Purchasing Power of U.S. Social Security Benefits Abroad, 1970–82

by Jonathan Aldrich, Alan Fox, and Eduard Lopez *

This article examines whether the small number of Social Security beneficiaries living abroad enjoy a higher standard of living than they would with the same benefits if they lived in the United States. The article addresses this question using two methods. First, absolute comparisons of U.S. dollar purchasing power abroad are made using "purchasing power parities," a method recently developed to allow international comparisons of real standards of living. Second, the effects of changes in Social Security benefit levels, exchange rates, and rates of inflation on the relative value of benefits abroad are measured. Both methods show considerable instability in purchasing power of Social Security benefits in the 1970's. Although beneficiaries in 1970 generally could live better abroad than in the United States, this advantage eroded considerably during the 1970's, followed by some improvement in 1981-82.

Do U.S. Social Security beneficiaries living abroad enjoy a better standard of living than they would residing in the United States? In 1980, 311,600 beneficiaries (or 0.9 percent of all 1980 Social Security beneficiaries) resided abroad in more than 70 countries.[1] Each received benefits based on the earnings record of someone who worked in covered employment in the United States and each satisfied U.S. Social Security eligibility requirements. Monthly benefits amounted to roughly 0.7 percent of all Old-Age, Survivors, and Disability Insurance benefits paid per month in 1980. Because a majority of these beneficiaries abroad lived in countries where, historically, the general standard of living is lower than in the United States, and since U.S. Social Security benefit levels are based on this country's wage levels and changes in the U.S. cost of living, beneficiaries living abroad might be thought to enjoy an economic advantage over those residing here.

That possibility is examined in this article, using two approaches. The first involves making absolute comparisons of U.S. dollar purchasing power abroad using "purchasing power parities," a method recently developed by various international organizations to facilitate comparisons of real standards of living. The second looks at changes in Social Security benefits, exchange rates, and rates of inflation to measure changes in benefit purchasing power abroad from 1970 to 1982.

Both approaches show substantial instability in the purchasing power of Social Security benefits in the foreign countries studied. Although Social Security beneficiaries in 1970 generally lived better abroad than in the United States, the purchasing power of U.S. dollars abroad eroded substantially during the 1970's, followed by some improvement in 1981. In that year, U.S. dollars still had, on average, somewhat greater purchasing power in the countries studied than in the United States, but the difference was not great.

Data from 10 countries were analyzed.[2] These countries had the greatest concentration of U.S. Social Security beneficiaries outside the United States and together accounted for 78 percent of all beneficiaries living abroad in June 1980.[3]

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[1] Beneficiaries included retired workers and their dependents, disabled workers and their dependents, and survivor beneficiaries. See **Social Security Bulletin, Annual Statistical Supplement, 1982**, table 54, and **Annual Statistical Supplement, 1981**, table 129. The 1983 Social Security Amendments (Public Law 98-21) include a residency requirement for aliens claiming benefits as dependents of workers if the dependents are currently living in countries with which the United States does not have reciprocity treaties or totalization agreements.

[2] The 10 countries (listed in order of number of beneficiaries in 1980) are Mexico, Canada, Italy, the Philippines, Greece, the Federal Republic of Germany, United Kingdom, Israel, Ireland, and Spain.

[3] **Social Security Bulletin, Annual Statistical Supplement, 1981**, table 129.

Absolute Comparisons: Exchange-Rate Deviation Index

The purchasing power of U.S. dollars in 8 of the 10 countries is compared with their purchasing power in the United States for the period 1970–81.[4] The standards of living of U.S. Social Security beneficiaries living in those countries are compared with the standards of living they would enjoy in the United States with the same benefits. U.S. dollars had greater purchasing power in all eight countries in 1970 than in the United States. However, a general decline in U.S. dollar purchasing power in the countries studied is evident from 1970 to 1980. By 1980, U.S. dollars had greater purchasing power outside the United States in only three of the eight countries. In those three, moreover, the relative advantage had been reduced considerably. U.S. dollar purchasing power in the remaining five was less than or equal to U.S. dollar purchasing power in the United States in 1980. In 1981, the purchasing power of U.S. dollars abroad improved generally and was greater than in the United States in six of the eight countries studied.

