

**Projected Effects of Trade  
Liberalization on U.S. Specialty  
Crops**

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# **Projected Effects of Trade Liberalization on U.S. Specialty Crops**

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## Projected Effects of Trade Liberalization on United States Exports of Specialty Crops

### Introduction

This study analyzes the effects of liberalizing barriers to trade for six U.S. specialty crops: fresh grapes, fresh oranges, fresh grapefruits, peanuts, potatoes and almonds. The total value of United States exports of each commodity to the world and to the major four or five importers is given in Table A. The corresponding market share of U.S. export values are also presented. The major trade barriers considered in calculating the effects of trade liberalization for each of these major importers of U.S. specialty crops are summarized in Table B.

To provide an overview of recent market developments in each commodity sector, we calculate the quantity and market share of exports by the United States to each major importer in Table 1 (there is a 'Table 1' for each commodity organized in the section entitled "Tables and Charts"). Table 1 also gives the world total trade volumes ("world" refers to total U.S. exports). For example, the final column of Table 1 gives U.S. market share of total world trade for that commodity. The data for 1980-1990 are actual data and the years 1991-2000 are projected from trend using 1980-1990 data.

Table 2 for each commodity provides actual and projected U.S. export prices and the ratio of U.S. export prices to the average import price by each country for that product.

Table 3 for each commodity describes actual and projected U.S. export values and U.S. market share (of each country's value of imports of that product).

Corresponding Charts are provided for each commodity. Charts 1-10 report the actual and projected U.S. export quantities and values to each major market (and each country's total imports from the world, including that from the United

States). Taking fresh grapes as an example, Charts 1 and 2 show U.K. fresh grape import quantities and values from the U.S. and the world. Charts 3 and 4 does likewise for Canada, Charts 5 and 6 for Hong Kong, Charts 7 and 8 for Taiwan and Charts 9 and 10 for the world.

Chart 11 reports the average world import price for fresh grapes and compares it to the average U.S. export price.

Chart 12 gives the U.S. fresh grape export price to the U.K. as a ratio of the average U.S. fresh grape export price to all markets. Charts 13-15 provide the same information as in Chart 12 for Canada, Hong Kong and Taiwan.

Corresponding Charts are given for each of the other five commodities under consideration and provide detailed information on the past and future trends in exports, prices and trade value for the United States.

#### **The Effects of Trade Liberalization**

Table C for each commodity reports the level of U.S. export quantities and values after complete trade liberalization in 1990. Column 1 of Table C for each commodity (entitled "Imports from United States") gives the post-trade liberalization level of U.S. exports to each major importer with trade barriers (as listed in Table B). For example, column (1) of Table C-Grapes indicates that only two countries, the UK and Taiwan, have trade barriers to U.S. fresh grape exports (as confirmed by looking at Table B).

The method of calculating the new 'Imports from United States' from each country with trade barriers is as follows: each country's trade barriers are summed up into a tariff equivalent and the status quo production and consumption are parameterized to a supply and demand elasticity. Such a procedure is in effect determining the position and shape of the supply and demand curves S and D, respectively, in Figure 1. The status quo production Q and consumption C are determined at the protected internal price PM, which is higher than the United

States export price PX by the amount of the tariff. Status quo imports in 1990 are therefore the difference between C and Q.

Trade after liberalization is therefore quantified by calculating the new production Q' and consumption C' at the U.S. free trade export price. The elasticities used for each country and commodity are presented in Table D along with their sources.

Once we predict the new trade to these countries, we add trade by those major countries identified with no trade barriers and linearly extrapolate to the rest of the world. The new total world imports from the United States under this extrapolation method is presented in Column 1(a) of Table C for each commodity (column 1(a) is entitled "World Total extrap"). Note that the U.S. export price (PX in Figure 1) is assumed to be fixed at the same level before and after trade liberalization in this scenario.

A second method of calculating post trade liberalization imports from the United States is to calculate the weighted average import price (i.e., of those countries designated in Table A). We then assume the rest of the world has the same weighted average import tariff as the major importers. We then calibrate a world excess demand curve by parameterizing an excess demand elasticity using the formula:

$$\eta^{ed} = \eta^d \frac{q^d}{M} - \eta^s \frac{q^s}{M}$$

where  $\eta^d$  is the domestic demand elasticity;  $q^d$  is total consumption in all importing countries;  $\eta^s$  is the domestic supply elasticity;  $q^s$  is total production in importing countries; and M is total world imports. This method is in effect calibrating the position and shape of the excess demand curve ED in Figure 2 to PM, the trade weighted average import price in the world. Trade liberalization involves moving down ED from status quo imports  $M_0$  to new import level  $M_1$  (again

assuming the U.S. export price PX does not change with trade liberalization). The resulting new total world imports from the United States are reported in column 1(b) of Table C (entitled "World Total exces").

Comparing the numbers in column 1(a) with those in column 1(b) in Table C for each commodity indicates that the extrapolated method has lower trade volumes than those using the excess demand curve approach. The excess demand curve method generates larger trade volumes because the excess demand curve is more elastic (flatter) than the implicit excess demand curve derived from using the extrapolative method discussed in Figure 1. The reason for this can be determined by looking at the formula for the elasticity of excess demand above: if total world imports  $M$  is very small relative to total consumption,  $q^d$ , by importers, then the elasticity of excess demand becomes very large. The major importers of U.S. commodities have a much smaller  $q^d/M$  ratio (those countries evaluated in the Table A) because they are 'major importers' whereas the smaller importers are not necessarily small countries in the sense that consumption is large (and so they have a much larger  $q^d/M$  ratio). The predicted trade in column 1(b) says that if these large countries but small traders liberalized trade just as the major importers, then there would be significant changes in trade. The large excess demand elasticities for each of the six commodities are presented in Table E. Notice from Table C that the difference between 1(a) and 1(b) increases with the size of the excess demand elasticity reported in Table E.

The extrapolated values in column 1(a) assumes (unrealistically) that the rest of the world has the same consumption to import ratio as the major importers. Clearly, both scenarios represent extremes and as such are to be viewed as the range where the most realistic scenario falls somewhere in between.

Column 2 in Table C entitled "Total Value of U.S. Exports" gives export values after trade liberalization under two scenarios using the excess demand

curve approach: price fixed (column 2a) and price endogenous (column 2b). The change in import values with price fixed is equivalent to area a + b in Figure 3. The change in import values with price endogenous is equivalent to area c + d + e + a in Figure 3. If area b = area c + d + e, then the value of U.S. exports under trade liberalization in column 2(a) should equal that reported in column 2(b).

The more elastic (flat) the excess demand curve in Figure 3, the bigger area b is compared to area c + d + e and so a fixed price assumption would overstate the level of U.S. export values post trade liberalization in this case.

The new equilibrium world price  $P_{endog}$  is determined by equating total world excess demand ED to total world excess supply ES as depicted in Figure 3. The elasticity of excess supply is determined by the formula:

$$\eta^s = \eta^s \frac{q^s}{X} - \eta^d \frac{q^d}{X}$$

where  $\eta^s$  is the domestic supply elasticity;  $q^s$  is total production in all exporting countries;  $\eta^d$  is the domestic demand elasticity;  $q^d$  is total consumption in exporting countries; and X is total world exports (equal to M earlier). The pre-trade liberalization equilibrium is determined by parameterizing the excess supply curve to the observed world trade  $M_0$  ( $=X_0$ ) at the observed average U.S. export price PX and the excess demand curve to observed trade at the implied import price PM (calculated as the U.S. export price plus the weighted average tariff of the major importers evaluated in Table A extrapolated to all importers). The calculated excess supply elasticities are reported in Table E.

This allowed us to calculate the effects of trade liberalization on total world trade (and on U.S. exports assuming U.S market share does not change) under two scenarios: price fixed (the move to  $M_1$  at PX in Figure 3) and price endogenous (the move to  $M_2$  and  $P_{endog}$ ).

Column 3 in Table C entitled "Total Value of U.S. Exports" gives the percent change in total value of U.S. exports due to trade liberalization under the three alternative approaches. Column 3(a) represents the percent change in total U.S. export value using the excess demand elasticity approach but assuming export prices are fixed (based on information in columns 1(b) and 2(a)).

Column 3(b) is a ten-year annualized average (see footnote 2 in Table C). It should be noted that this average is derived from information in column 1(a) and should be multiplied by ten in order to be comparable to columns 3(a) and 3(c) (although column 3(b) cannot be directly comparable given that information on projected trends in trade quantities and prices from the Charts are incorporated). Recall that these numbers derived from the method of extrapolated trade quantities at fixed prices ignore the potential increase in trade from countries with high production/consumption (and who are currently importing very little). Therefore, they represent a lower bound (whereas 3(a) represent an upper bound).

Column 3(c) indicated the trade value change in percent with the export price endogenous and as such represents a more realistic assessment of trade liberalization using the excess demand approach. In conclusion, the range of estimates one should use is given by column 3(b) and 3(c). To calculate actual prices, quantities and trade values for each of these scenarios, the necessary raw data is presented in Tables 1-3 and in Table C.



**TABLE A: MAJOR IMPORTERS 1990 VALUE AND SHARE OF TOTAL US EXPORTS**

<b>Commodity</b>	<b>Value \$US mil</b>	<b>Share (%)</b>
<b>Fresh Grapes</b>		
Canada	125.1	57.9
Hong Kong	21.1	9.8
UK	11.4	5.3
Taiwan	18.1	8.4
World	215.9	100.0
<b>Oranges</b>		
Canada	104	36.7
Hong Kong	54	19.1
Japan	89	31.4
Singapore	9	3.2
World	283	100.0
<b>Fresh Grapefruits</b>		
Canada	29.5	16.5
Japan	92.6	51.9
Netherlands	16.2	9.1
UK	4.2	2.4
World	178.5	100.0
<b>Peanuts</b>		
Canada	35	19.8
Japan	15	8.5
Netherlands	38	21.5
UK	36	20.3
World	177	100.0
<b>Potatoes</b>		
Bahamas	0.2	0.3
Barbados	0.1	0.2
Canada	58.6	95.4
Hong Kong	0.2	0.3
Mexico	1.4	2.3
World	61.4	100.0
<b>Almonds</b>		
Canada	29	5.1
W. Europe	489	86.7
Switzerland	17	3.0
Japan	77	13.7
Germany	153	27.1
World	564	100.0

**TABLE B: TRADE BARRIERS USED IN TRADE LIBERALIZATION CALCULATIONS (page 1 of 3)**

**GRAPES:**

Canada	Free
Europe	18% tariff
Hong Kong	Free
Taiwan	35% tariff

- based on 25% March-September tariff and 50% Oct.-Feb. tariff. Roughly two-thirds of U.S. export shipments are under the 25% tariff so the annual average is estimated at 35% ( see USDA Market News Fresh Fruit and Vegetable Shipments for monthly shipments)

Source: Telephone conversation with Katie Buckley and Hsin-Hui Hsu, USDA-FAS.

**ORANGES:**

Canada	Free
Japan	40% tariff

- based on 40% December-May (at least 75% of trade volume) 20% June-November. From Barriers to Trade (USDA).

Hong Kong	Free
Singapore	Free (not available)

Sources: USDA Barriers to Trade, Telephone conversations with Katie Buckley, Brian Grunenfelder and Samuel Rosa (USDA-FAS).

**GRAPEFRUIT:**

Canada	Free
UK and Netherlands	2% tariff
Japan	10% tariff

- based on 3% tariff, 1.5% from November-April 30. 2% is used because most shipments are under the 1.5% period. See USDA-FAS Fresh Fruit and Vegetable Shipments or USDA-FAS FATUS.

TABLE B cont'd (page 2 of 3)

Japan's GATT rates are 12% June-Nov 30 and 25% Dec-May 31. USDA's current assessment is 10% annual. (Brian Grunenfelder USDA-FAS)

PEANUTS:

UK and Netherlands            5% tariff (tariff for raw shelled peanuts)

Japan                        Free

- Japan has employed variable quota schemes which result in a cartel; however recently, demand has dropped for US peanuts and quotas, enlarged in 1988 GATT, are thought to be ineffectual - therefore no protection rate is estimated.  
Source: USDA-FAS, National Peanut Council.

Canada                      Free

Sources: Joe Hain, USDA. And Patrick Archer, National Peanut. Council

POTATOES:

Canada                      5.3%

- estimate based on Deloitte & Touche estimates in CITT report provided by Agriculture Canada which show Canadian full PSE to be 18.8% and PSE excluding tariff to be 13.4% - border tariff is calculated as approximately the difference.

Mexico                      272%

(USDA-FAS estimate based on 10% tariff and required permits and variable quotas. Phytosanitary regulations are important and Idaho potatoes are prohibited.)

Bahamas                     21%

- based on \$6/100kg max variable duty and calculated to percent using 1990 prices per MT.

Barbados                    3%

- based on \$1.10/100kg and calculated to percent as above.

Source: Gary Lucier USDA-ERS, and Ed Porter and M. Thompson USDA-FAS. James Lohoar, Agriculture Canada.

TABLE B cont'd (page 3 of 3)

**ALMONDS:**

Canada	Free
Japan	4% tariff
EEC	7% tariff
Germany	7% tariff
Switzerland	7% tariff

Source: European Economic Community Douanes Report 1989-90, excerpts provided by Sampson Amofo at the USDA-FAS. Correspondence and Telephone conversation with Boyd Buxton, Katie Nishiura, Sampson Amofo, Diane Burtleson, and Katie Buckley at USDA-FAS. Also Ted Goldhammer USDA-Marketing.

Table C-Grapes: Impact of Trade Liberalization on 1990 US Fresh Grape Exports

Imports from United States (fixed price) 1000 MT (1)						Total Value of US Exports (\$US millions) (2)		Total Value of US Exports (percent change) (3)		
UK	Taiwan			World Total extrap	World Total exces	Price Fixed	Price Endog.	Price Fixed		Price Endog
				(a)	(b) <sup>1</sup>	(a)	(b)	1990 (a)	10 yr avg <sup>2</sup> (b)	(c)
17.2	54.8			266	1,773	\$862	\$632	299%	3.5%	192%

<sup>1</sup>The world total in column (b) is calculated by moving down the constant elasticity of excess demand for total world imports. The numbers reported in column (a) are extrapolated from the imports of countries for which policies were evaluated.

<sup>2</sup>Ten year annualized average value is calculated by taking one tenth of the 1990 trade liberalization change in quantity, multiplying it by the projected baseline US export price from table 2, and then averaging.

Table C-Oranges: Impact of Trade Liberalization on 1990 US Orange Exports

Imports from United States (fixed price) 1000 MT (1)					Total Value of US Exports (\$US millions) (2)		Total Value of US Exports (percent change) (3)			
Japan				World Total extrap	World Total exces	Price Fixed	Price Endog.	Price Fixed		Price Endog
				(a)	(b) <sup>1</sup>	(a)	(b)	1990 (a)	10 yr avg <sup>2</sup> (b)	(c)
142.9				533	2,130	\$1,166	\$1,157	312%	51%	308%

<sup>1</sup>The world total in column (b) is calculated by moving down the constant elasticity of excess demand for total world imports. The numbers reported in column (a) are extrapolated from the imports of countries for which policies were evaluated.

<sup>2</sup>Ten year annualized average value is calculated by taking one tenth of the 1990 trade liberalization change in quantity, multiplying it by the projected baseline US export price from table 2, and then averaging.

**Table C-Grapefruit: Impact of Trade Liberalization on 1990 US Fresh Grapefruit Exports**

Imports from United States (fixed price) 1000 MT  (1)						Total Value of US Exports (\$US millions)  (2)		Total Value of US Exports (percent change)  (3)		
UK	Netherland	Japan		World Total extrap	World Total exces	Price Fixed  (a)	Price Endog.  (b)	Price Fixed		Price Endog  (c)
				(a)	(b) <sup>1</sup>			1990 (a)	10 yr avg <sup>2</sup> (b)	
9.2	36.9	165.6		346	361	\$201	\$195	12.3%	10%	8.9%

<sup>1</sup>The world total in column (b) is calculated by moving down the constant elasticity of excess demand for total world imports. The numbers reported in column (a) are extrapolated from the imports of countries for which policies were evaluated.

<sup>2</sup>Ten year annualized average value is calculated by taking one tenth of the 1990 trade liberalization change in quantity, multiplying it by the projected baseline US export price from table 2, and then averaging.

**Table C-Peanuts: Impact of Trade Liberalization on 1990 US Peanut Exports**

Imports from United States (fixed price) 1000 MT (1)						Total Value of US Exports (\$US millions) (2)		Total Value of US Exports (percent change) (3)		
Netherlands	UK			World Total extrap	World Total exces	Price Fixed	Price Endog. <sup>2</sup>	Price Fixed		Price Endog
				(a)	(b) <sup>1</sup>	(a)	(b)	1990 (a)	10 yr avg <sup>3</sup> (b)	(c)
71.6	92.8			277	338	\$284	\$270	60.5%	10.7%	53%

<sup>1</sup>The world total in column (b) is calculated by moving down the constant elasticity of excess demand for total world imports. The numbers reported in column (a) are extrapolated from the imports of countries for which policies were evaluated.

<sup>2</sup>Assuming multilateral free trade by all importing countries, US export prices increase by \$9.5/MT (2%) and total world imports increase by 17,616 1000 MT (versus 17,864 with world price fixed).

<sup>3</sup>Ten year annualized average value is calculated by taking one tenth of the 1990 trade liberalization change in quantity, multiplying it by the projected baseline US export price from table 2, and then averaging.



**Table C-Potatoes: Impact of Trade Liberalization on 1990 US Fresh Potato Exports**

Imports from United States (fixed price) 1000 MT (1)						Total Value of US Exports (\$US millions) (2)		Total Value of US Exports (percent change) (3)		
Bahamas	Barbados	Canada	Mexico	World Total extrap (a)	World Total exces (b) <sup>1</sup>	Price Fixed (a)	Price Endog. (b)	Price Fixed		Price Endog (c)
								1990 (a)	10 yr avg <sup>2</sup> (b)	
0.4	0.3	356	1,094	1,472	6,743	\$2,161	\$284	3,420%	10%	363%

<sup>1</sup>The world total in column (b) is calculated by moving down the constant elasticity of excess demand for total world imports. The numbers reported in column (a) are extrapolated from the imports of countries for which policies were evaluated.

<sup>2</sup>Ten year annualized average value is calculated by taking one tenth of the 1990 trade liberalization change in quantity, multiplying it by the projected baseline US export price from table 2, and then averaging.

**Table C-Almonds: Impact of Trade Liberalization on 1990 US Almond Exports**

Imports from United States (fixed price) 1000 MT (1)						Total Value of US Exports (\$US millions) (2)		Total Value of US Exports (percent change) (3)		
Switzerland	EEC	Germany	Japan	World Total extrap	World Total exces	Price Fixed (a)	Price Endog. (b)	Price Fixed		Price Endog (c)
				(a)	(b) <sup>1</sup>			1990 (a)	10 yr avg <sup>2</sup> (b)	
5.7	172.1	60.1	23.1	213.5	278	\$832	\$683	48%	2%	21%

<sup>1</sup>The world total in column (b) is calculated by moving down the constant elasticity of excess demand for total world imports. The numbers reported in column (a) are extrapolated from the imports of countries for which policies were evaluated.

<sup>2</sup>Ten year annualized average value is calculated by taking one tenth of the 1990 trade liberalization change in quantity, multiplying it by the projected baseline US export price from table 2, and then averaging.

**TABLE D: DOMESTIC SUPPLY AND DEMAND ELASTICITIES**

	<b>Demand Elasticity</b>	<b>Supply Elasticity</b>
<b>Fresh Grapes</b>	-0.5	1.0
<b>Fresh Oranges</b>	-1.5	1.0
<b>Fresh Grapefruit</b>	-1.25	1.0
<b>Almonds</b>	-1.75	1.0
<b>Potatoes</b>	-0.5	1.0
<b>Peanuts</b>	-1.0	1.0

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All demand elasticities are obtained from the University of California Special Publication 3247 (1978) except for potatoes (obtained from World Bank Staff Working Paper #321) and peanuts (own estimate). All supply elasticities were assumed to equal one.

**TABLE E: CALCULATED EXCESS DEMAND AND EXCESS SUPPLY ELASTICITIES**

Elasticity (excess)	Demand $\eta^{ed}$	Supply $\eta^s$
Grapes	-28.5	26.3
Fresh Oranges	-1.43	5.23
Fresh Grapefruit	-2.5	3.7
Peanuts	-8.1	24.7
Potatoes	-19.5	12.3
Almonds	-12.6	4.3

FIGURE 1: TRADE Liberalization with SUPPLY / DEMAND EQUATIONS

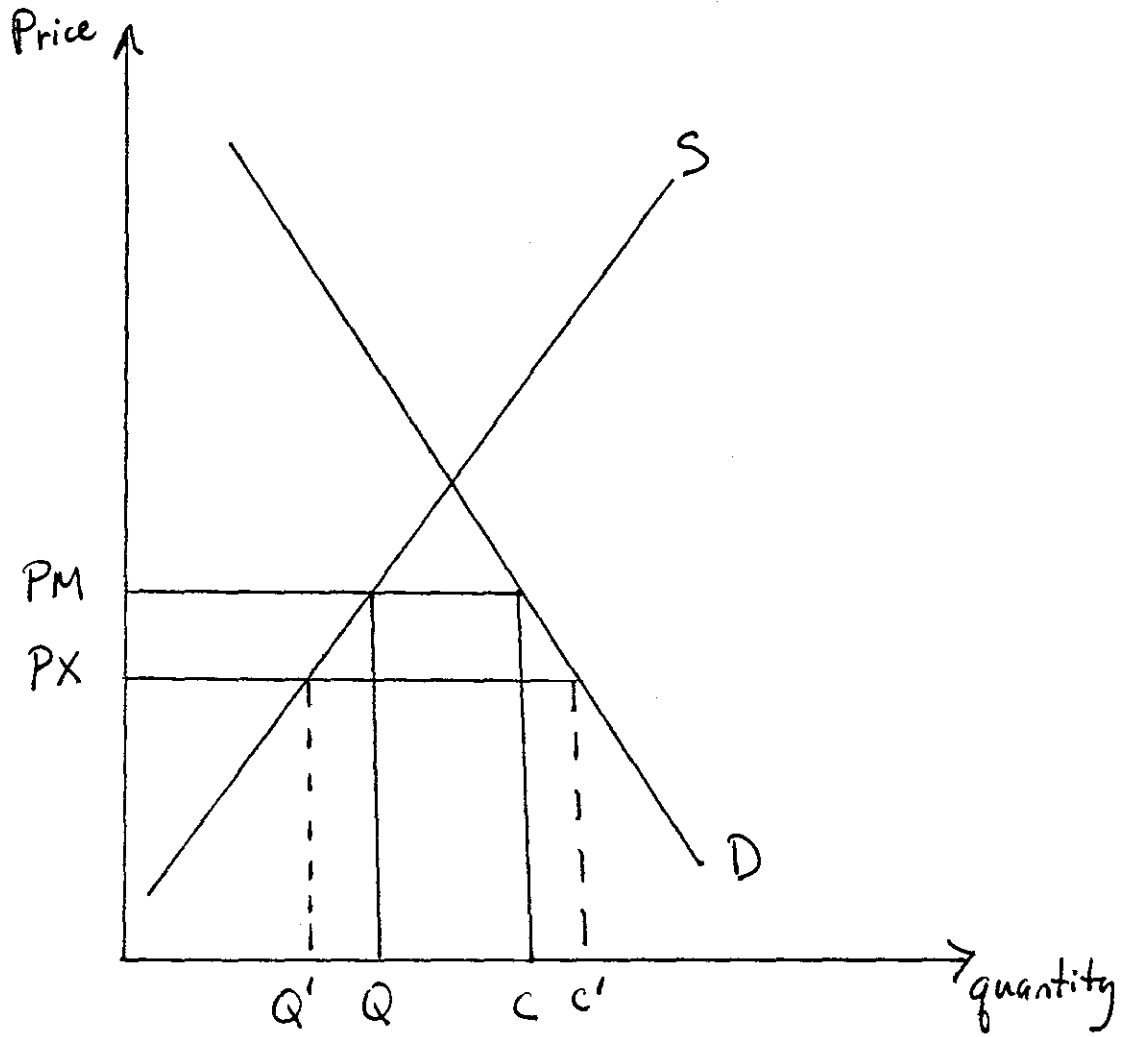


FIGURE 2: TRADE LIBERALIZATION with EXCESS DEMAND CURVE

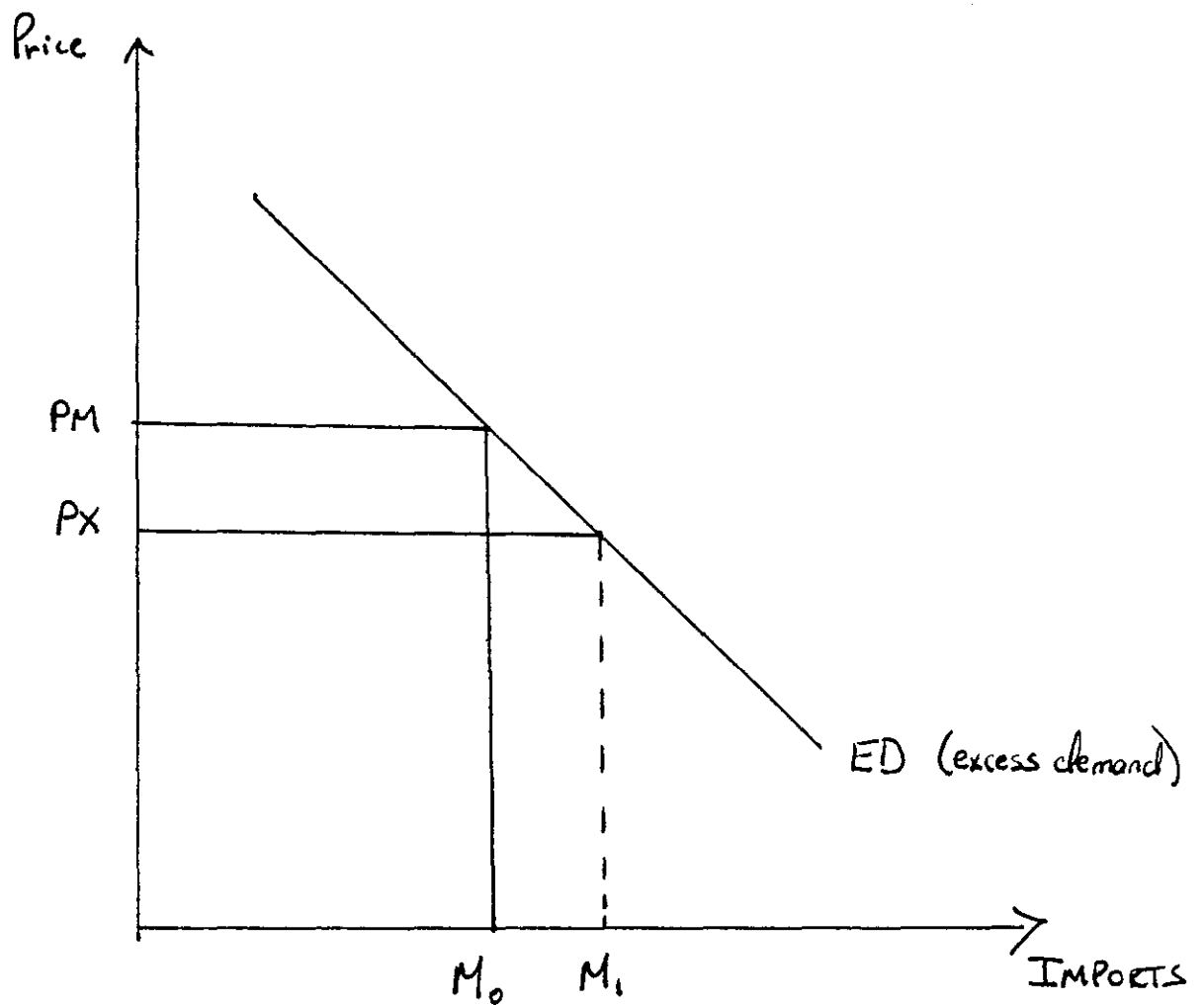
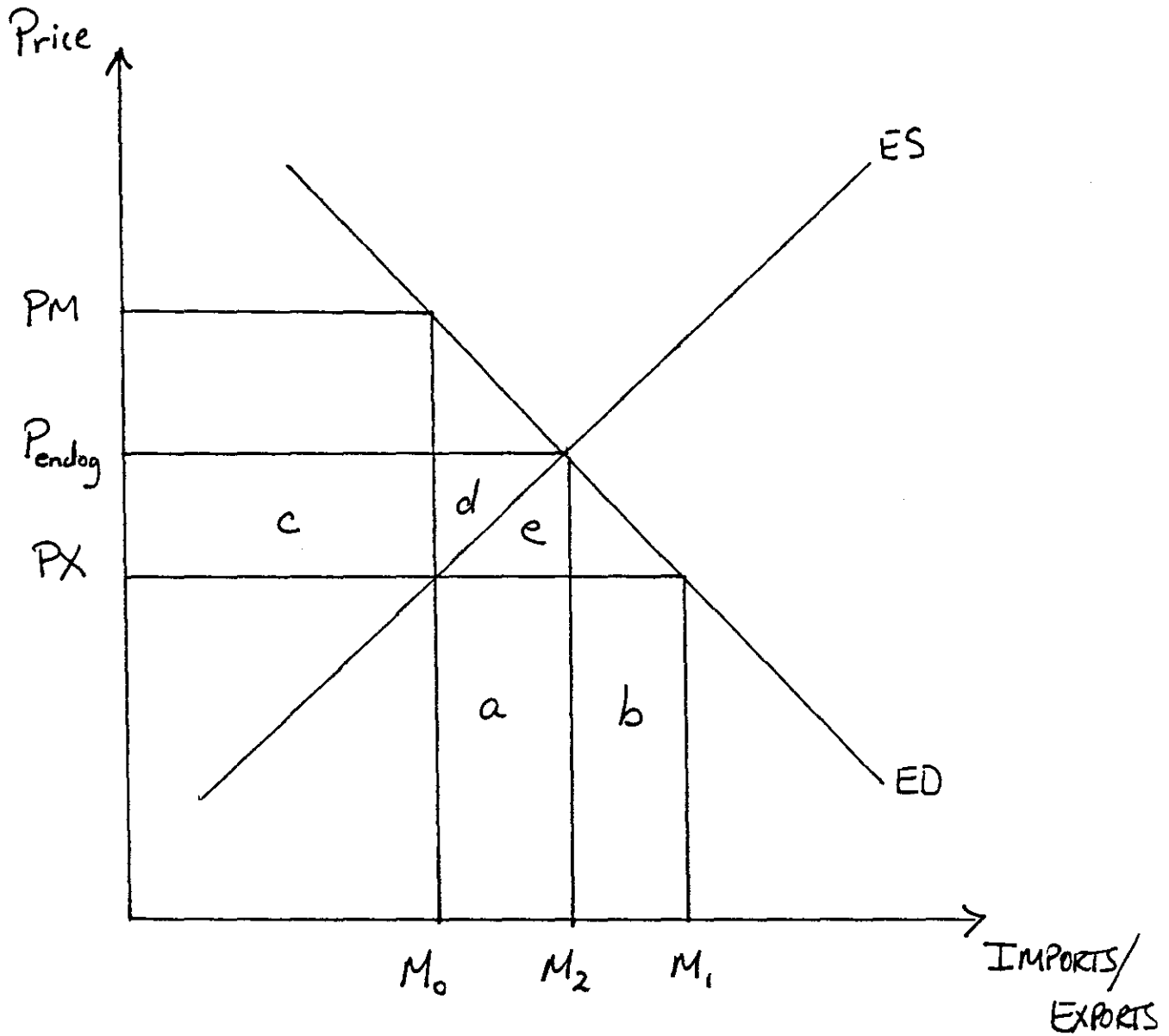


FIGURE 3: TRADE LIBERALIZATION with Excess Supply/Demand



**CHARTS AND TABLES**



FRESH GRAPES

**Table 1: US Fresh Grape Exports (Baseline; 1991-2000 Projected)**

Year	<u>Quantity (1000MT)</u>					<u>US Share of Each Market</u>				
	Canada	Hong Kong	UK	Taiwan	World	Canada	Hong Kong	UK	Taiwan	World
1980	88.1	8.0	0.8	0.8	117.9	0.65	0.68	0.01	1.00	0.11
1981	81.1	8.0	0.3	1.7	111.8	0.65	0.68	0.00	1.00	0.10
1982	78.0	10.5	0.3	3.0	111.7	0.54	0.68	0.00	1.00	0.10
1983	88.0	6.9	0.3	1.3	110.8	0.57	0.55	0.00	1.00	0.09
1984	85.2	9.1	0.5	2.5	110.9	0.54	0.66	0.01	1.00	0.09
1985	60.3	14.2	0.3	2.7	91.4	0.38	0.70	0.00	1.00	0.07
1986	50.2	14.0	2.9	12.8	108.5	0.32	0.71	0.03	1.00	0.08
1987	59.8	9.2	5.1	11.3	107.7	0.38	0.58	0.05	1.00	0.07
1988	73.7	15.6	4.6	11.9	133.2	0.46	0.75	0.04	1.00	0.09
1989	65.2	21.5	5.1	12.8	135.8	0.41	0.72	0.04	1.00	0.09
1990	128.1	20.3	8.2	14.7	205.6	0.71	0.76	0.07	1.00	0.13
1991	79.7	20.1	7.0	16.2	154.5	0.46	0.73	0.06	1.00	0.09
1992	80.0	21.4	7.7	17.8	159.9	0.45	0.74	0.06	1.00	0.09
1993	80.3	22.7	8.5	19.3	165.2	0.44	0.74	0.07	1.00	0.09
1994	80.6	24.0	9.2	20.9	170.6	0.43	0.75	0.08	1.00	0.09
1995	80.9	25.2	9.9	22.5	176.0	0.43	0.76	0.08	1.00	0.09
1996	81.2	26.5	10.7	24.0	181.3	0.42	0.77	0.09	1.00	0.09
1997	81.5	27.8	11.4	25.6	186.7	0.41	0.77	0.09	1.00	0.09
1998	81.8	29.1	12.1	27.1	192.1	0.41	0.78	0.10	1.00	0.09
1999	82.1	30.3	12.9	28.7	197.4	0.40	0.79	0.11	1.00	0.09
2000	82.4	31.6	13.6	30.3	202.8	0.40	0.80	0.11	1.00	0.09

Source: USDA and FAO.

Taiwan Production data is taken from the Taiwan Agricultural Yearbook;

Taiwan Trade data is from Agricultural Trade Statistics of the Republic of China.

**TABLE 2: US Fresh Grape Export Prices (Baseline; 1991-2000 Projected)**

Year	<u>Price (\$US/MT)</u>					<u>Export Price to Country Over Avg. Export Price</u>			
	Canada	Hong Kong	UK	Taiwan	World	Canada	Hong Kong	UK	Taiwan
1980	\$600	\$1,032	\$961	\$2,091	\$714	0.84	1.45	1.35	2.93
1981	704	1,166	1,140	1,328	847	0.83	1.38	1.35	1.57
1982	710	1,204	1,106	1,020	863	0.82	1.39	1.28	1.18
1983	688	1,172	1,246	907	795	0.87	1.47	1.57	1.14
1984	711	1,094	797	897	810	0.88	1.35	0.98	1.11
1985	690	1,073	1,246	1,109	857	0.80	1.25	1.45	1.29
1986	902	1,036	1,300	1,111	947	0.95	1.09	1.37	1.17
1987	856	1,201	1,498	1,009	1,001	0.85	1.20	1.50	1.01
1988	870	1,005	1,639	953	974	0.89	1.03	1.68	0.98
1989	908	871	1,649	953	971	0.94	0.90	1.70	0.98
1990	976	1,039	1,388	1,226	1,101	0.89	0.94	1.26	1.11
1991	1,015	986	1,640	840	1,079	0.94	0.91	1.52	0.78
1992	1,052	970	1,701	789	1,109	0.95	0.87	1.53	0.71
1993	1,089	954	1,763	738	1,139	0.96	0.84	1.55	0.65
1994	1,126	939	1,824	687	1,170	0.96	0.80	1.56	0.59
1995	1,162	923	1,886	636	1,200	0.97	0.77	1.57	0.53
1996	1,199	907	1,948	585	1,230	0.97	0.74	1.58	0.48
1997	1,235	891	2,009	534	1,260	0.98	0.71	1.59	0.42
1998	1,270	875	2,071	483	1,290	0.98	0.68	1.61	0.37
1999	1,306	859	2,133	432	1,320	0.99	0.65	1.62	0.33
2000	1,341	844	2,194	381	1,350	0.99	0.62	1.62	0.28

Source: FAO, USDA-FAS and Taiwan Agricultural Yearbook and Chinese Ag. Trade Statistics

Note: US export price is the f.a.s. US port price from the USDA.

Note: The price ratio is the US export price to each country over the average price of total US exports.

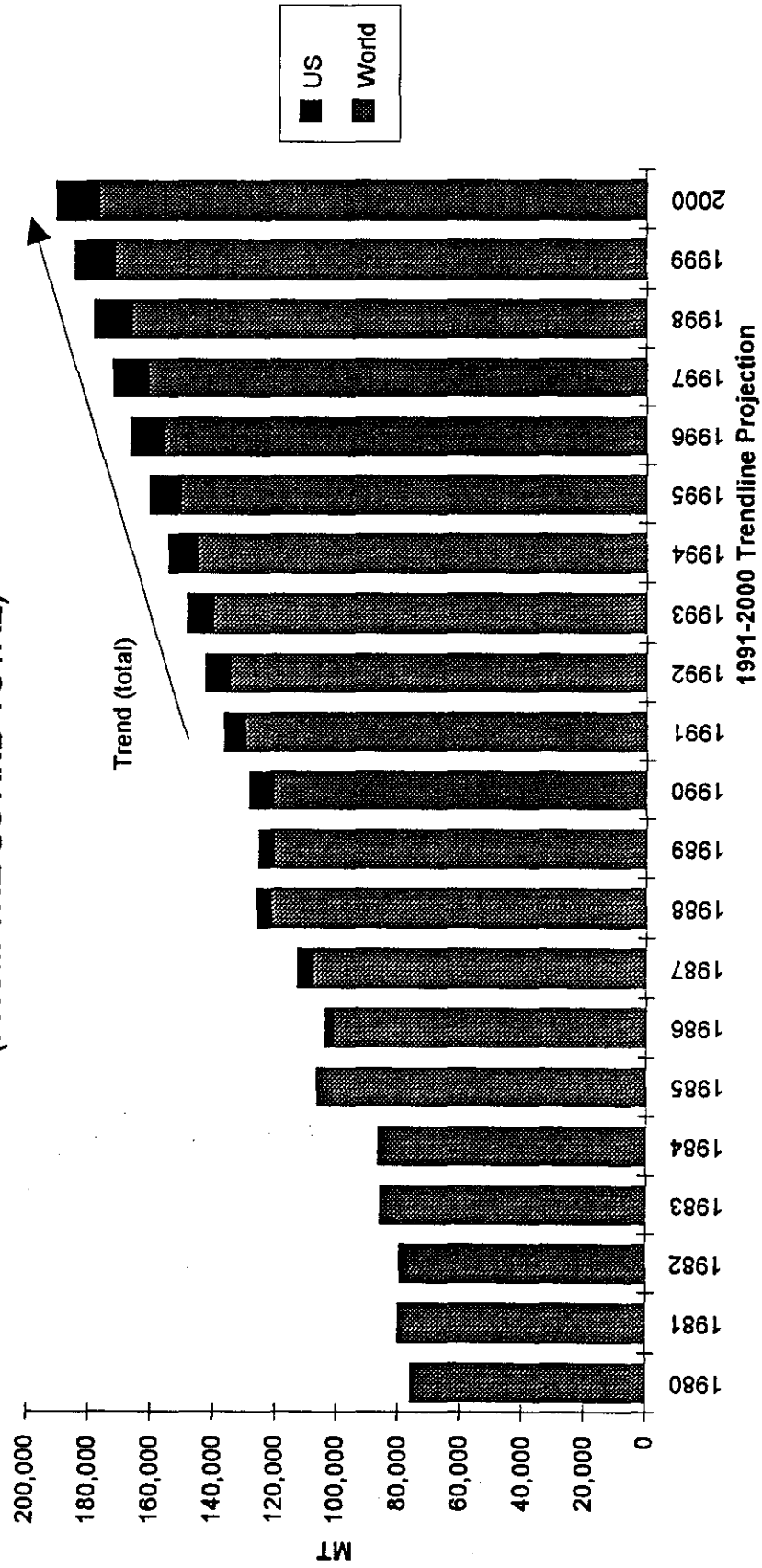
**TABLE 3: US Fresh Grape Exports (Baseline; 1991-2000 Projected)**

Year	<u>Value (US\$ Million)</u>					<u>US Share of Each Market</u>				
	Canada	Hong Kong	UK	Taiwan	World	Canada	Hong Kong	UK	Taiwan	World
1980	\$52.9	\$8.2	\$0.8	\$1.7	\$83.3	0.57	0.53	0.01	1.00	0.11
1981	57.1	9.4	0.3	2.2	94.0	0.57	0.53	0.00	1.00	0.12
1982	55.4	12.6	0.3	3.1	95.2	0.49	0.58	0.00	1.00	0.12
1983	60.5	8.1	0.4	1.1	86.4	0.49	0.51	0.00	1.00	0.10
1984	60.6	9.9	0.4	2.2	88.6	0.48	0.57	0.01	1.00	0.11
1985	41.6	15.2	0.4	3.0	76.4	0.34	0.64	0.00	1.00	0.08
1986	45.3	14.5	3.8	14.2	102.4	0.35	0.64	0.04	1.00	0.09
1987	51.2	11.0	7.7	11.4	108.0	0.37	0.50	0.06	1.00	0.08
1988	64.2	15.6	7.5	11.4	129.5	0.39	0.47	0.05	1.00	0.08
1989	59.2	18.7	8.3	12.2	132.1	0.38	0.44	0.05	1.00	0.09
1990	125.1	21.1	11.4	18.1	215.9	0.67	0.44	0.06	1.00	0.11
1991	80.9	19.8	10.5	17.1	163.4	0.45	0.46	0.06	1.00	0.09
1992	84.2	20.9	11.7	18.7	172.2	0.45	0.46	0.06	1.00	0.09
1993	87.5	22.0	12.8	20.4	181.1	0.45	0.46	0.07	1.00	0.09
1994	90.8	23.1	13.9	22.0	190.0	0.44	0.45	0.07	1.00	0.09
1995	94.0	24.2	15.1	23.6	198.8	0.44	0.45	0.07	1.00	0.09
1996	97.3	25.3	16.2	25.3	207.7	0.44	0.45	0.07	1.00	0.09
1997	100.6	26.4	17.3	26.9	216.6	0.44	0.44	0.07	1.00	0.09
1998	103.9	27.5	18.5	28.5	225.4	0.44	0.44	0.08	1.00	0.09
1999	107.2	28.6	19.6	30.2	234.3	0.44	0.44	0.08	1.00	0.09
2000	110.5	29.7	20.7	31.8	243.2	0.44	0.44	0.08	1.00	0.09

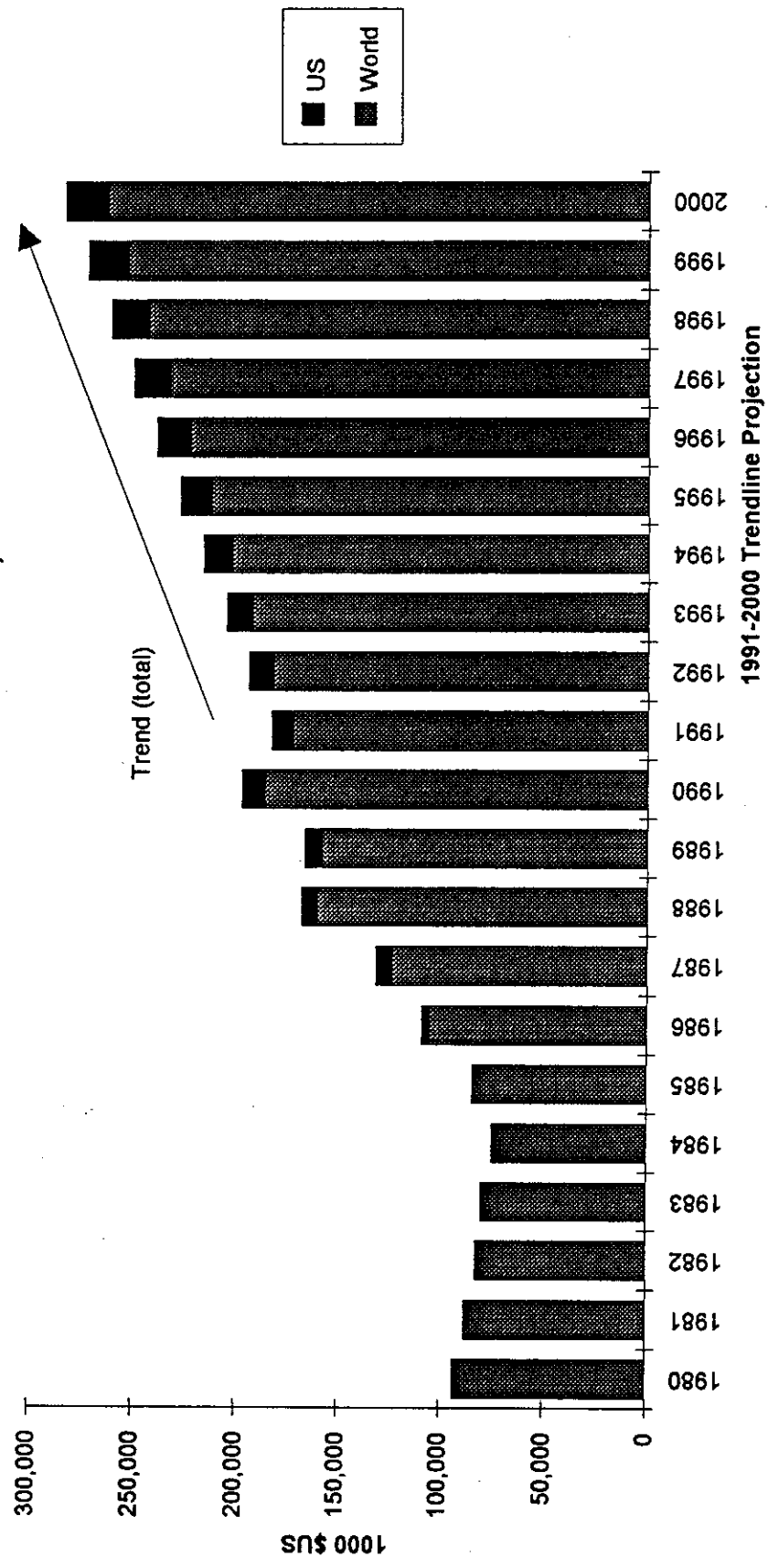
Source: FAO and USDA-FAS.

Taiwan: Agricultural Yearbook, Chinese Agricultural Trade Statistics Yearbook and the USDA.

