Measuring the Real Exchange Rate: Annual Series for Turkey

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MEASURING THE REAL EXCHANGE RATE:
ANNUAL SERIES FOR TURKEY

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I. Introduction

Exchange rates have been of increasing concern to both economists and policy makers. This attention has been magnified with the shift from fixed exchange rate regimes toward more flexible ones, beginning in the early 1970s. In addition, the experiences of the developing countries have proved that the exchange rate is a key policy instrument in liberalization and structural adjustment programs (Asikoglu and Uctum, 1992). In short, we can say that the exchange rate is one of the most important concepts in analysing international economic relations.

The exchange rate may simply be defined as the number of units of domestic currency per unit of foreign currency in nominal terms,

$$ER \quad \frac{Domestic Currency}{Foreign Currency} \tag{1}$$

or vice versa. However, when the time comes to quantify this simple definition, we note that we have an array of alternatives to choose from. We may be interested in "nominal" or "real" exchange rates and these exchange rates may be "bilateral" or "aggregated" (or "effective"). Our concern here is with real exchange rates (RER) which is the nominal exchange rate deflated by a price index or indexes and we shall consider its measurement in both "bilateral" and "effective" terms.

One may express a bilateral RER as,

$$RER \quad \frac{Domestic Currency/P_d}{Foreign Currency/P_f} \quad ER\left[\frac{P_f}{P_d}\right] \tag{2}$$

where ER is the bilateral nominal exchange rate, P_d is a domestic price index and P_f is a price index of the trading partner. We immediately note that how each of these components are measured would lead to different measures of the RER (see Marquez (1992) for a discussion of this point). For example, ER may be an end-of-period value or a period average. It may be the rate used for imports or exports. Similarly, the price indexes may be the consumer price index (CPI), the wholesale price index (WPI) or the gross domestic product deflator (GDPD); or they may be import or export price indexes. Each choice would lead to a RER figure with a different objective in mind.

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The bilateral RER's with the major trading partners may be aggregated to yield Real Effective Exchange Rates (REER). The choices discussed above with respect to bilateral RER's are, obviously, also relevant here; in addition, the formulas used in the aggregation may differ, yielding different REER's. This aggregation is usually done by weighting each bilateral RER by the share of each trading partner in some aspects of its trade with the domestic country. The "aspect" chosen would lead to different choice of weights, such as share in imports, share in exports and share in total trade. After this choice has been made, one then has to decide how to use these weights in the aggregation process. For instance, if we denote the weights by w_i, then we may do the aggregation in a straightforward manner, as

$$REER \quad \sum_{i=1}^{N} w_i RER_i \qquad (3)$$

or as,

$$REER \quad EER\left[\frac{\sum_{i=1}^{N} w_i P_{fi}}{P_d}\right] \qquad (4)$$

where N is the number of trading partners, $\sum_{i=1}^{N} w_i \quad 1$, and EER is the effective exchange rate, defined to be

$$EER \quad \sum_{i=1}^{N} w_i ER_i \qquad (5)$$

These descriptions are far from being exhaustive; we shall give much more precise and alternative descriptions later on. But, they do point to the need of constructing alternative series for the real exchange rate, which are based on a common data set and go as far back in time as possible. This will be the basic purpose of this study.

In pursuing this purpose, we shall, in the next Section, discuss, (i) the objectives that calculating real exchange rate measures may serve in relation to the implications these have on the choice of price indexes to use and (ii) the alternative ways of obtaining the aggregate or effective versions. In the third Section, we shall describe the data utilized and then present an analysis of the empirical results in terms of comparing the various real exchange rates obtained using different criteria. The final Section will contain our conclusions.

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2. Problems of Measurement

In the Introduction, we gave a general definition of a RER in equation (2) and indicated that these bilateral measures may be aggregated in various ways, to yield "effective" versions. Both the bilateral and aggregated measures have common conceptual problems. In the first subsection, we shall consider these problems. In the second subsection, we shall introduce the different ways of obtaining the effective measures.

a. Conceptual Problems: One faces problems of measurement, particularly in choosing the appropriate price index or indexes to use, depending upon the objective of calculating a RER [see also Kipici and Kesriyeli (1997) on this point]..

If the objective is to obtain *a measure of the international competitiveness* of a country, then we would need to represent foreign prices in local currency units relative to domestic prices and that would mean that we need to find a uniform measure of the price level in the countries involved. Thus, if the CPI is chosen, then one uses the CPI for both countries.

This concept of an RER is based on the purchasing power parity (PPP) theory since we can express ER from (2) as $ER = (P_d/P_f)RER$ and, assuming that the law of one price holds for every commodity, the absolute version of PPP would imply that $RER = 1$, while the relative version would require that it be a constant. A statistically more sophisticated way of expressing the relative version would be to say that lnRER should be covariance stationary. Hence, we shall refer to an RER constructed to measure the international competitiveness of a country, the PPP version.

If the function of the RER is to *analyze resource allocation* due to a change in the exchange rate, then the price ratio in (2) need not be based on the same measure of the general price level in the countries involved. The underlying adjustment mechanism of the balance of payments, directed by an increase of the exchange rate, for example, is to induce consumers to buy domestic goods instead of imports and, symmetrically, to induce producers to produce tradables, whether import-competing or exportables, rather than non-tradables. Thus, the price ratio in (2) should now reflect the relative price of tradables to nontradables; i.e., P_T/P_N

There are, however, two ways this ratio could be measured. One is to use $P_{T,d}/P_{N,d}$, the ratio of the domestic price of tradables to the domestic price of nontradables; this, of course,

becomes directly equal to the RER. This definition summarises incentives that guide the allocation of resources across the tradables and non-tradables sectors; an increase in RER will make the production of tradables relatively more profitable, causing resources to shift toward the tradables sector (Edwards, 1989).

The other way of measuring the price ratio is to use $P_{T,d}/P_{N,d}$ where $P_{T,f}$ is now the world price of tradables. Of course, RER would now be obtained in more familiar fashion, as

$$ RER \quad ER\left[\frac{P_{J,t}}{P_{N,d}}\right] $$

If the country has sufficiently detailed national accounts, tradable and non-tradable price indexes are built as averages of sectoral prices on the basis of the adequate sectoral partitioning. Otherwise, import and export price indexes, which are regularly published, are used to construct the price of tradables, and the price of constructions and services, the wage level, or even the GDPD are used as proxies for the non-tradable price. When general price indexes are used in this context, one observes different choices for P_T and P_N.

Thus, from this perspective, it would be useful to take a closer look at the various candidates to use in constructing the price ratio is a RER.

i. Consumer price indexes : The most widely used index is constructed using both foreign and domestic Consumer Price Indexes. It has been argued that this indicator will provide a comprehensive measure of changes in competitiveness by including a broad group of goods. Another advantage of this index is that it is easy to find data for any periodicity (that is, annually, quarterly or monthly) on the CPI in almost every country. Therefore, this kind of RER index has historically been the most popular index in policy analysis.

CPIs used as a proxy for total unit costs attempt in fact to measure relative costs. In this case, it is implicitly assumed that consumer prices are relevant to the determination of wages and other factors of production, that is, that they have some effects on both unit labour costs and other unit costs. It is also implicitly assumed that no considerable time lags are involved in the adjustment of production costs to consumer prices. However, it is a meaningful proxy only for short-run changes in relative costs, it does not directly reflect profitability of the primary producing sectors and its coverage tends to be concentrated in the urban areas of the country.

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By definition, however, CPIs reflect patterns of consumer spending that may differ widely from one country to another. In addition, CPIs have also a drawback of including a large number of non-traded and imported goods so it is not so reasonable to use it as a proxy for $P_{t,d}$ or P_t (Edwards, 1988a). Unlike wholesale price indexes, CPIs are heavily influenced by trends in the prices of goods and services that are in the non-traded category. When using CPIs, one has to weigh these negative features against the advantages.

In sum, it is quite common to use CPIs as proxy for the price of non-tradables or for the domestic price index (but less common for $P_{t,d}$ or P_t). To list some empirical examples; Harberger (1986,1989), Ghura and Grennes (1993), Edwards (1988a, 1988b) used CPI for $P_{N,d}$ and P_d. Some other authors used CPI for both $P_{N,d}$ (P_d) and $P_{t,d}$ (P_t).

ii. Wholesale price indexes: The second candidate for an appropriate price index is the wholesale price index. Wholesale prices may reflect underlying price developments for potentially exportable goods. In principle it is preferable to use wholesale price indexes rather than consumer price indexes to deflate both home and foreign currency because wholesales prices are more representative of the prices of the internationally traded goods. It has often been used to approximate for P_t (or P_t in PPP version) because WPIs contain mainly tradable goods. Edwards (1988a, 1988b), Harberger (1986, 1989), Ghura and Grennes (1993) used WPIs in their studies.

However there are some criticisms about using WPIs. Because these indexes contain highly homogeneous tradable goods whose prices tend to be equated across countries when expressed in a common currency, the RER computed using WPIs will not vary enough to measure actual changes in competitiveness. In addition, international comparisons based on WPIs may be distorted by the use of different weights across countries (Edwards, 1988a).

It is argued that WPIs are often ruled out among other indexes on the argument that conceptually they are poorly defined, being neither consumer nor producer price indexes. The preference is most often given to GDPDs that have a clear methodological definition.

iii. GDP deflators: A real exchange rate index computed using gross domestic product deflators at home and abroad can be said to be a good indicator of changes in competitiveness in production because it is a genuine price index of aggregate production and is not subject to direct distortions stemming from price controls. However, main shortages of the deflators are being available only on a yearly basis for those countries who do not generate quarterly GDP series and having a large component of non-tradable goods (Edwards, 1988a).

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GDPDs may best be viewed as a composite indicator of the cost of all primary factors of production. GDPDs are computed as quotients of the current and constant estimates of value added. However, such estimates may not always be factor-cost based and thus may incorporate the effects of changes in indirect taxes and subsidies. Unlike the WPI, the GDPD refers only to domestically produced goods and services and is not expected to be affected by double counting. At the same time, however, the GDPD may not represent a final product price. For instance, GDPDs for the manufacturing sector generally exclude the cost of intermediate inputs from all the nonmanufacturing sectors. Thus, the GDPD may be a less comprehensive price indicator than is the WPI.

Harberger (1989) suggests that the deflating domestic price index should include non-tradables as well as tradables so the GDPD may be a good candidate for that.

iv. <u>Wage rate indexes</u>: Some authors, including the IMF staff, prefer to compute the RER as a ratio of unit labour costs (Edwards, 1988a). Namely this index is a direct measure of relative competitiveness across countries (Maciejewski, 1983). It is also argued that relative labour costs are more stable than relative goods prices. Nonetheless this index like the others is also not a perfect measure. First, an indicator based on wage rate behaviour will be highly sensitive to cyclical productivity changes. Second, it takes into account only one factor of production. Finally, the data on wages for developing countries are quite limited and of poor quality (Edwards, 1988a).

v. <u>Some components of the existing price indexes</u>: The above arguments are about general price indexes that have been used generally for the PPP definition of the real exchange rate. More recently many authors have tried to find good proxies for the relative price of tradables. Some argued for using some components of the existing price indexes. For example, it is suggested using the GDPD for services and government to construct a proxy for non-tradables and the deflators of the rest of the sectors to construct a proxy for tradables (Edwards, 1988a). Also, some price series of tradables and non-tradables have been constructed for a number of industrialised countries. Similarly, Harberger (1986) suggests that an index as a proxy for foreign price index, constructed from agricultural, mining and manufacturing components of the USA GNP deflator.

b. Aggregation: Obtaining Effective Rates: We mentioned two alternative ways of aggregating bilateral RER's in the Introduction and pointed out that there may be other ways of doing this. Most of these measures are applications of effective exchange rate formulas to

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RER's. The one given in (3) above is an example. An exception is the formula in (4) where the EER makes up a component of the REER.

In all the formulas given below the w_i or ω_i denote the weights, their definition, however, is not unique. We shall use the following four definitions:

$$w_{ix} = \frac{X_i}{\sum_{i=1}^{N} X_i} \, , \qquad \sum_{i=1}^{N} w_{ix} = 1 \qquad (6)$$

$$w_{im} = \frac{M_i}{\sum_{i=1}^{N} M_i} \, , \qquad \sum_{i=1}^{N} w_{im} = 1 \qquad (7)$$

$$w_{it} = \frac{M_i + X_i}{\sum_{i=1}^{N} (M_i + X_i)} \, , \qquad \sum_{i=1}^{N} w_{it} = 1 \qquad (8)$$

$$\omega_x = \frac{X}{X + M} \quad \text{and} \quad \omega_m = 1 - \omega_x = \frac{M}{X + M} \qquad (9)$$

where X_i = exports to ith trade partner, M_i = imports from ith trade partner, X = total exports of domestic country (is not equal to $\sum_{i=1}^{N} X_i$), M = total imports of domestic country (is not equal to $\sum_{i=1}^{N} M_i$). In forming the weights not all trading partners are considered. Only those, which constitute the major share in the trade of the domestic country, are chosen. Hence, $\sum_{i=1}^{N} X_i$ and $\sum_{i=1}^{N} M_i$ would not be equal to X and M respectively, since the latter covers all trading partners.

Now, in order to obtain effective (weighted) exchange rates, the following two approaches have been suggested:

$$EER = \sum_{i=1}^{N} w_i ER_i \qquad (10)$$

(see, e. g., Appleyard and Field, 1995) and

$$EER = \omega_x \left[\sum_{i=1}^{N} w_{ix} ER_i \right] + \omega_m \left[\sum_{i=1}^{N} w_{im} \frac{1}{ER_i} \right]^{-1} \qquad (11)$$

(see Rhomberg, 1976). A straightforward generalization of these to real exchange rates are

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possible if we first define

$$RER_i \quad ER_i \left| \frac{P_{fi}}{P_d} \right| \tag{12}$$

and then write, from (10)

$$REER \quad \sum_{i=1}^{N} w_i.RER_i \tag{13}$$

and from (11),

$$REER \quad \omega_x \left[\sum_{i=1}^{N} w_{ix}RER_i \right] + \omega_m \left[\sum_{i=1}^{N} w_{im} \frac{1}{RER_i} \right]^1 \tag{14}$$

Note that REER in (13) implies different measures depending upon which wi definition given in (6), (7) or (8) one uses. If w_{ix} and w_m are utilized we would then have export-weighted and import-weighted series while using w_{it} would yield a trade-weighted series. The REER in (14) is only a trade-weighted series but consists of a weighted average of export-weighted and import-weighted series.

The approach that makes the EER a component of the REER may be expressed as,

$$REER \quad EER \left[\frac{\sum_{i=1}^{N} \alpha_i P_{fi}}{P_d} \right] \tag{15}$$

The weights for the foreign price aggregate (α_i) are denoted differently from the ω_i or w_i as they may or may not be the same as these weights.

One may now obtain different measures from (15) by using the EER definitions given in (10) or (11). If the definition (10) is used, then it would be natural, but not necessary, to set $\alpha_i = w_i$. On the other hand, if the definition in (11) is used, we may express each α_i as,

$$\alpha_i \quad \omega_x w_{ix} + \omega_m w_{im} \tag{16}$$

[see Jin and McMillin (1993)]. In discussing the empirical results in Section 3, we shall refer to the (10)+(15) combination as equation (15a) and to the (11)+(15) combination as equation

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(15b).

It is customary to calculate real effective rates in index form. This may be done in either of two ways. One way is to choose a base year for the nominal exchange rates, the ER_i, denoting them by ER_{io} and then replace each ER_i in the equations given above by (ER_i/ER_{io}) and multiply the resultant figure by 100. The other approach would be to take average of the figures obtained from the formula above and divide each by this average and multiply by a 100. In the first case, we face the problem of choosing an appropriate base year and this is a task for which there is never a satisfactory solution. In the second case, such a problem does not exist but if the series are presented in this form one should not forget that they would need to be calculated anew as time passes and new data on exchange rates are generated.

Hence, for the Tables given in the Appendix, the real exchange rates were calculated both by using the ER_i and the (ER_i/ER_{io}) but, in analysing the results in Section 3, they were used in the second index form discussed above.

Some work in calculating REER's for Turkey has been undertaken, both by government agencies and by individual researchers. We shall consider two of these; the series calculated by the Central Bank and the one calculated by Togan (1993). There are also series calculated by the State Planning Organization and the State Institute of Statistics, and by Selcuk (1993, 1994) but they do not contain aspects which are methodically different from ours to be considered separately.

A trade weighted real effective exchange rate has regularly been calculated and published monthly by the Central Bank since 1970. It uses the buying prices of the USA dollar and the Deutsche Mark (DM) as bilateral nominal exchange rates and enters them in the calculations as $1/ER_i$. As price deflators, the average wholesale price of Turkey (60 percent of State Institute of Statistics and 40 percent Istanbul Chamber of Commerce after 1988), and the industrial product price indexes of the USA and Germany are used. The base year is taken to be 1981. The aggregation formula used is a special case of (15). The EER is calculated as,

$$ EER = 0.75 \left(\frac{1}{ER_i} \right) + 0.25 \left(\frac{1}{ER_{DM}} \right) \left(\frac{ER_{DM0}}{ER_{i0}} \right) \tag{17} $$

and the foreign price aggregate as,

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$$0.75\,P_{US} + 0.25\,P_{GR}\left(\frac{ER_{DM}}{ER_\$}\right)\left(\frac{ER_{\$,0}}{ER_{DM0}}\right) \tag{18}$$

The measure, which we shall denote by REERCB, then becomes

$$REERCB = EER\left[\frac{P_{TR}}{0.75\,P_{US} + 0.25\,P_{GR}\left(\frac{ER_{DM}}{ER_\$}\right)\left(\frac{ER_{\$,0}}{ER_{DM0}}\right)}\right] \tag{19}$$

The weights are not based on the trade shares of these two countries and, thus, are somewhat arbitrary. Also, due to the way the ER's are entered into the formula, an increase (decrease) in REERCB implies a real appreciation (depreciation) in Turkey's real exchange rate.

Togan (1993) has also done some extensive REER calculations. His index is annual and covers the period 1961-1990. His aggregation formula is also (15) and he also uses the EER in (17), but now the ER's enter in the usual way to yield.

$$EER = 0.75\,ER_\$ + 0.25\,ER_{DM}\left(\frac{ER_{\$,0}}{ER_{DM,0}}\right) \tag{20}$$

His foreign price aggregate is, however, different. He also uses two prices; P_{OECD} = OECD countries GDPD and P_{ISL} = GDPD for the Middle Eastern Countries and combines them by using the share of Islamic Countries in Turkey's total exports (α) and $1-\alpha$ as weights:

$$(1 - \alpha)P_{OECD} + \alpha\,P_{ISL} \tag{21}$$

His REER, which we shall denote by REERT, then becomes,

$$REERT = EER\left[\frac{(1 - \alpha)P_{OECD} + \alpha\,P_{ISL}}{P_{TR}}\right]100 \tag{22}$$

3. Empirical Results.

a. The Data: One of the aims of this study was to be able to calculate series from the beginning of the post Republican era (that is, from 1923 to 1995). In fact, the reason for concentrating on annual series also had this objective in mind. But various problems

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concerning data availability, both domestically and for foreign countries led us to limit the coverage of our calculations. Hence, the longest series we were able to calculate start in 1949.

There are three kinds of data sets used in the calculation of the effective exchange rate series. They are Turkey's exports to, imports from and total trade with the major trading countries. The last one is calculated by adding the volume of exports and imports. The data related to Turkey's international trade are obtained from the State Institute of Statistics (SIS). We have data problems especially in the war years and in some other years for some countries. However, all data are available for the five major trading countries except the volume of import data in 1945 for Germany. This is one of the reasons to limit the time period of the study.

Turning to exchange rate data, the end of period selling and buying rates were available from the Central Bank from 1950 to 1995. From these rates, their arithmetic means were calculated which is also very similar to *ae* line in the IFS. The *rf* line in the IFS representing the period averages of market exchange rates and official exchange rates for countries quoting rates in units of national currencies per the US dollar is available from 1936 to the present.

On the other hand, in the calculation of the real exchange rate series, price indexes are required. For our country, the WPI, CPI and GDPD can be obtained from the SIS. These data bases start from 1938. Additionally, the export and import price indexes are calculated both by the CB and SIS even though they are available just for the period 1970-1995. Therefore it is impossible to construct real exchange rate series by using these indexes before 1970. The price indexes for the foreign countries were taken from the International Finance Statistics Yearbooks published by the International Monetary Fund during the period 1936-1995.

Here it should be noticed that even though we can obtain exchange rate and price deflator series from the IFS yearbooks for the period 1936-1995, we will exclude the period of 1936-1949 in our calculations due to data inconsistency and insufficiency. So our starting year will be 1949 in order to cover as long a period as possible although we have also some problems between the years 1949-1995.

We mentioned above that we also calculated the index form of the series with respect to a base year. For this purpose 1987 was chosen as the base year since all indicators suggested that it was a stable year as far as international trade flows were concerned. The rate of change in export and imports are 36.7% and 27.5% respectively. The ratio of exports to

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imports is 72%. The foreign trade deficit is approximately 3968 million US $. The current account balance is rather low compared to other years. Finally, price movements are rather stable for the year 1987.

In deciding which countries to include as trading partners when calculating the weights used in obtaining the REER's, we considered their shares in Turkey's overall trade for the period in question. This information is given in Table 1. We note that the first ten countries in that table amount for 65.70% of Turkey's trade. However, when we take into account the objective of constructing as long and complete series as possible, we find that Italy needs to be removed from the first five and be replaced by the Netherlands. If we consider expanding the number of countries, then we note, with the same objective in mind that this set may be increased by four countries to make N = 9 and these four are Japan, Austria, Spain and Greece. We attempted a final expansion by increasing N to 14 and added Italy, Switzerland, Iran, Saudi Arabia and Egypt. Thus the countries designated to be the first five (Germany, USA, UK, France and Netherlands) amount for 46.95% of Turkey's trade while adding the four countries to raise N to 9 increases this share to 52.47% and raising N to 14 raises this share to 68.62%.

Finally, some notation needs to be introduced before we embark on the analysis of the results. We shall denote bilateral RER's by BRER and the effective rates by REER. These series will further be distinguished by price indexes used in their calculations. Thus, we will have

$BRER_1$ and $REER_1$: WPI's used for *both* Turkey and foreign trading partner(s).
$BRER_2$ and $REER_2$: CPI's used for *both* Turkey and foreign trading partner(s).
$BRER_3$ and $REER_3$: GDPD's used for *both* Turkey and foreign trading partner(s).
$BRER_4$ and $REER_4$: WPI's used for Turkey and CPI's for foreign partner(s).
$BRER_5$ and $REER_5$: CPI's used for Turkey and WPI's for foreign partner(s).
$BRER_6$ and $REER_6$: GDPD's used for Turkey and WPI's for foreign partner(s).

b. Empirical Results: As we stated in the Introduction, this study is one of measurement. Thus the primary focus of the empirical results will be on the relative performance of the various measures of the real effective exchange rate (REER). These measures may be classified according to (a) whether end-of-year (*ae*) or annual averages (*rf*) of the nominal exchange rates have been used, (b) the number of trading partners used in calculating the weights (c) which price indexes have been utilized (d) the formula on which

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the calculations are based. All results reflecting these classifications are given in a series of tables in the Appendix. We shall, however, base our analysis on selected plots of these results.

Let us consider the classification in (a) first. The differences between the *ae* and *rf* versions of an REER as calculated by any equation and using any price index combination is very similar. Hence, by way of illustration, we provide, in Figure 1(a) the plots of the *ae* and *rf* based REERs using equation (13) with the WPI used as the price index used for both foreign and domestic prices, and in Figure 1(b) their annual percentage changes. We immediately note two points: (a) The *ae* plots reflect the major devaluations in 1958, 1970, 1980 and 1994 on the dates they had taken place while the *rf* plots show the full force of these devaluations a year later. (b) With the termination of the fixed exchange rate period in 1980 we note that *ae* figures are consistently larger than the *rf* figures and that percentage changes are sharper and overstated. Of course, the reason for both observations is the fact that the *rf* values represent a smoothed value of the exchange rates for each year and thus provide us with more conservative measures of real appreciations and depreciations. Hence, in what follows, we shall use the *rf* results only and, by doing so, we shall also be able to compare our results with those of the Turkish Central Bank and Togan.

Turning to the results according to classification (b), we note that we have three sets of results depending on whether the number of trading partners $N = 5$, 9 or 14. The most complete results for the period under consideration (1949-1995) are obtained for $N = 5$ and the least complete for $N = 14$. In fact the longest series for $N = 14$ are obtained for the 1963-1995 period and only when the CPI is used. Thus, in order to asses the extent to which the various measures calculated using the four equations in question are sensitive to the number of countries, we used the REER's based on using the CPI for both foreign and domestic prices. However, we first transformed the series in question into index form by dividing each by its arithmetic average and then multiplying by a 100. We thereby eliminated the effect of a given base year, 1987 in the present case, which works through the price indexes.

The plots in question are given in Figures 2(a) to 2(d). We first note that the information provided by the measures obtained from equations (13) and (15a) for all N (Figures 2(a) and (c) respectively) the same for the fixed exchange rate period and reflect the fact that REER appreciates after major devaluations due to the disparity in the rates of

inflation between Turkey and its trading partners.

After 1980 we find that the REER's for N = 5 and 9 follow quite similar paths while the REER for N = 14 shows an appreciation in 1983 before continuing on its path of depreciation. After 1988, when the exchange rate is further liberalized, we find that there is not much to distinguish between the series with respect to the size of N.

The same can not be said, however, for the results obtained from equations (14) and (15b) [Figures 2(b) and (d), respectively]. These equations appear to be sensitive to changes in N, in particular, when N goes from 5 to 9. This is the case for both the pre and post fixed exchange rate periods. In the pre-1980 period we note that the behaviour of the REER's for N=9 and 14 are much more volatile, particularly for the 1973-1980 subperiod. This difference in the behaviour of the three series appears to continue until 1988 after which it is considerably reduced.

In discussing the results for the remaining two classifications we shall only consider the REER's based on N = 5. We *first* consider the classification in (c) based on the price indexes utilized. We shall denote the real effective exchange rate measures obtained by using the *same* price indexes for both foreign and domestic prices by $REER_1$ (WPI), $REER_2$ (CPI) and $REER_3$ (GDPD). These represent the PPP based measures and their plots for all four equations are given in Figure 3, while Figure 4 contains the plots of their annual percentage changes. What we note, in particular from Figure 4, is that GDPD-based series overstate the depreciations and appreciations in the real exchange rate while the evidence provided by the CPI-based series are milder. The WPI-based results appear to be the least volatile. Again the pattern given by equations (13) and (15a) [Figures 4(a) and (c)] and equations (14) and (15b) [Figures 4(b) and (d)] are similar.

Turning to the measures based on *different* indexes being used for foreign and domestic prices, we consider essentially two cases. The measure we denote by $REER_4$ uses the CPI to measure the foreign price index and the WPI to measure the domestic price and aims to measure the competitiveness of Turkish tradables vis-a-vis foreign non-tradables [see Ozturk (1993)]. The measures we denote by $REER_5$ and $REER_6$ use the WPI to represent foreign prices and the CPI and GDPD, respectively, to represent domestic prices. The objective here is to assess the competitiveness of Turkish non-tradables vis à vis foreign tradables. Their plots in levels are given in Figure 5 and in rates of change in Figure 6.

The evidence from Figure 6, in particular, points to the fact that $REER_4$ may reflect

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a depreciation while neither $REER_5$ or $REER_6$ do. This may be noted during the 1975-1976 and 1986-1987 periods. In other words, during these periods we may state that the competitiveness of Turkish tradables have increased vis-à-vis foreign non-tradables while the competitiveness of Turkish non-tradables have reduced vis-à-vis foreign tradables. In all other cases, however the competitiveness of Turkish tradables and non-tradables appear to move in the same direction. It is also interesting to note that $REER_5$ and $REER_6$ may indicate conflicting results. For example, in Figures 6(a), (b) and (c), while $REER_6$ indicates a depreciation in 1991-1992, $REER_5$ does not.

From our discussion so far, there are sufficient points regarding the evidence from the final classification regarding the use of different equations to reach some calculations: (a) Equations (13) and (15a), and (14) and (15b) give very similar results. This is not very surprising as each pair uses the same weighting scheme. (b) The results from the first pair of equations are not sensitive to changes in N while the second pair is.

In addition to these two points, it would be instructive to check if these equations give conflicting results regarding the appreciation or depreciation of the real exchange rate. For this purpose, we plotted the percentage changes in each REER measure obtained from only equations (13) and (14) on the same graph. These are presented in Figure 7. We first note that there is no consistent disparity between the results given by each equation. When there are conflicts, they appear to occur mainly in the pre-1980 period [e.g. 1963-1964 and 1973] with equation (13) indicating appreciation while equation (14) indicates depreciation [e.g., Figure 7(a) for the period 1963-1964].

Having completed our discussion with respect to the four classifications given above, we need to deal with to additional questions: (a) How do our results compare with those of the Central Bank and of Togan? (b) How different are the results obtained from the REER's and the bilateral real exchange rates (BRER)?

With respect to question (a), we first note that the Central Bank measure, which we shall call REERCB, covers the period 1970-1995, and is based on the WPI, while Togan's measure (REERT) covers the period 1961-1990 and is based on the GDPD. Both measures are variants of equation (15a) with REERCB using only US$ and DM exchange rates and combining them and their associated price indexes using arbitrary fixed weights, while REERT uses the same arbitrary weights to combine the same two exchange rates but use variable weights to obtain foreign prices, the components of which are aggregated price

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indexes for OECD and Islamic countries. Thus, in our comparisons, we plotted the annual percentage changes in REERCB together with $REER_t$ from equations (13) and (14), and the annual percentage changes in REERT together with $REER_t$'s again from the same two equations. The period in both plots is 1971-1990 to facilitate comparisons. These are given in Figures 8(a) and (b).

We first note that percentage changes in the REERT usually lie above those of the $REER_t$ and this, in certain instances, lead to conflicting results as in the 1975-1978 period where REERT indicates depreciation for the whole period while there are certainly subperiods of appreciation indicated by both our measures and by REERCB. Similarly, both our measures indicate an appreciation in 1985 while REERT does not. The reverse, however, is true for REERCB and our measures for the same period. In general, it is safe to say, however, that conflicting results are observed much less for the post-1980 than for the pre-1980 periods.

Finally, turning to question (b), we sought to provide answers within the context of a representative case. Similar analysis can be made for other cases; the necessary information are in Tables in the Appendix. Hence, we only consider $REER_t$ as calculated by (13) and (14) and compared their annual percentage changes with those of the $BRER_t$'s for the USA and Germany. These are given in Figure 9(a) to 9(d). We note that the $BRER_t$ for the USA shows the least amount discrepancy with $REER_t$ obtained from equation (13). There is only one period in which there is a conflict and that is the 1986-1989 period where $BRER_t$ implies an appreciation while $REER_t$ does not. The relationship between $REER_t$ based on equation (14) and the US $BRER_t$ is much less smooth and, in addition to the 1986-1989 period, there are conflicts in 1963 and 1975-1976.

The behaviour of the Germany $BRER_t$ is even less smooth, particularly in the post-1980 period but we no longer have the conflict for the 1986-89 period we mentioned above. This is replaced by an overstatement of the depreciation in that period by the Germany $BRER_t$. This overstatement occurs in other instances and, in fact, causes a conflict in 1981.

We may conclude, in general, that as a REER is compared with BRER's which enter its composition with less weight, the more will there be discrepancies between their results. This is borne out by comparisons carried out for the UK, France and Netherlands but not reported herein.

4. Conclusions

This study has focused on the measurement of the real exchange rate. This endeavour involved both bilateral and aggregated (or effective) real exchange rates. There were aspects of these measurements which were common to both bilateral and aggregate rates. These aspects were the choice between *ae* and *rf* exchange rates and the choice of which price indexes to use. Then there were the aspects particular to the aggregate rates; namely, the number of trading partners to use in calculating the weights used in obtaining the aggregated series.

The choice of price indexes led to the calculation of six series for both *ae* and *rf* exchange rates, and this set of twelve series were repeated for the fourteen bilateral series, for the four equations used in aggregation and for the three choices of N. This constituted a great deal of evidence on the real exchange rates. Our analysis of this evidence led us to the following conclusions:

1. In comparing the *ae* based results with the *rf* based ones, we found that even though *ae*-series reflected the actual dates of major devaluations more accurately, the *rf*-series gave us a more conservative picture of real exchange rate behaviour which may be preferable in practice by providing us with a better safety margin against possible errors. Thus, the remaining conclusions are based on the *rf* series.

2. Our conclusions on the choice of price indexes depend upon whether the *same* (the PPP approach) or *different* (the tradables-non-tradables approach) has been utilized. We found that, in the first case, the GDPD-based series appeared to overstate the depreciations and appreciations in the real exchange rate while the WPI-based results were the least volatile. In the second case, we found that all three series indicated changes in the competitiveness of Turkish tradables and non-tradables to be in the same direction but that there may be periods of conflict.

3. With regard to the choice of N, we found that the equation pairs (13)+(15a) were not sensitive to increase in the number of trading partners while the (14)+(15b) pair was. This sensitivity was observed when going from N = 5 to N = 9 but not when we change N from 9 to 14.

4. Finally, regarding the choice of aggregating formula to use, we found that equations (13) and (15a) formed a pair in the similarity of their results while equations (14) and (15b)

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formed another pair. Thus, the choice between each equation in a given pair would be the assessment of the investigator as to which is easier to compute. When the results from equation (13) and (14) were compared, no consistent disparity between their results were obtained, and conflicts were observed in very few cases.

We also compared the bilateral and effective rates for selected series, and found that the amount of discrepancies increase as the weight of the component BRER decreases, implying that if an aggregated series is not available to reflect the behaviour of the real exchange rate for the country as a whole, or, in other words, if such a series is not available to assess a country's competitiveness in world trade, then the nearest proxy may be the BRER of the trading partner with the highest trade share.

In concluding, we would like to point out that probably the best way to assess the performance of these series is to use them in econometric models of imports and exports (a la Marquez (1992)) but this lies beyond the scope of this study but may well be the subject of another research.

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Table 1. Major trading partner countries' trade shares in Turkey's total trade
(1949-95 Averages)

		Volume of trade share in Turkey's total volume of trade W_{it}			Export share in Turkey's total export W_{ix}		Import share in Turkey's total import W_{im}	
Order	Country	Related country group	%	Country	%	Country	%
1	Germany	OECD, EU	17.41	Germany	19.05	Germany	16.45
2	USA	OECD	14.10	USA	11.93	USA	15.55
3	UK	OECD, EU	7.79	Italy	7.41	UK	8.47
4	Italy	OECD, EU	7.24	UK	6.73	Italy	7.16
5	France	OECD, EU	5.12	France	5.27	France	4.98
Total of five			**51.66**		**50.40**		**52.61**
6	Switzerland	OECD, EFTA	3.33	Switzerland	3.93	Switzerland	2.95
7	Russia	BSEC, NIS	3.02	Russia	3.22	Russia	2.85
8	Iran	OIC, ECO	2.83	Iran	2.85	Iran	2.78
9	Netherlands	OECD, EU	2.53	Netherlands	2.60	Japan	2.76
10	BeLux	OECD, EU	2.33	Iraq	2.57	Saudi Arabia	2.57
Total of ten			**65.70**		**65.56**		**66.53**
11	Japan	OECD	2.22	BeLux	2.54	Netherlands	2.52
12	Saudi Arabia	OIC	2.18	Austria	1.65	BeLux	2.22
13	Austria	OECD, EFTA	1.58	Saudi Arabia	1.55	Czech Republic	1.71
14	Spain	OECD, EU	1.08	Poland	1.39	Austria	1.53
15	Romania	BSEC	1.03	Japan	1.26	Sweden	1.35
16	Greece	OECD, EU, BSEC	0.64	Spain	1.20	Romania	1.13
17	Syria	OIC	0.59	Syria	1.19	Spain	1.00
18	Bulgaria	BSEC	0.58	Libya	1.16	Brazil	0.74
19	Egypt	OIC	0.57	Greece	1.12	Bulgaria	0.60
20	China		0.46	Egypt	1.07	South Korea	0.47
21	Others		23.36	Romania	0.87	Greece	0.30
22				China	0.65	China	0.28
23				Bulgaria	0.54	Egypt	0.23
24				Others	18.26	Syria	0.21
25						Others	19.17
General Total			**100.00**		**100.00**		**100.00**

Note: If the data are not available in any year, that year was not included in the calculation of 1949-95 averages.