Until recently, it was very difficult to make meaningful comparisons of the purchasing power of U.S. dollars in foreign countries with their purchasing power in the United States. In the past, such comparisons were usually made—imperfectly—by means of the relevant exchange rate. However, to make meaningful comparisons of U.S. dollar purchasing power in different countries, it is necessary to know not only how many units of foreign currency a dollar buys but also what various goods and services cost in the foreign currency.[5] A recently published United Nations study makes it possible to make such comparisons by using "purchasing power parities" in conjunction with exchange rates, rather than relying on exchange rates alone.[6]

The key to evaluating relative living standards associated with a given monthly dollar income is knowing the purchasing power parity (PPP) between the United States and the country in which the beneficiary lives. The PPP is the number of currency units required to buy goods equivalent to what can be bought with one unit of the currency of the base country (the U.S. dollar in the U.N.'s study). At the simplest level, a PPP may be derived by pricing comparable goods in two countries and taking a ratio of the prices obtained in the respective currencies. For example, if it takes 1 dollar to buy 4 apples in the United States and 15 pesos to buy 4 similar apples in Mexico, the purchasing power parity for this category of goods would be 15/1, or 15. If the exchange rate were 15 pesos to the dollar, a dollar would buy the same number of apples in Mexico as in the United States. In this situation, the exchange rate would accurately reflect the comparative costs of apples, and therefore beneficiaries could purchase the same number of apples with their U.S. dollars whether they lived in the United States or in Mexico.

Differences in the purchasing power of U.S. dollars arise when the exchange rate does not accurately reflect the comparative costs of goods. For example, assume that the dollar can be exchanged for 25 pesos. Since 25 pesos will buy 6.7 apples in Mexico, whereas 1 dollar buys 4 apples in the United States, beneficiaries in Mexico will enjoy an economic advantage over beneficiaries with the same monthly income living in the United States with respect to buying apples.

Thus, whether a beneficiary in a foreign country enjoys a higher, lower, or similar standard of living than one receiving the same benefits and living in the United States depends on the relationship between the relevant exchange rate and purchasing power parity. This relationship can be measured by simply dividing the exchange rate by the purchasing power parity. The ratio produced is referred to here as an "exchange-rate deviation index." When an exchange-rate deviation index is greater than one, a person can enjoy a better standard of living (or greater purchasing power per U.S. dollar) in the foreign country than in the United States. In the example cited above, the ratio of the exchange rate to the purchasing power parity is 25/15, which suggests that one does 70 percent better buying apples in Mexico with U.S. dollars than in the United States (25/15 = 1.7).

The challenge in computing such an index is generating estimates of the purchasing power parity. The process is straightforward when restricted to apples. To broaden the application from one commodity to all goods and services produced and consumed in a given country is clearly more difficult. The U.N. study undertook this challenge by compiling prices in 34 countries for more than 1,500 items in 151 categories of goods and services. A PPP for each category was calculated as

[4] The eight countries are Mexico, Italy, the Philippines, Greece, the Federal Republic of Germany, United Kingdom, Ireland, and Spain. In 1980, beneficiaries living in these eight countries accounted for 61 percent of all beneficiaries living abroad. Data for Canada and Israel were not available since these countries were not included in the international studies used for the purpose of this analysis.

[5] Exchange-rate conversions might not reflect actual differences in relative price levels, since many factors that influence exchange rates have little influence on domestic price levels. Such factors include costs of capital goods and raw commodities, interest rates, perceived political and economic stability, and the balance of international trade. With floating exchange rates, changes of up to 20 percent within the space of a year have not been unusual, even among major currencies. Thus, exchange-rate conversions can suggest substantial changes in relative price levels between countries when no real change has in fact occurred.