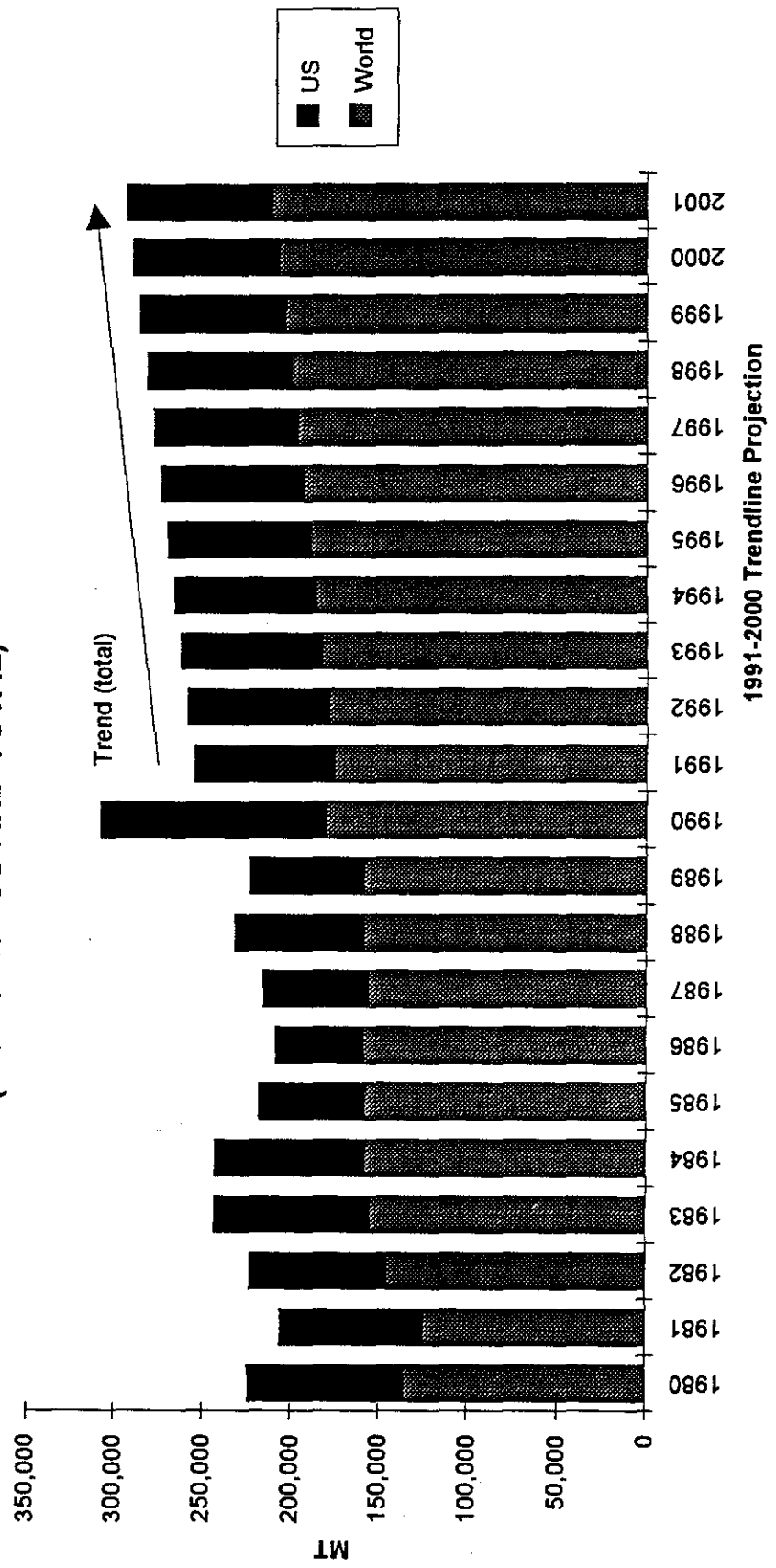
**CHART 1: QUANTITY OF UK FRESH GRAPE IMPORTS  
(FROM THE US AND TOTAL)**



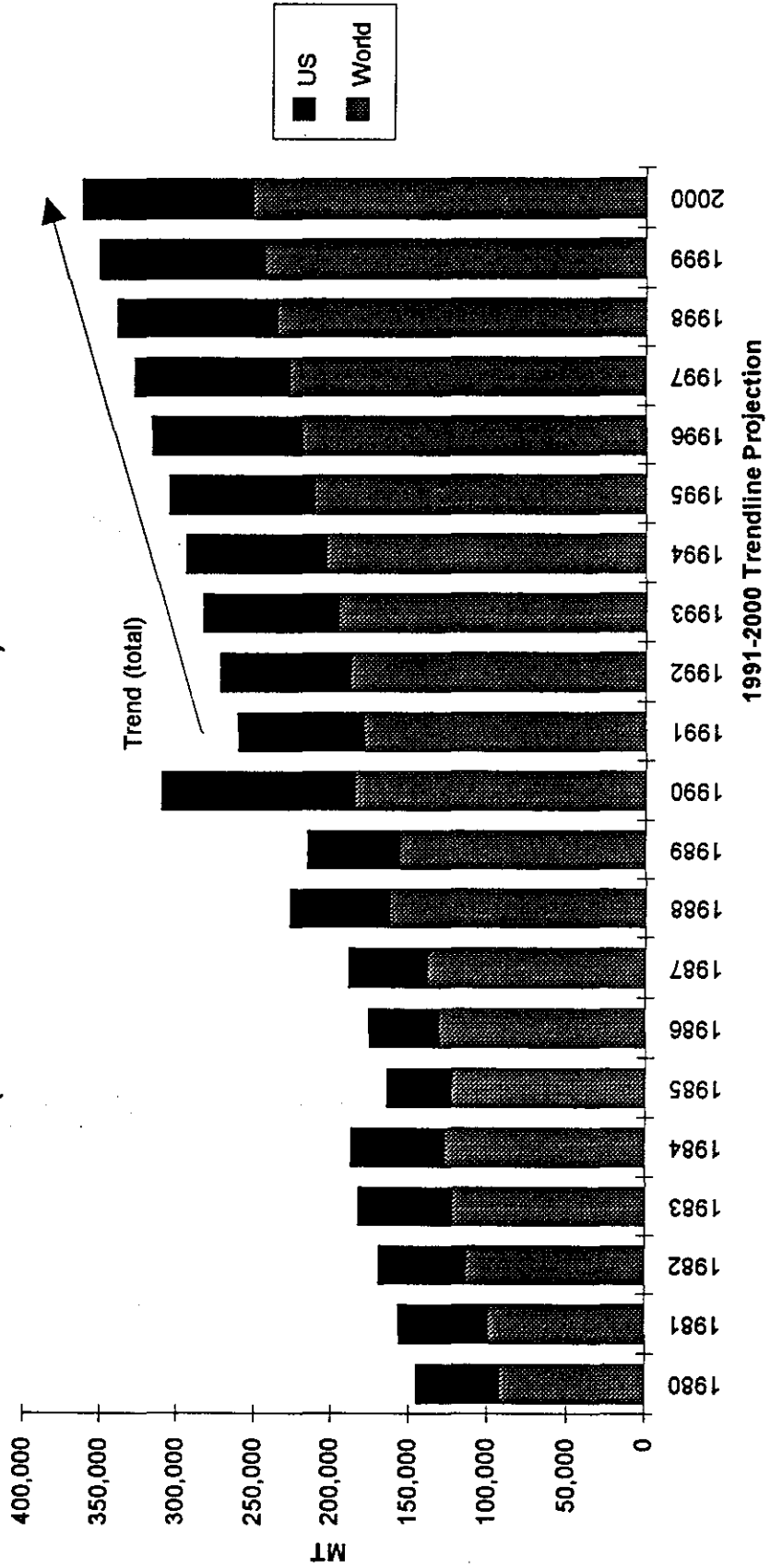
**CHART 2: VALUE OF UK FRESH GRAPE IMPORTS  
(FROM THE US AND TOTAL)**



**CHART 3: QUANTITY OF CANADIAN FRESH GRAPE IMPORTS  
(FROM THE US AND TOTAL)**

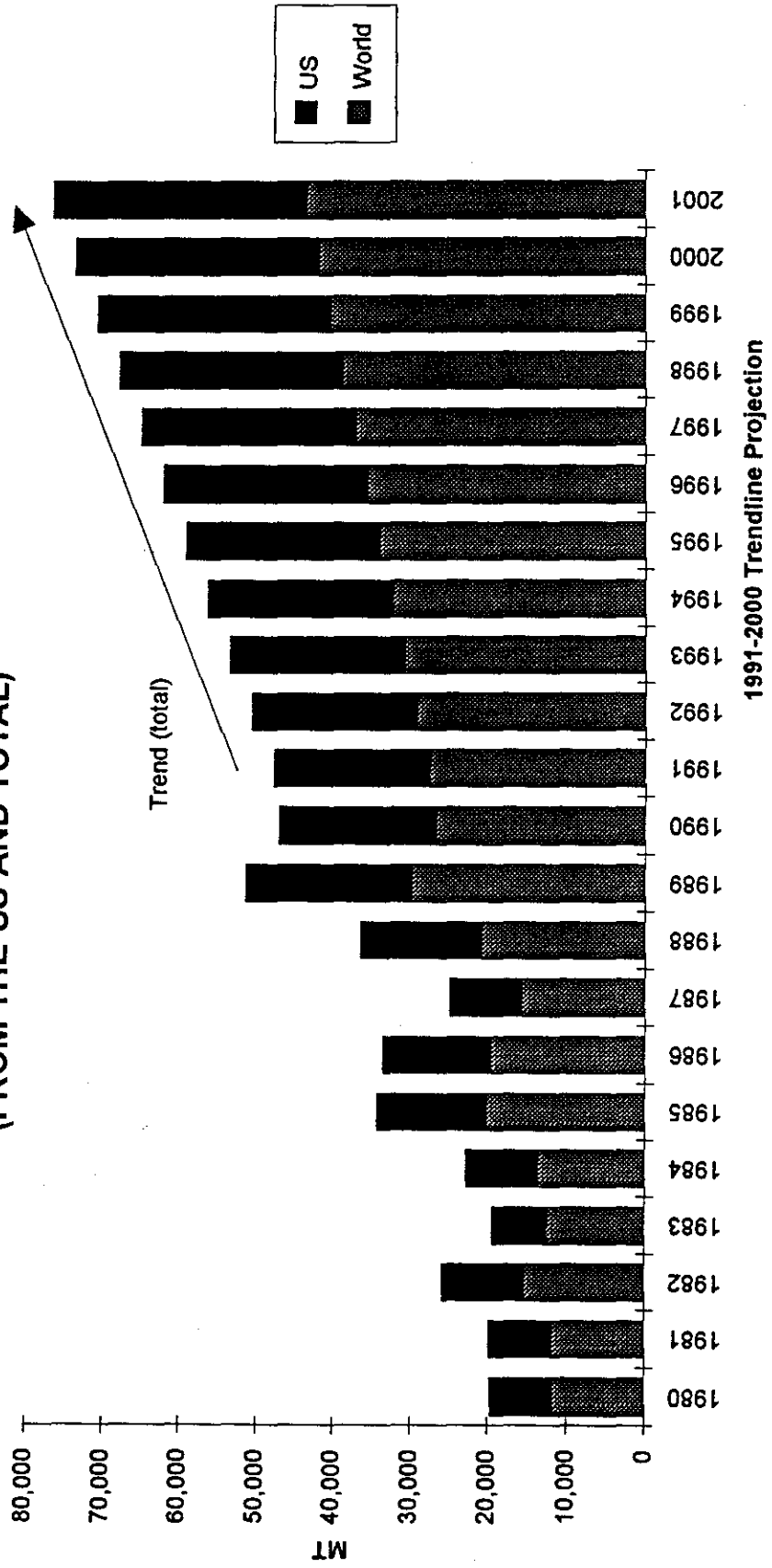


**CHART 4: VALUE OF CANADIAN FRESH GRAPE IMPORTS  
(FROM THE US AND TOTAL)**

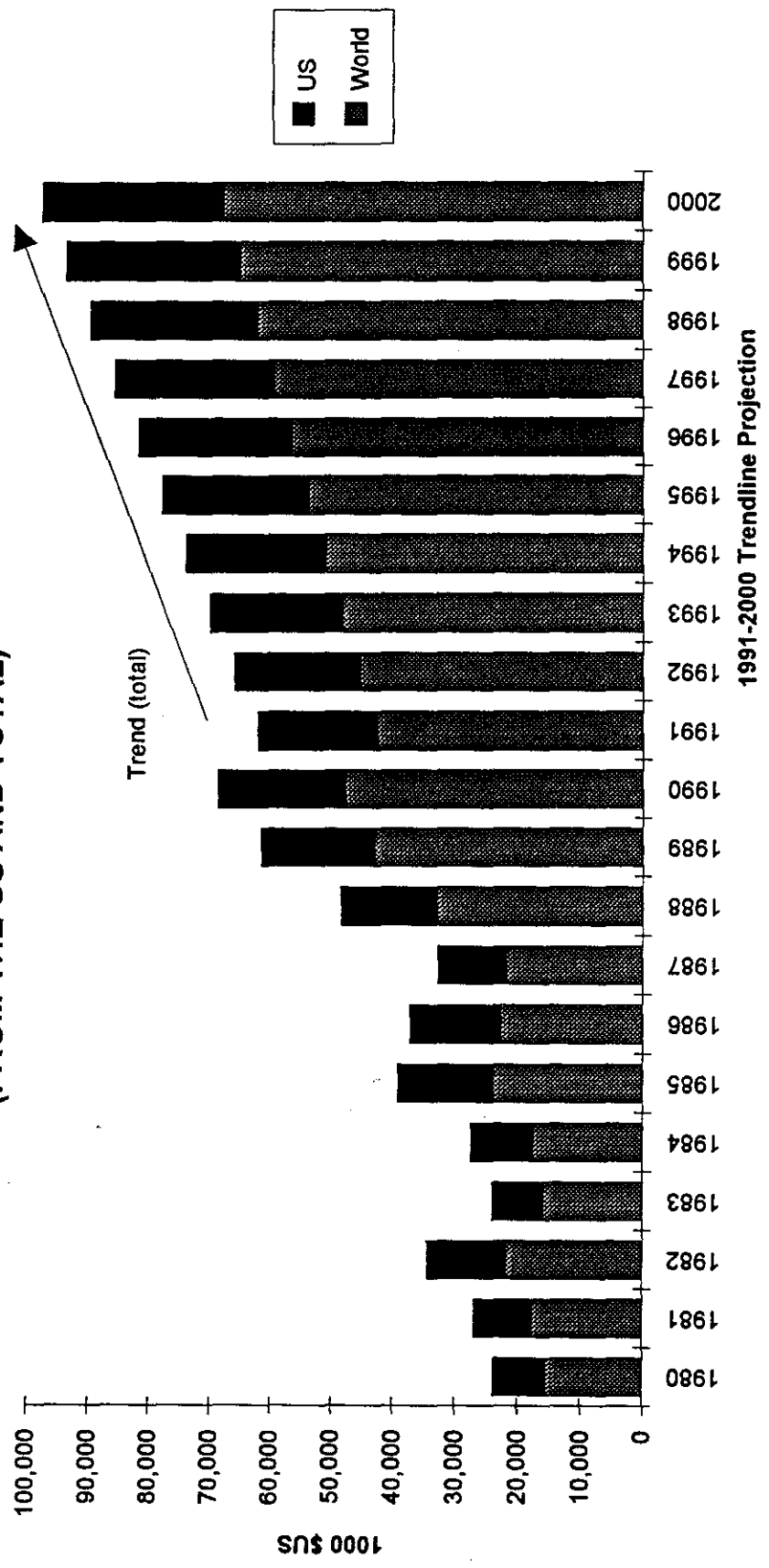




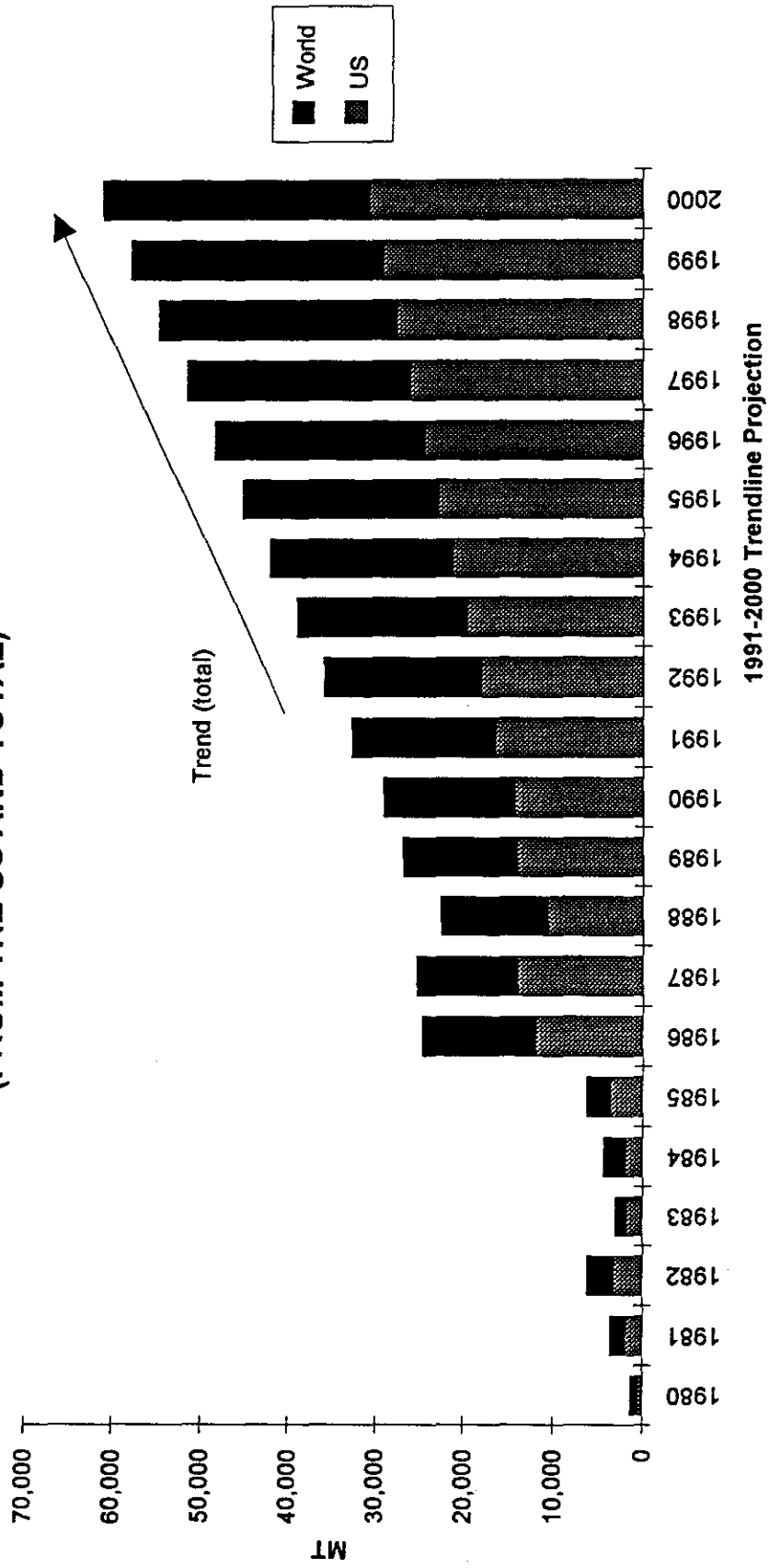
**CHART 5: QUANTITY OF HONG KONG FRESH GRAPE IMPORTS  
(FROM THE US AND TOTAL)**



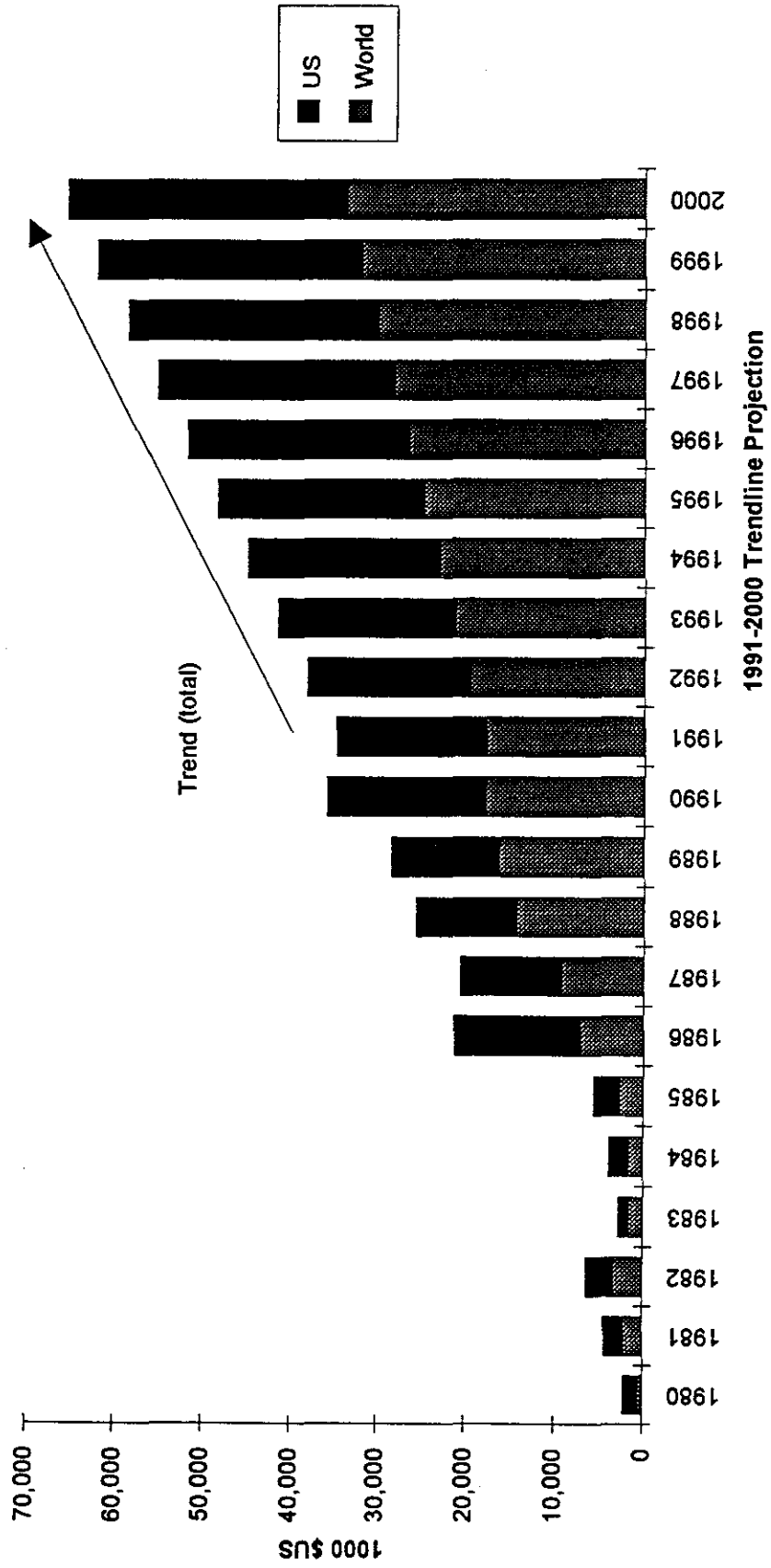
**CHART 6: VALUE OF HONG KONG FRESH GRAPE IMPORTS  
(FROM THE US AND TOTAL)**



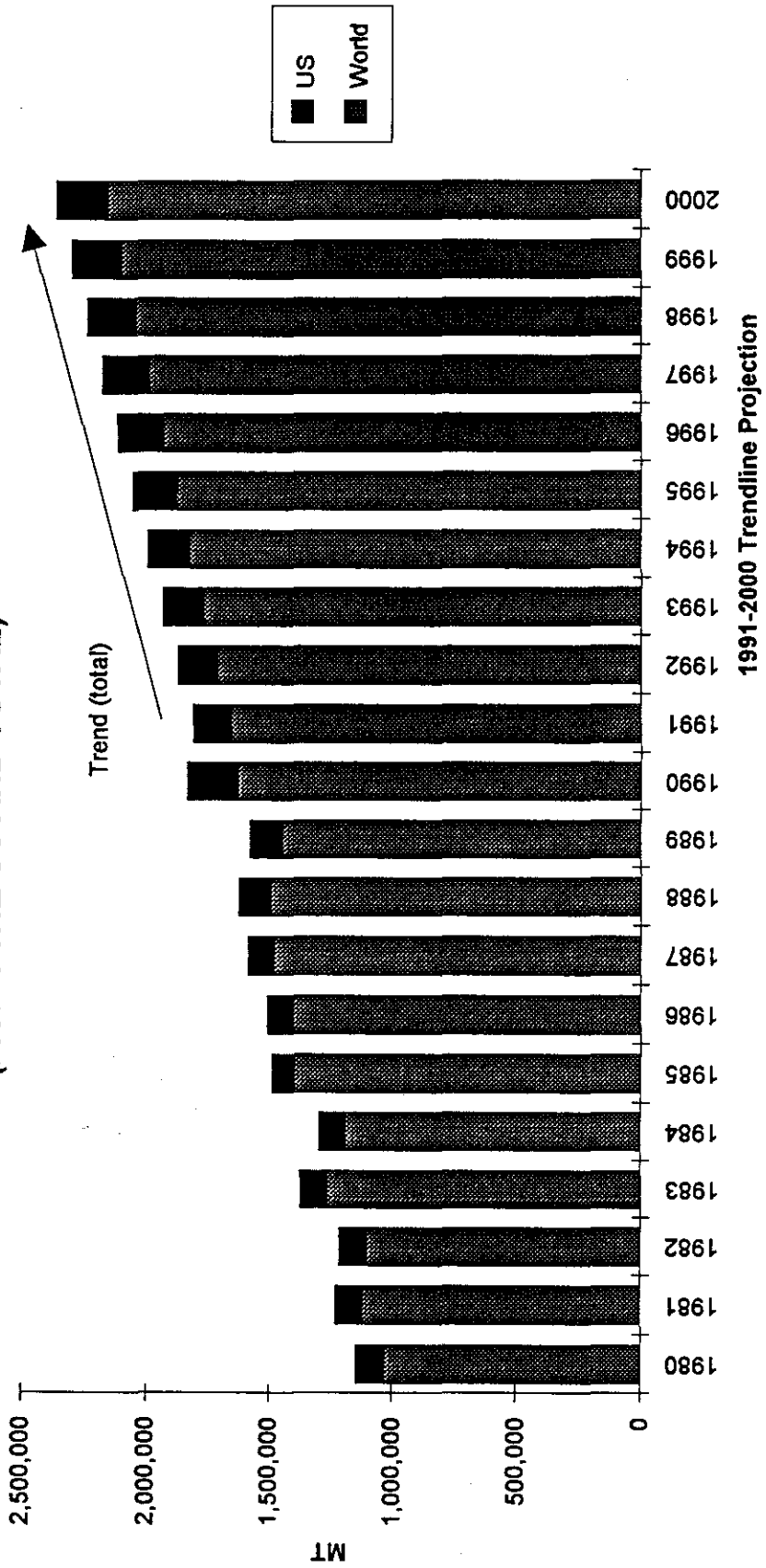
**CHART 7: QUANTITY OF TAIWAN FRESH GRAPE IMPORTS  
(FROM THE US AND TOTAL)**



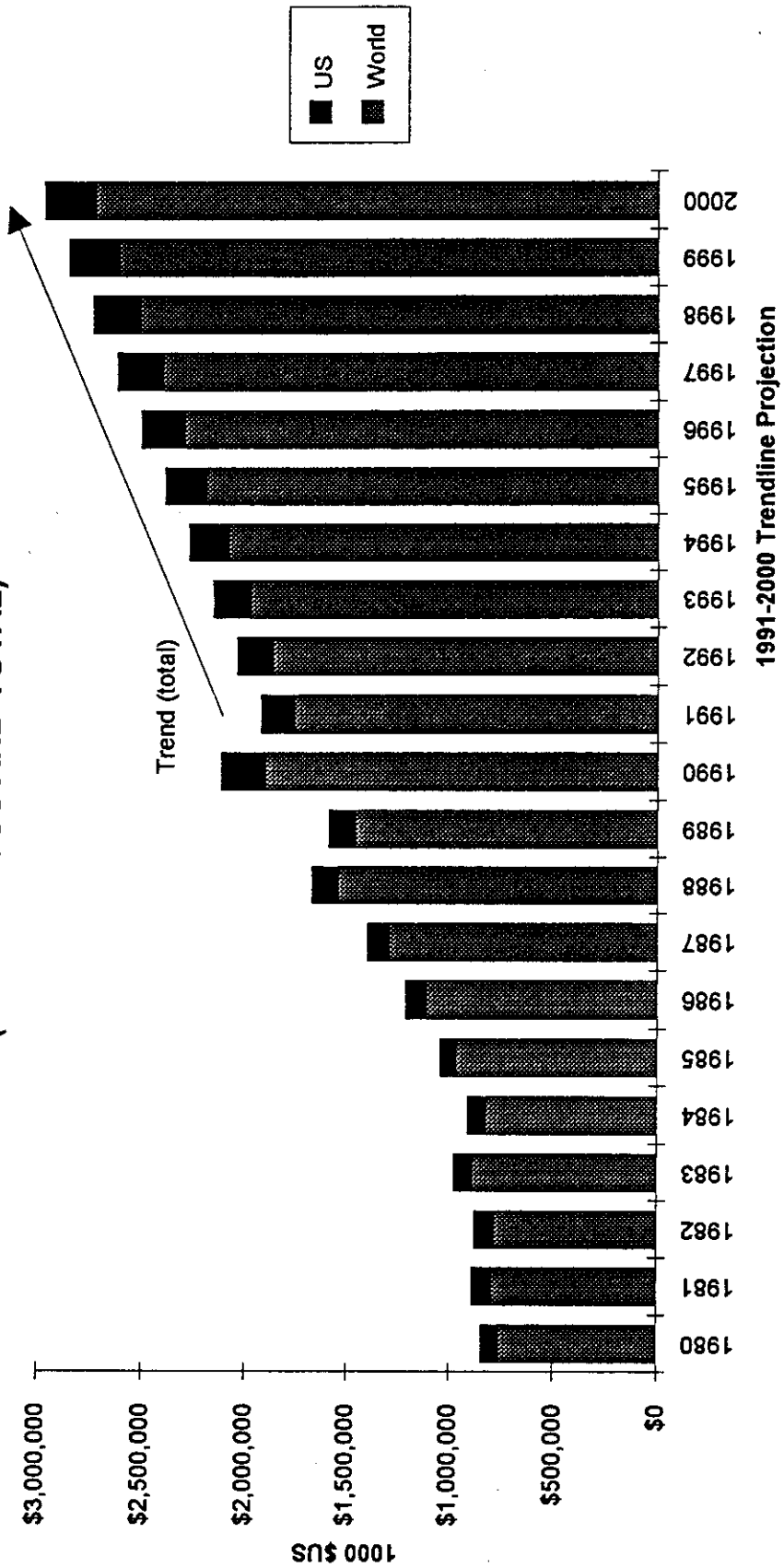
**CHART 8: VALUE OF TAIWAN FRESH GRAPE IMPORTS  
(FROM THE US AND TOTAL )**



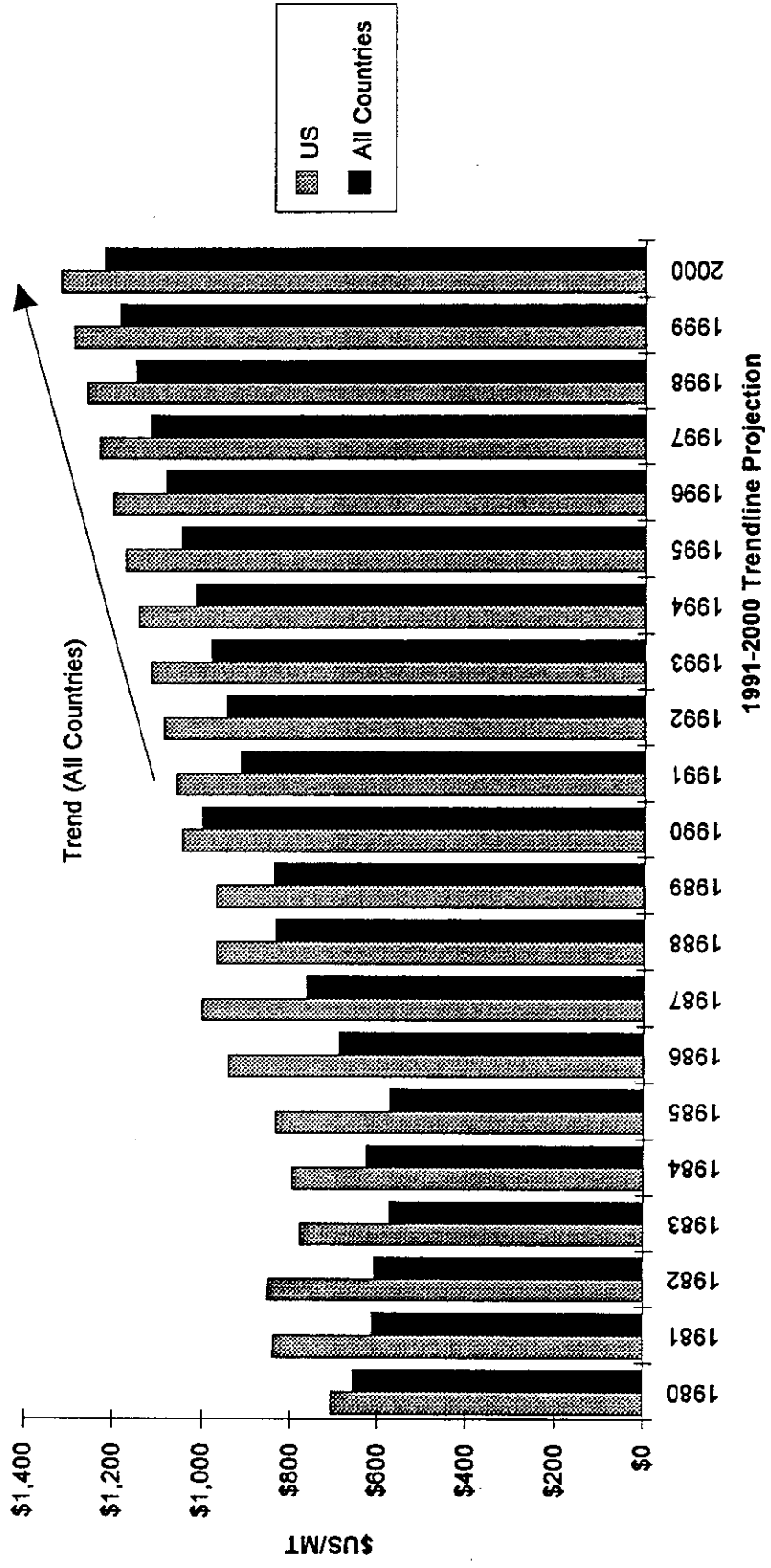
**CHART 9: QUANTITY OF WORLD FRESH GRAPE IMPORTS  
(FROM THE US AND TOTAL)**



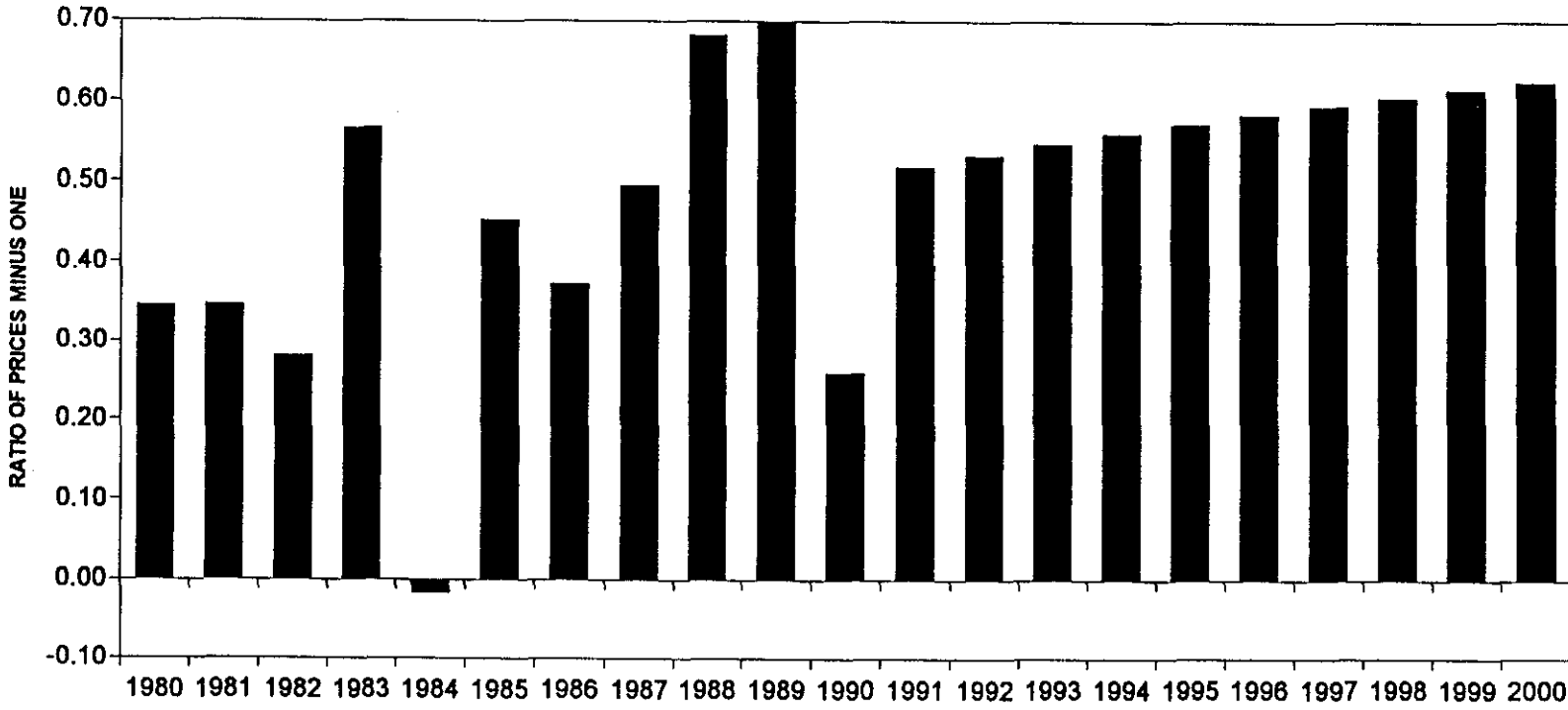
**CHART 10: VALUE OF WORLD FRESH GRAPE IMPORTS  
(FROM THE US AND TOTAL)**



**CHART 11: AVERAGE FRESH GRAPE EXPORT PRICE  
(NOMINAL EXPORT PRICES FROM THE US AND ALL COUNTRIES)**



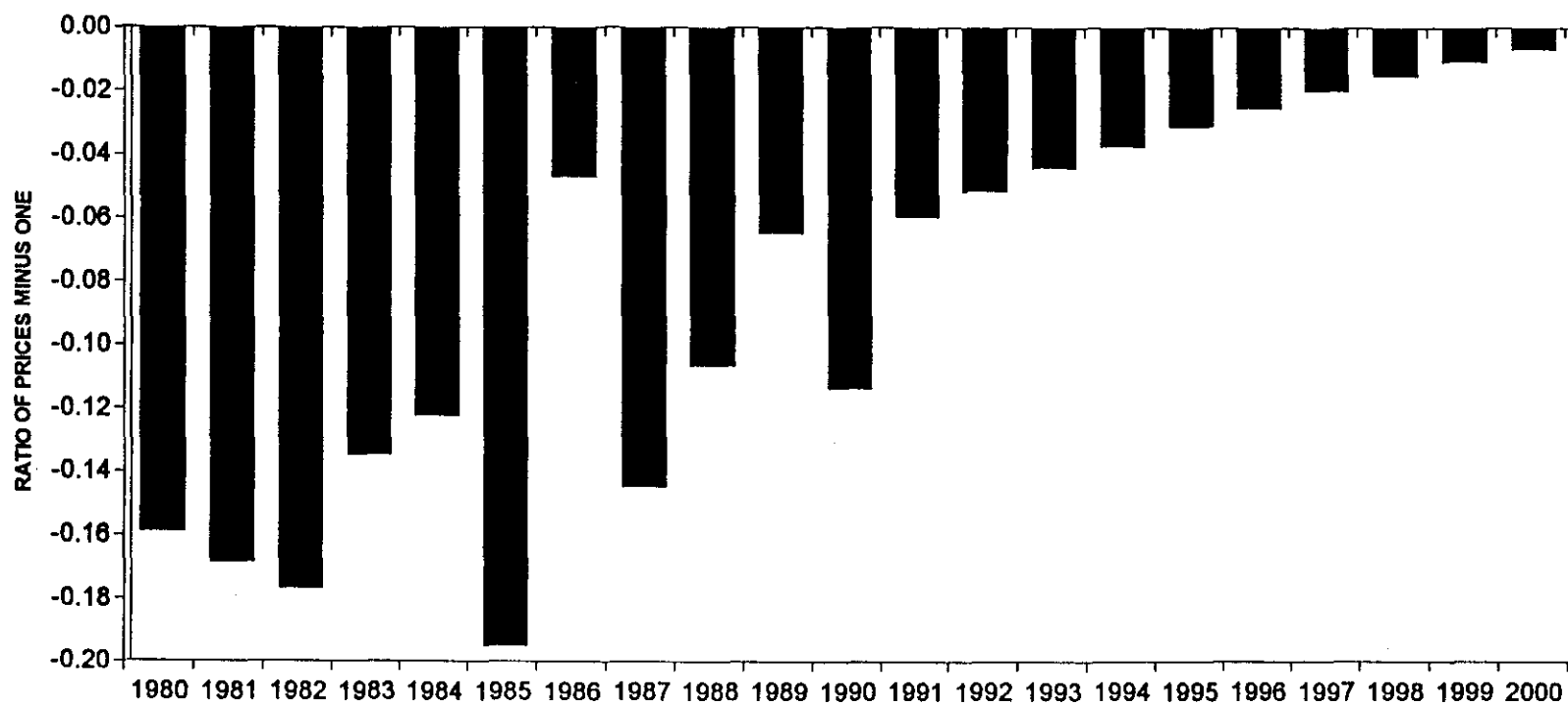
**CHART 12: RATIO OF US FRESH GRAPE EXPORT PRICE TO THE UK OVER THE AVERAGE US EXPORT PRICE (MINUS ONE)**



1991-2000 Trendline Projection

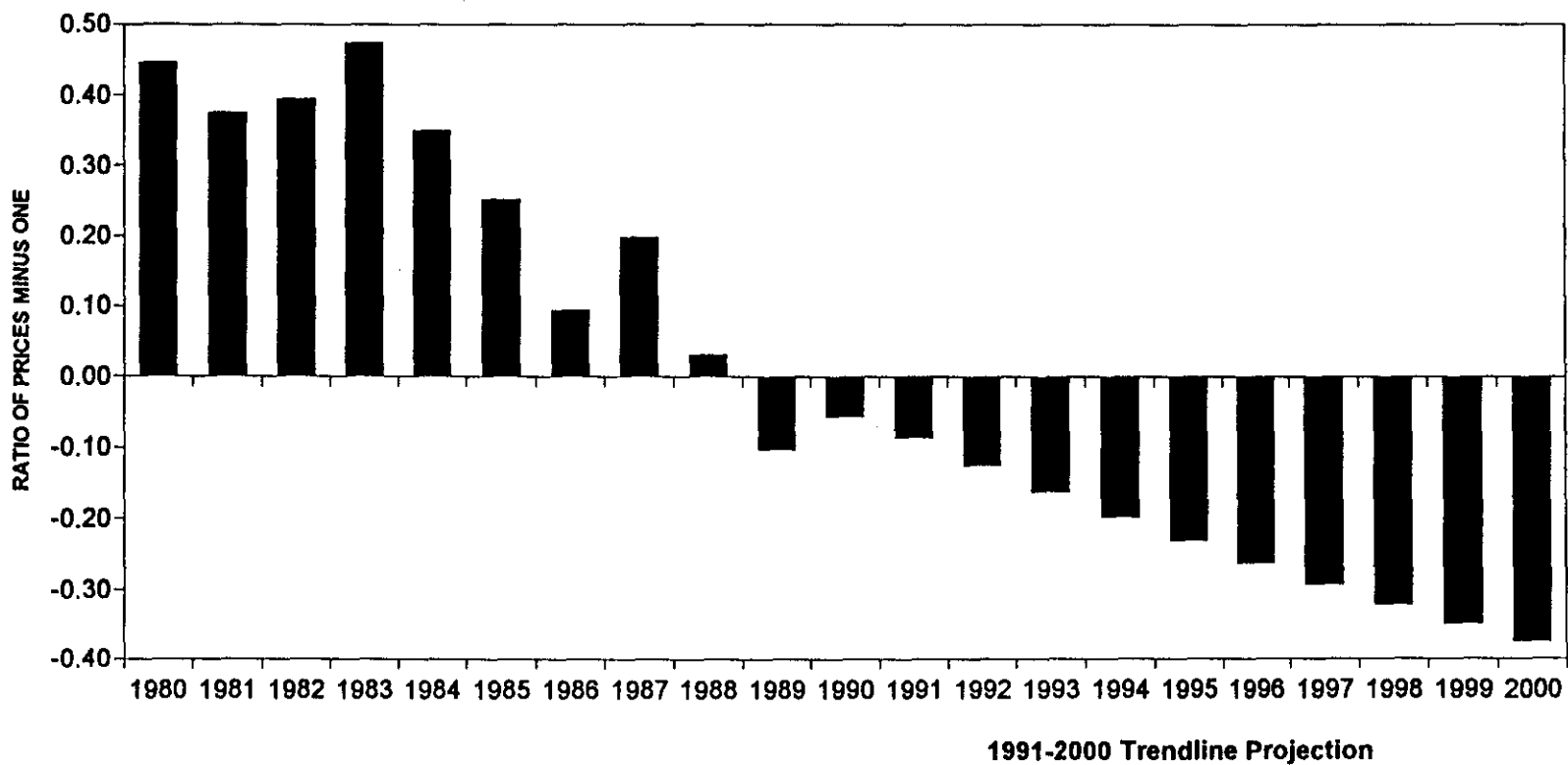


**CHART 13: RATIO OF US FRESH GRAPE EXPORT PRICE TO CANADA  
OVER AVG. US EXPORT PRICE (MINUS ONE)**

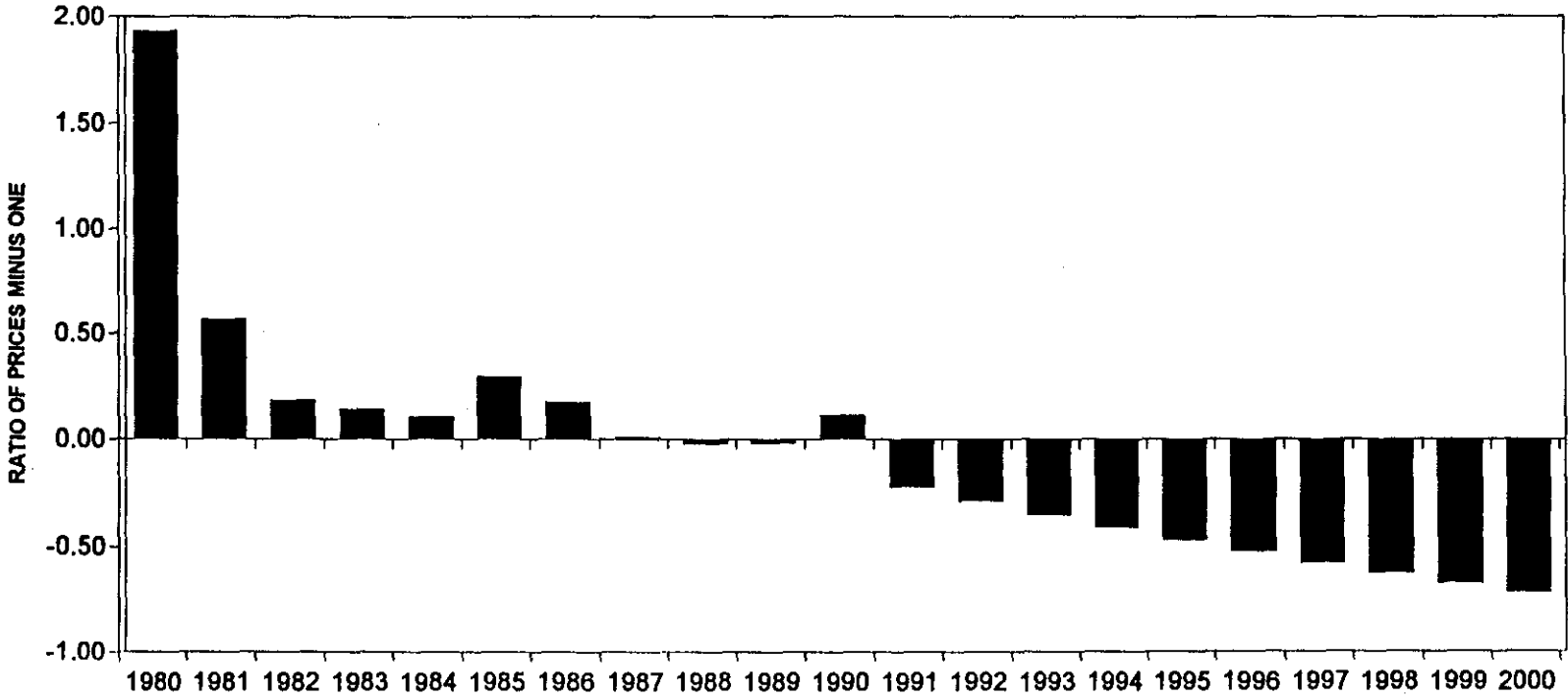


1991-2000 Trendline Projection

**CHART 14: RATIO OF US FRESH GRAPE EXPORT PRICE TO HONG KONG  
OVER THE AVG. US EXPORT PRICE (MINUS ONE)**



**CHART 15: RATIO OF US FRESH GRAPE EXPORT PRICE TO TAIWAN OVER  
AVG. US EXPORT PRICE (MINUS ONE)**



1991-2000 Trendline Projection

FRESH ORANGES

**Table 1: US Fresh Orange Exports (Baseline; 1991-2000 Projected)**

Year	<u>Quantity (1000MT)</u>					<u>US Share of Each Market</u>				
	Canada	Hong Kong	Japan	Singapore	World	Canada	Hong Kong	Japan	Singapore	World
1980	171	111	71	18	481	0.58	0.74	0.99	0.33	0.09
1981	172	118	77	20	443	0.57	0.78	1.00	0.29	0.09
1982	135	88	83	16	353	0.49	0.65	1.00	0.01	0.07
1983	178	128	90	27	497	0.60	0.77	1.00	0.45	0.10
1984	137	96	87	19	373	0.50	0.73	0.98	0.31	0.07
1985	124	119	108	20	411	0.48	0.83	0.97	0.37	0.08
1986	124	128	112	17	413	0.43	0.82	0.95	0.31	0.08
1987	115	96	123	13	398	0.40	0.60	0.99	0.22	0.07
1988	104	85	114	12	355	0.41	0.52	0.98	0.20	0.06
1989	93	106	122	18	389	0.34	0.63	0.94	0.30	0.07
1990	211	110	142	18	531	0.76	0.64	0.98	0.31	0.09
1991	123	103	142	17	416	0.47	0.61	0.96	0.29	0.07
1992	120	102	148	16	415	0.46	0.59	0.96	0.29	0.07
1993	116	101	155	16	414	0.45	0.58	0.96	0.29	0.07
1994	113	100	161	16	413	0.44	0.57	0.96	0.29	0.07
1995	110	100	168	16	412	0.44	0.56	0.96	0.29	0.07
1996	107	99	174	16	411	0.43	0.54	0.96	0.29	0.07
1997	104	98	181	16	410	0.42	0.53	0.96	0.29	0.07
1998	100	97	187	16	409	0.41	0.52	0.95	0.29	0.07
1999	97	96	194	16	408	0.40	0.51	0.95	0.29	0.07
2000	94	96	200	16	407	0.39	0.50	0.95	0.29	0.06

Source: USDA-FAS and FAO.

**TABLE 2: US Fresh Orange Export Prices (Baseline; 1991-2000 Projected)**

Year	<u>Price (\$US/MT)</u>					<u>Export Price to Country over Avg. Export Price</u>			
	Canada	Hong Kong	Japan	Singapore	World	Canada	Hong Kong	Japan	Singapore
1980	\$365	\$448	\$393	\$401	\$382	0.96	1.17	1.03	1.05
1981	392	536	776	476	476	0.82	1.13	1.63	1.00
1982	503	577	618	396	550	0.91	1.05	1.12	0.72
1983	397	530	578	501	473	0.84	1.12	1.22	1.06
1984	535	546	710	508	574	0.93	0.95	1.24	0.88
1985	549	557	678	550	588	0.93	0.95	1.15	0.94
1986	528	554	611	549	564	0.94	0.98	1.08	0.97
1987	526	528	648	560	562	0.94	0.94	1.15	1.00
1988	539	513	642	529	566	0.95	0.91	1.13	0.93
1989	626	513	687	516	597	1.05	0.86	1.15	0.86
1990	494	494	624	502	533	0.93	0.93	1.17	0.94
1991	605	527	664	558	615	0.98	0.86	1.08	0.91
1992	629	527	667	566	630	1.00	0.84	1.06	0.90
1993	655	527	670	575	645	1.02	0.82	1.04	0.89
1994	682	527	672	584	660	1.03	0.80	1.02	0.89
1995	711	527	675	593	674	1.05	0.78	1.00	0.88
1996	741	527	677	601	690	1.07	0.76	0.98	0.87
1997	773	527	679	610	705	1.10	0.75	0.96	0.87
1998	808	527	681	619	720	1.12	0.73	0.95	0.86
1999	844	527	683	628	735	1.15	0.72	0.93	0.85
2000	883	527	684	637	750	1.18	0.70	0.91	0.85

Source: FAO and USDA-FAS

Note: Export price is the f.a.s. US port price reported by the USDA.

Note: The price ratio is the US export price to each country over the average US export price.

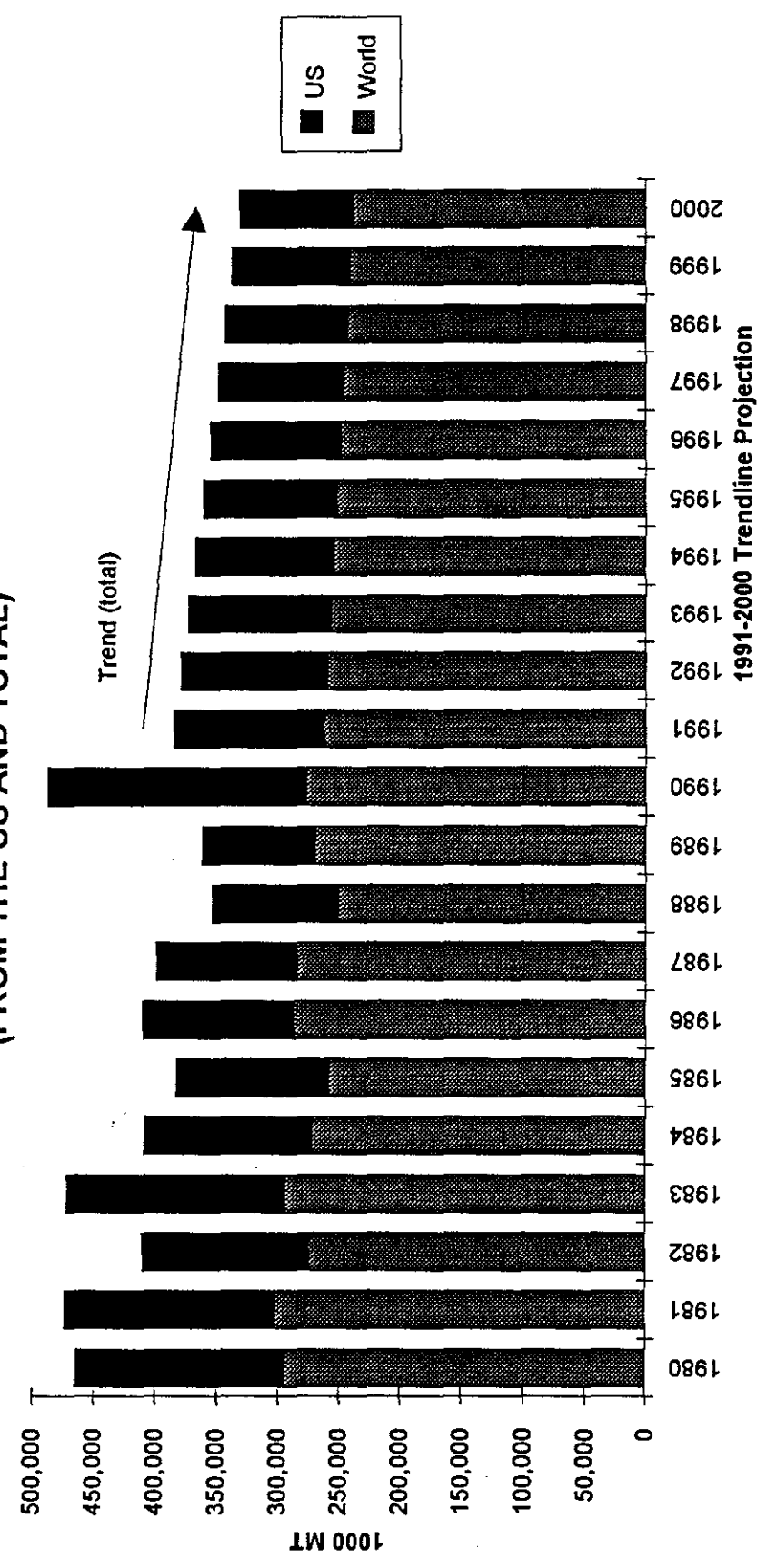
**TABLE 3: US Fresh Orange Exports (Baseline; 1991-2000 Projected)**

Year	<u>Value (US\$ Million)</u>					<u>US Share of Each Market</u>				
	Canada	Hong Kong	Japan	Singapore	World	Canada	Hong Kong	Japan	Singapore	World
1980	\$62	\$50	\$28	\$7	\$184	0.73	0.61	0.64	0.22	0.08
1981	67	63	60	10	211	0.72	0.67	0.92	0.23	0.10
1982	68	51	51	0	194	0.59	0.53	0.68	0.01	0.09
1983	71	68	52	14	235	0.72	0.70	0.82	0.32	0.11
1984	73	53	62	10	215	0.62	0.59	0.75	0.21	0.11
1985	68	66	73	11	242	0.60	0.72	0.79	0.26	0.12
1986	65	71	68	9	233	0.52	0.70	0.69	0.21	0.10
1987	60	51	80	7	224	0.43	0.49	0.65	0.16	0.08
1988	56	44	73	7	201	0.35	0.38	0.57	0.13	0.07
1989	58	55	83	9	232	0.37	0.47	0.62	0.19	0.08
1990	104	54	89	9	283	0.60	0.45	0.61	0.18	0.08
1991	74	54	94	9	256	0.42	0.45	0.61	0.17	0.08
1992	75	54	99	9	261	0.41	0.43	0.60	0.17	0.08
1993	76	53	104	9	267	0.40	0.42	0.59	0.17	0.08
1994	77	53	108	10	272	0.39	0.40	0.59	0.17	0.08
1995	78	53	113	10	278	0.38	0.39	0.58	0.17	0.08
1996	79	52	118	10	283	0.37	0.38	0.58	0.16	0.08
1997	80	52	123	10	289	0.36	0.37	0.57	0.16	0.08
1998	81	51	128	10	294	0.35	0.36	0.57	0.16	0.08
1999	82	51	132	10	300	0.34	0.34	0.57	0.16	0.08
2000	83	50	137	10	305	0.33	0.33	0.56	0.16	0.08

Source: FAO and USDA-FAS.

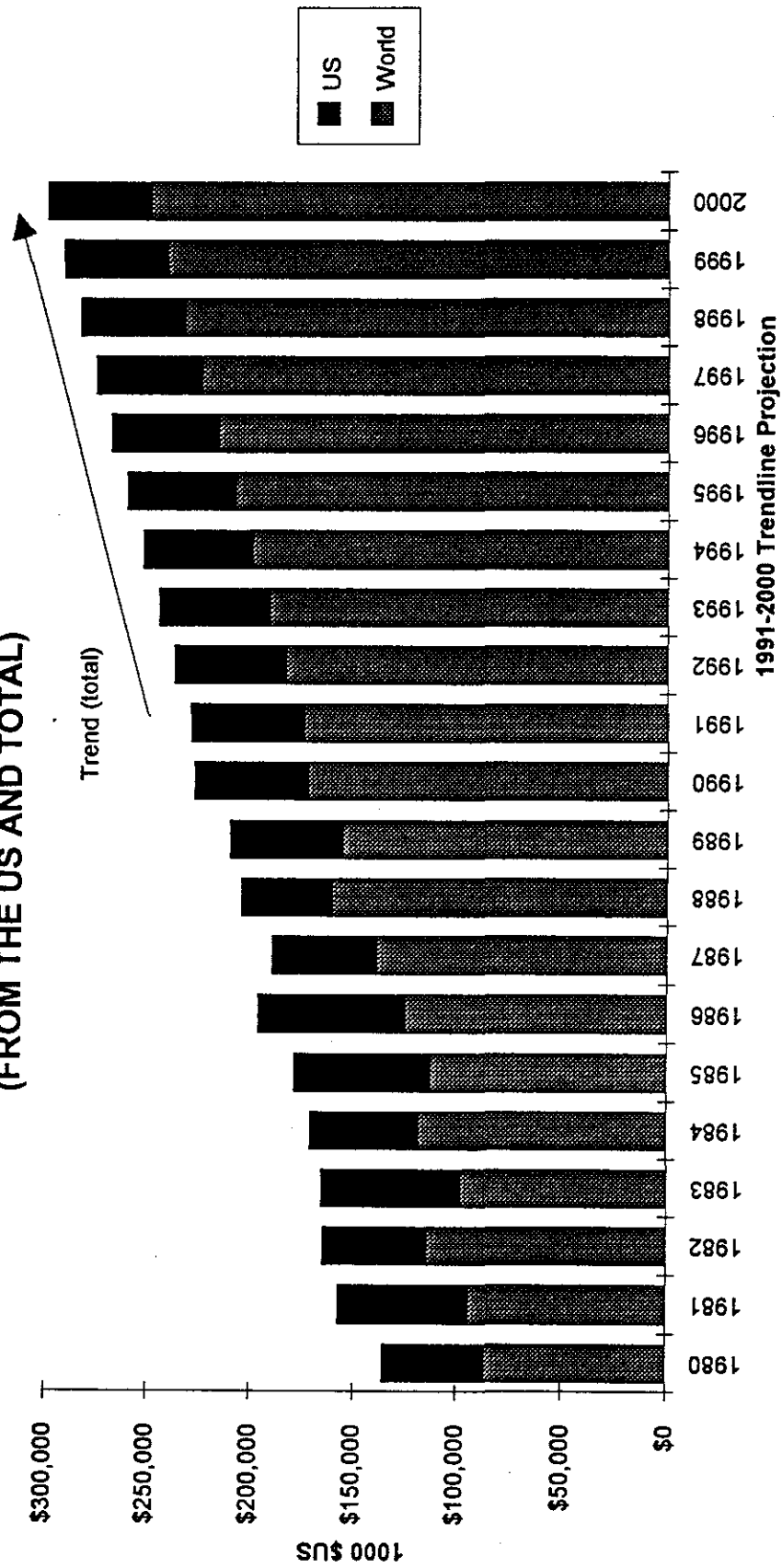
Note: US share is the ratio of each country's imports from the US over each country's total imports.

