United Kingdom	12.7	10.7	8.6	7.0	7.0	6.2	5.9
Rest of EEC 9	33.9	34.5	35.0	38.2	37.1	37.4	37.8
USA	17.9	16.3	15.5	12.4	11.5	10.5	9.6
Japan	5.0	6.9	8.3	9.4	11.5	12.3	13.0
Other developed market economies	13.2	14.0	15.3	14.9	14.3	14.2	14.1
OPEC	0.9	0.4	0.2	0.3	0.7	0.5	0.5
Other developing market economies	4.1	4.9	6.0	7.2	8.2	9.3	10.1
Centrally planned economies	12.3	12.3	11.1	10.6	9.7	9.6	9.0
Ratio of manufacturing imports to GNP							
United Kingdom	4.6	5.7	8.0	11.7	14.2	18.3	21.5
Rest of EEC 9	6.1	7.6	10.1	13.0	15.8	19.3	22.0
USA	1.5	2.1	3.4	4.0	4.5	5.5	6.4
Japan	1.8	1.5	2.2	3.0	2.4	2.9	3.8
Other developed market economies	10.1	12.6	13.9	16.0	15.4	17.2	18.5
OPEC	15.4	13.7	15.6	18.3	26.6	28.5	29.6
Other developing market economies	10.7	11.1	12.6	13.7	14.7	15.9	16.8
US share of manufactured exports in major markets							
EEC 9 market	14	12	11	8	8	6	5
Japan and other developed market economies	28	30	30	25	24	23	23
OPEC market	21	22	22	17	16	15	13
Other developing market economies	27	25	22	19	18	15	14
EEC 9 share of manufactured exports in major markets							
EEC 9 market	62	63	63	65	62	63	62
US market	40	36	31	30	26	21	19
Japan and other developed market economies	53	49	45	45	46	45	44
OPEC market	55	47	43	43	46	44	44
Other developing market economies	36	33	31	30	33	30	30
Japanese share of manufactured exports in major markets							
EEC 9 market	1	2	2	3	3	5	5
US market	14	20	20	20	25	26	26
Other developed market economies	3	4	5	7	8	9	9
OPEC market	9	11	12	16	18	19	20
Other developing market economies	10	14	18	21	22	24	25
Other developing market economies share of manufactured exports in major markets							
EEC 9 market	4	5	6	5	7	7	8
US market	11	12	12	16	17	22	24
Japan and other developed market economies	4	4	4	6	7	7	8
OPEC market	3	5	7	8	7	7	7
Other developing market economies	4	5	8	10	11	13	14

[a] Calculated on the basis of projection 2 (see text of appendix A).

Table A2. Net exports of food, raw materials and fuel 1961-1985

($1975 billion)

	1961	1965	1969	1973	1978	1982[a]	1985[a]
Food and raw materials							
World price index relative to manufactures (1975 = 100)	92	91	79	116	94	98	101
Value of net exports							
United Kingdom	–11.8	–12.1	–10.7	– 11.2	– 7.9	– 6.8	– 5.4
Rest of EEC 9	–11.5	–14.6	–15.1	– 18.9	– 15.6	– 17.4	– 19.5
USA	0.4	1.6	– 0.5	10.9	6.3	14.0	21.3
Japan	– 5.1	– 6.5	– 9.6	– 19.0	– 16.4	– 21.0	– 25.3
Other developed market economies	10.9	12.4	13.1	18.9	16.4	17.8	19.0
OPEC	3.6	2.6	1.1	0.4	– 5.1	– 8.6	– 11.4
Other developing market economies	14.9	18.8	20.7	20.9	24.4	24.3	23.9
Centrally planned economies	– 1.4	– 2.2	1.1	– 2.0	– 2.0	– 2.3	– 2.6
Oil and other fuels							
World price index relative to manufactures (1975 = 100)	52	45	41	46	96	108	118
Volume of net exports							
United Kingdom	– 3.8	– 5.8	– 7.6	– 8.8	– 3.5	0.5	1.0
Rest of EEC 9	– 5.9	–11.9	–19.9	– 35.9	– 35.9	– 42.8	– 49.2
USA	– 3.5	– 4.7	– 7.5	– 23.8	– 33.7	– 35.0	– 33.3
Japan	– 2.6	– 5.7	–11.8	– 22.5	– 24.4	– 29.9	– 35.4
Other developed market economies	– 4.6	– 7.7	– 9.5	– 11.2	– 14.9	– 16.6	– 18.2
OPEC	20.3	37.3	60.3	109.9	113.1	128.2	142.5
Other developing market economies	– 2.1	– 5.1	– 9.2	– 14.6	– 12.0	– 16.4	– 20.4
Centrally planned economies	2.4	3.7	5.1	6.9	11.3	12.1	13.0
Value of net exports ($1975 bn)							
United Kingdom	– 2.0	– 2.6	– 3.1	– 4.1	– 3.3	0.5	1.1
Rest of EEC 9	– 3.1	– 5.4	– 8.1	– 16.7	– 34.5	– 46.4	– 58.2
USA	– 1.8	– 2.1	– 3.0	– 11.0	– 32.4	– 37.9	– 39.4
Japan	– 1.4	– 2.6	– 4.8	– 10.4	– 23.5	– 32.4	– 41.9
Other developed market economies	– 2.4	– 3.5	– 3.8	– 5.2	– 14.4	– 17.9	– 21.5
OPEC	10.6	16.8	24.4	51.0	108.8	138.8	168.7
Other developing market economies	– 1.1	– 2.3	– 3.7	– 6.8	– 11.6	– 17.8	– 24.1
Centrally planned economies	1.2	1.7	2.1	3.2	10.9	13.1	15.4