[6] Irving B. Kravis, Alan Heston, and Robert Summers, **World Product and Income: International Comparisons of Real Gross Product**, Johns Hopkins University Press, 1982. The work is part of a continuing study known as the International Comparison Project (ICP), sponsored jointly by the Statistical Office of the United Nations and the World Bank. For a summary of the ICP results, see Kravis, Heston, and Summers, "New Insights into the Structure of the World Economy," **The Review of Income and Wealth**, December 1981, pages 339–355.

the average of the price ratios of the items in that category. Category PPP's were then averaged to obtain PPP's at various levels of aggregation, producing a purchasing power parity for gross domestic product (GDP) as a whole. Weights used in the aggregation process reflected actual consumption patterns within each country.

The U.N. study provided international comparison data for 1975 only. The Organization for Economic Cooperation and Development (OECD) has updated (to 1980) and backdated (to 1970) some of the benchmark purchasing power parities by means of the GDP deflators for the countries concerned.[7] In addition, the authors of this article have roughly estimated 1981 PPP's by using GDP deflators to update 1980 OECD figures for the Federal Republic of Germany, Greece, Ireland, Italy, Spain, and the United Kingdom, and to update 1975 U.N. figures for Mexico and the Philippines.

Together, these data are used to compare U.S. dollar purchasing power in the eight countries with respect to the United States by taking a ratio of the relevant exchange rate to the GDP purchasing power parity. This procedure results in an exchange-rate deviation index for each country for each year.[8]

Results

In 1970, the exchange-rate deviation indexes were greater than 1.0 for all foreign countries studied, indicating that U.S. Social Security beneficiaries living in those countries enjoyed greater purchasing power than they would have had in the United States (tables 1 and 2).[9] On average, the index was 2.0 in 1970, suggesting that a beneficiary could live twice as well abroad as in the United States. The indexes tended to decline in value from 1970 to 1980 in all eight countries, indicating a general decline in the purchasing power of U.S. dollars in these countries over this period. The average 1980 index was 1.3. Indeed, in 1980 exchange-rate deviation indexes for six countries had fallen to values less than, equal to, or only slightly greater than 1.0, indicating that in these countries a beneficiary's U.S. dollars bought little more, and in some cases less, than they would have in the United States. In 1981, the purchasing power of U.S. dollars improved slightly in seven of the eight countries.

Changes After Retirement: Relative-Value Index

Changes in U.S. benefit amounts, changes in foreign exchange markets, and rates of inflation in the host countries all affect the value of dollars received by U.S. beneficiaries living abroad. In this section, the changes in the relative value of U.S. dollars in 10 countries are examined with respect to these factors. This method reveals nothing about the beneficiary's absolute standard of living abroad compared with the standard of living the beneficiary might have enjoyed if he or she had remained in the United States. Rather, this analysis charts how the standard of living abroad would have changed over time as a result of changes in the relative value of U.S. dollars in 10 countries from 1970 to 1982, through the use of a "relative-value index."

The relative-value index measures changes in the relative value abroad of U.S. dollars. It is used here to measure the changes in relative value of Social Security

[7] Organization for Economic Cooperation and Development, **National Accounts, Volume 1, Main Aggregates, 1951-80**, Paris, 1982. The OECD has extrapolated PPP's for 15 countries for 1970-80 on the basis of the ICP data as well as from 1980 PPP's calculated by Eurostat for 12 European countries. See Statistical Office of the European Communities, **National Accounts ESA—Aggregates, 1970-1980**, Luxembourg, 1982.

[8] These comparisons are very rough since the PPP's used are for gross domestic product as a whole and were computed through weighted and averaged aggregation procedures to facilitate multilateral comparisons.

[9] A U.S. beneficiary living abroad was assumed to purchase the average "market basket" of goods and services in that country, not the market basket he or she would have bought if living in the United States. Roughly 85 percent of Social Security beneficiaries living abroad are foreign nationals or naturalized U.S. citizens. Since many of these beneficiaries presumably have returned to their native lands upon retirement, this market-basket assumption seems plausible.