**CHART 1: QUANTITY OF CANADIAN FRESH ORANGE IMPORTS  
(FROM THE US AND TOTAL)**

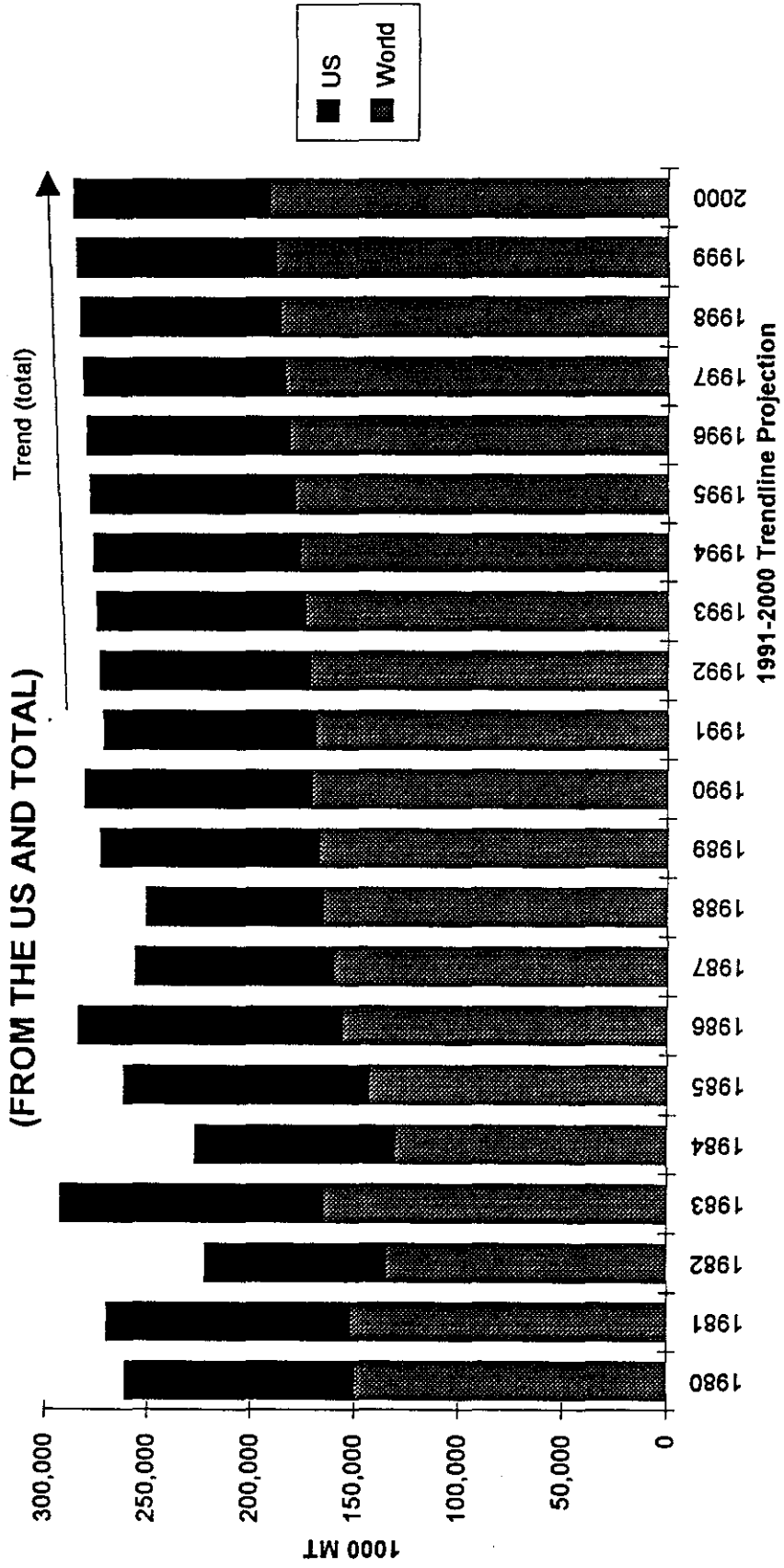




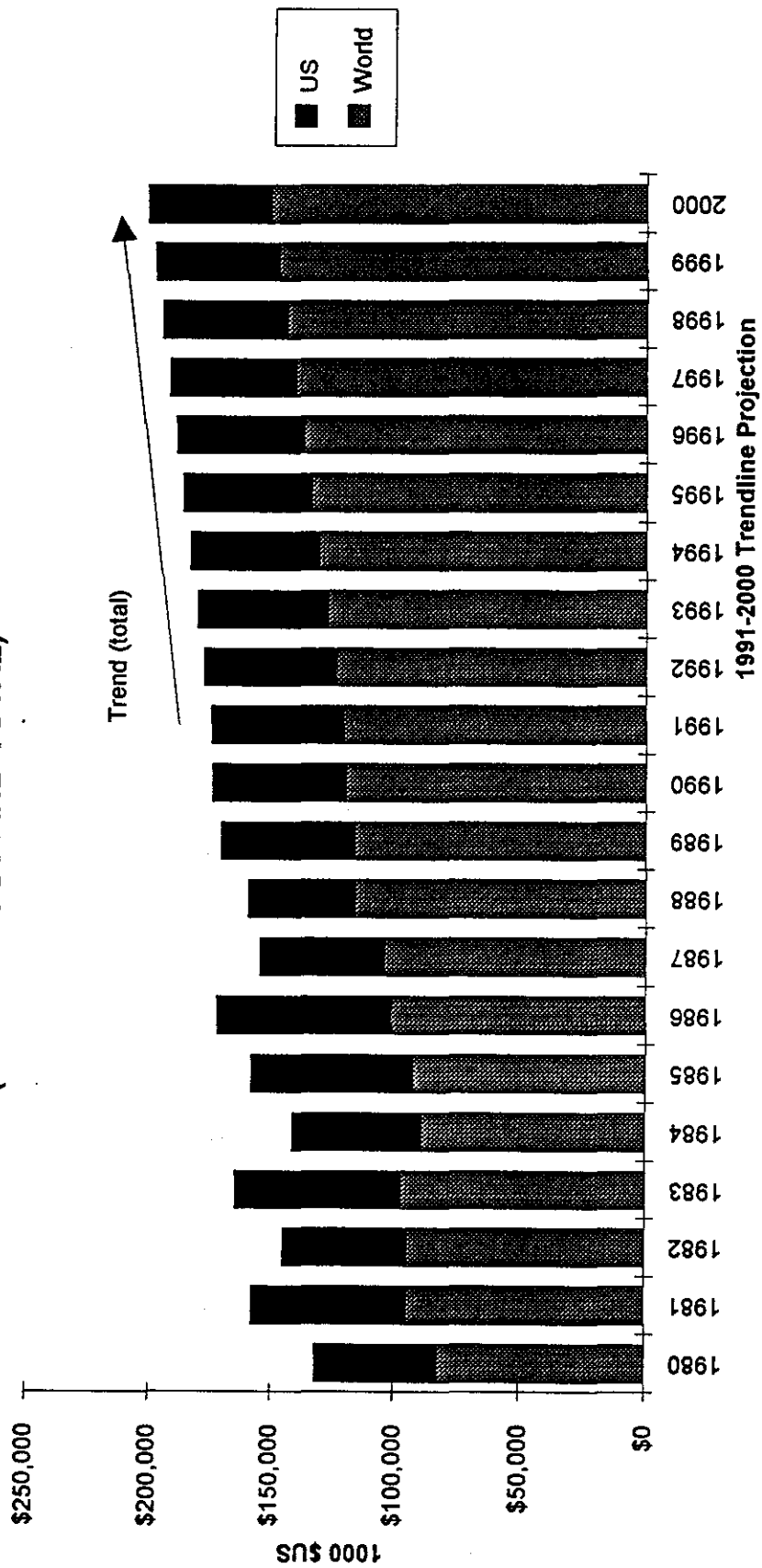
**CHART 2: VALUE OF CANADIAN FRESH ORANGE IMPORTS  
(FROM THE US AND TOTAL)**



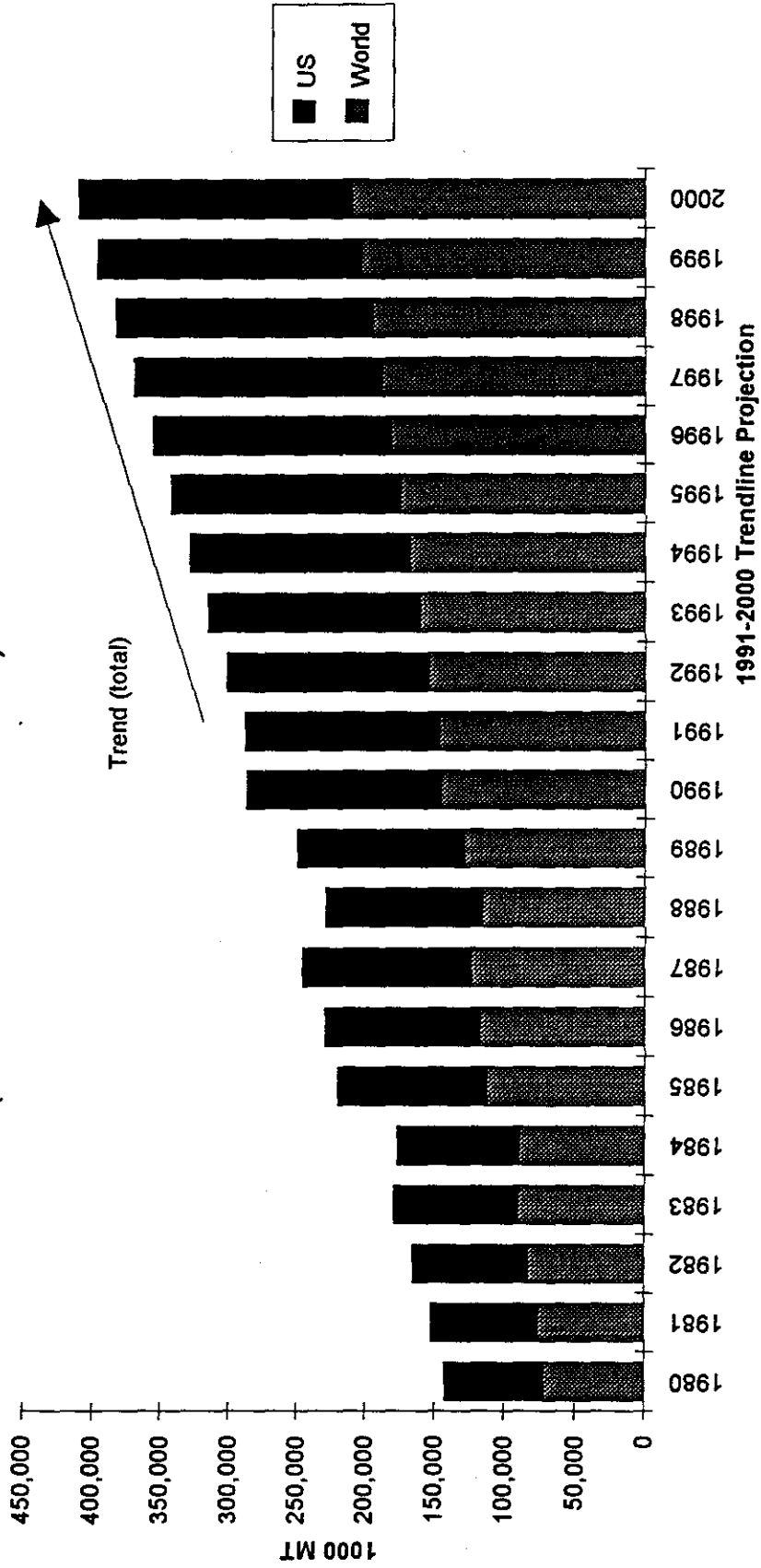
**CHART 3: QUANTITY OF HONG KONG FRESH ORANGE IMPORTS  
(FROM THE US AND TOTAL)  
Trend (total)**



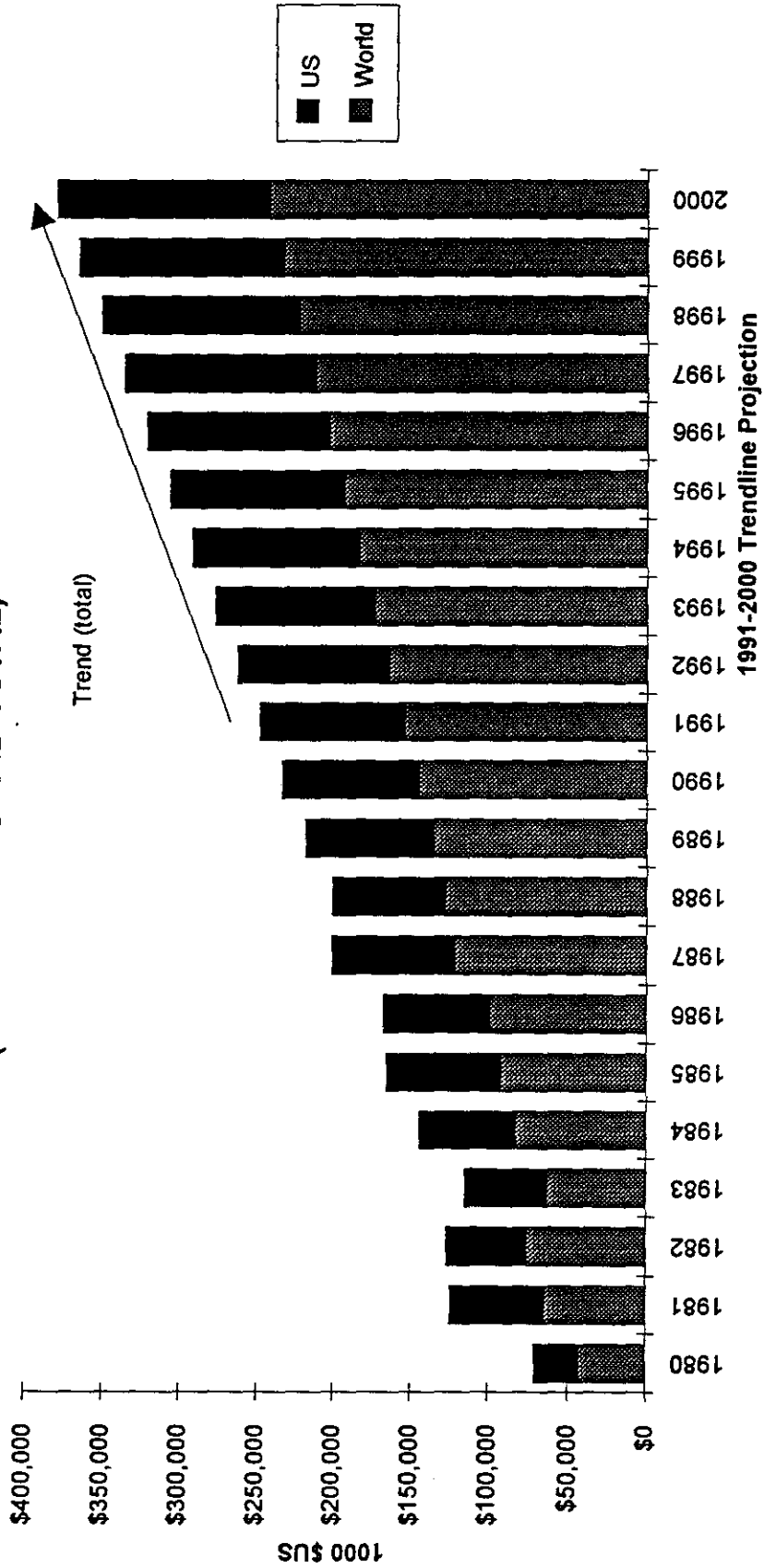
**CHART 4: VALUE OF HONG KONG FRESH ORANGE IMPORTS  
(FROM THE US AND TOTAL)**



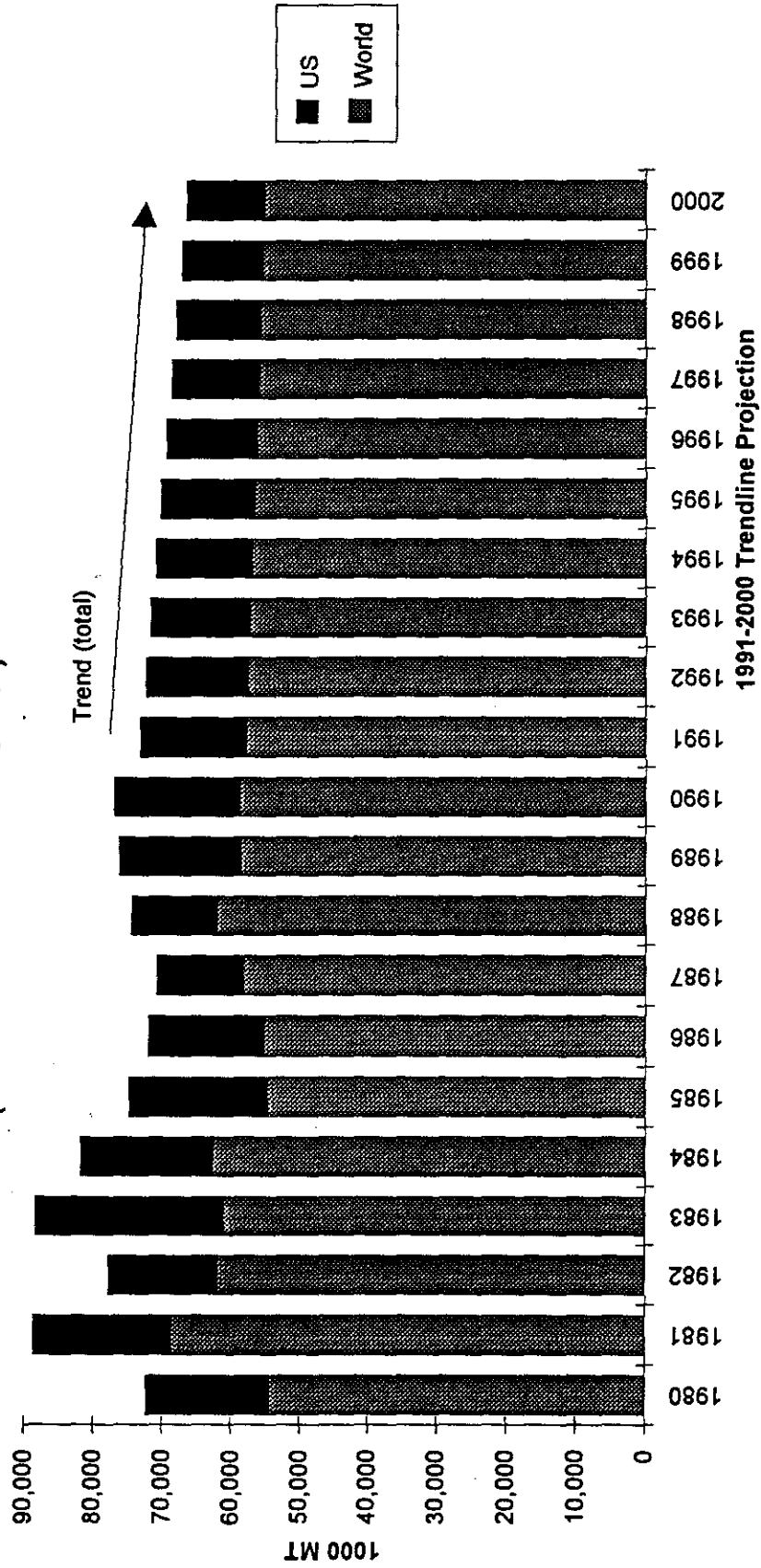
**CHART 5: QUANTITY OF JAPAN FRESH ORANGE IMPORTS  
(FROM THE US AND TOTAL)**



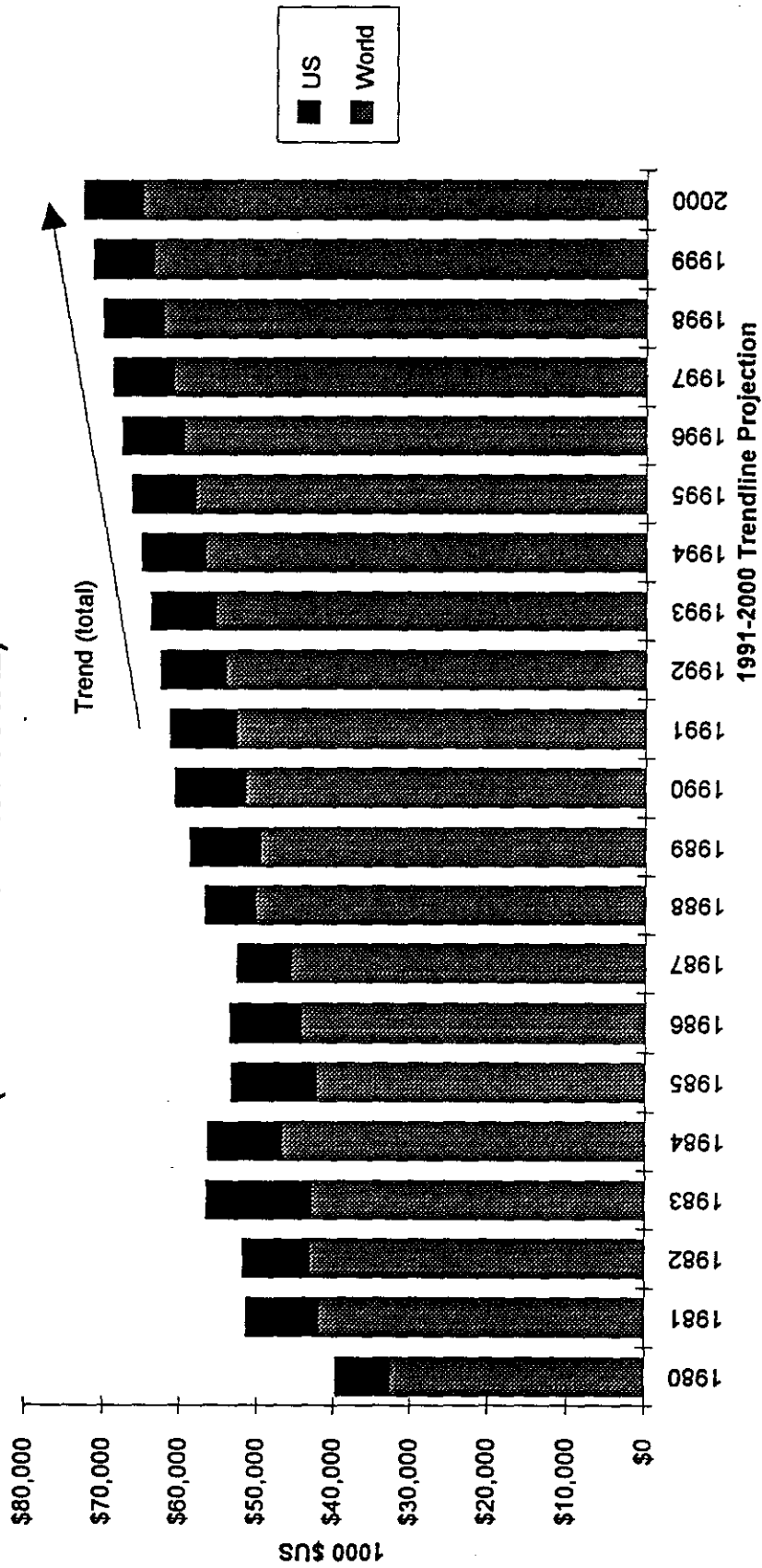
**CHART 6: VALUE OF JAPAN FRESH ORANGE IMPORTS  
(FROM THE US AND TOTAL)**



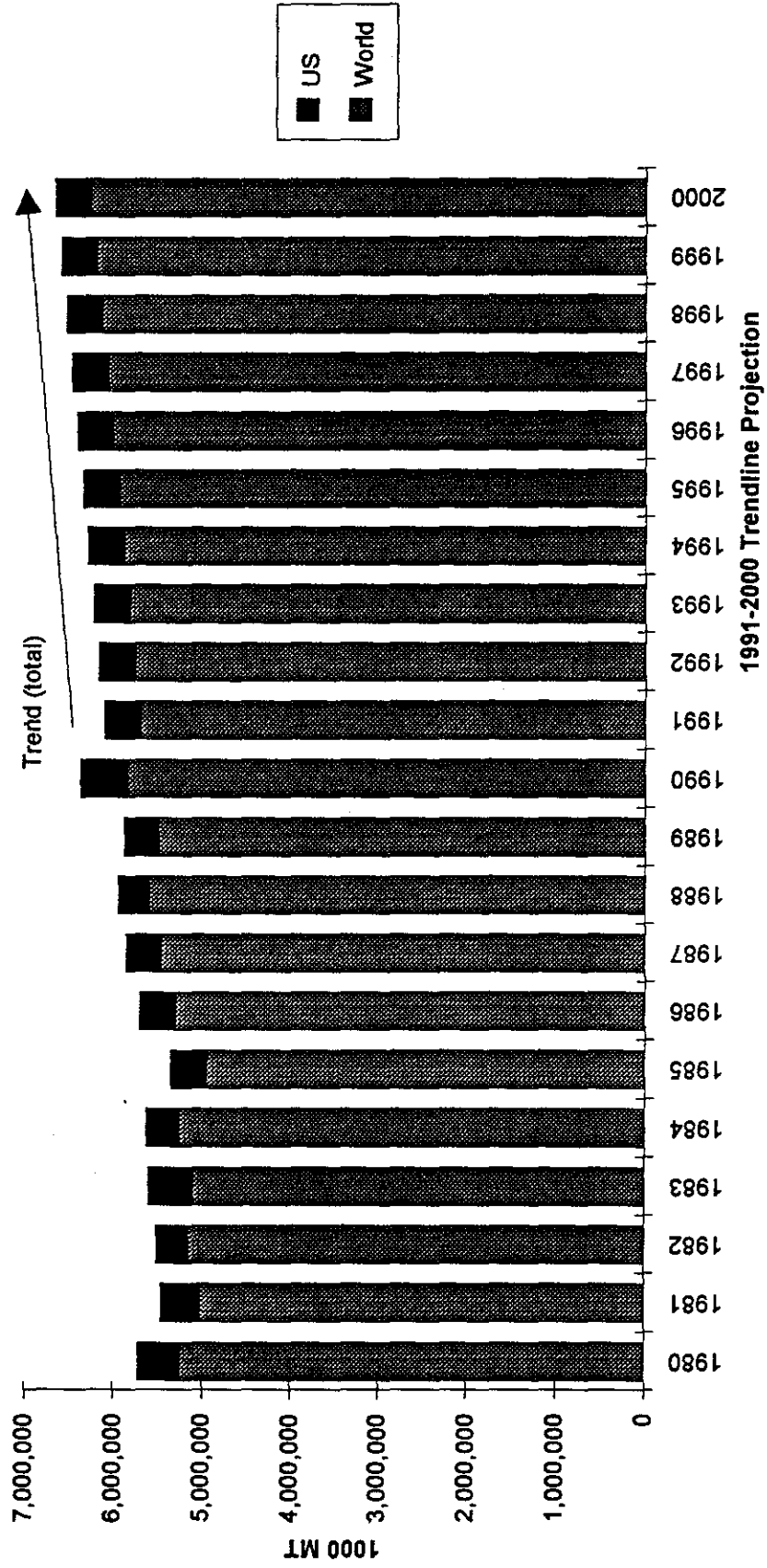
**CHART 7: QUANTITY OF SINGAPORE FRESH ORANGE IMPORTS  
(FROM THE US AND TOTAL)**



**CHART 8: VALUE OF SINGAPORE FRESH ORANGE IMPORTS  
(FROM THE US AND TOTAL)**

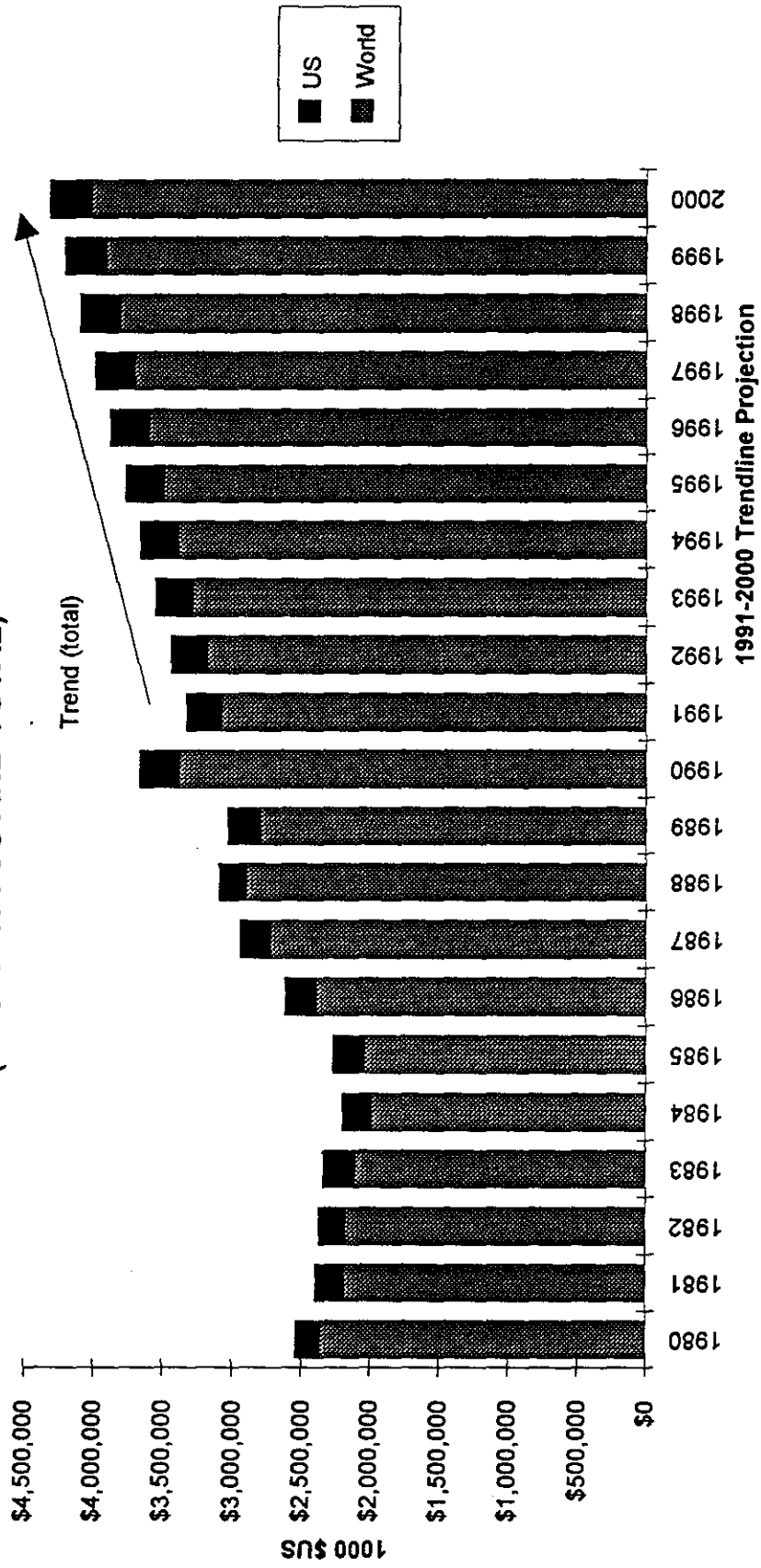


**CHART 9: QUANTITY OF WORLD FRESH ORANGE IMPORTS  
(FROM THE US AND TOTAL)**

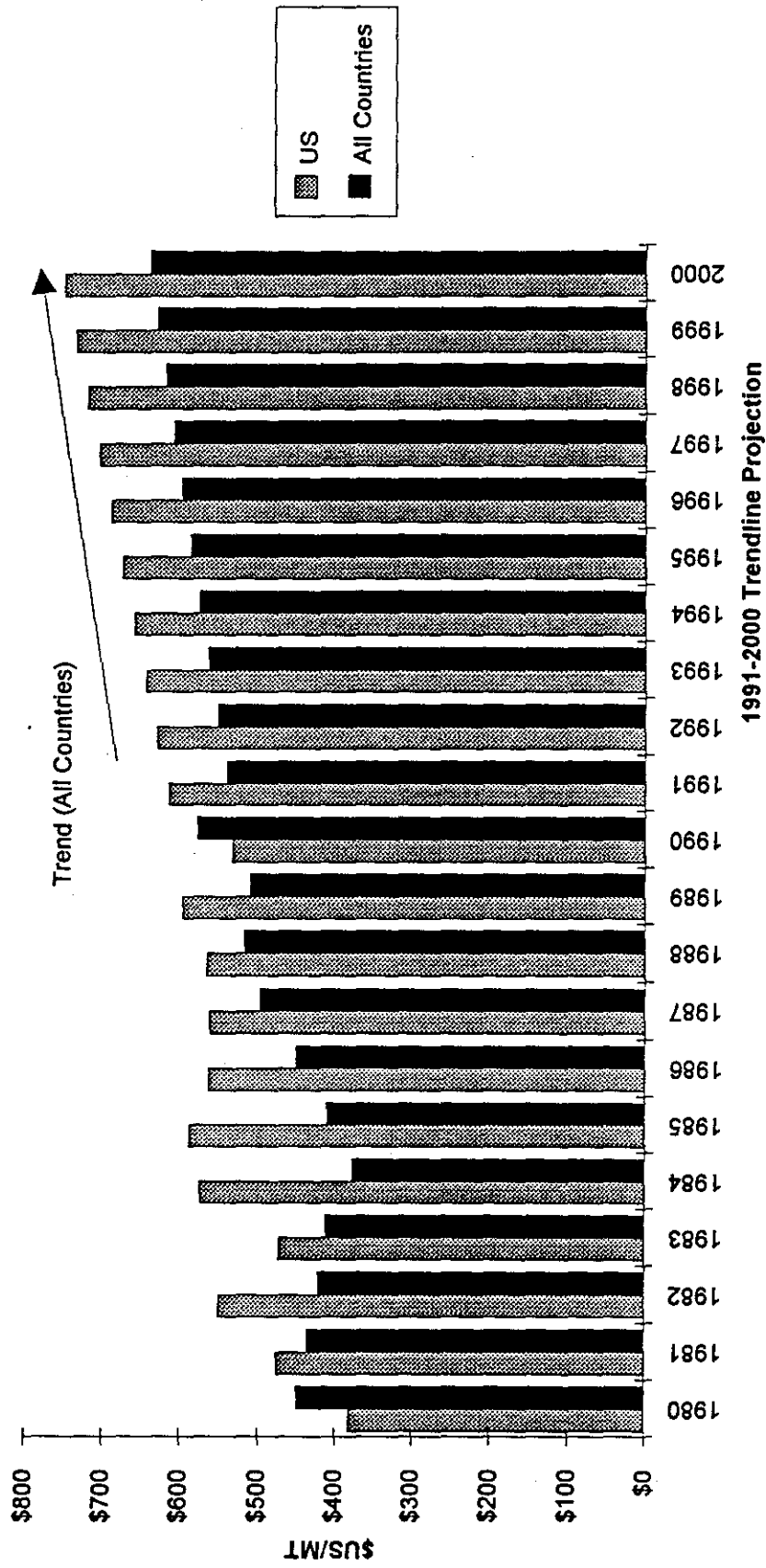




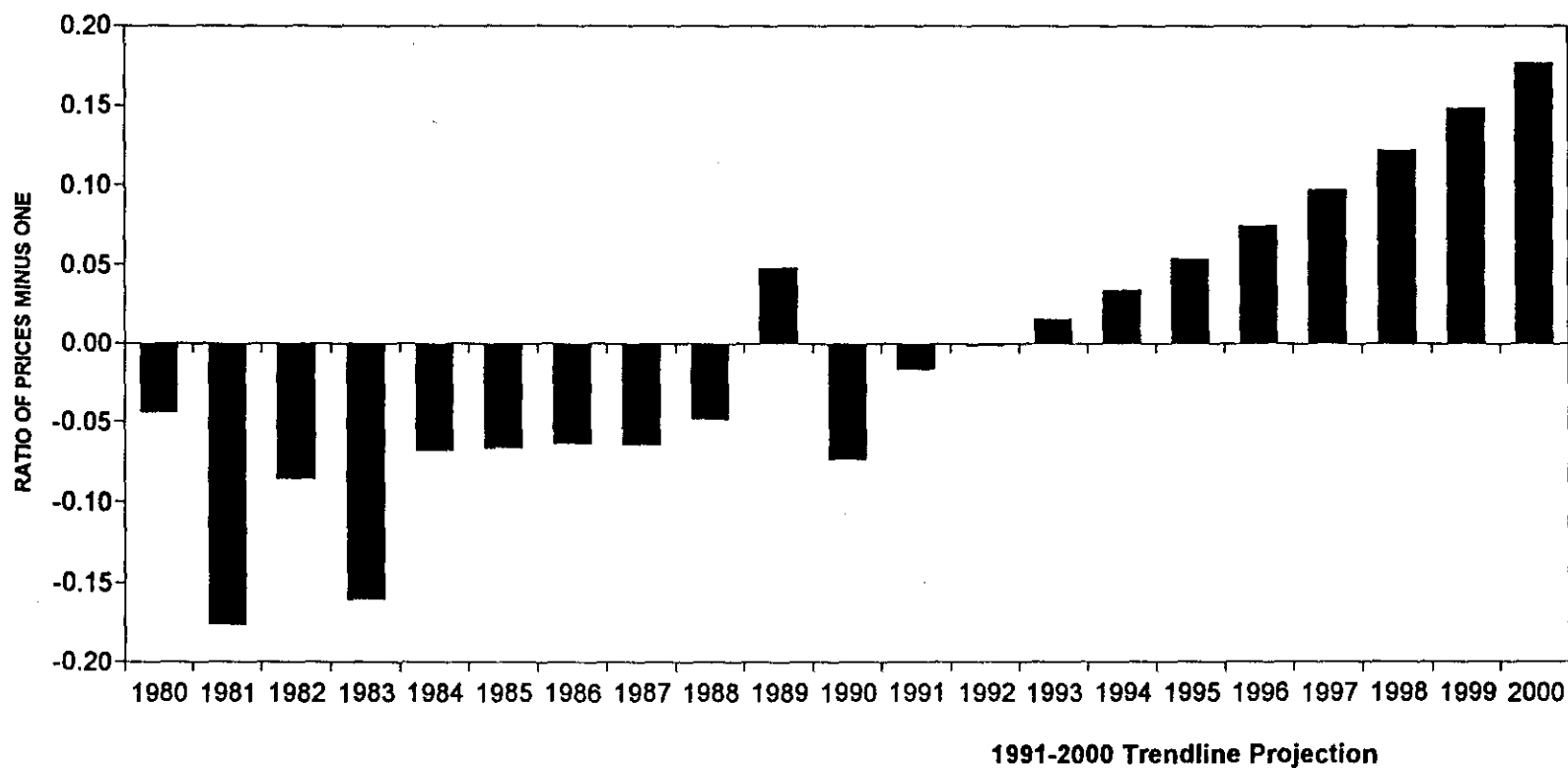
**CHART 10: VALUE OF WORLD FRESH ORANGE IMPORTS  
(FROM THE US AND TOTAL)**



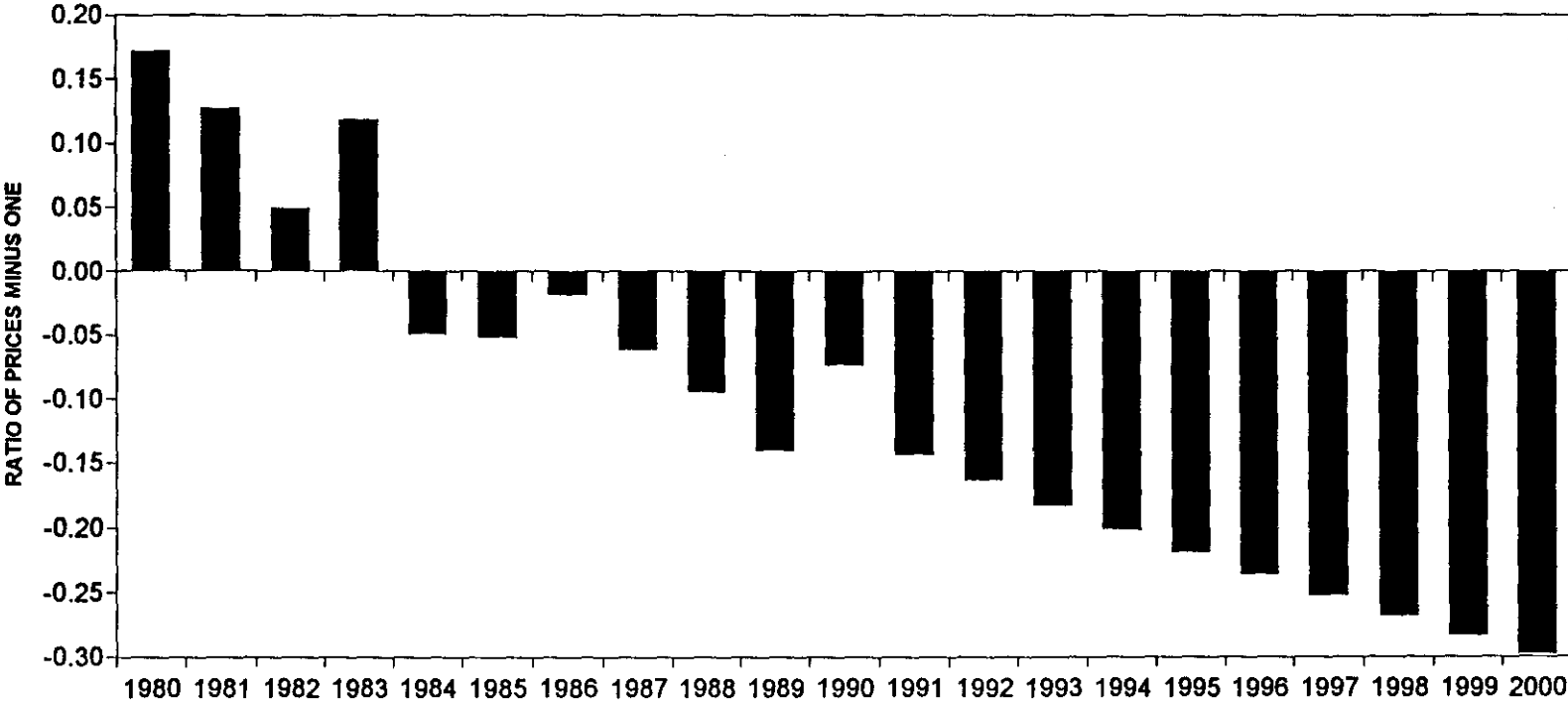
**CHART 11: AVERAGE FRESH ORANGE EXPORT PRICE  
(NOMINAL EXPORT PRICES FROM THE US AND ALL COUNTRIES)**



**CHART 12: RATIO OF US FRESH ORANGE EXPORT PRICE TO CANADA  
OVER THE AVG. US EXPORT PRICE (MINUS ONE)**

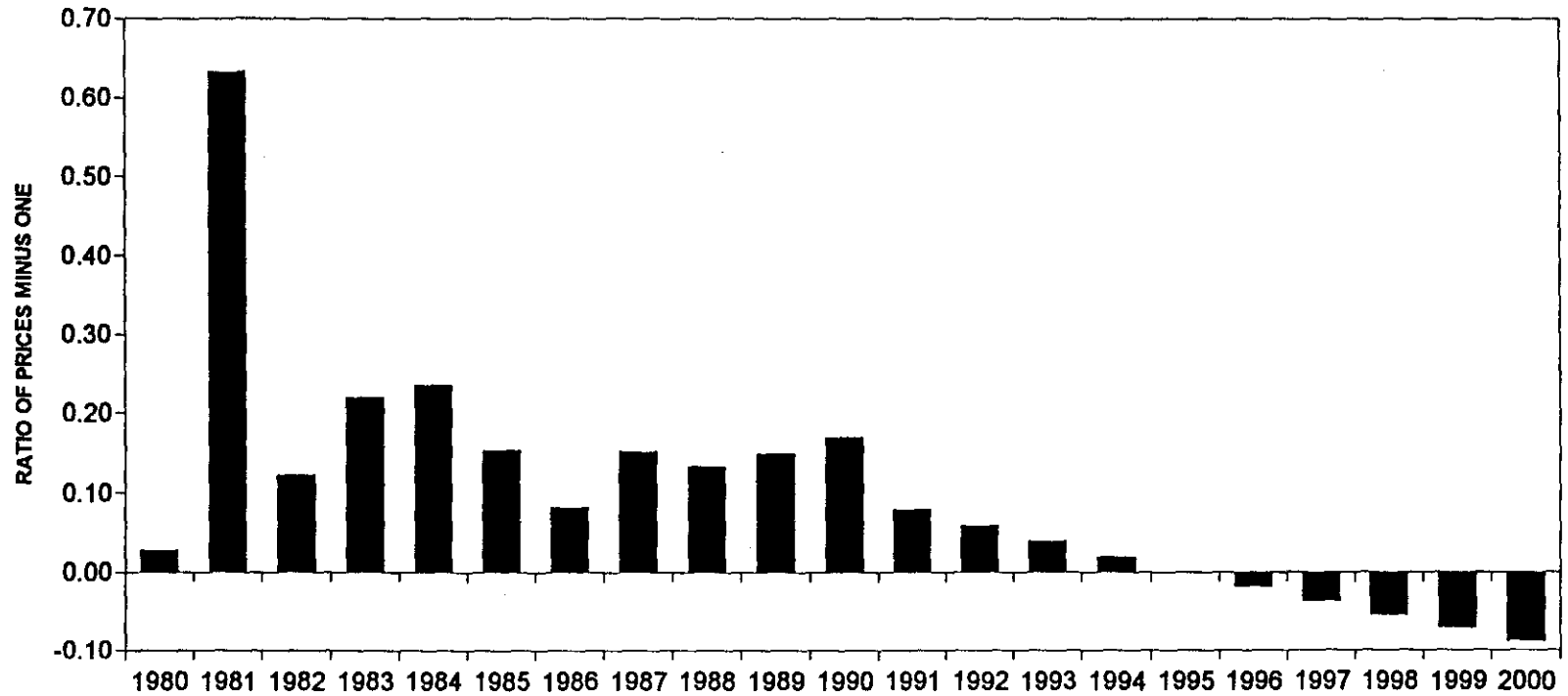


**CHART 13: RATIO OF US FRESH ORANGE EXPORT PRICE TO HONG KONG  
OVER THE AVG. US EXPORT PRICE (MINUS ONE)**



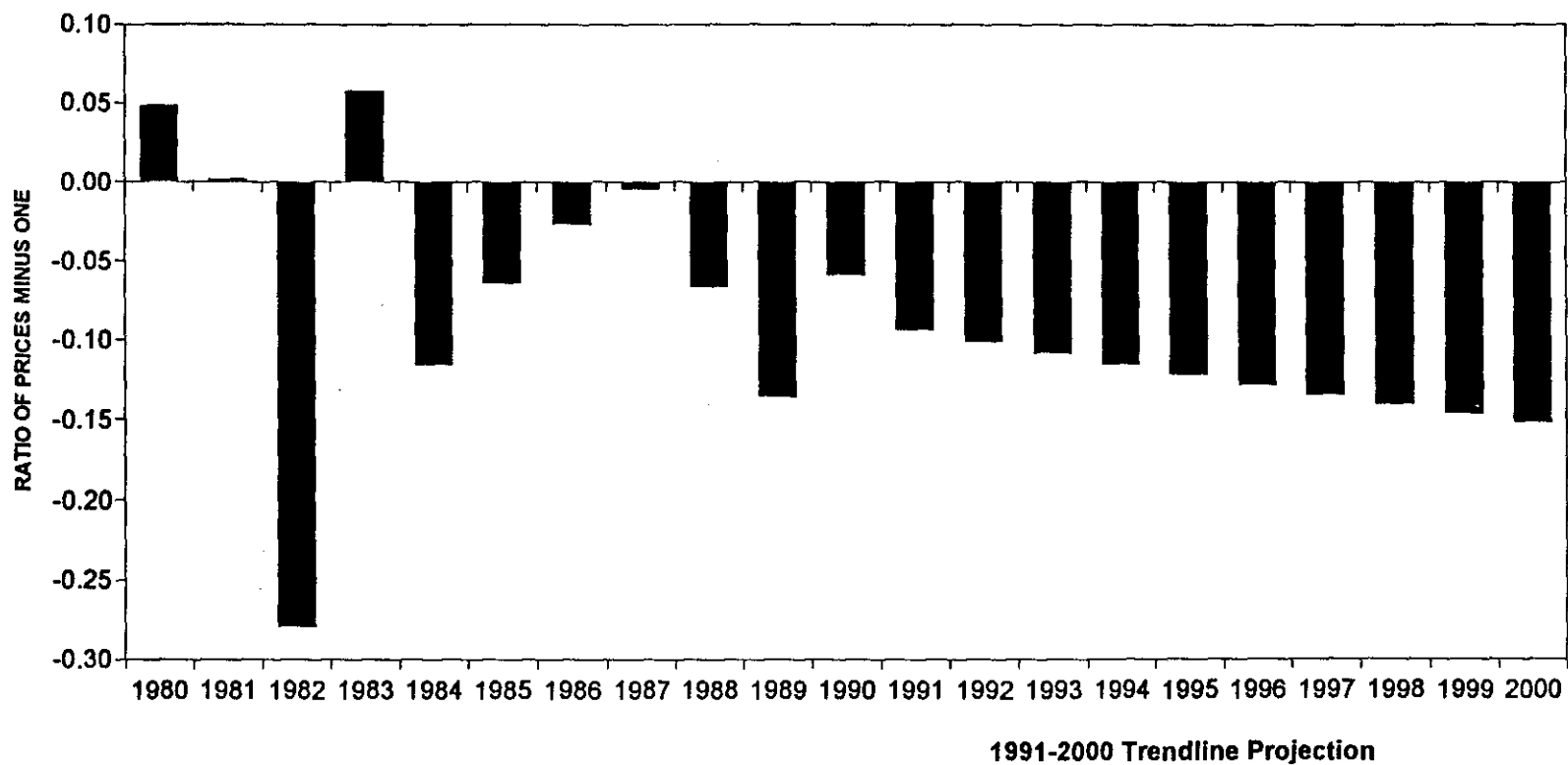
1991-2000 Trendline Projection

**CHART 14: RATIO OF US FRESH ORANGE EXPORT PRICE TO JAPAN  
OVER THE AVG. US EXPORT PRICE (MINUS ONE)**



1991-2000 Trendline Projection

**CHART 15: RATIO OF US FRESH ORANGE EXPORT PRICE TO SINGAPORE  
OVER THE AVG. US EXPORT PRICE (MINUS ONE)**



FRESH GRAPFRUIT

**Table 1: US Fresh Grapefruit Exports (Baseline; 1991-2000 Projected)**

Year	<u>Quantity (1000MT)</u>					<u>US Share of Each Market</u>				
	Canada	Japan	Netherlands	UK	World	Canada	Japan	Netherlands	UK	World
1980	58	129	39	6	288	0.38	0.90	0.46	0.03	0.25
1981	50	159	30	3	291	0.40	0.89	0.37	0.02	0.26
1982	46	140	23	3	261	0.40	0.84	0.30	0.02	0.24
1983	46	169	20	4	307	0.40	0.88	0.24	0.03	0.27
1984	40	145	18	3	248	0.50	0.83	0.23	0.02	0.24
1985	31	108	13	3	204	0.39	0.76	0.20	0.02	0.21
1986	27	156	23	5	282	0.30	0.76	0.28	0.03	0.24
1987	37	202	21	7	367	0.41	0.84	0.23	0.05	0.27
1988	35	234	36	11	463	0.35	0.84	0.35	0.08	0.30
1989	24	272	36	15	485	0.20	0.84	0.32	0.10	0.29
1990	58	147	36	9	321	0.53	0.71	0.29	0.07	0.21
1991	32	218	30	12	412	0.35	0.79	0.27	0.10	0.26
1992	31	227	30	13	428	0.35	0.78	0.26	0.11	0.26
1993	29	235	31	13	443	0.34	0.78	0.26	0.13	0.26
1994	28	243	31	14	459	0.34	0.77	0.26	0.14	0.26
1995	26	251	32	15	474	0.33	0.77	0.25	0.16	0.26
1996	25	259	32	16	490	0.32	0.76	0.25	0.18	0.26
1997	23	268	32	17	505	0.31	0.76	0.25	0.20	0.26
1998	22	276	33	18	520	0.30	0.76	0.24	0.23	0.26
1999	20	284	33	19	536	0.29	0.76	0.24	0.26	0.26
2000	19	292	34	20	551	0.28	0.75	0.24	0.29	0.26

Source: USDA and FAO.

Note: US share is the ratio of imports from the US over total imports.



**TABLE 2: US Fresh Grapefruit Export Prices (Baseline; 1991-2000 Projected)**

Year	<u>Price (\$US/MT)</u>					<u>Export Price to Country over Avg. Export Price</u>			
	Canada	Japan	Netherlands	UK	World	Canada	Japan	Netherlands	UK
1980	\$310	\$355	\$349	\$392	\$346	0.90	1.03	1.01	1.14
1981	356	287	405	416	376	0.95	0.76	1.07	1.10
1982	372	328	489	478	377	0.99	0.87	1.30	1.27
1983	357	272	478	424	382	0.93	0.71	1.25	1.11
1984	412	317	360	384	369	1.12	0.86	0.97	1.04
1985	455	425	413	386	453	1.01	0.94	0.91	0.85
1986	495	293	445	461	474	1.05	0.62	0.94	0.97
1987	418	227	443	456	462	0.91	0.49	0.96	0.99
1988	432	196	429	467	480	0.90	0.41	0.89	0.97
1989	592	169	427	404	498	1.19	0.34	0.86	0.81
1990	506	311	453	440	557	0.91	0.56	0.81	0.79
1991	586	210	459	439	549	1.07	0.38	0.83	0.80
1992	624	202	464	439	569	1.10	0.36	0.82	0.77
1993	666	195	469	440	588	1.13	0.33	0.80	0.75
1994	713	189	473	440	607	1.17	0.31	0.78	0.73
1995	765	182	478	441	626	1.22	0.29	0.76	0.70
1996	823	177	482	441	645	1.27	0.27	0.75	0.68
1997	888	171	487	441	665	1.34	0.26	0.73	0.66
1998	962	166	491	442	684	1.41	0.24	0.72	0.65
1999	1,047	161	495	442	703	1.49	0.23	0.70	0.63
2000	1,145	157	499	442	722	1.59	0.22	0.69	0.61

Source: USDA-FAS FATUS Yearbook.

Note: Import Price is the per unit value derived from the f.a.s.. US port value.

Note: The average price total US exports is used as a proxy for the World Price.