[a] Calculated on the basis of projection 2 (see text of Appendix A).

Table A3. Historical summary[a]

($1975 billion)

	GNP (1975=100)	Manufactured exports	Manufactured imports	Net exports of primary commodities and net invisibles	Current balance	GNP (1975=100)	Manufactured exports	Manufactured imports	Net exports of primary commodities and net invisibles	Current balance
			1965					**1969**		
World	66[b]	231	231	– 6	– 6	81[b]	351	351	– 7	– 7
USA	76	38	24	– 3	11	89	54	46	– 7	1
Japan	44	16	3	–11	2	69	29	8	17	4
UK	82	25	11	–14	0	89	30	17	– 13	0
Rest of EEC 9	68	80	59	–19	2	83	123	95	– 23	5
Other developed market economies	64	32	54	13	– 9	79	54	73	14	– 5
Subtotal	69	191	151	34	6	83	290	239	– 46	5
OPEC	45	1	11	10	0	58	1	14	12	– 1
Other developing market economies	59	11	43	20	–12	72	21	60	28	–11
Subtotal	56	12	54	30	–12	69	22	74	40	–12
Centrally planned economies	. . .	28	26	– 3	– 1	. . .	39	38	0	1
			1973					**1978**		
World	98[b]	513	513	12	12	114[b]	685	685	– 8	– 8
USA	102	64	62	7	9	117	79	81	– 17	–19
Japan	100	48	15	–33	0	124	79	15	– 45	19
UK	103	36	28	–12	– 4	106	48	34	– 14	0
Rest of EEC 9	100	196	146	–45	5	111	254	194	– 48	12
Other developed market economies	96	77	104	27	0	109	98	111	7	– 6
Subtotal	100	421	355	–56	10	114	558	435	–117	6
OPEC	86	1	23	31	9	115	5	65	67	7
Other developing market economies	89	37	82	41	– 5	116	56	112	43	–13
Subtotal	88	38	105	72	4	116	61	177	110	– 6
Centrally planned economies	. . .	54	54	– 3	– 3	. . .	66	72	– 1	– 7

[a] Components do not always sum exactly to totals due to rounding.

[b] World total excluding centrally planned economies.

Table A4. Alternative projections 1982 and 1985[a]

($1975 billion)

	1982					1985				
	GNP (1975=100)	Manufactured exports	Manufactured imports	Net exports of primary commodities and net invisibles	Current balance	GNP (1975=100)	Manufactured exports	Manufactured imports	Net exports of primary commodities and net invisibles	Current balance
1. Severe US deflation										
World	126[b]	888	888	– 12	–12	134[b]	1028	1028	– 13	–13
USA	114	94	94	– 5	– 5	113	101	109	3	– 5
Japan	157	109	22	– 61	26	187	134	29	– 76	29
UK	114	55	48	– 7	0	114	61	55	– 6	0
Rest of EEC 9	125	334	266	– 65	3	130	388	314	– 72	2
Other developed market economies	123	126	140	6	– 8	130	145	159	6	– 8
Subtotal	123	718	570	–132	16	130	829	666	–145	18
OPEC	134	4	86	77	– 5	145	5	100	87	– 8
Other developing market economies	139	83	144	48	–13	156	106	170	51	–13
Subtotal	138	87	230	125	–18	153	111	270	138	21
Centrally planned economies	...	83	89	– 4	–10	...	88	92	– 6	–10
2. Moderate US deflation										
World	133[b]	943	943	– 12	–12	146[b]	1155	1155	– 13	–13
USA	124	99	103	– 15	–19	126	111	122	– 8	–19
Japan	157	116	22	– 60	34	187	150	29	– 76	45
UK	120	59	50	– 9	0	124	68	61	– 7	0
Rest of EEC 9	129	353	276	– 68	9	145	436	354	– 81	– 1
Other developed market economies	129	134	148	6	– 8	142	163	175	4	– 8
Subtotal	130	761	599	–146	16	141	928	741	–168	18
OPEC	149	4	95	86	– 5	173	6	119	105	– 8
Other developing market economies	144	88	150	49	–13	166	117	182	52	–13
Subtotal	145	92	245	135	–18	168	123	301	157	–21
Centrally planned economies	...	90	100	0	–10	...	104	113	– 1	–10

[a] Components do not always run exactly to totals due to rounding.