Table 1.—Levels of purchasing power compared with United States: Exchange-rate deviation index, by country, 1970–81

Country [1]	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
All countries [2]	2.0	1.9	1.9	1.8	1.6	1.6	1.7	1.7	1.6	1.6	1.3	1.4
Mexico (55,400)	2.2	2.2	2.2	2.0	1.8	1.7	1.8	2.2	2.0	1.8	1.6	1.3
Italy (41,600)	1.5	1.5	1.4	1.3	1.3	1.3	1.4	1.3	1.2	1.1	1.0	1.3
Philippines (33,800)	3.0	3.0	3.1	2.9	2.3	2.5	2.5	2.4	2.4	2.3	2.2	2.3
Greece (17,000)	1.5	1.5	1.5	1.3	1.2	1.2	1.3	1.2	1.1	1.1	1.1	1.3
Germany, Federal Republic of (16,400)	1.2	1.1	1.0	.9	.8	.8	.9	.8	.7	.7	.7	.9
United Kingdom (12,600)	1.5	1.4	1.3	1.3	1.3	1.2	1.4	1.3	1.2	1.0	.8	.9
Ireland (6,700)	1.5	1.4	1.3	1.2	1.3	1.2	1.3	1.3	1.1	1.0	1.0	1.2
Spain (6,300)	2.1	2.0	1.8	1.5	1.4	1.3	1.4	1.4	1.2	1.0	1.0	1.3

[1] Listed in order of number of U.S. beneficiaries in 1980 (shown in parentheses). For components, see table 2.

[2] Weighted by number of beneficiaries.

Table 2.—Components of exchange-rate deviation indexes for eight foreign countries, 1970–81

Country [1]	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Mexico (55,400):												
Currency exchange rate (pesos per U.S. dollar)	12.5	12.5	12.5	12.5	12.5	12.5	15.4	22.6	22.8	22.8	23.0	24.5
Purchasing power parity, gross domestic product	[2] 5.7	[2] 5.6	[2] 5.7	[2] 6.1	[2] 6.9	7.4	[2] 8.4	[2] 10.4	[2] 11.3	[2] 12.5	[2] 14.7	[2] 18.2
Exchange-rate deviation index [3]	2.2	2.2	2.2	2.0	1.8	1.7	1.8	2.2	2.0	1.8	1.6	1.3
Italy (41,600):												
Currency exchange rate (lire per U.S. dollar)	625	620	583	583	650	653	832	882	849	831	856	1,137
Purchasing power parity, gross domestic product	405	413	421	445	485	522	585	658	697	743	821	[2] 884
Exchange-rate deviation index [3]	1.5	1.5	1.4	1.3	1.3	1.3	1.4	1.3	1.2	1.1	1.0	1.3
Philippines (33,800):												
Currency exchange rate (pesos per U.S. dollar)	5.9	6.4	6.7	6.8	6.8	7.2	7.4	7.4	7.4	7.4	7.5	7.9
Purchasing power parity, gross domestic product	2.0	[2] 2.1	[2] 2.1	2.3	[2] 2.9	2.9	[2] 3.0	[2] 3.1	[2] 3.0	[2] 3.2	[2] 3.4	[2] 3.5
Exchange-rate deviation index [3]	3.0	3.0	3.1	2.9	2.3	2.5	2.5	2.4	2.4	2.3	2.2	2.3
Greece (17,000):												
Currency exchange rate (drachmas per U.S. dollar)	30.0	30.0	30.0	29.6	30.0	32.3	36.5	36.8	36.7	37.0	42.6	55.4
Purchasing power parity, gross domestic product	20.5	20.1	20.3	22.9	25.5	26.2	28.7	30.7	32.2	35.2	38.3	[2] 41.8
Exchange-rate deviation index [3]	1.5	1.5	1.5	1.3	1.2	1.2	1.3	1.2	1.1	1.1	1.1	1.3
Germany, Federal Republic of (16,400):												
Currency exchange rate (Deutsche marks per U.S. dollar)	3.7	3.5	3.2	2.7	2.6	2.5	2.5	2.3	2.0	1.8	1.8	2.3
Purchasing power parity, gross domestic product	3.0	3.1	3.1	3.1	3.1	3.0	2.9	2.9	2.8	2.7	2.6	[2] 2.5
Exchange-rate deviation index [3]	1.2	1.1	1.0	.9	.8	.8	.9	.8	.7	.7	.7	.9
United Kingdom (12,600):												
Currency exchange rate (pounds per U.S. dollar)	.42	.41	.40	.41	.43	.45	.55	.57	.52	.47	.43	.49
Purchasing power parity, gross domestic product	.28	.29	.30	.31	.32	.38	.41	.44	.46	.48	.53	[2] .54
Exchange-rate deviation index [3]	1.5	1.4	1.3	1.3	1.3	1.2	1.4	1.3	1.2	1.0	.8	.9
Ireland (6,700):												
Currency exchange rate (pounds per U.S. dollar)	.42	.41	.40	.41	.43	.45	.55	.57	.52	.49	.49	.62
Purchasing power parity, gross domestic product	.27	.28	.31	.34	.33	.37	.42	.45	.46	.48	.50	[2] .54
Exchange-rate deviation index [3]	1.5	1.4	1.3	1.2	1.3	1.2	1.3	1.3	1.1	1.0	1.0	1.2
Spain (6,300):												
Currency exchange rate (pesetas per U.S. dollar)	70.0	69.5	64.3	58.2	57.7	57.4	66.9	76.0	76.7	67.1	71.7	92.3
Purchasing power parity, gross domestic product	33.4	34.3	35.8	37.9	40.6	43.4	48.1	55.8	62.5	66.4	69.3	[2] 72.8
Exchange-rate deviation index [3]	2.1	2.0	1.8	1.5	1.4	1.3	1.4	1.4	1.2	1.0	1.0	1.3