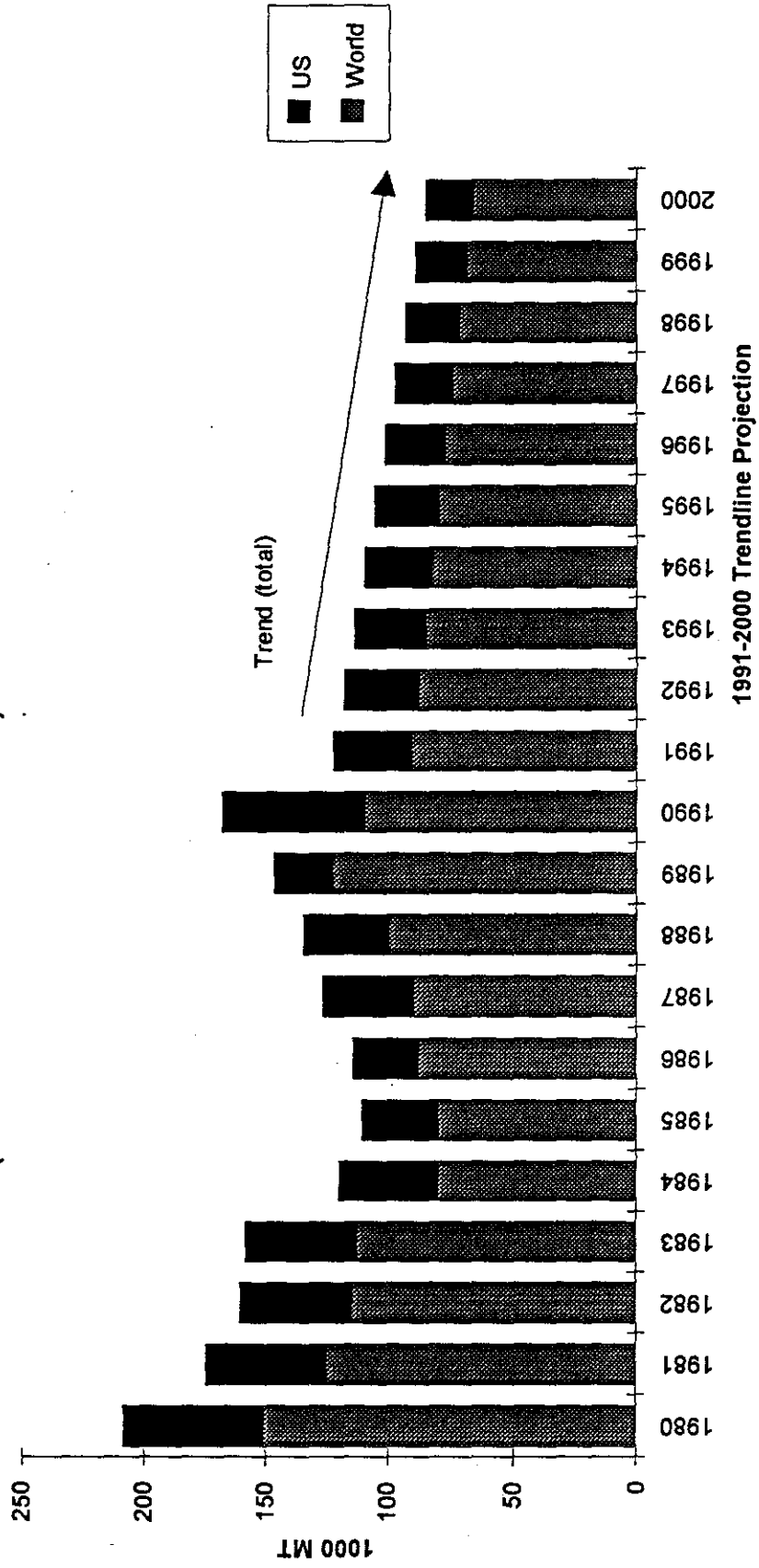
**TABLE 3: US Fresh Grapefruit Exports (Baseline; 1991-2000 Projected)**

Year	<u>Value (US\$ Million)</u>					<u>US Share of Each Market</u>				
	Canada	Japan	Netherlands	UK	World	Canada	Japan	Netherlands	UK	World
1980	\$17.9	\$45.8	\$13.5	\$2.3	\$99.4	0.34	0.93	0.47	0.03	0.25
1981	17.7	59.1	12.2	1.3	109.6	0.38	0.87	0.39	0.02	0.26
1982	17.1	47.3	11.5	1.5	98.4	0.39	0.75	0.39	0.02	0.24
1983	16.3	59.7	9.7	1.7	117.3	0.38	0.81	0.30	0.03	0.27
1984	16.6	51.4	6.5	1.0	91.5	0.56	0.80	0.22	0.02	0.24
1985	14.1	51.5	5.4	1.0	92.4	0.39	0.80	0.18	0.02	0.21
1986	13.2	74.1	10.3	2.1	133.6	0.32	0.76	0.26	0.03	0.24
1987	15.6	95.5	9.3	3.2	169.2	0.37	0.86	0.22	0.05	0.27
1988	15.1	122.2	15.3	5.4	222.2	0.31	0.91	0.32	0.08	0.30
1989	14.2	139.8	15.2	6.1	241.6	0.23	0.87	0.28	0.08	0.29
1990	29.5	92.6	16.2	4.2	178.5	0.48	0.81	0.24	0.06	0.21
1991	18.9	124.0	13.6	5.1	219.8	0.36	0.85	0.23	0.07	0.26
1992	19.2	132.0	14.0	5.5	232.9	0.36	0.85	0.22	0.08	0.26
1993	19.5	139.9	14.3	5.9	246.0	0.35	0.85	0.21	0.09	0.26
1994	19.8	147.9	14.7	6.3	259.1	0.35	0.85	0.21	0.09	0.26
1995	20.1	155.8	15.1	6.7	272.2	0.35	0.85	0.20	0.09	0.26
1996	20.4	163.8	15.4	7.1	285.3	0.35	0.85	0.20	0.10	0.26
1997	20.7	171.8	15.8	7.5	298.4	0.35	0.85	0.20	0.10	0.26
1998	21.0	179.7	16.2	7.9	311.5	0.35	0.85	0.19	0.11	0.26
1999	21.3	187.7	16.5	8.3	324.6	0.34	0.85	0.19	0.11	0.26
2000	21.6	195.6	16.9	8.7	337.7	0.34	0.85	0.19	0.12	0.26

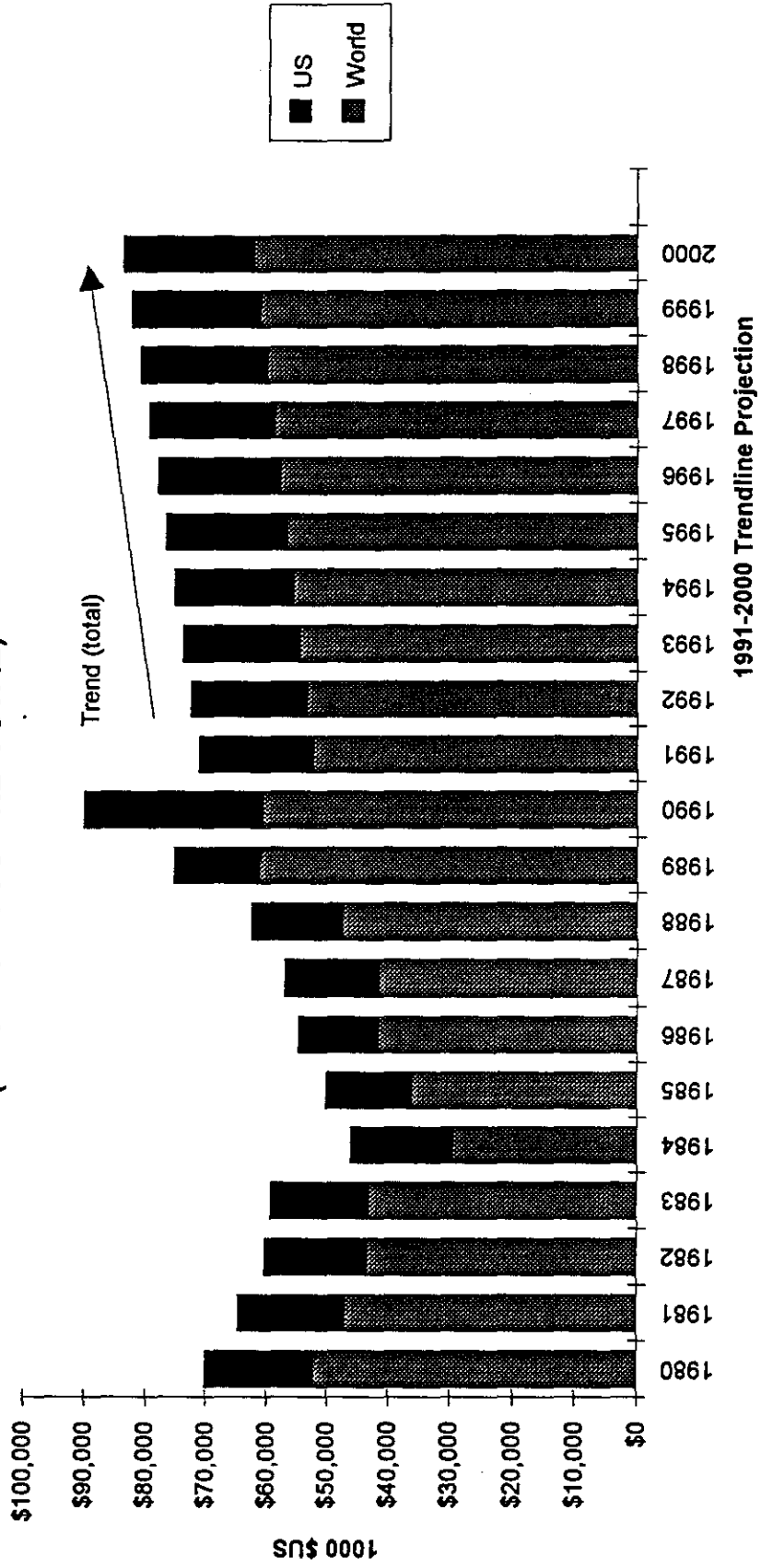
Source: FAO and USDA-FAS.

Note: US share is the ratio of imports from the US over total imports.

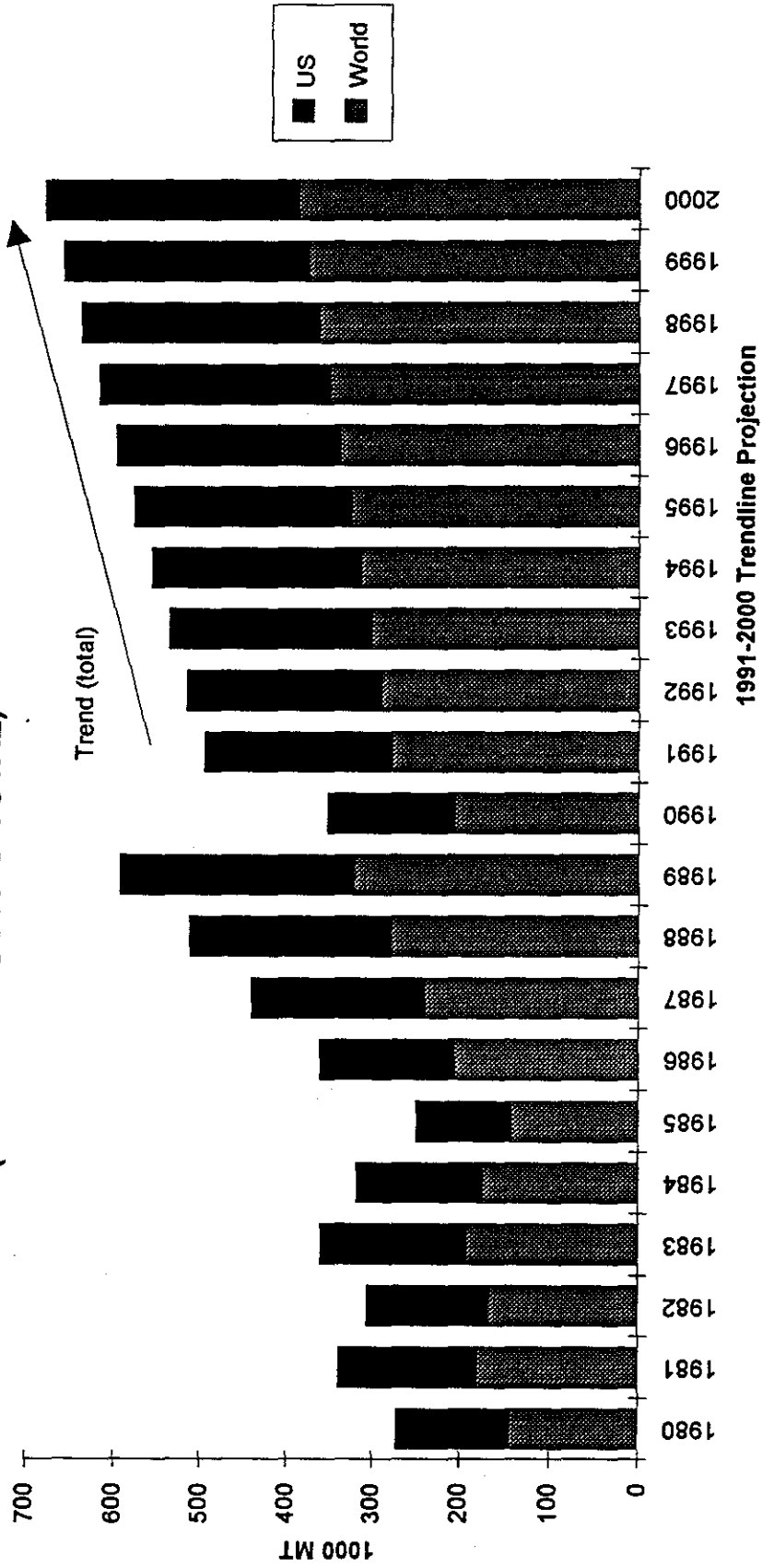
**CHART 1: QUANTITY OF CANADIAN FRESH GRAPEFRUIT IMPORTS  
(FROM THE US AND TOTAL)**



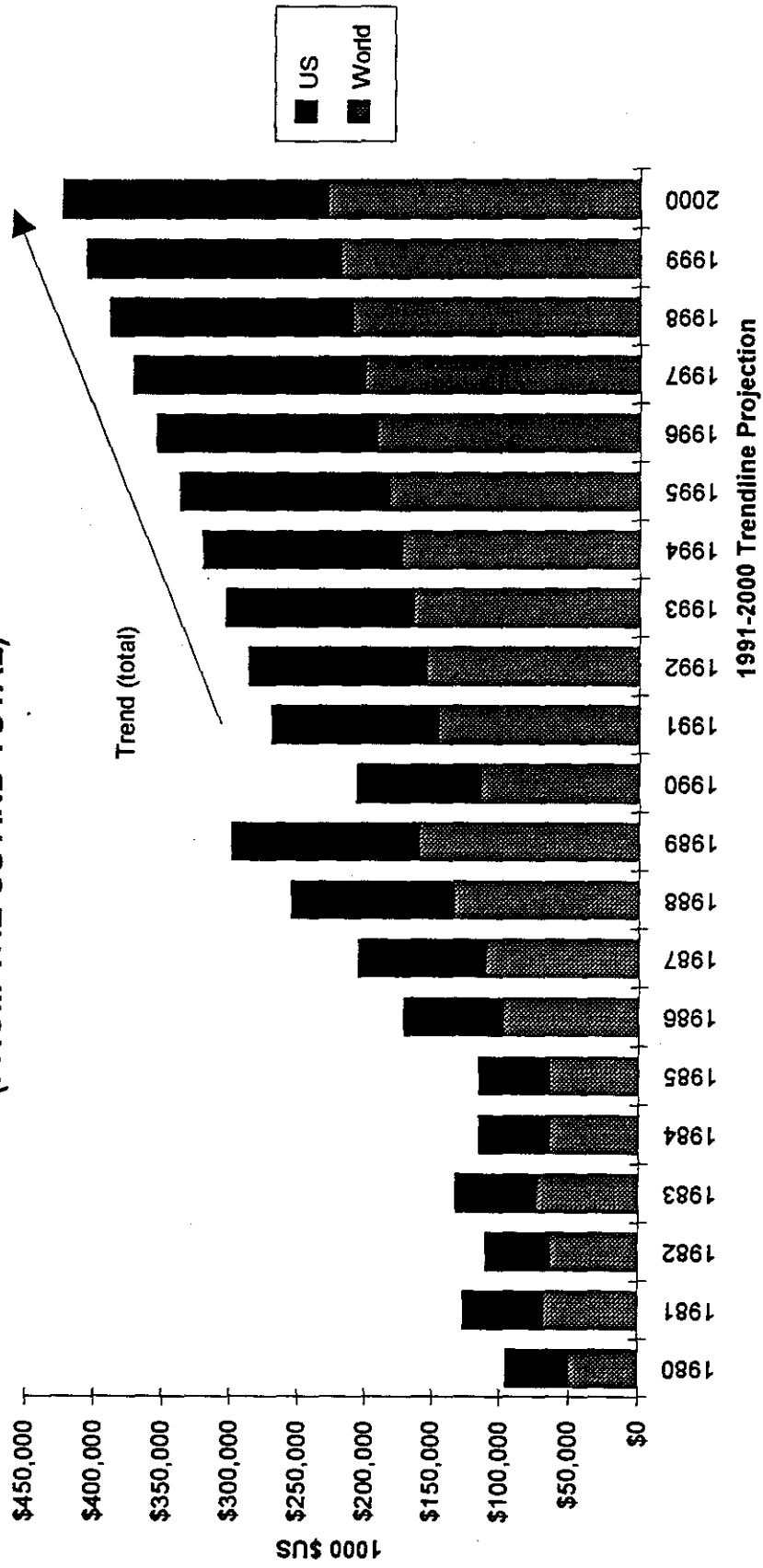
**CHART 2: VALUE OF CANADIAN FRESH GRAPEFRUIT IMPORTS  
(FROM THE US AND TOTAL)**



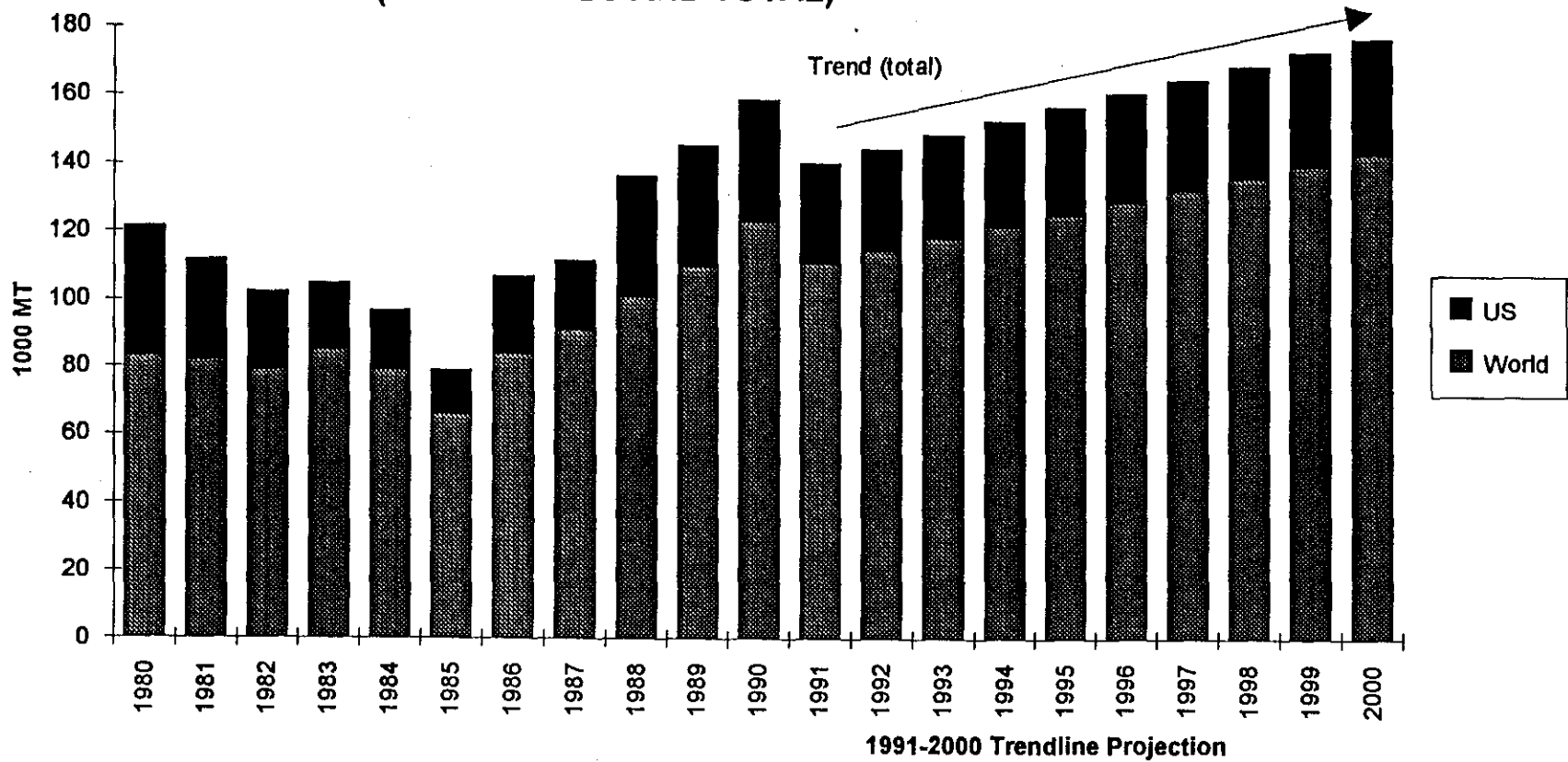
**CHART 3: QUANTITY OF JAPAN FRESH GRAPEFRUIT IMPORTS  
(FROM THE US AND TOTAL)**



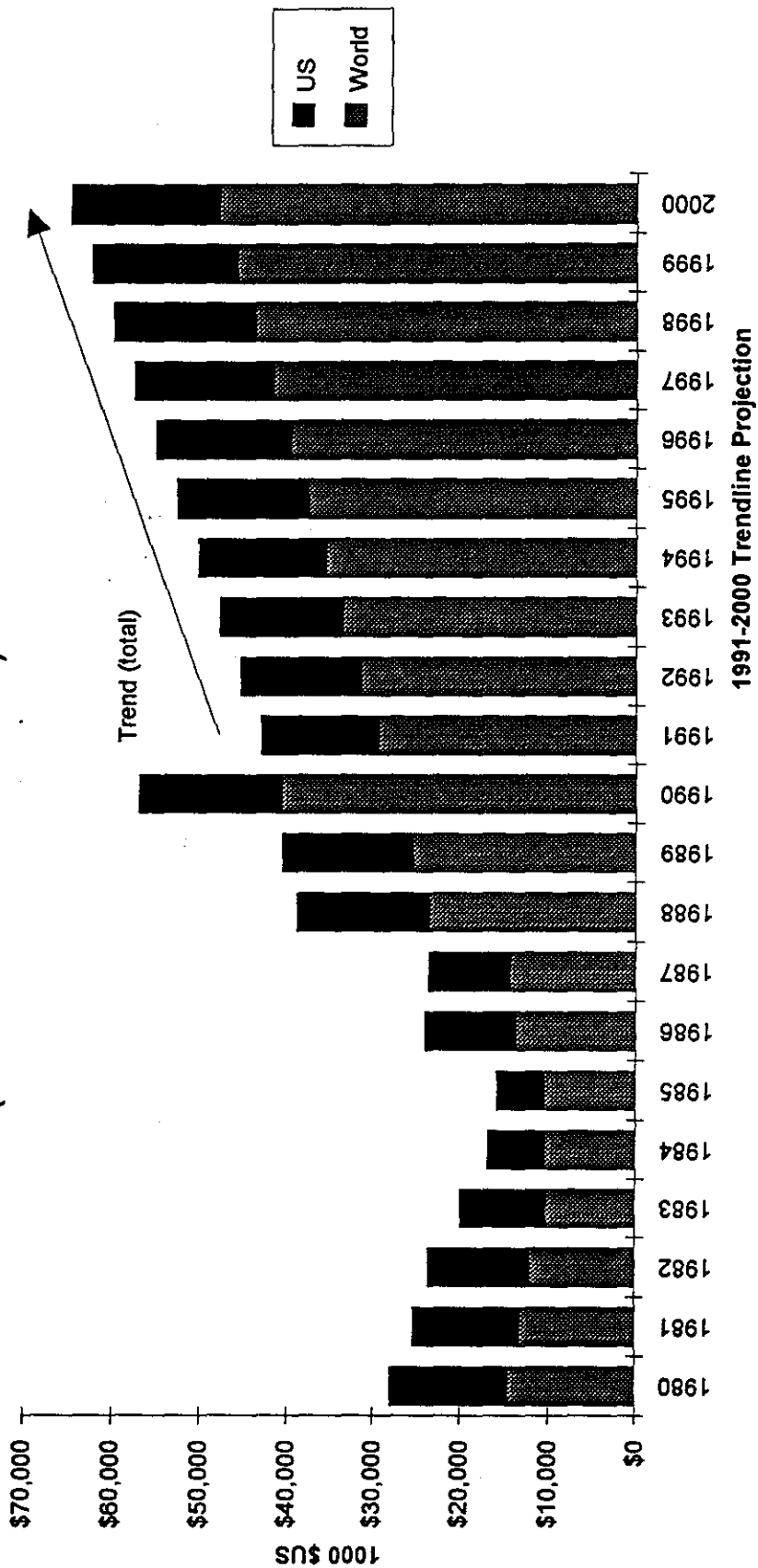
**CHART 4: VALUE OF JAPAN FRESH GRAPEFRUIT IMPORTS  
(FROM THE US AND TOTAL)**



**CHART 5: QUANTITY OF NETHERLANDS FRESH GRAPEFRUIT IMPORTS  
(FROM THE US AND TOTAL)**

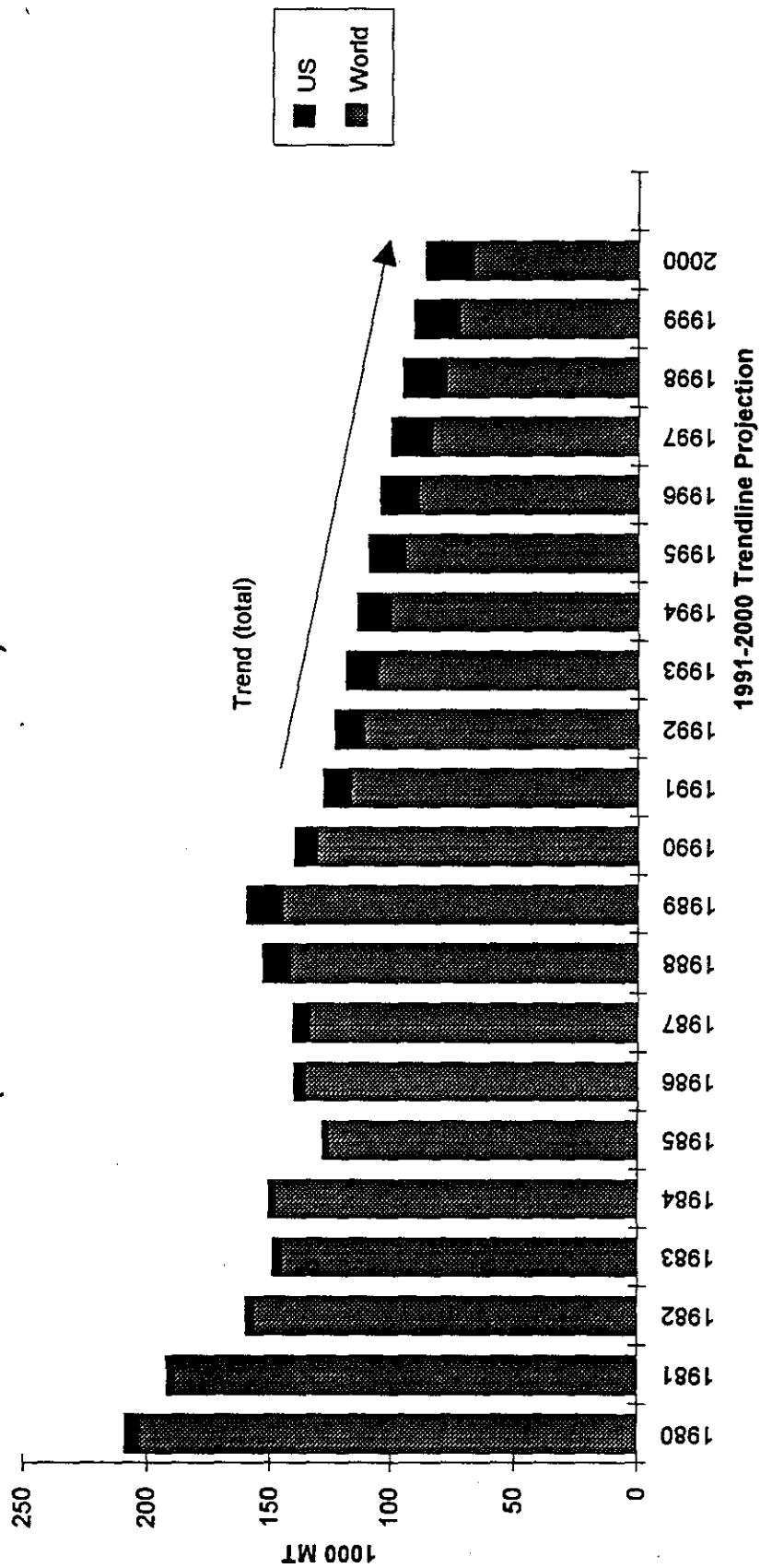


**CHART 6: VALUE OF NETHERLAND FRESH GRAPEFRUIT IMPORTS  
(FROM THE US AND TOTAL)**

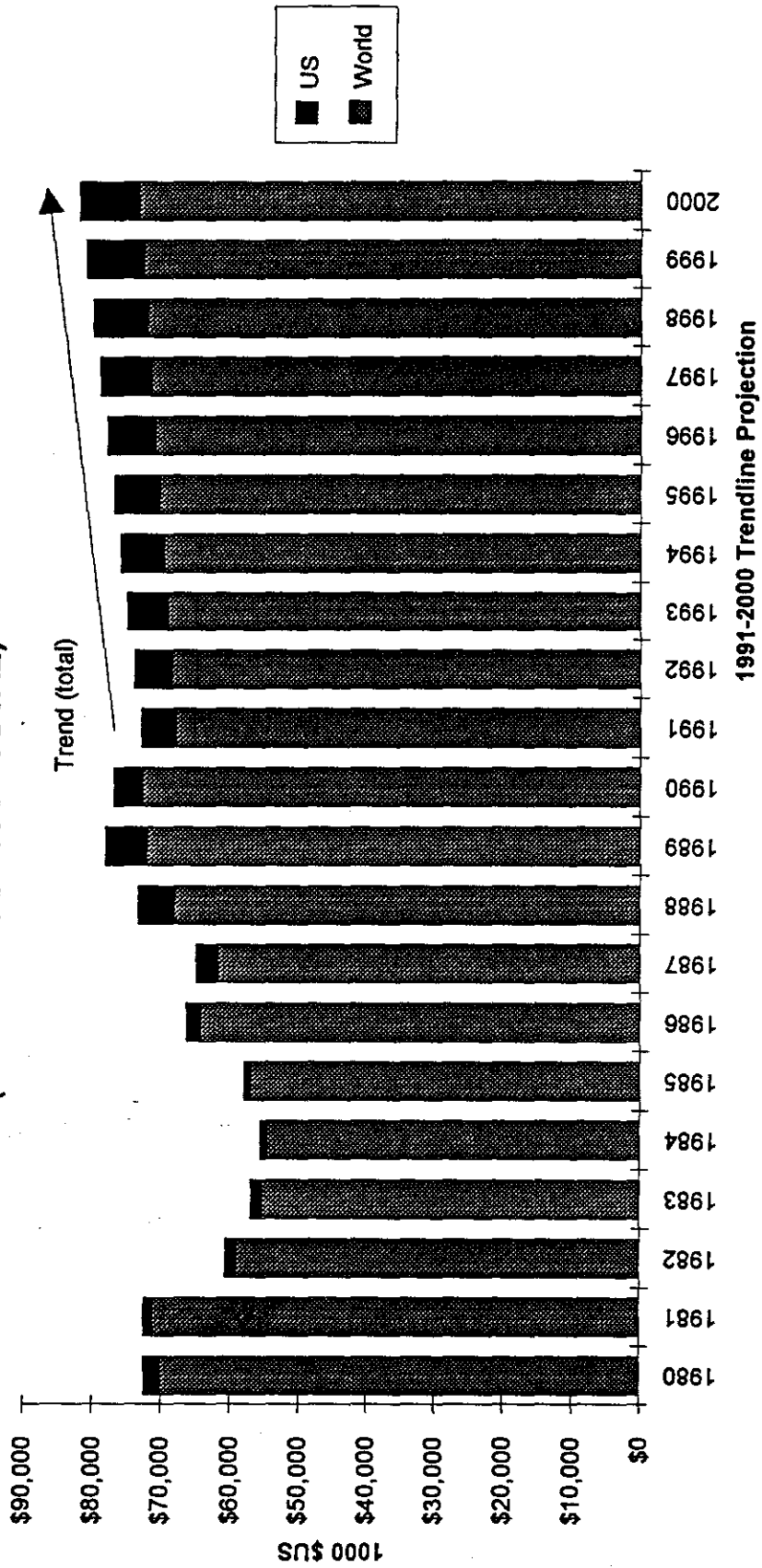




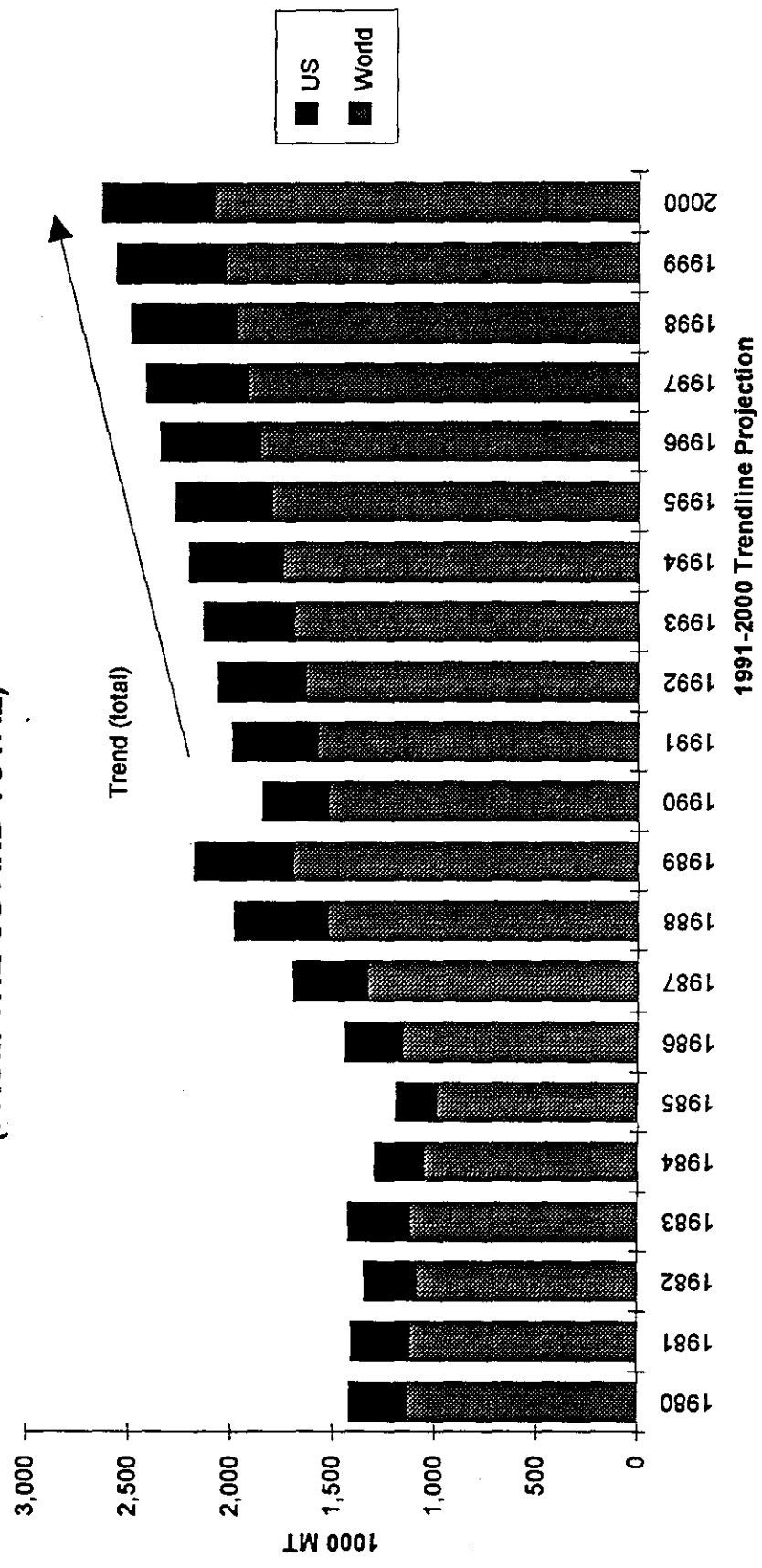
**CHART 7: QUANTITY OF UK FRESH GRAPEFRUIT IMPORTS  
(FROM THE US AND TOTAL)**



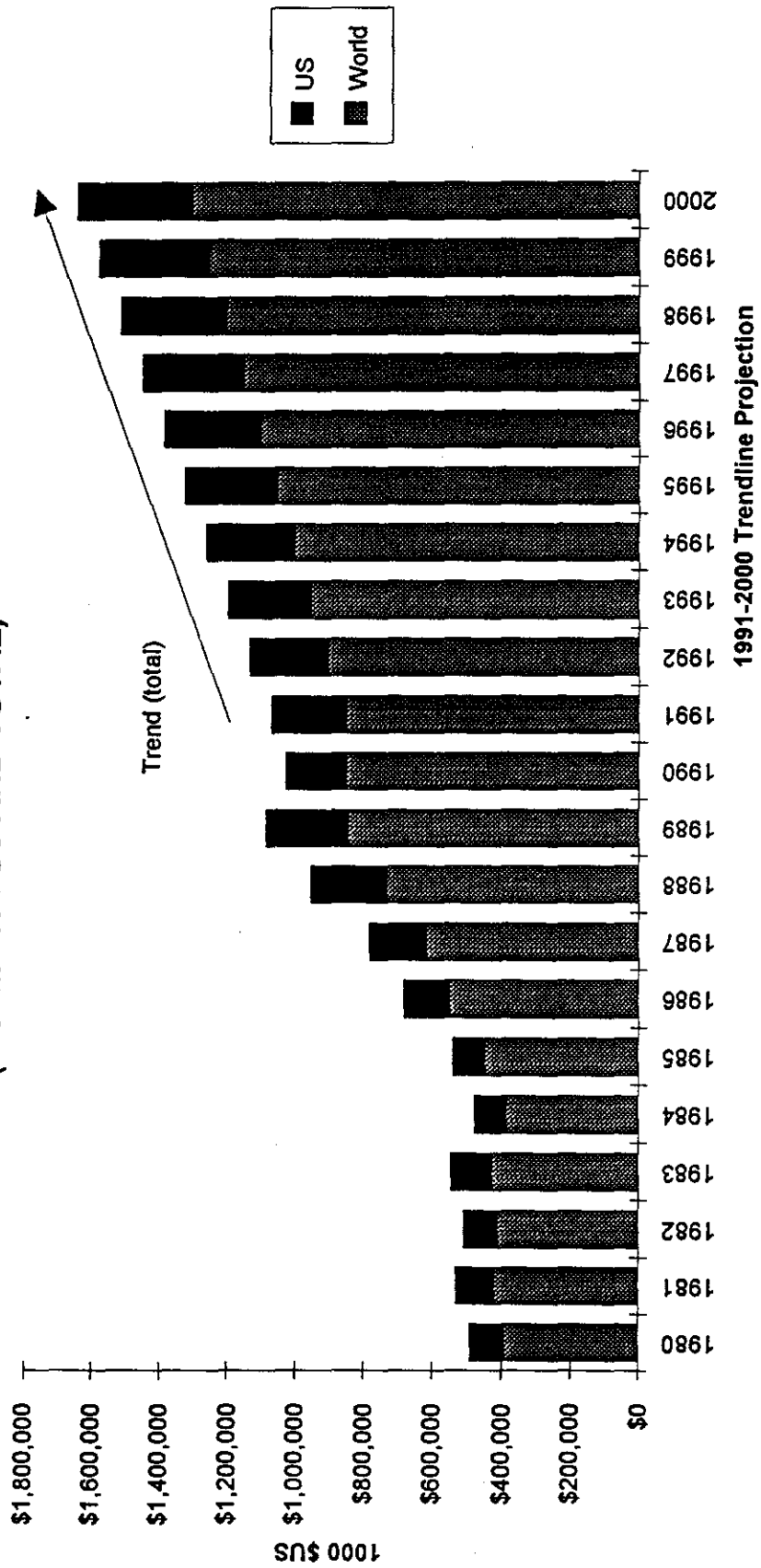
**CHART 8: VALUE OF UK FRESH GRAPEFRUIT IMPORTS  
(FROM THE US AND TOTAL)**



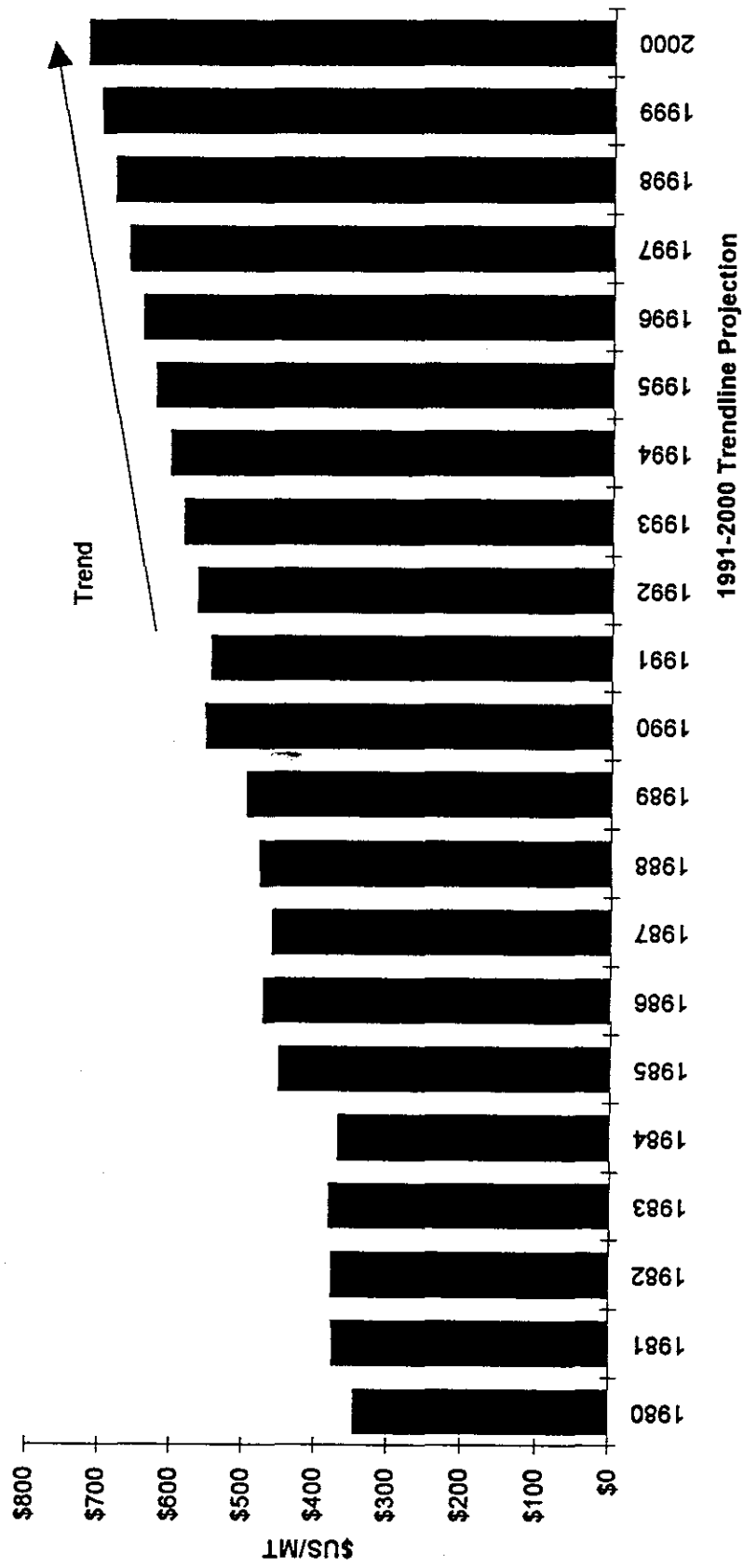
**CHART 9: QUANTITY OF WORLD FRESH GRAPEFRUIT IMPORTS  
(FROM THE US AND TOTAL)**



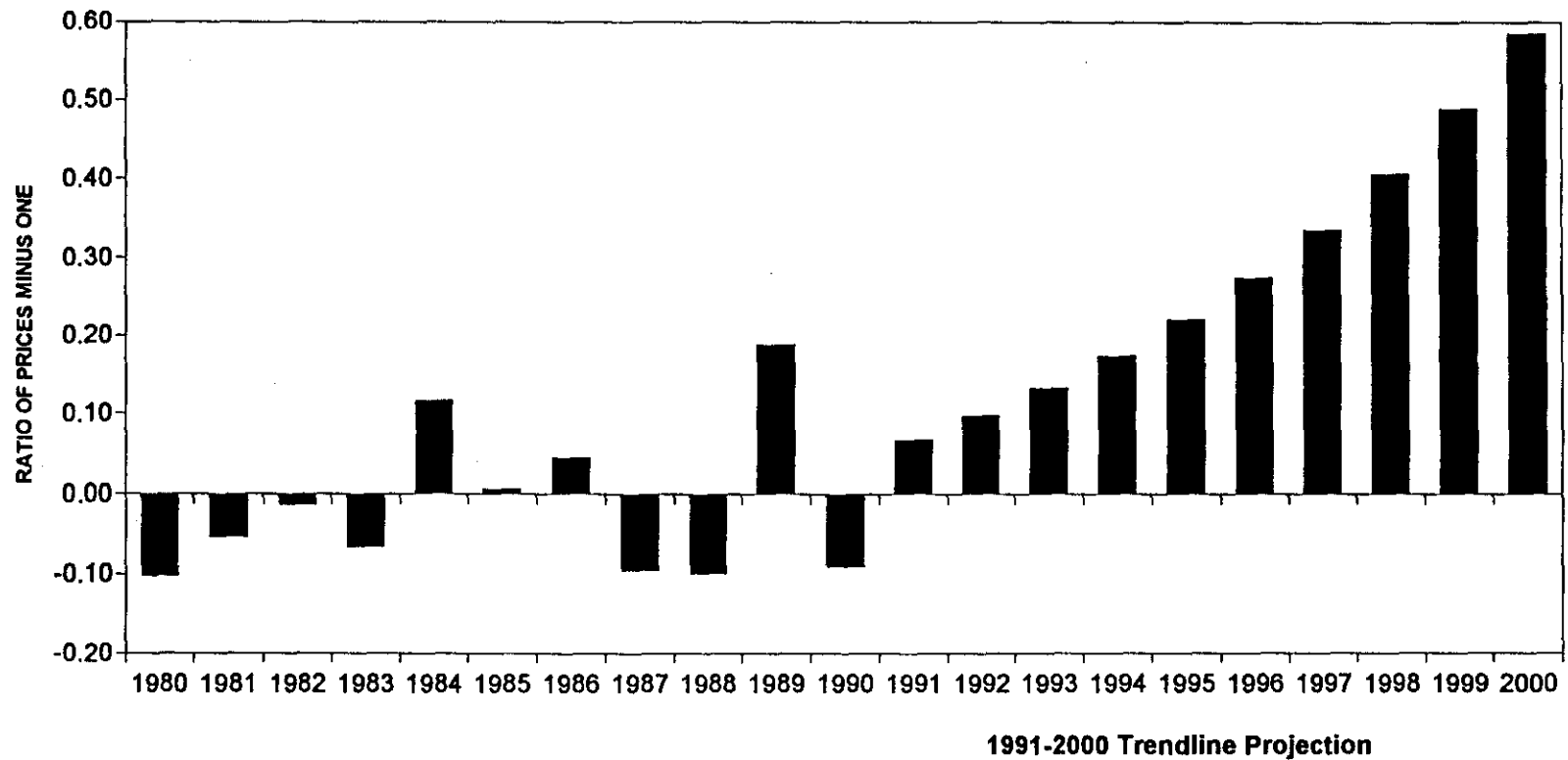
**CHART 10: VALUE OF WORLD FRESH GRAPEFRUIT IMPORTS  
(FROM THE US AND TOTAL)**



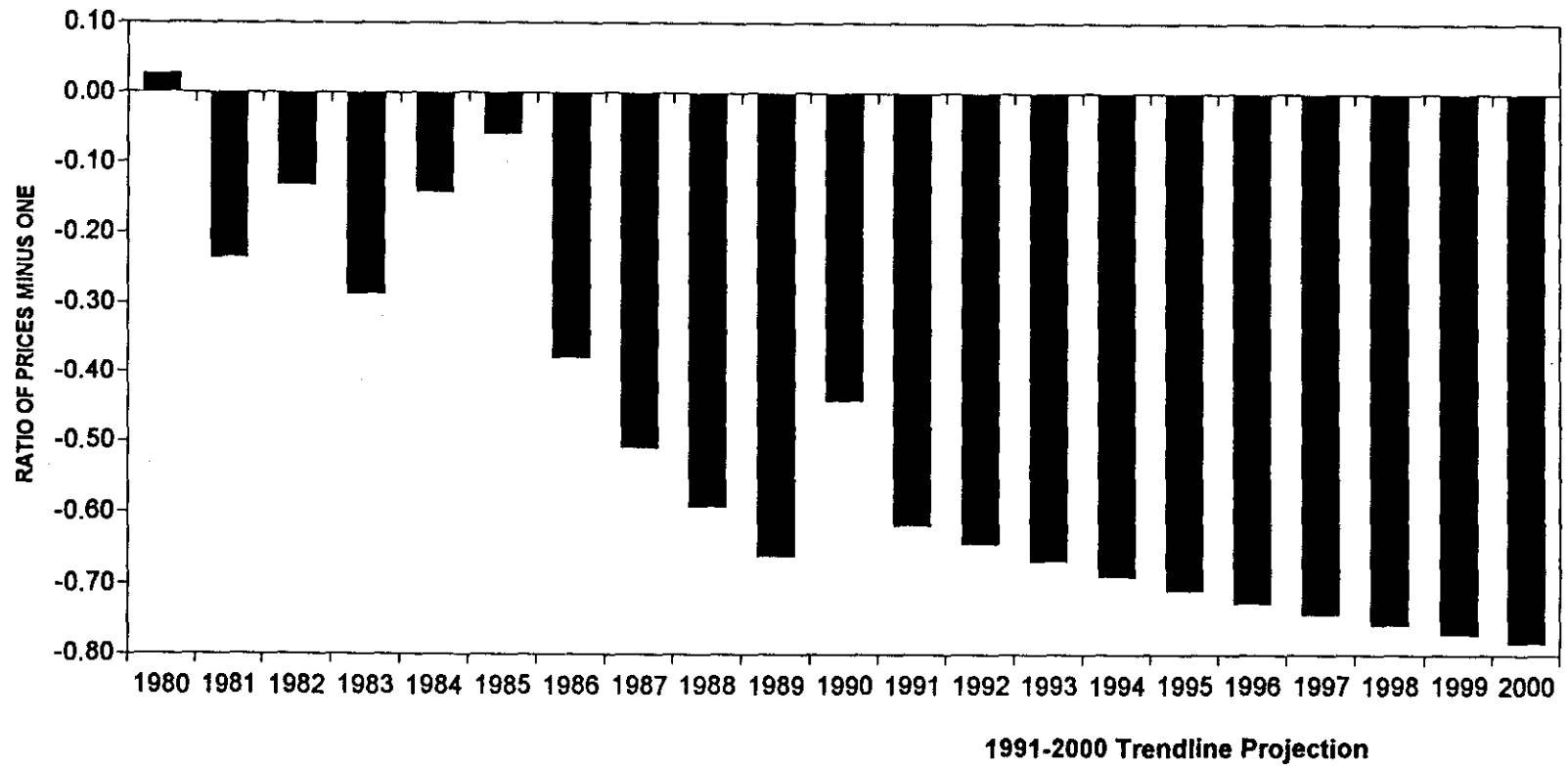
**CHART 11: AVERAGE US FRESH GRAPEFRUIT EXPORT PRICE TO ALL COUNTRIES**



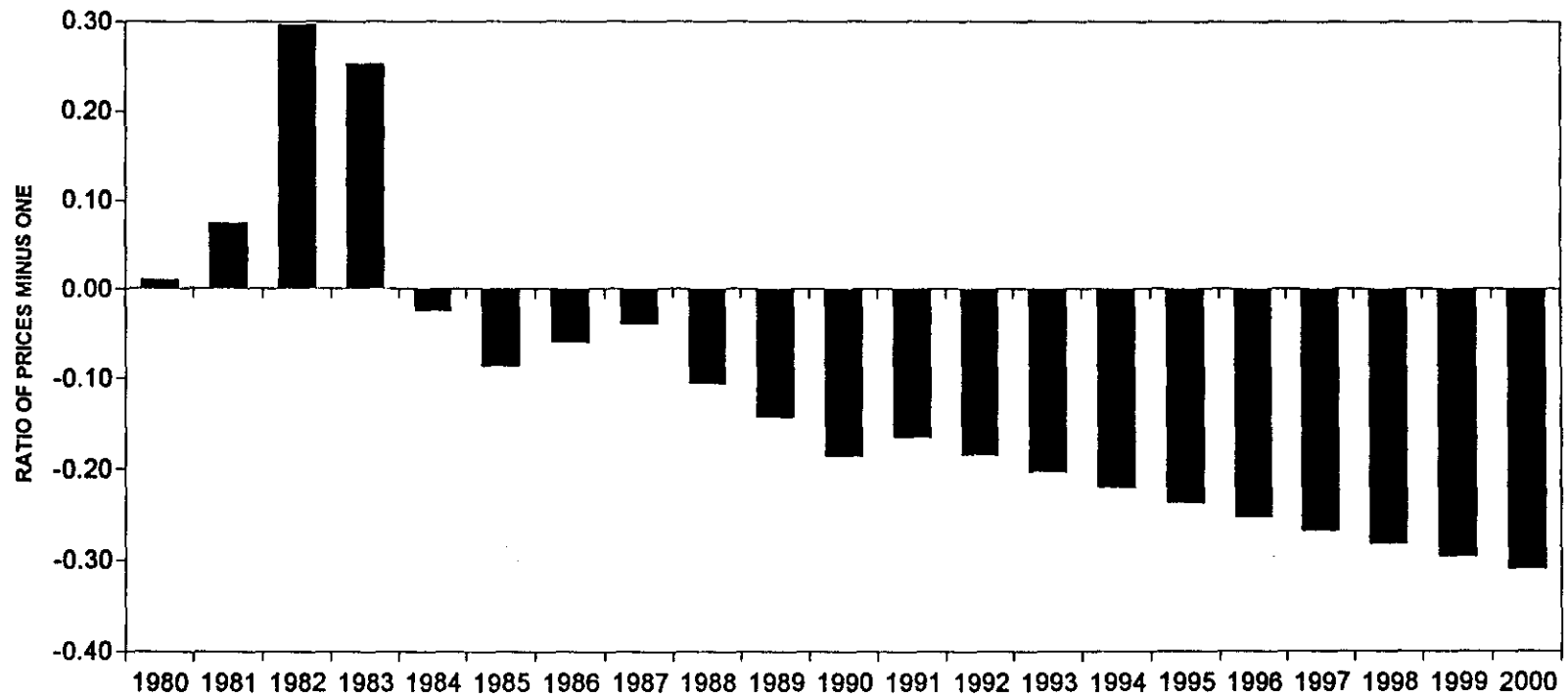
**CHART 12: RATIO OF US FRESH GRAPEFRUIT EXPORT PRICE TO CANADA  
OVER THE AVG. US EXPORT PRICE (MINUS ONE)**



**CHART 13: RATIO OF US FRESH GRAPEFRUIT EXPORT PRICE TO JAPAN  
OVER THE AVG. US EXPORT PRICE (MINUS ONE)**



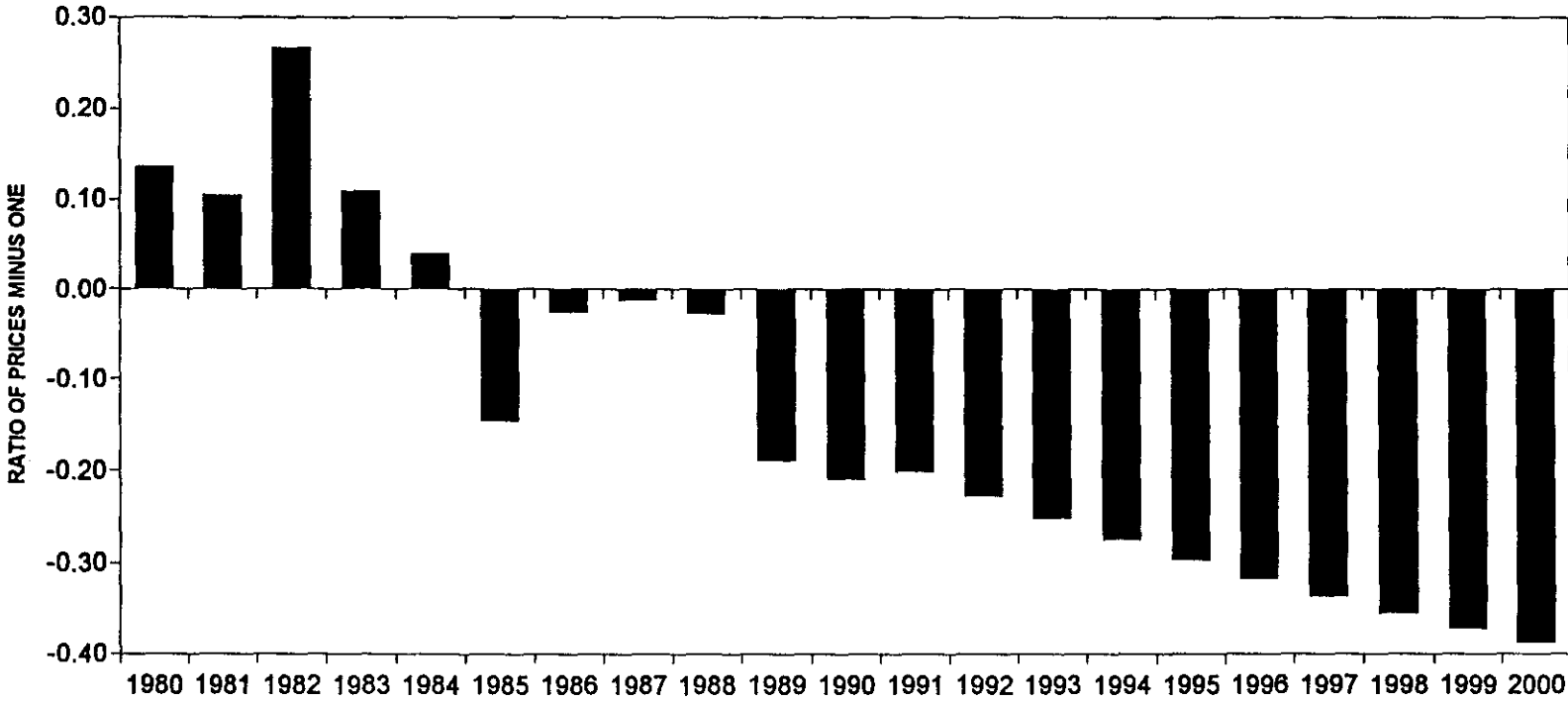
**CHART 14: RATIO OF US FRESH GRAPEFRUIT EXPORT PRICE TO THE NETHERLANDS OVER THE AVG. US EXPORT PRICE (MINUS ONE)**



**1991-2000 Trendline Projection**



**CHART 15: RATIO OF US FRESH GRAPEFRUIT EXPORT PRICE TO THE UK  
OVER THE AVG. US EXPORT PRICE (MINUS ONE)**



1991-2000 Trendline Projection

PEANUTS

**Table 1: US Peanut Exports (Baseline; 1991-2000 Projected)**

Year	<u>Quantity (1000MT)</u>					<u>US Share of Each Market</u>				
	Canada	Japan	Netherlands	UK	World	Canada	Japan	Netherlands	UK	World
1980	48	25	17	22	147	0.85	0.40	0.22	0.30	0.20
1981	25	7	17	16	124	0.36	0.11	0.22	0.18	0.17
1982	44	17	26	33	148	0.73	0.39	0.35	0.43	0.18
1983	55	21	27	51	188	0.83	0.36	0.37	0.57	0.25
1984	60	28	40	54	222	0.88	0.44	0.47	0.67	0.29
1985	52	27	63	48	232	0.76	0.46	0.63	0.52	0.29
1986	50	29	65	55	237	0.65	0.51	0.62	0.44	0.26
1987	34	18	83	40	206	0.47	0.34	0.66	0.40	0.22
1988	25	19	34	38	149	0.42	0.36	0.31	0.35	0.15
1989	35	21	70	71	244	0.53	0.44	0.62	0.68	0.27
1990	42	14	68	88	267	0.51	0.29	0.48	0.72	0.28
1991	38	20	81	77	251	0.50	0.43	0.59	0.63	0.24
1992	37	20	87	82	259	0.48	0.44	0.61	0.65	0.25
1993	36	20	92	86	268	0.46	0.45	0.62	0.67	0.25
1994	35	20	98	91	276	0.45	0.46	0.63	0.68	0.25
1995	34	20	104	96	284	0.43	0.47	0.64	0.70	0.25
1996	34	20	110	101	293	0.41	0.49	0.65	0.71	0.25
1997	33	20	115	106	301	0.40	0.50	0.66	0.72	0.25
1998	32	20	121	111	309	0.38	0.51	0.67	0.74	0.25
1999	31	20	127	116	318	0.37	0.53	0.67	0.75	0.25
2000	30	20	133	121	326	0.35	0.55	0.68	0.76	0.25

Source: USDA and FAO.