Abbreviations

OECD Organization for Economic Co-operation and Development
EU European Union
BSEC Organization of Blacksea Economic Co-operation
EFTA European Free Trade Association
ECO Organization for Economic Co-operation
NIS New Independent States
OIC Organization of Islamic Conference
BeLux Belgium and Luxembourg

Figure 1. REER using (ae) and (rf) based on equation (13) and the WPI and
its percentage annual change, t=1953-95

(a)

Logarithmic first differences

(b)

Figure 2. REER indexes based on all four equations and the CPI for N=5, 9
and 14, t=1963-1995 [Average=100]

(a)

Formula (13)

For 5 countries · · · · · · For 9 countries — · — For 14 countries

Figure 2. REER indexes based on all four equations and the CPI for N=5, 9
and 14, t=1963-1995 [Average=100] (continued)

(b)

Formula (14)

For 5 countries · · · · · · For 9 countries — · — For 14 countries

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Figure 2. REER indices based on all four equations and the CPI for N=5, 9 and 14, t=1963-1995 [Average=100] (continued)

(c)

Formula (15a)

Sources: Table 28 & 29 & 30

For 5 countries ····· For 9 countries ─ ─ ─ For 14 countries

Figure 2. REER indices based on all four equations and the CPI for N=5, 9 and 14, t=1963-1995 [Average=100] (continued)

(d)

Formula (15b)

Sources: Table 31 & 32 & 33

For 5 countries ····· For 9 countries ─ ─ ─ For 14 countries
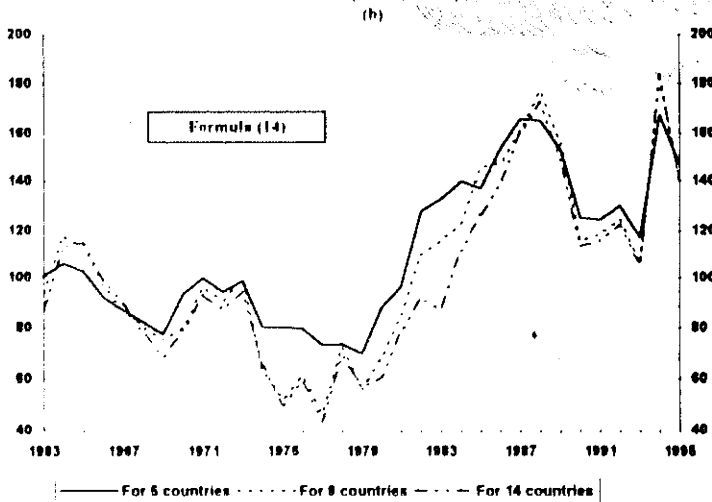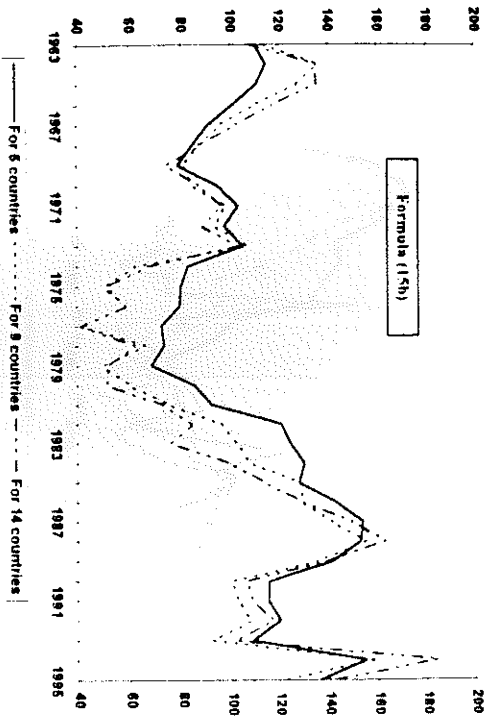
Figure 3 REER, REER, and REER, indices for N=5 and obtained from all four equations, t=1963-1995 [Average=100]
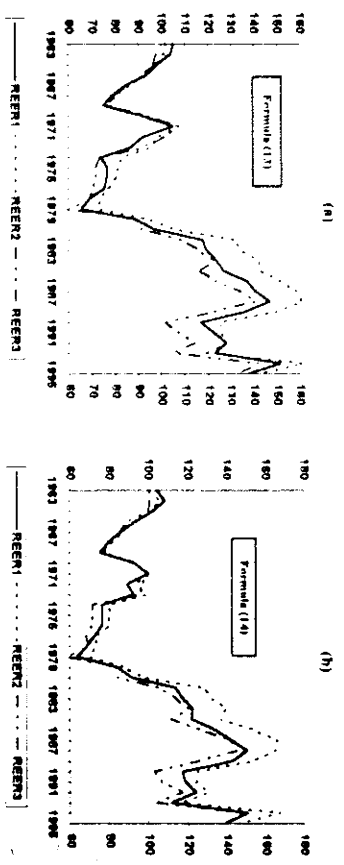
(a)

Formula (13)

Source: Table 22

REER1 ····· REER2 ─ ─ ─ REER3

(b)

Formula (14)

Source: Table 26

REER1 ····· REER2 ─ ─ ─ REER3

(c)

Formula (15a)

Source: Table 28

REER1 ····· REER2 ─ ─ ─ REER3

(d)

Formula (15b)
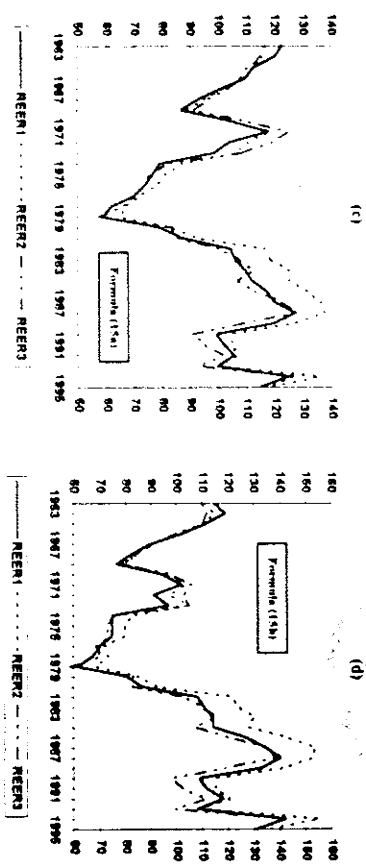
Source: Table 31

REER1 ····· REER2 ─ ─ ─ REER3

Figure 4. Annual pecentage changes in REER₁, REER₂ and REER₃ for N=5, t=1965-1995
[Logarithmic first differences]]

(a)

Formula (13)

Source: Table 22

(b)

Formula (14)

Source: Table 26

(c)

Formula (15a)

Source: Table 28

(d)

Formula (15b)

Source: Table 31

26
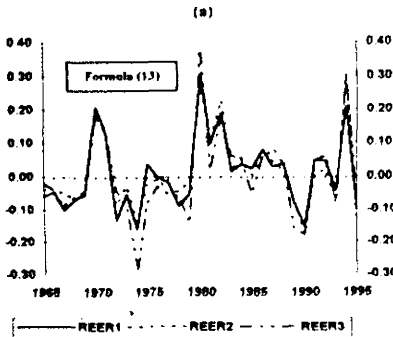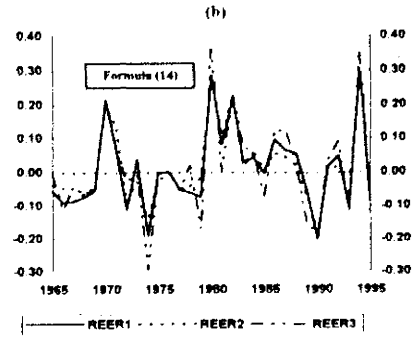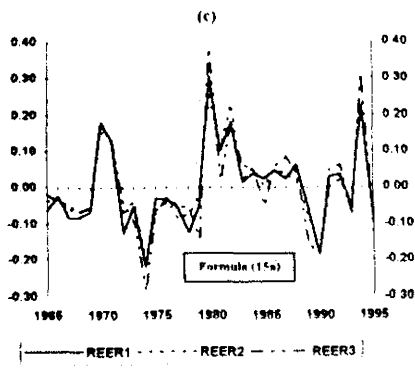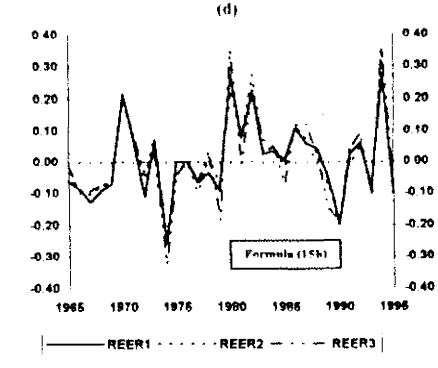
Figure 5. REER$_4$, REER$_5$ and REER$_6$ indexes for N=5 and obtained from all four equations,
t=1953-1995 [Average=100]
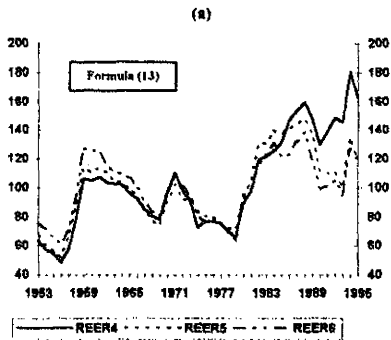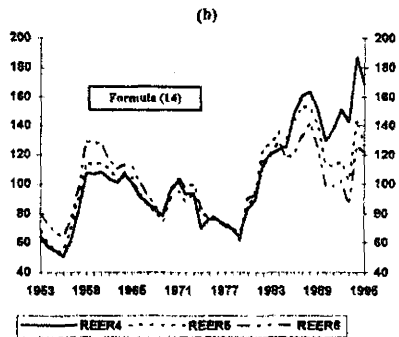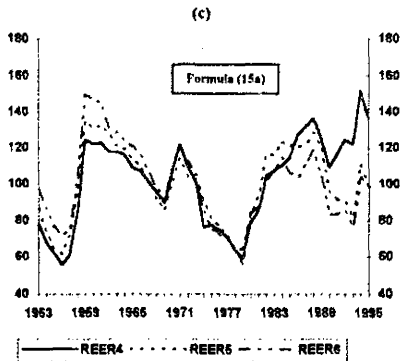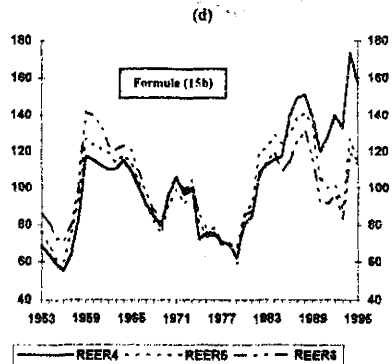
(a)

Formula (13)

REER4 · · · · · REER5 — · — REER6

Source: Table 22

(b)

Formula (14)

REER4 · · · · · REER5 — · · — REER6

Source: Table 25

(c)

Formula (15a)

REER4 · · · · · REER5 — · — REER6

Source: Table 28

(d)

Formula (15b)

REER4 · · · · · REER5 — · · — REER6

Source: Table 31

27

Figure 6. Annual pecentage changes in REER₄, REER₅ and REER₆ for N=5, t=1955-1995 [Logarithmic first differences)]

28
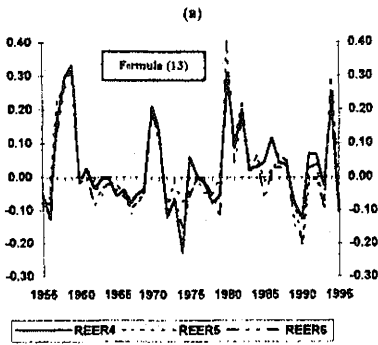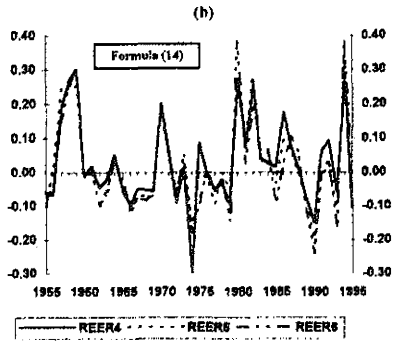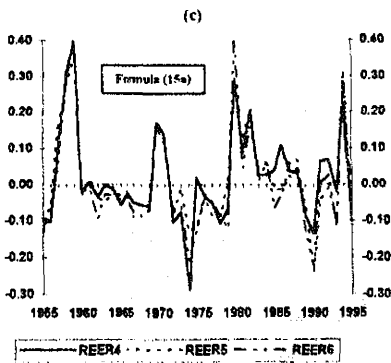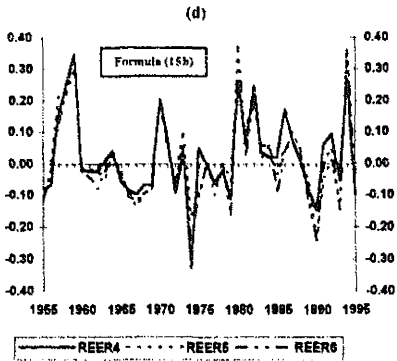
Figure 7. Annual percentage changes in REER₁ - REER₆ for N=5, t=1953-1995
[Logarithmic first differences]

29
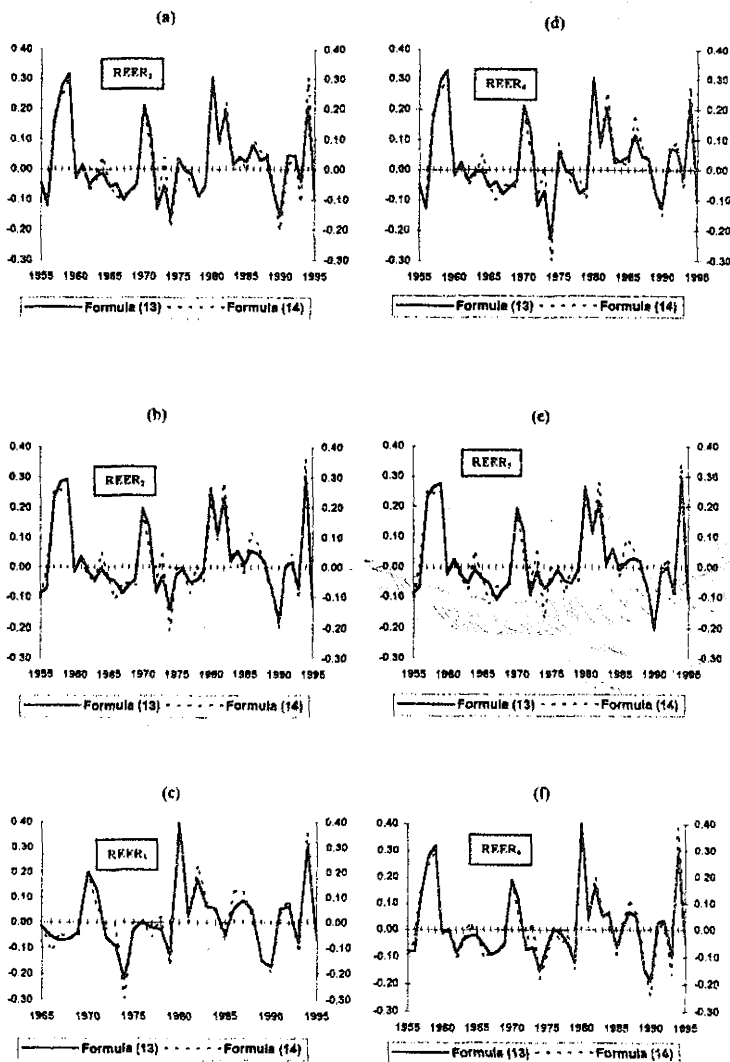
Figure 8. Annual percentage changes in REERCB vs. REER₁ from equations
(13) and (14), and annual percentage changes in REERT vs. REER₃ from
equations (13) and (14), t=1971-1990 [Logarithmic first differences]
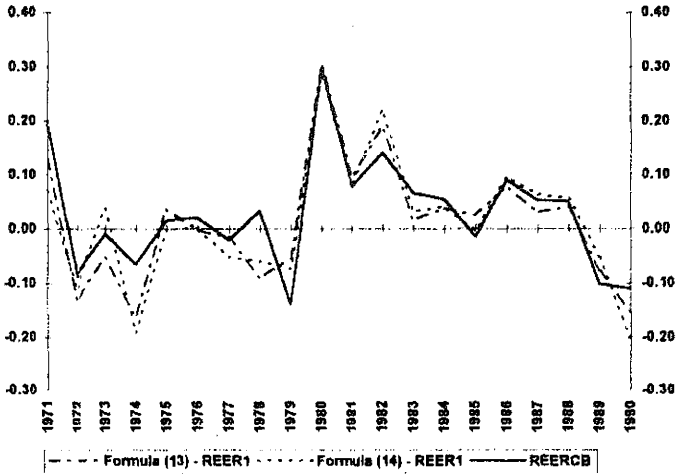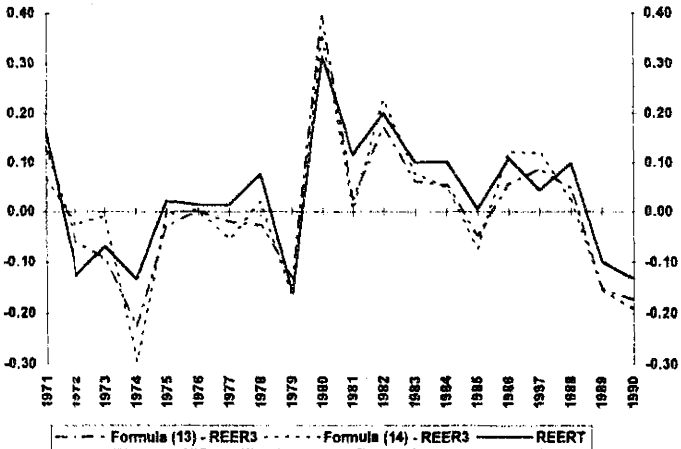
(a)

(b)

30

Figure 9. Annual percentage changes in BRER₁'s for the US and Germany vs.
REER₁ from equations (13) and (14) for N=5, t=1953-1995
[Logarithmic first differences]
(a)
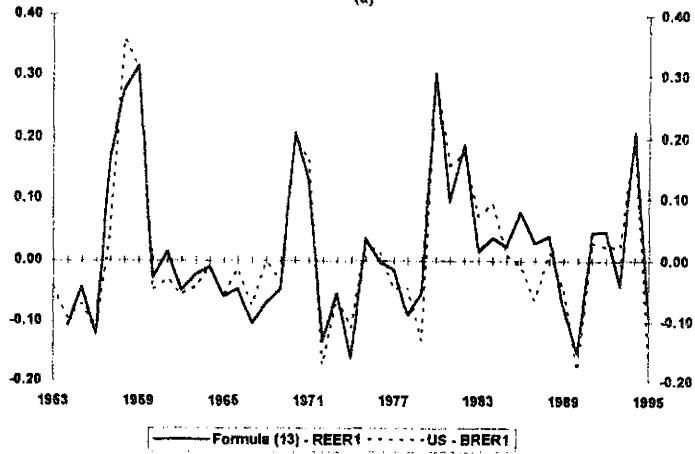
Sources: Table 7 & 22

Figure 9. Annual percentage changes in BRER₁'s for the US and Germany vs.
REER₁ from equations (13) and (14) for N=5, t=1953-1995
[Logarithmic first differences] (continued)
(h)

Source: Table 7 & 25

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APPENDIX

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Table 2. Exchange Rates Reported by the IMF

TL/Foreign currency

Year	USA Dollar ($) ae[1]	rf[2]	Deutsche Mark (DM) ae[1]	rf[2]	Pound Sterling (£) ae[1]	rf[2]	Italian Lira (IL) ae[1]	rf[2]	French Franc (FF) ae[1]	rf[2]
1949	2.80	2.80	0.67	0.67	7.84	10.32	0.0045	0.0049	0.80	0.84
1950	2.80	2.80	0.67	0.67	7.84	7.84	0.0045	0.0045	0.80	0.80
1951	2.80	2.80	0.67	0.67	7.79	7.84	0.0045	0.0045	0.80	0.80
1952	2.80	2.80	0.67	0.67	7.87	7.82	0.0045	0.0045	0.80	0.80
1953	2.80	2.80	0.67	0.67	7.87	7.88	0.0045	0.0045	0.80	0.80
1954	2.80	2.80	0.67	0.67	7.80	7.86	0.0045	0.0045	0.80	0.80
1955	2.80	2.80	0.66	0.67	7.85	7.82	0.0045	0.0045	0.80	0.80
1956	2.80	2.80	0.67	0.67	7.80	7.83	0.0045	0.0045	0.80	0.80
1957	3.40	3.40	0.81	0.81	9.72	9.50	0.0054	0.0054	0.81	0.94
1958	9.00	5.50	2.15	1.31	25.22	15.45	0.0144	0.0088	1.82	1.29
1959	9.00	9.00	2.16	2.15	25.20	25.28	0.0145	0.0145	1.82	1.82
1960	9.00	9.00	2.16	2.16	25.23	25.27	0.0145	0.0145	1.82	1.84
1961	9.00	9.00	2.25	2.24	25.27	25.22	0.0145	0.0145	1.82	1.83
1962	9.00	9.00	2.25	2.25	25.22	25.27	0.0145	0.0145	1.82	1.84
1963	9.00	9.00	2.26	2.26	25.17	25.20	0.0145	0.0145	1.82	1.84
1964	9.00	9.00	2.26	2.26	25.11	25.13	0.0144	0.0144	1.82	1.84
1965	9.00	9.00	2.25	2.25	25.23	25.17	0.0144	0.0144	1.82	1.84
1966	9.00	9.00	2.26	2.25	25.11	25.14	0.0144	0.0144	1.82	1.83
1967	9.00	9.00	2.25	2.26	21.66	24.68	0.0144	0.0144	1.82	1.83
1968	9.00	9.00	2.25	2.25	21.46	21.54	0.0144	0.0144	1.82	1.82
1969	9.00	9.00	2.44	2.29	21.61	21.51	0.0144	0.0143	1.62	1.73
1970	14.90	11.30	4.08	3.10	35.67	27.07	0.0239	0.0180	2.68	2.04
1971	14.20	14.90	4.34	4.26	36.25	36.41	0.0239	0.0241	2.78	2.70
1972	14.20	14.20	4.44	4.45	33.34	35.47	0.0244	0.0243	2.78	2.81
1973	14.20	14.20	5.25	5.31	32.99	34.79	0.0234	0.0244	3.02	3.19
1974	14.00	13.90	5.81	5.37	32.88	32.50	0.0216	0.0214	3.15	2.89
1975	15.20	14.40	5.80	5.85	30.76	31.86	0.0222	0.0221	3.39	3.36
1976	16.70	16.10	7.07	6.39	28.43	28.93	0.0191	0.0193	3.36	3.35
1977	19.40	18.00	9.22	7.75	36.98	31.40	0.0223	0.0204	4.12	3.67
1978	25.30	24.30	13.84	12.10	51.47	46.60	0.0305	0.0286	6.05	5.38
1979	35.40	31.10	20.44	16.97	78.73	65.86	0.0440	0.0374	8.81	7.31
1980	90.10	76.00	45.99	41.81	214.89	176.62	0.0968	0.0887	19.95	17.99
1981	133.60	111.20	59.25	49.20	254.91	223.45	0.1113	0.0978	23.24	20.46
1982	186.80	162.60	78.60	67.01	301.59	284.04	0.1364	0.1202	27.78	24.74
1983	282.80	225.50	103.83	88.32	410.23	341.81	0.1704	0.1485	33.88	29.59
1984	444.70	366.70	141.26	128.85	514.30	487.76	0.2297	0.2087	46.36	41.96
1985	576.90	522.00	234.39	177.31	833.33	669.88	0.3437	0.2734	76.30	58.10
1986	757.80	674.50	390.46	310.61	1 117.38	988.72	0.5580	0.4524	117.40	97.39
1987	1 020.90	857.20	645.53	476.91	1 910.61	1 400.82	0.8731	0.6614	191.18	142.61
1988	1 814.80	1 422.30	1 019.38	809.87	3 283.88	2 530.02	1.3898	1.0927	299.52	238.77
1989	2 313.70	2 121.70	1 362.76	1 128.56	3 714.64	3 471.52	1.8211	1.5463	399.74	332.55
1990	2 930.10	2 608.60	1 961.24	1 614.53	5 649.23	4 631.94	2.5927	2.1773	571.28	479.06
1991	5 079.90	4 171.80	3 350.86	2 513.89	9 502.97	7 357.48	4.4132	3.3627	980.68	739.41
1992	8 564.40	6 872.40	5 306.32	4 400.59	12 949.37	12 061.62	5.8227	5.5764	1 555.33	1 298.20
1993	14 472.50	10 984.60	8 383.54	6 644.05	21 436.68	16 474.67	8.4934	6.9802	2 454.84	1 939.65
1994	38 726.00	29 608.70	25 003.87	18 245.44	60 509.38	45 312.94	23.7621	18.3626	7 243.92	5 332.98
1995	59 650.00	45 845.10	41 611.44	31 990.16	92 457.54	72 348.77	37.6407	28.1443	12 173.47	9 184.63

Source: International Monetary Fund (IMF), International Financial Statistics (IFS), Various issues.

[1] series ae refers to end of period of market exchange rates and official exchange rates.

[2] series rf refers to period averages of market exchange rates and official exchange rates.

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Table 2. Exchange Rates Reported by the IMF (continued)

TL/Foreign currency

Year	Swiss Frank		Netherlands Guilder		Austrian Schilling		Japanese Yen	
	ae[1]	rf[2]	ae[1]	rf[2]	ae[1]	rf[2]	ae[1]	rf[2]
1949	0.65	0.65	0.74	0.97	0.19	0.25	0.0078	0.0089
1950	0.65	0.65	0.74	0.74	0.13	0.14	0.0078	0.0078
1951	0.64	0.65	0.74	0.74	0.13	0.13	0.0078	0.0078
1952	0.65	0.65	0.74	0.74	0.13	0.13	0.0078	0.0078
1953	0.65	0.65	0.74	0.74	0.11	0.11	0.0078	0.0078
1954	0.65	0.65	0.74	0.74	0.11	0.11	0.0078	0.0078
1955	0.65	0.65	0.73	0.73	0.11	0.11	0.0078	0.0078
1956	0.65	0.65	0.73	0.73	0.11	0.11	0.0078	0.0078
1957	0.79	0.79	0.90	0.89	0.13	0.13	0.0095	0.0094
1958	2.09	1.28	2.38	1.45	0.35	0.21	0.0250	0.0153
1959	2.08	2.08	2.39	2.38	0.35	0.35	0.0251	0.0250
1960	2.09	2.08	2.39	2.39	0.35	0.35	0.0251	0.0250
1961	2.09	2.08	2.50	2.48	0.35	0.35	0.0249	0.0249
1962	2.08	2.08	2.50	2.50	0.35	0.35	0.0251	0.0249
1963	2.09	2.08	2.50	2.50	0.35	0.35	0.0249	0.0249
1964	2.09	2.08	2.51	2.50	0.35	0.35	0.0251	0.0249
1965	2.08	2.08	2.49	2.50	0.35	0.35	0.0249	0.0249
1966	2.08	2.08	2.49	2.49	0.35	0.35	0.0248	0.0248
1967	2.08	2.08	2.50	2.50	0.35	0.35	0.0249	0.0249
1968	2.09	2.09	2.50	2.49	0.35	0.35	0.0252	0.0250
1969	2.08	2.09	2.48	2.48	0.35	0.35	0.0252	0.0251
1970	3.45	2.62	4.14	3.12	0.58	0.44	0.0417	0.0316
1971	3.63	3.62	4.36	4.25	0.60	0.60	0.0451	0.0427
1972	3.76	3.72	4.40	4.42	0.61	0.61	0.0470	0.0468
1973	4.38	4.49	5.03	5.08	0.72	0.73	0.0507	0.0523
1974	5.51	4.67	5.59	5.17	0.82	0.74	0.0465	0.0476
1975	5.80	5.58	5.65	5.69	0.82	0.83	0.0498	0.0485
1976	6.82	6.44	6.80	6.09	1.00	0.90	0.0570	0.0543
1977	9.70	7.49	8.51	7.33	1.28	1.09	0.0808	0.0670
1978	15.62	13.59	12.85	11.23	1.89	1.67	0.1300	0.1155
1979	22.41	18.70	18.58	15.50	2.85	2.33	0.1477	0.1419
1980	51.09	45.35	42.31	38.23	6.52	5.87	0.4438	0.3352
1981	74.28	56.61	54.12	44.57	8.41	6.98	0.6075	0.5042
1982	93.66	80.09	71.18	60.89	11.19	9.53	0.7949	0.6528
1983	129.75	107.43	92.28	79.01	14.62	12.55	1.2179	0.9494
1984	172.03	156.06	125.29	114.28	20.17	18.33	1.7710	1.5439
1985	277.82	212.45	208.12	157.16	33.39	25.23	2.8773	2.1883
1986	466.77	374.95	345.71	275.31	55.27	44.18	4.7630	4.0025
1987	798.83	574.84	574.35	423.16	90.75	67.80	8.2664	5.9264
1988	1 206.65	971.98	907.63	719.57	144.43	115.18	14.4203	11.0987
1989	1 496.09	1 296.96	1 207.88	1 000.47	195.83	160.36	16.1290	15.3791
1990	2 261.75	1 877.77	1 733.79	1 432.59	274.43	229.43	21.8013	18.0164
1991	3 747.62	2 909.21	2 970.01	2 231.27	475.25	357.30	40.5743	30.9687
1992	5 882.14	4 887.23	4 721.02	3 908.10	754.31	625.39	68.6525	54.2629
1993	9 782.02	7 434.08	7 456.59	5 914.28	1 191.84	944.34	129.3920	98.7824
1994	29 528.02	21 648.53	22 319.17	16 268.52	3 490.40	2 592.25	388.2695	289.6850
1995	51 847.02	38 769.64	37 179.01	28 551.47	5 912.97	4 547.67	580.0836	487.4027

Source: International Monetary Fund (IMF), International Financial Statistics (IFS), Various Issues.

[1] series ae refers to end of period of market exchange rates and official exchange rates.

[2] series rf refers to period averages of market exchange rates and official exchange rates.

Table 2. Exchange Rates Reported by the IMF (continued)

TL/Foreign currency

Year	S. Arabian Riyal ae[1]	rf[2]	Iran Rials ae[1]	rf[2]	Egyptian Pound ae[1]	rf[2]	Drachmas ae[1]	rf[2]	Pesetas ae[1]	rf[2]
1949	-	-	0.09	0.09	8.04	8.04	0.56	0.56	0.07	0.07
1950	-	-	0.09	0.09	8.04	8.04	0.19	0.19	0.07	0.07
1951	-	-	0.09	0.09	8.04	8.04	0.19	0.19	0.07	0.07
1952	0.75	0.75	0.09	0.09	8.04	8.04	0.19	0.19	0.07	0.07
1953	0.75	0.75	0.09	0.09	8.04	8.04	0.09	0.11	0.07	0.07
1954	0.75	0.75	0.09	0.09	8.04	8.04	0.09	0.09	0.07	0.07
1955	0.75	0.75	0.04	0.04	8.04	8.04	0.09	0.09	0.07	0.07
1956	0.75	0.75	0.04	0.04	7.98	7.98	0.09	0.09	0.07	0.07
1957	0.91	0.91	0.04	0.04	9.69	9.69	0.11	0.11	0.08	0.08
1958	2.40	1.47	0.12	0.07	25.65	15.67	0.30	0.18	0.17	0.13
1959	2.40	2.40	0.12	0.12	25.65	25.65	0.30	0.30	0.15	0.18
1960	2.00	2.00	0.12	0.12	25.65	25.65	0.30	0.30	0.15	0.15
1961	2.00	2.00	0.12	0.12	25.65	25.65	0.30	0.30	0.15	0.15
1962	2.00	2.00	0.12	0.12	20.70	22.19	0.30	0.30	0.15	0.15
1963	2.00	2.00	0.12	0.12	20.70	20.70	0.30	0.30	0.15	0.15
1964	2.00	2.00	0.12	0.12	20.70	20.70	0.30	0.30	0.15	0.15
1965	2.00	2.00	0.12	0.12	20.70	20.70	0.30	0.30	0.15	0.15
1966	2.00	2.00	0.12	0.12	20.70	20.70	0.30	0.30	0.15	0.15
1967	2.00	2.00	0.12	0.12	20.70	20.70	0.30	0.30	0.13	0.15
1968	2.00	2.00	0.12	0.12	20.70	20.70	0.30	0.30	0.13	0.13
1969	2.00	2.00	0.12	0.12	20.70	20.70	0.30	0.30	0.13	0.13
1970	3.31	2.51	0.20	0.15	34.27	25.99	0.50	0.38	0.21	0.16
1971	3.42	3.32	0.19	0.20	32.66	34.27	0.47	0.50	0.22	0.22
1972	3.42	3.42	0.19	0.19	32.66	32.66	0.47	0.47	0.22	0.22
1973	4.00	3.82	0.21	0.21	32.66	32.66	0.48	0.48	0.25	0.24
1974	3.94	3.92	0.21	0.21	35.78	35.52	0.47	0.46	0.25	0.24
1975	4.31	4.00	0.22	0.21	38.84	36.80	0.43	0.45	0.25	0.25
1976	4.73	4.56	0.24	0.23	42.68	41.14	0.45	0.44	0.24	0.24
1977	5.53	5.11	0.28	0.25	49.58	46.00	0.55	0.49	0.24	0.24
1978	7.63	7.15	0.36	0.34	64.65	62.10	0.70	0.66	0.36	0.32
1979	10.52	9.25	0.50	0.44	50.57	44.43	0.92	0.84	0.54	0.46
1980	27.10	22.85	1.25	1.08	128.71	108.57	1.94	1.78	1.14	1.06
1981	39.12	32.87	1.68	1.42	190.86	158.86	2.32	2.03	1.37	1.20
1982	54.38	47.43	2.24	1.94	266.86	232.29	2.65	2.43	1.49	1.48
1983	80.92	65.27	3.21	2.61	404.00	322.14	2.87	2.56	1.80	1.57
1984	124.39	104.06	4.73	4.07	635.29	523.86	3.46	3.25	2.56	2.28
1985	198.27	144.11	6.85	5.73	824.14	745.71	3.90	3.78	3.74	3.07
1986	202.35	182.13	10.02	8.56	1 082.57	963.57	5.46	4.82	5.72	4.82
1987	272.00	228.89	15.56	12.00	1 458.43	1 224.57	8.11	6.33	9.37	6.94
1988	484.59	379.79	26.46	20.71	2 592.57	2 031.86	12.25	10.03	16.00	12.21
1989	617.81	566.54	32.94	29.46	2 103.36	2 448.11	14.66	13.06	21.09	17.92
1990	782.40	696.56	44.87	38.33	1 465.05	1 682.97	18.59	16.46	30.24	25.59
1991	1 356.45	1 113.97	78.65	60.80	1 524.48	1 329.44	28.98	22.89	52.54	40.15
1992	2 286.89	1 835.09	127.75	104.84	2 565.26	2 068.91	39.91	36.05	74.72	67.33
1993	3 864.49	2 933.14	8.23	8.66	4 292.22	3 276.52	58.07	47.92	101.77	86.32
1994	10 340.72	7 906.19	22.31	16.93	11 420.23	8 746.70	161.29	122.05	293.96	221.03
1995	15 927.90	12 241.68	34.13	26.23	17 595.87	13 514.82	251.65	197.90	491.31	367.68

Source: International Monetary Fund (IMF), International Financial Statistics (IFS), Various Issues.

[1] series ae refers to end of period of market exchange rates and official exchange rates.

[2] series rf refers to period averages of market exchange rates and official exchange rates.

Table 3. Wholesale Price Index, Consumer Price Index and GDP Deflator

1987=100

Year	TURKEY WPI	CPI	GDPD	USA WPI	CPI	GDPD	GERMANY WPI	CPI	GDPD	UK WPI	CPI	GDPD
1949	0.17	0.18	0.13	25.57	21.49	19.86	38.58	34.51	-	8.88	8.54	7.81
1950	0.16	0.17	0.13	26.58	21.15	20.23	37.62	32.37	-	10.15	8.79	7.87
1951	0.17	0.17	0.14	29.64	22.87	21.28	44.63	34.83	-	11.76	9.65	8.59
1952	0.17	0.18	0.14	28.85	23.33	21.52	45.59	35.58	-	12.11	10.27	9.23
1953	0.17	0.19	0.15	28.39	23.56	21.95	44.42	34.94	-	11.88	10.40	9.53
1954	0.19	0.20	0.16	28.51	23.68	22.16	43.78	35.04	-	11.88	10.64	9.66
1955	0.21	0.23	0.18	28.51	23.56	22.86	44.53	35.58	-	12.23	11.01	10.05
1956	0.24	0.25	0.20	29.52	23.91	23.63	45.16	36.43	-	12.69	11.39	10.70
1957	0.28	0.28	0.24	30.32	24.71	24.40	46.01	37.29	-	13.15	11.63	11.10
1958	0.33	0.33	0.28	30.77	25.40	24.86	45.80	38.03	-	13.15	12.00	11.53
1959	0.39	0.41	0.33	30.77	25.63	25.59	45.48	38.35	-	13.26	12.13	11.68
1960	0.41	0.43	0.34	30.88	26.09	26.02	46.01	39.00	-	13.38	12.25	11.83
1961	0.42	0.43	0.36	30.77	26.32	26.26	46.65	39.85	-	13.73	12.62	12.22
1962	0.45	0.45	0.39	30.77	26.55	26.84	47.08	41.03	-	14.07	13.24	12.67
1963	0.47	0.48	0.41	30.77	26.90	27.19	47.29	42.20	-	14.19	13.49	12.94
1964	0.47	0.49	0.42	30.77	27.24	27.66	47.82	43.27	38.81	14.65	13.86	13.41
1965	0.51	0.52	0.44	31.45	27.70	28.41	48.99	44.66	40.32	15.22	14.60	14.10
1966	0.54	0.55	0.47	32.47	28.62	29.36	49.84	46.26	41.62	15.57	15.10	14.73
1967	0.58	0.59	0.50	32.47	29.31	30.27	49.42	47.01	42.27	15.80	15.47	15.16
1968	0.60	0.62	0.52	33.37	30.57	31.75	49.10	47.76	43.24	16.38	16.21	15.80
1969	0.64	0.66	0.56	34.62	32.30	33.35	49.95	48.61	45.08	17.07	17.08	16.66
1970	0.68	0.72	0.61	35.86	34.14	35.13	52.39	50.32	48.54	18.22	18.19	17.88
1971	0.79	0.84	0.72	37.10	35.63	36.99	54.62	52.99	52.22	19.84	19.93	19.56
1972	0.93	0.95	0.80	38.69	36.78	38.83	56.11	55.88	55.03	20.88	21.29	21.16
1973	1.12	1.10	0.97	43.78	39.08	41.28	59.83	59.72	58.49	22.49	23.27	22.64
1974	1.46	1.31	1.25	52.04	43.45	44.89	67.80	63.89	62.59	27.45	26.98	26.01
1975	1.60	1.56	1.51	56.90	47.36	49.19	70.99	67.74	66.27	33.79	33.54	33.06
1976	1.85	1.82	1.73	59.50	50.11	52.27	73.54	70.62	68.65	39.45	39.11	38.07
1977	2.30	2.33	2.15	63.12	53.33	55.87	75.56	73.18	71.14	46.83	45.30	43.34
1978	3.51	3.43	3.15	68.10	57.36	60.29	76.53	75.21	74.16	51.10	49.01	48.37
1979	5.75	5.38	5.53	76.58	63.91	65.55	80.13	78.31	77.44	57.09	55.57	55.34
1980	11.93	11.60	10.40	87.44	72.53	71.71	86.18	82.59	81.24	66.21	65.59	66.13
1981	16.31	15.53	14.98	95.36	80.00	78.86	92.99	87.71	84.69	73.36	73.39	73.69
1982	20.43	18.93	19.21	97.29	84.94	83.76	98.41	92.41	88.45	79.58	79.70	79.29
1983	26.69	24.87	24.25	98.53	87.59	87.16	99.79	95.41	91.33	84.78	83.42	83.45
1984	40.57	36.91	35.95	100.90	91.38	91.05	102.76	97.76	93.22	89.85	87.50	87.28
1985	56.79	53.50	55.03	100.34	94.71	94.37	105.21	99.89	95.13	95.39	92.82	92.25
1986	71.95	72.02	74.84	97.51	96.44	96.92	102.55	99.68	98.15	96.66	96.04	95.27
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	170.50	173.70	169.35	104.07	104.02	103.86	101.28	101.28	101.53	103.58	104.83	106.04
1989	279.50	283.60	297.16	109.28	109.08	108.53	104.46	104.06	103.85	108.54	113.00	113.58
1990	425.70	454.60	470.29	113.12	114.94	113.22	106.27	106.84	107.29	115.34	123.76	120.84
1991	661.40	754.40	747.00	113.35	119.77	118.71	108.82	110.58	111.30	121.57	131.06	128.75
1992	1 072.00	1 283.10	1 223.00	114.03	123.45	120.91	110.31	114.96	117.38	125.37	135.89	134.66
1993	1 698.00	2 131.20	2 051.83	115.72	127.13	123.55	110.20	119.66	121.82	130.33	138.00	138.94
1994	3 814.95	4 395.90	4 249.43	117.19	130.34	129.71	110.95	123.29	124.64	133.56	141.46	141.60
1995	7 191.19	8 511.70	7 707.12	121.38	134.02	132.88	112.86	125.43	127.39	139.22	146.29	144.94

Source: International Monetary Fond (IMF), International Financial Statistics (IFS), Various Issues.