[b] World total excluding centrally planned economies.

Table A4. continued

($1975 billion)

	1982					1985				
	GNP (1975=100)	Manufactured exports	Manufactured imports	Net exports of primary commodities and net invisibles	Current balance	GNP (1975=100)	Manufactured exports	Manufactured imports	Net exports of primary commodities and net invisibles	Current balance
3. Non-discriminatory US restrictions on imports of manufactures										
World	137[b]	938	938	– 12	–12	156[b]	1151	1151	– 13	–13
USA	137	99	88	– 30	–19	154	113	89	– 43	–19
Japan	157	114	22	– 62	30	187	146	29	– 80	37
UK	119	58	50	– 8	0	124	69	61	– 8	0
Rest of EEC 9	129	353	276	– 69	8	145	439	352	– 86	1
Other developed market economies	128	131	146	7	– 8	141	157	173	8	– 8
Subtotal	135	755	581	–162	12	152	923	704	–207	12
OPEC	156	4	102	98	0	197	6	139	131	– 2
Other developing market economies	144	85	150	52	–13	165	110	181	58	–13
Subtotal	147	89	252	150	–13	174	116	320	189	–15
Centrally planned economies	...	94	105	1	–10	...	111	126	5	–10
4. Planned trade										
World	140[b]	972	972	– 12	–12	162[b]	1240	1240	– 17	–14
USA	137	105	85	– 28	– 8	154	126	92	– 40	– 5
Japan	157	96	22	– 62	12	187	112	29	– 81	2
UK	123	61	51	– 10	0	133	75	65	– 9	0
Rest of EEC 9	134	370	287	– 73	9	155	479	378	– 95	8
Other developed market economies	134	140	154	5	– 8	154	179	191	3	– 8
Subtotal	137	772	599	–168	5	157	971	755	–221	– 4
OPEC	156	5	102	104	6	197	6	139	146	13
Other developing market economies	150	93	156	50	–13	180	132	199	51	–13
Subtotal	152	98	258	154	– 7	184	138	338	197	0
Centrally planned economies	...	102	115	3	–10	...	131	148	7	–10

[b] Excluding centrally planned economies.

Table A4. continued

($1975 billion)

	1982					1985				
	GNP (1975=100)	Manufactured exports	Manufactured imports	Net exports of primary commodities and net invisibles	Current balance	GNP (1975=100)	Manufactured exports	Manufactured imports	Net exports of primary commodities and net invisibles	Current balance
5. Extreme assumptions about changes in trends of market shares via dollar devaluation										
World	137[b]	984	984	– 12	–12	156[b]	1251	1251	– 13	–13
USA	132	114	110	– 23	–19	142	145	138	– 26	–19
Japan	157	114	22	– 62	30	187	146	29	– 80	37
UK	124	62	52	– 10	0	133	75	66	– 9	0
Rest of EEC 9	129	353	276	– 69	8	145	438	352	– 86	1
Other developed market economies	135	143	155	4	– 8	155	184	192	0	– 8
Subtotal	134	785	614	–160	11	150	988	777	–200	11
OPEC	156	5	102	97	0	197	6	139	132	– 1
Other developing market economies	149	93	155	49	–13	177	131	195	51	–13
Subtotal	151	98	257	146	–13	182	137	334	183	–14
Centrally planned economies	. . .	100	112	2	–10	. . .	126	141	5	–10
6. Reflation led by EEC and Japan										
World	138[b]	985	985	– 8	– 8	157[b]	1253	1253	– 13	–13
USA	127	103	106	– 16	–19	133	120	129	– 10	–19
Japan	169	121	24	– 65	32	213	162	34	– 87	41
UK	123	61	52	– 9	0	132	74	65	– 9	0
Rest of EEC 9	134	368	288	– 71	9	156	471	379	– 90	2
Other developed market economies	133	140	153	5	– 8	152	176	187	3	– 8
Subtotal	135	792	622	–156	14	152	1004	794	–194	16
OPEC	156	5	100	97	2	197	6	136	123	– 7
Other developing market economies	148	91	154	50	–13	175	126	192	53	–13
Subtotal	150	96	254	147	–11	181	132	328	176	20
Centrally planned economies	. . .	96	107	1	–10	. . .	117	131	4	–10

[b] World total excluding centrally planned economies.