[1] Listed in order of number of beneficiaries in 1980 (shown in parentheses).
[2] Estimated using GDP or GNP deflators.
[3] Currency exchange rate divided by the GDP PPP.

Sources: Exchange rates taken from International Monetary Fund, **International Financial Statistics Yearbook, 1982**, series "rf." GDP PPP's for Italy, the Federal Republic of Germany, Greece, United Kingdom, Ireland, and Spain for 1970–80 taken from Organization for Economic Cooperation and Development, **National Accounts, Volume 1, Main Aggregates, 1951–80**, 1982. GDP PPP's for the Philippines and Mexico for 1975 are taken from Irving Kravis, Alan Heston, and Robert Summers, **World Product and Income: International Comparisons of Real Gross Product**, Johns Hopkins University Press, 1982. GDP PPP's for the Philippines for 1970 and 1973 are taken from Kravis, Heston, and Summers, **International Comparisons of Real Product and Purchasing Power**, Johns Hopkins University Press, 1978.

benefits abroad from 1970 to 1982. The index is positively affected by the statutory increases in benefits since 1970 (including cost-of-living adjustments starting in 1973) and by increases in the value of U.S. dollars in foreign exchange markets. The index is negatively affected by increases in consumer prices abroad. Between 1970 and 1982, most beneficiaries experienced rapid and uneven changes in the purchasing power of their benefit dollars (tables 3 and 4). From a base of 100 in 1970, the relative-value index went as high as about 125 (a one-fourth improvement) for beneficiaries living in Mexico in 1982. Those living in Canada in 1981, in Israel in 1981–82, and in Mexico in 1977 experienced a 20-percent improvement. The index went as low as around 65 (a one-third decline) for beneficiaries living in the Federal Republic of Germany in 1979, the United Kingdom in 1980, and Spain in 1977–80.

Within a given country, the relative-value index might vary by considerable amounts over time. For example, in Mexico the index changed from 99 to 119 and back to 109 in the space of 3 years (1976–78), and went from 84 to 124 in 2 years (1981–82). With these rapid changes, caused by factors beyond the beneficiary's control or even knowledge, rational financial planning would have been extremely difficult.

In contrast, a beneficiary residing in the United States would have had a slight rise in purchasing power through 1972 and approximately constant purchasing power for the remainder of the decade.[10] The extreme fluctuations noted for beneficiaries living abroad did not occur for those living in the United States.