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Table 3. Wholesale Price Index, Consumer Price Index and GDP Deflator (continued)

1987=100

Year	ITALY WPI	CPI	GDPD	FRANCE WPI	CPI	GDPD	SWITZERLAND WPI	CPI	GDPD	NETHERLANDS WPI	CPI	GDPD
1949	10.53	6.54	-	-	8.57	-	46.34	31.01	24.76	-	18.06	-
1950	9.93	6.42	-	-	9.34	8.36	45.80	30.45	24.37	-	19.73	-
1951	11.36	7.37	-	22.92	11.54	9.66	47.95	32.00	24.87	-	22.03	-
1952	10.77	7.49	-	21.28	12.20	11.09	48.49	32.78	26.04	-	22.03	-
1953	10.65	7.61	-	20.15	11.98	11.23	47.95	32.56	26.41	38.28	22.03	-
1954	10.65	7.85	-	19.40	12.09	11.34	48.60	32.78	26.53	38.80	22.96	-
1955	10.65	8.09	-	19.65	12.20	11.49	49.46	33.11	26.88	39.75	23.38	-
1956	10.89	8.32	-	20.53	12.75	12.17	50.43	33.55	27.24	39.75	23.80	21.07
1957	11.00	8.44	-	21.54	12.64	12.78	51.40	34.22	27.79	40.80	25.26	22.24
1958	10.77	8.68	-	21.91	14.51	14.34	51.72	34.88	29.22	40.27	25.78	22.70
1959	10.53	8.68	-	23.80	15.38	14.43	51.72	34.66	29.22	40.27	26.10	23.27
1960	10.53	8.80	6.77	24.43	16.04	14.94	51.83	35.11	30.10	40.27	26.72	24.31
1961	10.65	9.04	6.95	25.19	16.37	15.45	52.16	35.77	31.20	40.27	27.04	24.93
1962	10.89	9.39	7.36	25.06	17.25	16.17	54.74	37.32	32.94	40.38	27.66	25.80
1963	11.48	10.11	7.98	25.82	18.13	17.21	56.57	38.65	34.56	41.32	28.60	26.99
1964	11.84	10.70	8.51	27.33	18.68	17.93	57.33	39.87	36.41	43.95	30.27	29.44
1965	11.96	11.18	8.85	28.09	19.23	18.41	57.97	41.20	37.88	45.11	32.05	31.15
1966	12.20	11.53	9.06	29.09	19.67	18.95	59.05	43.19	39.73	47.42	33.82	32.96
1967	12.08	11.89	9.31	28.34	20.22	19.55	59.38	44.85	41.52	47.84	35.07	34.31
1968	12.08	12.13	9.47	27.71	21.21	20.38	59.16	45.96	42.70	48.79	36.33	35.72
1969	12.56	12.37	9.86	31.74	22.42	21.72	60.13	47.07	43.83	47.53	39.04	35.99
1970	13.52	12.96	11.25	34.76	23.74	23.26	62.39	48.84	45.92	49.74	40.50	40.58
1971	14.08	13.67	12.22	33.63	25.05	24.74	64.87	52.05	50.02	51.95	43.53	43.85
1972	14.59	14.39	12.80	34.51	26.46	26.47	67.46	55.48	54.76	54.47	46.87	47.98
1973	17.11	15.93	14.49	43.45	28.57	28.71	73.17	60.35	59.18	57.83	50.63	52.30
1974	24.04	19.02	17.36	57.81	32.42	32.11	83.41	66.22	63.44	63.09	55.53	57.09
1975	26.08	22.24	20.23	47.61	36.15	36.28	84.48	70.65	67.56	66.88	61.17	62.91
1976	32.06	25.92	24.02	53.78	39.67	40.32	83.51	71.87	69.02	71.50	66.70	68.53
1977	37.56	30.44	28.40	58.06	43.41	44.05	83.51	72.76	69.22	75.39	70.98	73.10
1978	40.79	34.13	32.39	58.94	47.47	48.51	82.44	73.53	71.60	76.45	73.90	77.05
1979	47.13	39.12	37.30	69.52	52.53	53.41	83.94	76.30	73.04	78.44	77.04	80.04
1980	56.58	47.44	44.84	81.49	59.67	59.49	87.72	79.29	75.19	84.23	82.05	84.53
1981	66.39	55.89	53.37	95.84	67.58	66.26	92.67	84.50	80.42	91.59	87.58	89.21
1982	75.60	65.04	62.57	102.52	75.71	74.03	96.01	89.26	86.10	96.85	92.69	94.67
1983	82.89	74.55	72.00	116.25	82.86	81.23	97.09	91.92	88.67	98.11	95.30	96.41
1984	91.51	82.64	80.35	135.89	89.23	87.29	100.00	94.57	91.10	102.52	98.43	98.22
1985	98.21	90.25	87.46	126.45	94.40	92.32	101.94	97.79	93.97	104.10	100.63	101.72
1986	97.37	95.48	94.34	96.35	96.81	97.13	100.65	98.56	97.50	101.26	100.73	102.60
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	104.67	105.11	106.64	127.71	102.75	102.84	102.16	101.88	102.42	100.53	100.84	101.17
1989	111.36	111.65	113.25	158.44	106.26	105.95	105.28	105.09	106.70	104.10	101.88	102.44
1990	119.62	118.91	121.89	125.94	109.89	109.23	107.76	110.74	112.76	105.15	104.38	105.04
1991	125.84	126.40	130.90	113.22	113.41	112.82	109.16	117.17	118.94	107.57	107.62	107.82
1992	128.47	132.82	137.02	101.76	116.15	115.20	110.02	121.93	122.09	109.46	111.06	110.63
1993	-	138.76	-	92.44	118.57	118.05	-	126.02	124.53	109.57	113.99	112.75
1994	-	144.35	-	109.32	120.55	119.87	-	127.02	126.29	110.20	117.12	115.46
1995	-	151.96	-	123.80	122.64	121.82	-	129.35	128.04	111.88	119.52	117.73

Source: International Monetary Fund (IMF). International Financial Statistics (IFS), Various issues.

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Table 3. Wholesale Price Index, Consumer Price Index and GDP Deflator (continued)

1987=100

Year	AUSTRIA			JAPAN			S. ARABIA			IRAN		
	WPI	CPI	GDPD	WPI	CPI	GDPD	WPI	CPI	GDPD	WPI	CPI	GDPD
1949	19.75	15.33	-	33.26	15.29	-	-	-	-	5.85	4.92	-
1950	25.91	17.60	-	39.27	14.12	-	-	-	-	4.96	4.07	-
1951	35.01	22.46	-	47.56	16.45	-	-	-	-	5.50	4.07	-
1952	38.87	25.49	-	48.50	17.30	-	-	-	-	5.85	4.58	-
1953	36.47	25.05	-	48.91	18.47	-	-	-	-	7.09	5.42	-
1954	38.14	26.13	-	48.50	19.64	-	-	-	-	8.33	5.59	-
1955	39.60	26.13	-	47.67	19.43	-	-	-	-	8.16	5.76	-
1956	40.13	27.11	-	49.74	19.43	20.13	-	-	-	8.69	6.27	-
1957	41.80	27.86	-	51.30	20.06	21.56	-	-	-	8.69	6.61	-
1958	40.54	28.40	-	47.88	20.06	21.47	-	-	-	8.33	6.61	-
1959	41.69	28.73	-	48.39	20.28	22.48	-	-	-	8.69	7.29	-
1960	41.38	29.27	-	48.91	20.91	24.14	-	-	-	9.04	8.14	-
1961	42.22	30.24	-	49.43	22.08	26.11	-	-	-	9.04	8.31	-
1962	44.51	31.64	-	48.60	23.57	27.22	-	-	-	9.22	8.31	-
1963	43.78	32.51	-	49.43	25.37	28.74	-	29.66	-	9.22	8.47	-
1964	46.08	33.69	31.29	49.53	26.33	30.35	-	30.49	-	9.75	8.64	5.83
1965	47.86	35.42	33.01	49.95	28.13	31.94	-	30.59	-	10.11	8.98	5.70
1966	48.17	36.18	34.20	51.09	29.51	33.61	-	31.01	-	9.93	8.81	5.66
1967	49.32	37.58	35.38	52.02	30.68	35.49	-	31.74	-	9.93	8.98	5.62
1968	49.84	38.66	36.50	52.44	32.38	37.45	-	32.26	17.76	9.93	9.15	5.28
1969	50.99	39.85	37.79	53.58	34.08	39.24	-	33.30	18.13	10.28	9.49	6.02
1970	53.40	41.58	39.84	55.54	36.73	41.98	-	33.40	17.12	10.64	9.49	5.22
1971	56.22	43.52	42.31	55.13	39.07	44.30	-	34.86	21.07	11.17	10.00	5.84
1972	58.41	46.33	45.53	55.54	40.87	46.86	-	36.42	25.25	11.88	10.68	6.26
1973	59.14	49.78	49.20	64.35	45.65	53.02	-	42.46	53.75	13.12	11.69	8.42
1974	68.13	54.54	53.87	84.56	56.26	63.66	-	51.51	75.35	15.43	13.39	13.55
1975	72.41	59.18	57.34	87.15	62.85	68.38	-	69.30	81.75	16.67	15.08	14.98
1976	76.70	63.50	60.58	91.61	68.79	73.69	-	91.16	88.51	18.09	16.78	16.94
1977	79.00	66.95	63.65	93.26	74.42	78.42	-	101.56	91.83	21.28	21.36	19.93
1978	79.73	69.33	67.30	90.88	77.49	82.35	-	100.00	95.29	23.40	23.73	21.99
1979	83.07	71.92	70.07	97.51	80.36	84.57	-	101.77	133.80	26.77	26.27	27.94
1980	90.28	76.46	73.73	114.82	86.62	88.47	-	105.72	167.30	35.11	31.69	36.07
1981	97.49	81.64	78.50	116.48	90.87	91.74	-	108.64	165.88	43.26	39.32	44.66
1982	100.63	86.07	83.37	118.55	93.42	93.28	-	109.78	147.07	48.94	46.78	51.97
1983	101.25	88.98	86.62	115.96	95.22	94.58	-	109.99	131.92	56.03	55.93	58.25
1984	105.02	93.95	90.83	115.65	97.35	96.75	-	108.22	127.43	60.28	62.88	63.88
1985	107.73	96.98	93.63	114.30	99.26	98.25	89.96	104.89	118.66	63.48	65.76	67.92
1986	102.09	98.70	97.62	103.83	99.89	99.98	93.35	101.56	97.06	75.53	77.80	82.29
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	99.79	101.94	101.61	98.96	100.74	100.37	113.42	100.94	96.24	122.16	128.64	122.43
1989	101.57	104.54	104.52	101.55	102.97	102.24	114.70	101.98	104.71	146.99	157.46	147.64
1990	104.49	107.99	107.96	103.63	106.16	104.52	116.69	104.06	119.34	177.30	169.49	174.24
1991	105.33	111.56	112.28	103.83	109.66	106.87	120.19	109.16	124.16	223.05	198.47	213.79
1992	105.12	116.09	116.92	102.28	111.57	108.53	121.70	109.05	126.08	296.81	249.49	268.21
1993	104.70	120.30	120.88	98.45	112.95	109.05	122.52	110.20	122.06	372.70	302.37	371.85
1994	106.06	123.87	124.97	96.37	113.69	109.30	124.74	110.82	123.13	512.94	397.63	506.22
1995	106.48	126.67	127.58	95.54	113.59	110.94	133.72	116.23	-	823.58	595.08	697.01

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Table 3. Wholesale Price Index, Consumer Price Index and GDP Def. (continued)

1987=100

Year	EGYPT			GREECE			SPAIN		
	WPI	CPI	GDPD	WPI	CPI	GDPD	WPI	CPI	GDPD
1949	10.51	9.67	-	-	3.11	3.00	4.61	3.58	-
1950	11.26	10.17	-	3.04	3.42	3.38	5.37	3.94	-
1951	12.57	11.00	-	3.76	3.73	3.73	6.91	4.30	
1952	12.20	11.00	-	3.76	3.89	3.88	7.02	4.18	-
1953	11.63	10.33	-	4.34	4.35	4.47	7.57	4.30	-
1954	11.26	9.83	-	4.78	4.98	5.00	7.57	4.30	4.81
1955	11.44	9.83	-	5.21	5.29	5.37	7.89	4.54	4.28
1956	12.76	10.00	-	5.64	5.44	5.70	8.55	4.78	4.59
1957	13.88	10.50	-	5.64	5.60	5.76	9.65	5.26	5.16
1958	13.70	10.50	-	5.50	5.60	5.77	10.96	5.97	5.68
1959	13.70	10.50	-	5.64	5.75	5.79	11.18	6.45	5.78
1960	13.70	10.50	-	5.79	5.91	5.99	11.40	6.45	5.80
1961	13.88	10.67	-	5.79	5.91	6.07	11.73	6.69	5.91
1962	13.88	10.33	-	5.79	5.91	6.35	12.28	7.05	6.25
1963	13.70	10.33	-	6.08	6.07	6.45	12.83	7.65	6.78
1964	14.26	10.67	-	6.22	6.22	6.68	13.27	8.12	7.96
1965	15.38	12.33	-	6.37	6.38	6.95	14.58	9.08	8.71
1966	16.70	13.50	-	6.51	6.69	7.29	14.91	9.80	9.41
1967	17.82	13.50	-	6.66	6.84	7.47	15.02	10.39	10.14
1968	17.45	13.33	-	6.66	6.84	7.60	15.35	10.99	10.64
1969	17.45	13.83	-	6.80	7.00	7.85	15.79	11.23	11.11
1970	18.20	14.33	-	7.09	7.15	8.16	16.91	11.83	12.11
1971	18.39	14.67	-	7.38	7.47	8.42	16.89	12.78	13.06
1972	18.57	15.00	-	7.81	7.78	8.84	18.09	13.86	14.17
1973	19.89	15.83	-	9.70	8.86	10.56	19.96	15.41	15.85
1974	22.70	17.33	-	12.74	11.35	12.77	23.57	17.80	18.38
1975	24.39	19.17	-	13.75	12.91	14.34	25.66	20.91	21.47
1976	26.27	21.00	-	15.63	14.62	16.55	29.06	24.61	25.01
1977	28.71	23.67	-	17.80	16.33	18.69	34.98	30.59	30.86
1978	32.83	26.33	-	19.68	18.35	21.12	40.68	36.68	37.22
1979	36.21	29.00	-	23.73	21.93	25.05	46.60	42.41	43.52
1980	43.90	35.00	-	30.54	27.37	29.49	54.71	49.10	49.37
1981	47.47	38.67	-	38.49	34.06	35.31	63.27	56.15	55.57
1982	51.97	44.33	59.16	44.57	41.06	44.17	71.16	64.28	63.31
1983	60.23	51.50	69.36	53.40	49.46	52.61	81.14	72.16	70.76
1984	66.23	60.17	79.71	64.83	58.63	63.29	91.01	80.29	78.99
1985	75.05	67.50	83.91	78.29	69.83	74.47	98.36	87.34	85.06
1986	87.99	83.67	87.94	91.03	86.00	87.52	99.23	94.98	94.48
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	126.27	117.67	113.44	109.99	113.53	139.96	103.07	104.78	105.65
1989	160.60	142.67	134.74	124.89	129.24	160.63	107.35	111.95	113.15
1990	187.62	166.67	159.50	144.72	155.52	194.86	109.65	119.47	121.42
1991	221.20	199.50	182.59	168.89	185.85	232.60	111.29	126.52	130.05
1992	248.03	226.83	218.71	188.13	215.24	269.36	112.83	134.05	138.95
1993	269.23	254.17	240.40	210.42	246.35	303.92	115.68	140.14	144.93
1994	281.61	275.00	257.29	228.80	273.25	337.14	120.61	146.83	150.59
1995	299.44	318.17	288.26	246.60	298.60	-	128.29	153.64	157.82

Source: International Monetary Fund (IMF), International Financial Statistics (IFS), Various issues.

Table 4. Share of Foreign Countries' Export, Import and the Volume of Trade in Total Export, Total Import and Total Trade, Respectively

[Formulas (6), (7) and (8) for Major 5 Trading Partner Countries]

Year	USA w_x	USA w_m	USA w_t	Germany w_x	Germany w_m	Germany w_t	UK w_x	UK w_m	UK w_t	France w_x	France w_m	France w_t	Netherlands w_x	Netherlands w_m	Netherlands w_t
1949	0.278	0.409	0.347	0.314	0.079	0.189	0.240	0.348	0.297	0.102	0.112	0.107	0.066	0.052	0.059
1950	0.286	0.406	0.349	0.357	0.291	0.323	0.237	0.172	0.203	0.073	0.083	0.078	0.047	0.048	0.047
1951	0.330	0.198	0.258	0.413	0.388	0.399	0.129	0.278	0.211	0.102	0.091	0.096	0.026	0.044	0.036
1952	0.259	0.141	0.188	0.384	0.418	0.404	0.106	0.298	0.221	0.233	0.080	0.142	0.019	0.063	0.045
1953	0.413	0.204	0.287	0.313	0.375	0.350	0.141	0.247	0.205	0.093	0.110	0.103	0.040	0.065	0.055
1954	0.377	0.300	0.330	0.387	0.346	0.362	0.150	0.174	0.165	0.065	0.140	0.110	0.021	0.041	0.033
1955	0.330	0.404	0.378	0.333	0.317	0.323	0.158	0.141	0.147	0.150	0.108	0.123	0.029	0.030	0.029
1956	0.392	0.357	0.371	0.332	0.400	0.374	0.152	0.139	0.144	0.106	0.080	0.090	0.018	0.024	0.021
1957	0.461	0.544	0.505	0.229	0.241	0.236	0.163	0.137	0.149	0.120	0.057	0.086	0.026	0.022	0.024
1958	0.366	0.506	0.446	0.344	0.282	0.309	0.124	0.130	0.128	0.143	0.052	0.091	0.023	0.029	0.027
1959	0.316	0.426	0.381	0.397	0.289	0.333	0.170	0.177	0.174	0.082	0.059	0.069	0.034	0.049	0.043
1960	0.367	0.402	0.390	0.298	0.327	0.317	0.194	0.176	0.183	0.102	0.054	0.071	0.037	0.040	0.039
1961	0.371	0.435	0.412	0.291	0.264	0.274	0.169	0.208	0.194	0.136	0.055	0.084	0.033	0.038	0.036
1962	0.376	0.455	0.428	0.338	0.267	0.291	0.180	0.176	0.177	0.070	0.072	0.072	0.036	0.030	0.032
1963	0.273	0.480	0.419	0.339	0.237	0.267	0.258	0.175	0.199	0.088	0.078	0.081	0.041	0.030	0.034
1964	0.345	0.477	0.425	0.293	0.247	0.265	0.211	0.172	0.187	0.118	0.064	0.085	0.034	0.040	0.038
1965	0.363	0.480	0.433	0.318	0.251	0.278	0.182	0.165	0.172	0.088	0.064	0.074	0.049	0.040	0.044
1966	0.334	0.408	0.381	0.318	0.266	0.285	0.195	0.186	0.189	0.102	0.102	0.102	0.050	0.037	0.042
1967	0.370	0.317	0.338	0.335	0.346	0.341	0.136	0.228	0.192	0.115	0.070	0.088	0.044	0.039	0.041
1968	0.315	0.287	0.297	0.376	0.370	0.372	0.148	0.234	0.204	0.095	0.064	0.075	0.067	0.044	0.052
1969	0.243	0.349	0.311	0.456	0.333	0.377	0.123	0.214	0.181	0.112	0.060	0.079	0.066	0.045	0.052
1970	0.210	0.388	0.328	0.438	0.332	0.368	0.126	0.171	0.156	0.147	0.061	0.090	0.079	0.047	0.058
1971	0.225	0.289	0.267	0.429	0.353	0.379	0.105	0.187	0.160	0.160	0.127	0.138	0.080	0.044	0.056
1972	0.250	0.236	0.241	0.451	0.370	0.397	0.110	0.209	0.176	0.123	0.129	0.127	0.066	0.056	0.060
1973	0.231	0.172	0.192	0.391	0.405	0.400	0.178	0.207	0.197	0.128	0.124	0.125	0.072	0.092	0.086
1974	0.210	0.211	0.211	0.499	0.410	0.436	0.119	0.161	0.148	0.097	0.148	0.133	0.076	0.070	0.072
1975	0.232	0.190	0.199	0.480	0.471	0.473	0.110	0.153	0.144	0.098	0.124	0.118	0.080	0.062	0.066
1976	0.218	0.193	0.200	0.429	0.417	0.420	0.157	0.181	0.174	0.123	0.136	0.132	0.073	0.074	0.074
1977	0.161	0.216	0.202	0.514	0.405	0.432	0.125	0.173	0.161	0.124	0.140	0.137	0.076	0.066	0.069
1978	0.157	0.161	0.160	0.518	0.464	0.483	0.116	0.114	0.115	0.130	0.204	0.178	0.079	0.057	0.065
1979	0.114	0.222	0.184	0.541	0.393	0.445	0.113	0.142	0.132	0.150	0.192	0.177	0.082	0.051	0.062
1980	0.118	0.198	0.171	0.557	0.387	0.443	0.096	0.147	0.130	0.151	0.174	0.166	0.078	0.094	0.089
1981	0.195	0.231	0.219	0.469	0.376	0.409	0.108	0.170	0.148	0.157	0.157	0.157	0.070	0.065	0.067
1982	0.174	0.304	0.258	0.489	0.377	0.416	0.131	0.162	0.151	0.135	0.098	0.111	0.072	0.059	0.064
1983	0.141	0.269	0.219	0.512	0.407	0.447	0.151	0.170	0.163	0.110	0.084	0.094	0.086	0.070	0.076
1984	0.161	0.343	0.265	0.559	0.373	0.451	0.114	0.141	0.130	0.088	0.077	0.082	0.079	0.068	0.072
1985	0.177	0.309	0.252	0.486	0.368	0.419	0.188	0.126	0.153	0.075	0.138	0.111	0.074	0.059	0.066
1986	0.193	0.275	0.242	0.507	0.414	0.451	0.117	0.121	0.120	0.105	0.127	0.118	0.078	0.062	0.068
1987	0.169	0.268	0.222	0.518	0.410	0.458	0.128	0.135	0.132	0.118	0.118	0.118	0.066	0.071	0.069
1988	0.175	0.275	0.231	0.496	0.372	0.426	0.133	0.134	0.133	0.115	0.150	0.135	0.081	0.070	0.075
1989	0.204	0.337	0.279	0.457	0.355	0.399	0.129	0.117	0.122	0.125	0.120	0.122	0.085	0.072	0.078
1990	0.163	0.262	0.222	0.515	0.402	0.448	0.125	0.116	0.120	0.124	0.154	0.142	0.073	0.066	0.069
1991	0.148	0.265	0.216	0.554	0.379	0.452	0.110	0.137	0.125	0.112	0.144	0.130	0.077	0.075	0.076
1992	0.130	0.271	0.214	0.552	0.391	0.457	0.120	0.124	0.122	0.122	0.141	0.133	0.075	0.073	0.074
1993	0.146	0.273	0.228	0.540	0.370	0.431	0.123	0.126	0.125	0.114	0.159	0.143	0.076	0.071	0.073
1994	0.194	0.257	0.229	0.503	0.386	0.439	0.114	0.124	0.119	0.109	0.154	0.134	0.079	0.078	0.079
1995	0.160	0.261	0.222	0.533	0.391	0.448	0.120	0.129	0.125	0.109	0.141	0.128	0.078	0.076	0.077

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Table 5. Share of Foreign Countries' Export, Import and the Volume of Trade in Total Export, Total Import and Total Trade, Respectively

[Formulas (6), (7), (8) and (9) for Major 9 Trading Partner Countries]

Year	Formula (9) Export	Import	Total	USA w_x	w_m	w_t	Germany w_x	w_m	w_t	UK w_x	w_m	w_t	France w_x	w_m	w_t
1949	0.461	0.539	1.000	0.228	0.375	0.302	0.258	0.072	0.165	0.197	0.319	0.258	0.083	0.102	0.093
1950	0.480	0.520	1.000	0.248	0.390	0.319	0.310	0.279	0.295	0.206	0.165	0.185	0.063	0.080	0.071
1951	0.439	0.561	1.000	0.304	0.193	0.245	0.381	0.378	0.379	0.119	0.271	0.200	0.094	0.089	0.091
1952	0.395	0.605	1.000	0.244	0.134	0.179	0.361	0.398	0.383	0.100	0.284	0.209	0.219	0.076	0.134
1953	0.427	0.573	1.000	0.345	0.192	0.257	0.261	0.352	0.314	0.118	0.232	0.183	0.078	0.103	0.092
1954	0.412	0.588	1.000	0.327	0.264	0.289	0.335	0.305	0.317	0.130	0.154	0.144	0.056	0.123	0.097
1955	0.386	0.614	1.000	0.291	0.380	0.348	0.294	0.299	0.297	0.139	0.133	0.135	0.133	0.102	0.113
1956	0.428	0.572	1.000	0.360	0.331	0.342	0.304	0.370	0.344	0.140	0.129	0.133	0.097	0.074	0.083
1957	0.465	0.535	1.000	0.437	0.528	0.485	0.217	0.234	0.226	0.155	0.133	0.143	0.114	0.055	0.083
1958	0.440	0.560	1.000	0.344	0.486	0.424	0.323	0.270	0.293	0.117	0.125	0.121	0.134	0.050	0.087
1959	0.429	0.571	1.000	0.297	0.399	0.357	0.372	0.271	0.312	0.159	0.166	0.163	0.077	0.056	0.065
1960	0.407	0.593	1.000	0.332	0.379	0.362	0.269	0.308	0.294	0.176	0.166	0.170	0.093	0.051	0.066
1961	0.406	0.594	1.000	0.345	0.404	0.383	0.270	0.245	0.254	0.157	0.193	0.181	0.126	0.051	0.078
1962	0.381	0.619	1.000	0.348	0.418	0.395	0.313	0.245	0.268	0.167	0.162	0.163	0.065	0.066	0.066
1963	0.349	0.651	1.000	0.252	0.450	0.391	0.313	0.222	0.249	0.238	0.164	0.186	0.081	0.073	0.075
1964	0.433	0.567	1.000	0.318	0.451	0.397	0.270	0.234	0.248	0.194	0.163	0.175	0.109	0.060	0.080
1965	0.448	0.552	1.000	0.330	0.451	0.401	0.290	0.235	0.258	0.166	0.155	0.160	0.080	0.060	0.068
1966	0.406	0.594	1.000	0.297	0.382	0.350	0.283	0.249	0.262	0.173	0.174	0.174	0.091	0.096	0.094
1967	0.433	0.567	1.000	0.317	0.295	0.304	0.287	0.322	0.307	0.117	0.212	0.172	0.099	0.065	0.079
1968	0.394	0.606	1.000	0.273	0.270	0.271	0.325	0.348	0.340	0.128	0.220	0.186	0.082	0.060	0.068
1969	0.401	0.599	1.000	0.216	0.329	0.287	0.405	0.314	0.348	0.109	0.202	0.167	0.100	0.057	0.073
1970	0.383	0.617	1.000	0.185	0.361	0.300	0.386	0.309	0.336	0.111	0.159	0.143	0.130	0.057	0.082
1971	0.366	0.634	1.000	0.204	0.268	0.246	0.389	0.327	0.348	0.096	0.174	0.147	0.145	0.118	0.127
1972	0.362	0.638	1.000	0.227	0.217	0.220	0.409	0.341	0.364	0.100	0.192	0.161	0.111	0.118	0.116
1973	0.387	0.613	1.000	0.209	0.157	0.175	0.354	0.369	0.364	0.161	0.189	0.179	0.116	0.113	0.114
1974	0.289	0.711	1.000	0.189	0.180	0.182	0.449	0.349	0.377	0.107	0.137	0.128	0.087	0.126	0.115
1975	0.228	0.772	1.000	0.208	0.167	0.176	0.431	0.415	0.419	0.096	0.135	0.127	0.088	0.109	0.105
1976	0.277	0.723	1.000	0.198	0.167	0.175	0.389	0.361	0.369	0.142	0.157	0.153	0.112	0.118	0.116
1977	0.232	0.768	1.000	0.144	0.179	0.171	0.460	0.337	0.366	0.112	0.144	0.136	0.111	0.117	0.116
1978	0.332	0.668	1.000	0.144	0.141	0.142	0.475	0.407	0.431	0.107	0.100	0.102	0.119	0.179	0.158
1979	0.308	0.692	1.000	0.104	0.170	0.149	0.492	0.301	0.361	0.102	0.109	0.107	0.136	0.148	0.144
1980	0.269	0.731	1.000	0.105	0.169	0.148	0.498	0.330	0.384	0.086	0.126	0.113	0.135	0.148	0.144
1981	0.345	0.655	1.000	0.169	0.199	0.188	0.405	0.323	0.351	0.093	0.146	0.128	0.136	0.135	0.135
1982	0.394	0.606	1.000	0.144	0.249	0.213	0.406	0.309	0.343	0.109	0.133	0.124	0.112	0.081	0.092
1983	0.383	0.617	1.000	0.124	0.213	0.181	0.450	0.322	0.369	0.133	0.135	0.134	0.097	0.067	0.078
1984	0.399	0.601	1.000	0.143	0.266	0.218	0.497	0.290	0.371	0.110	0.110	0.107	0.078	0.060	0.067
1985	0.412	0.588	1.000	0.160	0.242	0.209	0.440	0.288	0.349	0.170	0.099	0.127	0.068	0.108	0.092
1986	0.402	0.598	1.000	0.172	0.221	0.203	0.452	0.333	0.377	0.105	0.097	0.100	0.094	0.102	0.099
1987	0.419	0.581	1.000	0.152	0.209	0.186	0.465	0.323	0.383	0.115	0.107	0.110	0.106	0.093	0.099
1988	0.449	0.551	1.000	0.154	0.230	0.197	0.436	0.310	0.364	0.117	0.112	0.114	0.101	0.125	0.115
1989	0.424	0.576	1.000	0.180	0.289	0.243	0.404	0.304	0.347	0.114	0.100	0.106	0.110	0.103	0.106
1990	0.368	0.632	1.000	0.144	0.216	0.188	0.457	0.331	0.380	0.111	0.096	0.102	0.110	0.127	0.120
1991	0.392	0.608	1.000	0.131	0.218	0.183	0.489	0.313	0.384	0.097	0.113	0.106	0.099	0.119	0.111
1992	0.391	0.609	1.000	0.116	0.228	0.184	0.490	0.329	0.393	0.107	0.104	0.105	0.108	0.119	0.115
1993	0.343	0.657	1.000	0.132	0.227	0.195	0.490	0.307	0.369	0.112	0.105	0.107	0.103	0.132	0.123
1994	0.438	0.562	1.000	0.176	0.219	0.200	0.455	0.328	0.384	0.103	0.105	0.104	0.098	0.131	0.117
1995	0.377	0.623	1.000	0.145	0.225	0.194	0.481	0.335	0.391	0.108	0.110	0.110	0.099	0.120	0.112

Table 5. Share of Foreign Countries' Export, Import and the Volume of Trade
in Total Export, Total Import and Total Trade, Respectively (continued)
[Formulas (6), (7) and (8) for Major 9 Trading Partner Countries]

Year	Netherlands w_x	w_m	w_t	Austria w_x	w_m	w_t	Japan w_x	w_m	w_t	Greece w_x	w_m	w_t	Spain w_x	w_m	w_t
1949	0.054	0.043	0.051	0.053	0.067	0.060	0.001	0.006	0.003	0.121	0.006	0.063	0.004	0.005	0.005
1950	0.041	0.046	0.043	0.059	0.037	0.048	0.012	0.000	0.006	0.051	0.003	0.027	0.010	0.001	0.005
1951	0.024	0.043	0.034	0.028	0.022	0.024	0.013	0.001	0.007	0.034	0.003	0.017	0.003	0.001	0.002
1952	0.018	0.060	0.043	0.030	0.036	0.034	0.002	0.001	0.001	0.022	0.009	0.014	0.004	0.001	0.002
1953	0.034	0.061	0.049	0.027	0.039	0.034	0.030	0.002	0.014	0.039	0.010	0.022	0.068	0.010	0.034
1954	0.018	0.036	0.029	0.033	0.032	0.032	0.015	0.019	0.017	0.012	0.005	0.008	0.074	0.062	0.067
1955	0.026	0.021	0.027	0.072	0.024	0.042	0.006	0.011	0.010	0.014	0.004	0.008	0.025	0.017	0.020
1956	0.016	0.022	0.020	0.045	0.026	0.033	0.006	0.038	0.025	0.018	0.003	0.009	0.014	0.008	0.010
1957	0.025	0.021	0.023	0.026	0.018	0.021	0.008	0.006	0.007	0.009	0.002	0.005	0.009	0.004	0.006
1958	0.022	0.028	0.026	0.039	0.027	0.032	0.002	0.004	0.003	0.008	0.000	0.004	0.011	0.009	0.010
1959	0.032	0.046	0.040	0.025	0.050	0.040	0.011	0.006	0.008	0.014	0.001	0.007	0.012	0.005	0.008
1960	0.034	0.038	0.037	0.027	0.031	0.030	0.014	0.015	0.014	0.009	0.001	0.004	0.046	0.011	0.023
1961	0.031	0.035	0.033	0.026	0.023	0.024	0.011	0.038	0.028	0.006	0.002	0.004	0.026	0.008	0.015
1962	0.034	0.028	0.030	0.016	0.024	0.022	0.008	0.039	0.028	0.018	0.006	0.010	0.031	0.012	0.018
1963	0.038	0.028	0.031	0.013	0.017	0.016	0.015	0.034	0.028	0.017	0.006	0.009	0.033	0.006	0.014
1964	0.031	0.038	0.035	0.017	0.029	0.024	0.008	0.020	0.015	0.017	0.003	0.009	0.036	0.003	0.016
1965	0.045	0.038	0.041	0.024	0.030	0.027	0.021	0.026	0.024	0.025	0.001	0.011	0.020	0.004	0.010
1966	0.045	0.035	0.039	0.017	0.024	0.021	0.030	0.035	0.033	0.021	0.000	0.008	0.041	0.004	0.018
1967	0.038	0.037	0.037	0.016	0.024	0.021	0.091	0.041	0.061	0.008	0.000	0.004	0.027	0.005	0.014
1968	0.058	0.042	0.048	0.023	0.026	0.025	0.062	0.026	0.040	0.014	0.002	0.006	0.036	0.004	0.016
1969	0.059	0.042	0.048	0.026	0.022	0.024	0.045	0.019	0.029	0.026	0.001	0.010	0.013	0.015	0.014
1970	0.070	0.043	0.053	0.028	0.018	0.021	0.064	0.045	0.052	0.013	0.000	0.005	0.013	0.008	0.010
1971	0.073	0.041	0.052	0.026	0.024	0.025	0.031	0.039	0.036	0.018	0.001	0.007	0.019	0.009	0.012
1972	0.060	0.052	0.054	0.026	0.020	0.022	0.033	0.037	0.036	0.024	0.005	0.012	0.010	0.017	0.015
1973	0.066	0.084	0.078	0.022	0.023	0.022	0.027	0.050	0.042	0.031	0.006	0.015	0.014	0.009	0.011
1974	0.069	0.060	0.062	0.025	0.028	0.027	0.024	0.102	0.080	0.026	0.008	0.013	0.025	0.011	0.015
1975	0.072	0.054	0.058	0.035	0.024	0.026	0.041	0.083	0.074	0.001	0.000	0.000	0.026	0.012	0.015
1976	0.066	0.064	0.065	0.028	0.023	0.025	0.037	0.087	0.074	0.002	0.002	0.002	0.027	0.021	0.022
1977	0.068	0.055	0.058	0.042	0.027	0.030	0.043	0.111	0.095	0.002	0.006	0.005	0.018	0.024	0.022
1978	0.072	0.050	0.058	0.033	0.039	0.037	0.034	0.056	0.048	0.005	0.002	0.003	0.012	0.026	0.021
1979	0.075	0.039	0.050	0.046	0.053	0.051	0.022	0.124	0.092	0.005	0.012	0.010	0.018	0.044	0.036
1980	0.079	0.081	0.077	0.044	0.048	0.047	0.030	0.044	0.040	0.007	0.021	0.017	0.024	0.033	0.030
1981	0.060	0.055	0.058	0.060	0.027	0.039	0.022	0.069	0.053	0.030	0.008	0.015	0.025	0.038	0.033
1982	0.060	0.040	0.053	0.056	0.036	0.043	0.025	0.109	0.086	0.075	0.004	0.029	0.013	0.029	0.024
1983	0.076	0.055	0.063	0.048	0.040	0.043	0.020	0.107	0.075	0.031	0.006	0.015	0.022	0.054	0.042
1984	0.070	0.051	0.059	0.049	0.029	0.037	0.014	0.100	0.067	0.036	0.012	0.021	0.011	0.081	0.053
1985	0.067	0.048	0.055	0.039	0.032	0.035	0.013	0.107	0.069	0.024	0.010	0.016	0.018	0.068	0.048
1986	0.070	0.058	0.057	0.035	0.026	0.029	0.031	0.128	0.092	0.024	0.015	0.018	0.019	0.028	0.024
1987	0.060	0.058	0.058	0.040	0.029	0.034	0.033	0.132	0.091	0.013	0.019	0.017	0.015	0.031	0.024
1988	0.071	0.058	0.064	0.036	0.032	0.034	0.042	0.084	0.066	0.019	0.013	0.015	0.022	0.037	0.030
1989	0.076	0.061	0.067	0.024	0.021	0.023	0.043	0.073	0.060	0.023	0.014	0.018	0.024	0.035	0.030
1990	0.065	0.054	0.058	0.027	0.024	0.025	0.036	0.106	0.079	0.021	0.012	0.016	0.030	0.033	0.032
1991	0.068	0.062	0.064	0.030	0.031	0.031	0.032	0.106	0.076	0.021	0.007	0.013	0.034	0.031	0.032
1992	0.067	0.061	0.064	0.031	0.025	0.027	0.022	0.098	0.068	0.020	0.008	0.012	0.040	0.028	0.033
1993	0.069	0.059	0.062	0.030	0.022	0.025	0.021	0.110	0.080	0.016	0.008	0.011	0.026	0.029	0.028
1994	0.072	0.007	0.069	0.029	0.019	0.023	0.022	0.087	0.058	0.019	0.009	0.014	0.027	0.034	0.031
1995	0.070	0.065	0.067	0.026	0.018	0.021	0.017	0.085	0.058	0.020	0.006	0.011	0.034	0.036	0.035