**TABLE 2: US Peanut Export Prices (Baseline; 1991-2000 Projected)**

Year	<u>Price (\$US/MT)</u>					<u>Export Price to Country over Avg. Export Price</u>			
	Canada	Japan	Netherlands	UK	World	Canada	Japan	Netherlands	UK
1980	\$721	\$770	\$1,862	\$1,217	\$769	0.94	1.00	2.42	1.58
1981	952	981	1,018	1,034	855	1.11	1.15	1.19	1.21
1982	835	795	831	834	845	0.99	0.94	0.98	0.99
1983	766	702	825	771	798	0.96	0.88	1.03	0.97
1984	791	643	812	798	799	0.99	0.81	1.02	1.00
1985	700	595	673	707	693	1.01	0.86	0.97	1.02
1986	757	608	740	716	727	1.04	0.84	1.02	0.98
1987	789	811	709	749	751	1.05	1.08	0.94	1.00
1988	821	786	790	781	811	1.01	0.97	0.97	0.96
1989	826	964	553	516	679	1.22	1.42	0.81	0.76
1990	850	1,070	551	412	662	1.28	1.62	0.83	0.62
1991	810	846	575	506	683	1.19	1.24	0.84	0.74
1992	814	861	561	487	675	1.21	1.28	0.83	0.72
1993	818	875	548	471	667	1.23	1.31	0.82	0.71
1994	822	890	537	457	659	1.25	1.35	0.81	0.69
1995	827	905	527	444	652	1.27	1.39	0.81	0.68
1996	831	920	518	432	645	1.29	1.43	0.80	0.67
1997	836	935	510	421	639	1.31	1.46	0.80	0.66
1998	841	950	502	412	633	1.33	1.50	0.79	0.65
1999	847	965	496	403	627	1.35	1.54	0.79	0.64
2000	853	980	490	395	622	1.37	1.58	0.79	0.63

Source: USDA-FAS FATUS Yearbook.

Note: US export Price is the per unit value derived from the USDA-FAS f.a.s. US port value.

Note: The price ratio is US export price to each country over the average US export price to all countries.

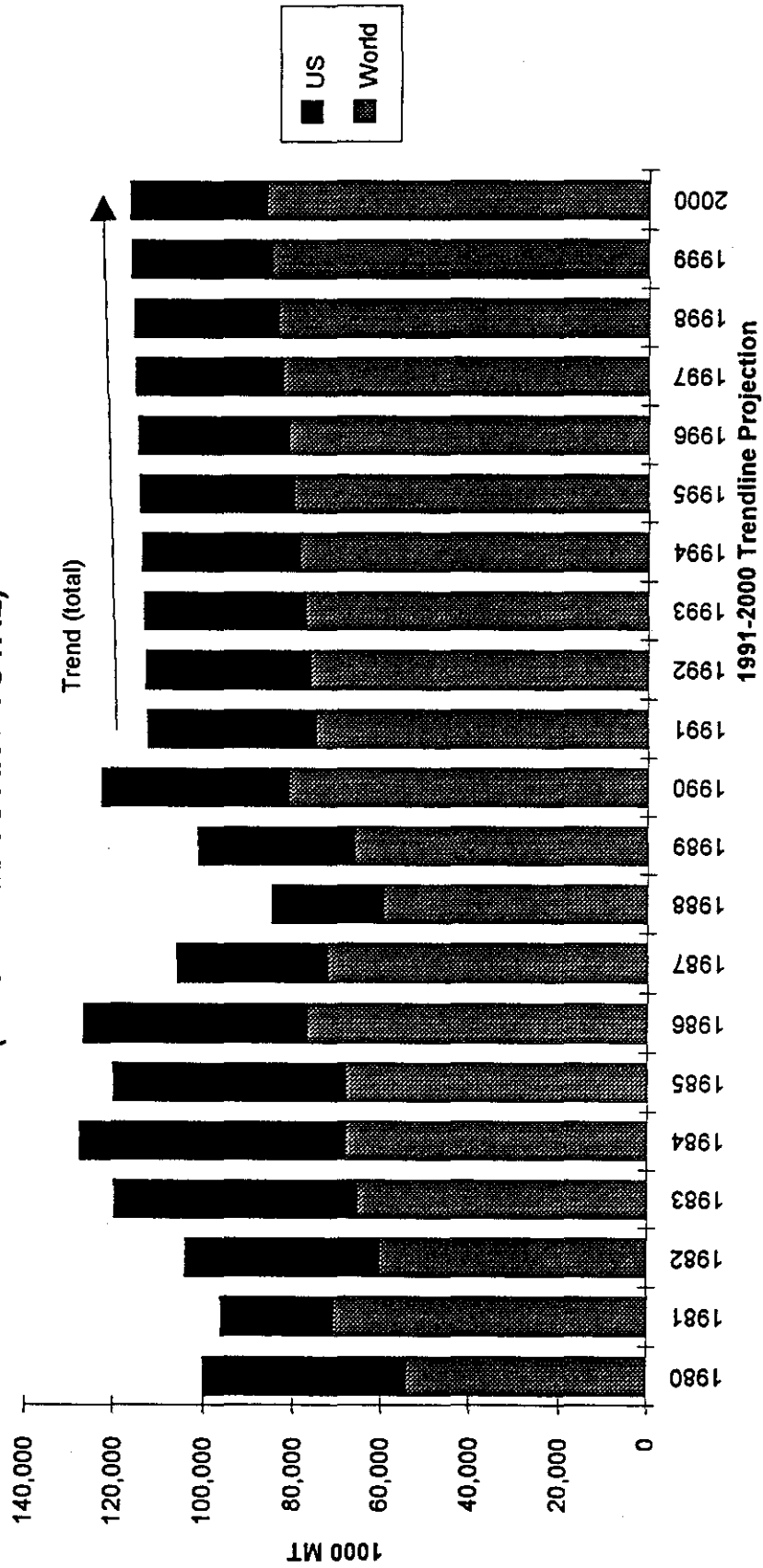
**TABLE 3: US Peanut Exports (Baseline; 1991-2000 Projected)**

Year	<u>Value (US\$ Million)</u>					<u>US Share of Each Market</u>				
	Canada	Japan	Netherlands	UK	World	Canada	Japan	Netherlands	UK	World
1980	\$33	\$19	\$31	\$27	\$147	0.77	0.30	0.45	0.36	0.24
1981	24	7	17	17	106	0.25	0.08	0.20	0.15	0.12
1982	37	14	21	28	126	0.73	0.27	0.34	0.41	0.19
1983	42	15	22	39	150	0.84	0.27	0.41	0.53	0.26
1984	47	18	32	43	177	0.87	0.25	0.44	0.59	0.27
1985	36	16	42	34	161	0.81	0.29	0.60	0.50	0.28
1986	38	17	48	39	172	0.71	0.34	0.65	0.46	0.27
1987	27	15	59	30	155	0.51	0.25	0.67	0.39	0.23
1988	21	15	27	30	121	0.49	0.29	0.35	0.36	0.18
1989	29	20	39	36	166	0.56	0.39	0.44	0.43	0.24
1990	35	15	38	36	177	0.49	0.29	0.30	0.34	0.20
1991	31	17	46	39	171	0.58	0.37	0.46	0.43	0.23
1992	30	18	49	40	175	0.57	0.39	0.47	0.44	0.24
1993	29	18	51	41	178	0.57	0.41	0.47	0.45	0.24
1994	29	18	53	42	182	0.57	0.44	0.47	0.45	0.24
1995	28	18	55	43	185	0.56	0.47	0.48	0.46	0.24
1996	28	19	57	44	189	0.56	0.50	0.48	0.46	0.24
1997	27	19	59	45	192	0.55	0.54	0.48	0.47	0.25
1998	27	19	61	46	196	0.55	0.58	0.49	0.47	0.25
1999	26	20	63	47	199	0.54	0.63	0.49	0.48	0.25
2000	26	20	65	48	203	0.54	0.68	0.49	0.48	0.25

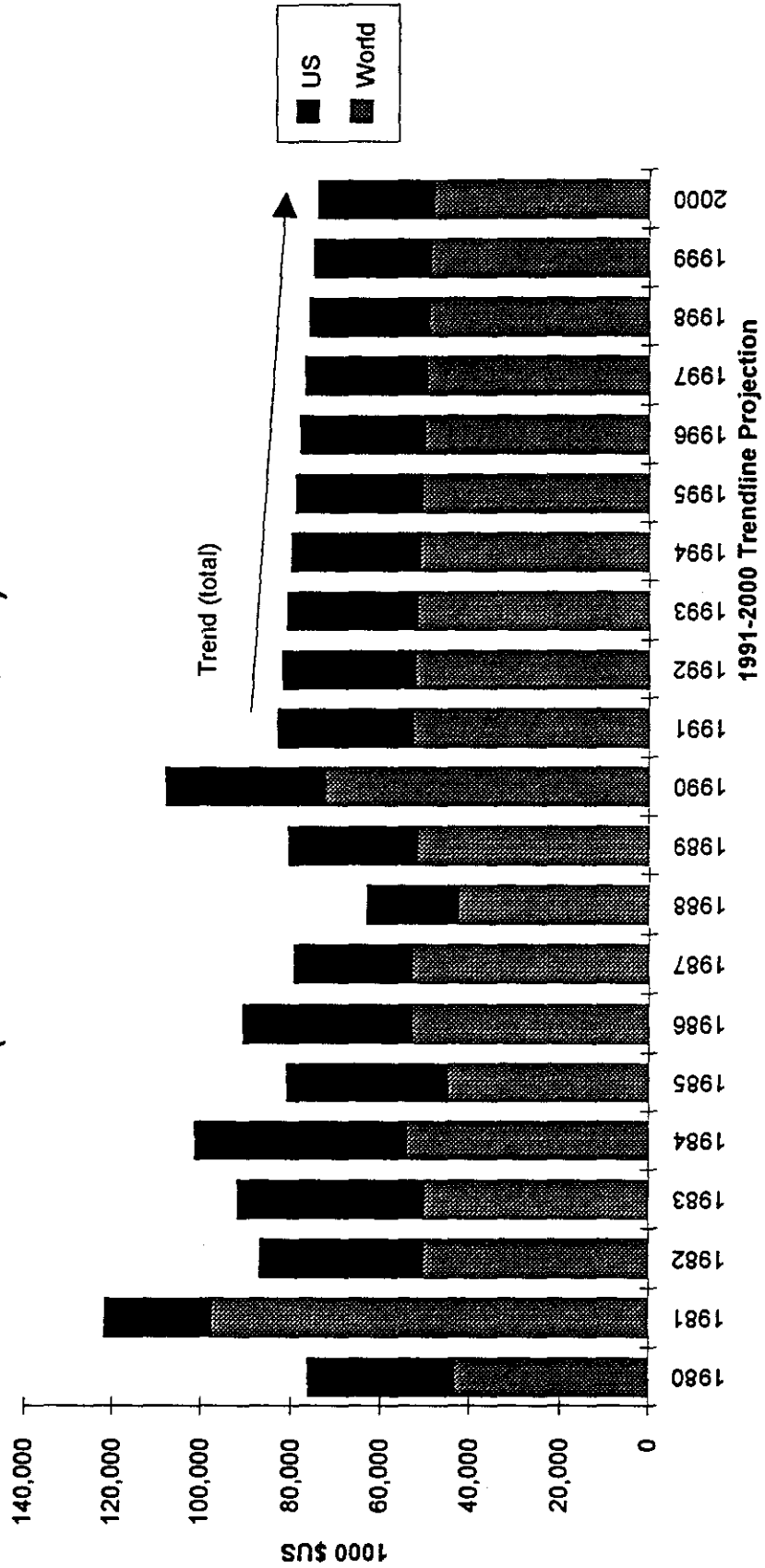
Source: FAO and USDA-FAS.

Note: US share is the ratio of imports from the US over Total Imports.

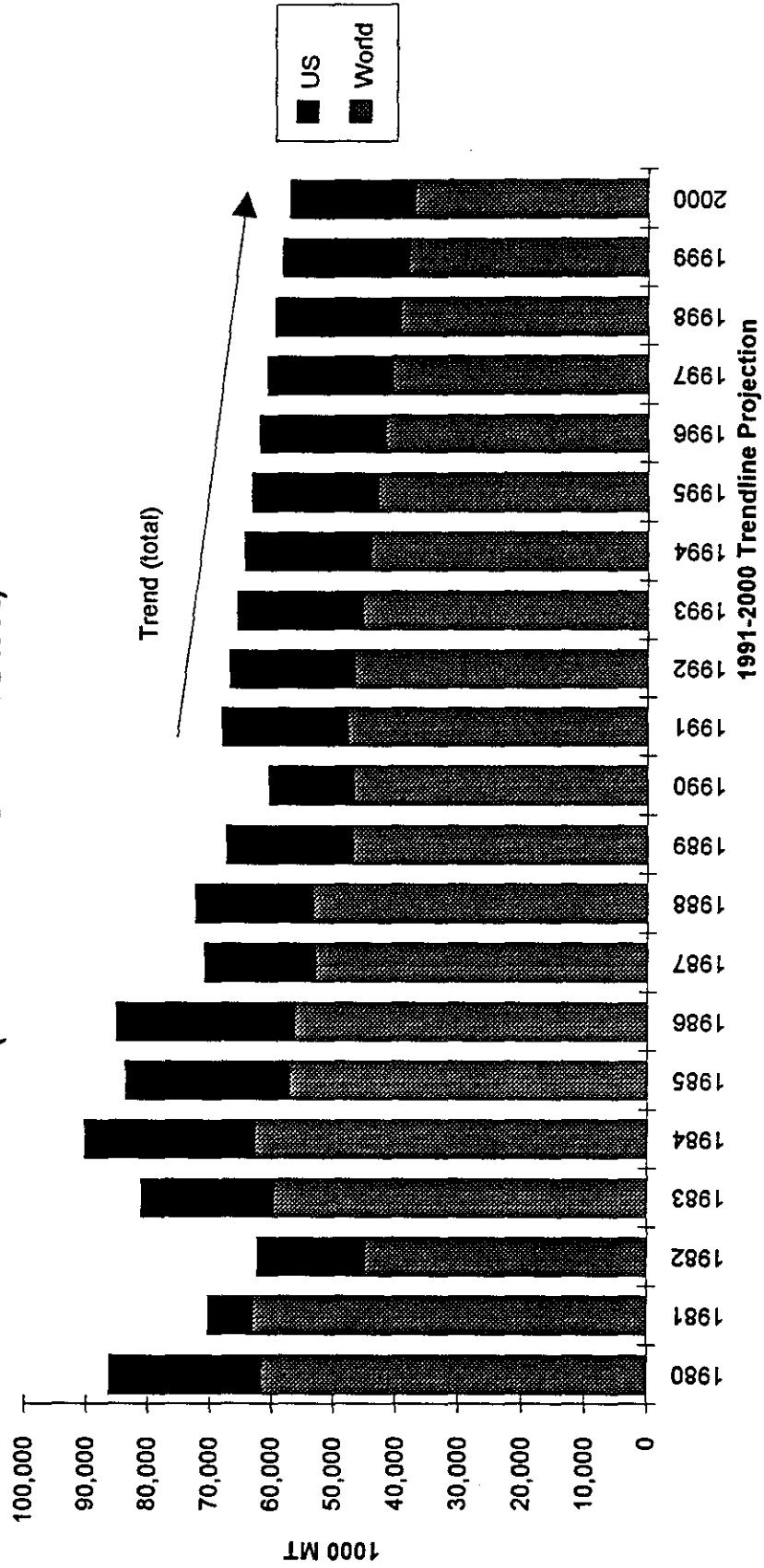
**CHART 1: QUANTITY OF CANADIAN PEANUT IMPORTS  
(FROM THE US AND TOTAL)**



**CHART 2: VALUE OF CANADIAN PEANUT IMPORTS  
(FROM THE US AND TOTAL)**

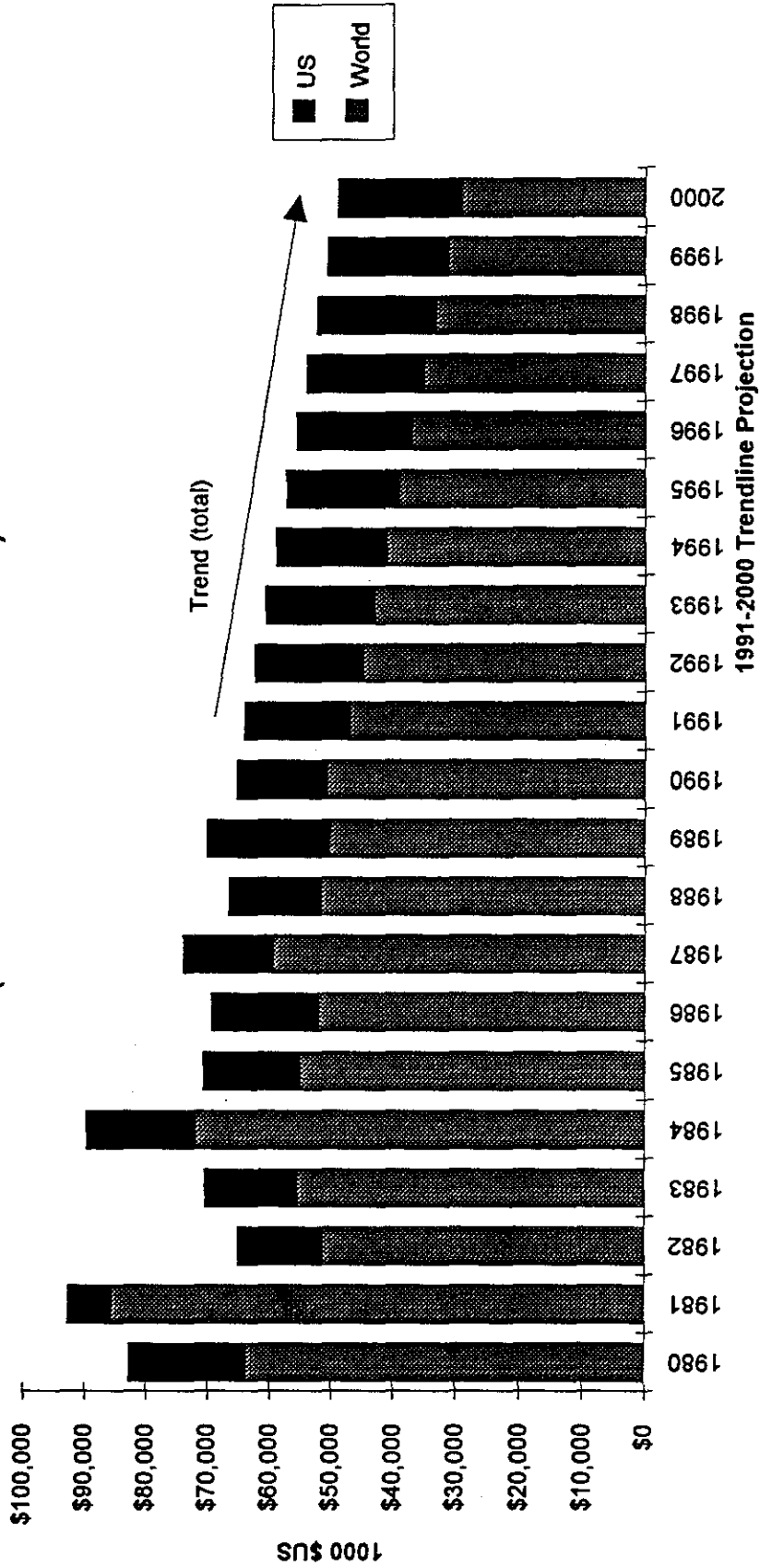


**CHART 3: QUANTITY OF JAPAN PEANUT IMPORTS  
(FROM THE US AND TOTAL)**

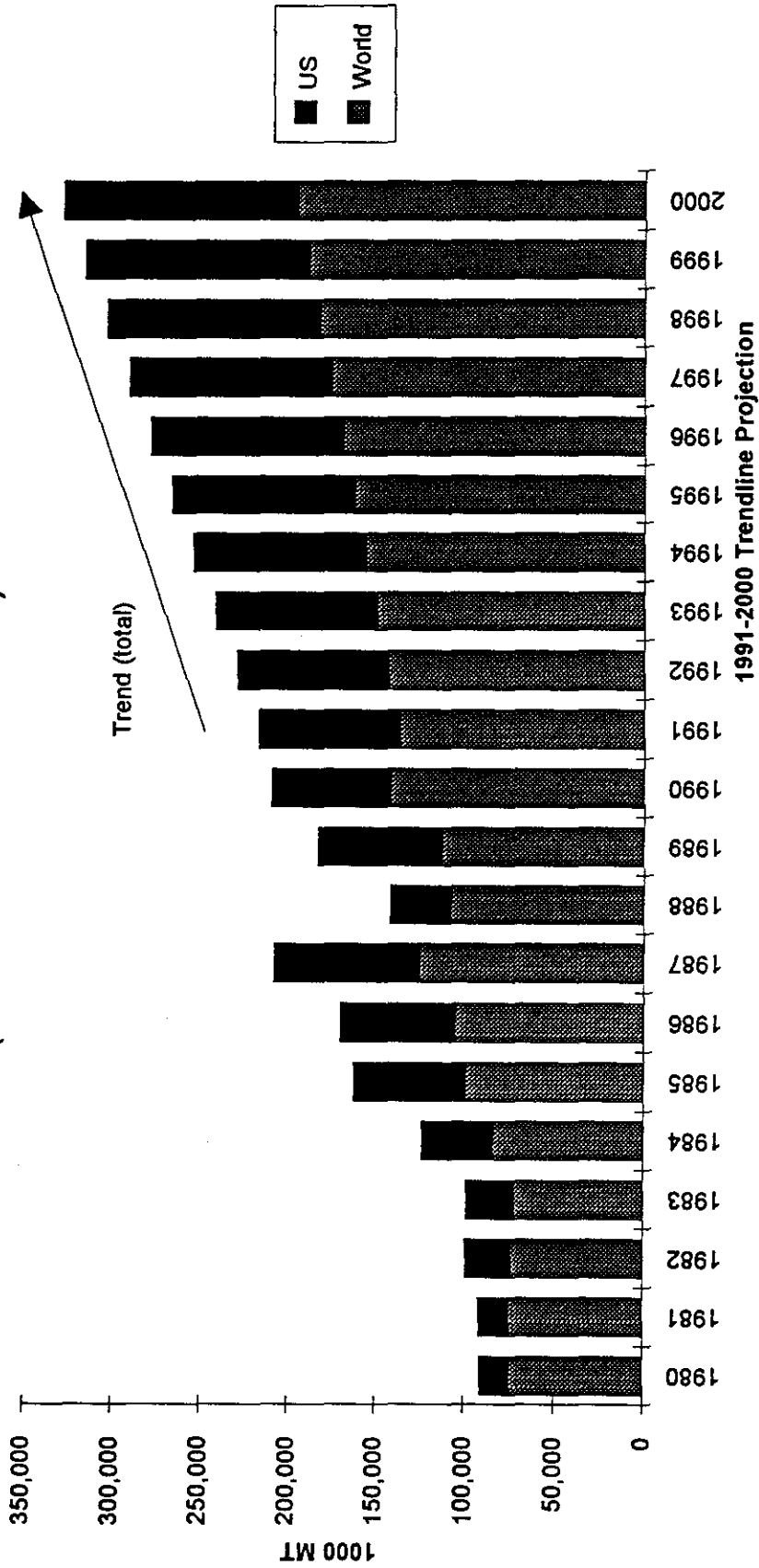




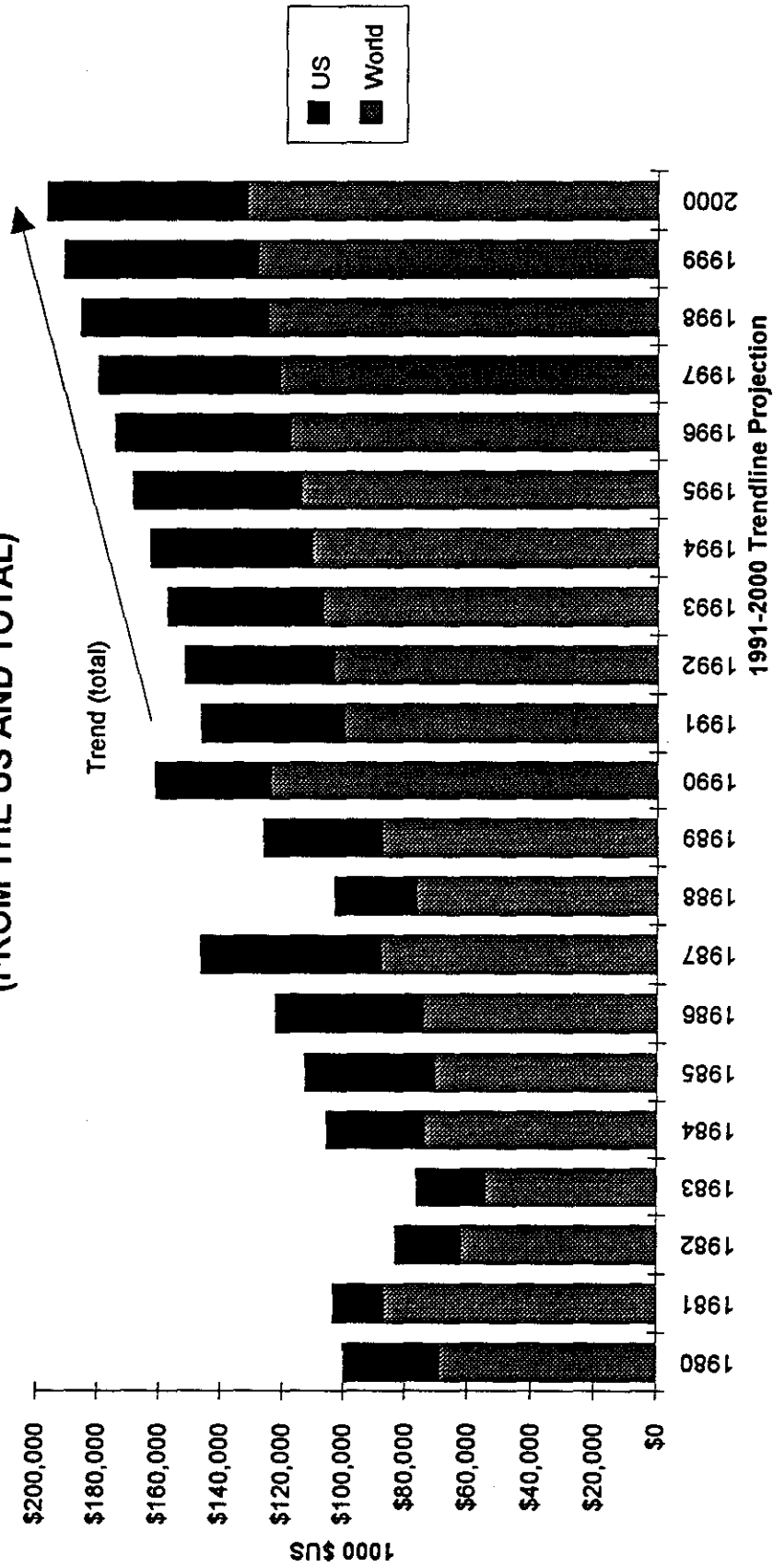
**CHART 4: VALUE OF JAPAN PEANUT IMPORTS  
(FROM THE US AND TOTAL)**



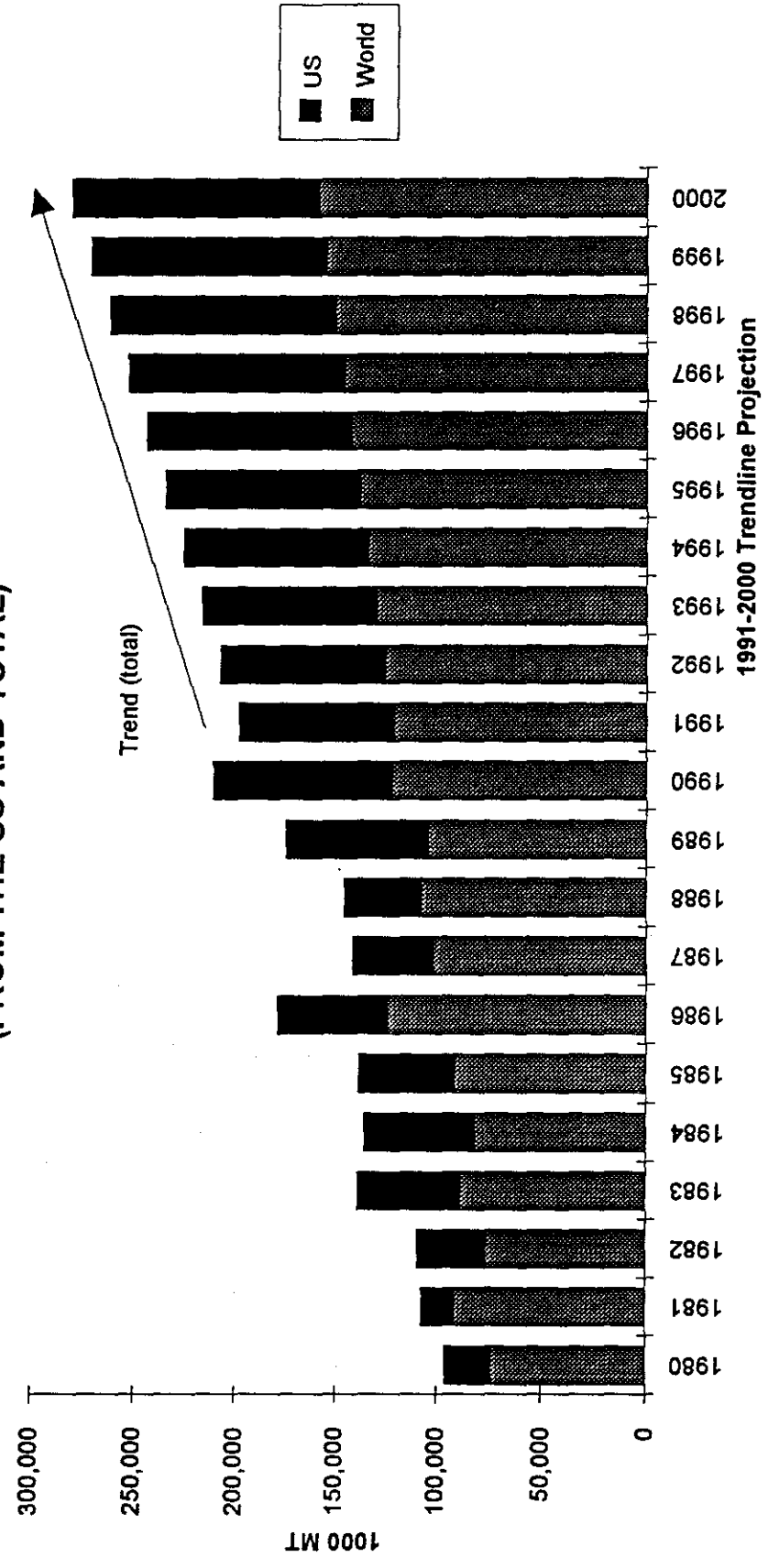
**CHART 5: QUANTITY OF THE NETHERLANDS PEANUT IMPORTS  
(FROM THE US AND TOTAL)**