For an overall perspective, chart 1 provides an overall relative-value index for all countries in this study for each year. During 1970–73, the average index remained above 100, but then dipped considerably. By 1980, the 10-country index had dropped to 88 percent. This drop indicated that an average U.S. beneficiary living abroad had sustained a 12-percent loss in the real value of his or her benefits. The value of the dollar on foreign exchange markets since 1980, however, increased faster than rises in foreign prices, causing the relative-value index to increase to considerably above 100 in 1982. One can only speculate as to whether this rise will continue.

[10] Over the 10-year span, Social Security benefits increased about 12 percent more than the Consumer Price Index.

Conclusions

In 1970, a Social Security beneficiary generally could live "better" abroad than in the United States, provided his or her expenditure patterns were comparable with those typical of the host country. Over the decade of the

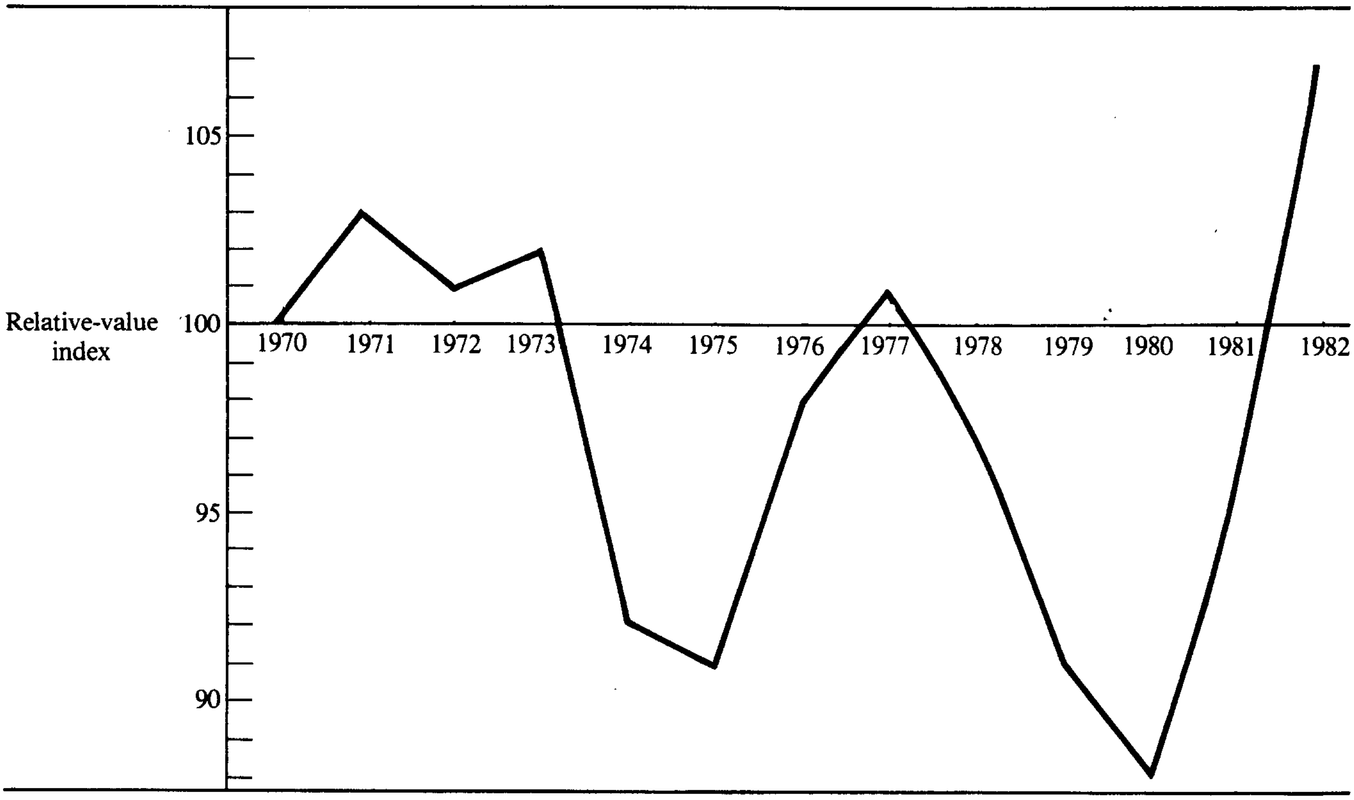
Table 3.—Changes in purchasing power for persons retiring in 1970: Relative-value index, by country, 1970-82