Table 6. Share of Foreign Countries' Export, Import and the Volume of Trade in Total Export, Total Import and Total Trade, Respectively

[Formulas (6), (7), (8) and (9) for Major 14 Trading Partner Countries]

Year	Formula (9)			USA			Germany			UK			Italy		
	Export	Import	VOT	w_x	w_m	w_t	w_x	w_m	w_t	w_x	w_m	w_t	w_x	w_m	w_t
1949	0.461	0.539	1.000	0.202	0.318	0.262	0.228	0.062	0.143	0.174	0.271	0.224	0.023	0.079	0.052
1950	0.480	0.520	1.000	0.220	0.346	0.283	0.275	0.248	0.261	0.182	0.147	0.164	0.072	0.066	0.069
1951	0.439	0.561	1.000	0.273	0.165	0.214	0.342	0.323	0.332	0.107	0.231	0.175	0.054	0.095	0.076
1952	0.395	0.605	1.000	0.212	0.112	0.151	0.315	0.331	0.325	0.087	0.236	0.177	0.094	0.095	0.094
1953	0.427	0.573	1.000	0.271	0.159	0.208	0.205	0.292	0.254	0.092	0.192	0.148	0.176	0.099	0.133
1954	0.412	0.588	1.000	0.276	0.226	0.246	0.283	0.261	0.270	0.110	0.132	0.123	0.098	0.072	0.083
1955	0.386	0.614	1.000	0.245	0.331	0.299	0.247	0.260	0.255	0.117	0.116	0.116	0.128	0.054	0.081
1956	0.428	0.572	1.000	0.290	0.285	0.287	0.245	0.319	0.289	0.113	0.111	0.112	0.148	0.087	0.112
1957	0.465	0.535	1.000	0.357	0.427	0.394	0.178	0.189	0.184	0.127	0.107	0.116	0.124	0.128	0.126
1958	0.440	0.560	1.000	0.302	0.383	0.350	0.284	0.213	0.242	0.103	0.099	0.100	0.091	0.153	0.127
1959	0.429	0.571	1.000	0.251	0.341	0.304	0.316	0.231	0.266	0.135	0.142	0.139	0.117	0.093	0.102
1960	0.407	0.593	1.000	0.267	0.334	0.309	0.217	0.271	0.251	0.142	0.146	0.144	0.126	0.083	0.099
1961	0.406	0.594	1.000	0.265	0.343	0.314	0.208	0.208	0.208	0.121	0.164	0.148	0.139	0.105	0.118
1962	0.381	0.619	1.000	0.262	0.367	0.328	0.235	0.216	0.223	0.125	0.142	0.136	0.180	0.068	0.109
1963	0.349	0.651	1.000	0.189	0.399	0.329	0.235	0.197	0.210	0.179	0.145	0.156	0.165	0.066	0.099
1964	0.433	0.567	1.000	0.254	0.383	0.329	0.216	0.199	0.206	0.155	0.138	0.145	0.100	0.079	0.088
1965	0.448	0.552	1.000	0.277	0.377	0.337	0.243	0.197	0.216	0.139	0.130	0.134	0.102	0.087	0.093
1966	0.406	0.594	1.000	0.248	0.319	0.293	0.237	0.209	0.219	0.145	0.146	0.145	0.098	0.100	0.099
1967	0.433	0.567	1.000	0.259	0.248	0.253	0.235	0.271	0.256	0.096	0.178	0.143	0.101	0.101	0.101
1968	0.394	0.606	1.000	0.222	0.220	0.223	0.265	0.283	0.279	0.104	0.179	0.153	0.074	0.122	0.105
1969	0.401	0.599	1.000	0.168	0.260	0.225	0.316	0.248	0.273	0.085	0.159	0.131	0.120	0.127	0.124
1970	0.383	0.617	1.000	0.142	0.294	0.239	0.296	0.251	0.268	0.085	0.130	0.114	0.098	0.106	0.103
1971	0.366	0.634	1.000	0.153	0.202	0.185	0.292	0.247	0.262	0.072	0.131	0.111	0.088	0.142	0.123
1972	0.362	0.638	1.000	0.172	0.160	0.164	0.310	0.252	0.272	0.076	0.142	0.120	0.089	0.139	0.122
1973	0.387	0.613	1.000	0.150	0.117	0.129	0.254	0.277	0.269	0.115	0.142	0.132	0.132	0.108	0.117
1974	0.289	0.711	1.000	0.148	0.128	0.134	0.352	0.249	0.277	0.084	0.098	0.094	0.093	0.099	0.098
1975	0.228	0.772	1.000	0.157	0.129	0.135	0.326	0.320	0.321	0.075	0.104	0.098	0.088	0.108	0.104
1976	0.277	0.723	1.000	0.138	0.128	0.131	0.272	0.277	0.276	0.099	0.120	0.114	0.124	0.113	0.116
1977	0.232	0.768	1.000	0.102	0.134	0.126	0.325	0.251	0.269	0.079	0.107	0.100	0.136	0.121	0.124
1978	0.332	0.668	1.000	0.107	0.091	0.096	0.353	0.262	0.290	0.079	0.064	0.069	0.122	0.093	0.102
1979	0.308	0.692	1.000	0.074	0.122	0.107	0.350	0.215	0.258	0.073	0.078	0.076	0.151	0.149	0.150
1980	0.269	0.731	1.000	0.075	0.104	0.095	0.354	0.203	0.247	0.061	0.077	0.073	0.128	0.068	0.086
1981	0.345	0.655	1.000	0.103	0.123	0.116	0.248	0.200	0.217	0.057	0.090	0.079	0.095	0.078	0.084
1982	0.394	0.606	1.000	0.068	0.155	0.119	0.192	0.192	0.192	0.051	0.082	0.070	0.089	0.079	0.083
1983	0.383	0.617	1.000	0.057	0.125	0.096	0.205	0.189	0.196	0.060	0.079	0.071	0.103	0.092	0.097
1984	0.399	0.601	1.000	0.078	0.160	0.127	0.272	0.175	0.215	0.055	0.067	0.062	0.107	0.094	0.099
1985	0.412	0.588	1.000	0.093	0.162	0.132	0.256	0.193	0.220	0.099	0.066	0.086	0.092	0.093	0.093
1986	0.402	0.598	1.000	0.110	0.171	0.145	0.289	0.257	0.270	0.067	0.075	0.072	0.116	0.126	0.122
1987	0.419	0.581	1.000	0.104	0.150	0.130	0.317	0.232	0.269	0.079	0.077	0.077	0.124	0.118	0.121
1988	0.449	0.551	1.000	0.105	0.171	0.142	0.297	0.232	0.261	0.080	0.083	0.082	0.132	0.113	0.122
1989	0.424	0.576	1.000	0.128	0.228	0.182	0.286	0.240	0.261	0.081	0.079	0.080	0.129	0.116	0.122
1990	0.368	0.632	1.000	0.106	0.162	0.140	0.337	0.249	0.283	0.082	0.072	0.076	0.122	0.123	0.122
1991	0.392	0.608	1.000	0.098	0.154	0.132	0.365	0.221	0.277	0.072	0.080	0.077	0.104	0.126	0.117
1992	0.391	0.609	1.000	0.089	0.162	0.134	0.376	0.233	0.287	0.082	0.074	0.077	0.097	0.119	0.111
1993	0.343	0.657	1.000	0.103	0.166	0.146	0.382	0.224	0.275	0.087	0.076	0.080	0.078	0.126	0.111
1994	0.438	0.562	1.000	0.138	0.155	0.148	0.358	0.233	0.285	0.081	0.075	0.077	0.094	0.128	0.114
1995	0.377	0.623	1.000	0.115	0.163	0.145	0.383	0.243	0.294	0.086	0.080	0.082	0.111	0.140	0.129

Source: State Institute of Statistics Prime Ministry Republic of Turkey.

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Table 6. Share of Foreign Countries' Export, Import and the Volume of Trade in Total Export, Total Import and Total Trade, Respectively (continued)

[Formulas (6), (7) and (8) for Major 14 Trading Partner Countries]

Year	France w_x	w_m	w_t	Switzerland w_x	w_m	w_t	Netherlands w_x	w_m	w_t	Austria w_x	w_m	w_t	Japan w_x	w_m	w_t
1949	0.074	0.087	0.080	0.029	0.034	0.032	0.048	0.041	0.044	0.047	0.057	0.052	0.001	0.005	0.003
1950	0.056	0.071	0.063	0.014	0.020	0.017	0.036	0.041	0.038	0.052	0.032	0.042	0.010	0.000	0.005
1951	0.084	0.076	0.080	0.014	0.029	0.022	0.022	0.037	0.030	0.025	0.018	0.021	0.012	0.001	0.006
1952	0.191	0.064	0.114	0.015	0.028	0.023	0.015	0.050	0.036	0.026	0.030	0.028	0.001	0.001	0.001
1953	0.061	0.085	0.075	0.014	0.029	0.022	0.026	0.051	0.040	0.021	0.033	0.028	0.024	0.002	0.011
1954	0.047	0.106	0.082	0.040	0.027	0.032	0.015	0.031	0.025	0.028	0.027	0.027	0.012	0.017	0.015
1955	0.112	0.089	0.097	0.023	0.024	0.023	0.022	0.024	0.023	0.060	0.021	0.036	0.005	0.010	0.008
1956	0.078	0.064	0.070	0.033	0.016	0.023	0.013	0.019	0.016	0.036	0.022	0.028	0.005	0.033	0.021
1957	0.093	0.045	0.067	0.040	0.014	0.027	0.020	0.017	0.019	0.021	0.014	0.017	0.007	0.005	0.006
1958	0.118	0.039	0.072	0.025	0.016	0.020	0.019	0.022	0.021	0.034	0.021	0.027	0.001	0.004	0.003
1959	0.065	0.048	0.055	0.029	0.019	0.023	0.027	0.039	0.034	0.021	0.043	0.034	0.009	0.005	0.007
1960	0.075	0.045	0.056	0.043	0.018	0.028	0.027	0.034	0.031	0.022	0.027	0.025	0.011	0.013	0.012
1961	0.097	0.043	0.064	0.063	0.018	0.035	0.024	0.030	0.027	0.020	0.019	0.020	0.009	0.032	0.023
1962	0.049	0.058	0.055	0.065	0.014	0.033	0.025	0.024	0.025	0.012	0.021	0.018	0.006	0.034	0.024
1963	0.061	0.065	0.063	0.080	0.016	0.037	0.029	0.025	0.026	0.010	0.015	0.014	0.012	0.030	0.024
1964	0.087	0.051	0.066	0.082	0.023	0.047	0.025	0.032	0.029	0.014	0.024	0.020	0.006	0.017	0.013
1965	0.067	0.050	0.057	0.048	0.029	0.037	0.038	0.031	0.034	0.020	0.025	0.023	0.017	0.022	0.020
1966	0.076	0.080	0.079	0.061	0.034	0.044	0.037	0.029	0.032	0.014	0.020	0.018	0.025	0.029	0.028
1967	0.081	0.055	0.066	0.076	0.039	0.054	0.031	0.031	0.031	0.013	0.020	0.017	0.074	0.034	0.051
1968	0.067	0.049	0.056	0.082	0.042	0.057	0.047	0.034	0.039	0.019	0.021	0.021	0.051	0.021	0.033
1969	0.078	0.045	0.057	0.080	0.059	0.067	0.046	0.033	0.038	0.020	0.018	0.019	0.035	0.015	0.023
1970	0.100	0.046	0.066	0.111	0.064	0.081	0.054	0.035	0.042	0.021	0.014	0.017	0.049	0.037	0.041
1971	0.109	0.089	0.096	0.144	0.068	0.094	0.054	0.031	0.039	0.019	0.018	0.019	0.023	0.030	0.027
1972	0.085	0.087	0.087	0.127	0.061	0.083	0.046	0.038	0.041	0.019	0.015	0.016	0.025	0.027	0.027
1973	0.083	0.085	0.084	0.133	0.079	0.098	0.047	0.063	0.058	0.015	0.017	0.016	0.019	0.037	0.031
1974	0.068	0.090	0.084	0.097	0.076	0.081	0.054	0.043	0.046	0.019	0.020	0.020	0.019	0.073	0.059
1975	0.066	0.084	0.080	0.103	0.085	0.089	0.054	0.042	0.045	0.026	0.018	0.020	0.031	0.064	0.057
1976	0.078	0.091	0.087	0.129	0.082	0.096	0.046	0.049	0.048	0.020	0.018	0.018	0.026	0.067	0.055
1977	0.079	0.087	0.085	0.091	0.089	0.090	0.048	0.041	0.043	0.029	0.020	0.022	0.030	0.083	0.076
1978	0.089	0.115	0.107	0.079	0.086	0.083	0.054	0.032	0.039	0.024	0.025	0.025	0.025	0.036	0.032
1979	0.097	0.106	0.103	0.080	0.083	0.082	0.053	0.028	0.036	0.033	0.038	0.036	0.016	0.089	0.066
1980	0.096	0.091	0.093	0.074	0.080	0.078	0.050	0.050	0.050	0.032	0.029	0.030	0.022	0.027	0.025
1981	0.083	0.083	0.083	0.102	0.111	0.108	0.037	0.035	0.035	0.037	0.017	0.024	0.014	0.043	0.033
1982	0.053	0.050	0.051	0.088	0.063	0.073	0.028	0.030	0.029	0.027	0.022	0.024	0.012	0.068	0.045
1983	0.044	0.039	0.041	0.070	0.048	0.057	0.034	0.033	0.033	0.022	0.024	0.023	0.009	0.063	0.040
1984	0.043	0.036	0.039	0.076	0.034	0.052	0.038	0.032	0.035	0.027	0.017	0.021	0.008	0.061	0.039
1985	0.048	0.072	0.058	0.024	0.026	0.025	0.039	0.031	0.034	0.023	0.022	0.022	0.008	0.071	0.044
1986	0.060	0.079	0.071	0.032	0.041	0.038	0.044	0.038	0.041	0.022	0.020	0.021	0.020	0.099	0.066
1987	0.073	0.067	0.069	0.052	0.040	0.045	0.041	0.040	0.040	0.027	0.021	0.024	0.023	0.095	0.064
1988	0.069	0.093	0.082	0.037	0.039	0.038	0.049	0.043	0.046	0.025	0.024	0.024	0.029	0.063	0.047
1989	0.078	0.081	0.080	0.023	0.045	0.035	0.054	0.048	0.051	0.017	0.017	0.017	0.031	0.058	0.045
1990	0.081	0.095	0.090	0.032	0.038	0.036	0.048	0.041	0.044	0.020	0.018	0.019	0.026	0.080	0.059
1991	0.074	0.084	0.080	0.026	0.033	0.031	0.051	0.044	0.047	0.023	0.022	0.022	0.024	0.075	0.055
1992	0.083	0.084	0.084	0.023	0.043	0.035	0.051	0.043	0.046	0.024	0.018	0.020	0.017	0.069	0.049
1993	0.081	0.097	0.091	0.023	0.032	0.029	0.054	0.043	0.047	0.024	0.016	0.018	0.017	0.080	0.060
1994	0.078	0.093	0.087	0.022	0.030	0.027	0.057	0.047	0.051	0.023	0.013	0.017	0.017	0.062	0.043
1995	0.079	0.087	0.084	0.018	0.036	0.029	0.056	0.047	0.051	0.021	0.013	0.016	0.014	0.061	0.044

Source: State Institute of Statistics Prime Ministry Republic of Turkey.

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Table 6. Share of Foreign Countries' Export, Import and the Volume of Trade in Total Export, Total Import and Total Trade, Respectively (continued)
[Formulas (6), (7) and (8) for Major 14 Trading Partner Countries]

Year	S. Arabia			Iran			Egypt			Greece			Spain		
	w_x	w_m	w_t	w_x	w_m	w_t	w_x	w_m	w_t	w_x	w_m	w_t	w_x	w_m	w_t
1949	0.000	0.000	0.000	0.000	0.031	0.016	0.064	0.006	0.034	0.107	0.005	0.055	0.004	0.004	0.004
1950	0.000	0.000	0.000	0.000	0.022	0.011	0.028	0.004	0.016	0.046	0.003	0.024	0.009	0.001	0.005
1951	0.000	0.000	0.000	0.000	0.017	0.009	0.033	0.004	0.017	0.031	0.002	0.015	0.003	0.001	0.002
1952	0.000	0.044	0.027	0.000	0.000	0.000	0.020	0.002	0.009	0.019	0.008	0.012	0.004	0.001	0.002
1953	0.000	0.042	0.024	0.000	0.000	0.000	0.024	0.000	0.011	0.031	0.008	0.018	0.053	0.008	0.028
1954	0.000	0.038	0.023	0.000	0.000	0.000	0.017	0.007	0.011	0.010	0.005	0.007	0.062	0.053	0.057
1955	0.000	0.045	0.028	0.000	0.001	0.000	0.009	0.008	0.008	0.012	0.004	0.007	0.021	0.015	0.017
1956	0.000	0.029	0.017	0.000	0.002	0.000	0.013	0.003	0.007	0.015	0.003	0.008	0.011	0.007	0.009
1957	0.001	0.037	0.020	0.004	0.004	0.004	0.013	0.007	0.010	0.008	0.002	0.004	0.008	0.003	0.005
1958	0.000	0.029	0.017	0.000	0.001	0.000	0.006	0.014	0.011	0.007	0.000	0.003	0.010	0.007	0.008
1959	0.000	0.025	0.015	0.000	0.008	0.005	0.006	0.001	0.003	0.012	0.001	0.006	0.010	0.005	0.007
1960	0.001	0.017	0.011	0.016	0.001	0.007	0.007	0.001	0.003	0.008	0.001	0.003	0.037	0.009	0.020
1961	0.001	0.019	0.012	0.021	0.007	0.012	0.009	0.002	0.005	0.005	0.002	0.003	0.020	0.007	0.012
1962	0.000	0.010	0.007	0.000	0.028	0.018	0.004	0.000	0.002	0.013	0.005	0.008	0.023	0.011	0.015
1963	0.001	0.000	0.000	0.000	0.029	0.019	0.003	0.001	0.002	0.013	0.005	0.008	0.024	0.006	0.012
1964	0.000	0.028	0.016	0.017	0.018	0.018	0.003	0.002	0.003	0.013	0.003	0.007	0.029	0.003	0.013
1965	0.001	0.046	0.028	0.005	0.000	0.000	0.005	0.001	0.003	0.021	0.001	0.009	0.016	0.003	0.009
1966	0.001	0.028	0.018	0.000	0.000	0.000	0.004	0.002	0.003	0.018	0.000	0.007	0.035	0.003	0.015
1967	0.001	0.016	0.010	0.001	0.000	0.000	0.004	0.002	0.003	0.007	0.000	0.003	0.022	0.004	0.011
1968	0.000	0.021	0.013	0.022	0.000	0.000	0.005	0.002	0.003	0.011	0.002	0.005	0.030	0.004	0.013
1969	0.000	0.012	0.008	0.013	0.002	0.006	0.007	0.010	0.009	0.020	0.001	0.008	0.010	0.012	0.011
1970	0.001	0.011	0.007	0.013	0.000	0.005	0.010	0.005	0.007	0.010	0.000	0.004	0.010	0.006	0.008
1971	0.001	0.025	0.017	0.009	0.005	0.007	0.008	0.004	0.005	0.013	0.001	0.005	0.014	0.007	0.009
1972	0.002	0.043	0.030	0.020	0.012	0.015	0.004	0.005	0.005	0.018	0.004	0.009	0.007	0.013	0.011
1973	0.002	0.053	0.035	0.014	0.009	0.011	0.002	0.000	0.001	0.022	0.004	0.011	0.010	0.067	0.008
1974	0.004	0.093	0.069	0.015	0.016	0.016	0.006	0.002	0.003	0.020	0.006	0.010	0.020	0.008	0.011
1975	0.006	0.028	0.023	0.040	0.008	0.015	0.007	0.000	0.002	0.001	0.000	0.000	0.020	0.009	0.012
1976	0.013	0.003	0.006	0.024	0.032	0.030	0.011	0.001	0.004	0.001	0.002	0.002	0.019	0.016	0.017
1977	0.014	0.001	0.005	0.041	0.044	0.043	0.013	0.001	0.004	0.001	0.005	0.004	0.012	0.018	0.016
1978	0.012	0.010	0.011	0.031	0.159	0.119	0.013	0.010	0.011	0.003	0.001	0.002	0.009	0.017	0.014
1979	0.014	0.003	0.007	0.008	0.049	0.037	0.035	0.000	0.011	0.003	0.009	0.007	0.013	0.031	0.025
1980	0.026	0.028	0.028	0.050	0.203	0.159	0.012	0.007	0.008	0.005	0.013	0.011	0.017	0.020	0.019
1981	0.072	0.085	0.081	0.090	0.107	0.101	0.028	0.001	0.010	0.018	0.005	0.009	0.015	0.023	0.021
1982	0.097	0.096	0.097	0.215	0.142	0.172	0.039	0.000	0.016	0.035	0.003	0.016	0.006	0.018	0.013
1983	0.089	0.048	0.066	0.266	0.220	0.239	0.017	0.004	0.010	0.014	0.004	0.008	0.010	0.032	0.022
1984	0.080	0.032	0.052	0.160	0.234	0.203	0.030	0.001	0.013	0.020	0.007	0.012	0.006	0.049	0.031
1985	0.079	0.032	0.052	0.198	0.178	0.187	0.026	0.001	0.012	0.014	0.007	0.010	0.010	0.045	0.030
1986	0.071	0.026	0.045	0.113	0.032	0.066	0.029	0.002	0.014	0.015	0.011	0.013	0.012	0.021	0.017
1987	0.059	0.018	0.036	0.064	0.104	0.087	0.020	0.001	0.009	0.009	0.014	0.012	0.010	0.022	0.017
1988	0.050	0.026	0.036	0.075	0.074	0.075	0.026	0.001	0.012	0.013	0.009	0.011	0.015	0.027	0.022
1989	0.048	0.023	0.034	0.074	0.025	0.047	0.018	0.002	0.010	0.016	0.011	0.013	0.017	0.027	0.023
1990	0.037	0.051	0.046	0.054	0.035	0.043	0.018	0.003	0.009	0.015	0.009	0.012	0.022	0.025	0.024
1991	0.052	0.125	0.096	0.052	0.006	0.024	0.018	0.003	0.009	0.015	0.005	0.009	0.025	0.022	0.023
1992	0.050	0.103	0.083	0.047	0.023	0.032	0.018	0.004	0.009	0.015	0.005	0.009	0.031	0.020	0.024
1993	0.068	0.074	0.072	0.030	0.033	0.032	0.020	0.005	0.010	0.012	0.006	0.008	0.020	0.021	0.021
1994	0.056	0.079	0.069	0.023	0.044	0.035	0.018	0.008	0.012	0.015	0.007	0.010	0.021	0.024	0.023
1995	0.036	0.061	0.051	0.020	0.030	0.027	0.019	0.009	0.013	0.016	0.004	0.009	0.027	0.026	0.026

Source: State Institute of Statistics Prime Ministry Republic of Turkey.

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Table 7. Bilateral Real Exchange Rates (USA $ & TL)

Formula (2): $RER = ER \cdot (P_f / P_d)$

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	BRER₁	BRER₂	BRER₃	BRER₁	BRER₂	BRER₃	BRER₄	BRER₅	BRER₆	BRER₄	BRER₅	BRER₆
1949	409.7	336.8	415.6	409.7	336.8	415.6	344.4	400.5	535.0	344.4	400.5	535.0
1950	474.3	346.5	432.6	474.3	346.5	432.6	377.3	435.5	568.4	377.3	435.5	568.4
1951	498.0	374.2	427.2	498.0	374.2	427.2	384.3	484.9	595.1	384.3	484.9	595.1
1952	480.0	363.3	420.6	480.0	363.3	420.6	388.3	449.2	563.7	388.3	449.2	563.7
1953	459.2	353.6	409.5	459.2	353.6	409.5	381.1	426.1	529.7	381.1	426.1	529.7
1954	418.1	324.5	393.4	418.1	324.5	393.4	347.3	390.7	506.1	347.3	390.7	506.1
1955	388.5	287.8	364.9	388.5	287.8	364.9	321.1	348.2	454.9	321.1	348.2	454.9
1956	345.2	265.7	337.4	345.2	265.7	337.4	279.6	328.1	421.6	279.6	328.1	421.6
1957	362.0	298.1	343.4	362.0	298.1	343.4	295.1	365.7	426.6	295.1	365.7	426.6
1958	847.3	700.4	811.2	517.8	428.0	495.7	699.5	848.4	1004.1	427.5	518.4	613.6
1959	707.3	568.2	699.1	707.3	568.2	699.1	589.2	682.1	840.6	589.2	682.1	840.6
1960	673.7	549.8	683.9	673.7	549.8	683.9	569.2	650.7	811.8	569.2	650.7	811.8
1961	653.3	546.2	661.9	653.3	546.2	661.9	558.9	638.5	775.7	558.9	638.5	775.7
1962	617.9	533.0	617.9	617.9	533.0	617.9	533.2	617.6	708.3	533.2	617.6	708.3
1963	592.2	500.2	592.5	592.2	500.2	592.5	517.7	572.3	670.5	517.7	572.3	670.5
1964	585.2	500.5	587.5	585.2	500.5	587.5	518.1	565.4	653.6	518.1	565.4	653.6
1965	553.3	481.0	579.1	553.3	481.0	579.1	487.4	546.0	641.0	487.4	546.0	641.0
1966	544.8	470.3	562.9	544.8	470.3	562.9	480.3	533.5	622.5	480.3	533.5	622.5
1967	506.4	444.8	544.1	506.4	444.8	544.1	457.2	492.6	583.6	457.2	492.6	583.6
1968	504.6	447.3	549.2	504.6	447.3	549.2	462.3	488.2	577.2	462.3	488.2	577.2
1969	488.1	438.4	537.2	488.1	438.4	537.2	455.4	469.8	557.5	455.4	469.8	557.5
1970	784.3	709.5	859.9	594.8	538.1	652.1	746.6	745.2	877.6	566.2	565.2	665.6
1971	667.2	605.8	734.1	709.0	635.6	770.3	640.7	630.8	736.3	672.3	601.9	772.6
1972	589.5	550.0	692.6	589.5	550.0	692.6	560.5	578.5	690.0	560.5	578.5	690.0
1973	553.7	504.0	604.4	553.7	504.0	604.4	494.3	564.6	641.0	494.3	564.6	641.0
1974	499.7	465.7	504.6	496.1	462.4	501.0	417.2	557.7	584.9	414.2	553.7	580.8
1975	539.0	460.1	496.3	510.6	435.9	470.2	448.6	552.8	574.1	424.9	523.7	543.9
1976	535.8	459.6	503.5	516.6	443.1	485.4	451.3	545.7	573.2	435.1	526.1	552.6
1977	532.2	444.1	505.3	493.8	412.0	468.8	449.7	525.6	570.8	417.2	487.7	529.6
1978	490.8	423.1	484.8	471.4	406.4	465.6	413.4	502.4	547.6	397.0	482.5	525.9
1979	471.1	420.7	419.7	413.9	369.6	368.7	393.1	504.1	490.3	345.4	442.9	430.8
1980	660.6	563.6	621.3	557.2	475.4	524.1	547.9	679.5	757.6	462.2	573.1	639.0
1981	781.1	688.3	703.2	650.1	572.9	585.3	655.3	820.5	850.4	545.4	683.0	707.8
1982	889.5	838.2	814.5	774.3	729.7	709.0	776.7	960.0	946.0	676.1	835.7	823.4
1983	1044.0	995.9	1016.3	832.5	794.1	810.4	928.1	1120.3	1148.8	740.0	893.3	916.1
1984	1105.9	1101.0	1126.2	912.0	907.9	928.7	1001.5	1215.8	1248.0	825.9	1002.5	1029.1
1985	1019.4	1021.3	989.3	922.4	924.1	895.2	962.2	1082.0	1051.9	870.6	979.0	951.8
1986	1027.0	1014.7	981.3	914.1	903.2	873.4	1015.7	1026.0	987.3	904.1	913.2	878.8
1987	1020.9	1020.9	1020.9	857.2	857.2	857.2	1020.9	1020.9	1020.9	857.2	857.2	857.2
1988	1107.7	1086.8	1112.9	868.2	851.8	872.2	1107.7	1087.3	1115.3	867.8	852.2	874.1
1989	904.6	889.9	845.0	829.5	816.1	774.9	903.0	891.5	850.8	828.0	817.5	780.2
1990	778.6	740.9	705.4	693.2	659.6	628.0	791.2	729.1	704.8	704.3	649.1	627.5
1991	870.6	806.5	807.3	714.9	662.3	663.0	919.9	763.3	770.8	755.5	626.8	633.0
1992	911.0	824.0	846.7	731.0	661.2	679.4	986.3	761.1	798.5	791.4	610.7	640.8
1993	986.3	861.3	871.4	748.6	655.2	661.4	1083.5	785.9	816.3	822.4	596.5	619.5
1994	1189.7	1141.3	1182.0	909.6	877.9	903.8	1323.1	1032.4	1068.0	1011.6	789.4	816.6
1995	1006.8	931.2	1028.4	773.8	721.9	790.4	1111.7	850.6	939.4	854.4	653.8	722.0

Note. WPIs are used for both Turkey and US to compute BRER₁.

CPIs are used for both Turkey and US to compute BRER₂.

GDP deflators are used for both Turkey and US to compute BRER₃.

CPIs are used for US and WPIs are used for Turkey to compute BRER₄.

WPIs are used for US and CPIs are used for Turkey to compute BRER₅.

WPIs are used for US and GDP deflators are used for Turkey to compute BRER₆.

Table 7-A. Bilateral Real Exchange Rates (USA $ & TL)

Formula (12): $RER_i = (ER_i / ER_{ih}) \cdot (P_n / P_d)$

1987=100

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	BRER₁	BRER₃	BRER₁	BRER₁	BRER₃	BRER₃	BRER₄	BRER₃	BRER₄	BRER₅	BRER₃	BRER₄
1949	40.13	32.99	40.71	47.79	39.29	48.49	33.74	39.23	52.41	40.18	46.73	62.41
1950	46.46	33.94	42.37	55.33	40.42	50.47	36.96	42.66	55.67	44.02	50.81	66.31
1951	48.78	36.66	41.85	58.09	43.66	49.84	37.65	47.50	58.29	44.83	56.57	69.42
1952	47.02	35.59	41.20	56.00	42.38	49.06	38.03	44.00	55.22	45.30	52.40	65.76
1953	44.98	34.64	40.11	53.57	41.25	47.77	37.33	41.74	51.88	44.46	49.71	61.79
1954	40.95	31.79	38.54	48.77	37.86	45.90	34.02	38.27	49.58	40.51	45.58	59.04
1955	38.05	28.19	35.74	45.32	33.58	42.57	31.45	34.11	44.56	37.46	40.62	53.07
1956	33.82	26.02	33.05	40.28	30.99	39.37	27.38	32.14	41.30	32.61	38.27	49.18
1957	35.46	29.20	33.64	42.23	34.77	40.06	28.90	35.82	41.79	34.42	42.66	49.77
1958	83.00	68.60	79.46	60.41	49.93	57.83	68.52	83.10	98.35	49.87	60.48	71.58
1959	69.28	55.66	68.48	82.51	66.29	81.55	57.71	66.82	82.34	68.73	79.58	98.06
1960	65.99	53.85	66.99	78.59	64.14	79.79	55.75	63.74	79.51	66.40	75.91	94.70
1961	63.99	53.50	64.83	76.21	63.72	77.21	54.74	62.54	75.98	65.20	74.49	90.49
1962	60.53	52.21	60.52	72.08	62.18	72.08	52.23	60.50	69.38	62.20	72.05	82.63
1963	58.03	49.00	58.04	69.09	58.36	69.12	50.71	56.05	65.67	60.39	66.76	78.21
1964	57.32	49.03	57.55	68.27	58.39	68.54	50.75	55.38	64.02	60.44	65.95	76.25
1965	54.20	47.11	56.72	64.55	56.11	67.55	47.74	53.48	62.79	56.86	63.70	74.78
1966	53.37	46.07	55.14	63.56	54.87	65.67	47.05	52.26	60.98	56.03	62.24	72.62
1967	49.60	43.57	53.30	59.08	51.89	63.47	44.78	48.26	57.17	53.33	57.47	68.08
1968	49.42	43.81	53.79	58.86	52.18	64.07	45.28	47.82	56.54	53.93	56.95	67.34
1969	47.81	42.94	52.62	56.94	51.14	62.67	44.61	46.02	54.61	53.13	54.81	65.04
1970	76.82	69.49	84.23	69.39	62.77	76.08	73.13	73.00	85.97	66.06	65.93	77.65
1971	65.35	59.34	71.90	81.67	74.15	89.86	62.76	61.79	72.12	78.43	77.22	90.13
1972	57.75	53.88	67.84	68.77	64.17	80.80	54.90	56.67	67.59	65.38	67.49	80.50
1973	54.24	49.37	59.20	64.60	58.80	70.50	48.42	55.30	62.79	57.67	65.86	74.78
1974	48.95	45.62	49.43	57.88	53.94	58.45	40.87	54.63	57.30	48.33	64.60	67.75
1975	52.79	45.07	48.62	59.57	50.85	54.86	43.94	54.15	56.24	49.57	61.10	63.45
1976	52.49	45.02	49.32	60.27	51.69	56.63	44.21	53.45	56.14	50.76	61.38	64.46
1977	52.13	43.50	49.49	57.61	48.07	54.69	44.05	51.48	55.92	48.67	56.89	61.79
1978	48.07	41.44	47.49	54.99	47.41	54.32	40.49	49.21	53.64	46.32	56.29	61.36
1979	46.15	41.20	41.11	48.28	43.11	43.01	38.51	49.38	48.03	40.29	51.66	50.35
1980	64.71	55.20	60.86	65.01	55.46	61.14	53.67	66.56	74.21	53.92	66.86	74.55
1981	76.51	67.43	68.88	75.84	66.84	68.28	64.18	80.37	83.30	63.63	79.67	82.57
1982	87.13	82.11	79.78	90.33	85.12	82.71	76.08	94.04	92.66	78.87	97.49	96.06
1983	102.26	97.55	99.55	97.12	92.64	94.54	90.91	109.74	112.53	86.33	104.22	106.87
1984	108.33	107.85	110.31	106.39	105.91	108.34	98.10	119.09	122.25	96.34	116.95	120.06
1985	99.85	100.04	96.91	107.60	107.81	104.43	94.25	105.98	103.04	101.57	114.21	111.04
1986	100.60	99.39	96.12	106.64	105.36	101.89	99.49	100.50	96.71	105.47	106.54	102.52
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	108.51	106.46	109.02	101.28	99.37	101.75	108.46	106.51	109.24	101.23	99.41	101.97
1989	88.61	87.17	82.77	96.77	95.20	90.40	88.45	87.33	83.34	96.60	95.37	91.02
1990	76.27	72.57	69.10	80.87	76.94	73.26	77.50	71.42	69.04	82.17	75.73	73.20
1991	85.28	79.00	79.07	83.41	77.27	77.34	90.11	74.76	75.50	88.13	73.12	73.85
1992	89.23	80.71	82.94	85.28	77.13	79.26	96.61	74.55	78.22	92.32	71.25	74.75
1993	96.62	84.56	85.36	87.33	76.44	77.16	106.13	76.98	79.95	95.94	69.58	72.27
1994	116.53	112.48	115.78	106.11	102.42	105.43	129.61	101.13	104.62	118.02	92.09	95.26
1995	98.62	92.00	100.74	90.27	84.21	92.21	108.89	83.32	92.02	99.68	76.27	84.23
Avg.	66.9	59.8	65.5	71.5	63.8	70.2	61.7	65.2	71.7	65.6	69.8	77.2
Std.	22.9	24.6	22.6	19.0	21.5	19.2	26.3	22.6	20.3	22.6	19.5	16.8
Min.	33.8	26.0	33.1	40.3	31.0	39.4	27.4	32.1	41.3	32.6	38.3	49.2
Max.	116.5	112.5	115.8	107.6	107.8	108.3	129.6	119.1	122.2	118.0	117.0	120.1

Note: The year which does not have data is excluded from the calculations of average (avg), standard deviation (std), minimum (min.) and maximum (max.).