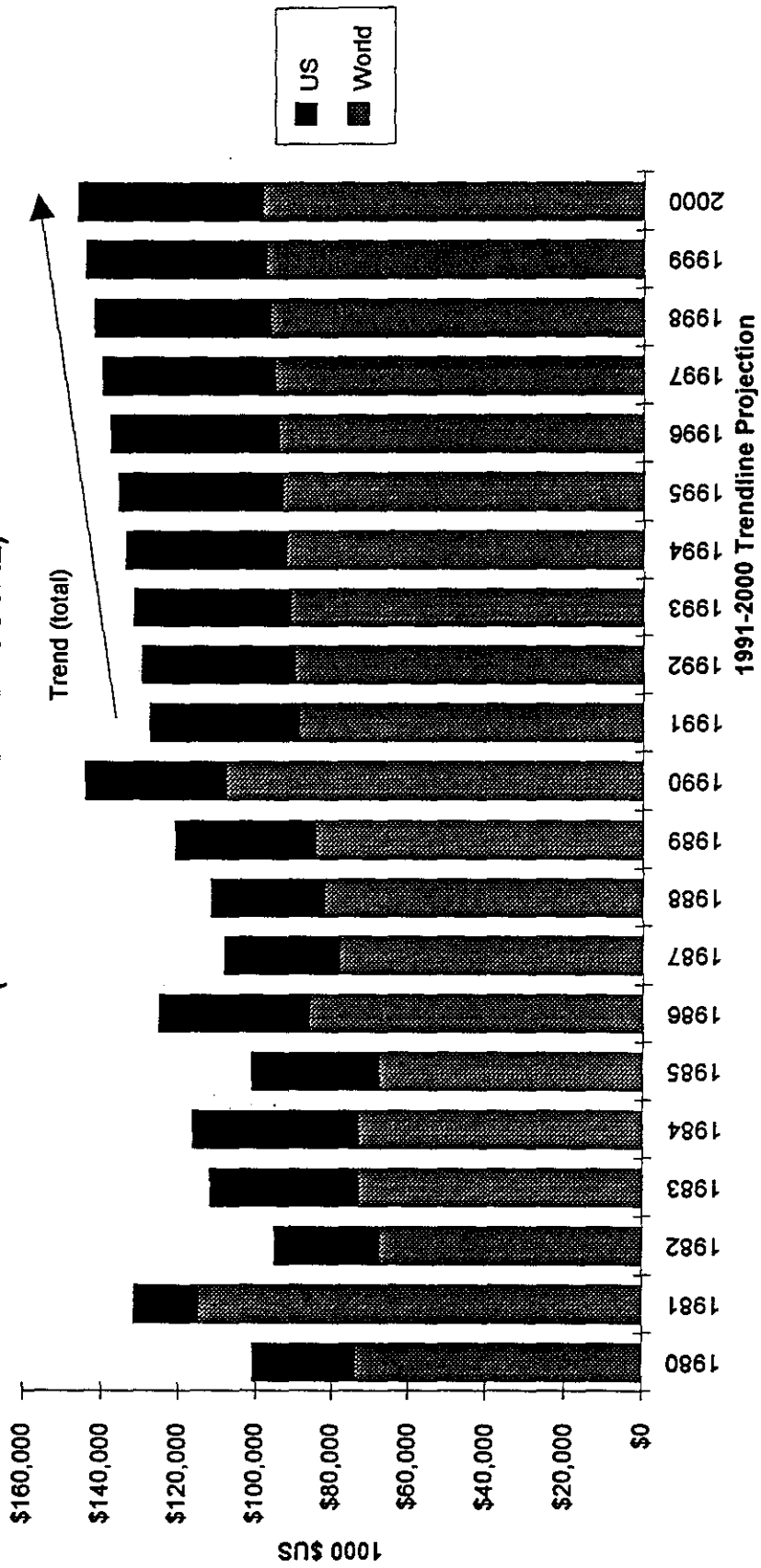
**CHART 6: VALUE OF THE NETHERLANDS PEANUT IMPORTS  
(FROM THE US AND TOTAL)**



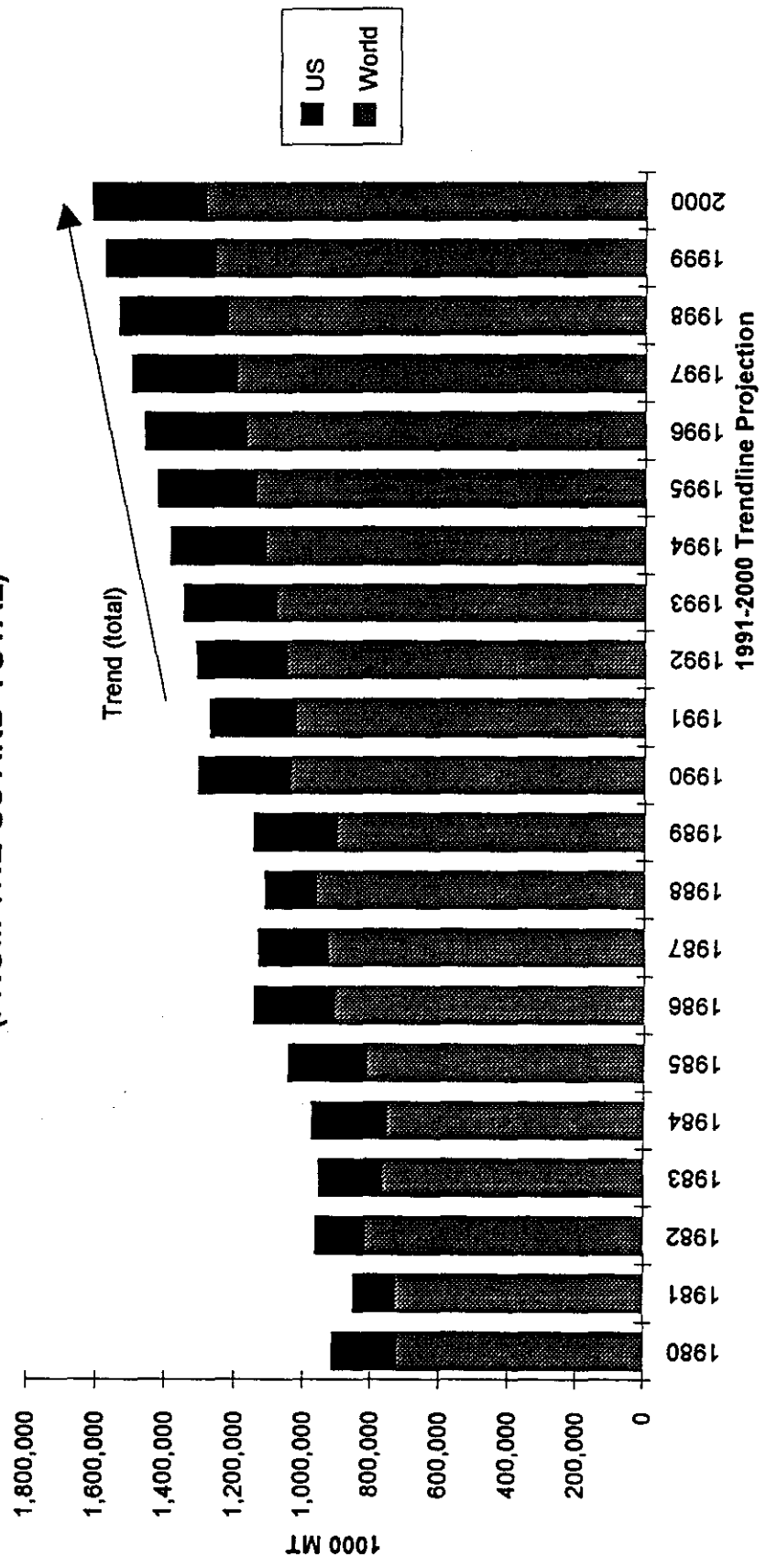
**CHART 7: QUANTITY OF THE UK PEANUT IMPORTS  
(FROM THE US AND TOTAL)**



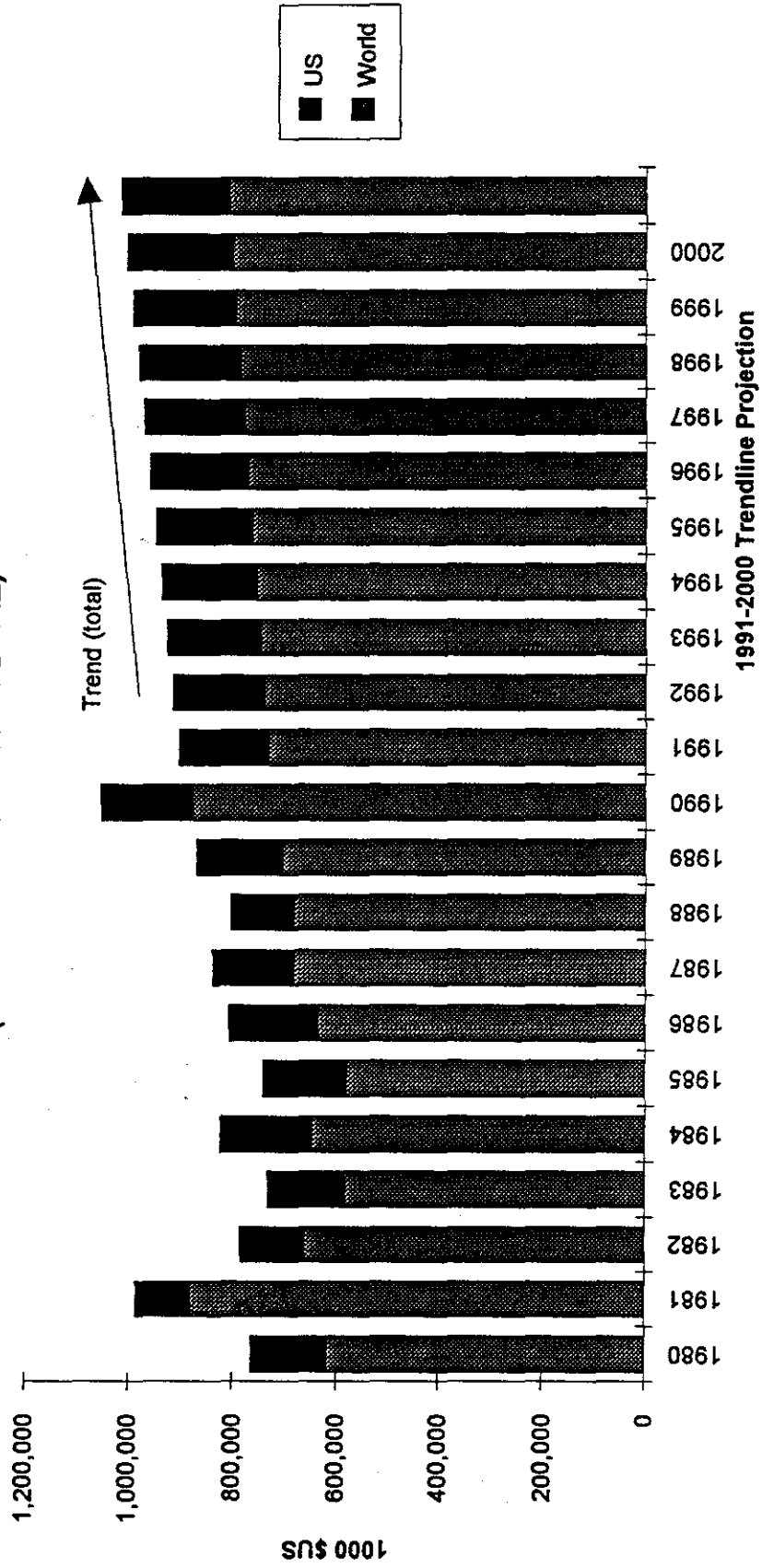
**CHART 8: VALUE OF THE UK PEANUT IMPORTS  
(FROM THE US AND TOTAL)**



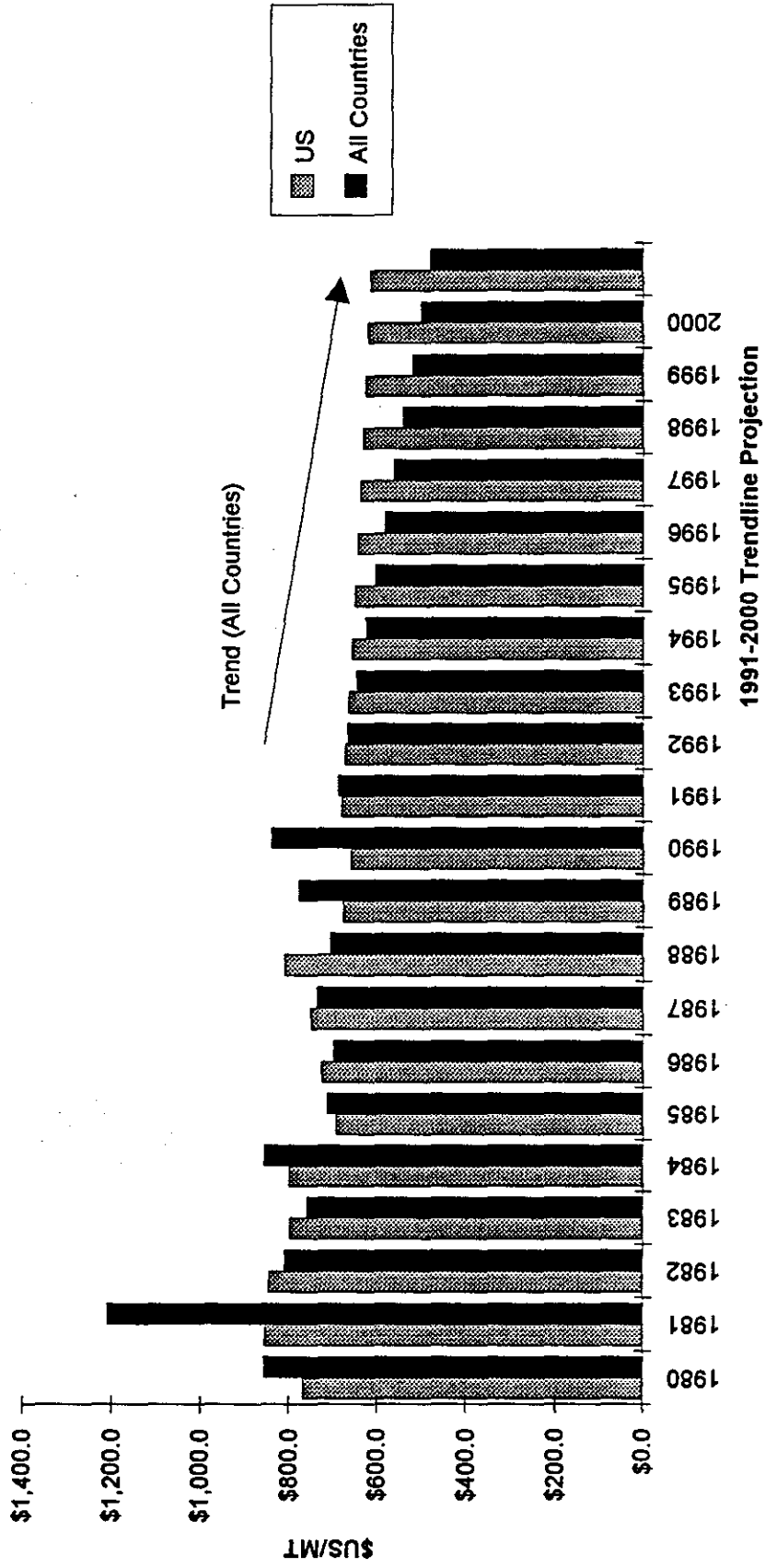
**CHART 9: QUANTITY OF THE WORLD PEANUT IMPORTS  
(FROM THE US AND TOTAL)**



**CHART 10: VALUE OF WORLD PEANUT IMPORTS  
(FROM THE US AND TOTAL)**

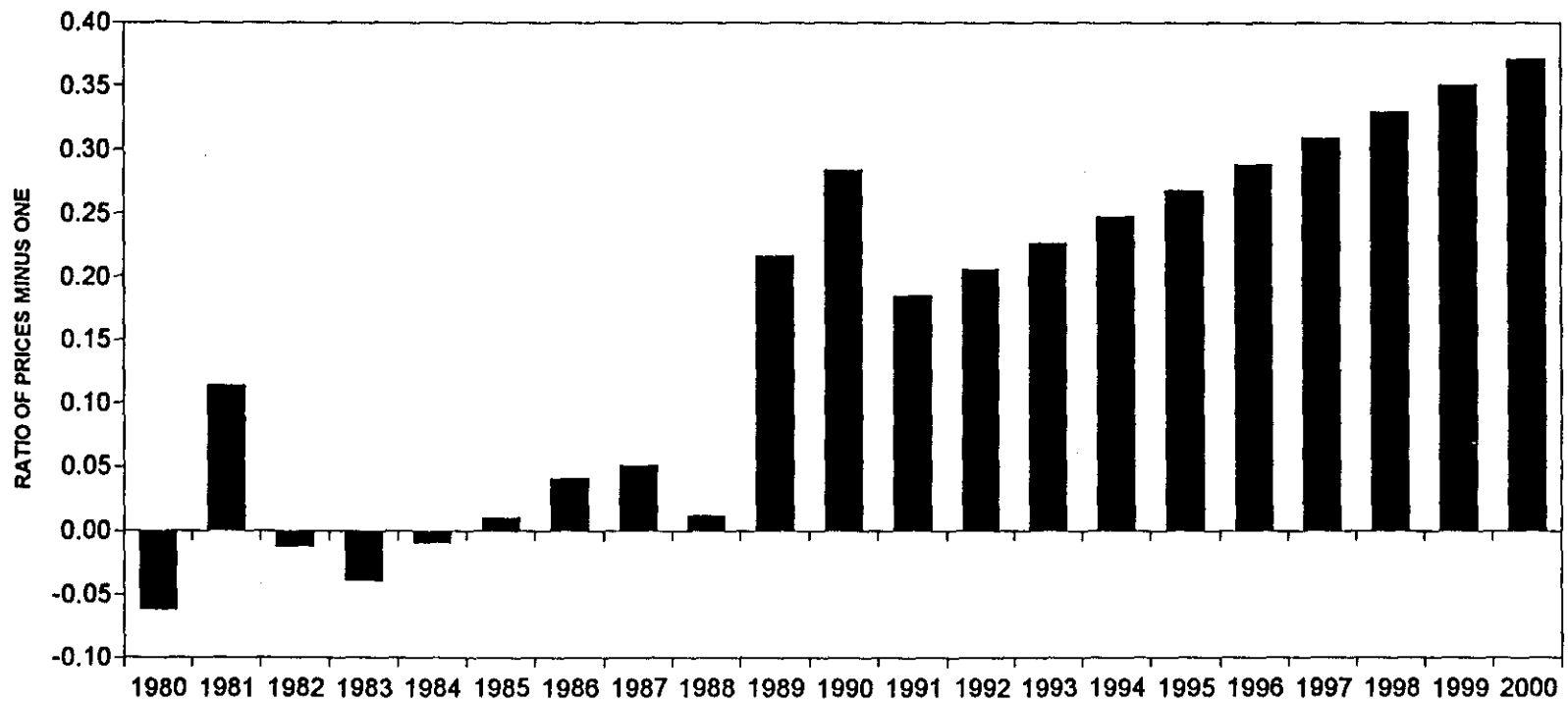


**CHART 11: AVERAGE PEANUT EXPORT PRICE  
(NOMINAL EXPORT PRICES FROM THE US AND ALL COUNTRIES)**



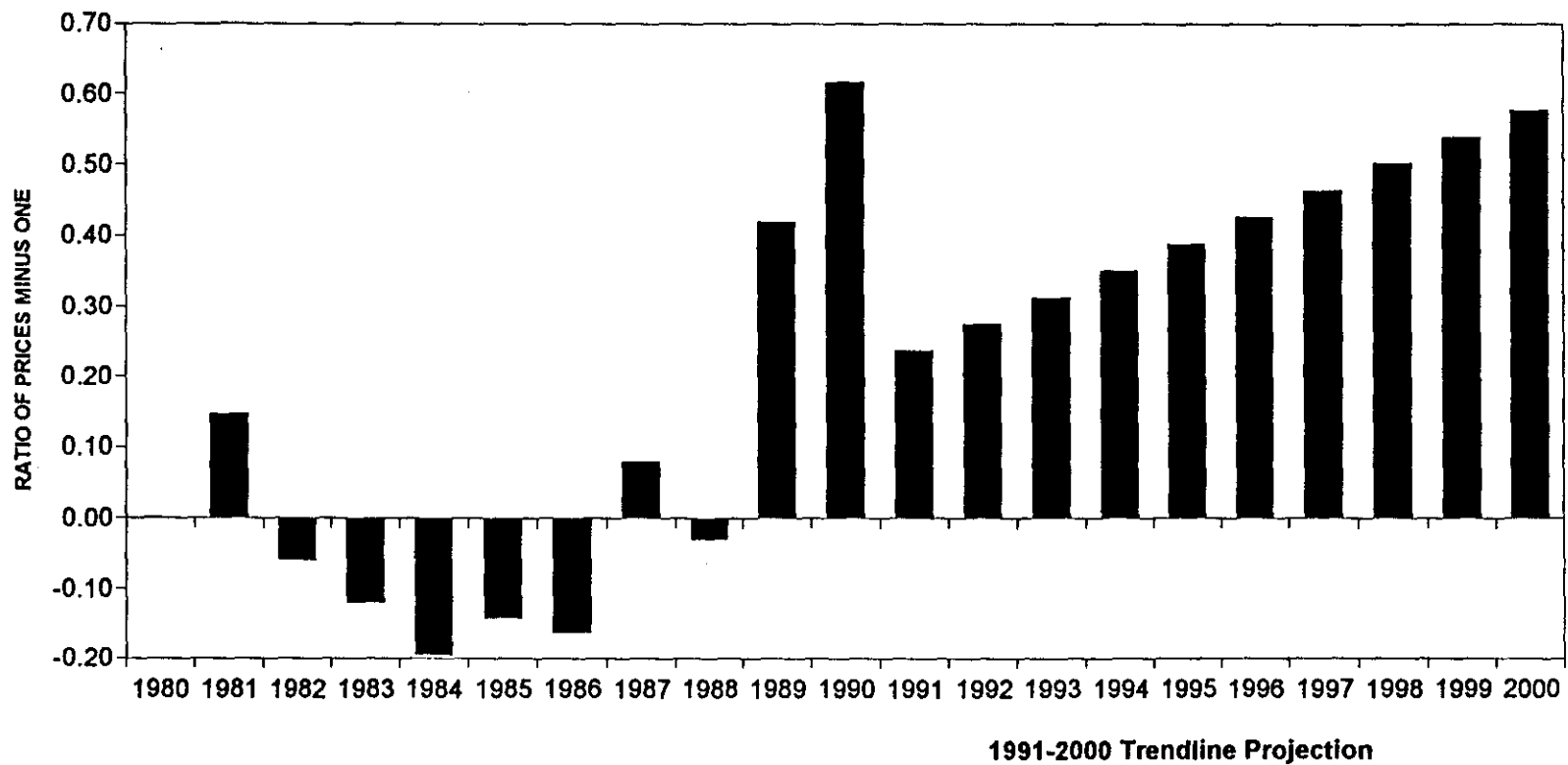


**CHART 12: RATIO OF US PEANUT EXPORT PRICE TO CANADA OVER THE  
AVG. US EXPORT PRICE (MINUS ONE)**

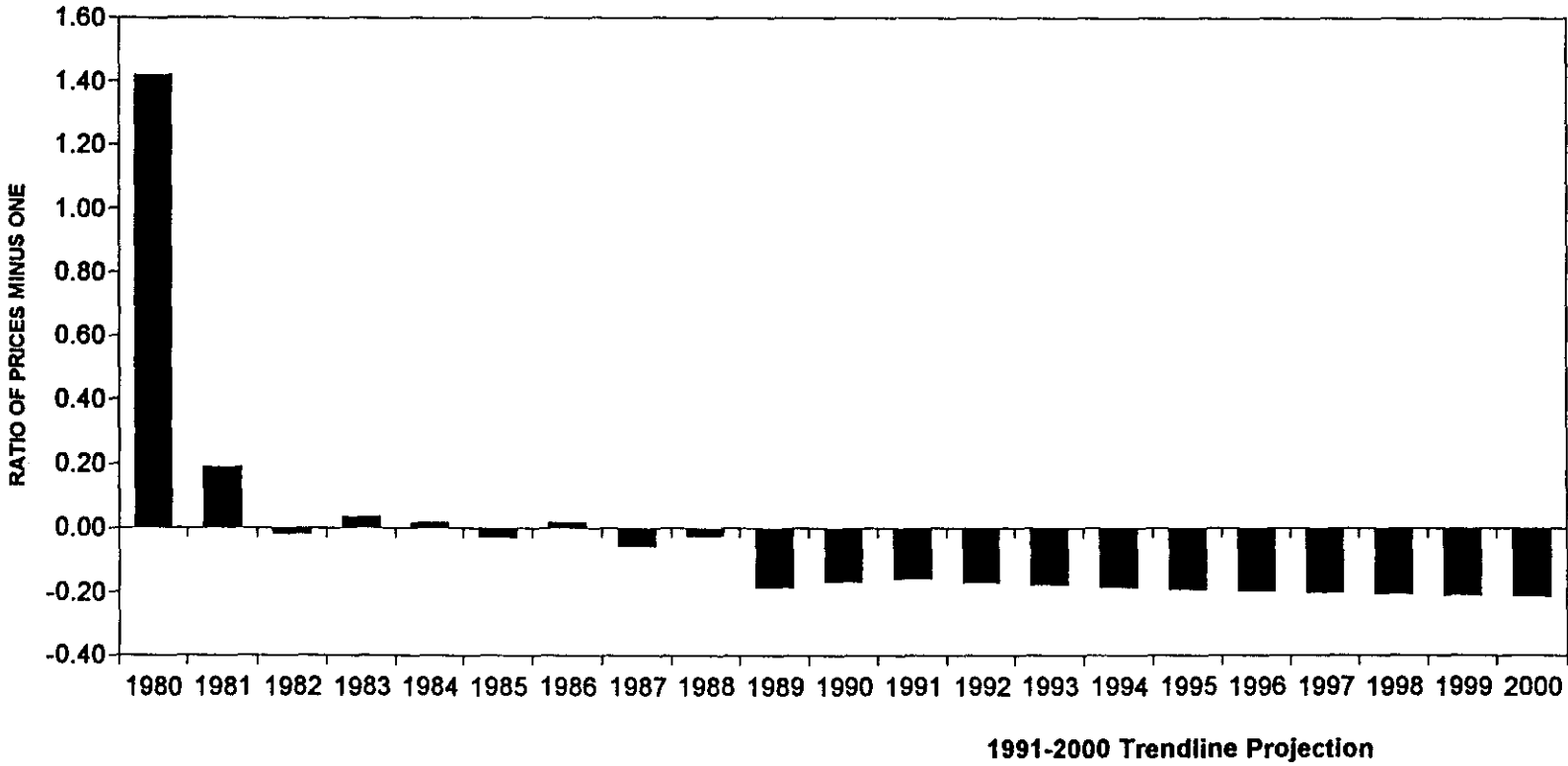


**1991-2000 Trendline Projection**

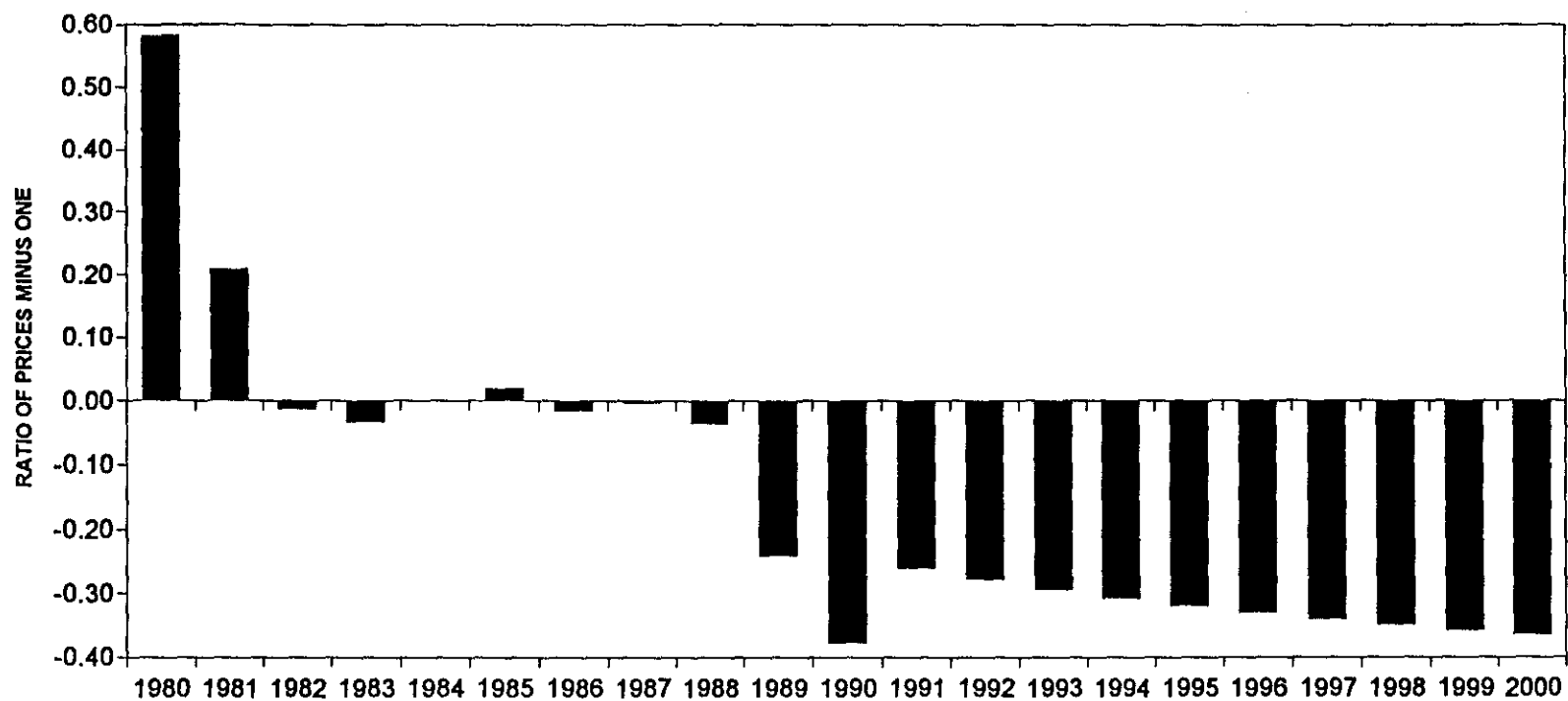
**CHART 13: RATIO OF US PEANUT EXPORT PRICE TO JAPAN OVER THE  
AVG. US EXPORT PRICE (MINUS ONE)**



**CHART 14: RATIO OF US PEANUT EXPORT PRICE TO THE NETHERLANDS  
OVER THE AVG. US EXPORT PRICE (MINUS ONE)**



**CHART 15: RATIO OF US PEANUT EXPORT PRICE TO THE UK OVER THE  
AVG. US EXPORT PRICE (MINUS ONE)**



**1991-2000 Trendline Projection**

POTATOES

**Table 1: US Fresh Potato Exports (Baseline; 1991-2000 Projected)**

Year	<u>Quantity (1000MT)</u>						<u>US Share of Each Market</u>					
	Bahamas	Barbados	Canada	Hong Kong	Mexico	World	Bahamas	Barbados	Canada	Hong Kong	Mexico	World
1980	1.5	n/a	72	0.0	3.2	80.0	0.36	n/a	0.64	0.00	0.65	0.02
1981	1.5	n/a	104	0.0	10.4	118.6	0.53	n/a	0.64	0.00	1.68	0.03
1982	1.1	n/a	85	0.0	4.1	93.4	0.24	n/a	0.67	0.00	0.55	0.02
1983	1.2	n/a	82	0.0	2.1	88.8	0.31	n/a	0.67	0.00	0.35	0.02
1984	0.3	n/a	60	0.0	4.1	67.3	0.08	n/a	0.38	0.00	0.19	0.01
1985	0.3	0.0	42	0.5	3.6	46.5	0.07	0.00	0.29	0.02	0.24	0.01
1986	0.2	0.1	34	0.2	3.6	39.6	0.06	0.01	0.23	0.01	0.25	0.01
1987	0.6	0.1	46	0.3	1.5	48.8	0.16	0.01	0.28	0.01	0.14	0.01
1988	0.6	0.1	34	0.6	3.1	39.2	0.19	0.01	0.18	0.02	0.39	0.01
1989	0.9	0.7	108	0.3	6.9	118.4	0.23	0.07	0.53	0.01	0.49	0.02
1990	0.3	0.3	139	0.4	7.0	148.5	0.10	0.02	1.13	0.02	0.52	0.02
1991	0.2	0.5	78	0.4	4.6	84.7	0.05	0.04	0.45	0.02	0.30	0.01
1992	0.1	0.6	79	0.4	4.6	85.4	0.02	0.05	0.44	0.03	0.28	0.01
1993	0.0	0.7	80	0.4	4.6	86.0	0.00	0.06	0.44	0.04	0.27	0.01
1994	0.0	0.8	81	0.4	4.6	86.7	0.00	0.06	0.43	0.05	0.26	0.01
1995	0.0	0.9	82	0.4	4.6	87.4	0.00	0.07	0.43	0.07	0.25	0.01
1996	0.0	1.0	83	0.4	4.6	88.0	0.00	0.07	0.42	0.14	0.24	0.01
1997	0.0	1.1	84	0.4	4.6	88.7	0.00	0.08	0.42	0.88	0.23	0.01
1998	0.0	1.2	85	0.4	4.6	89.3	0.00	0.08	0.41	-0.21	0.22	0.01
1999	0.0	1.2	85	0.4	4.6	90.0	0.00	0.08	0.41	-0.10	0.22	0.01
2000	0.0	1.3	86	0.5	4.6	90.6	0.00	0.09	0.41	-0.06	0.21	0.01

Source: USDA and FAO.

Note: US share is the ratio of imports from the US over total imports.

Note: 1990 data for Canada reported in the FATUS yearbook is suspect.

**TABLE 2: US Fresh Potato Export Prices (Baseline; 1991-2000 Projected)**

Year	<u>Price (\$US/MT)</u>						<u>Export Price to Country over Avg. Export Price</u>				
	Bahamas	Barbados	Canada	Hong Kong	Mexico	World	Bahamas	Barbados	Canada	Hong Kong	Mexico
1980	\$248	n/a	\$241	n/a	\$182	\$242	1.03	n/a	1.00	n/a	0.75
1981	322	n/a	300	n/a	224	298	1.08	n/a	1.01	n/a	0.75
1982	276	n/a	267	n/a	220	272	1.01	n/a	0.98	n/a	0.81
1983	304	n/a	244	n/a	153	249	1.22	n/a	0.98	n/a	0.61
1984	381	n/a	290	n/a	132	290	1.31	n/a	1.00	n/a	0.45
1985	243	1,000	277	235	75	275	0.88	3.63	1.01	0.86	0.27
1986	766	403	335	342	199	329	2.33	1.23	1.02	1.04	0.60
1987	415	476	388	356	269	386	1.08	1.23	1.01	0.92	0.70
1988	314	907	387	332	252	377	0.83	2.40	1.03	0.88	0.67
1989	404	461	374	529	334	374	1.08	1.23	1.00	1.41	0.89
1990	539	549	423	531	194	414	1.30	1.33	1.02	1.28	0.47
1991	852	514	445	575	256	438	1.95	1.17	1.02	1.31	0.58
1992	1,657	514	463	627	263	456	3.63	1.13	1.02	1.38	0.58
1993	*	515	481	678	270	474	*	1.09	1.02	1.43	0.57
1994	*	515	499	727	278	491	*	1.05	1.02	1.48	0.57
1995	*	515	516	775	285	509	*	1.01	1.01	1.52	0.56
1996	*	515	533	821	292	526	*	0.98	1.01	1.56	0.56
1997	*	515	549	866	299	542	*	0.95	1.01	1.60	0.55
1998	*	515	565	909	306	559	*	0.92	1.01	1.63	0.55
1999	*	516	581	951	314	575	*	0.90	1.01	1.65	0.55
2000	*	516	597	992	321	591	*	0.87	1.01	1.68	0.54

Source: FAO and USDA-FAS FATUS Yearbook.

Note: US export price is the USDA per unit f.a.s. value.

Note: Bahamas' prices do not appear because the import trendline is less than zero after 1993..

Note: The price ratio is the US export price to each country over the average US export price to all countries

**TABLE 3: US Fresh Potato Exports (Baseline; 1991-2000 Projected)**

Year	Value (US\$ Million)						US Share of Each Market					
	Bahamas	Barbados	Canada	Hong Kong	Mexico	World	Bahamas	Barbados	Canada	Hong Kong	Mexico	World
1980	\$0.4	*	\$17.4	*	\$0.6	\$19.4	0.24	*	0.82	0.00	0.87	0.02
1981	0.5	*	31.2	*	2.3	35.3	0.38	*	0.83	0.00	1.00	0.04
1982	0.3	*	22.6	*	0.9	25.4	0.18	*	0.86	0.00	0.50	0.02
1983	0.4	*	20.0	*	0.3	22.1	0.23	*	0.82	0.00	0.46	0.02
1984	0.1	*	17.4	*	0.5	19.6	0.07	*	0.47	0.00	0.15	0.02
1985	0.1	0.0	11.7	0.1	0.3	12.8	0.04	0.00	0.42	0.03	0.11	0.02
1986	0.2	0.0	11.3	0.1	0.7	13.0	0.12	0.02	0.40	0.01	0.30	0.01
1987	0.2	0.1	17.7	0.1	0.4	18.8	0.14	0.02	0.45	0.02	0.21	0.01
1988	0.2	0.1	13.1	0.2	0.8	14.8	0.12	0.03	0.39	0.04	0.47	0.01
1989	0.4	0.3	40.3	0.2	2.3	44.3	0.16	0.08	0.62	0.03	1.00	0.03
1990	0.2	0.1	58.6	0.2	1.4	61.4	0.08	0.04	1.04	0.04	0.38	0.03
1991	0.2	0.3	34.9	0.2	1.2	37.1	0.07	0.07	0.65	0.06	0.39	0.02
1992	0.1	0.3	36.7	0.3	1.2	38.9	0.06	0.08	0.64	0.07	0.38	0.02
1993	0.1	0.4	38.5	0.3	1.2	40.8	0.05	0.09	0.64	0.09	0.37	0.02
1994	0.1	0.4	40.4	0.3	1.3	42.6	0.05	0.10	0.64	0.10	0.36	0.02
1995	0.1	0.5	42.2	0.3	1.3	44.4	0.04	0.11	0.64	0.12	0.36	0.02
1996	0.1	0.5	44.1	0.4	1.3	46.3	0.03	0.12	0.64	0.15	0.35	0.02
1997	0.1	0.6	45.9	0.4	1.4	48.1	0.02	0.12	0.64	0.18	0.35	0.02
1998	0.0	0.6	47.8	0.4	1.4	49.9	0.01	0.13	0.64	0.23	0.34	0.02
1999	0.0	0.6	49.6	0.4	1.4	51.8	0.01	0.14	0.64	0.29	0.34	0.02
2000	0.0	0.7	51.5	0.5	1.5	53.6	0.00	0.14	0.64	0.38	0.33	0.02

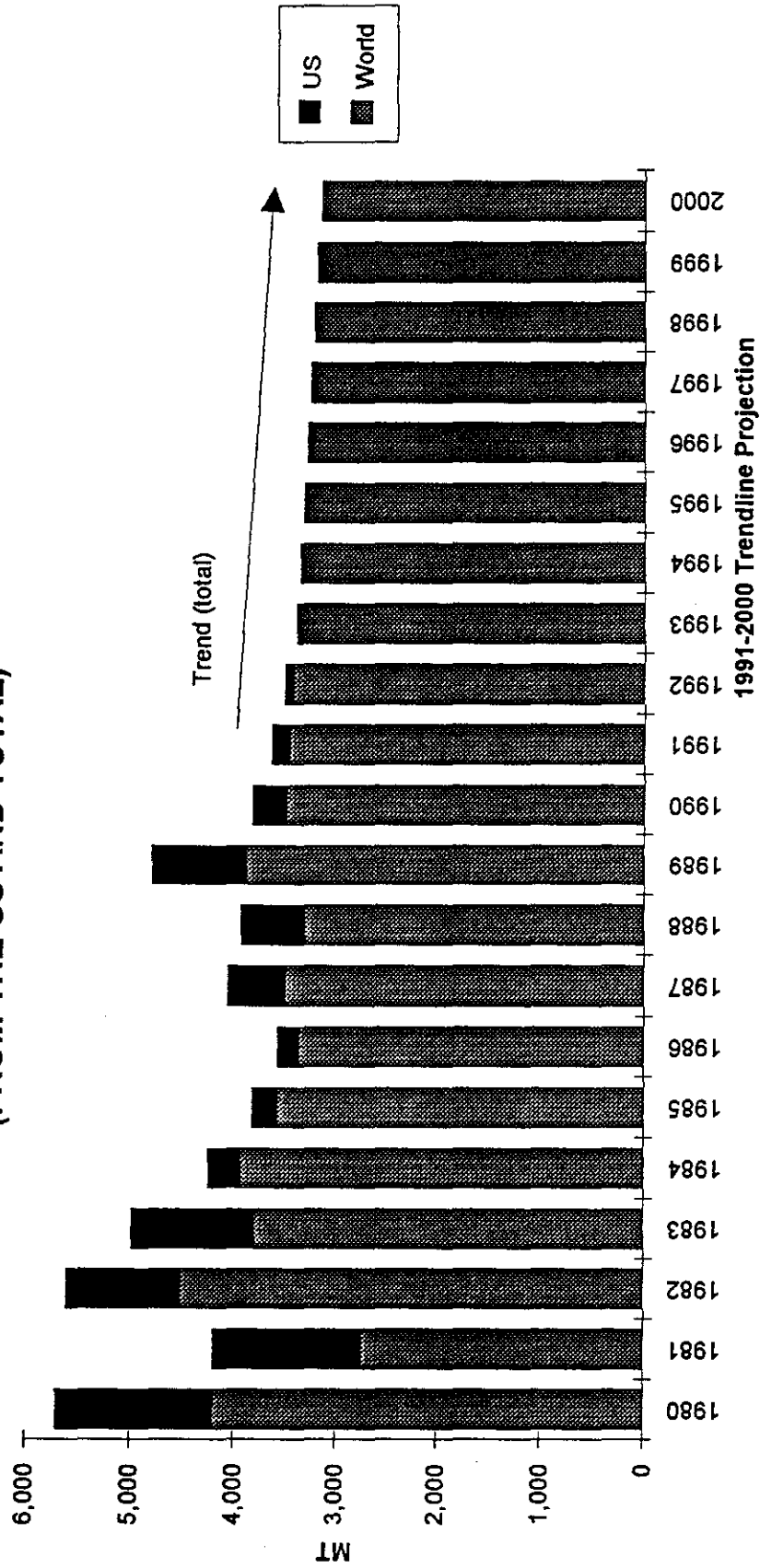
Source: FAO and USDA-FAS. Potatoes defined as fresh excluding seed.

Note: US market share is the ratio of imports from the US over total imports.

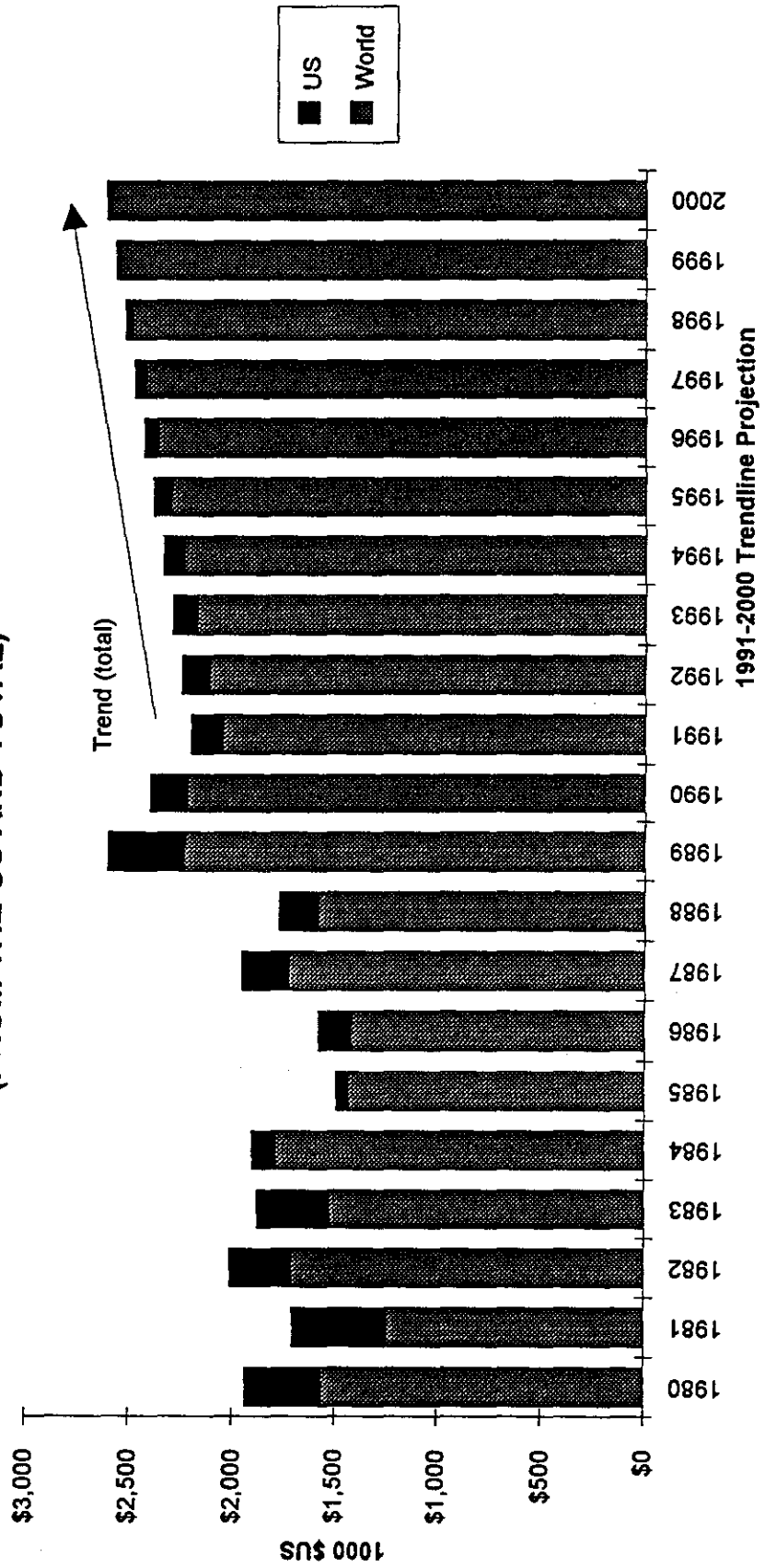
Note: There is some discrepancy between FAO and USDA data.



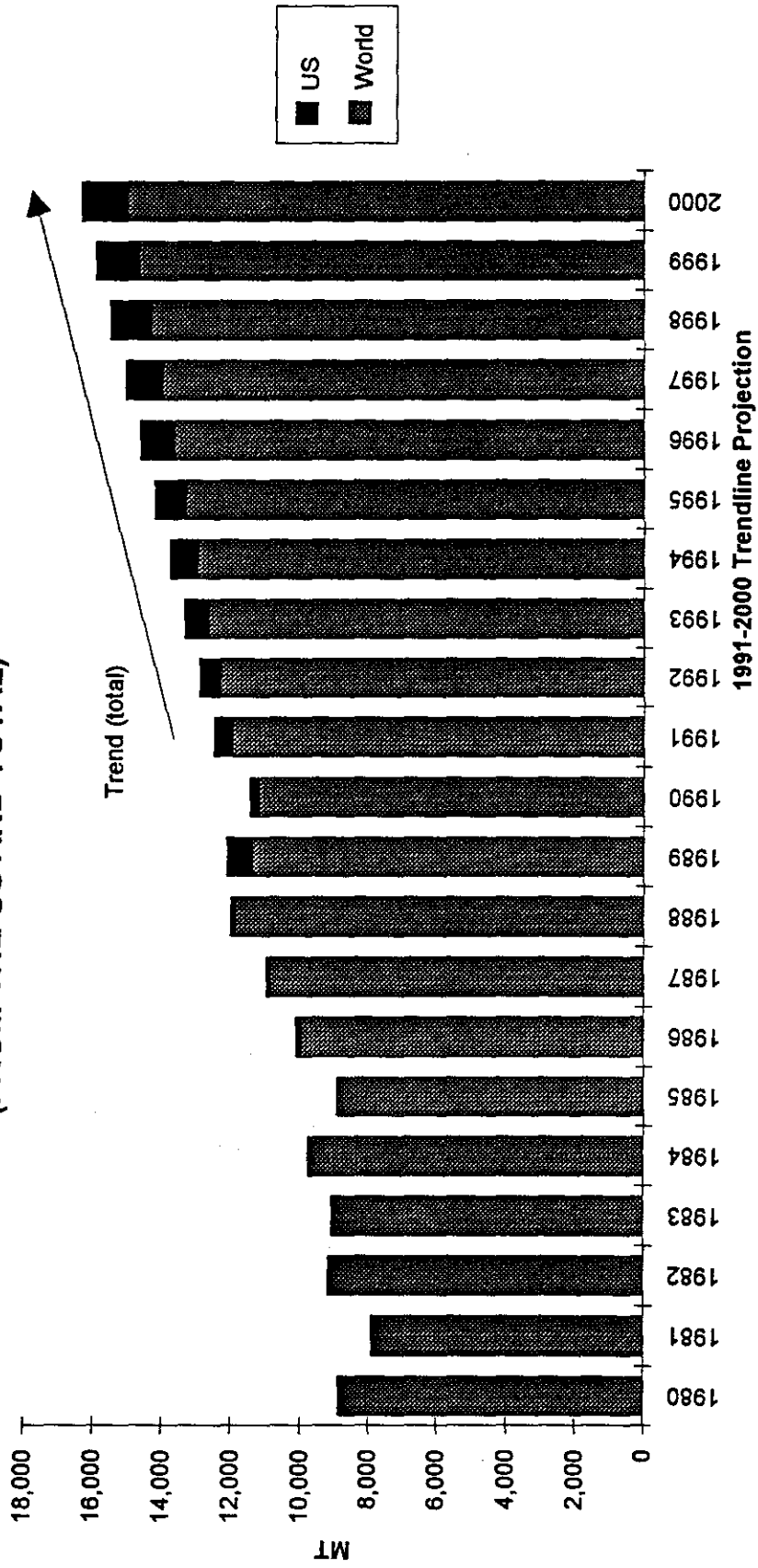
**CHART 1: QUANTITY OF BAHAMAS FRESH POTATO IMPORTS  
(FROM THE US AND TOTAL)**



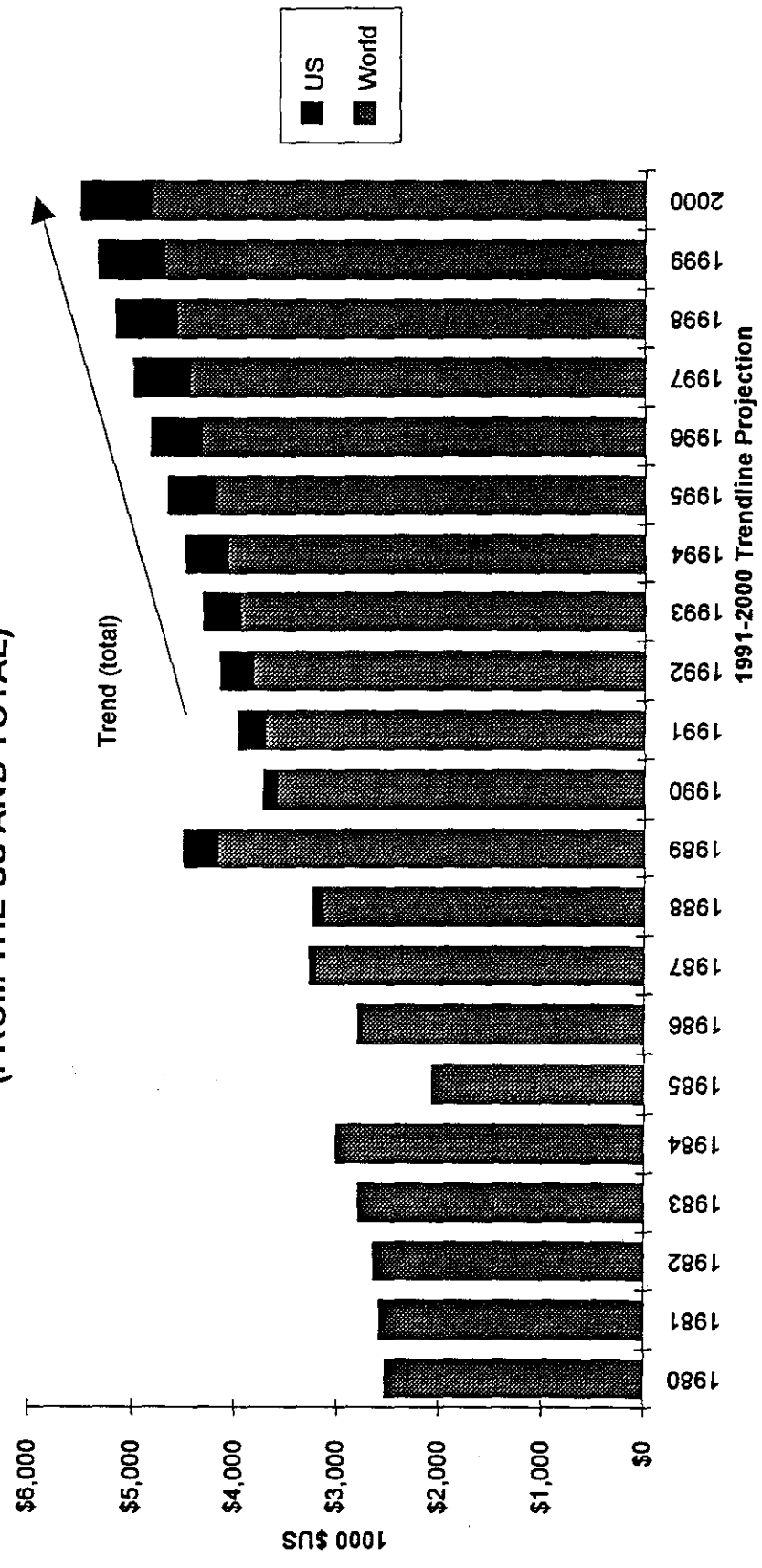
**CHART 2: VALUE OF BAHAMAS FRESH POTATO IMPORTS  
(FROM THE US AND TOTAL)**



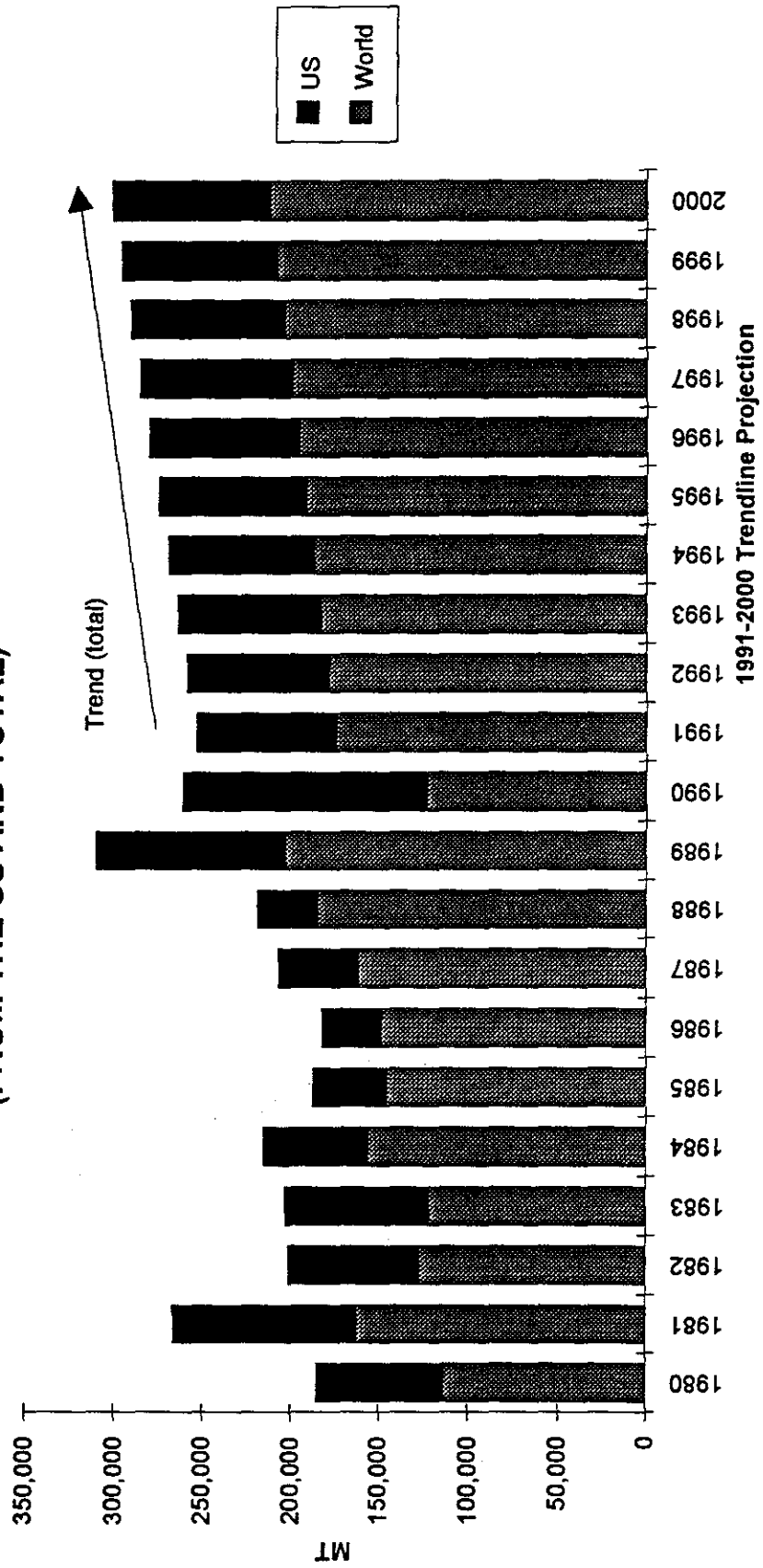
**CHART 3: QUANTITY OF BARBADOS FRESH POTATO IMPORTS  
(FROM THE US AND TOTAL)**



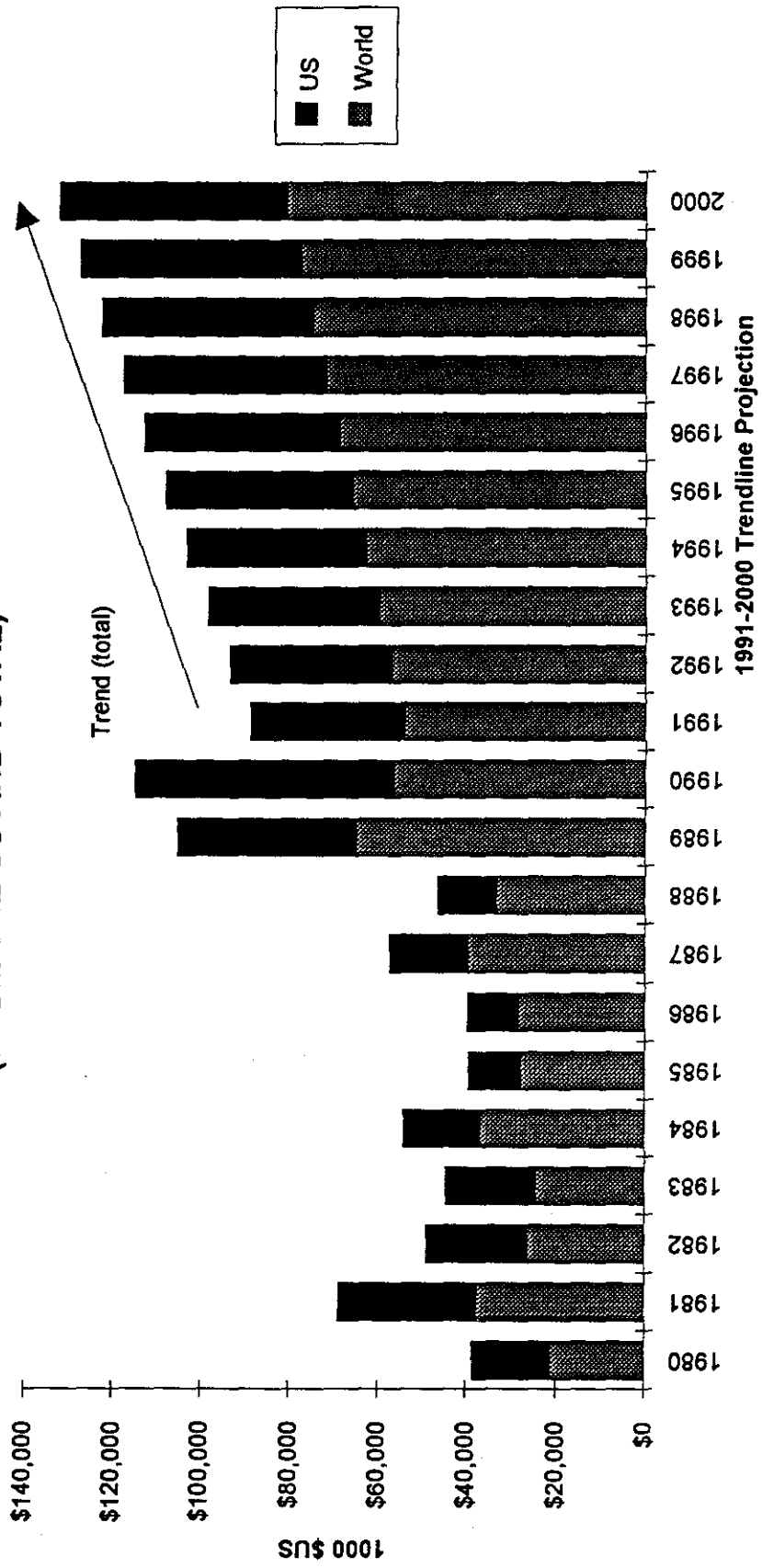
**CHART 4: VALUE OF BARBADOS FRESH POTATO IMPORTS  
(FROM THE US AND TOTAL)**



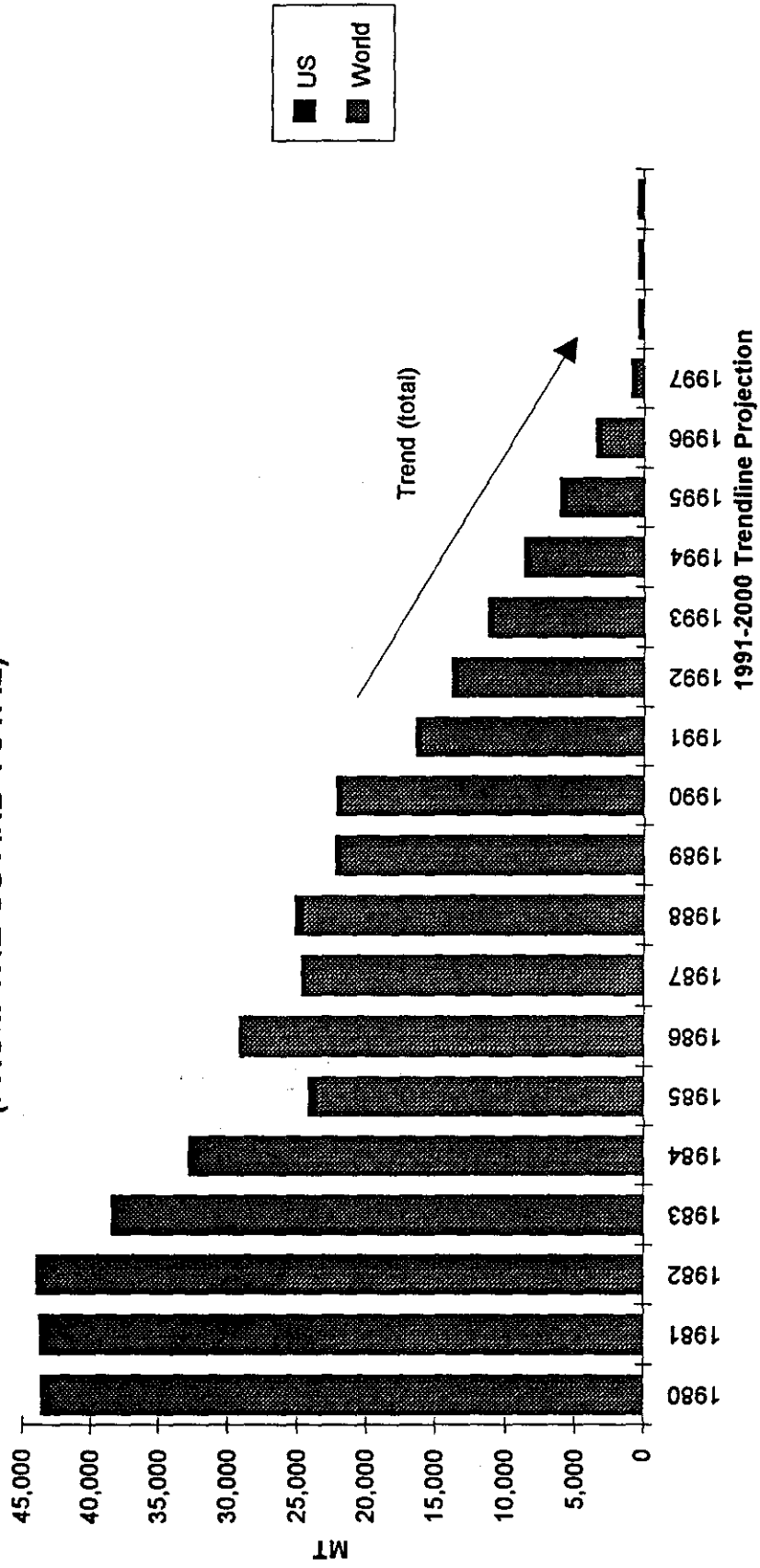
**CHART 5: QUANTITY OF CANADIAN FRESH POTATO IMPORTS  
(FROM THE US AND TOTAL)**