Country [1]	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
All countries [2]	100	103	101	102	92	91	98	101	97	91	88	96	107
Mexico (55,400)	100	104	105	107	93	87	99	119	109	100	90	84	124
Canada (47,900)	100	103	102	108	101	105	101	106	112	114	116	119	115
Italy (41,600)	100	104	98	100	99	93	109	105	96	89	85	107	114
Philippines (33,800)	100	104	106	105	84	90	94	91	90	82	80	85	85
Greece (17,000)	100	107	109	105	89	92	99	94	89	82	85	99	103
Germany, Federal Republic of (16,400)	100	100	92	81	78	78	80	76	68	65	68	90	96
United Kingdom (12,600)	100	99	95	101	97	89	100	95	85	74	64	73	82
Israel (6,800)	100	105	111	104	85	95	96	100	118	104	102	118	119
Ireland (6,700)	100	99	94	98	93	88	98	94	85	77	73	87	87
Spain (6,300)	100	101	92	84	76	71	77	75	67	55	57	72	78

[1] Listed in order of number of U.S. beneficiaries in 1980 (shown in parentheses). For components, see table 4.

[2] Weighted by number of beneficiaries.

Chart 1.—Changes in purchasing power for persons retiring in 1970: Overall relative-value index, 1970-82



Source: Table 3. Weighted by number of beneficiaries in these 10 countries, 1980.

1970's, however, this advantage eroded considerably and by 1980 had turned to a disadvantage in a few countries.

From 1970 to 1982, a great deal of instability in purchasing power is apparent, due to rapidly fluctuating exchange and inflation rates. Generally, the purchasing power of U.S. beneficiaries living abroad declined during the 1970's but rose in 1981-82.

Table 4.—Components of relative-value index, by country, 1970-82

[For indexes, 1970 = 100; for Social Security benefit, 1970 = $100]