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Table 8. Bilateral Real Exchange Rates (DM & TL)

Formula (2): $RER = ER \cdot (P_f / P_d)$

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	BRER$_1$	BRER$_1$	BRER$_3$	BRER$_1$	BRER$_2$	BRER$_3$	BRER$_4$	BRER$_3$	BRER$_4$	BRER$_4$	BRER$_4$	BRER$_4$
1949	147.2	128.7	-	147.2	128.7	-	131.7	143.9	192.2	131.7	143.9	192.2
1950	159.8	126.3	-	160.0	126.4	-	137.5	146.7	191.5	137.7	146.9	191.7
1951	178.6	135.7	-	178.8	135.8	-	139.3	173.9	213.4	139.5	174.1	213.6
1952	180.6	131.9	-	180.8	132.1	--	141.0	169.0	212.1	141.1	169.2	212.4
1953	171.1	124.8	-	171.3	125.0	-	134.5	158.7	197.3	134.7	158.9	197.5
1954	152.9	114.4	-	153.1	114.5	-	122.4	142.9	185.1	122.5	143.0	185.3
1955	143.9	103.1	-	144.2	103.3	-	115.0	129.0	168.6	115.2	129.3	168.9
1956	125.8	96.4	-	125.6	96.3	-	101.5	119.5	153.6	101.3	119.4	153.4
1957	130.8	107.9	-	130.8	107.0	-	106.0	132.1	154.1	106.0	132.1	154.1
1958	301.9	251.0	-	183.9	152.9	-	250.7	302.3	357.8	152.7	184.1	217.9
1959	250.7	203.9	-	250.2	203.5	-	211.4	241.8	298.0	211.0	241.3	297.3
1960	240.7	197.0	-	240.7	197.0	-	203.9	232.5	290.0	204.0	232.5	290.0
1961	247.8	206.9	-	246.5	205.8	-	211.7	242.2	294.3	210.6	240.9	292.7
1962	236.5	206.0	-	236.5	206.0	-	206.1	236.4	271.1	206.1	236.4	271.1
1963	229.0	197.4	-	228.3	196.9	-	204.3	221.2	259.2	203.8	220.6	258.5
1964	228.7	199.9	207.3	228.8	200.0	207.4	206.9	220.9	255.4	207.0	221.1	255.6
1965	215.2	193.6	205.2	215.8	194.1	205.8	196.2	212.3	249.3	196.7	213.0	250.0
1966	210.3	191.1	200.7	209.2	190.1	199.6	195.2	205.9	240.3	194.2	204.8	239.0
1967	192.7	178.4	190.0	193.4	178.9	190.6	183.4	187.5	222.1	183.9	188.1	222.8
1968	185.6	174.7	187.0	186.0	175.0	187.4	180.5	179.6	212.3	180.9	179.9	212.7
1969	190.9	178.8	196.8	179.4	168.1	185.0	185.8	183.7	218.0	174.6	172.7	204.9
1970	314.1	286.7	325.7	238.3	217.5	247.1	301.7	289.5	351.5	228.9	226.4	266.7
1971	300.5	275.6	317.0	294.6	270.2	310.8	291.5	284.1	331.6	285.8	278.5	325.1
1972	267.1	261.0	306.6	268.1	262.1	307.8	265.9	262.1	312.6	267.0	263.2	313.9
1973	280.0	284.9	316.8	283.2	288.2	320.4	279.5	285.5	324.1	282.6	288.7	327.8
1974	270.2	284.1	292.0	249.8	262.7	270.0	254.6	301.6	316.3	235.4	278.8	292.4
1975	256.4	251.0	255.0	258.9	253.4	257.5	244.7	263.0	273.1	247.0	265.6	275.8
1976	280.3	274.1	279.9	253.6	248.0	253.2	269.2	285.5	299.8	243.5	258.2	271.2
1977	302.6	289.5	305.6	254.5	243.5	257.0	293.1	298.9	324.6	246.5	251.4	273.0
1978	301.7	303.5	326.2	263.7	265.3	285.2	296.5	308.8	336.6	259.2	269.9	294.2
1979	284.7	297.7	286.4	236.3	247.1	237.7	278.2	304.6	296.3	230.9	252.8	245.9
1980	332.4	327.6	359.3	302.2	297.8	326.6	318.5	341.9	381.2	289.5	310.8	346.5
1981	337.8	334.7	335.0	280.5	278.0	278.2	318.6	354.8	367.8	264.6	294.7	305.4
1982	378.6	383.8	361.9	322.8	327.1	308.5	355.6	408.6	402.7	303.1	348.3	343.3
1983	388.2	398.3	391.0	330.2	338.8	332.6	371.1	416.6	427.2	315.7	354.3	363.4
1984	357.8	374.2	366.3	326.3	341.3	334.1	340.4	393.3	403.8	310.4	358.8	368.3
1985	434.2	437.7	405.2	328.5	331.1	306.5	412.3	460.9	448.1	311.9	348.7	339.0
1986	556.5	540.4	512.1	442.7	429.9	407.4	540.9	556.0	535.0	430.3	442.3	425.6
1987	645.5	645.5	645.5	476.9	476.9	476.9	645.5	645.5	645.5	476.9	476.9	476.9
1988	605.5	594.4	611.1	481.1	472.2	485.5	605.5	594.3	609.6	481.1	472.2	484.3
1989	509.3	500.0	476.2	421.8	414.1	394.4	507.4	502.0	479.1	420.2	415.7	396.7
1990	489.6	460.9	447.4	403.0	379.4	368.3	492.2	458.5	443.2	405.2	377.4	364.8
1991	551.3	491.2	499.3	413.6	368.5	374.6	560.2	483.4	488.1	420.3	362.6	366.2
1992	546.0	475.4	509.3	452.8	394.3	422.4	569.0	456.2	478.6	471.9	378.3	396.9
1993	544.1	470.7	497.7	431.2	373.0	394.5	590.8	433.5	450.3	468.2	343.6	356.8
1994	727.2	701.3	733.4	530.6	511.7	535.2	808.1	631.1	652.8	589.7	460.5	476.4
1995	653.1	613.2	687.8	502.1	471.4	528.8	725.8	551.7	609.3	558.0	424.2	468.4

Note. WPIs are used for both Turkey and Germany to compute BRER$_1$.

CPIs are used for both Turkey and Germany to compute BRER$_2$.

GDP deflators are used for both Turkey and Germany to compute BRER$_3$.

CPIs are used for Germany and WPIs are used for Turkey to compute BRER$_4$.

WPIs are used for Germany and CPIs are used for Turkey to compute BRER$_5$.

WPIs are used for Germany and GDP deflators are used for Turkey to compute BRER$_6$.

Table 8-A. Bilateral Real Exchange Rates (DM & TL)

Formula (12): $RER_t = (ER_t / ER_{t0}) \cdot (P_n / P_d)$

1987=100

Year	ae (end of period) BRER₁	BRER₂	BRER₃	rf (period averages) BRER₁	BRER₂	BRER₃	ae (end of period) BRER₄	BRER₅	BRER₆	rf (period averages) BRER₄	BRER₅	BRER₆
1949	22.80	19.94	-	30.86	26.99	-	20.40	22.29	29.78	27.61	30.17	40.30
1950	24.76	19.56	-	33.55	26.51	-	21.30	22.73	29.67	28.87	30.81	40.20
1951	27.66	21.02	-	37.48	28.48	-	21.58	26.93	33.05	29.25	36.50	44.79
1952	27.98	20.43	-	37.92	27.69	-	21.84	26.18	32.86	29.59	35.48	44.53
1953	26.50	19.34	-	35.91	26.20	-	20.84	24.59	30.56	28.24	33.32	41.42
1954	23.69	17.71	-	32.10	24.00	-	18.96	22.13	28.67	25.69	29.99	38.86
1955	22.30	15.97	-	30.24	21.66	-	17.82	19.99	26.11	24.16	27.10	35.41
1956	19.49	14.94	-	26.34	20.19	-	15.72	18.52	23.80	21.25	25.03	32.17
1957	20.26	16.58	-	27.42	22.45	-	16.41	20.46	23.87	22.22	27.70	32.32
1958	46.77	38.89	-	38.56	32.06	-	38.84	46.83	55.43	32.02	38.60	45.69
1959	38.84	31.59	-	52.46	42.66	-	32.75	37.46	46.16	44.24	50.59	62.35
1960	37.28	30.52	-	50.47	41.31	-	31.59	36.01	44.92	42.77	48.75	60.81
1961	38.39	32.05	-	51.69	43.15	-	32.80	37.52	45.59	44.15	50.52	61.37
1962	36.63	31.91	-	49.59	43.19	-	31.92	36.62	41.99	43.21	49.56	56.84
1963	35.47	30.59	-	47.88	41.28	-	31.65	34.27	40.16	42.73	46.26	54.20
1964	35.43	30.97	-	47.98	41.94	43.49	32.06	34.23	39.57	43.41	46.35	53.59
1965	33.33	29.99	-	45.25	40.71	43.15	30.39	32.90	38.62	41.25	44.66	52.42
1966	32.58	29.61	-	43.86	39.87	41.85	30.24	31.90	37.22	40.71	42.95	50.11
1967	29.86	27.63	-	40.54	37.52	39.97	28.40	29.05	34.41	38.57	39.44	46.72
1968	28.75	27.06	-	38.99	36.70	39.29	27.97	27.82	32.89	37.93	37.73	44.61
1969	29.57	27.70	-	37.62	35.25	38.79	28.78	28.46	33.77	36.62	36.21	42.97
1970	48.66	44.41	-	49.97	45.61	51.81	46.74	46.24	54.45	47.99	47.48	55.92
1971	46.55	42.70	-	61.76	56.66	65.16	45.16	44.01	51.37	59.92	58.40	68.17
1972	41.37	40.43	-	56.23	54.95	64.54	41.20	40.60	48.42	55.99	55.18	65.81
1973	43.37	44.14	-	59.37	60.43	67.19	43.29	44.22	50.21	59.27	60.54	68.73
1974	41.86	44.03	-	52.38	55.09	56.61	39.44	46.72	49.00	49.36	58.46	61.31
1975	39.72	38.88	-	54.29	53.14	53.99	37.90	40.74	42.31	51.80	55.69	57.83
1976	43.42	42.47	-	53.17	52.00	53.09	41.70	44.23	46.45	51.06	54.15	56.87
1977	46.88	44.85	-	53.37	51.05	53.90	45.41	46.30	50.29	51.69	52.71	57.25
1978	46.73	47.02	-	55.29	55.63	59.79	45.94	47.83	52.14	54.35	56.59	61.69
1979	44.10	46.12	44.36	49.54	51.81	49.83	43.10	47.19	45.90	48.42	53.01	51.56
1980	51.49	50.75	55.66	63.36	62.44	68.49	49.34	52.96	59.05	60.71	65.16	72.04
1981	52.33	51.85	51.89	58.82	58.28	58.33	49.36	54.97	56.97	55.48	61.79	64.04
1982	58.65	59.45	56.07	67.68	68.60	64.69	55.08	63.30	62.38	63.56	73.04	71.97
1983	60.13	61.70	60.57	69.24	71.04	69.73	57.49	64.53	66.17	66.20	74.30	76.19
1984	55.42	57.96	56.74	68.43	71.56	70.05	52.72	60.93	62.55	65.10	75.23	77.22
1985	67.27	67.80	62.77	68.88	69.42	64.27	63.87	71.40	69.42	65.40	73.11	71.08
1986	86.21	83.72	79.33	92.83	90.14	85.42	83.80	86.13	82.88	90.23	92.74	89.24
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	93.80	92.08	94.67	100.87	99.02	101.81	93.81	92.07	94.44	100.88	99.01	101.55
1989	78.90	77.46	73.77	88.44	86.83	82.70	78.60	77.75	74.21	88.10	87.17	83.19
1990	75.84	71.40	69.31	84.51	79.56	77.23	76.25	71.02	68.65	84.96	79.14	76.50
1991	85.41	76.09	77.35	86.73	77.26	78.54	86.78	74.88	75.62	88.13	76.04	76.79
1992	84.58	73.65	78.90	94.95	82.67	88.56	88.15	70.67	74.14	98.95	79.33	83.23
1993	84.29	72.92	77.11	90.42	78.22	82.71	91.52	67.15	69.75	98.17	72.04	74.82
1994	112.65	108.64	113.61	111.26	107.30	112.21	125.18	97.76	101.13	123.64	96.56	99.88
1995	101.17	94.99	106.55	105.27	98.85	110.87	112.43	85.47	94.39	117.00	88.94	98.22
Avg.	49.6	46.2	74.0	58.2	54.0	66.8	47.8	48.0	52.2	55.8	56.5	61.8
Std.	24.4	24.6	20.1	22.7	23.6	20.6	27.4	22.3	20.5	26.2	20.8	18.4
Min.	19.5	14.9	44.4	26.3	20.2	38.8	15.7	18.5	23.8	21.2	25.0	32.2
Max.	112.6	108.6	113.6	111.3	107.3	112.2	125.2	100.0	101.1	123.6	100.0	101.6

Note: The year which does not have data is excluded from the calculation of average (avg.), standard deviation (std.),
minimum (min.) and maximum (max.).

Table 9. Bilateral Real Exchange Rates (£ & TL)

Formula (1): RER = ER · (Pt / Pf)

Year	ae (end of period) BRER₁	BRER₂	BRER₃	rf (period averages) BRER₄	BRER₅	BRER₆	BRER₇	BRER₈	BRER₉	BRER₁₀	BRER₁₁	BRER₁₂
1949	398.5	374.6	457.7	493.3	602.8	383.2	385.6	520.4	504.6	513.1	685.3	
1950	507.0	402.1	493.3	507.2	403.2	439.0	465.6	607.6	439.1	465.7	607.8	
1951	550.0	434.4	480.1	553.4	442.1	451.3	535.5	657.2	454.1	538.8	661.3	
1952	566.3	449.5	506.6	562.8	446.7	480.3	529.9	665.0	477.4	526.6	660.9	
1953	540.2	436.6	499.5	540.5	438.8	499.8	501.2	623.0	472.9	501.4	623.3	
1954	485.2	406.2	477.7	489.4	409.7	434.7	453.4	587.4	438.4	457.3	592.4	
1955	467.1	372.2	449.8	465.0	375.6	418.7	434.9	547.0	419.0	416.9	544.6	
1956	413.3	352.4	425.8	414.8	353.7	427.3	392.7	504.7	372.2	394.1	504.9	
1957	448.9	401.2	446.5	436.6	392.0	436.1	453.5	529.0	443.0	443.0	516.8	
1958	1014.8	927.6	1054.1	621.8	568.4	645.8	926.5	1016.0	567.7	622.5	736.8	
1959	853.7	752.9	893.3	856.4	755.3	896.2	823.3	1014.6	783.1	826.0	1017.8	
1960	818.3	723.9	871.9	819.5	724.8	873.1	749.4	986.1	750.4	791.5	987.4	
1961	818.5	733.6	865.0	816.6	734.1	863.2	752.6	971.6	751.1	798.1	969.6	
1962	791.9	745.0	817.2	793.4	734.1	817.7	745.3	907.8	746.7	793.1	909.6	
1963	763.7	701.6	788.3	764.7	702.6	789.4	726.2	864.5	727.1	738.9	865.6	
1964	777.3	710.6	794.9	778.0	711.2	795.6	735.6	868.2	736.2	751.6	868.9	
1965	750.8	710.7	805.4	749.0	709.0	803.5	720.2	869.8	718.5	739.1	867.7	
1966	729.1	692.3	788.1	729.6	693.1	789.0	707.0	833.0	707.7	714.8	833.9	
1967	591.1	564.9	655.9	675.8	643.6	747.3	580.7	683.5	661.6	657.4	778.8	
1968	590.5	565.5	651.6	592.8	567.7	654.1	584.5	675.5	586.8	573.5	678.1	
1969	577.9	556.5	644.2	575.4	554.1	641.4	578.2	660.1	575.7	553.8	657.2	
1970	954.1	906.0	1047.8	724.2	687.0	795.4	952.5	1067.6	723.0	688.2	810.4	
1971	910.5	864.7	990.9	914.6	868.6	995.3	914.5	1084.9	918.6	864.8	1009.4	
1972	747.0	745.5	886.2	794.5	942.6	761.7	733.1	874.3	810.1	779.7	930.0	
1973	660.9	691.1	770.0	697.0	735.1	812.1	673.7	765.1	721.0	710.6	806.8	
1974	619.1	674.1	666.5	611.8	671.2	678.5	691.0	724.7	601.4	682.9	716.2	
1975	647.7	658.4	675.0	670.9	682.9	691.1	664.4	690.0	665.8	688.1	714.6	
1976	604.8	610.6	624.2	615.4	621.4	635.2	599.6	646.9	610.1	626.7	658.2	
1977	732.5	713.9	747.1	639.0	610.5	634.4	727.9	743.2	618.1	631.1	685.4	
1978	749.2	791.2	665.9	678.2	610.5	716.3	718.6	835.9	650.5	694.2	756.7	
1979	781.1	811.5	788.0	653.5	680.5	659.2	760.3	813.0	636.0	699.2	756.7	
1980	192.9	211.6	366.5	980.5	992.2	1123.2	1181.9	1227.0	1368.0	1400.8	1055.7	1124.4
1981	146.4	204.9	253.9	1004.9	1056.2	1099.2	1147.0	1204.3	1248.2	1005.4	1057.7	1094.1
1982	174.9	260.9	244.0	1106.5	1196.0	1172.4	1176.6	1268.0	1249.4	1108.2	1194.2	1176.8
1983	303.0	375.9	411.4	1085.7	1146.4	1176.0	1282.1	1398.3	1433.8	1165.1	1164.1	194.7
1984	138.9	219.3	248.5	1080.1	1156.3	184.1	1109.1	1252.0	1285.2	1051.9	1187.4	218.9
1985	399.8	449.9	397.1	1125.2	1162.3	123.0	1362.2	1485.8	1444.5	1095.0	1194.4	161.2
1986	501.1	490.0	422.4	328.2	318.5	258.6	1491.5	1499.6	1443.0	1319.8	1326.9	276.9
1987	910.6	910.6	400.8	400.8	400.8	400.8	1400.8	1400.8	1400.8	1400.8	400.8	400.8
1988	994.9	981.8	2056.3	1536.9	526.8	584.2	2019.0	1958.1	2008.4	1555.5	1508.6	547.4
1989	442.5	480.6	1419.8	1348.1	383.2	326.9	1501.7	1423.6	1356.7	1403.5	1328.6	267.9
1990	530.6	530.0	1451.6	1255.0	261.0	190.2	1642.4	1433.3	1385.5	346.6	175.2	136.0
1991	1746.7	1650.0	1637.9	1352.3	278.2	268.1	1883.1	1531.4	1546.5	458.0	185.6	197.4
1992	1514.5	1371.4	1425.8	1410.7	1277.4	1328.1	1641.5	1265.3	1327.5	529.0	1178.6	236.5
1993	1645.4	1388.0	1451.6	1264.6	1066.7	1156.0	1742.1	1311.0	1361.7	1338.9	1007.5	1046.5
1994	2118.5	1942.2	2016.3	1586.4	1458.2	1509.9	2243.7	1838.5	1901.9	1680.2	1376.8	424.2
1995	1789.9	1580.0	1718.8	1400.6	1243.4	1360.6	1880.8	1512.2	1670.1	1471.8	1183.3	1306.9

Note: WPIs are used for Turkey and England to compute BRER₁.

CPIs are used for both Turkey and England to compute BRER₂.

GDP deflators are used for both Turkey and England to compute BRER₃.

CPIs are used for Turkey and WPIs are used for England to compute BRER₄.

WPIs are used for England and CPIs are used for Turkey to compute BRER₅.

WPIs are used for England and CPIs are used for Turkey to compute BRER₆.

Table 9-A. Bilateral Real Exchange Rates (£ & TL)

Formula (12): RER₁ = (ER₁ / ER₁₀) · (Pa / Pf)

1987=100

Year	ae (end of period) BRER₁	BRER₂	BRER₃	rf (period averages) BRER₄	BRER₅	BRER₆	ae (end of period) BRER₇	BRER₈	BRER₉	rf (period averages) BRER₁₀	BRER₁₁	BRER₁₂
1949	20.86	19.61	23.96	37.46	38.22	43.02	20.05	20.39	27.24	36.02	36.63	48.92
1950	26.54	21.10	24.67	36.21	28.78	33.66	22.98	24.37	31.80	31.34	31.25	43.19
1951	28.79	23.00	25.13	39.51	31.56	34.49	23.62	28.03	34.40	32.42	38.47	47.21
1952	29.64	23.52	26.52	40.18	31.89	35.94	25.14	27.73	34.81	34.08	37.59	47.18
1953	28.27	22.95	26.15	38.58	31.32	35.68	24.74	26.23	32.61	33.76	35.80	44.50
1954	25.40	21.26	25.00	34.93	29.25	34.39	22.75	23.73	30.75	31.30	32.64	42.29
1955	24.45	19.74	23.54	33.20	26.81	31.97	22.03	21.92	28.67	29.91	30.76	38.88
1956	21.63	18.45	22.29	29.61	25.25	30.51	19.41	20.55	26.41	26.57	29.16	36.16
1957	23.50	21.08	23.37	31.31	27.98	31.14	20.79	23.74	27.69	27.70	31.63	36.90
1958	53.11	48.55	55.17	44.39	40.57	46.10	48.49	53.18	62.94	40.52	44.44	52.60
1959	44.68	39.40	46.76	44.76	39.53	53.10	43.91	40.86	53.10	55.90	58.96	52.66
1960	42.83	37.89	45.63	45.63	37.89	53.53	51.74	40.80	53.57	53.90	56.50	70.49
1961	42.83	38.50	45.27	42.77	38.50	53.28	52.40	39.39	50.85	53.62	56.98	69.22
1962	41.45	38.99	42.77	41.26	38.50	53.35	54.59	39.39	41.86	53.30	56.62	64.93
1963	39.97	36.72	42.26	42.26	36.72	56.35	53.28	38.01	41.43	51.91	52.74	61.80
1964	40.69	37.19	41.61	41.61	37.19	55.54	50.15	38.50	45.44	52.56	53.65	62.03
1965	39.30	37.20	42.15	42.15	37.20	53.47	50.61	37.69	45.52	51.29	52.77	61.94
1966	38.16	36.24	41.25	41.25	36.24	53.10	49.48	37.00	43.60	50.52	52.77	59.53
1967	31.04	29.57	34.33	34.33	29.57	48.24	48.24	30.39	37.37	47.23	45.95	59.55
1968	30.91	29.60	34.10	34.10	29.60	30.59	42.32	30.59	35.75	41.89	40.94	67.81
1969	30.25	29.13	33.72	33.72	29.13	34.55	41.07	29.11	34.55	41.10	40.94	46.92
1970	49.94	47.37	54.84	54.84	47.37	35.35	49.04	29.90	35.35	39.54	41.92	48.41
1971	47.65	45.26	51.86	51.86	45.26	47.45	56.29	47.45	55.88	49.13	57.85	57.85
1972	39.10	39.12	46.38	46.38	39.12	38.50	38.50	47.86	52.59	61.73	61.73	66.30
1973	34.59	36.49	40.30	40.30	36.49	49.75	52.48	35.78	40.04	51.47	50.23	57.60
1974	32.40	35.55	35.93	35.93	35.55	43.68	47.92	31.85	37.93	42.93	48.75	51.13
1975	33.90	34.51	34.33	34.33	34.51	33.33	48.75	33.65	36.17	47.53	49.12	51.01
1976	31.65	31.96	32.67	32.67	31.96	44.36	44.36	31.38	33.86	43.55	44.99	49.13
1977	39.39	37.63	39.10	39.10	37.63	45.62	43.58	38.10	38.90	45.05	45.05	48.93
1978	39.21	38.50	41.41	41.41	38.50	47.53	47.53	37.61	40.14	44.13	48.25	54.02
1979	40.88	42.58	41.24	41.24	42.58	48.58	48.58	37.63	43.74	42.55	49.91	48.55
1980	62.44	63.62	71.52	71.52	63.62	71.33	69.99	61.86	64.22	71.60	69.35	80.27
1981	60.00	63.86	65.16	65.16	63.86	71.74	75.40	60.03	66.37	66.03	71.77	78.11
1982	60.90	66.46	65.03	65.03	66.46	78.09	78.47	61.58	66.39	60.03	75.36	78.11
1983	63.90	72.01	73.87	73.87	72.01	84.18	83.70	63.65	73.19	65.31	85.25	84.64
1984	59.61	63.81	65.35	65.35	63.81	77.11	81.84	63.95	74.77	73.19	83.17	85.59
1985	73.26	75.67	73.12	73.12	75.67	80.33	82.97	84.53	77.77	75.05	85.26	87.01
1986	78.56	77.99	74.45	74.45	77.99	84.82	94.12	80.17	77.77	78.17	82.89	91.15
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	104.41	103.73	107.62	107.62	103.73	119.72	109.00	105.67	102.49	105.12	111.04	110.46
1989	75.50	77.46	74.31	74.31	77.46	96.23	98.74	78.60	74.41	71.01	107.70	110.46
1990	80.11	80.50	75.97	75.97	80.50	89.59	90.02	85.96	75.02	72.52	100.19	94.84
1991	91.42	86.41	85.73	85.73	86.41	96.54	91.25	98.56	80.15	80.94	96.13	83.89
1992	79.27	71.78	74.63	74.63	71.78	90.27	91.19	85.92	66.23	69.48	104.08	84.64
1993	86.12	72.65	75.97	75.97	72.65	95.35	76.15	91.18	68.62	71.27	109.15	84.13
1994	110.88	101.91	105.53	105.53	101.91	113.25	104.09	117.43	96.23	99.54	119.95	98.28
1995	93.68	83.17	91.01	91.01	83.17	99.99	88.76	98.44	79.15	87.41	105.06	93.29
AVR.	50.6	48.5	51.6	61.6	59.0	63.0	50.1	49.0	53.4	60.8	59.8	65.5
Std.	24.5	24.3	23.5	23.5	24.0	22.6	26.6	22.6	20.9	26.2	21.8	19.3
Min.	20.9	18.4	22.3	29.6	25.3	24.0	19.4	20.4	26.4	26.6	28.1	56.2
Max.	110.9	103.7	107.6	113.3	109.0	113.1	117.4	102.5	105.1	119.9	107.7	110.5

Note: The year which does not have data is excluded from the calculation of average (avr.), standard deviation (std.), minimum (min.), and maximum (max.).

Table 10. Bilateral Real Exchange Rates (IL & TL)

Formula (2): $RER = ER \cdot (P_f / P_d)$

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	BRER₁	BRER₂	BRER₃	BRER₁	BRER₂	BRER₃	BRER₄	BRER₅	BRER₆	BRER₄	BRER₅	BRER₆
1949	0.270	0.164	-	0.295	0.179	-	0.168	0.264	0.352	0.183	0.289	0.385
1950	0.283	0.168	-	0.284	0.168	-	0.183	0.260	0.340	0.183	0.260	0.340
1951	0.306	0.193	-	0.305	0.193	-	0.198	0.297	0.365	0.198	0.297	0.365
1952	0.287	0.187	-	0.287	0.187	-	0.199	0.268	0.337	0.199	0.268	0.337
1953	0.276	0.183	-	0.275	0.183	-	0.197	0.256	0.318	0.197	0.256	0.318
1954	0.250	0.172	-	0.250	0.172	-	0.184	0.233	0.302	0.184	0.233	0.302
1955	0.232	0.158	-	0.232	0.158	-	0.176	0.208	0.272	0.176	0.208	0.272
1956	0.204	0.148	-	0.204	0.148	-	0.156	0.194	0.249	0.156	0.194	0.249
1957	0.210	0.163	-	0.210	0.163	-	0.161	0.212	0.248	0.161	0.212	0.248
1958	0.475	0.384	.	0.290	0.234	-	0.383	0.476	0.563	0.234	0.290	0.344
1959	0.390	0.310	-	0.390	0.310	-	0.322	0.376	0.463	0.321	0.376	0.463
1960	0.370	0.299	0.287	0.370	0.299	0.286	0.309	0.357	0.446	0.309	0.357	0.446
1961	0.364	0.302	0.282	0.364	0.302	0.282	0.309	0.356	0.432	0.309	0.356	0.432
1962	0.352	0.304	0.273	0.352	0.304	0.273	0.304	0.352	0.404	0.304	0.352	0.404
1963	0.355	0.302	0.279	0.356	0.302	0.280	0.313	0.343	0.402	0.313	0.344	0.403
1964	0.360	0.315	0.289	0.361	0.315	0.290	0.326	0.348	0.403	0.326	0.348	0.403
1965	0.337	0.311	0.289	0.337	0.311	0.289	0.315	0.332	0.390	0.315	0.332	0.390
1966	0.328	0.304	0.278	0.328	0.304	0.278	0.310	0.321	0.375	0.310	0.321	0.375
1967	0.302	0.289	0.268	0.302	0.289	0.268	0.297	0.294	0.348	0.297	0.294	0.348
1968	0.293	0.285	0.263	0.293	0.285	0.263	0.294	0.283	0.335	0.294	0.284	0.335
1969	0.283	0.268	0.254	0.282	0.268	0.253	0.279	0.273	0.323	0.278	0.272	0.322
1970	0.475	0.432	0.442	0.357	0.326	0.333	0.455	0.451	0.531	0.343	0.340	0.408
1971	0.424	0.391	0.408	0.427	0.394	0.411	0.414	0.401	0.468	0.417	0.403	0.471
1972	0.382	0.369	0.392	0.381	0.369	0.392	0.376	0.375	0.447	0.376	0.374	0.446
1973	0.356	0.338	0.349	0.371	0.352	0.364	0.332	0.363	0.412	0.346	0.378	0.430
1974	0.356	0.314	0.301	0.352	0.311	0.298	0.281	0.397	0.416	0.279	0.393	0.413
1975	0.361	0.316	0.299	0.358	0.313	0.296	0.308	0.371	0.385	0.306	0.368	0.382
1976	0.330	0.272	0.264	0.334	0.275	0.268	0.267	0.336	0.353	0.270	0.341	0.358
1977	0.363	0.291	0.295	0.333	0.267	0.270	0.294	0.359	0.390	0.270	0.329	0.357
1978	0.354	0.303	0.314	0.333	0.285	0.295	0.296	0.363	0.395	0.278	0.341	0.371
1979	0.361	0.320	0.297	0.307	0.272	0.253	0.299	0.386	0.375	0.254	0.328	0.319
1980	0.459	0.396	0.417	0.421	0.363	0.383	0.385	0.472	0.527	0.353	0.433	0.483
1981	0.453	0.401	0.397	0.398	0.352	0.348	0.381	0.476	0.493	0.335	0.418	0.433
1982	0.505	0.469	0.444	0.445	0.413	0.392	0.434	0.545	0.537	0.383	0.480	0.473
1983	0.529	0.511	0.506	0.461	0.445	0.441	0.476	0.568	0.582	0.415	0.495	0.507
1984	0.518	0.514	0.513	0.471	0.467	0.466	0.468	0.570	0.585	0.425	0.517	0.531
1985	0.594	0.580	0.546	0.473	0.461	0.434	0.546	0.631	0.613	0.434	0.502	0.488
1986	0.755	0.740	0.703	0.612	0.600	0.570	0.740	0.754	0.726	0.600	0.612	0.589
1987	0.873	0.873	0.873	0.661	0.661	0.661	0.873	0.873	0.873	0.661	0.661	0.661
1988	0.853	0.841	0.875	0.673	0.661	0.688	0.857	0.837	0.859	0.674	0.658	0.675
1989	0.726	0.717	0.694	0.616	0.609	0.589	0.727	0.715	0.682	0.618	0.607	0.579
1990	0.729	0.678	0.672	0.612	0.569	0.564	0.724	0.682	0.659	0.608	0.573	0.554
1991	0.840	0.739	0.773	0.640	0.563	0.589	0.843	0.736	0.743	0.643	0.561	0.566
1992	0.698	0.603	0.652	0.668	0.577	0.625	0.721	0.583	0.612	0.691	0.558	0.586
1993	-	0.553	-	-	0.454	-	0.694	-	-	0.570	-	-
1994	-	0.780	-	-	0.603	-	0.899	-	-	0.695	-	-
1995	-	0.672	-	-	0.502	-	0.795	-	-	0.595	-	-

Note. WPIs are used for both Turkey and Italy to compute BRER₁.

CPIs are used for both Turkey and Italy to compute BRER₂.

GDP deflators are used for both Turkey and Italy to compute BRER₃.

CPIs are used for Italy and WPIs are used for Turkey to compute BRER₄.

WPIs are used for Italy and CPIs are used for Turkey to compute BRER₅.

WPIs are used for Italy and GDP deflators are used for Turkey to compute BRER₆.

Table 10-A. Bilateral Real Exchange Rates (IL & TL)

Formula (12): $RER_i = (ER_i / ER_{i0}) \cdot (P_n / P_d)$

1987=100

	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
Year	BRER₁	BRER₂	BRER₃	BRER₁	BRER₂	BRER₃	BRER₄	BRER₅	BRER₆	BRER₄	BRER₅	BRER₆
1949	30.91	18.78	-	44.62	27.10	-	19.20	30.22	40.37	27.72	43.62	58.27
1950	32.47	19.28	-	42.88	25.47	-	21.00	29.82	38.91	27.73	39.37	51.38
1951	34.99	22.10	-	46.19	29.18	-	22.70	34.07	41.82	29.97	44.97	55.20
1952	32.83	21.38	-	43.34	28.22	-	22.85	30.72	38.56	30.16	40.55	50.89
1953	31.56	20.93	-	41.65	27.63	-	22.56	29.28	36.40	29.78	38.65	48.04
1954	28.62	19.71	-	37.77	26.02	-	21.09	26.74	34.64	27.84	35.30	45.73
1955	26.59	18.10	-	35.10	23.89	-	20.20	23.74	31.14	26.65	31.46	41.10
1956	23.33	16.95	-	30.79	22.37	-	17.84	22.37	28.49	23.55	29.26	37.60
1957	24.08	18.66	-	31.79	24.63	-	18.48	24.33	28.38	24.39	32.11	37.46
1958	54.41	43.93	-	43.85	35.40	-	43.87	54.48	64.48	35.35	43.90	51.96
1959	44.65	35.51	-	58.90	46.85	-	36.82	43.07	53.07	48.57	56.81	70.00
1960	42.38	34.22	32.83	55.92	45.15	43.32	35.42	40.93	51.06	46.74	54.01	67.38
1961	41.71	34.61	32.35	55.02	45.65	42.68	35.41	40.77	49.53	46.71	53.78	65.33
1962	40.34	34.80	31.27	53.24	45.92	41.27	34.81	40.32	46.25	45.94	53.21	61.03
1963	40.67	34.59	31.99	53.76	45.72	42.29	35.80	39.30	46.05	47.32	51.95	60.86
1964	41.29	36.04	33.14	54.53	47.61	43.78	37.31	39.89	46.11	49.28	52.68	60.91
1965	38.58	35.58	33.08	50.92	46.95	43.66	36.05	38.08	44.70	47.58	50.25	58.99
1966	37.55	34.76	31.85	49.57	45.89	42.05	35.50	36.78	42.91	46.86	48.55	56.64
1967	34.60	33.12	30.72	45.65	43.71	40.53	34.05	33.66	39.87	44.93	44.41	52.61
1968	33.56	32.59	30.07	44.30	43.03	39.71	33.69	32.47	38.39	44.48	42.87	50.68
1969	32.43	30.73	29.07	42.69	40.46	38.26	31.93	31.22	37.04	42.03	41.09	48.76
1970	54.35	49.52	50.62	54.05	49.25	50.34	52.11	51.64	60.81	51.83	51.36	60.48
1971	48.52	44.82	46.75	64.52	59.60	62.16	47.41	45.88	53.55	63.04	61.00	71.21
1972	43.72	42.30	44.90	57.65	55.78	59.20	43.11	42.91	51.18	56.84	56.58	67.48
1973	40.76	38.71	39.96	56.11	53.29	55.01	37.97	41.56	47.19	52.27	57.21	64.95
1974	40.72	35.96	34.42	53.29	47.07	45.05	32.22	45.45	47.66	42.17	59.48	62.39
1975	41.39	36.20	34.20	54.19	47.40	44.79	35.29	42.45	44.08	46.23	55.59	57.73
1976	37.79	31.12	30.29	50.56	41.63	40.53	30.56	38.48	40.42	40.88	51.49	54.08
1977	41.61	33.31	33.76	50.35	40.30	40.84	33.73	41.10	44.64	40.80	49.72	54.00
1978	40.58	34.75	35.95	50.30	43.08	44.57	33.95	41.53	45.27	42.08	51.49	56.12
1979	41.30	36.68	34.02	46.35	41.17	38.18	34.28	44.19	42.99	38.47	49.60	48.24
1980	52.61	45.38	47.81	63.65	54.90	57.85	44.12	54.11	60.33	53.37	65.47	73.00
1981	51.90	45.89	45.42	60.20	53.23	52.69	43.69	54.52	56.50	50.68	63.24	65.54
1982	57.79	53.66	50.86	67.26	62.46	59.20	49.72	62.37	61.46	57.87	72.60	71.53
1983	60.62	58.51	57.94	69.72	67.29	66.64	54.52	65.05	66.71	62.71	74.82	76.72
1984	59.34	58.91	58.79	71.17	70.66	70.52	53.59	65.23	66.96	64.27	78.24	80.32
1985	68.08	66.41	62.56	71.48	69.73	65.69	62.56	72.26	70.25	65.69	75.88	73.77
1986	86.48	84.72	80.55	92.58	90.69	86.22	84.81	86.40	83.14	90.78	92.48	89.00
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	97.72	96.33	100.23	101.42	99.98	104.03	98.13	95.92	98.38	101.85	99.55	102.11
1989	83.10	82.11	79.49	93.16	92.05	89.10	83.32	81.90	78.16	93.40	91.81	87.62
1990	83.44	77.67	76.96	92.50	86.11	85.33	82.94	78.13	75.53	91.95	86.62	83.73
1991	96.17	84.69	88.57	96.73	85.19	89.09	96.59	84.31	85.15	97.16	84.81	85.65
1992	79.92	69.03	74.72	101.04	87.28	94.46	82.63	66.77	70.05	104.46	84.42	88.57
1993	-	63.34	-	-	68.72	-	79.50	-	-	86.25	-	-
1994	-	89.37	-	-	91.17	-	102.98	-	-	105.05	-	-
1995	-	76.97	-	-	75.97	-	91.10	-	-	89.92	-	-
Avg.	49.0	45.4	49.2	58.7	53.2	58.2	47.0	48.3	52.9	55.0	57.8	63.8
Std.	20.5	22.8	21.7	19.3	21.9	20.4	25.8	19.9	17.5	24.1	18.6	15.6
Min.	23.3	16.9	29.1	30.8	22.4	38.2	17.8	22.2	28.4	23.5	29.3	37.5
Max.	100.0	100.0	100.2	101.4	100.0	104.0	103.0	100.0	100.0	105.1	100.0	102.1

Note: The year which does not have data is excluded from the calculations of average (avg.), standard deviation (std.),

minimum (min.) and maximum (max.).