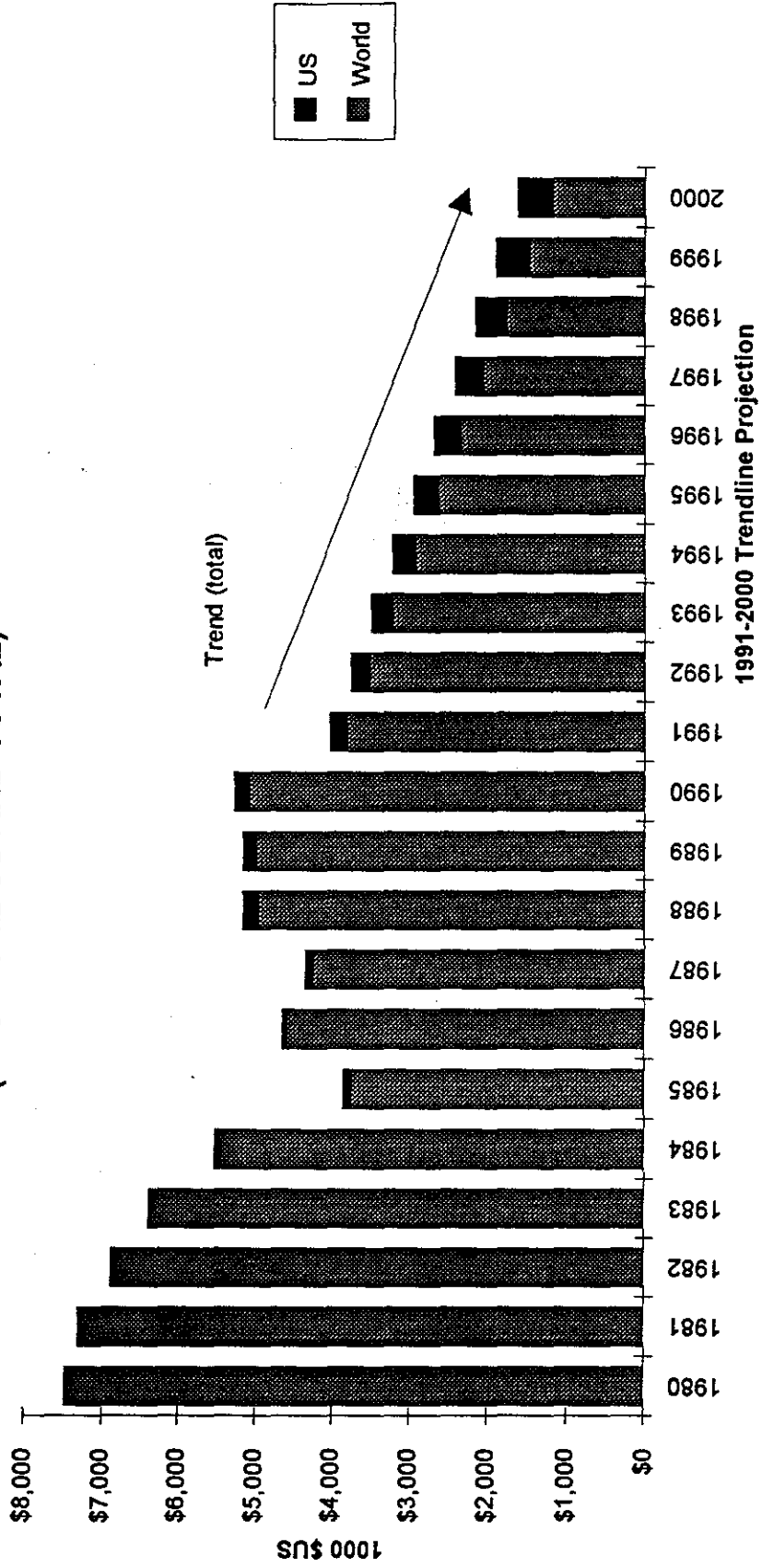
**CHART 6: VALUE OF CANADIAN FRESH POTATO IMPORTS  
(FROM THE US AND TOTAL)**



**CHART 7: QUANTITY OF HONG KONG FRESH POTATO IMPORTS  
(FROM THE US AND TOTAL)**

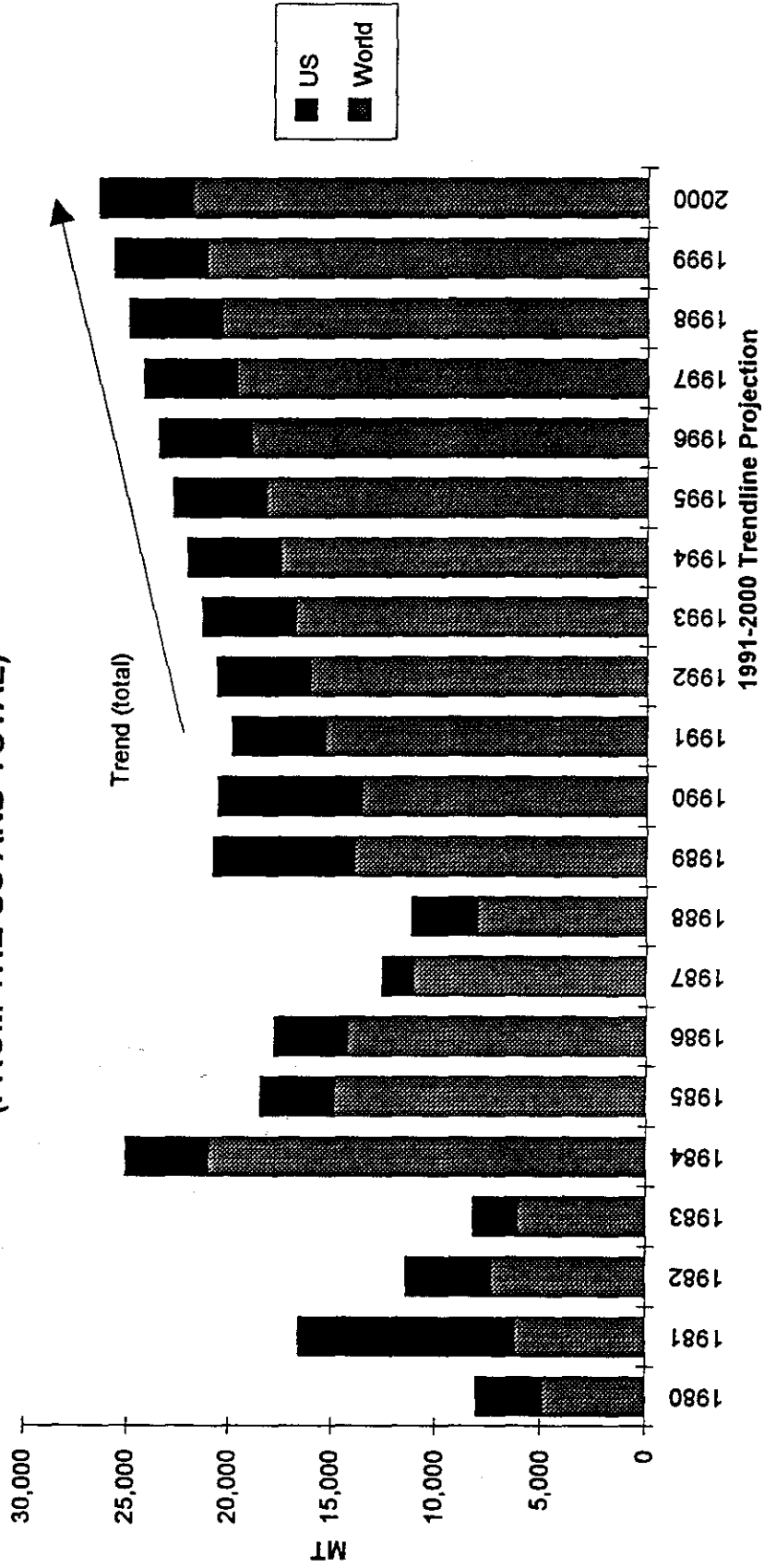


**CHART 8: VALUE OF HONG KONG FRESH POTATO IMPORTS  
(FROM THE US AND TOTAL)**

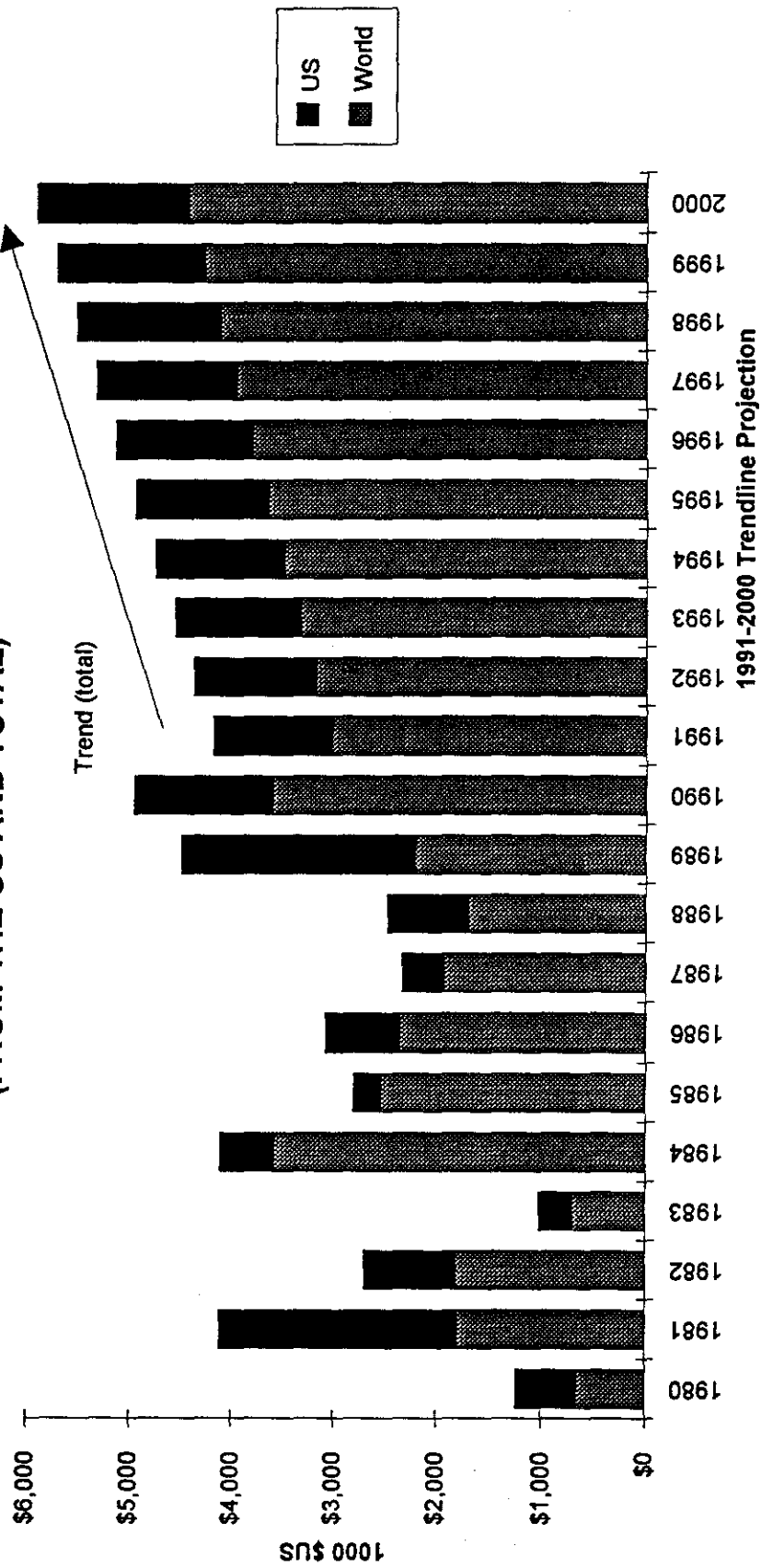




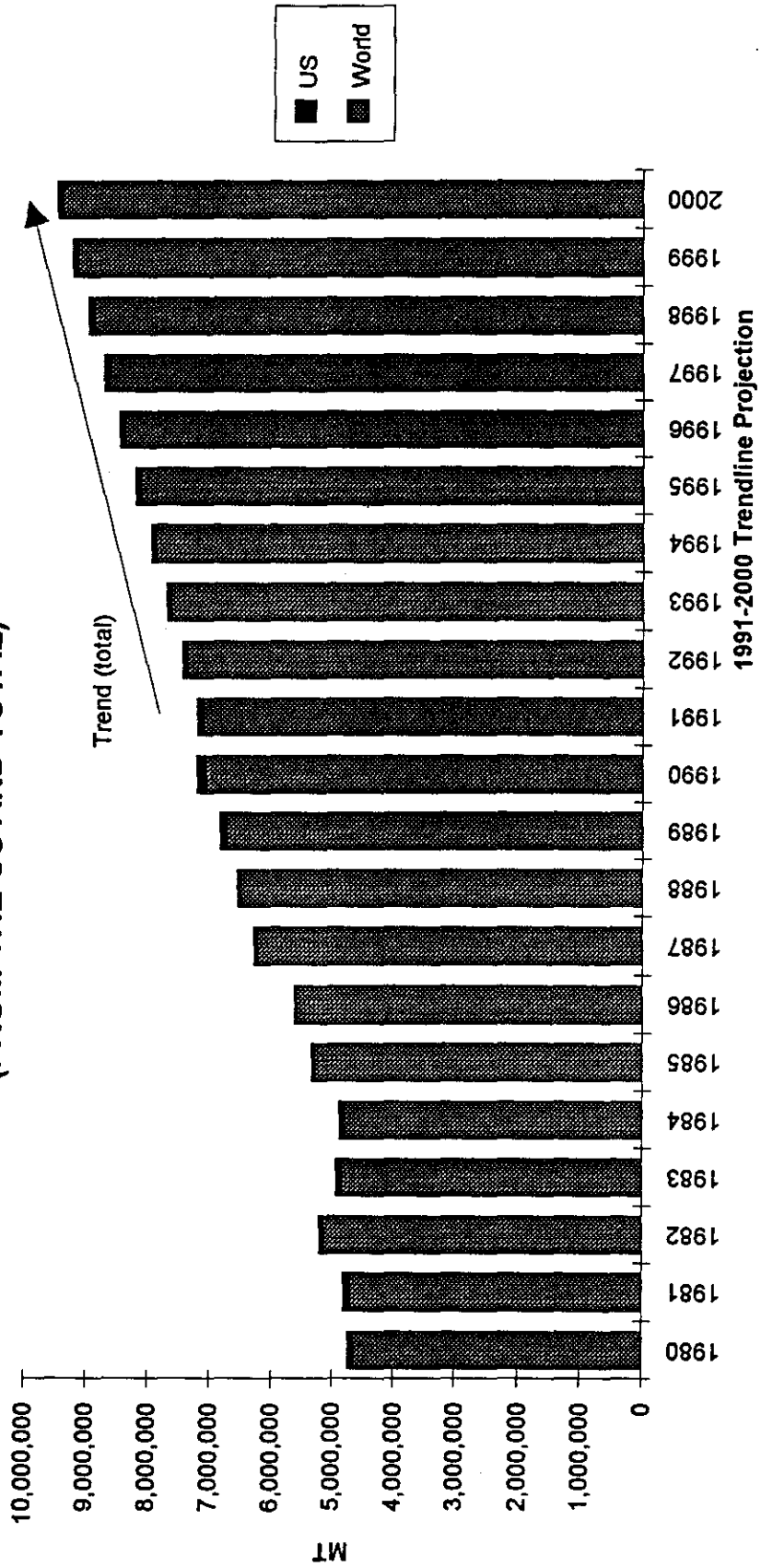
**CHART 9: QUANTITY OF MEXICAN FRESH POTATO IMPORTS  
(FROM THE US AND TOTAL)**



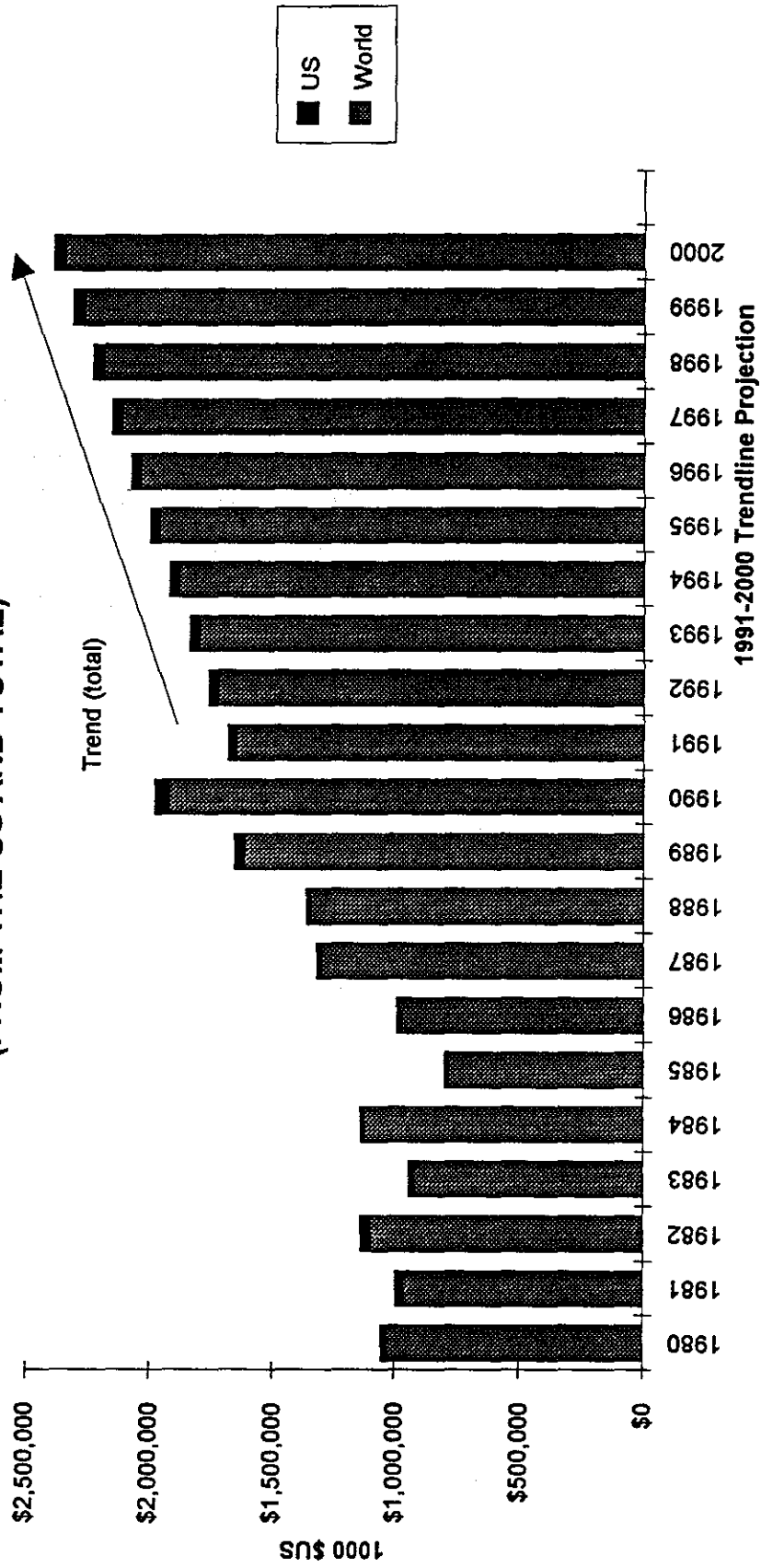
**CHART 10: VALUE OF MEXICAN FRESH POTATO IMPORTS  
(FROM THE US AND TOTAL)**



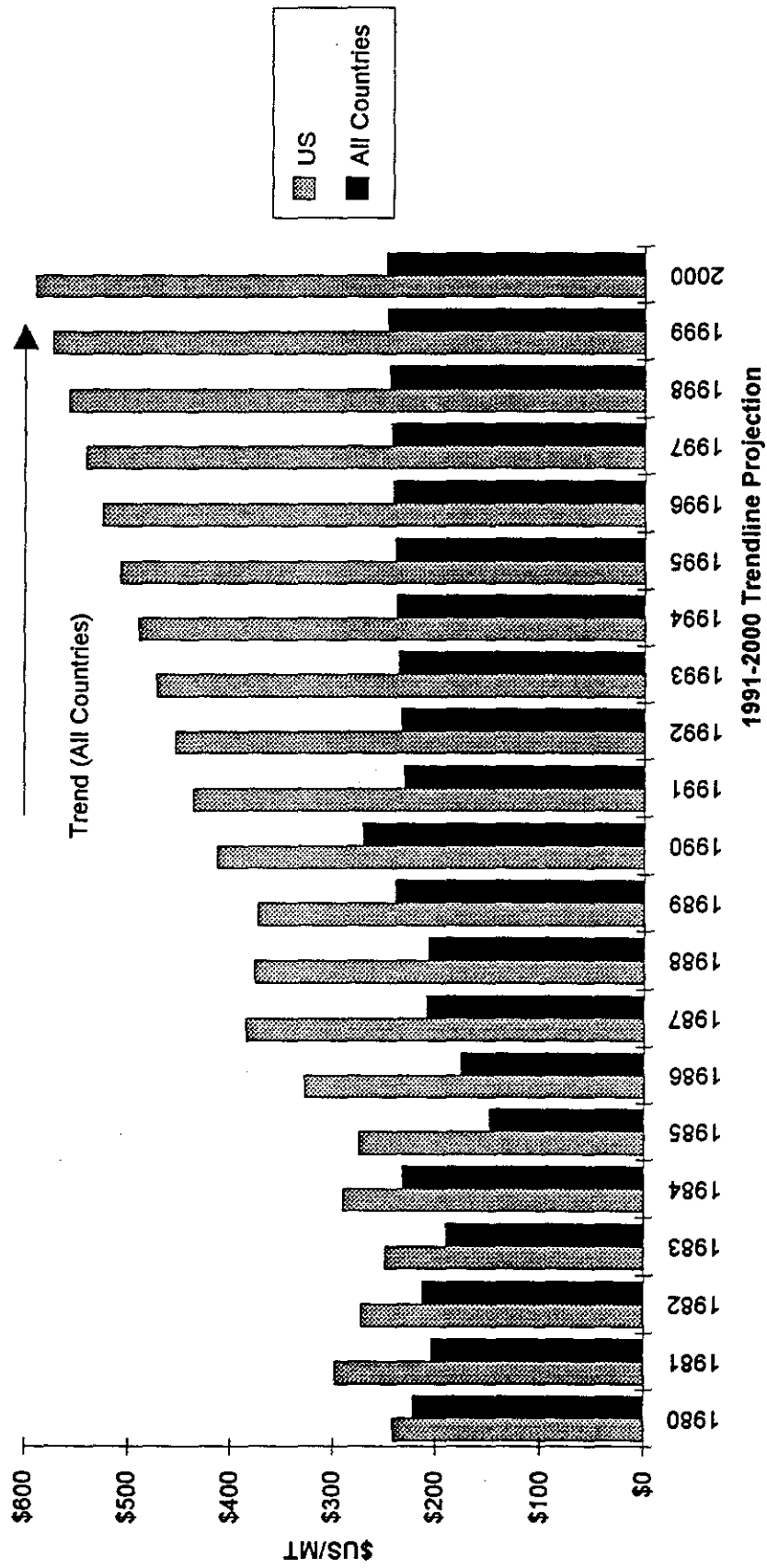
**CHART 11: QUANTITY OF WORLD FRESH POTATO IMPORTS  
(FROM THE US AND TOTAL)**



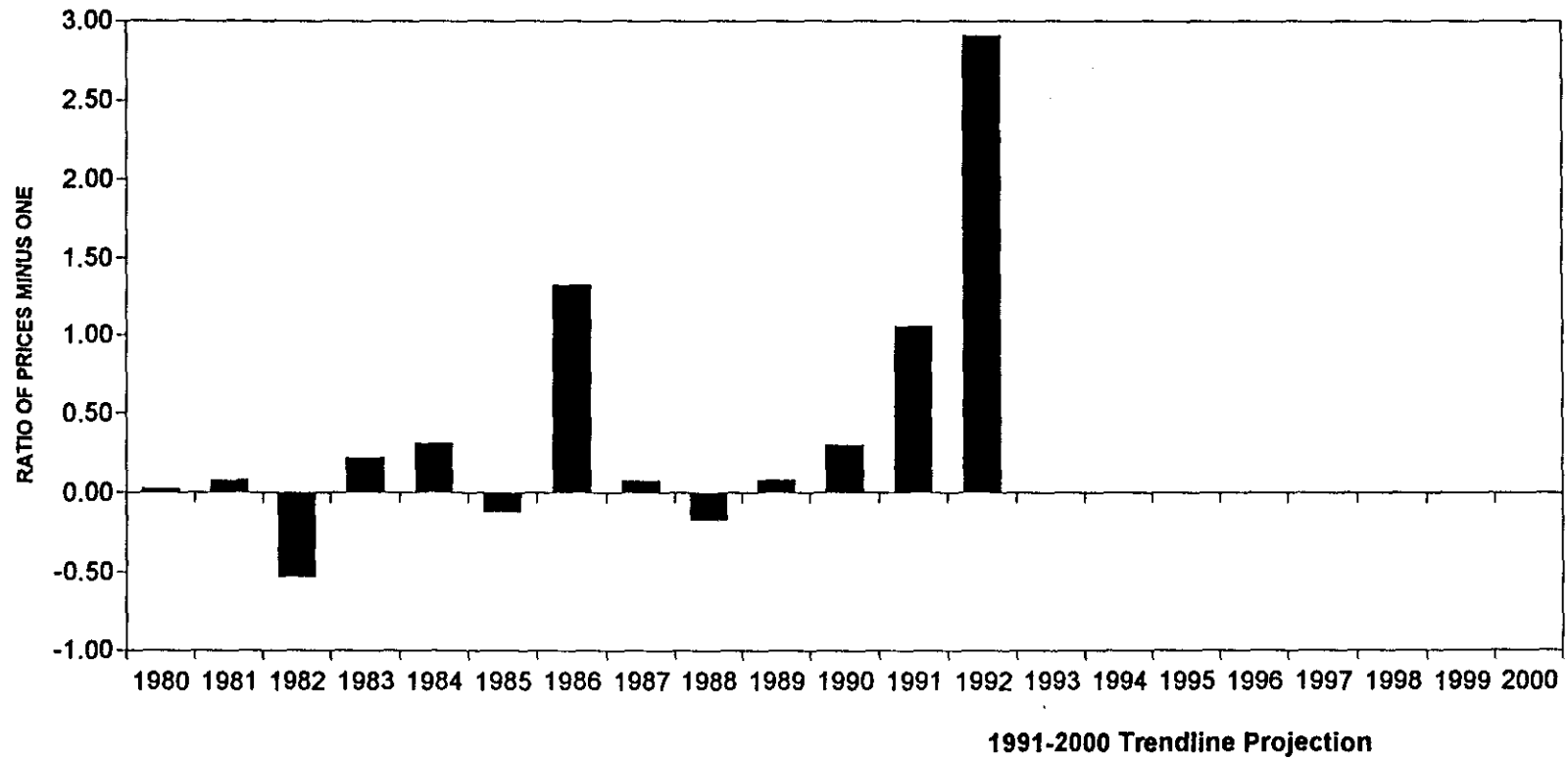
**CHART 12: VALUE OF WORLD FRESH POTATO IMPORTS  
(FROM THE US AND TOTAL)**



**CHART 13: AVERAGE FRESH POTATO EXPORT PRICE  
(NOMINAL EXPORT PRICES FROM THE US AND ALL COUNTRIES)**

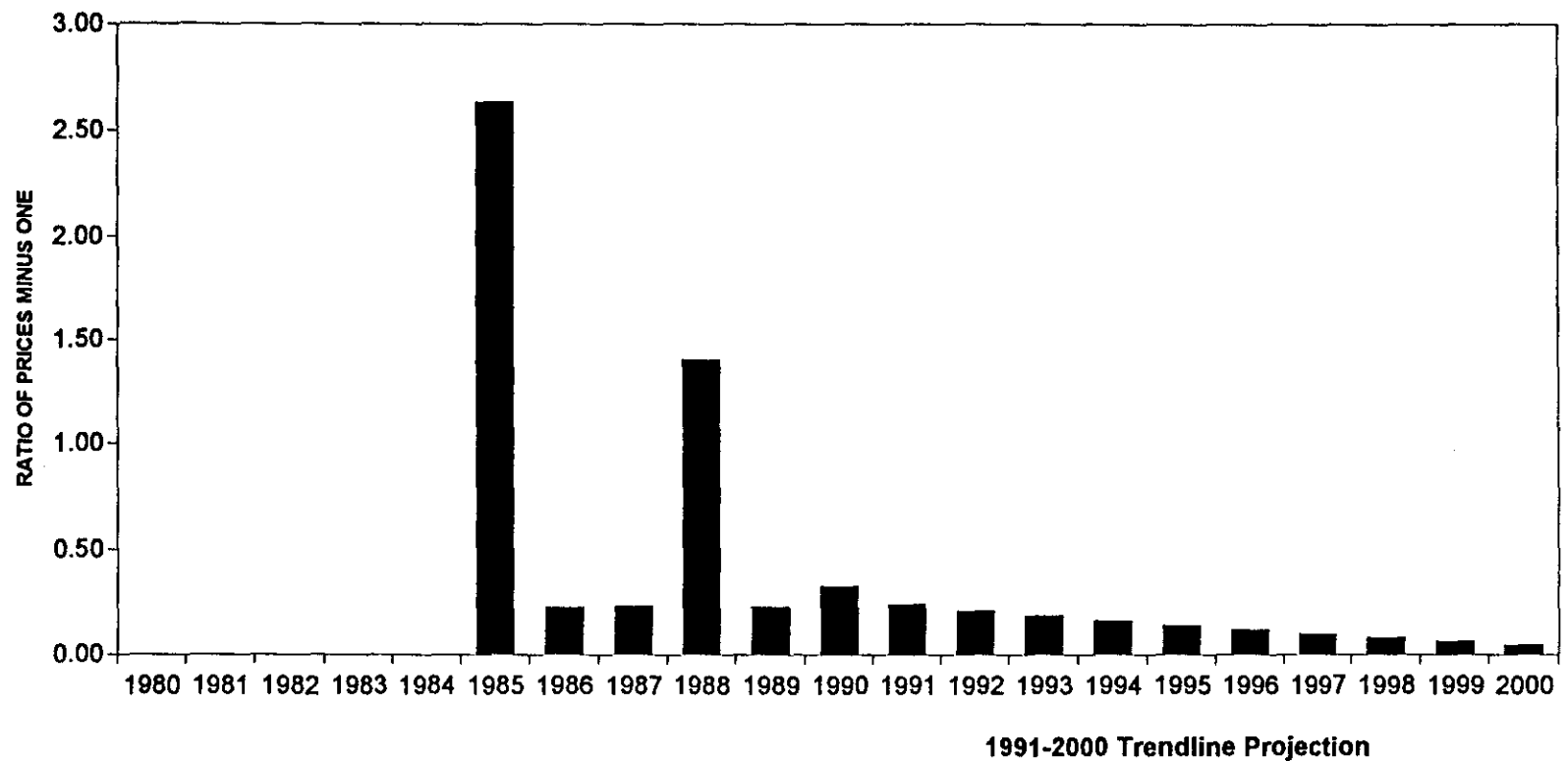


**CHART 14: RATIO OF US FRESH POTATO EXPORT PRICE TO THE BAHAMAS OVER THE AVG. US EXPORT PRICE (MINUS ONE)**



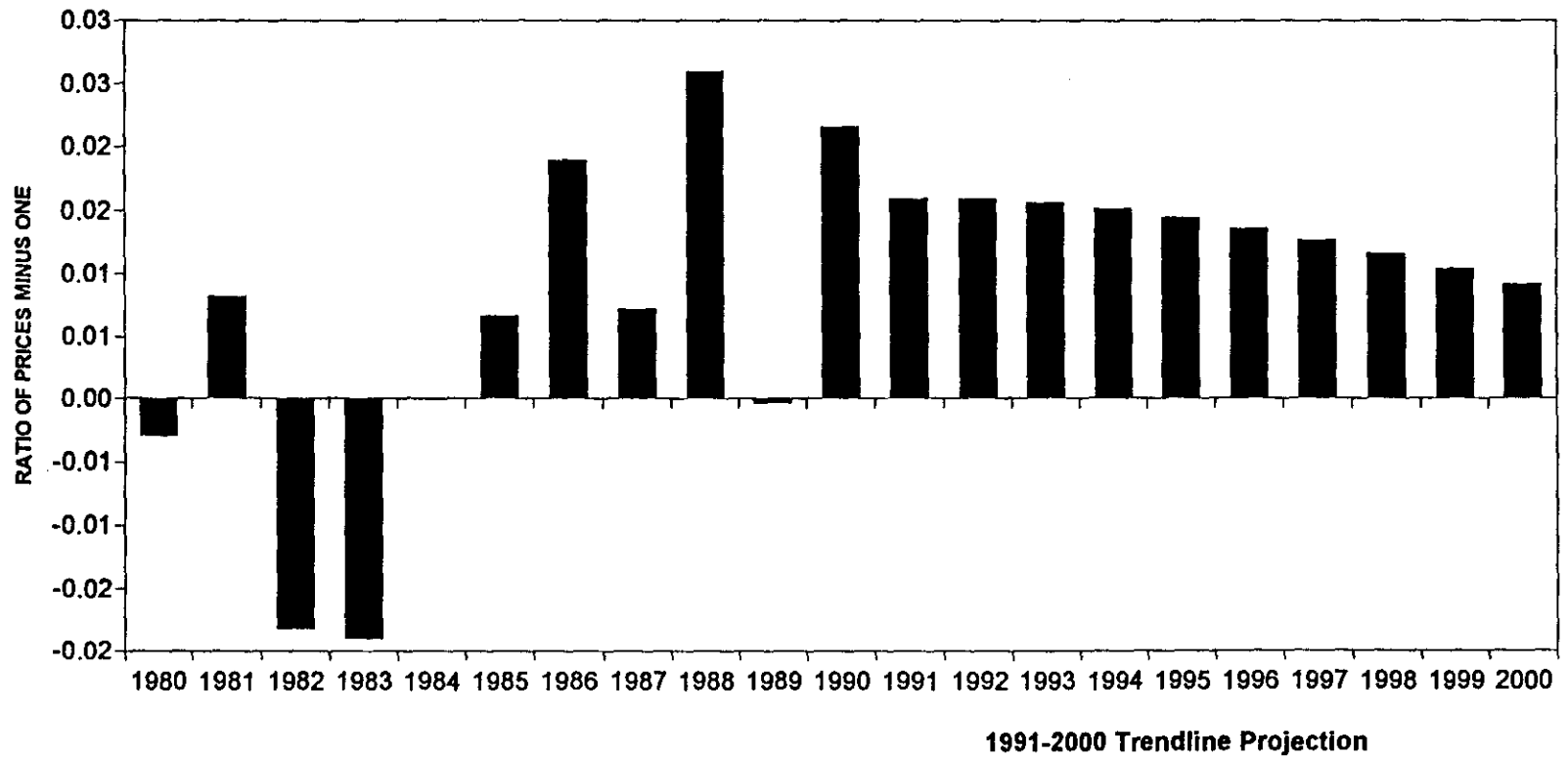
Note: Data not presented after 1992 because Trendline of import quantity is negative after 1992.

**CHART 15: RATIO OF US FRESH POTATO EXPORT PRICE TO BARBADOS  
OVER THE AVG. US EXPORT PRICE (MINUS ONE)**



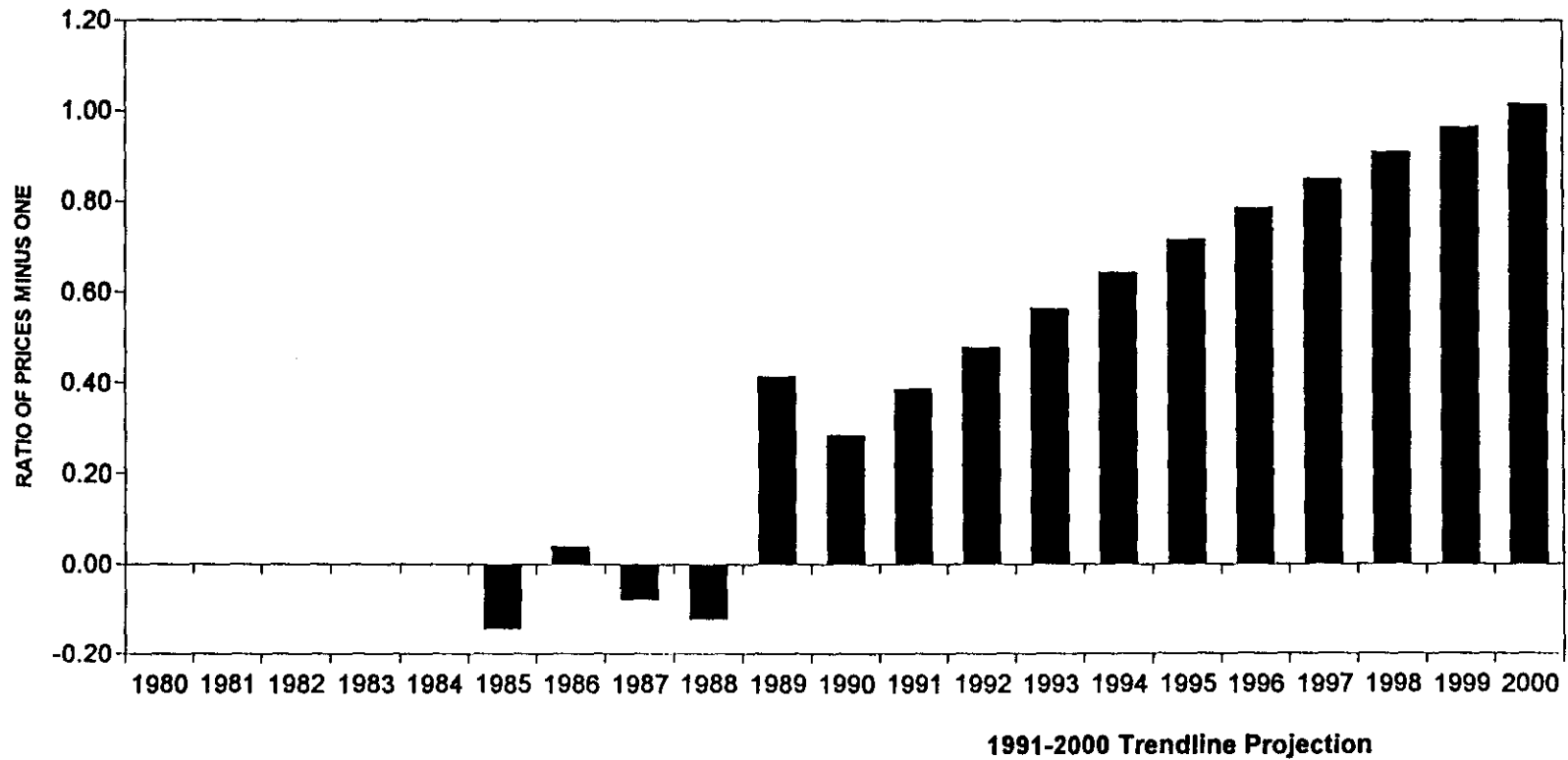
Note: US exports to Barbados not available before 1985.

**CHART 16: RATIO OF US FRESH POTATO EXPORT PRICE TO CANADA  
OVER THE AVG. US EXPORT PRICE (MINUS ONE)**



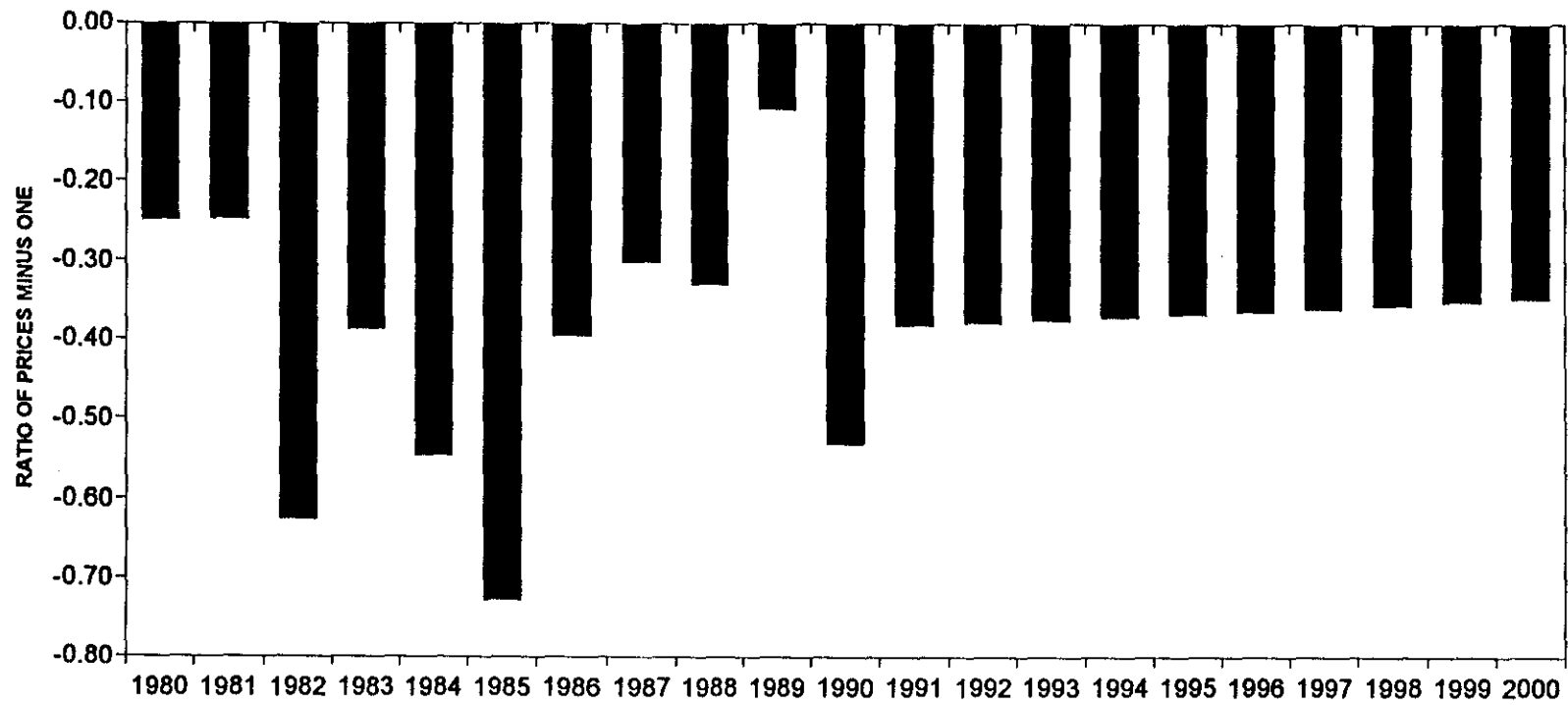


**CHART 17: RATIO OF US FRESH POTATO EXPORT PRICE TO HONG KONG  
OVER THE AVG. US EXPORT PRICE (MINUS ONE)**



Note: US exports to Hong Kong not available before 1985.

**CHART 18: RATIO OF US FRESH POTATO EXPORT PRICE TO MEXICO  
OVER THE AVG. US EXPORT PRICE (MINUS ONE)**



**1991-2000 Trendline Projection**

ALMONDS

**Tables 1 and 3: US Almond Exports (Baseline; 1991-2000 Projected)**

Year	<u>Quantity (1000MT)</u>						<u>Value (US\$ Million)</u>					
	Canada	W. Europe	Switzerland	Japan	Germany	World	Canada	W. Europe	Switzerland	Japan	Germany	World
1980	2	na	3	7	32	81	\$8	\$n/a	\$12	\$29	\$133	\$334
1981	2	na	2	7	25	70	7	n/a	8	27	82	235
1982	5	54	3	13	24	90	14	280	8	37	61	236
1983	5	49	3	14	20	81	14	206	9	44	57	243
1984	4	49	3	15	26	100	12	162	10	48	76	315
1985	4	89	4	17	41	161	10	337	11	45	97	400
1986	6	81	4	25	34	137	15	318	15	90	92	420
1987	5	82	3	15	37	123	16	255	14	69	128	465
1988	4	119	7	24	52	184	15	460	22	82	159	587
1989	6	91	5	27	38	159	14	429	19	83	121	492
1990	10	122	5	22	53	188	29	489	17	77	153	564
1991	7	144	6	28	50	195	22	557	20	95	144	596
1992	8	152	6	29	53	207	23	571	21	101	150	631
1993	8	161	7	31	56	219	25	616	22	108	157	665
1994	9	170	7	33	58	230	26	648	24	114	163	699
1995	9	179	7	35	61	242	27	680	25	120	170	734
1996	10	188	8	37	63	254	28	712	26	127	176	768
1997	10	197	8	38	66	266	30	744	27	133	182	802
1998	11	205	8	40	69	277	31	776	28	139	189	837
1999	11	214	9	42	71	289	32	809	30	146	195	871
2000	12	223	9	44	74	301	34	841	31	152	202	905

Source: USDA -FAS FATUS Yearbook.

Note: Almonds defined as shelled basis by the USDA.

**TABLE 2: US Almond Export Prices (Baseline; 1991-2000 Projected)**

Year	<u>Price (\$US/MT)</u>						<u>Ratio of Export Price to Avg. US Export Price</u>				
	Canada	W. Europe	Switzerland	Japan	Germany	World	Canada	W. Europe	Switzerland	Japan	Germany
1980	\$3,752	n/a	\$3,913	\$4,106	\$4,176	\$4,128	0.91	n/a	0.95	0.99	1.01
1981	3,337	n/a	3,592	3,836	3,300	3,339	1.00	n/a	1.08	1.15	0.99
1982	3,000	4,128	2,797	2,775	2,574	2,630	1.14	1.57	1.06	1.06	0.98
1983	3,017	3,339	3,224	3,163	2,815	3,016	1.00	1.11	1.07	1.05	0.93
1984	3,037	2,630	3,434	3,258	2,935	3,140	0.97	0.84	1.09	1.04	0.93
1985	2,730	3,016	2,734	2,664	2,393	2,492	1.10	1.21	1.10	1.07	0.96
1986	2,710	3,140	3,585	3,632	2,663	3,079	0.88	1.02	1.16	1.18	0.86
1987	3,499	2,492	4,309	4,572	3,434	3,790	0.92	0.66	1.14	1.21	0.91
1988	4,048	3,079	3,318	3,421	3,062	3,198	1.27	0.96	1.04	1.07	0.96
1989	2,407	3,790	3,633	3,075	3,203	3,102	0.78	1.22	1.17	0.99	1.03
1990	3,055	3,198	3,281	3,565	2,857	2,995	1.02	1.07	1.10	1.19	0.95
1991	2,972	3,102	3,446	3,446	2,855	3,055	0.97	1.02	1.13	1.13	0.93
1992	2,964	2,995	3,448	3,450	2,836	3,048	0.97	0.98	1.13	1.13	0.93
1993	2,956	3,055	3,450	3,454	2,819	3,041	0.97	1.00	1.13	1.14	0.93
1994	2,949	3,048	3,452	3,457	2,803	3,035	0.97	1.00	1.14	1.14	0.92
1995	2,943	3,041	3,453	3,460	2,788	3,030	0.97	1.00	1.14	1.14	0.92
1996	2,937	3,035	3,455	3,462	2,775	3,025	0.97	1.00	1.14	1.14	0.92
1997	2,932	3,030	3,456	3,465	2,762	3,021	0.97	1.00	1.14	1.15	0.91
1998	2,928	3,025	3,457	3,467	2,751	3,017	0.97	1.00	1.15	1.15	0.91
1999	2,923	3,021	3,458	3,469	2,740	3,013	0.97	1.00	1.15	1.15	0.91
2000	2,920	3,017	3,459	3,471	2,731	3,010	0.97	1.00	1.15	1.15	0.91

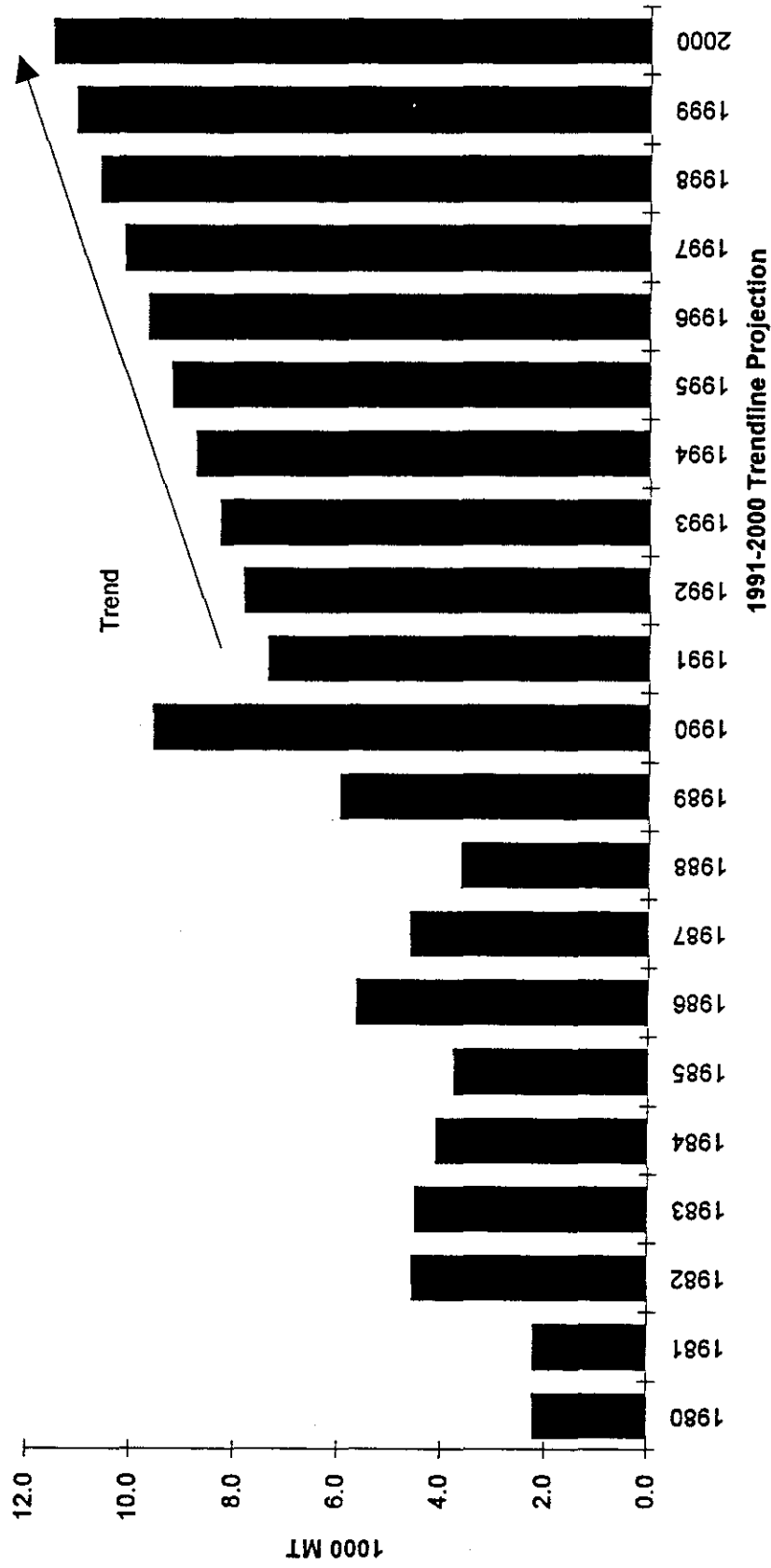
Source: USDA-FAS FATUS Yearbook.

Note: Import Price is the per unit value derived from the F.A.S. US port value.

Note: The average price of total US exports is proxy for the world price.

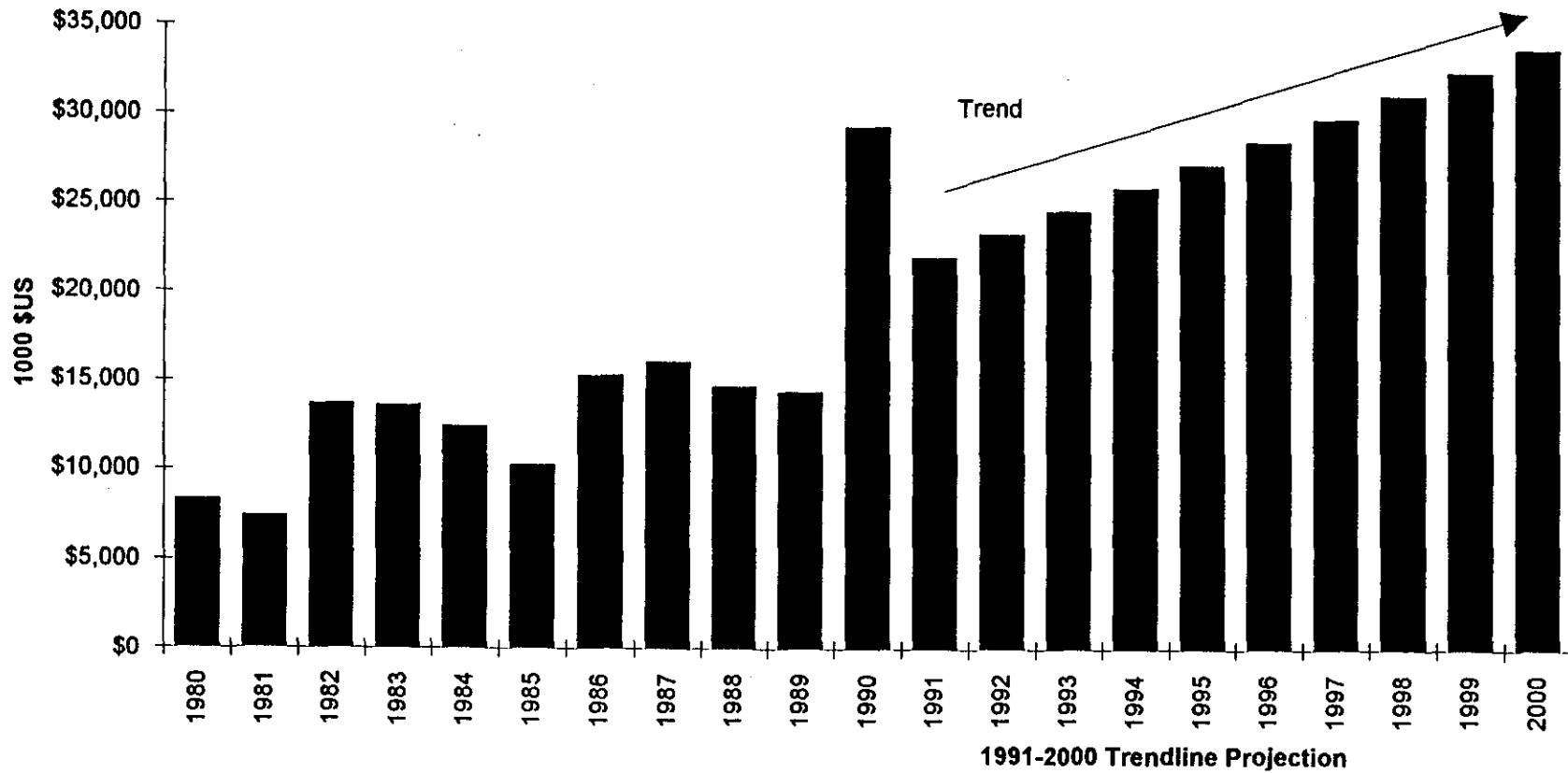
Note: The price ratio is the US export price to each country over the average of total US exports.

**CHART 1: QUANTITY OF US ALMOND EXPORTS TO CANADA**



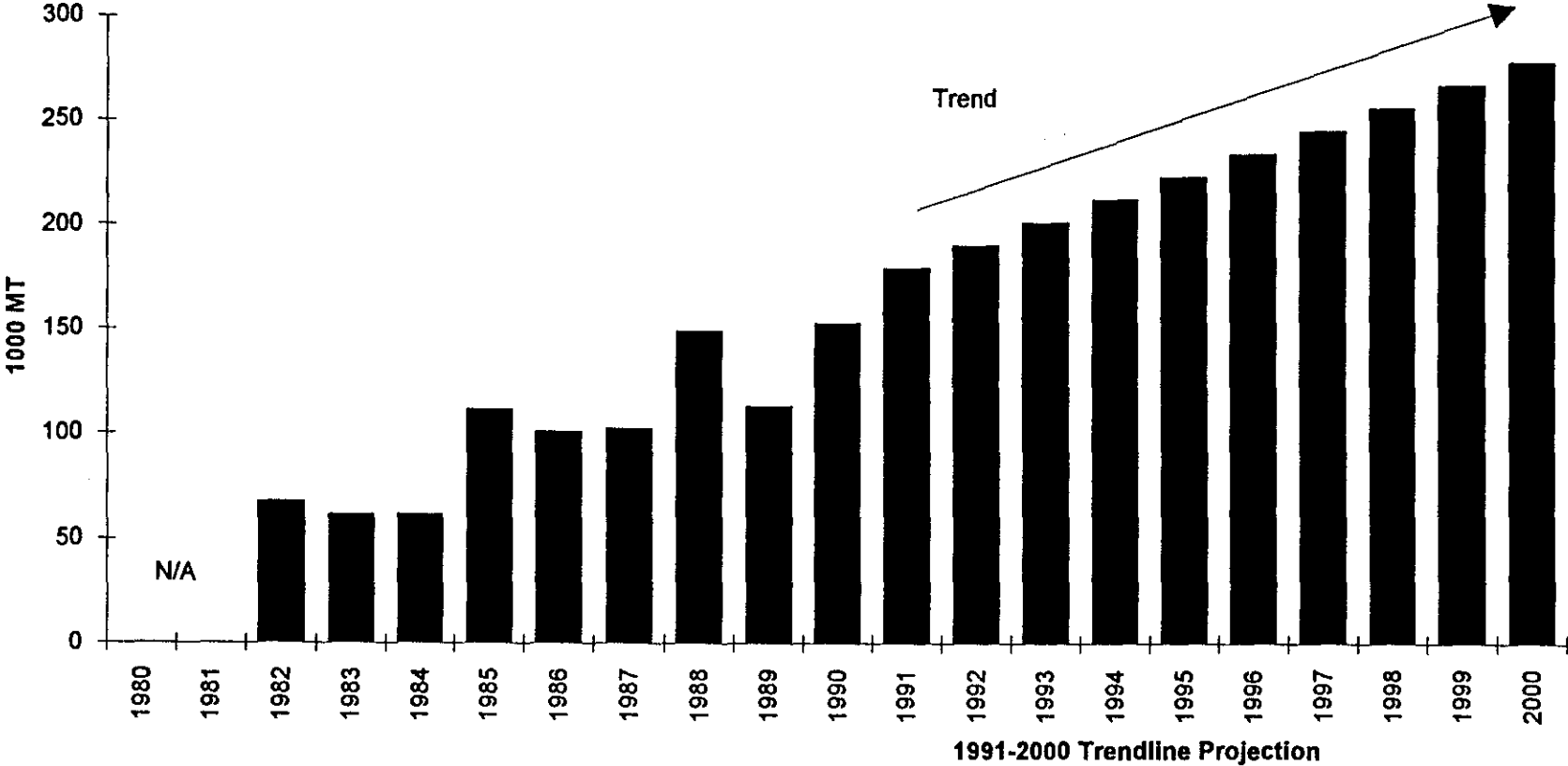
Note: Total imports are not presented because US market dominance and varying definitions of almonds make comparisons difficult.

**CHART 2: VALUE OF US ALMOND EXPORTS TO THE CANADA**



Note: Total imports are not presented because US market dominance and varying definitions of almonds make comparisons difficult.