Country	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Mexico (55,400):													
Consumer price index	100	106	111	123	151	177	205	264	310	366	463	592	941
Currency exchange rate (pesos per U.S. dollar)	12.50	12.50	12.50	12.50	12.50	12.50	15.43	22.57	22.77	22.80	22.95	24.52	54.99
Social Security benefit [2]	100	110	117	132	140	153	164	174	185	201	226	254	265
Relative-value index [3]	100	104	105	107	93	87	99	119	109	100	90	84	124
Canada (47,900):													
Consumer price index	100	103	108	116	129	142	153	165	180	197	217	244	270
Currency exchange rate (Canadian dollars per U.S. dollar)	1.05	1.01	.99	1.00	.98	1.02	.99	1.06	1.14	1.17	1.17	1.20	1.23
Social Security benefit [2]	100	110	117	132	140	153	164	174	185	201	226	254	265
Relative-value index [3]	100	103	102	108	101	105	101	106	112	114	116	119	115
Italy (41,600):													
Consumer price index	100	105	111	123	146	171	200	234	262	301	365	430	501
Currency exchange rate (lire per U.S. dollar)	625	620	583	583	650	653	832	882	849	831	856	1137	1352
Social Security benefit [2]	100	110	117	132	140	153	164	174	185	201	226	254	265
Relative-value index [3]	100	104	98	100	99	93	109	105	96	89	85	107	114
Philippines (33,800):													
Consumer price index	100	115	126	144	192	208	221	239	257	305	360	402	452
Currency exchange rate (pesos per U.S. dollar)	5.90	6.43	6.70	6.76	6.79	7.25	7.44	7.40	7.37	7.38	7.51	7.90	8.54
Social Security benefit [2]	100	110	117	132	140	153	164	174	185	201	226	254	265
Relative-value index [3]	100	104	106	105	84	90	94	91	90	82	80	85	85
Greece (17,000):													
Consumer price index	100	103	107	124	158	179	202	227	255	304	380	472	571
Currency exchange rate (drachmas per U.S. dollar)	30.00	30.00	30.00	29.62	30.00	32.29	36.52	36.84	36.74	37.04	42.62	55.41	66.80
Social Security benefit [2]	100	110	117	132	140	153	164	174	185	201	226	254	265
Relative-value index [3]	100	107	109	105	89	92	99	94	89	82	85	99	103
Germany, Federal Republic of (16,400):													
Consumer price index	100	105	111	119	127	135	141	146	150	156	164	174	183
Currency exchange rate (Deutsche marks per U.S. dollar)	3.66	3.49	3.19	2.67	2.59	2.46	2.52	2.32	2.01	1.83	1.82	2.26	2.43
Social Security benefit [2]	100	110	117	132	140	153	164	174	185	201	226	254	265
Relative-value index [3]	100	100	92	81	78	78	80	76	68	65	68	90	96
United Kingdom (12,600):													
Consumer price index	100	109	117	128	148	184	215	249	270	306	361	404	439
Currency exchange rate (pounds per U.S. dollar)	.42	.41	.40	.41	.43	.45	.55	.57	.52	.47	.43	.49	.57
Social Security benefit [2]	100	110	117	132	140	153	164	174	185	201	226	254	265
Relative-value index [3]	100	99	95	101	97	89	100	95	85	74	64	73	82
Israel (6,800):													
Consumer price index	100	112	126	152	212	295	388	522	786	1400	3236	7016	15460
Currency exchange rate (shekels per U.S. dollar)	3.50	3.73	4.20	4.20	4.50	6.39	7.98	10.46	17.47	25.44	51.24	114.31	242.67
Social Security benefit [2]	100	110	117	132	140	153	164	174	185	201	226	254	265
Relative-value index [3]	100	105	111	104	85	95	96	100	118	104	102	118	119
Ireland (6,700):													
Consumer price index	100	109	118	132	154	186	220	250	269	304	360	433	507
Currency exchange rate (pounds per U.S. dollar)	.42	.41	.40	.41	.43	.45	.55	.57	.52	.49	.49	.62	.70
Social Security benefit [2]	100	110	117	132	140	153	164	174	185	201	226	254	265
Relative-value index [3]	100	99	94	98	93	88	98	94	85	77	73	87	87
Spain (6,300):													
Consumer price index	100	108	117	130	151	176	203	253	303	350	405	464	531
Currency exchange rate (pesetas per U.S. dollar)	70.00	69.47	64.27	58.26	57.69	57.41	66.90	75.96	76.67	67.12	71.70	92.31	109.86
Social Security benefit [2]	100	110	117	132	140	153	164	174	185	201	226	254	265
Relative-value index [3]	100	101	92	84	76	71	77	75	67	55	57	72	78

[1] Listed in order by number of U.S. beneficiaries in 1980 (shown in parentheses). See **Social Security Bulletin, Annual Statistical Supplement, 1981,** table 129. For other figures, see International Monetary Fund, **International Financial Statistics,** various issues; for consumer prices, series 64xxx; for exchange rates, series "rf" (period average; for United Kingdom and Ireland, series "rh").

[2] Expressed as annual amount, prorated according to effective month of statutory increases.

[3] For each year, Social Security benefit times ratio of currency exchange rate in that year to 1970, divided by local consumer price index. For example, for Mexico in 1976:

$$\text{Relative-value index} = \frac{164 \times \frac{15.43}{12.50} \times 100}{205}.$$

These findings should be put into a more general context:

- The number of beneficiaries residing in foreign countries relative to the total beneficiary population is very small (0.9 percent), and the proportion of their benefits to total benefits paid is even smaller (0.7 percent).
- Most of these beneficiaries are foreign nationals returning to their native lands.
- Generally, the benefits of U.S. beneficiaries living abroad are lower than those of the average U.S. beneficiary,[11] in part because they have shorter periods of coverage.

[11] **Social Security Bulletin, Annual Statistical Supplement, 1982**, table 54, and **Annual Statistical Supplement, 1981**, table 129.