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Table 11. Bilateral Real Exchange Rates (FF & TL)

Formula (2): $RER = ER \cdot (P_f / P_d)$

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	$BRER_1$	$BRER_2$	$BRER_3$	$BRER_1$	$BRER_2$	$BRER_3$	$BRER_4$	$BRER_5$	$BRER_6$	$BRER_4$	$BRER_2$	$BRER_6$
1949	-	31.5	-	-	40.5	-	39.4	-	-	41.4	-	-
1950	-	43.7	51.1	-	43.8	51.1	47.6	-	-	47.7	-	-
1951	110.0	53.9	55.4	110.1	53.9	55.4	55.4	107.1	131.5	55.4	107.2	131.5
1952	101.2	54.3	61.9	101.2	54.3	61.9	58.0	94.7	118.8	58.0	94.7	118.9
1953	93.1	51.4	59.9	93.1	51.4	59.9	55.4	86.4	107.4	55.4	86.4	107.4
1954	81.3	47.3	57.5	81.3	47.3	57.6	50.7	75.9	98.4	50.7	76.0	98.4
1955	76.5	42.6	52.4	76.5	42.6	52.4	47.5	68.6	89.6	47.5	68.6	89.6
1956	68.6	40.5	49.6	68.6	40.5	49.7	42.6	65.2	83.8	42.6	65.2	83.8
1957	61.2	36.3	42.8	71.1	42.1	49.7	35.9	61.9	72.2	41.7	71.8	83.8
1958	122.2	81.0	94.8	86.6	57.4	67.1	80.9	122.4	144.8	57.3	86.7	102.6
1959	110.8	69.1	79.8	110.8	69.1	79.8	71.6	106.9	131.7	71.6	106.9	131.7
1960	108.0	68.5	79.6	108.7	68.9	80.1	70.9	104.3	130.1	71.4	105.0	130.9
1961	108.3	68.8	78.9	109.0	69.3	79.4	70.4	105.9	128.6	70.9	106.5	129.4
1962	101.9	70.1	75.4	102.7	70.7	76.0	70.2	101.9	116.9	70.7	102.7	117.7
1963	100.7	68.3	76.0	101.4	68.8	76.5	70.7	97.3	113.9	71.2	98.0	114.8
1964	105.3	68.5	77.1	106.1	70.0	77.7	72.0	101.7	117.6	72.5	102.5	118.5
1965	100.1	67.6	76.0	100.8	68.1	76.6	68.5	98.8	116.0	69.0	99.5	116.8
1966	98.9	65.5	73.6	99.4	65.8	73.9	66.9	96.8	113.0	67.2	97.3	113.5
1967	89.5	62.1	71.2	89.8	62.4	71.4	63.9	87.1	103.2	64.1	87.4	103.5
1968	84.9	62.8	71.4	84.6	62.6	71.2	65.0	82.1	97.1	64.7	81.8	96.8
1969	80.6	54.8	63.0	86.1	58.5	67.3	56.9	77.6	92.0	60.8	82.8	98.3
1970	136.9	83.8	102.5	104.3	67.7	78.1	93.5	130.1	153.2	71.2	99.1	116.7
1971	118.2	83.3	96.0	115.1	81.1	93.5	88.1	111.8	130.4	85.8	108.9	127.1
1972	102.8	77.7	92.3	104.2	78.8	93.6	79.2	100.9	120.3	80.3	102.3	122.0
1973	116.7	78.3	89.3	123.4	82.7	94.4	76.8	119.0	135.1	81.2	125.8	142.9
1974	124.9	78.2	81.2	114.6	71.7	74.5	70.0	139.4	146.2	64.3	127.9	134.1
1975	100.5	78.3	81.6	99.6	77.6	80.9	76.3	103.1	107.1	75.7	102.2	106.1
1976	97.4	72.2	78.1	97.2	73.0	78.0	71.9	99.2	104.2	71.7	99.0	104.0
1977	104.0	76.8	84.7	92.6	68.4	75.3	77.8	102.8	111.6	69.2	91.4	99.3
1978	101.6	83.8	93.3	90.4	74.5	83.0	81.8	104.0	113.4	72.8	92.5	100.9
1979	106.4	86.0	85.1	88.3	71.4	70.6	80.4	113.8	110.7	66.7	94.5	91.9
1980	136.3	102.7	114.1	122.9	92.6	102.9	99.8	140.2	156.3	90.0	126.4	140.9
1981	136.6	101.2	102.8	120.2	89.1	90.5	96.3	143.5	148.7	84.8	126.3	130.9
1982	139.4	111.1	107.0	124.2	99.0	95.3	102.9	150.4	148.2	91.7	134.0	132.0
1983	147.6	112.9	113.5	128.9	98.6	99.1	105.2	158.3	162.4	91.9	138.3	141.8
1984	155.3	112.1	112.6	140.5	101.4	101.9	102.0	170.7	175.2	92.3	154.5	158.6
1985	169.9	134.6	128.0	129.4	102.5	97.5	126.8	180.3	175.3	96.6	137.3	133.5
1986	157.2	157.8	152.4	130.4	130.9	126.4	158.0	157.1	151.1	131.0	130.3	125.4
1987	191.2	191.2	191.2	142.6	142.6	142.6	191.2	191.2	191.2	142.6	142.6	142.6
1988	224.3	177.2	181.9	178.8	141.2	145.0	180.5	220.2	225.9	143.9	175.5	180.1
1989	226.6	149.8	142.5	188.5	124.6	118.6	152.0	223.3	213.1	126.4	185.8	177.3
1990	169.0	138.1	132.7	141.7	115.8	111.3	147.5	158.3	153.0	123.7	132.7	128.3
1991	167.9	147.4	148.1	126.6	111.2	111.7	168.2	147.2	148.6	126.8	111.0	112.1
1992	147.6	140.8	146.5	123.2	117.5	122.3	168.5	123.4	129.4	140.7	103.0	108.0
1993	133.6	136.6	141.2	105.6	107.9	111.6	171.4	106.5	110.6	135.4	84.1	87.4
1994	207.6	198.7	204.3	152.8	146.2	150.4	228.9	180.1	186.4	168.5	132.6	137.2
1995	209.6	175.4	192.4	158.1	132.3	145.2	207.6	177.1	195.5	156.6	133.6	147.5

Note. WPIs are used for both Turkey and France to compute $BRER_1$.

CPIs are used for both Turkey and France to compute $BRER_2$.

GDP deflators are used for both Turkey and France to compute $BRER_3$.

CPIs are used for France and WPIs are used for Turkey to compute $BRER_4$.

WPIs are used for France and CPIs are used for Turkey to compute $BRER_5$.

WPIs are used for France and GDP deflators are used for Turkey to compute $BRER_6$.

Table 11-A. Bilateral Real Exchange Rates (FF & TL)
Formula (12): $RER_i = (ER_i / ER_{i0}) \cdot (P_n / P_d)$

1987=100

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	BRER₁	BRER₂	BRER₃	BRER₁	BRER₂	BRER₃	BRER₄	BRER₅	BRER₆	BRER₄	BRER₅	BRER₆
1949	-	20.13	-	-	28.37	-	20.59	-	-	29.01	-	-
1950	-	22.88	26.72	-	30.69	35.84	24.91	-	-	33.42	-	-
1951	57.56	28.21	28.98	77.17	37.82	38.86	28.97	56.04	68.78	38.84	75.14	92.21
1952	52.93	28.38	32.40	70.97	38.05	43.44	30.33	49.53	62.16	40.67	66.40	83.34
1953	48.71	26.86	31.32	65.30	36.01	41.99	28.95	45.19	56.18	38.82	60.59	75.32
1954	42.51	24.76	30.10	56.99	33.19	40.35	26.49	39.72	51.46	35.52	53.26	69.00
1955	40.01	22.27	27.40	53.64	29.85	36.74	24.84	35.87	46.86	33.30	48.09	62.82
1956	35.88	21.17	25.97	48.12	28.39	34.83	22.28	34.09	43.81	29.88	45.73	58.77
1957	32.03	18.99	22.41	49.86	29.55	34.88	18.80	32.36	37.75	29.26	50.37	58.76
1958	63.94	42.37	49.58	60.72	40.24	47.09	42.32	64.01	75.76	40.19	60.80	71.96
1959	57.97	36.13	41.77	77.71	48.44	55.99	37.47	55.91	68.89	50.23	74.95	92.36
1960	56.47	35.82	41.62	76.20	48.33	56.16	37.08	54.54	68.04	50.04	73.60	91.82
1961	56.66	36.00	41.27	76.44	48.56	55.68	36.83	55.38	67.27	49.69	74.71	90.76
1962	53.32	36.69	39.44	72.01	49.55	53.27	36.71	53.30	61.13	49.57	71.98	82.55
1963	52.65	35.73	39.73	71.10	48.25	53.66	36.98	50.87	59.60	49.93	68.70	80.49
1964	55.07	36.37	40.34	74.37	49.11	54.48	37.64	53.20	61.51	50.83	71.84	83.06
1965	52.35	35.37	39.76	70.69	47.76	53.69	35.85	51.66	60.65	48.40	69.76	81.89
1966	51.72	34.25	38.49	69.66	46.13	51.84	34.97	50.65	59.10	47.10	68.22	79.60
1967	46.83	32.51	37.23	62.99	43.72	50.08	33.41	45.56	53.97	44.94	61.28	72.59
1968	44.39	32.87	37.34	59.31	43.93	49.90	33.98	42.95	50.77	45.40	57.39	67.85
1969	42.15	28.66	32.95	60.35	41.03	47.18	29.77	40.57	48.14	42.63	58.09	68.93
1970	71.60	46.46	53.62	73.12	47.45	54.76	48.89	68.03	80.12	49.93	69.48	81.83
1971	61.82	43.55	50.20	80.73	56.87	65.55	46.06	58.45	68.23	60.15	76.33	89.10
1972	53.77	40.66	48.27	73.09	55.28	65.62	41.43	52.77	62.93	56.33	71.73	85.55
1973	61.05	40.93	46.70	86.55	58.02	66.20	40.15	62.25	70.68	56.91	88.24	100.19
1974	65.33	40.89	42.48	80.35	50.29	52.25	36.64	72.92	76.48	45.06	89.69	94.06
1975	52.58	40.96	42.68	69.86	54.42	56.71	39.93	53.94	56.01	53.05	71.66	74.42
1976	50.97	38.29	40.88	68.17	51.21	54.66	37.60	51.91	54.52	50.28	69.42	72.91
1977	54.42	40.18	44.29	64.93	47.94	52.83	40.69	53.75	58.37	48.54	64.12	69.64
1978	53.16	43.82	48.81	63.39	52.26	58.21	42.81	54.41	59.31	51.05	64.89	70.73
1979	55.65	44.99	44.49	61.93	50.06	49.52	42.04	59.54	57.92	46.79	66.26	64.45
1980	71.30	53.70	59.69	86.17	64.90	72.14	52.21	73.34	81.77	63.10	88.63	98.82
1981	71.44	52.92	53.77	84.31	62.45	63.45	56.37	75.04	77.78	59.45	88.56	91.79
1982	72.91	58.12	55.99	87.06	69.39	66.85	53.85	78.69	77.54	64.30	93.96	92.58
1983	77.18	59.04	59.35	90.37	69.12	69.49	55.01	82.83	84.93	64.41	96.97	99.44
1984	81.22	58.63	58.88	98.55	71.13	71.43	53.33	89.29	91.66	64.71	108.33	111.21
1985	88.87	70.42	66.96	90.71	71.88	68.34	66.34	94.33	91.71	67.72	96.28	93.61
1986	82.23	82.55	79.69	91.44	91.79	88.62	82.63	82.15	79.05	91.88	91.35	87.91
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	117.35	92.67	95.14	125.40	99.03	101.67	94.41	115.19	118.15	100.89	123.09	126.25
1989	118.53	78.35	74.55	132.18	87.37	83.14	79.50	116.81	111.48	88.65	130.27	124.33
1990	88.41	72.23	69.40	99.38	81.20	78.02	77.14	82.79	80.02	86.71	93.06	89.96
1991	87.81	77.11	77.47	88.76	77.94	78.30	87.95	76.99	77.75	88.90	77.81	78.59
1992	77.23	73.65	76.63	86.41	82.41	85.75	88.15	64.52	67.69	98.63	72.20	75.74
1993	69.91	71.44	73.88	74.05	75.67	78.25	89.67	55.70	57.85	94.97	59.00	61.28
1994	108.58	103.91	106.89	107.16	102.55	105.49	119.73	94.23	97.48	118.16	93.00	96.20
1995	109.62	91.74	100.65	110.88	92.79	101.80	108.59	92.62	102.29	109.83	93.67	103.45
Avg.	65.5	47.9	51.7	78.4	56.8	61.4	49.7	63.9	69.9	58.7	76.6	84.4
Std.	21.3	22.5	21.2	18.2	20.5	18.6	25.2	20.6	17.9	23.0	18.5	15.6
Min.	32.0	19.0	22.4	48.1	28.4	34.8	18.8	32.4	37.7	29.0	45.7	58.8
Max.	118.5	103.9	106.9	132.2	102.5	105.5	119.7	116.8	118.1	118.2	130.3	126.3

Note: The year which does not have data is excluded from the calculations of average (avg.), standard deviation (std.), minimum (min.) and maximum (max.).

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Table 12. Bilateral Real Exchange Rates (SF & TL)

Formula (2): $RER = ER \cdot (P_f / P_d)$

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	$BRER_1$	$BRER_2$	$BRER_3$	$BRER_1$	$BRER_2$	$BRER_3$	$BRER_4$	$BRER_5$	$BRER_6$	$BRER_4$	$BRER_5$	$BRER_6$
1949	172.7	113.0	120.5	173.1	113.3	120.8	115.6	168.8	225.5	115.8	169.3	226.1
1950	190.5	116.3	121.5	189.0	115.4	120.5	126.7	174.9	228.3	125.7	173.6	226.5
1951	184.4	119.8	114.3	185.8	120.7	115.1	123.1	179.6	220.4	124.0	180.9	222.0
1952	188.3	119.1	118.8	186.8	118.1	117.8	127.3	176.2	221.1	126.3	174.8	219.4
1953	180.9	113.9	114.9	180.8	113.9	114.9	122.8	167.8	208.6	122.8	167.8	208.6
1954	166.3	104.8	109.9	166.2	104.8	109.9	112.2	155.4	201.4	112.1	155.3	201.2
1955	157.3	94.4	100.1	157.3	94.4	100.1	105.3	141.0	184.2	105.3	141.0	184.2
1956	137.6	87.0	90.8	137.6	87.0	90.8	91.6	130.8	168.1	91.6	130.8	168.0
1957	143.2	96.3	91.3	143.2	96.3	91.2	95.4	144.7	168.8	95.3	144.6	168.7
1958	330.6	223.3	221.3	203.1	137.1	135.9	223.0	331.0	391.8	136.9	203.3	240.6
1959	275.0	177.8	184.7	275.1	177.8	184.7	184.3	265.3	326.9	184.4	265.3	327.0
1960	262.6	171.8	183.8	261.8	171.3	183.2	177.9	253.7	316.5	177.3	252.8	315.4
1961	256.6	172.0	182.2	256.4	171.8	182.1	176.0	250.8	304.6	175.8	250.6	304.4
1962	254.5	173.5	175.6	254.2	173.2	175.4	173.5	254.4	291.8	173.3	254.1	291.4
1963	252.4	166.6	174.5	252.0	166.3	174.2	172.4	243.8	285.7	172.1	243.5	285.2
1964	252.7	169.8	179.3	252.4	169.6	179.1	175.7	244.1	282.2	175.6	243.9	281.9
1965	236.2	165.6	178.8	235.7	165.3	178.4	167.9	233.1	273.7	167.5	232.6	273.0
1966	229.0	164.0	176.1	229.0	164.1	176.1	167.5	224.3	261.7	167.5	224.3	261.7
1967	214.3	157.4	172.6	214.0	157.2	172.4	161.8	208.3	246.8	161.6	208.2	246.6
1968	207.9	156.3	171.7	207.2	155.8	171.1	161.5	201.2	237.9	161.0	200.5	237.1
1969	196.4	147.9	163.5	196.6	148.1	163.7	153.7	189.0	224.3	153.9	189.2	224.5
1970	316.2	235.2	260.4	240.1	178.6	197.8	247.5	300.4	353.8	188.0	228.2	268.7
1971	297.9	226.0	253.5	297.7	225.8	253.3	239.0	281.7	328.8	238.9	281.5	328.6
1972	272.4	219.8	258.8	269.1	217.2	255.7	224.0	267.3	318.8	221.4	264.1	315.0
1973	285.3	238.9	267.1	292.4	245.9	273.8	235.3	290.9	330.2	241.2	298.2	338.5
1974	315.3	279.4	280.8	266.9	236.5	237.6	250.4	351.9	369.1	211.9	297.9	312.4
1975	305.4	262.0	260.2	293.7	251.9	250.2	255.4	313.3	325.3	245.6	301.3	312.8
1976	307.0	269.1	271.4	290.1	254.2	256.4	264.2	312.7	328.4	249.6	295.4	310.3
1977	352.1	302.9	313.0	271.8	233.9	241.7	306.7	347.7	377.6	236.8	268.4	291.6
1978	366.7	334.8	355.4	319.1	291.4	309.3	327.1	375.4	409.2	284.7	326.7	356.1
1979	326.8	317.9	296.0	272.9	265.4	247.1	297.1	349.7	340.2	248.0	291.9	284.0
1980	375.8	349.4	369.4	333.6	319.1	327.9	339.7	386.5	430.9	301.5	343.1	382.5
1981	422.1	404.2	398.8	321.7	308.1	303.9	384.8	443.4	459.5	293.3	337.9	350.2
1982	440.2	441.6	419.8	376.4	377.6	358.9	409.2	475.1	468.1	349.9	406.2	400.3
1983	472.0	479.5	474.4	390.8	397.0	392.7	446.9	506.5	519.4	370.0	419.4	430.0
1984	424.0	440.8	435.9	384.6	399.9	395.4	401.0	466.1	478.5	363.8	422.8	434.1
1985	498.7	507.8	474.4	381.4	388.3	362.8	478.4	529.4	514.7	365.8	404.8	393.5
1986	652.9	638.8	608.1	524.5	513.1	488.4	639.4	652.3	627.7	513.6	524.0	504.2
1987	798.8	798.8	798.8	574.8	574.8	574.8	798.8	798.8	798.8	574.8	574.8	574.8
1988	723.0	707.8	729.8	582.4	570.1	587.8	721.0	709.6	727.9	580.8	571.6	586.3
1989	563.5	554.4	537.2	488.5	480.6	465.7	562.5	555.4	530.0	487.7	481.5	459.5
1990	572.5	551.0	542.3	475.3	457.4	450.2	588.4	536.1	518.2	488.5	445.1	430.3
1991	618.5	582.0	596.7	480.1	451.8	463.2	663.9	542.3	547.6	515.4	421.0	425.1
1992	603.7	559.0	587.2	501.6	464.4	487.9	669.0	504.4	529.2	555.9	419.1	439.7
1993	-	578.4	593.7	-	439.6	451.2	726.0	-	-	551.8	-	-
1994	-	853.2	877.6	-	625.5	643.4	983.2	-	-	720.8	-	-
1995	-	787.9	861.4	-	589.2	644.1	932.6	-	-	697.3	-	-

Note: WPIs are used for both Turkey and Switzerland to compute $BRER_1$.

CPIs are used for both Turkey and Switzerland to compute $BRER_2$.

GDP deflators are used in both Turkey and Switzerland to compute $BRER_3$.

CPIs are used for Switzerland and WPIs are used for Turkey to compute $BRER_4$.

WPIs are used for Switzerland and CPIs are used for Turkey to compute $BRER_5$.

WPIs are used for Switzerland and GDP deflators are used for Turkey to compute $BRER_6$.

Table 12-A. Bilateral Real Exchange Rates (SF & TL)
Formula (12): $RER_t = (ER_t / ER_{t0}) . (P_n / P_d)$

<div align="right">1987=100</div>

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	BRER₁	BRER₂	BRER₃	BRER₁	BRER₂	BRER₃	BRER₄	BRER₅	BRER₆	BRER₄	BRER₅	BRER₆
1949	21.62	14.14	15.09	30.11	19.70	21.02	14.47	21.13	28.23	20.15	29.44	39.33
1950	23.85	14.56	15.21	32.89	20.08	20.97	15.86	21.90	28.58	21.87	30.20	39.41
1951	23.09	15.00	14.30	32.32	21.00	20.03	15.41	22.48	27.59	21.57	31.47	38.62
1952	23.57	14.91	14.87	32.49	20.55	20.49	15.94	22.06	27.68	21.97	30.41	38.16
1953	22.64	14.26	14.39	31.46	19.82	19.99	15.37	21.01	26.11	21.36	29.19	36.28
1954	20.82	13.12	13.76	28.92	18.23	19.11	14.04	19.46	25.21	19.50	27.02	35.01
1955	19.69	11.82	12.53	27.36	16.42	17.41	13.18	17.65	23.06	18.31	24.52	32.04
1956	17.23	10.89	11.36	23.94	15.13	15.79	11.46	16.37	21.04	15.93	22.75	29.23
1957	17.93	12.06	11.42	24.91	16.75	15.87	11.24	18.11	21.13	16.58	25.16	29.35
1958	41.39	27.95	27.71	35.32	23.85	23.64	27.91	41.44	49.05	23.82	35.37	41.86
1959	34.43	22.25	23.12	47.86	30.93	32.14	23.07	33.20	40.92	32.07	46.16	56.88
1960	32.88	21.51	23.01	45.54	29.79	31.87	22.27	31.76	39.62	30.84	43.99	54.87
1961	32.12	21.53	22.81	44.60	29.89	31.67	22.03	31.39	38.13	30.59	43.59	52.95
1962	31.86	21.71	21.98	44.22	30.14	30.51	21.72	31.85	36.53	30.15	44.20	50.70
1963	31.59	20.85	21.84	43.83	28.93	30.31	21.58	30.52	35.76	29.94	42.35	49.62
1964	31.63	21.25	22.44	43.91	29.50	31.15	22.00	30.56	35.33	30.54	42.42	49.05
1965	29.57	20.74	22.38	41.00	28.75	31.03	21.01	29.18	34.26	29.13	40.46	47.50
1966	28.67	20.53	22.04	39.85	28.54	30.63	20.97	28.08	32.76	29.14	39.02	45.53
1967	26.81	19.70	21.60	37.22	27.35	30.00	20.25	26.08	30.89	28.12	36.21	42.90
1968	26.03	19.56	21.49	36.05	27.10	29.77	20.22	25.18	29.78	28.01	34.88	41.24
1969	24.58	18.52	20.47	34.20	25.77	28.48	19.24	23.66	28.08	26.77	32.92	39.06
1970	39.58	29.44	32.60	41.77	31.07	34.41	30.98	37.61	44.29	32.70	39.69	46.74
1971	37.30	28.29	31.74	51.79	39.29	44.07	29.92	35.26	41.16	41.55	48.97	57.36
1972	34.10	27.52	32.40	46.82	37.79	44.49	28.04	33.46	39.91	38.51	45.95	54.80
1973	35.71	30.04	33.44	50.87	42.78	47.63	29.46	36.41	41.34	41.96	51.87	58.89
1974	39.47	34.98	35.15	46.43	41.15	41.34	31.34	44.06	46.21	36.87	51.83	54.35
1975	38.23	32.80	32.57	51.09	43.83	43.52	31.98	39.22	40.73	42.73	52.41	54.42
1976	38.44	33.69	33.98	50.46	44.23	44.61	33.08	39.14	41.11	43.43	51.39	53.97
1977	44.07	37.92	39.18	47.29	40.69	42.04	38.40	43.53	47.27	41.20	46.70	50.72
1978	45.91	41.92	44.49	55.52	50.69	53.80	40.95	46.99	51.22	49.52	56.83	61.94
1979	40.91	39.79	37.05	47.47	46.16	42.98	37.19	43.78	42.58	43.14	50.79	49.40
1980	47.04	43.74	46.24	58.03	53.95	57.04	42.52	48.38	53.95	52.46	59.69	66.55
1981	52.83	50.60	49.92	55.96	53.59	52.87	48.17	55.50	57.52	51.02	58.78	60.92
1982	55.10	55.29	52.55	65.48	65.69	62.44	51.22	59.47	58.60	60.87	70.67	69.63
1983	59.09	60.03	59.38	67.98	69.07	68.32	55.94	63.41	65.02	64.36	72.95	74.81
1984	53.08	55.18	54.56	66.95	69.57	68.79	50.20	58.35	59.90	63.28	73.56	75.51
1985	62.43	63.57	59.39	66.34	67.55	63.11	59.89	66.27	64.43	63.64	70.42	68.46
1986	81.74	79.96	76.12	91.24	89.26	84.97	80.04	81.66	78.58	89.35	91.15	87.71
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	90.50	88.60	91.35	101.31	99.18	102.26	90.26	88.84	91.12	101.04	99.44	102.00
1989	70.55	69.40	67.25	84.99	83.61	81.01	70.42	69.53	66.35	84.84	83.76	79.93
1990	71.67	68.97	67.89	82.69	79.58	78.32	73.65	67.11	64.88	84.98	77.43	74.85
1991	77.43	72.86	74.70	83.53	78.60	80.58	83.11	67.88	68.56	89.65	73.23	73.96
1992	75.57	69.97	73.51	87.26	80.79	84.88	83.75	63.14	66.24	96.70	72.90	76.48
1993	-	72.41	74.32	-	76.47	78.49	90.89	-	-	95.98	-	-
1994	-	106.81	109.86	-	108.82	111.92	123.07	-	-	125.39	-	-
1995	-	98.63	107.83	-	102.49	112.05	116.74	-	-	121.31	-	-
Avg.	42.1	39.8	40.7	51.3	46.9	48.0	41.3	41.6	45.2	48.6	50.7	55.5
Std.	20.7	26.8	27.0	20.5	27.0	27.1	29.7	20.4	18.4	29.8	20.3	17.6
Min.	17.2	10.9	11.4	23.9	15.1	15.8	11.5	16.4	21.0	15.9	22.7	29.2
Max.	100.0	106.8	109.9	101.3	108.8	112.1	123.1	100.0	100.0	125.4	100.0	102.0

Note: The year which does not have date is excluded from the calculations of average (avg.), standart deviation (std.), minimum (min.) and maximum (max.).

Table 13. Bilateral Real Exchange Rates (NG & TL)

Formula (2): $RER = ER \cdot (P_f / P_d)$

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	BRER₁	BRER₂	BRER₃	BRER₁	BRER₂	BRER₃	BRER₄	BRER₅	BRER₆	BRER₄	BRER₅	BRER₆
1949	-	74.5	-	-	97.7	-	76.2	-	-	99.9	-	-
1950	-	85.1	-	-	84.9	-	92.6	-	-	92.4	-	-
1951	-	94.8	-	-	94.6	-	97.4	-	-	97.2	-	-
1952	-	90.2	-	-	90.2	-	96.4	-	-	96.4	-	-
1953	163.5	87.3	-	163.1	87.1	-	94.1	151.7	188.6	93.8	151.3	188.1
1954	150.0	83.0	-	150.1	83.0	-	88.8	140.2	181.6	88.9	140.3	181.7
1955	141.5	74.6	-	142.1	74.9	-	83.2	126.8	165.7	83.6	127.4	166.4
1956	121.4	69.0	78.6	121.4	69.1	78.6	72.7	115.3	148.2	72.7	115.3	148.2
1957	128.5	80.4	82.5	127.5	79.7	81.9	79.6	129.8	151.4	78.9	128.8	150.2
1958	293.8	188.3	196.2	179.1	114.8	119.6	188.1	294.1	348.1	114.6	179.3	212.2
1959	245.6	153.5	168.6	245.2	153.3	168.4	159.1	236.8	291.8	158.9	236.5	291.5
1960	233.0	149.4	169.5	232.9	149.3	169.4	154.6	225.1	280.8	154.6	225.0	280.7
1961	237.5	155.8	174.6	235.4	154.5	173.1	159.4	232.1	282.0	158.0	230.1	279.5
1962	225.2	154.2	165.0	225.0	154.1	164.8	154.3	225.1	258.2	154.2	224.9	258.0
1963	221.0	147.8	163.4	220.9	147.7	163.3	152.9	213.5	250.1	152.9	213.4	250.1
1964	232.7	154.8	174.1	231.8	154.2	173.4	160.3	224.8	259.9	159.6	223.9	258.9
1965	219.8	154.1	175.8	220.4	154.5	176.4	156.1	216.9	254.6	156.6	217.5	255.4
1966	220.2	153.8	174.9	219.9	153.6	174.6	157.0	215.6	251.6	156.8	215.3	251.2
1967	207.5	148.0	171.5	207.2	147.7	171.2	152.1	201.9	239.2	151.9	201.5	238.7
1968	204.6	147.4	171.3	203.8	146.8	170.7	152.3	197.9	234.0	151.7	197.2	233.1
1969	184.9	146.2	160.0	184.9	146.2	160.0	151.9	178.0	211.2	151.9	178.0	211.2
1970	302.4	234.0	276.1	228.1	176.5	208.3	246.3	287.4	338.4	185.7	216.8	255.3
1971	286.7	227.1	267.1	279.3	221.3	260.2	240.2	271.1	316.4	234.0	264.1	308.2
1972	257.2	217.2	265.2	258.6	218.4	266.6	221.3	252.5	301.1	222.5	253.8	302.7
1973	259.0	231.2	271.1	261.7	233.5	273.9	226.7	264.1	299.8	229.1	266.8	302.9
1974	241.7	237.5	256.0	223.7	219.8	237.0	212.8	269.8	282.9	196.9	249.7	261.9
1975	235.6	221.1	236.1	237.3	222.6	237.8	215.5	241.7	251.0	217.0	243.4	252.8
1976	262.1	249.0	268.7	234.8	223.1	240.7	244.5	266.9	280.3	219.0	239.1	251.2
1977	278.8	259.2	290.0	240.3	223.4	249.9	262.5	275.3	299.0	226.2	237.3	257.8
1978	279.8	276.9	314.6	244.6	242.0	275.0	270.5	286.4	312.2	236.4	250.3	272.9
1979	253.2	266.1	268.9	211.3	222.1	224.4	248.7	271.0	263.6	207.5	226.1	220.0
1980	298.8	299.4	343.9	270.0	270.5	310.7	291.1	307.3	342.7	263.0	277.7	309.6
1981	303.9	305.3	322.3	250.2	251.4	265.4	290.6	319.2	330.9	239.3	262.9	272.4
1982	337.4	348.5	350.8	288.7	298.2	300.1	322.9	364.1	358.8	276.3	311.5	307.0
1983	339.2	353.6	366.8	290.4	302.8	314.1	329.5	364.0	373.3	282.1	311.7	319.6
1984	316.6	334.1	342.2	288.8	304.8	312.2	303.9	348.0	357.3	277.3	317.5	325.9
1985	381.5	391.4	384.7	288.1	295.6	290.5	368.8	405.0	393.7	278.5	305.8	297.3
1986	486.6	483.5	473.9	387.5	385.1	377.4	484.0	486.1	467.7	385.4	387.3	372.5
1987	574.3	574.3	574.3	423.2	423.2	423.2	574.3	574.3	574.3	423.2	423.2	423.2
1988	535.1	526.9	542.2	424.3	417.7	429.9	536.8	525.3	538.8	425.6	416.4	427.1
1989	449.9	433.9	416.4	372.6	359.4	344.9	440.3	443.4	423.1	364.7	367.2	350.5
1990	428.3	398.1	387.2	353.9	328.9	320.0	425.1	401.0	387.7	351.3	331.4	320.3
1991	483.0	423.7	428.7	362.9	318.3	322.1	483.3	423.5	427.7	363.1	318.2	321.3
1992	482.1	408.6	427.0	399.1	338.3	353.5	489.1	402.8	422.6	404.9	333.4	349.8
1993	481.2	398.8	409.7	381.6	316.3	325.0	500.6	383.4	398.2	397.0	304.1	315.8
1994	644.7	594.6	606.4	469.9	433.4	442.0	685.2	559.5	578.8	499.4	407.8	421.9
1995	578.4	522.1	567.9	444.2	400.9	436.1	617.9	488.7	539.7	474.5	375.3	414.5

Note. WPIs are used for both Turkey and Netherland to compute BRER₁.

CPIs are used for both Turkey and Netherland to compute BRER₂.

GDP deflators are used for both Turkey and Netherland to compute BRER₃.

CPIs are used for Netherland and WPIs are used for Turkey to compute BRER₄.

WPIs are used for Netherland and CPIs are used for Turkey to compute BRER₅.

WPIs are used for Netherland and GDP deflators are used for Turkey to compute BRER₆.

Table 13-A. Bilateral Real Exchange Rates (NG & TL)

Formula (12): $RER_t = (ER_t / ER_{t0}) \cdot (P_n / P_d)$

1987=100

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	BRER₁	BRER₂	BRER₃	BRER₁	BRER₂	BRER₃	BRER₄	BRER₅	BRER₆	BRER₄	BRER₅	BRER₄
1949	-	12.96	-	-	23.09	-	13.26	-	-	23.61	-	-
1950	-	14.81	-	-	20.05	-	16.13	-	-	21.84	-	-
1951	-	16.51	-	-	22.36	-	16.96	-	-	22.97	-	-
1952	-	15.71	-	-	21.33	-	16.79	-	-	22.79	-	-
1953	28.47	15.20	-	38.53	20.57	-	16.38	26.41	32.84	22.17	35.75	44.44
1954	26.12	14.44	-	35.48	19.62	-	15.46	24.40	31.61	21.00	33.15	42.95
1955	24.63	12.99	-	33.57	17.70	-	14.49	22.08	28.84	19.75	30.10	39.32
1956	21.13	12.02	13.68	28.68	16.32	18.57	12.65	20.08	25.80	17.17	27.25	35.03
1957	22.37	13.99	14.37	30.13	18.84	19.35	13.85	22.60	26.37	18.65	30.44	35.51
1958	51.15	32.79	34.17	42.31	27.12	28.27	32.75	51.21	60.61	27.09	42.37	50.14
1959	42.75	26.72	29.36	57.96	36.22	39.80	27.70	41.23	50.81	37.55	55.90	68.88
1960	40.57	26.00	29.51	55.04	35.28	40.04	26.92	39.19	48.89	36.52	53.17	66.33
1961	41.35	27.13	30.40	55.63	36.50	40.89	27.76	40.42	49.10	37.35	54.37	66.05
1962	39.22	26.85	28.72	53.18	36.42	38.95	26.87	39.20	44.96	36.43	53.16	60.96
1963	38.47	25.73	28.45	52.20	34.91	38.60	26.63	37.17	43.55	36.13	50.44	59.09
1964	40.52	26.96	30.31	54.77	36.44	40.97	27.91	39.15	45.26	37.72	52.91	61.17
1965	38.27	26.83	30.62	52.09	36.51	41.68	27.19	37.76	44.33	37.01	51.41	60.35
1966	38.34	26.78	30.45	51.96	36.29	41.26	27.34	37.55	43.81	37.06	50.89	59.37
1967	36.13	25.77	29.86	48.96	34.91	40.45	26.49	35.15	41.64	35.89	47.63	56.42
1968	35.62	25.66	29.83	48.16	34.69	40.33	26.52	34.46	40.75	35.86	46.60	55.09
1969	32.20	25.46	27.85	43.70	34.55	37.80	26.45	30.99	36.78	35.90	42.07	49.92
1970	52.65	40.74	48.08	53.91	41.71	49.22	42.88	50.03	58.92	43.90	51.22	60.32
1971	49.91	39.55	46.50	66.00	52.29	61.48	41.82	47.19	55.09	55.30	62.40	72.84
1972	44.79	37.82	46.18	61.11	51.61	63.01	38.54	43.96	52.42	52.58	59.97	71.53
1973	45.09	40.25	47.20	61.84	55.19	64.73	39.47	45.98	52.20	54.13	63.05	71.58
1974	42.08	41.35	44.58	52.88	51.95	56.01	37.04	46.97	49.26	46.54	59.02	61.90
1975	41.02	38.49	41.11	56.08	52.63	56.19	37.52	42.08	43.70	51.29	57.52	59.73
1976	45.63	43.35	46.78	55.49	52.71	56.88	42.57	46.47	48.81	51.76	56.51	59.35
1977	48.54	45.13	50.48	56.79	52.80	59.06	45.70	47.94	52.07	53.47	56.09	60.91
1978	48.72	48.21	54.78	57.80	57.19	64.99	47.10	49.87	54.36	55.87	59.16	64.49
1979	44.09	46.33	46.83	49.94	52.48	53.04	43.30	47.18	45.89	49.05	53.44	51.98
1980	52.03	52.13	59.88	63.80	63.92	73.43	50.68	53.51	59.66	62.15	65.62	73.16
1981	52.91	53.15	56.11	59.14	59.40	62.71	50.60	55.58	57.61	56.55	62.12	64.38
1982	58.75	60.68	61.07	68.22	70.47	70.92	56.23	63.40	62.47	65.29	73.62	72.55
1983	59.06	61.57	63.87	68.63	71.55	74.22	57.37	63.38	64.99	66.67	73.65	75.52
1984	55.12	58.18	59.59	68.24	72.03	73.78	52.92	60.59	62.20	65.52	75.02	77.01
1985	66.43	68.16	66.98	68.09	69.86	68.65	64.21	70.51	68.55	65.81	72.27	70.26
1986	84.71	84.19	82.52	91.56	90.99	89.19	84.27	84.63	81.44	91.08	91.47	88.02
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	93.17	91.74	94.40	100.26	98.71	101.58	93.46	91.46	93.81	100.57	98.41	100.94
1989	78.33	75.55	72.50	88.06	84.93	81.50	76.66	77.20	73.67	86.18	86.79	82.82
1990	74.57	69.31	67.42	83.62	77.74	75.61	74.02	69.83	67.50	83.01	78.31	75.70
1991	84.10	73.77	74.64	85.76	75.22	76.11	84.14	73.74	74.47	85.80	75.19	75.93
1992	83.93	71.15	74.35	94.30	79.94	83.54	85.16	70.12	73.57	95.68	78.79	82.66
1993	83.78	69.44	71.34	90.19	74.75	76.80	87.15	66.75	69.33	93.82	71.86	74.63
1994	112.25	103.53	105.58	111.05	102.43	104.46	119.30	97.42	100.78	118.03	96.38	99.70
1995	100.71	90.90	98.88	104.97	94.74	103.06	107.59	85.09	93.97	112.14	88.69	97.95
Avg.	53.5	43.7	51.7	62.8	51.2	60.2	45.2	51.9	56.1	52.8	61.0	66.4
Std.	22.8	25.5	23.6	20.7	24.9	22.4	27.9	20.5	18.7	27.2	18.6	16.3
Min.	21.1	12.0	13.7	28.7	16.3	18.6	12.7	20.1	25.8	17.2	27.3	35.0
Max.	112.3	103.5	105.6	111.1	102.4	104.5	119.3	100.0	100.8	118.0	100.0	100.9

Note: The year which does not have data is excluded from the calculations of average (avg.), standard deviation (std.),

minimum (min.) and maximum (max.).