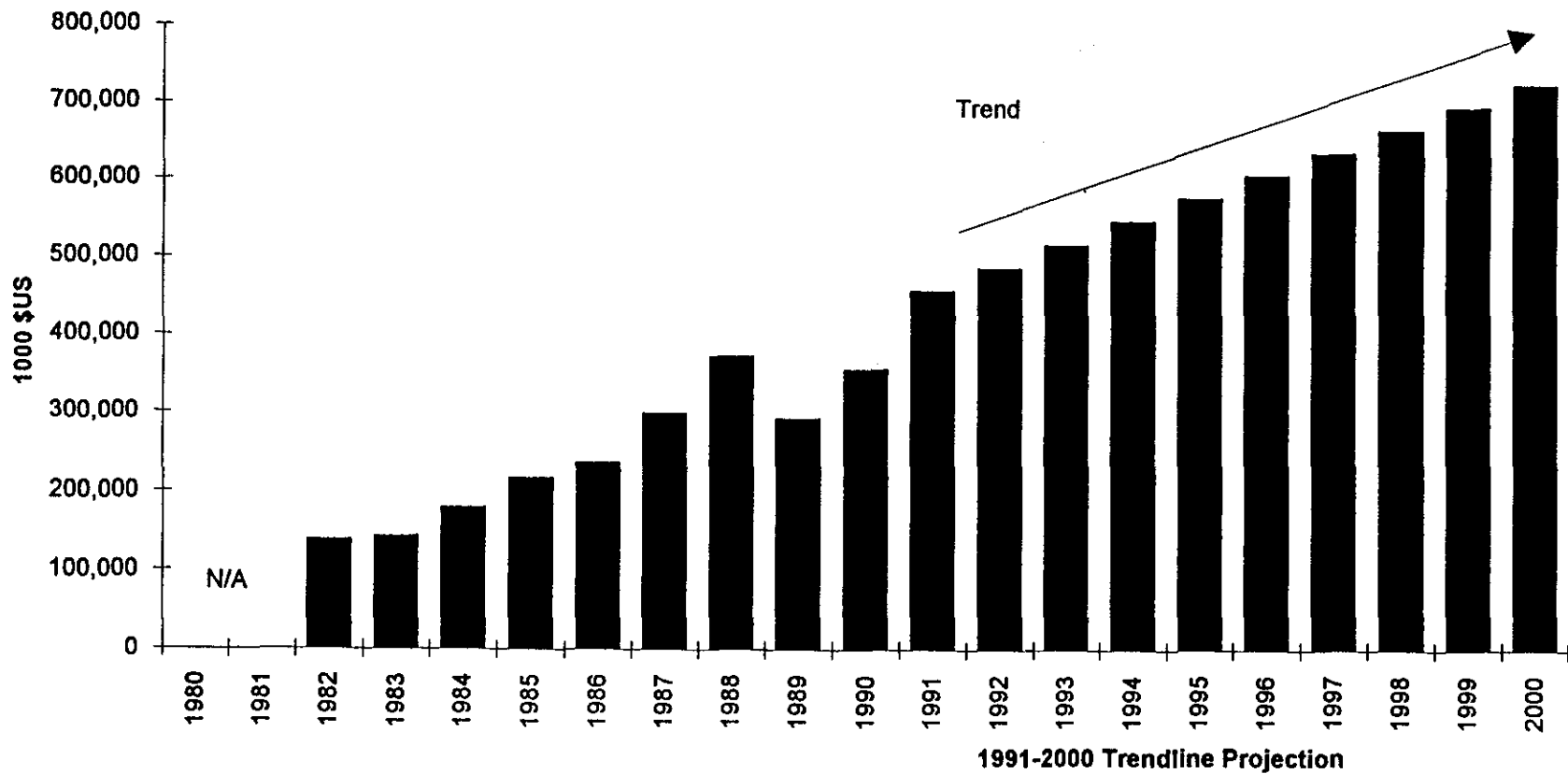
**CHART 3: QUANTITY OF US ALMOND EXPORTS TO WESTERN EUROPE**



Note: Total imports are not presented because US market dominance and varying definitions of almonds make comparisons difficult.

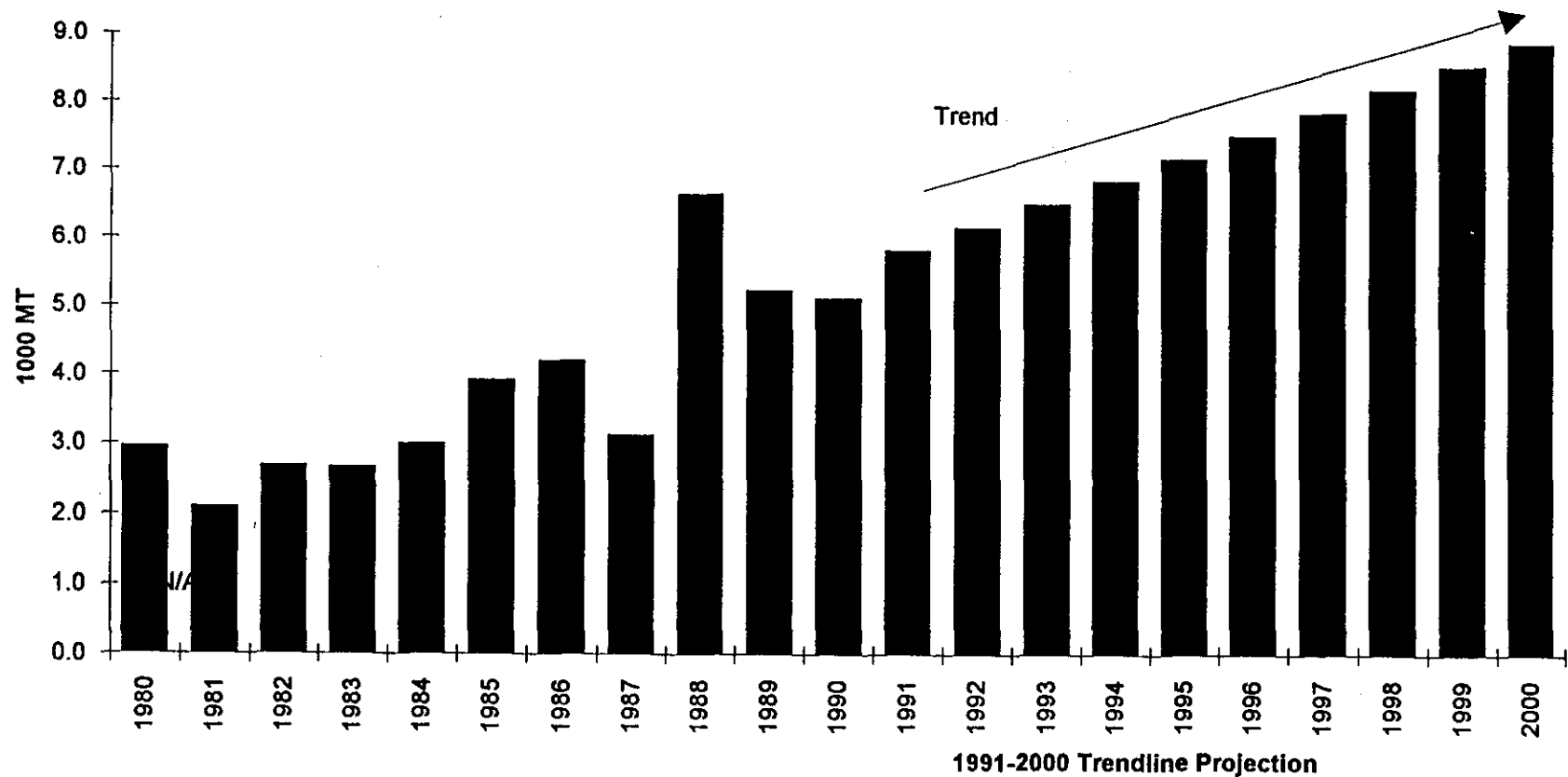


**CHART 4: VALUE OF US ALMOND EXPORTS TO WESTERN EUROPE**



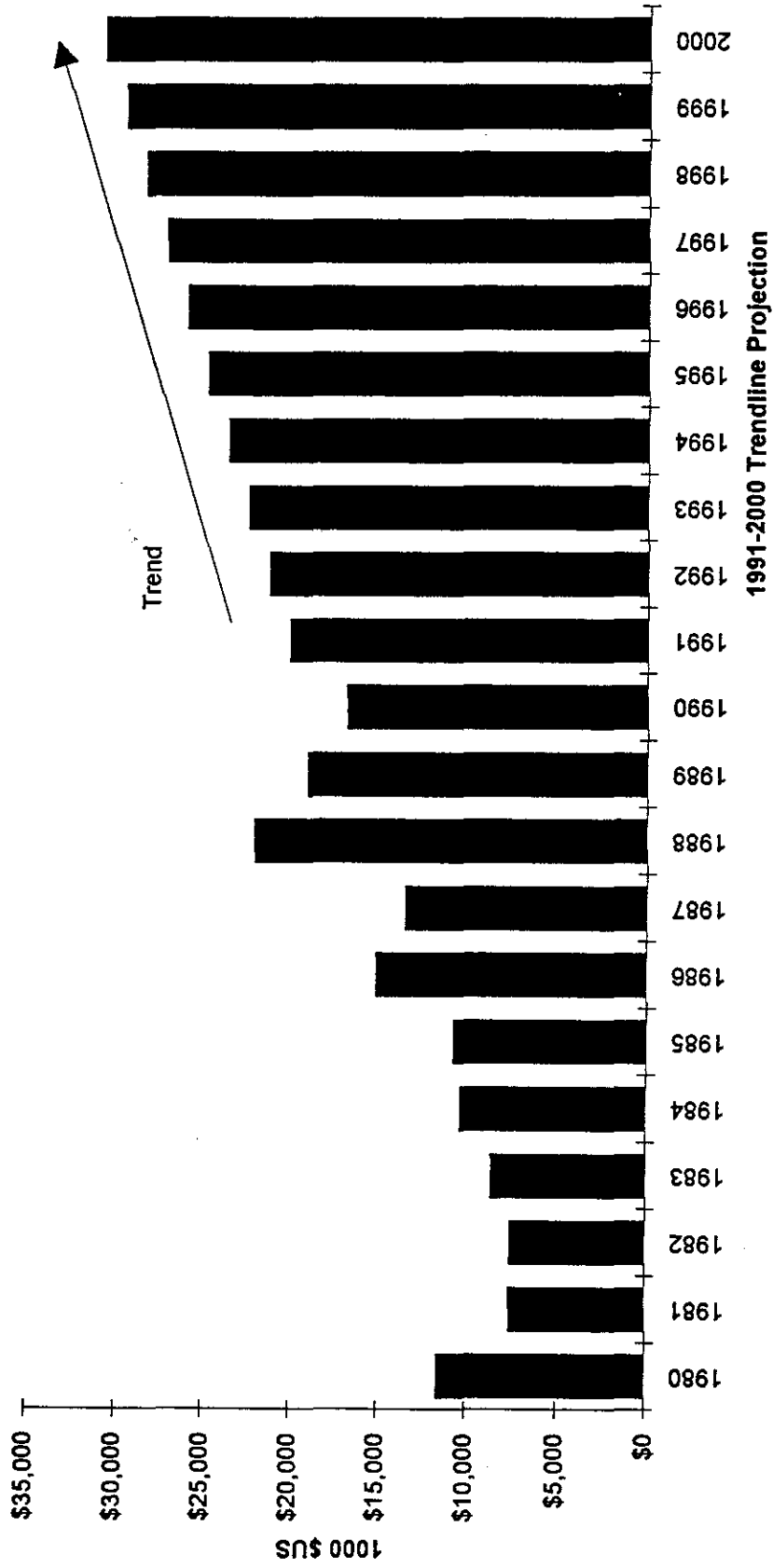
Note: Total imports are not presented because US market dominance and varying definitions of almonds make comparisons difficult.

**CHART 5: QUANTITY OF US ALMOND EXPORTS TO SWITZERLAND**



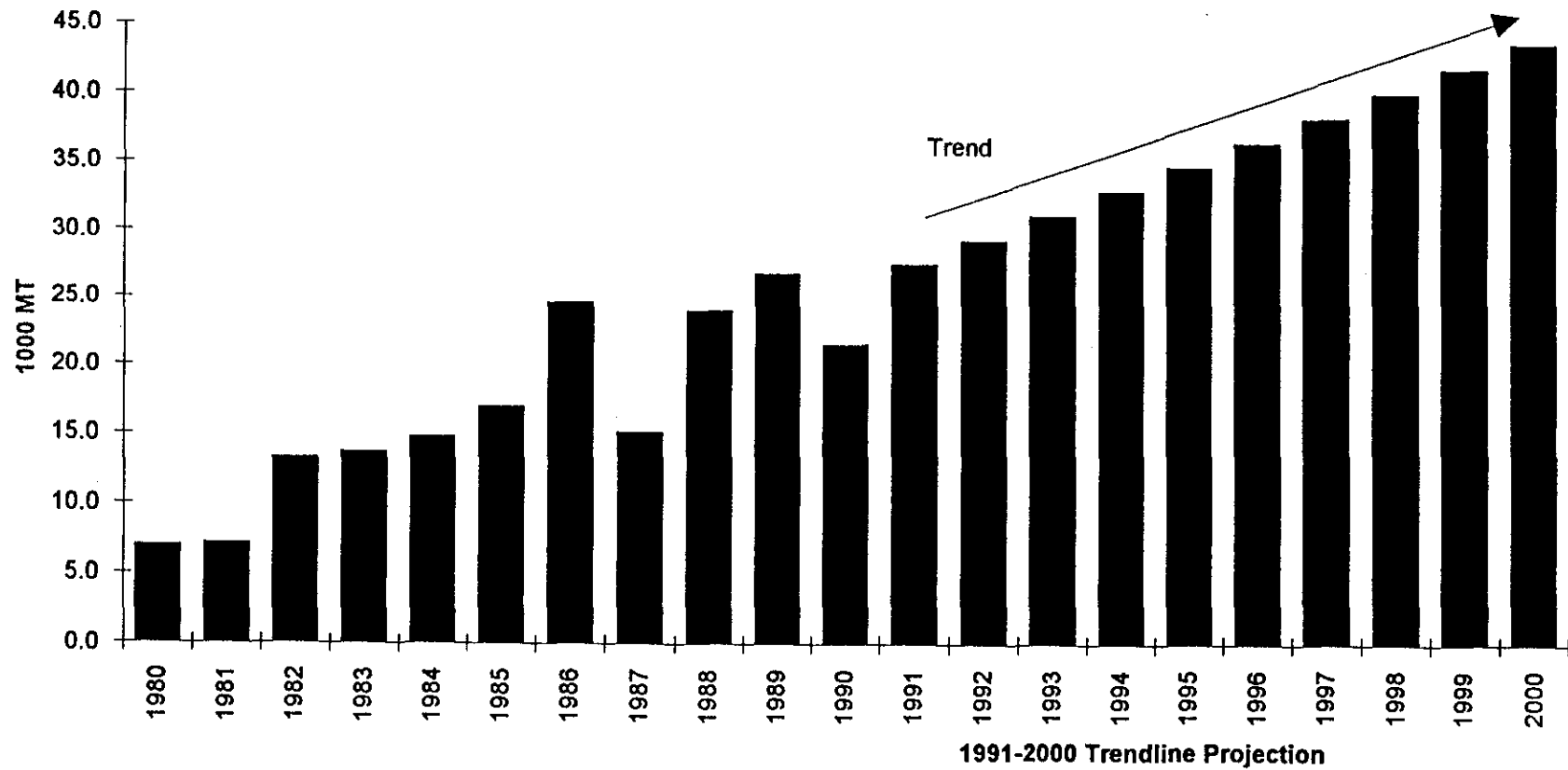
Note: Total imports are not presented because US market dominance and varying definitions of almonds make comparisons difficult.

**CHART 6: VALUE OF US ALMOND EXPORTS TO THE SWITZERLAND**



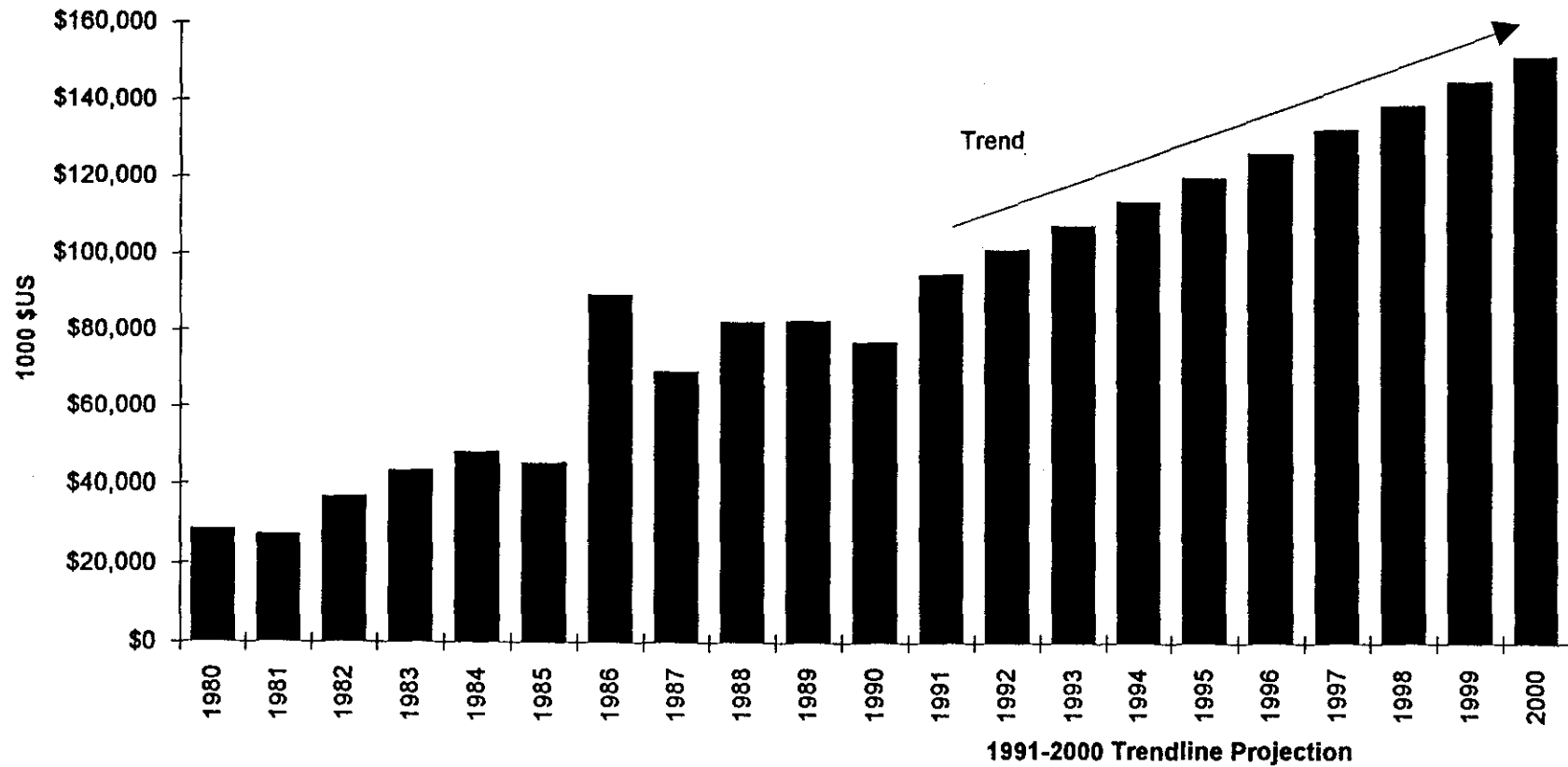
Note: Total imports are not presented because US market dominance and varying definitions of almonds make comparisons difficult.

**CHART 7: QUANTITY OF US ALMOND EXPORTS TO JAPAN**



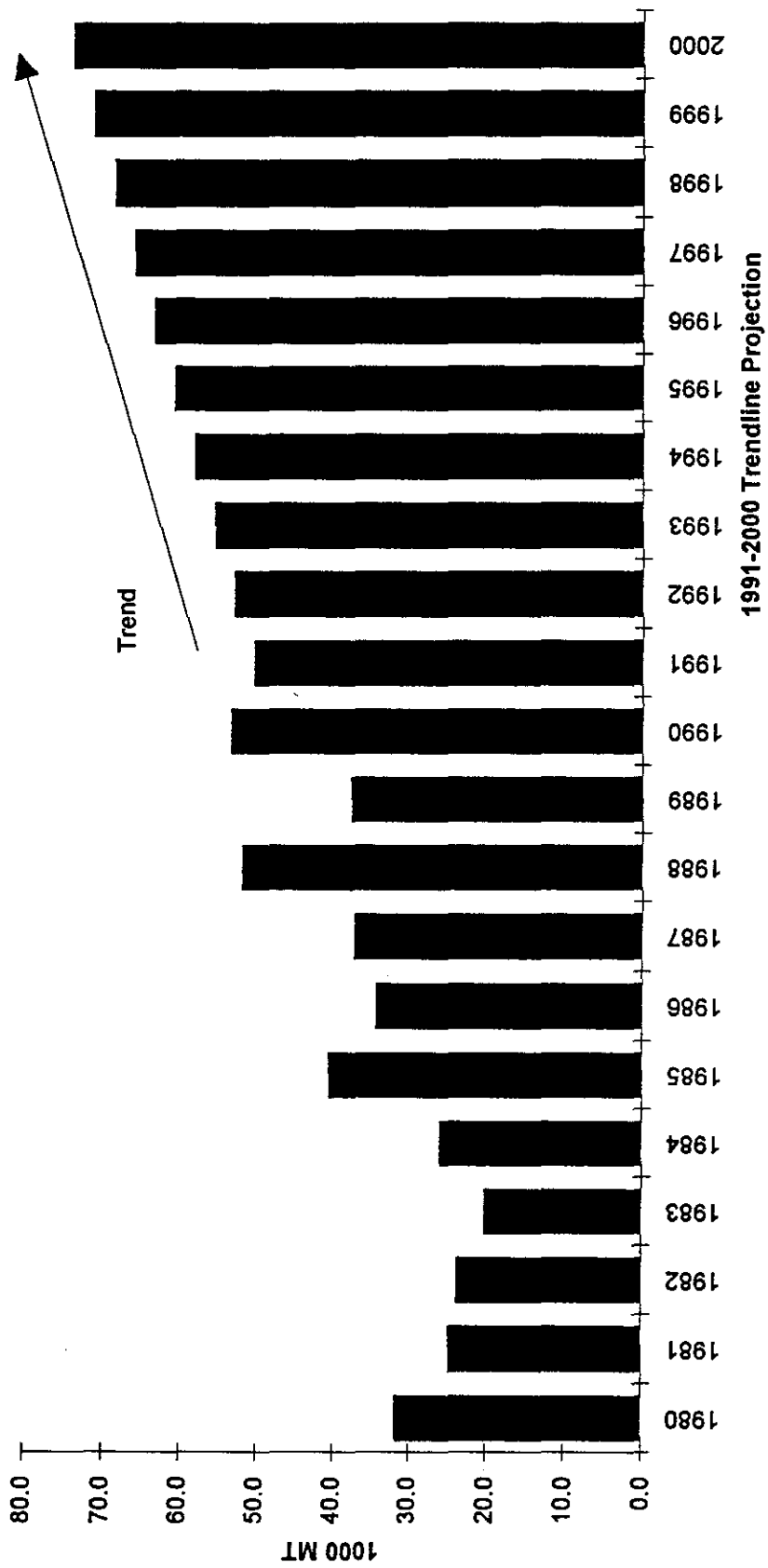
Note: Total imports are not presented because US market dominance and varying definitions of almonds make comparisons difficult.

**CHART 8: VALUE OF US ALMOND EXPORTS TO THE JAPAN**



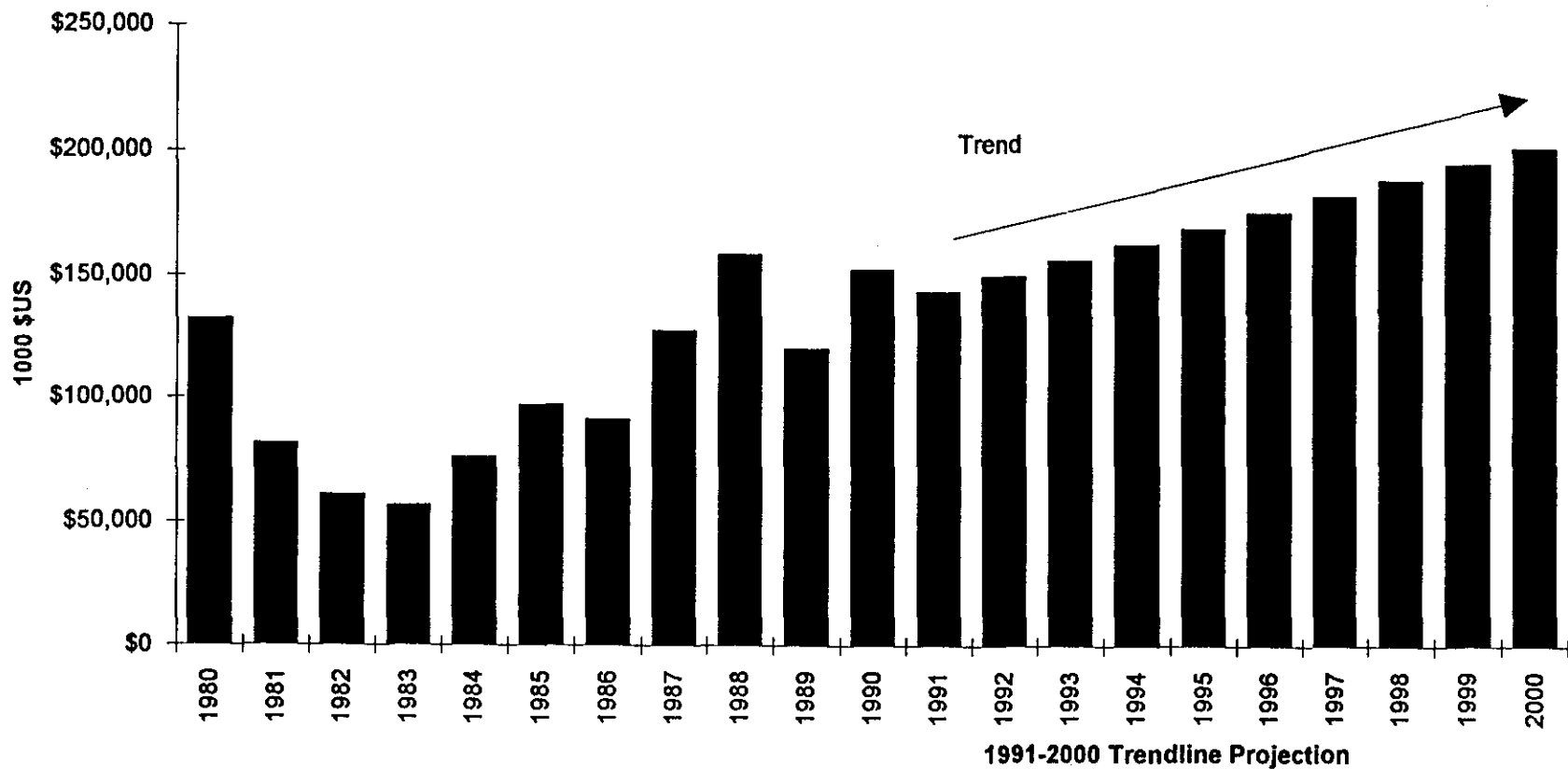
Note: Total imports are not presented because US market dominance and varying definitions of almonds make comparisons difficult.

**CHART 9: QUANTITY OF US ALMOND EXPORTS TO GERMANY**



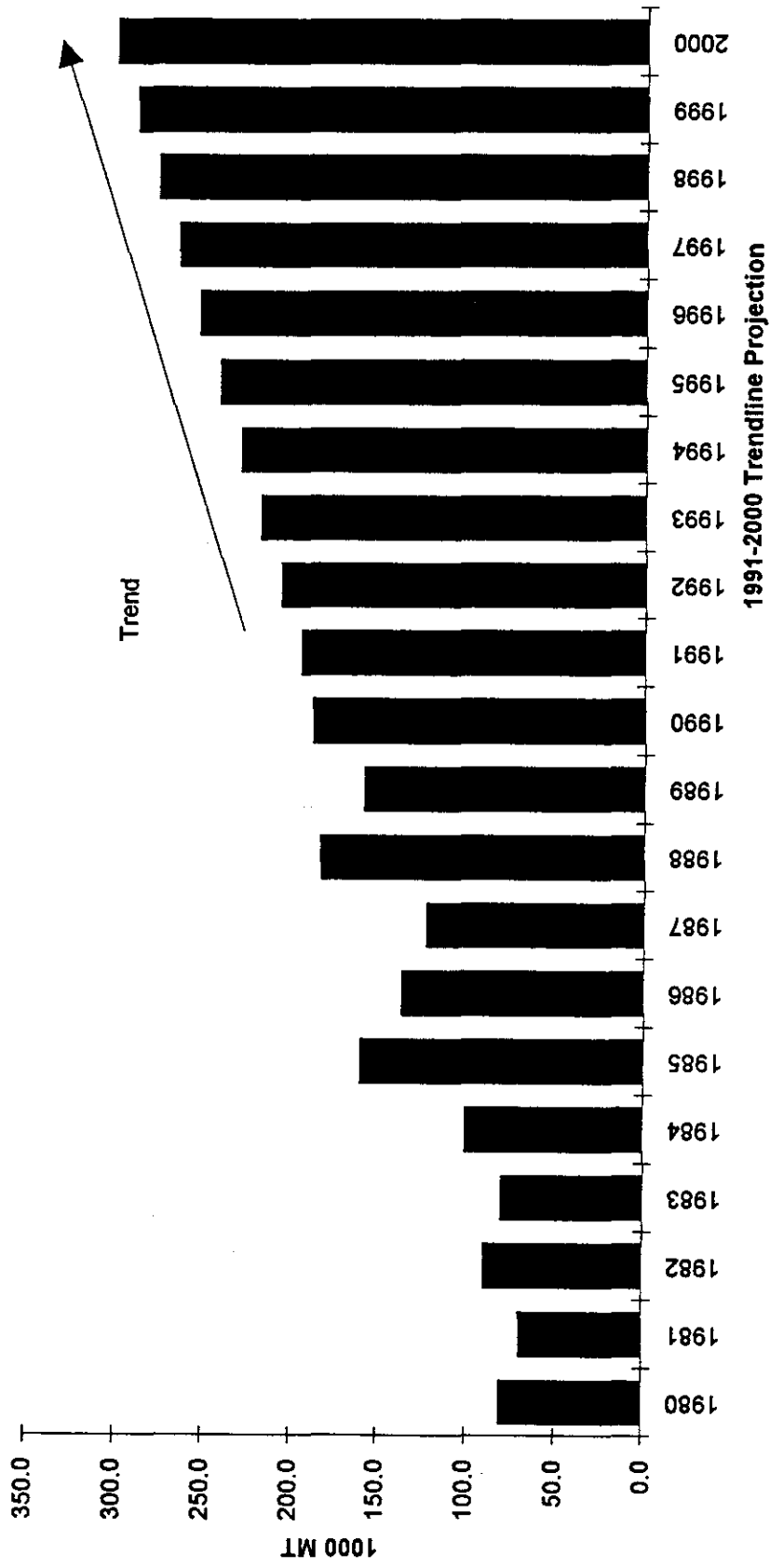
Note: Total imports are not presented because US market dominance and varying definitions of almonds make comparisons difficult.

**CHART 10: VALUE OF US ALMOND EXPORTS TO THE GERMANY**



Note: Total imports are not presented because US market dominance and varying definitions of almonds make comparisons difficult.

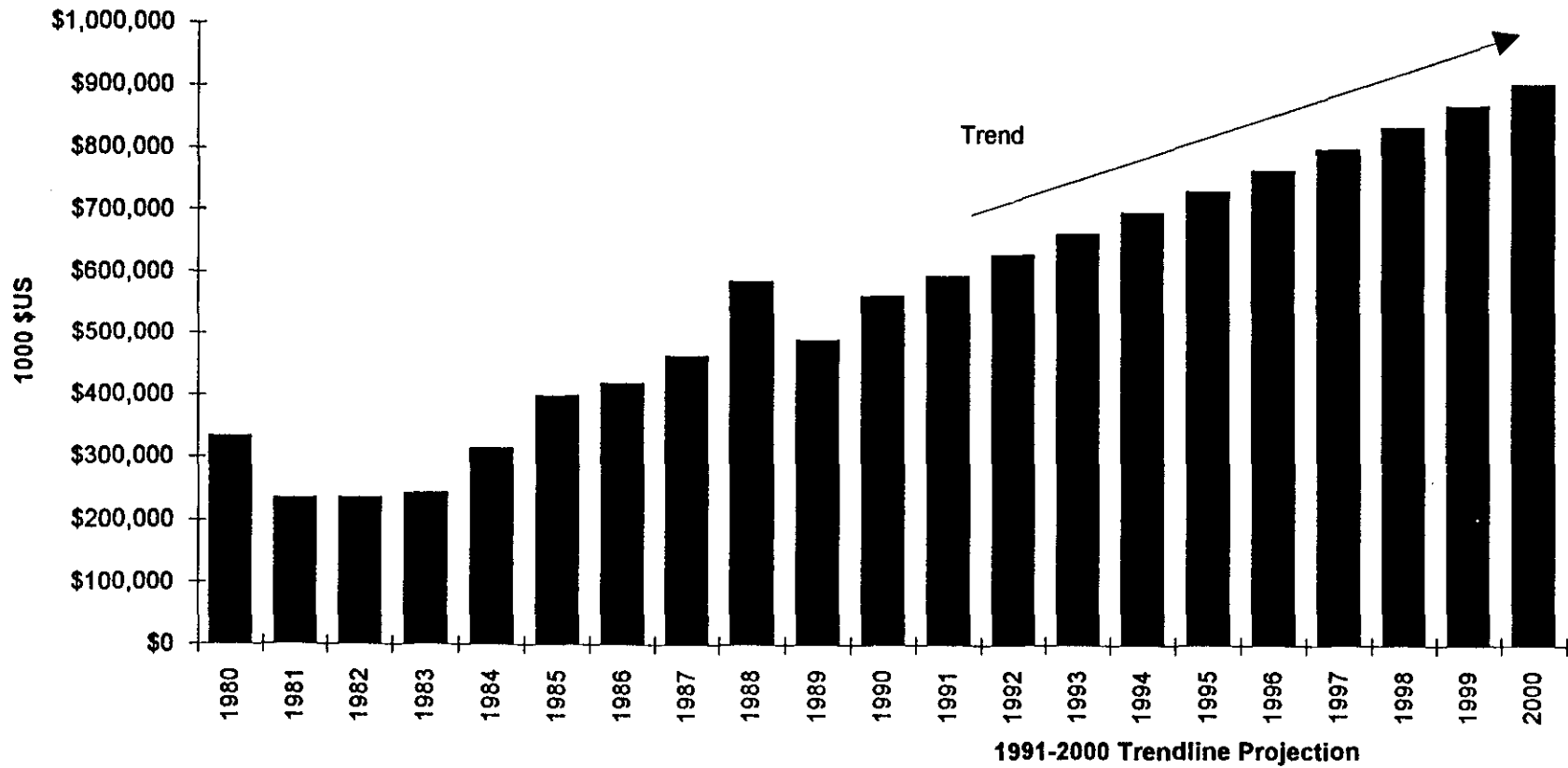
CHART 11: QUANTITY OF US ALMOND EXPORTS TO THE WORLD



Note: Total imports are not presented because US market dominance and varying definitions of almonds make comparisons difficult.

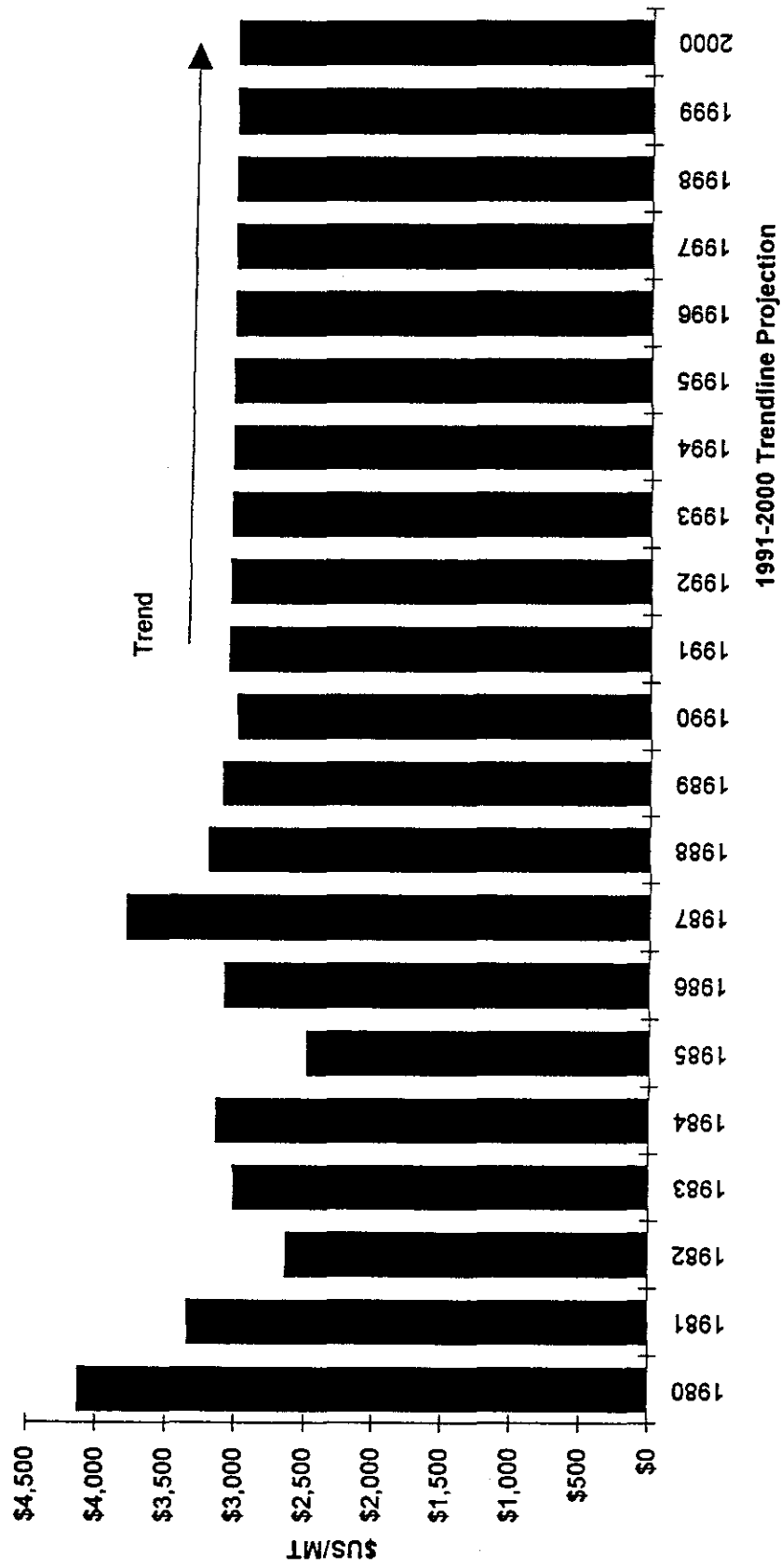


**CHART 12: VALUE OF US ALMOND EXPORTS TO THE WORLD**

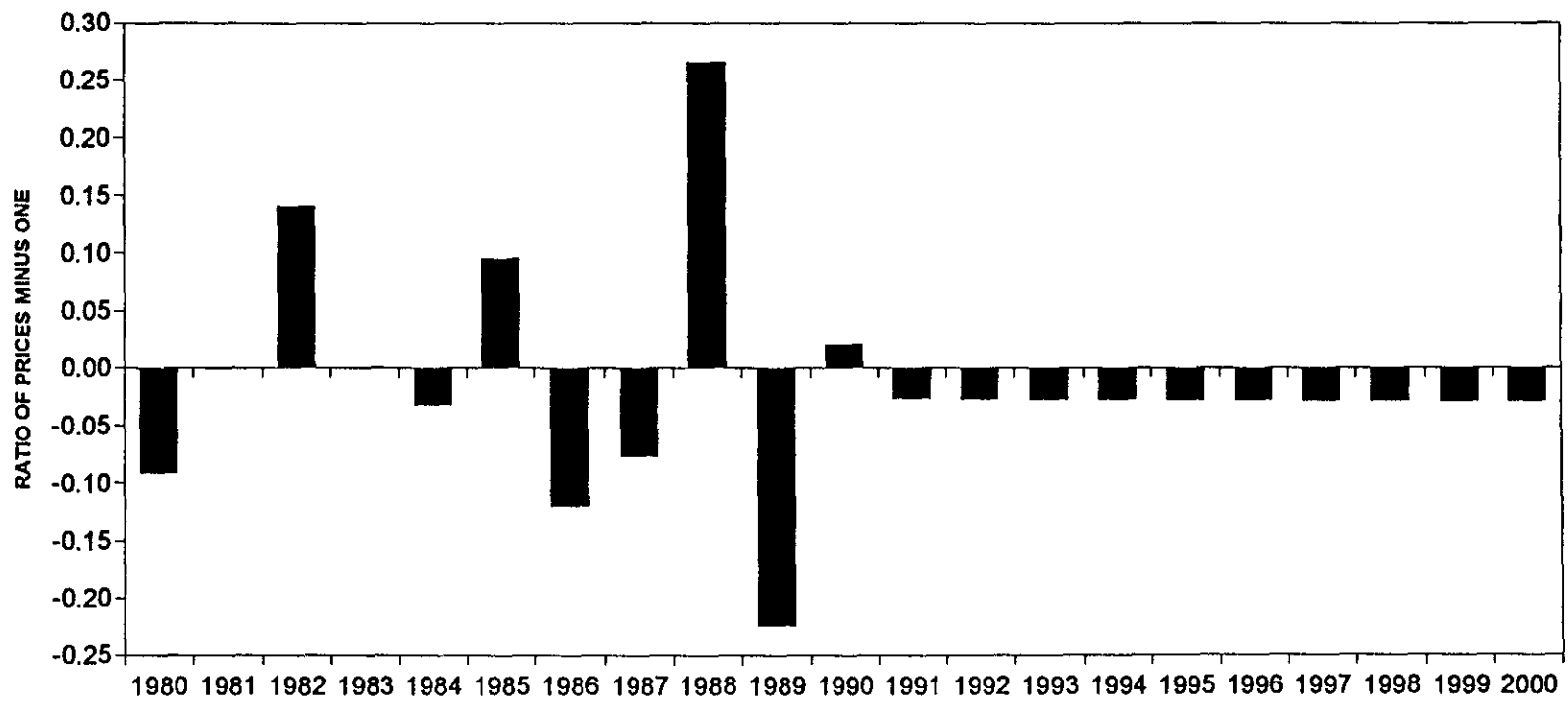


Note: Total imports are not presented because US market dominance and varying definitions of almonds make comparisons difficult.

**CHART 13: AVERAGE US ALMOND EXPORT PRICE TO ALL COUNTRIES**

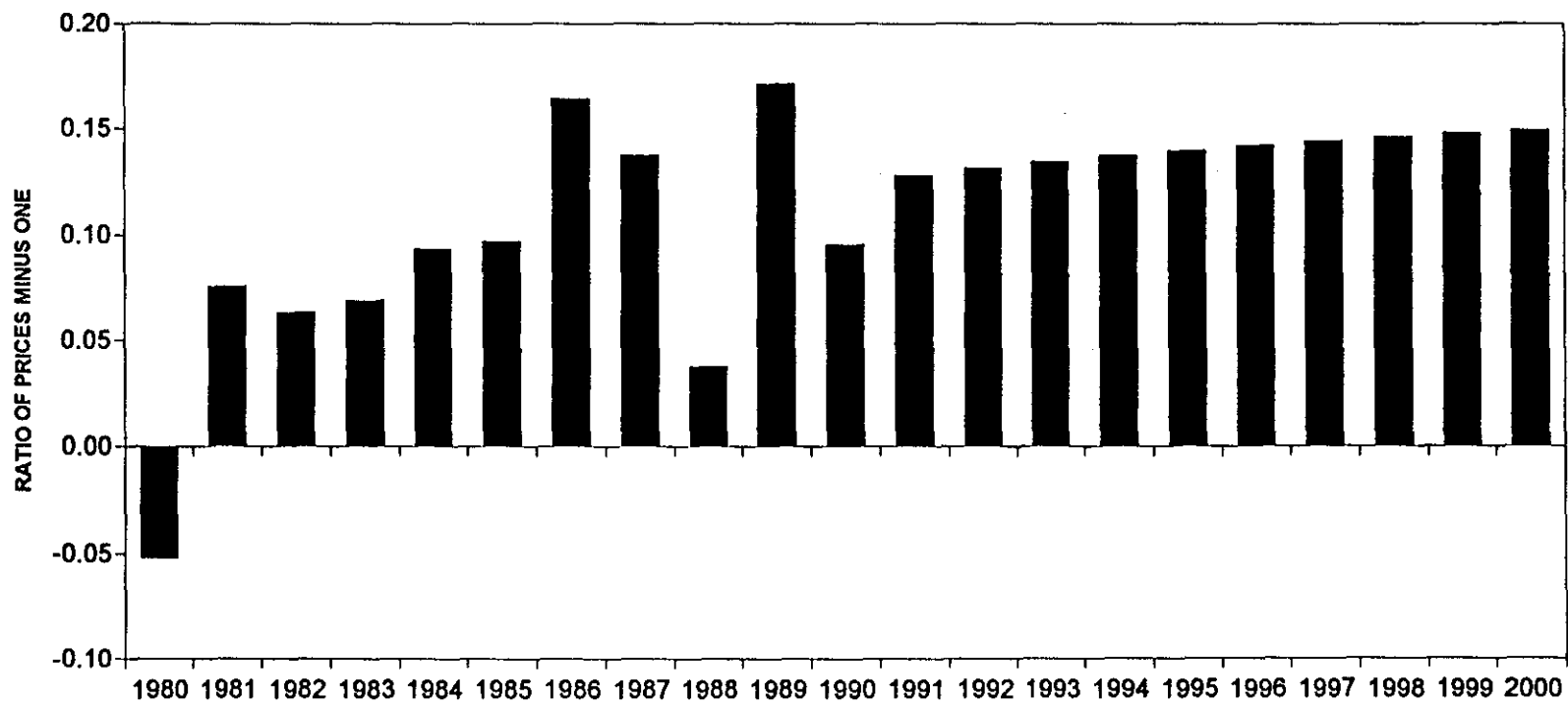


**CHART 14: RATIO OF US ALMOND EXPORT PRICE TO CANADA OVER THE  
AVG. US EXPORT PRICE (MINUS ONE)**



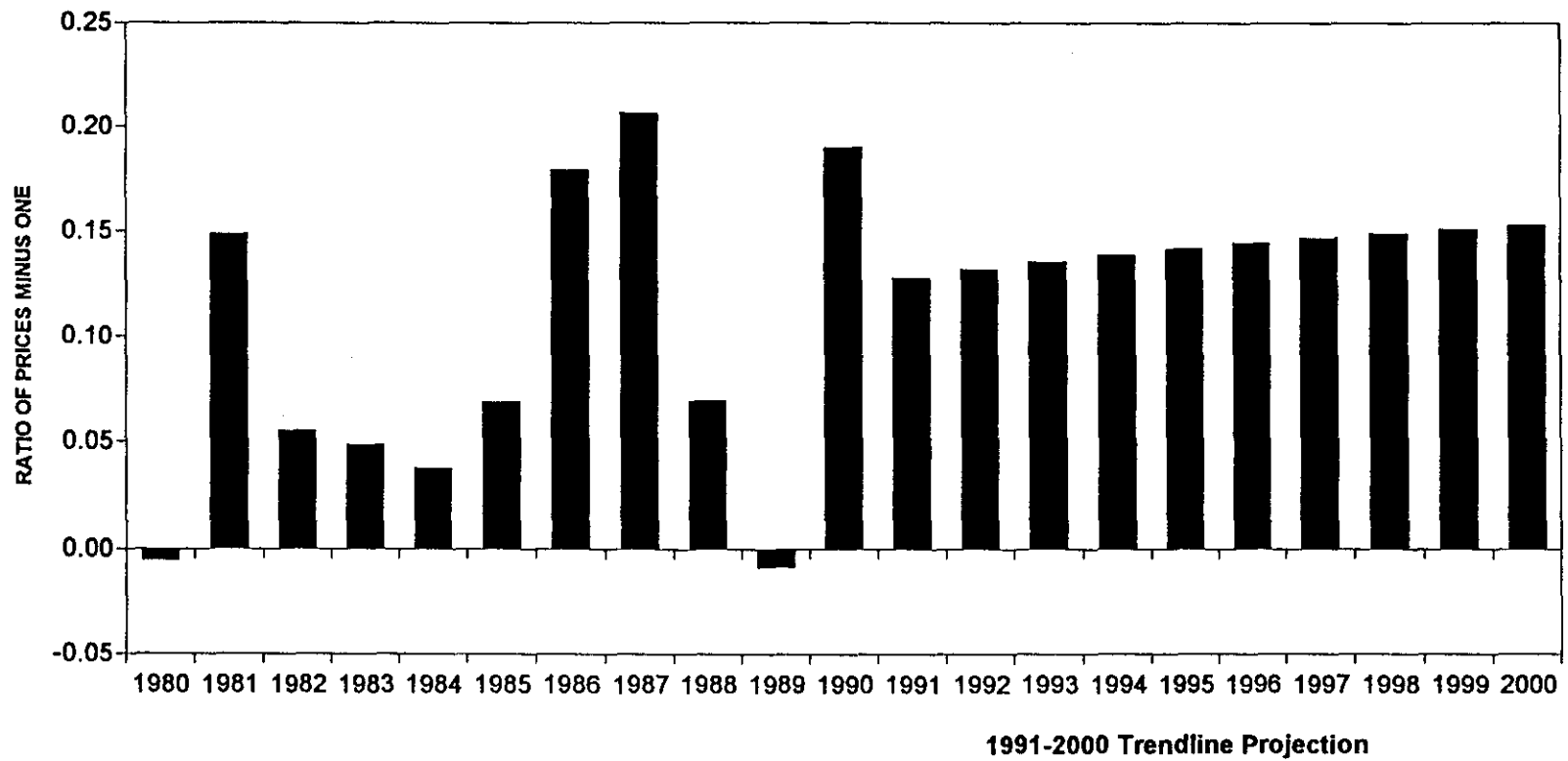
**1991-2000 Trendline Projection**

**CHART 16: RATIO OF US ALMOND EXPORT PRICE TO SWITZERLAND  
OVER THE AVG. US EXPORT PRICE (MINUS ONE)**

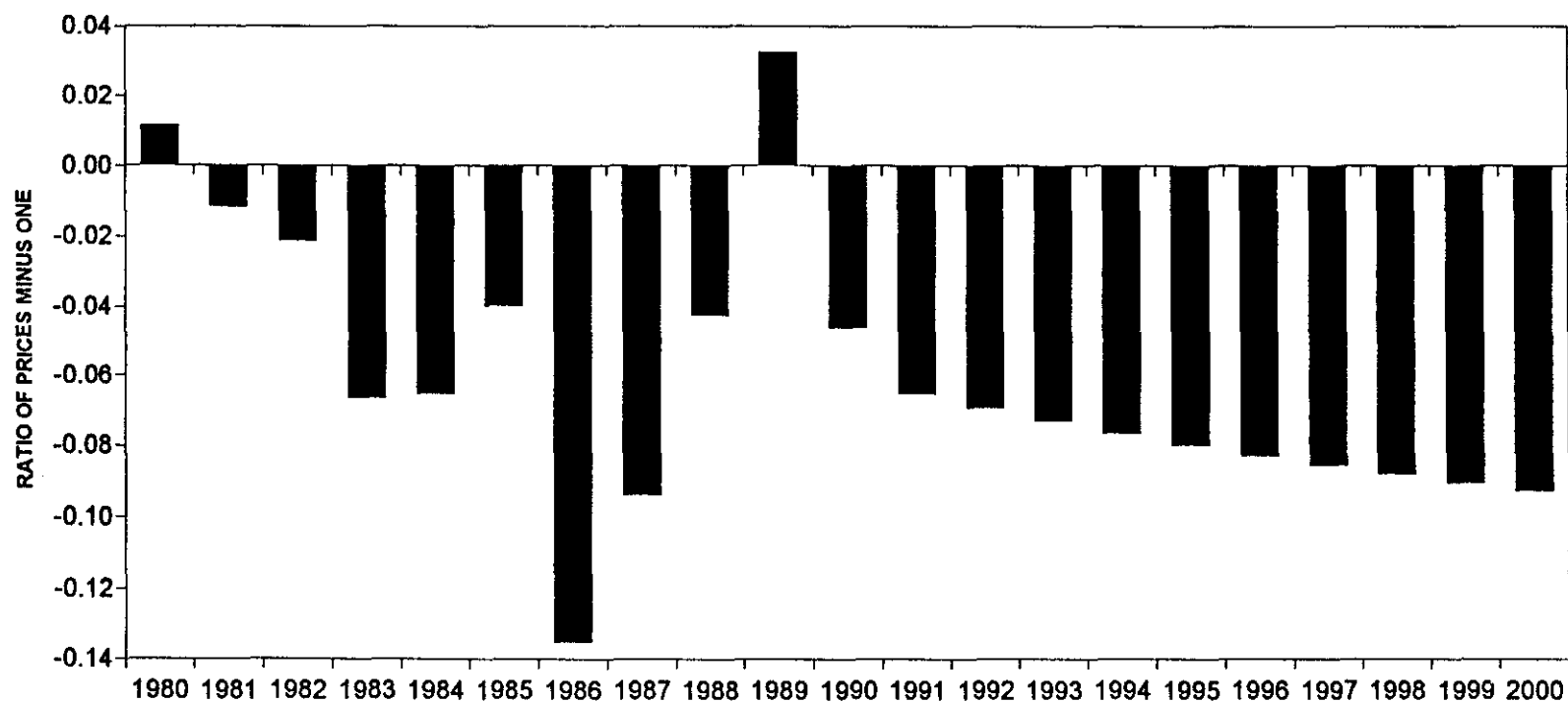


**1991-2000 Trendline Projection**

**CHART 17: RATIO OF US ALMOND EXPORT PRICE TO JAPAN OVER THE  
AVG. US EXPORT PRICE (MINUS ONE)**



**CHART 18: RATIO OF US ALMOND EXPORT PRICE TO GERMANY OVER THE AVG. US EXPORT PRICE (MINUS ONE)**



**1991-2000 Trendline Projection**

**APPENDIX**

## DATA SOURCES

The trade model used requires data for quantity and value of gross imports and exports, production, domestic consumption, and prices derived from quantity and value of trade. The bulk of this data was obtained from AGROSTAT-PC, a data retrieval software program providing United Nations Food and Agriculture Organization (FAO) production, consumption, stock change, and trade value and quantity data equivalent to the FAO's Production, Food Balance and Trade Yearbooks. Some cases required additional data sources - described below.

Fresh grape data for Taiwan was obtained through Hsin-Hui Hsu at the USDA-FAS who took the numbers from *The Taiwan Agricultural Yearbook* and *The Agricultural Trade Statistics of the Republic of China*. Also, because of the slight discrepancies between reported imports, and exports and because the U.S. supplies nearly 100% of Taiwan's fresh grape imports U.S. export data is chosen as a proxy for Taiwan's total imports. This was done to avoid years where reporting discrepancies result in U.S. exports being over 100% of Taiwan's imports - also U.S. data is thought to be more reliable.

Data for Almonds were obtained directly from the USDA-ERS Specialty Agriculture Branch, Commodity Economics Division; from various USDA-FAS Attaché Reports; and, from the USDA's *Horticultural Products Review*. The Almond Board of California also supplied data from the European Economic Community and valuable assistance.

Further, bilateral trade between the United States and the major importers was necessary for the study. The USDA-FAS publication, *Foreign Agricultural Trade of the United States - Annual Supplement* lists annual bilateral trade quantity and value for the six commodities studied.

Estimation of excess supply and demand elasticities uses total quantity of imports, exports, demand and supply for "importers", "exporters" and the world total. Quantities for "exporters" were calculated by taking the totals for all countries which were net exporters in 1990 according to FAO trade data. Data for "importing" regions is derived from the numbers estimated for exporting regions and the world total (all countries not net exporters are assumed to be net importers). This selected was performed using AGROSTAT-PC FAO data for all commodities except for almonds and grapefruit which were approximated using major exporters as proxy for all net exporters. Estimation of the exporting regions generally covers at least 75% of world exports and over 50% of total production. Lists of net exporting countries used are available on request.

All prices and values are in current US dollars. All quantities are in Metric Ton units. Trade values are generally f.o.b. for United Nations FAO data and f.a.s. for US exports (ie. US port price).



## CORRESPONDENCE

Communication by telephone, fax, and Federal Express was an important part of information gathering for this study due to the limited time available. The USDA and commodity and trade commissions/councils were the primary sources of information. A summary record of this correspondence is listed under a general category (because many contacts work with more than one of the studied commodities) and then by commodity:

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