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Table 14. Bilateral Real Exchange Rates (AS & TL)

Formula (2): RER = ER . (P$_f$ / P$_d$)

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	BRER$_1$	BRER$_2$	BRER$_3$	BRER$_1$	BRER$_2$	BRER$_3$	BRER$_4$	BRER$_5$	BRER$_6$	BRER$_4$	BRER$_5$	BRER$_6$
1949	21.7	16.5	-	28.0	21.3	-	16.9	21.2	28.4	21.8	27.4	28.4
1950	21.5	13.4	-	23.1	14.4	-	14.6	19.8	25.8	15.7	21.2	18.8
1951	27.4	17.1	-	27.5	17.2	-	17.6	26.6	32.7	17.7	26.8	21.1
1952	30.1	18.5	-	30.3	18.6	-	19.7	28.2	35.3	19.9	28.3	23.3
1953	22.6	14.4	-	22.8	14.5	-	15.5	21.0	26.1	15.6	21.1	18.0
1954	21.4	13.7	-	21.6	13.8	-	14.7	20.0	26.0	14.8	20.2	17.9
1955	20.7	12.2	-	20.8	12.3	-	13.7	18.5	24.2	13.7	18.7	16.1
1956	18.0	11.5	-	18.1	11.6	-	12.2	17.1	22.0	12.2	17.2	14.9
1957	19.2	12.9	-	19.2	13.0	-	12.8	19.4	22.6	12.8	19.4	15.1
1958	43.0	30.2	-	26.3	18.4	-	30.1	43.0	50.9	18.4	26.3	21.8
1959	36.8	24.5	-	36.9	24.5	-	25.4	35.5	43.8	25.4	35.6	30.2
1960	34.7	23.7	-	34.7	23.7	-	24.5	33.5	41.8	24.6	33.5	29.6
1961	34.6	24.3	-	34.5	24.1	-	24.8	33.9	41.1	24.7	33.7	29.3
1962	34.6	24.6	-	34.6	24.6	-	24.6	34.5	39.6	24.6	34.6	28.2
1963	32.6	23.4	-	32.6	23.4	-	24.2	31.5	36.9	24.2	31.5	27.4
1964	33.9	23.9	25.7	33.9	24.0	25.7	24.8	32.7	37.8	24.8	32.8	27.7
1965	32.5	23.8	26.0	32.6	23.8	26.0	24.1	32.1	37.7	24.1	32.2	27.9
1966	31.2	22.9	25.3	31.3	23.0	25.4	23.4	30.6	35.6	23.5	30.6	26.8
1967	29.7	22.0	24.6	29.8	22.1	24.6	22.7	28.9	34.3	22.7	29.0	26.1
1968	29.1	21.9	24.4	29.1	21.9	24.4	22.6	28.2	33.3	22.6	28.2	25.9
1969	27.8	20.9	23.5	27.8	20.9	23.5	21.7	26.7	31.7	21.7	26.8	24.8
1970	45.1	33.4	37.7	34.2	25.3	28.6	35.1	42.9	50.5	26.7	32.5	29.8
1971	42.6	31.2	35.4	42.5	31.1	35.3	33.0	40.3	47.1	32.9	40.2	36.3
1972	38.5	29.9	35.1	38.5	30.0	35.1	30.5	37.7	45.0	30.5	37.8	35.7
1973	37.7	32.3	36.3	38.2	32.8	36.8	31.7	38.4	43.6	32.2	39.0	37.2
1974	38.2	34.1	35.4	34.7	31.0	32.2	30.6	34.1	44.7	27.8	38.8	32.6
1975	37.1	31.1	31.3	37.3	31.3	31.5	30.3	38.0	39.5	30.5	38.3	32.5
1976	41.2	34.7	34.8	37.1	31.3	31.4	34.1	42.0	44.1	30.7	37.8	32.9
1977	44.0	36.8	38.0	37.4	31.3	32.3	37.3	43.5	47.2	31.7	36.9	34.0
1978	43.0	38.3	40.5	38.0	33.8	35.8	37.4	44.0	48.0	33.0	38.9	36.9
1979	41.1	38.1	36.1	33.6	31.1	29.5	35.6	44.0	42.8	29.1	35.9	30.3
1980	49.4	43.0	46.3	44.5	38.7	41.6	41.8	50.8	56.6	37.7	45.7	43.2
1981	50.3	44.2	44.1	41.7	36.7	36.6	42.1	52.8	54.7	34.9	43.8	38.0
1982	55.1	50.9	48.6	46.9	43.3	41.4	47.2	59.5	58.6	40.2	50.7	42.7
1983	55.5	52.3	52.2	47.6	44.9	44.8	48.8	59.5	61.0	41.9	51.1	46.1
1984	52.2	51.3	51.0	47.4	46.7	46.3	46.7	57.4	58.9	42.4	52.1	47.9
1985	63.3	60.5	56.8	47.9	45.7	42.9	57.0	67.2	65.4	43.1	50.8	44.5
1986	78.4	75.8	72.1	62.7	60.5	57.6	75.8	78.4	75.4	60.6	62.6	58.3
1987	90.7	90.7	90.7	67.8	67.8	67.8	90.7	90.7	90.7	67.8	67.8	67.8
1988	84.5	84.8	86.7	67.4	67.6	69.1	86.4	83.0	85.1	68.9	66.2	69.3
1989	71.2	72.2	68.9	58.3	59.1	56.4	73.2	70.1	66.9	60.0	57.4	56.4
1990	67.4	65.2	63.0	56.3	54.5	52.7	69.6	63.1	61.0	58.2	52.7	52.7
1991	75.7	70.3	71.4	56.9	52.8	53.7	80.2	66.4	67.0	60.3	49.9	53.4
1992	74.0	68.2	72.1	61.3	56.6	59.8	81.7	61.8	64.8	67.7	51.2	59.4
1993	73.5	67.3	70.2	58.2	53.3	55.6	84.4	58.6	60.8	66.9	46.4	55.4
1994	97.0	98.4	102.6	72.1	73.0	76.2	113.3	84.2	87.1	84.2	62.5	75.6
1995	87.6	81.0	97.9	67.3	67.7	75.3	104.2	74.0	81.7	80.1	56.9	74.7

Note. WPIs are used for both Turkey and Austria to compute BRER$_1$.

CPIs are used for both Turkey and Austria to compute BRER$_2$.

GDP deflators are used for both Turkey and Austria to compute BRER$_3$.

CPIs are used for Austria and WPIs are used for Turkey to compute BRER$_4$.

WPIs are used for Austria and CPIs are used for Turkey to compute BRER$_5$.

WPIs are used for Austria and GDP deflators are used for Turkey to compute BRER$_6$.

Table 14-A. Bilateral Real Exchange Rates (AS & TL)

Formula (12): $RER_i = (ER_i / ER_{i0}) \cdot (P_\pi / P_d)$

1987=100

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	BRER₁	BRER₂	BRER₃	BRER₁	BRER₂	BRER₃	BRER₄	BRER₄	BRER₄	BRER₄	BRER₄	BRER₄
1949	23.94	18.17	-	41.34	31.38	-	18.59	23.40	31.26	32.10	40.42	41.92
1950	23.71	14.79	-	34.10	21.27	-	16.10	21.77	28.41	23.16	31.32	27.76
1951	30.16	18.84	-	40.62	25.38	-	19.35	29.37	36.04	26.06	39.55	31.14
1952	33.17	20.35	-	44.67	27.40	-	21.75	31.04	38.95	29.29	41.80	34.39
1953	24.92	15.89	-	33.56	21.39	-	17.12	23.12	28.74	23.06	31.14	26.59
1954	23.64	15.13	-	31.83	20.38	-	16.20	22.09	28.61	21.81	29.74	26.40
1955	22.80	13.49	-	30.71	18.17	-	15.05	20.44	26.70	20.26	27.53	23.73
1956	19.83	12.73	-	26.70	17.14	-	13.39	18.84	24.21	18.04	25.37	22.03
1957	21.11	14.22	-	28.37	19.10	-	14.07	21.33	24.88	18.91	28.66	22.28
1958	47.38	33.23	-	38.78	27.20	-	33.19	47.43	56.14	27.17	38.83	32.19
1959	40.57	26.96	-	54.42	36.16	-	27.95	39.13	48.22	37.49	52.49	44.56
1960	38.20	26.10	-	51.29	34.98	-	27.02	36.90	46.03	36.21	49.46	43.64
1961	38.18	26.73	-	50.87	35.61	-	27.35	37.31	45.33	36.44	49.72	43.26
1962	38.08	27.05	-	51.00	36.24	-	27.07	38.06	43.65	36.26	50.98	41.56
1963	35.90	25.75	-	48.09	34.50	-	26.65	34.69	40.64	35.70	46.47	40.42
1964	37.33	26.37	28.31	50.03	35.34	37.94	27.30	36.07	41.70	36.58	48.33	40.85
1965	35.84	26.18	28.64	48.07	35.11	38.41	26.53	35.37	41.52	35.58	47.43	41.21
1966	34.38	25.29	27.89	46.12	33.92	37.42	25.82	33.67	39.28	34.64	45.17	39.58
1967	32.76	24.28	27.08	43.90	32.54	36.29	24.96	31.87	37.75	33.45	42.70	38.55
1968	32.09	24.08	26.88	42.99	32.26	36.01	24.89	31.05	36.71	33.34	41.59	38.14
1969	30.62	23.03	25.92	40.99	30.84	34.70	23.93	29.47	34.97	32.03	39.46	36.59
1970	49.73	36.79	41.52	50.50	37.36	42.17	38.72	47.25	55.64	39.32	47.99	44.09
1971	46.98	34.39	39.02	62.73	45.91	52.11	36.37	44.42	51.85	48.56	59.31	53.59
1972	42.39	32.99	38.68	56.79	44.21	51.82	33.62	41.60	49.61	45.04	55.74	52.72
1973	41.53	35.64	39.99	56.35	48.36	54.26	34.96	42.34	48.07	47.43	57.45	54.91
1974	42.09	37.60	38.96	51.25	45.79	47.44	33.69	46.98	49.27	41.03	57.20	48.02
1975	40.83	34.23	34.45	46.13	46.42	46.42	33.37	41.89	43.50	44.97	56.44	47.90
1976	45.39	38.27	38.35	54.75	46.16	46.25	37.58	46.23	48.55	45.32	55.75	48.48
1977	48.49	40.59	41.91	55.15	46.16	47.66	41.10	47.89	52.02	46.74	54.47	50.14
1978	47.36	42.16	44.61	56.05	49.89	52.79	41.19	48.48	52.85	48.74	57.37	54.38
1979	45.51	41.97	39.77	49.53	45.89	43.49	39.22	48.47	47.15	42.89	53.00	44.64
1980	54.43	47.41	50.97	65.59	57.13	61.42	46.10	55.98	62.42	55.54	67.46	63.70
1981	55.40	48.73	48.56	61.55	54.15	53.96	46.39	58.19	60.31	51.54	64.66	56.32
1982	60.76	56.09	53.54	69.25	63.92	61.61	51.97	65.58	64.62	59.23	74.73	62.99
1983	61.13	57.65	57.54	70.24	66.25	66.13	53.72	65.60	67.27	61.73	75.38	67.93
1984	57.52	56.57	56.15	69.96	68.81	68.29	51.46	63.23	64.91	62.59	76.91	70.63
1985	69.80	66.69	62.59	70.60	67.45	63.31	62.83	74.08	72.02	63.55	74.93	65.58
1986	86.43	83.48	79.44	92.46	89.31	84.99	83.56	86.34	83.08	89.39	92.37	85.94
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	93.15	93.41	95.50	99.43	99.71	101.94	95.16	91.44	93.79	101.58	97.60	102.27
1989	78.42	79.54	75.90	85.95	87.18	83.19	80.71	77.28	73.76	88.46	84.79	83.20
1990	74.23	71.84	69.42	83.06	80.38	77.68	76.72	69.51	67.19	85.84	77.78	77.70
1991	83.40	77.44	78.72	83.92	77.93	79.21	88.33	73.12	73.84	88.88	73.58	78.70
1992	81.51	75.21	79.47	90.45	83.46	88.18	90.02	68.10	71.45	99.89	75.57	87.56
1993	80.99	74.14	77.37	85.88	78.62	82.05	93.05	64.52	67.02	98.68	68.43	81.66
1994	106.93	108.38	113.11	106.29	107.73	112.44	124.88	92.80	96.00	124.14	92.25	111.45
1995	96.48	96.97	107.86	99.32	99.82	111.03	114.78	81.51	90.02	118.15	83.91	110.24
Avg.	50.1	43.1	55.3	58.7	49.9	62.5	44.8	48.6	52.9	51.6	57.1	54.1
Std.	23.2	26.2	25.3	21.0	25.2	23.1	29.2	21.4	19.5	28.0	19.5	23.6
Min.	19.8	12.7	25.9	26.7	17.1	34.7	13.4	18.8	24.2	18.0	25.4	22.0
Max.	106.9	108.4	113.1	106.3	107.7	112.4	124.9	100.0	100.0	124.1	100.0	111.4

Note: The year which does not have data is excluded from the calculations of average (avg.), standard deviation (std.), minimum (min.) and maximum (max.).

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Table 15. Bilateral Real Exchange Rates (JY & TL)

Formula (2): $RER = ER \cdot (P_f / P_d)$

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	BRER₁	BRER₂	BRER₃	BRER₁	BRER₂	BRER₃	BRER₄	BRER₅	BRER₆	BRER₄	BRER₅	BRER₆
1949	1.481	0.665	-	1.695	0.762	-	0.680	1.448	1.934	0.779	1.657	2.214
1950	1.940	0.641	-	1.940	0.641	-	0.698	1.782	2.325	0.698	1.782	2.325
1951	2.213	0.745	-	2.213	0.745	-	0.766	2.155	2.645	0.766	2.155	2.645
1952	2.235	0.746	-	2.235	0.746	-	0.797	2.091	2.625	0.797	2.091	2.625
1953	2.193	0.768	-	2.193	0.768	-	0.828	2.034	2.529	0.828	2.034	2.529
1954	1.971	0.746	-	1.971	0.746	-	0.798	1.842	2.387	0.798	1.842	2.387
1955	1.800	0.658	-	1.800	0.658	-	0.734	1.614	2.108	0.734	1.614	2.108
1956	1.612	0.598	0.797	1.616	0.600	0.799	0.630	1.532	1.969	0.631	1.536	1.974
1957	1.703	0.673	0.844	1.702	0.673	0.843	0.666	1.720	2.007	0.666	1.719	2.006
1958	3.665	1.538	1.948	2.239	0.939	1.190	1.536	3.670	4.343	0.938	2.242	2.653
1959	3.097	1.251	1.710	3.090	1.249	1.706	1.298	2.987	3.681	1.295	2.980	3.673
1960	2.979	1.230	1.771	2.965	1.224	1.763	1.274	2.877	3.589	1.268	2.864	3.572
1961	2.901	1.267	1.819	2.906	1.269	1.822	1.296	2.835	3.444	1.298	2.840	3.450
1962	2.725	1.321	1.749	2.705	1.311	1.737	1.321	2.724	3.124	1.312	2.704	3.101
1963	2.629	1.304	1.730	2.632	1.305	1.732	1.349	2.540	2.976	1.351	2.543	2.980
1964	2.629	1.359	1.800	2.603	1.336	1.781	1.398	2.540	2.937	1.383	2.514	2.907
1965	2.435	1.353	1.804	2.431	1.351	1.801	1.371	2.403	2.821	1.369	2.399	2.816
1966	2.365	1.338	1.778	2.366	1.338	1.778	1.366	2.316	2.702	1.367	2.317	2.703
1967	2.242	1.286	1.763	2.241	1.285	1.761	1.322	2.181	2.584	1.321	2.180	2.582
1968	2.216	1.324	1.811	2.199	1.314	1.796	1.369	2.145	2.536	1.358	2.128	2.515
1969	2.111	1.293	1.766	2.108	1.291	1.764	1.343	2.032	2.412	1.341	2.029	2.408
1970	3.397	2.134	2.872	2.573	1.617	2.176	2.246	3.228	3.801	1.701	2.445	2.879
1971	3.149	2.110	2.792	2.979	1.996	2.642	2.231	2.977	3.475	2.111	2.816	3.287
1972	2.803	2.024	2.768	2.792	2.016	2.757	2.062	2.750	3.280	2.054	2.740	3.268
1973	2.907	2.102	2.772	2.996	2.167	2.857	2.062	2.964	3.365	2.125	3.055	3.468
1974	2.698	2.004	2.378	2.760	2.050	2.432	1.795	3.012	3.158	1.837	3.081	3.231
1975	2.705	2.001	2.261	2.635	1.949	2.202	1.951	2.775	2.882	1.900	2.703	2.807
1976	2.817	2.155	2.424	2.682	2.051	2.308	2.116	2.869	3.014	2.014	2.731	2.869
1977	3.276	2.582	2.955	2.717	2.141	2.451	2.614	3.236	3.514	2.168	2.684	2.914
1978	3.366	2.938	3.403	2.989	2.609	3.022	2.870	3.445	3.755	2.549	3.060	3.335
1979	2.503	2.207	2.259	2.405	2.121	2.171	2.062	2.678	2.605	1.982	2.573	2.503
1980	4.273	3.316	3.776	3.227	2.504	2.851	3.224	4.395	4.900	2.435	3.319	3.701
1981	4.338	3.556	3.720	3.601	2.951	3.088	3.385	4.558	4.724	2.809	3.782	3.920
1982	4.613	3.923	3.860	3.788	3.222	3.170	3.635	4.978	4.905	2.985	4.088	4.029
1983	5.292	4.663	4.749	4.125	3.635	3.702	4.345	5.678	5.823	3.387	4.427	4.539
1984	5.048	4.671	4.766	4.400	4.072	4.155	4.249	5.549	5.697	3.704	4.838	4.966
1985	5.792	5.338	5.137	4.405	4.060	3.907	5.029	6.147	5.976	3.825	4.675	4.545
1986	6.874	6.606	6.363	5.776	5.552	5.347	6.613	6.867	6.608	5.557	5.771	5.553
1987	8.266	8.266	8.266	5.926	5.926	5.926	8.266	8.266	8.266	5.926	5.926	5.926
1988	8.370	8.364	8.547	6.442	6.437	6.578	8.521	8.216	8.427	6.558	6.323	6.486
1989	5.860	5.856	5.549	5.588	5.584	5.291	5.942	5.776	5.512	5.666	5.507	5.256
1990	5.307	5.091	4.845	4.386	4.207	4.004	5.437	4.970	4.804	4.493	4.107	3.970
1991	6.370	5.898	5.805	4.862	4.502	4.431	6.727	5.585	5.640	5.135	4.262	4.305
1992	6.550	5.970	6.092	5.177	4.718	4.815	7.145	5.472	5.741	5.648	4.325	4.538
1993	7.502	6.858	6.877	5.727	5.235	5.250	8.607	5.977	6.208	6.571	4.563	4.740
1994	9.808	10.042	9.986	7.318	7.492	7.451	11.571	8.512	8.806	8.633	6.351	6.570
1995	7.707	7.741	8.350	6.476	6.504	7.016	9.163	6.511	7.191	7.699	5.471	6.042

Note. WPIs are used for both Turkey and Japan to compute BRER₁.

CPIs are used for both Turkey and Japan to compute BRER₂.

GDP deflators are used for both Turkey and Japan to compute BRER₃.

CPIs are used for Japan and WPIs are used for Turkey to compute BRER₄.

WPIs are used for Japan and CPIs are used for Turkey to compute BRER₅.

WPIs are used for Japan and GDP deflators are used for Turkey to compute BRER₆.

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Table 15-A. Bilateral Real Exchange Rates (JY & TL)

Formula (12): $RER_t = (ER_t / ER_{t,0}) \cdot (P_n / P_d)$

1987=100

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	$BRER_1$	$BRER_2$	$BRER_3$	$BRER_1$	$BRER_2$	$BRER_3$	$BRER_4$	$BRER_5$	$BRER_6$	$BRER_4$	$BRER_5$	$BRER_6$
1949	17.91	8.05	-	28.60	12.85	-	8.23	17.51	23.39	13.14	27.96	37.35
1950	23.47	7.75	-	32.74	10.81	-	8.44	21.56	28.13	11.77	30.07	39.24
1951	26.77	9.02	-	37.34	12.58	-	9.26	26.07	31.99	12.92	36.36	44.63
1952	27.04	9.03	-	37.71	12.59	-	9.65	25.30	31.75	13.45	35.29	44.29
1953	26.52	9.29	-	37.00	12.96	-	10.02	24.61	30.59	13.97	34.33	42.67
1954	23.85	9.02	-	33.26	12.59	-	9.66	22.28	28.87	13.47	31.08	40.27
1955	21.78	7.96	-	30.38	11.10	-	8.88	19.52	25.51	12.38	27.23	35.58
1956	19.50	7.24	9.64	27.27	10.12	13.48	7.62	18.53	23.82	10.65	25.92	33.31
1957	20.60	8.14	10.20	28.72	11.35	14.23	8.06	20.81	24.28	11.23	29.01	33.85
1958	44.34	18.60	23.57	37.78	15.85	20.08	18.58	44.39	52.54	15.83	37.83	44.77
1959	37.46	15.14	20.69	52.14	21.07	28.79	15.70	36.13	44.52	21.85	50.29	61.97
1960	36.03	14.88	21.43	50.02	20.66	29.74	15.41	34.80	43.42	21.39	48.32	60.28
1961	35.09	15.32	22.01	49.03	21.41	30.75	15.68	34.30	41.67	21.90	47.92	58.22
1962	32.96	15.98	21.16	45.64	22.12	29.30	15.98	32.95	37.79	22.13	45.62	52.32
1963	31.80	15.77	20.93	44.41	22.03	29.23	16.32	30.73	36.00	22.80	42.91	50.28
1964	31.81	16.33	21.77	43.92	22.55	30.06	16.91	30.73	35.53	23.34	42.43	49.05
1965	29.46	16.37	21.82	41.02	22.80	30.38	16.59	29.07	34.13	23.10	40.48	47.52
1966	28.61	16.19	21.51	39.92	22.58	30.01	16.53	28.02	32.69	23.06	39.10	45.62
1967	27.12	15.56	21.32	37.81	21.69	29.72	16.00	26.39	31.26	22.30	36.78	43.57
1968	26.81	16.02	21.91	37.10	22.17	30.31	16.56	25.94	30.67	22.91	35.90	42.44
1969	25.54	15.64	21.37	35.57	21.78	29.76	16.25	24.59	29.18	22.62	34.24	40.63
1970	41.09	25.82	34.75	43.41	27.28	36.72	27.17	39.04	45.98	28.71	41.25	48.58
1971	38.09	25.52	33.78	50.26	33.67	44.57	26.99	36.02	42.04	35.61	47.52	55.47
1972	33.90	24.48	33.48	47.11	34.02	46.52	24.95	33.27	39.68	34.66	46.23	55.14
1973	35.17	25.43	33.54	50.55	36.56	48.21	24.94	35.86	40.71	35.86	51.54	58.52
1974	32.64	24.24	28.76	46.57	34.59	41.04	21.72	36.43	38.21	30.99	51.98	54.52
1975	32.72	24.21	27.35	44.46	32.89	37.16	23.60	33.57	34.86	32.06	45.61	47.36
1976	34.08	26.07	29.33	45.25	34.61	38.94	25.59	34.71	36.46	33.98	46.09	48.40
1977	39.64	31.23	35.75	45.85	36.13	41.35	31.63	39.14	42.51	36.58	45.28	49.18
1978	40.71	35.54	41.16	50.44	44.03	50.99	34.72	41.68	45.43	43.01	51.63	56.28
1979	30.27	26.70	27.33	40.58	35.78	36.63	24.95	32.39	31.51	33.44	43.42	42.23
1980	51.69	40.11	45.68	54.45	42.25	48.11	39.00	53.17	59.28	41.08	56.00	62.44
1981	52.48	43.01	45.90	60.75	49.79	52.10	40.95	55.13	57.14	47.40	63.82	66.15
1982	55.80	47.46	46.69	63.92	54.36	53.49	43.97	60.22	59.34	50.37	68.99	67.98
1983	64.01	56.41	57.45	69.60	61.34	62.47	52.57	68.69	70.44	57.16	74.69	76.59
1984	61.06	56.51	57.65	74.25	68.71	70.10	51.40	67.13	68.91	62.50	81.63	83.79
1985	70.06	64.58	62.15	74.32	68.51	65.93	60.84	74.37	72.30	64.54	78.89	76.70
1986	83.15	79.92	76.97	97.47	93.67	90.22	80.00	83.07	79.94	93.77	97.37	93.70
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	101.25	101.18	103.39	108.70	108.62	110.99	103.07	99.39	101.94	110.65	106.70	109.44
1989	70.89	70.84	67.13	94.29	94.22	89.28	71.88	69.87	66.68	95.60	92.92	88.68
1990	64.20	61.59	58.62	74.00	70.99	67.57	65.77	60.12	58.11	75.81	69.30	66.99
1991	77.06	71.35	70.22	82.04	75.96	74.76	81.38	67.56	68.23	86.64	71.92	72.64
1992	79.24	72.22	73.70	87.36	79.62	81.25	86.44	66.20	69.46	95.29	72.99	76.57
1993	90.75	82.96	83.19	96.64	88.34	88.59	104.12	72.30	75.10	110.88	76.99	79.97
1994	118.65	121.48	120.81	123.48	126.42	125.72	139.98	102.97	106.52	145.67	107.16	110.86
1995	93.23	93.65	101.01	109.27	109.75	118.38	110.84	78.77	86.99	129.91	92.32	101.95
Avg.	46.5	36.2	44.4	56.2	42.7	52.4	37.8	45.0	48.8	44.4	54.5	59.5
Std.	25.4	30.2	28.3	24.8	31.8	28.9	33.5	23.4	21.9	35.3	22.7	20.5
Min.	17.9	7.2	9.6	27.3	10.1	13.5	7.6	17.5	23.4	10.7	25.9	33.3
Max.	118.7	121.5	120.8	123.5	126.4	125.7	140.0	103.0	106.5	145.7	107.2	110.9

Note: The year which does not have data is excluded from the calculations of average (avg.), standard deviation (std.),

minimum (min.) and maximum (max.).

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Table 16. Bilateral Real Exchange Rates (AR & TL)

Formula (2): RER = ER . (P_f / P_d)

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	BRER₁	BRER₂	BRER₃	BRER₁	BRER₂	BRER₃	BRER₄	BRER₅	BRER₆	BRER₄	BRER₅	BRER₆
1949	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	122.6	-	-	122.6	-	126.9	-	-	126.9	-	-
1964	-	124.5	-	-	124.5	-	128.9	-	-	128.9	-	-
1965	-	118.0	-	-	118.0	-	119.6	-	-	119.6	-	-
1966	-	113.2	-	-	113.2	-	115.6	-	-	115.6	-	-
1967	-	107.0	-	-	107.0	-	110.0	-	-	110.0	-	-
1968	-	104.9	68.3	-	104.9	68.3	108.4	-	-	108.4	-	-
1969	-	100.4	64.9	-	100.4	64.9	104.3	-	-	104.3	-	-
1970	-	154.3	93.1	-	117.0	70.6	162.3	-	-	123.1	-	-
1971	-	142.8	100.8	-	138.6	97.8	151.0	-	-	146.6	-	-
1972	-	131.2	108.5	-	131.2	108.5	133.7	-	-	133.7	-	-
1973	-	154.2	221.7	-	147.3	211.8	151.3	-	-	144.5	-	-
1974	-	155.5	238.6	-	154.4	236.9	139.3	-	-	138.3	-	-
1975	-	190.7	233.7	-	181.3	222.1	186.0	-	-	176.8	-	-
1976	-	236.8	241.5	-	228.3	232.9	232.5	-	-	224.2	-	-
1977	-	241.3	236.9	-	222.6	218.6	244.3	-	-	225.4	-	-
1978	-	222.5	231.1	-	208.4	216.5	217.4	-	-	203.6	-	-
1979	-	199.1	254.6	-	175.1	223.9	186.0	-	-	163.7	-	-
1980	-	247.1	435.9	-	208.3	367.5	240.2	-	-	202.5	-	-
1981	-	273.7	433.2	-	230.0	364.0	260.6	-	-	219.0	-	-
1982	-	315.4	416.3	-	275.1	363.1	292.2	-	-	254.9	-	-
1983	-	357.8	440.1	-	288.7	355.0	333.5	-	-	269.0	-	-
1984	-	364.7	440.9	-	305.1	368.8	331.8	-	-	277.6	-	-
1985	250.7	319.3	341.3	228.3	282.6	310.7	292.3	266.2	258.8	266.2	242.3	235.6
1986	262.5	285.3	262.4	236.3	256.8	236.2	285.6	262.3	252.4	257.1	236.1	227.2
1987	272.6	272.6	272.6	228.9	228.9	228.9	272.6	272.6	272.6	228.9	228.9	228.9
1988	322.4	281.6	275.4	252.6	220.7	215.8	286.9	316.4	324.5	224.8	248.0	254.4
1989	253.5	222.2	217.7	232.5	203.7	199.6	225.4	249.9	238.5	206.7	229.1	218.7
1990	214.5	179.1	198.5	190.9	159.4	176.8	191.3	200.8	194.1	170.3	178.8	172.8
1991	246.5	196.3	225.5	202.4	161.2	185.2	223.9	216.1	218.2	183.8	177.5	179.2
1992	259.6	194.4	235.8	208.3	156.0	189.2	232.6	216.9	227.6	186.7	174.1	182.6
1993	278.8	199.8	229.9	211.6	151.7	174.5	250.8	222.2	230.8	190.4	168.6	175.1
1994	338.1	260.7	299.6	258.5	199.3	229.1	300.4	293.4	303.5	229.7	224.3	232.1
1995	296.2	217.5	-	227.6	167.2	-	257.4	250.2	276.4	197.9	192.3	212.4

Note. WPIs are used for both Turkey and S. Arabia to compute BRER₁.

CPIs are used for both Turkey and S. Arabia to compute BRER₂.

GDP deflators are used for both Turkey and S. Arabia to compute BRER₃.

CPIs are used for S. Arabia and WPIs are used for Turkey to compute BRER₄.

WPIs are used for S. Arabia and CPIs are used for Turkey to compute BRER₅.

WPIs are used for S. Arabia and GDP deflators are used for Turkey to compute BRER₆.

Table 16-A. Bilateral Real Exchange Rates (AR & TL)
Formula (12): $RER_t = (ER_t / ER_{t0}) \cdot (P_n / P_d)$

1987=100

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	BRER₁	BRER₂	BRER₃	BRER₁	BRER₂	BRER₃	BRER₄	BRER₅	BRER₄	BRER₄	BRER₃	BRER₄
1949	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	44.96	-	-	53.55	-	46.53	-	-	55.42	-	-
1964	-	45.67	-	-	54.39	-	47.27	-	-	56.30	-	-
1965	-	43.30	-	-	51.57	-	43.88	-	-	52.26	-	-
1966	-	41.54	-	-	49.48	-	42.42	-	-	50.52	-	-
1967	-	39.26	-	-	46.76	-	40.36	-	-	48.06	-	-
1968	-	38.47	25.04	-	45.82	29.83	39.76	-	-	47.35	-	-
1969	-	36.84	23.80	-	43.88	28.35	38.28	-	-	45.59	-	-
1970	-	56.59	34.16	-	51.11	30.86	59.55	-	-	53.79	-	-
1971	-	52.39	36.96	-	60.55	42.73	55.40	-	-	64.04	-	-
1972	-	48.14	39.81	-	57.34	47.42	49.06	-	-	58.42	-	-
1973	-	56.58	81.32	-	64.37	92.52	55.49	-	-	63.13	-	-
1974	-	57.05	87.52	-	67.46	103.49	51.11	-	-	60.44	-	-
1975	-	69.97	85.71	-	79.23	97.05	68.22	-	-	77.24	-	-
1976	-	86.88	88.60	-	99.75	101.73	85.31	-	-	97.95	-	-
1977	-	88.51	86.92	-	97.25	95.50	89.62	-	-	98.47	-	-
1978	-	81.63	84.79	-	91.05	94.58	79.75	-	-	88.96	-	-
1979	-	73.03	93.39	-	76.50	97.84	68.25	-	-	71.50	-	-
1980	-	90.63	159.91	-	91.00	160.56	88.12	-	-	88.48	-	-
1981	-	100.41	158.90	-	100.49	159.03	95.58	-	-	95.66	-	-
1982	-	115.70	152.73	-	120.18	158.65	107.20	-	-	111.35	-	-
1983	-	131.27	161.44	-	126.11	155.10	122.32	-	-	117.52	-	-
1984	-	133.80	161.73	-	133.31	161.14	121.71	-	-	121.26	-	-
1985	91.98	113.83	125.19	99.75	123.44	135.76	107.24	97.63	94.92	116.30	105.88	102.93
1986	96.31	104.68	96.26	103.24	112.21	103.19	104.78	96.21	92.58	112.32	103.14	99.25
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	118.25	103.30	101.92	110.37	96.42	94.29	105.24	116.07	119.05	98.23	108.34	111.12
1989	93.01	81.49	79.86	101.58	89.00	87.22	82.69	91.66	87.48	90.31	100.11	95.54
1990	78.67	65.70	72.83	83.41	69.66	77.22	70.16	73.67	71.21	74.39	78.11	75.51
1991	90.42	72.00	82.70	88.44	70.42	80.89	82.12	79.27	80.06	80.32	77.53	78.30
1992	95.24	71.30	86.48	91.02	68.14	82.65	85.34	79.57	83.48	81.56	76.04	79.78
1993	102.29	73.30	84.33	92.46	66.26	76.23	92.00	81.50	84.65	83.16	73.67	76.52
1994	124.03	95.63	109.91	112.94	87.08	100.08	110.19	107.64	111.35	100.34	98.01	101.39
1995	108.65	79.79	-	99.45	73.03	-	94.44	91.79	101.38	86.44	84.02	92.79
Avg.	99.9	75.6	92.6	98.4	79.3	96.1	76.6	92.3	93.3	80.2	91.4	92.1
Std.	13.0	27.5	40.8	9.0	25.6	39.8	26.0	13.0	14.0	23.1	13.4	12.5
Min.	78.7	36.8	23.8	83.4	43.9	28.3	38.3	73.7	71.2	45.6	73.7	75.5
Max.	124.0	133.8	161.7	112.9	133.3	161.1	122.3	116.1	119.1	121.3	108.3	111.1

Note: The year which does not have data is excluded from the calculations of average (avg.), standard deviation (std.),

minimum (min.) and maximum (max.).

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Table 17. Bilateral Real Exchange Rates (IR & TL)

Formula (2): $RER = ER \cdot (P_f / P_d)$

Year	ae (end of period) $BRER_1$	$BRER_2$	$BRER_3$	rf (period averages) $BRER_1$	$BRER_2$	$BRER_3$	ae (end of period) $BRER_4$	$BRER_5$	$BRER_6$	rf (period averages) $BRER_4$	$BRER_5$	$BRER_6$
1949	2.91	2.39	-	2.91	2.39	·	2.44	2.84	3.80	2.44	2.84	3.80
1950	2.75	2.07	.-	2.75	2.07	-	2.25	2.52	3.29	2.25	2.52	3.29
1951	2.86	2.06		2.86	2.06	.. -	2.12	2.79	3.42	2.12	2.79	3.42
1952	3.02	2.21	-	3.02	2.21	-	2.36	2.82	3.55	2.36	2.82	3.55
1953	3.56	2.52	-	3.56	2.52	-	2.72	3.30	4.10	2.72	3.30	4.10
1954	3.79	2.38	-	3.79	2.38	-	2.54	3.54	4.59	2.54	3.54	4.59
1955	1.47	0.93	-	1.47	0.93	-	1.04	1.32	1.72	1.04	1.32	1.72
1956	1.34	0.92	-	1.34	0.92	-	0.97	1.27	1.64	0.97	1.27	1.64
1957	1.37	1.05	-	1.37	1.05	-	1.04	1.38	1.61	1.04	1.38	1.61
1958	3.03	2.41	-	1.85	1.47	-	2.40	3.03	3.59	1.47	1.85	2.19
1959	2.64	2.13	-	2.64	2.13	-	2.21	2.54	3.13	2.21	2.54	3.13
1960	2.60	2.26	-	2.60	2.26	-	2.34	2.52	3.14	2.34	2.52	3.14
1961	2.53	2.28	-	2.53	2.28	-	2.33	2.48	3.01	2.33	2.48	3.01
1962	2.44	2.20	-	2.44	2.20	-	2.20	2.44	2.80	2.20	2.44	2.80
1963	2.34	2.08	-	2.34	2.08	·	2.15	2.26	2.65	2.15	2.26	2.65
1964	2.45	2.10	1.64	2.45	2.10	1.64	2.17	2.37	2.73	2.17	2.37	2.73
1965	2.35	2.06	1.53	2.35	2.06	1.53	2.09	2.32	2.72	2.09	2.32	2.72
1966	2.20	1.91	1.43	2.20	1.91	1.43	1.95	2.15	2.51	1.95	2.15	2.51
1967	2.06	1.81	1.34	2.05	1.80	1.33	1.86	2.00	2.37	1.85	1.99	2.36
1968	2.00	1.78	1.22	2.00	1.78	1.22	1.84	1.93	2.29	1.84	1.93	2.29
1969	1.90	1.69	1.27	1.92	1.71	1.29	1.75	1.83	2.17	1.78	1.85	2.20
1970	3.05	2.58	1.67	2.31	1.96	1.27	2.72	2.89	3.41	2.06	2.20	2.59
1971	2.63	2.23	1.52	2.78	2.35	1.61	2.35	2.49	2.90	2.49	2.63	3.07
1972	2.37	2.09	1.46	2.37	2.09	1.46	2.13	2.33	2.77	2.13	2.33	2.77
1973	2.45	2.23	1.82	2.40	2.18	1.79	2.19	2.50	2.84	2.14	2.45	2.78
1974	2.19	2.12	2.25	2.17	2.11	2.24	1.90	2.44	2.56	1.89	2.43	2.55
1975	2.28	2.12	2.18	2.21	2.05	2.12	2.06	2.34	2.43	2.00	2.27	2.36
1976	2.31	2.18	2.31	2.24	2.11	2.24	2.14	2.35	2.47	2.07	2.28	2.39
1977	2.55	2.52	2.56	2.36	2.34	2.37	2.55	2.51	2.73	2.37	2.33	2.53
1978	2.39	2.48	2.51	2.30	2.39	2.41	2.43	2.45	2.67	2.33	2.35	2.56
1979	2.34	2.45	2.54	2.05	2.16	2.23	2.29	2.50	2.43	2.01	2.20	2.14
1980	3.67	3.41	4.32	3.17	2.94	3.73	3.31	3.77	4.21	2.86	3.26	3.63
1981	4.46	4.26	5.01	3.77	3.60	4.23	4.05	4.69	4.86	3.42	3.96	4.10
1982	5.36	5.53	6.06	4.66	4.81	5.26	5.13	5.79	5.70	4.45	5.03	4.95
1983	6.73	7.21	7.70	5.48	5.87	6.27	6.72	7.23	7.41	5.47	5.88	6.03
1984	7.03	8.06	8.41	6.05	6.94	7.24	7.33	7.73	7.93	6.31	6.65	6.83
1985	7.66	8.42	8.45	6.41	7.05	7.08	7.93	8.13	7.90	6.64	6.80	6.61
1986	10.52	10.82	11.03	8.99	9.25	9.42	10.83	10.51	10.11	9.26	8.98	8.64
1987	15.56	15.56	15.56	12.00	12.00	12.00	15.56	15.56	15.56	12.00	12.00	12.00
1988	18.96	19.60	19.13	14.84	15.34	14.97	19.96	18.61	19.09	15.62	14.56	14.94
1989	17.32	18.29	16.37	15.49	16.36	14.64	18.56	17.07	16.29	16.60	15.27	14.57
1990	18.69	16.73	16.62	15.96	14.28	14.19	17.86	17.50	16.92	15.25	14.94	14.44
1991	26.52	20.69	22.51	20.84	16.26	17.69	23.60	23.25	23.48	18.54	18.27	18.45
1992	35.37	24.84	28.02	29.03	20.39	22.99	29.73	29.55	31.00	24.40	24.25	25.44
1993	1.81	1.17	1.49	1.90	1.23	1.57	1.47	1.44	1.49	1.54	1.52	1.57
1994	3.00	2.02	2.66	2.28	1.53	2.02	2.33	2.60	2.69	1.76	1.98	2.04
1995	3.91	2.39	3.09	3.00	1.83	2.37	2.82	3.30	3.65	2.17	2.54	2.80

Note: WPIs are used for both Turkey and Iran to compute $BRER_1$.

CPIs are used for both Turkey and Iran to compute $BRER_2$.

GDP deflators are used for both Turkey and Iran to compute $BRER_3$.

CPIs are used for Iran and WPIs are used for Turkey to compute $BRER_4$.

WPIs are used for Iran and CPIs are used for Turkey to compute $BRER_5$.

WPIs are used for Iran and GDP deflators are used for Turkey to compute $BRER_6$.

Table 17-A. Bilateral Real Exchange Rates (IR & TL)

Formula (12): $RER_t = (ER_t / ER_{t,0}) \cdot (P_R / P_d)$

1987=100

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	$BRER_1$	$BRER_2$	$BRER_3$	$BRER_1$	$BRER_2$	$BRER_3$	$BRER_4$	$BRER_5$	$BRER_6$	$BRER_4$	$BRER_5$	$BRER_6$
1949	18.69	15.35	-	24.24	19.91	-	15.70	18.27	24.40	20.36	23.70	31.65
1950	17.65	13.28	-	22.90	17.23	-	14.47	16.21	21.16	18.76	21.03	27.44
1951	18.41	13.26	-	23.87	17.20	-	13.62	17.92	22.00	17.67	23.24	28.53
1952	19.41	14.20	-	25.17	18.42	-	15.18	18.16	22.79	19.68	23.55	29.56
1953	22.86	16.22	-	29.65	21.04	-	17.48	21.21	26.37	22.68	27.51	34.20
1954	24.36	15.28	-	31.59	19.81	-	16.35	22.76	29.49	21.20	29.52	38.25
1955	9.43	5.97	-	12.23	7.75	-	6.66	8.45	11.04	8.64	10.96	14.32
1956	8.62	5.91	-	11.18	7.67	-	6.22	8.19	10.53	8.07	10.62	13.65
1957	8.80	6.77	-	11.42	8.77	-	6.70	8.89	10.37	8.69	11.53	13.45
1958	19.47	15.47	-	15.43	12.26	-	15.45	19.50	23.08	12.24	15.45	18.29
1959	16.95	13.71	-	21.98	17.78	-	14.22	16.34	20.14	18.44	21.20	26.12
1960	16.74	14.55	-	21.71	18.87	-	15.06	16.17	20.17	19.53	20.97	26.16
1961	16.29	14.62	-	21.13	18.97	-	14.96	15.92	19.34	19.41	20.65	25.09
1962	15.71	14.15	-	20.38	18.35	-	14.15	15.70	18.01	18.35	20.37	23.36
1963	15.06	13.37	-	19.53	17.35	-	13.84	14.55	17.05	17.95	18.87	22.11
1964	15.74	13.48	10.52	20.41	17.48	13.64	13.95	15.20	17.58	18.09	19.72	22.80
1965	15.09	13.23	9.85	19.57	17.16	12.78	13.41	14.89	17.48	17.39	19.31	22.67
1966	14.14	12.29	9.21	18.34	15.94	11.94	12.55	13.85	16.15	16.28	17.96	20.95
1967	13.23	11.64	8.62	17.07	15.02	11.13	11.97	12.87	15.25	15.44	16.60	19.67
1968	12.85	11.46	7.82	16.66	14.86	10.14	11.85	12.43	14.70	15.36	16.12	19.06
1969	12.20	10.84	8.16	16.04	14.25	10.72	11.26	11.75	13.94	14.81	15.44	18.32
1970	19.58	16.60	10.76	19.26	16.33	10.58	17.47	18.61	21.91	17.18	18.30	21.55
1971	16.90	14.31	9.75	23.19	19.63	13.38	15.13	15.98	18.65	20.76	21.93	25.60
1972	15.23	13.44	9.40	19.76	17.43	12.19	13.69	14.95	17.83	17.76	19.39	23.13
1973	15.77	14.34	11.72	20.03	18.20	14.88	14.06	16.08	18.26	17.86	20.42	23.19
1974	14.08	13.64	14.48	18.13	17.57	18.64	12.22	15.72	16.48	15.74	20.24	21.22
1975	14.65	13.60	14.03	18.43	17.11	17.65	13.26	15.03	15.60	16.68	18.91	19.64
1976	14.82	14.01	14.85	18.64	17.61	18.67	13.75	15.10	15.86	17.29	18.98	19.94
1977	16.36	16.22	16.44	19.65	19.48	19.74	16.42	16.16	17.55	19.72	19.41	21.08
1978	15.38	15.97	16.13	19.16	19.89	20.09	15.60	15.75	17.16	19.43	19.62	21.38
1979	15.02	15.77	16.32	17.12	17.97	18.59	14.74	16.07	15.63	16.79	18.31	17.81
1980	23.57	21.89	27.78	26.41	24.53	31.12	21.28	24.25	27.03	23.84	27.16	30.29
1981	28.67	27.37	32.22	31.39	29.97	35.28	26.06	30.12	31.21	28.53	32.98	34.18
1982	34.47	35.57	38.94	38.84	40.07	43.87	32.95	37.21	36.66	37.13	41.92	41.30
1983	43.28	46.37	49.52	45.70	48.95	52.28	43.21	46.45	47.63	45.62	49.04	50.29
1984	45.18	51.81	54.03	50.45	57.85	60.33	47.13	49.67	50.99	52.62	55.46	56.93
1985	49.21	54.12	54.34	53.42	58.75	58.98	50.99	52.24	50.78	55.35	56.71	55.13
1986	67.60	69.56	70.80	74.95	77.12	78.49	69.63	67.53	64.99	77.20	74.87	72.05
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	121.86	125.96	122.96	123.69	127.85	124.81	128.32	119.61	122.69	130.25	121.41	124.53
1989	111.36	117.56	105.21	129.16	136.36	122.03	119.29	109.75	104.74	138.36	127.30	121.49
1990	120.12	107.52	106.85	133.01	119.07	118.32	114.82	112.48	108.73	127.15	124.55	120.40
1991	170.49	133.00	144.68	173.74	135.54	147.45	151.70	149.47	150.95	154.60	152.32	153.83
1992	227.36	159.67	180.09	241.98	169.94	191.67	191.12	189.96	199.29	203.41	202.17	212.11
1993	11.61	7.51	9.59	15.85	10.25	13.09	9.42	9.25	9.61	12.86	12.63	13.12
1994	19.28	12.97	17.08	18.98	12.77	16.81	14.95	16.73	17.31	14.71	16.47	17.04
1995	25.13	15.34	19.84	25.04	15.29	19.77	18.16	21.23	23.45	18.09	21.16	23.37
Avg.	35.9	31.9	41.3	40.4	35.8	45.3	33.2	34.4	36.4	37.2	38.6	41.2
Std.	45.3	38.4	46.2	47.1	40.1	48.2	42.2	40.5	40.3	44.1	42.0	41.6
Min.	8.6	5.9	7.8	11.2	7.7	10.1	6.2	8.2	9.6	8.1	10.6	13.1
Max.	227.4	159.7	180.1	242.0	169.9	191.7	191.1	190.0	199.3	203.4	202.2	212.1

Note: The year which does not have data is excluded from the calculations of average (avg.), standard deviation (std.),

minimum (min.) and maximum (max.).

Table 18. Bilateral Real Exchange Rates (EP & TL)

Formula (2): RER = ER . (P_f / P_d)

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	BRER₁	BRER₂	BRER₃	BRER₁	BRER₂	BRER₃	BRER₄	BRER₅	BRER₆	BRER₄	BRER₅	BRER₆
1949	483.2	434.7	-	483.2	434.7	-	444.6	472.4	631.0	444.6	472.4	631.0
1950	576.4	478.0	-	576.4	478.0	-	520.6	529.3	690.8	520.6	529.3	690.8
1951	606.2	516.5	-	606.2	516.5	-	530.4	590.2	724.4	530.4	590.2	724.4
1952	582.4	491.6	-	582.4	491.6	-	525.3	545.0	684.0	525.3	545.0	684.0
1953	540.0	445.0	-	540.0	445.0	-	479.7	501.0	622.8	479.7	501.0	622.8
1954	473.8	386.8	-	473.8	386.8	-	413.9	442.8	573.6	413.9	442.8	573.6
1955	447.6	344.7	-	447.6	344.7	-	384.6	401.2	524.2	384.6	401.2	524.2
1956	425.2	316.7	-	425.2	316.7	-	333.3	404.0	519.2	333.3	404.0	519.2
1957	472.4	360.9	-	472.4	360.9	-	357.3	477.3	556.8	357.3	477.3	556.8
1958	1074.9	825.1	-	656.9	504.2	-	824.1	1076.2	1273.8	503.6	657.7	778.4
1959	897.2	663.4	-	897.2	663.4	-	687.9	865.3	1066.3	687.9	865.3	1066.3
1960	851.5	630.5	-	851.5	630.5	-	652.8	822.5	1026.0	652.8	822.5	1026.0
1961	840.1	630.8	-	840.1	630.8	-	645.4	821.1	997.5	645.4	821.1	997.5
1962	641.3	477.1	-	687.4	511.4	-	477.3	641.0	735.1	511.6	687.1	788.0
1963	606.3	442.0	-	606.3	442.0	-	457.5	585.9	686.4	457.5	585.9	686.4
1964	623.8	450.8	-	623.8	450.8	-	466.6	602.6	696.7	466.6	602.6	696.7
1965	622.6	492.5	-	622.6	492.5	-	499.1	614.4	721.2	499.1	614.4	721.2
1966	644.5	510.3	-	644.5	510.3	-	521.1	631.1	736.4	521.1	631.1	736.4
1967	639.4	471.2	-	639.4	471.2	-	484.3	622.1	736.9	484.3	622.1	736.9
1968	606.8	448.6	-	606.8	448.6	-	463.7	587.1	694.1	463.7	587.1	694.1
1969	565.9	431.9	-	565.9	431.9	-	448.7	544.7	646.4	448.7	544.7	646.4
1970	915.5	685.1	-	694.3	519.6	-	721.0	869.9	1024.4	546.8	659.7	776.9
1971	760.4	573.5	-	797.9	601.8	-	606.5	718.9	839.2	636.4	754.4	880.6
1972	651.0	515.9	-	651.0	515.9	-	525.7	638.9	762.0	525.7	638.9	762.0
1973	578.6	469.6	-	578.6	469.6	-	460.6	589.9	669.7	460.6	589.9	669.7
1974	557.1	474.8	-	553.1	471.4	-	425.4	621.8	652.1	422.3	617.4	647.5
1975	590.4	475.9	-	559.3	450.8	-	463.9	605.6	628.9	439.5	573.7	595.8
1976	604.5	492.2	-	582.8	474.5	-	483.3	615.6	646.6	465.9	593.5	623.4
1977	618.5	503.6	-	573.9	467.3	-	509.9	610.8	663.4	473.1	566.8	615.5
1978	604.7	495.4	-	580.8	476.8	-	485.0	619.0	674.7	465.8	594.5	648.0
1979	318.2	272.7	-	279.6	239.6	-	254.9	340.5	331.2	223.9	299.1	291.0
1980	473.8	388.5	-	399.7	327.7	-	377.7	487.3	543.4	318.6	411.1	458.3
1981	555.4	475.3	-	462.3	395.6	-	452.4	583.5	604.7	376.6	485.6	503.3
1982	678.8	625.0	821.8	590.9	544.0	715.4	579.1	732.7	721.9	504.1	637.7	628.4
1983	911.6	836.6	1155.2	726.9	667.1	921.2	779.6	978.3	1003.2	621.6	780.1	799.9
1984	1037.0	1035.6	1408.4	855.1	854.0	1161.3	942.1	1140.0	1170.2	776.8	940.0	965.0
1985	1089.2	1039.8	1256.7	985.5	940.9	1137.1	979.6	1156.1	1123.9	886.4	1046.1	1017.0
1986	1324.0	1257.6	1271.9	1178.4	1119.4	1132.1	1258.9	1322.7	1272.8	1120.5	1177.3	1132.9
1987	1458.4	1458.4	1458.4	1224.6	1224.6	1224.6	1458.4	1458.4	1458.4	1224.6	1224.6	1224.6
1988	1920.0	1756.2	1736.7	1504.7	1376.4	1361.1	1789.2	1884.6	1933.0	1402.2	1477.0	1514.9
1989	1208.6	1058.1	953.7	1406.7	1231.5	1110.0	1073.6	1191.1	1136.8	1249.6	1386.3	1323.1
1990	645.7	537.1	496.9	741.7	617.0	570.8	573.6	604.6	584.5	658.9	694.6	671.4
1991	509.9	403.1	372.6	444.6	351.6	325.0	459.8	447.0	451.4	401.0	389.8	393.7
1992	593.5	453.5	458.8	478.7	365.8	370.0	542.8	495.9	520.2	437.8	399.9	419.6
1993	680.6	511.9	502.9	519.5	390.8	383.9	642.5	542.2	563.2	490.4	413.9	429.9
1994	843.0	714.4	691.5	645.7	547.2	529.6	823.2	731.6	756.8	630.5	560.3	579.7
1995	732.7	657.7	658.1	562.7	505.2	505.5	778.5	619.0	683.6	597.9	475.4	525.1

Note: WPIs are used for both Turkey and Egypt to compute BRER₁.

CPIs are used for both Turkey and Egypt to compute BRER₂.

GDP deflators are used for both Turkey and Egypt to compute BRER₃.

CPIs are used for Egypt and WPIs are used for Turkey to compute BRER₄.

WPIs are used for Egypt and CPIs are used for Turkey to compute BRER₅.

WPIs are used for Egypt and GDP deflators are used for Turkey to compute BRER₆.

Table 18-A. Bilateral Real Exchange Rates (EP & TL)

Formula (12): $RER_t = (ER_t / ER_{t,0}) \cdot (P_n / P_d)$

1987=100

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	$BRER_1$	$BRER_2$	$BRER_3$	$BRER_1$	$BRER_2$	$BRER_3$	$BRER_4$	$BRER_5$	$BRER_6$	$BRER_4$	$BRER_5$	$BRER_6$
1949	33.13	29.80	-	39.46	35.50	-	30.48	32.39	43.27	36.30	38.58	51.53
1950	39.52	32.78	-	47.07	39.04	-	35.69	36.29	47.36	42.51	43.22	56.41
1951	41.56	35.41	-	49.50	42.18	-	36.37	40.47	49.67	43.32	48.20	59.15
1952	39.93	33.71	-	47.56	40.14	-	36.02	37.37	46.90	42.90	44.50	55.85
1953	37.02	30.51	-	44.09	36.34	-	32.89	34.35	42.70	39.17	40.91	50.86
1954	32.49	26.52	-	38.69	31.58	-	28.38	30.36	39.33	33.80	36.16	46.84
1955	30.69	23.64	-	36.55	28.15	-	26.37	27.51	35.94	31.40	32.76	42.80
1956	29.15	21.71	-	34.72	25.86	-	22.85	27.70	35.60	27.21	32.99	42.40
1957	32.39	24.75	-	38.58	29.47	-	24.50	32.72	38.18	29.18	38.97	45.47
1958	73.70	56.57	-	53.64	41.17	-	56.50	73.79	87.34	41.12	53.71	63.57
1959	61.52	45.49	-	73.27	54.17	-	47.16	59.33	73.12	56.17	70.66	87.08
1960	58.38	43.23	-	69.53	51.49	-	44.76	56.39	70.35	53.31	67.16	83.79
1961	57.60	43.25	-	68.60	51.51	-	44.26	56.30	68.39	52.71	67.05	81.45
1962	43.97	32.71	-	56.13	41.76	-	32.73	43.95	50.40	41.78	56.11	64.35
1963	41.57	30.31	-	49.51	36.10	-	31.37	40.17	47.06	37.36	47.84	56.05
1964	42.77	30.91	-	50.94	36.81	-	31.99	41.32	47.77	38.10	49.21	56.89
1965	42.69	33.77	-	50.84	40.22	-	34.22	42.12	49.45	40.76	50.17	58.90
1966	44.19	34.99	-	52.63	41.67	-	35.73	43.28	50.49	42.55	51.54	60.13
1967	43.84	32.31	-	52.22	38.48	-	33.21	42.65	50.53	39.55	50.80	60.18
1968	41.61	30.76	-	49.55	36.64	-	31.79	40.26	47.60	37.87	47.94	56.68
1969	38.80	29.61	-	46.21	35.27	-	30.76	37.35	44.32	36.64	44.48	52.79
1970	62.77	46.98	-	56.70	42.43	-	49.44	59.65	70.24	44.65	53.87	63.44
1971	52.14	39.32	-	65.15	49.14	-	41.59	49.30	57.54	51.97	61.60	71.91
1972	44.64	35.38	-	53.16	42.13	-	36.05	43.80	52.24	42.93	52.17	62.22
1973	39.67	32.20	-	47.25	38.35	-	31.58	40.45	45.92	37.61	48.17	54.69
1974	38.20	32.55	-	45.17	38.49	-	29.17	42.64	44.72	34.49	50.42	52.87
1975	40.48	32.63	-	45.67	36.82	-	31.83	41.52	43.12	35.89	46.85	48.65
1976	41.45	33.75	-	47.59	38.75	-	33.14	42.21	44.33	38.05	48.47	50.90
1977	42.41	34.53	-	46.86	38.16	-	34.96	41.88	45.49	38.64	46.28	50.26
1978	41.46	34.04	-	47.43	38.94	-	33.25	42.44	46.26	38.04	48.55	52.92
1979	21.82	18.70	-	22.83	19.56	-	17.47	23.35	22.71	18.28	24.43	23.76
1980	32.49	26.64	-	32.64	26.76	-	25.90	33.42	37.26	26.02	33.57	37.43
1981	38.08	32.59	-	37.75	32.30	-	31.02	40.01	41.46	30.75	39.66	41.10
1982	46.55	42.85	56.35	48.25	44.43	58.42	39.71	50.24	49.50	41.16	52.08	51.32
1983	62.51	57.36	79.21	59.36	54.47	75.22	53.45	67.08	68.78	50.76	63.70	65.32
1984	71.10	71.01	96.57	69.83	69.74	94.84	64.59	78.16	80.24	63.44	76.76	78.80
1985	74.68	71.30	86.17	80.48	76.83	92.86	67.17	79.27	77.06	72.39	85.42	83.05
1986	90.78	86.23	87.21	96.23	91.41	92.45	86.32	90.69	87.27	91.50	96.14	92.51
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	131.65	120.42	119.08	122.88	112.40	111.15	122.68	129.22	132.54	114.51	120.61	123.71
1989	82.87	72.55	65.39	114.87	100.57	90.64	73.62	81.67	77.94	102.94	113.21	108.04
1990	44.27	36.83	34.07	60.57	50.39	46.61	39.33	41.46	40.08	53.81	56.72	54.83
1991	34.96	27.64	25.55	36.31	28.71	26.54	31.53	30.65	30.95	32.75	31.83	32.15
1992	40.70	31.10	31.46	39.09	29.87	30.21	37.22	34.00	35.67	35.75	32.66	34.26
1993	46.66	35.10	34.48	42.42	31.91	31.35	44.05	37.18	38.62	40.05	33.80	35.11
1994	57.80	48.99	47.41	52.73	44.68	43.25	56.45	50.16	51.89	51.49	45.76	47.34
1995	50.24	45.10	45.12	45.95	41.25	41.28	53.38	42.44	46.87	48.83	38.83	42.88
Avg.	49.7	41.5	64.9	54.6	45.4	66.8	42.4	48.7	53.9	46.4	53.5	59.4
Std.	20.3	20.3	29.9	20.2	20.1	30.0	20.1	20.8	20.2	19.8	20.7	20.0
Min.	21.8	18.7	25.6	22.8	19.6	26.5	17.5	23.3	22.7	18.3	24.4	23.8
Max.	131.6	120.4	119.1	122.9	112.4	111.1	122.7	129.2	132.5	114.5	120.6	123.7

Note: The year which does not have data is excluded from the calculations of average (avg), standard deviation (std),

minimum (min.) and maximum (max.).

Table 19. Bilateral Real Exchange Rates (Drahmas & TL)

Formula(2): $RER = ER \cdot (P_f / P_d)$

Year	ae (end of period) BRER₁	BRER₂	BRER₃	rf (period averages) BRER₁	BRER₂	BRER₃	ae (end of period) BRER₄	BRER₅	BRER₆	rf (period averages) BRER₄	BRER₅	BRER₆
1949	-	971	12.49	-	9.71	12.49	9.93	-	-	9.93	-	-
1950	3.61	374	4.81	3.61	3.74	4.81	4.07	3.32	4.33	4.07	3.32	4.33
1951	4.21	407	4.99	4.21	4.07	4.99	4.18	4.10	5.04	4.18	4.10	5.04
1952	4.17	404	5.05	4.17	4.04	5.05	4.31	3.91	4.90	4.31	3.91	4.90
1953	2.34	218	2.78	2.67	2.48	3.16	2.35	2.17	2.70	2.67	2.47	3.07
1954	2.33	227	2.96	2.33	2.27	2.96	2.43	2.18	2.83	2.43	2.18	2.83
1955	2.37	215	2.86	2.37	2.15	2.86	2.40	2.12	2.77	2.40	2.12	2.77
1956	2.20	202	2.71	2.20	2.02	2.71	2.12	2.09	2.69	2.12	2.09	2.69
1957	2.25	225	2.70	2.25	2.25	2.70	2.23	2.27	2.65	2.23	2.27	2.65
1958	5.05	515	6.28	3.08	3.14	3.84	5.14	5.05	5.98	3.14	3.09	3.66
1959	4.32	425	5.27	4.32	4.25	5.27	4.41	4.17	5.14	4.41	4.17	5.14
1960	4.21	415	5.25	4.21	4.15	5.25	4.30	4.07	5.07	4.30	4.07	5.07
1961	4.10	409	5.10	4.10	4.09	5.10	4.18	4.00	4.86	4.18	4.00	4.86
1962	3.87	395	4.88	3.87	3.95	4.88	3.96	3.87	4.44	3.96	3.87	4.44
1963	3.90	376	4.68	3.90	3.76	4.68	3.89	3.77	4.41	3.89	3.77	4.41
1964	3.95	381	4.73	3.95	3.81	4.73	3.94	3.81	4.41	3.94	3.81	4.41
1965	3.73	369	4.72	3.73	3.69	4.72	3.74	3.69	4.33	3.74	3.69	4.33
1966	3.64	366	4.66	3.64	3.66	4.66	3.74	3.57	4.16	3.74	3.57	4.16
1967	3.46	346	4.47	3.46	3.46	4.47	3.56	3.37	3.99	3.56	3.37	3.99
1968	3.36	334	4.38	3.36	3.34	4.38	3.45	3.25	3.84	3.45	3.25	3.84
1969	3.20	317	4.22	3.20	3.17	4.22	3.29	3.08	3.65	3.29	3.08	3.65
1970	5.17	496	6.66	3.92	3.76	5.05	5.22	4.91	5.78	3.96	3.73	4.39
1971	4.42	423	5.57	4.64	4.44	5.84	4.47	4.18	4.88	4.69	4.39	5.12
1972	3.97	388	5.26	3.97	3.88	5.26	3.95	3.90	4.65	3.95	3.90	4.65
1973	4.13	385	5.21	4.14	3.86	5.22	3.78	4.21	4.78	3.78	4.22	4.79
1974	4.08	406	4.79	4.05	4.03	4.75	3.63	4.55	4.77	3.61	4.52	4.74
1975	3.65	352	4.06	3.85	3.71	4.28	3.43	3.75	3.89	3.61	3.95	4.10
1976	3.80	362	4.31	3.72	3.54	4.21	3.56	3.87	4.07	3.48	3.78	3.97
1977	4.23	383	4.76	3.78	3.42	4.26	3.88	4.17	4.53	3.47	3.73	4.05
1978	3.94	376	4.72	3.71	3.54	4.44	3.67	4.03	4.40	3.46	3.80	4.14
1979	3.81	377	4.19	3.46	3.42	3.80	3.52	4.08	3.97	3.20	3.71	3.60
1980	4.96	457	5.49	4.57	4.21	5.06	4.44	5.10	5.68	4.09	4.70	5.24
1981	5.47	509	5.46	4.74	4.40	4.73	4.84	5.75	5.96	4.19	4.98	5.16
1982	5.78	574	6.09	5.31	5.28	5.60	5.32	6.23	6.14	4.89	5.73	5.65
1983	5.73	570	6.22	5.12	5.09	5.55	5.31	6.15	6.31	4.74	5.50	5.64
1984	5.53	550	6.09	5.20	5.17	5.73	5.00	6.08	6.24	4.70	5.71	5.87
1985	5.38	510	5.28	5.21	4.93	5.11	4.80	5.71	5.55	4.65	5.53	5.38
1986	6.91	652	6.39	6.10	5.75	5.63	6.53	6.90	6.04	5.76	6.09	5.86
1987	8.11	811	8.11	6.33	6.33	6.33	8.11	8.11	8.11	6.33	6.33	6.33
1988	7.90	801	10.13	6.47	6.55	8.29	8.16	7.76	7.96	6.68	6.35	6.51
1989	6.55	668	7.93	5.84	5.95	7.06	6.78	6.46	6.16	6.04	5.75	5.49
1990	6.32	636	7.70	5.59	5.63	6.82	6.79	5.92	5.72	6.91	5.24	5.06
1991	7.40	714	9.02	5.84	5.64	7.13	8.14	6.49	6.55	6.43	5.12	5.17
1992	7.00	670	8.79	6.33	6.05	7.94	8.01	5.85	6.14	7.24	5.29	5.55
1993	7.20	671	8.60	5.94	5.54	7.10	8.42	5.73	5.96	6.95	4.73	4.91
1994	9.67	1003	12.80	7.32	7.59	9.68	11.55	8.39	8.68	8.74	6.35	6.57
1995	8.63	883	-	6.79	6.94	-	10.45	7.29	8.05	8.22	5.73	6.33

Note. WPIs are used for both Turkey and Greece to compute BRER₁.

CPIs are used for both Turkey and Greece to compute BRER₂.

GDP deflators are used for both Turkey and Greece to compute BRER₃.

CPIs are used for Greece and WPIs are used for Turkey to compute BRER₄.

WPIs are used for Greece and CPIs are used for Turkey to compute BRER₅.

WPIs are used for Greece and GDP deflators are used for Turkey to compute BRER₆.

Table 19-A. Bilateral Real Exchange Rates (Drahmas & TL)

Formula (12): $RER_d = (ER_t / ER_{t,0}) \cdot (P_n / P_d)$

1987=100

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	BRER$_1$	BRER$_2$	BRER$_3$	BRER$_1$	BRER$_2$	BRER$_3$	BRER$_4$	BRER$_5$	BRER$_6$	BRER$_4$	BRER$_5$	BRER$_6$
1949	-	119.74	154.00	-	153.37	197.26	122.47	-	-	156.86	-	-
1950	44.59	46.10	59.34	57.11	59.04	76.01	50.20	40.94	53.43	64.30	52.44	68.44
1951	51.99	50.21	61.58	66.59	64.32	78.88	51.57	50.62	62.12	66.05	64.84	79.57
1952	51.49	49.78	62.32	65.95	63.77	79.83	53.20	48.18	60.46	68.15	61.71	77.45
1953	28.87	26.87	34.27	42.12	39.20	50.00	28.96	26.79	33.30	42.25	39.08	48.58
1954	28.80	28.04	36.48	36.89	35.92	46.72	30.01	26.91	34.86	38.44	34.47	44.65
1955	29.19	26.56	35.22	37.39	34.02	45.11	29.63	26.17	34.18	37.95	33.51	43.78
1956	27.14	24.87	33.49	34.76	31.85	42.89	26.17	25.79	33.14	33.52	33.03	42.44
1957	27.71	27.77	33.35	35.49	35.56	42.72	27.49	27.99	32.65	35.21	35.85	41.82
1958	62.27	63.47	77.45	48.74	49.68	60.62	63.39	62.34	73.78	49.62	48.80	57.75
1959	53.34	52.45	65.04	68.32	67.18	83.31	54.38	51.44	63.39	69.66	65.89	81.20
1960	51.92	51.20	64.70	66.50	65.58	82.87	53.01	50.15	62.56	67.89	64.24	80.13
1961	50.53	50.42	62.93	64.73	64.58	80.61	51.59	49.39	60.00	66.08	63.26	76.85
1962	47.80	48.78	60.15	61.22	62.47	77.04	48.80	47.78	54.79	62.50	61.19	70.18
1963	48.10	46.38	57.76	61.61	59.41	73.99	48.00	46.48	54.45	61.48	59.53	69.75
1964	48.66	47.00	58.35	62.33	60.20	74.73	48.65	47.01	54.35	62.31	60.22	69.62
1965	46.06	45.52	58.27	59.00	58.30	74.64	46.13	45.46	53.36	59.08	58.22	68.35
1966	44.93	45.19	57.47	57.55	57.88	73.61	46.14	44.00	51.34	59.10	56.36	65.76
1967	42.69	42.69	55.18	54.68	54.68	70.68	43.89	41.53	49.20	56.21	53.20	63.02
1968	41.39	41.16	54.05	53.01	52.72	69.23	42.54	40.04	47.34	54.49	51.29	60.64
1969	39.43	39.06	52.01	50.51	50.03	66.62	40.58	37.96	45.04	51.97	48.62	57.70
1970	63.77	61.13	82.11	61.94	59.38	79.76	64.33	60.59	71.36	62.49	58.86	69.31
1971	54.56	52.18	68.68	73.33	70.13	92.31	55.19	51.59	60.22	74.17	69.34	80.94
1972	48.96	47.81	64.84	62.71	61.24	83.05	48.72	48.05	57.31	62.40	61.54	73.40
1973	50.93	47.48	64.21	65.41	60.97	82.46	46.57	51.93	58.96	59.80	66.69	75.71
1974	50.28	50.03	59.03	63.94	63.63	75.06	44.82	56.12	58.86	57.00	71.37	74.85
1975	45.06	43.39	50.08	60.81	58.57	67.59	42.30	46.22	47.99	57.10	62.38	64.78
1976	46.88	44.66	53.11	58.71	55.92	66.51	43.85	47.75	50.15	54.91	59.79	62.80
1977	52.14	47.24	58.73	59.72	54.11	67.27	47.83	51.49	55.92	54.79	58.98	64.06
1978	48.59	46.38	58.17	58.58	55.91	70.12	45.31	49.74	54.22	54.62	59.96	65.36
1979	47.04	46.51	51.68	54.71	54.09	60.11	43.46	50.33	48.96	50.55	58.54	56.95
1980	61.15	56.38	67.72	72.14	66.51	79.89	54.81	62.89	70.12	64.66	74.20	82.73
1981	-	62.72	67.39	-	69.55	74.73	59.71	-	-	66.21	-	-
1982	-	70.82	75.06	-	83.41	88.41	65.62	-	-	77.28	-	-
1983	70.73	70.30	76.68	80.94	80.45	87.75	65.51	75.91	77.84	74.96	86.86	89.07
1984	68.22	67.82	75.15	82.13	81.65	90.47	61.69	75.00	76.99	74.27	90.29	92.68
1985	66.40	62.86	65.17	82.32	77.94	80.81	59.22	70.48	68.52	73.42	87.38	84.95
1986	85.22	80.44	78.77	96.31	90.91	89.02	80.52	85.14	81.93	91.00	96.22	92.59
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	97.50	98.79	124.91	102.18	103.53	130.91	100.64	95.71	98.16	105.47	100.30	102.88
1989	80.82	82.42	97.77	92.22	94.05	111.56	83.63	79.65	76.01	95.43	90.89	86.74
1990	77.95	78.44	95.00	88.39	88.95	107.73	83.77	72.99	70.56	94.99	82.77	80.01
1991	91.28	88.07	111.31	92.34	89.09	112.60	100.45	80.03	80.82	101.61	80.95	81.76
1992	86.40	82.58	108.43	99.96	95.55	125.45	98.85	72.18	75.73	114.37	83.52	87.62
1993	88.76	82.80	106.10	93.81	87.50	112.13	103.92	70.72	73.46	109.83	74.74	77.63
1994	119.32	123.67	157.84	115.64	119.86	152.98	142.50	103.55	107.12	138.11	100.36	103.82
1995	106.44	108.89	-	107.22	109.68	-	128.89	89.93	99.32	129.83	90.58	100.04
Avg.	58.5	59.1	70.7	68.4	69.2	83.4	61.3	56.5	62.1	71.5	66.2	73.1
Std.	22.3	23.8	27.7	20.2	23.7	28.3	27.3	19.9	18.1	26.7	18.4	16.0
Min.	27.1	24.9	33.3	34.8	31.9	42.7	26.2	25.8	32.7	33.5	33.0	41.8
Max.	119.3	123.7	157.8	115.6	153.4	197.3	142.5	103.5	107.1	156.9	100.4	103.8

Note: The year which does not have data is excluded from the calculations of average (avg.), standard deviation (std.),

minimum (min.) and maximum (max.).

Table 20. Bilateral Real Exchange Rates (Pesetas & TL)

Formula (2): $RER = ER . (P_f / P_d)$

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	BRER₁	BRER₂	BRER₃	BRER₁	BRER₂	BRER₃	BRER₄	BRER₅	BRER₆	BRER₄	BRER₅	BRER₆
1949	1.87	1.43	-	1.87	1.43	-	1.46	1.83	2.45	1.46	1.83	2.45
1950	2.41	1.62	-	2.41	1.62	-	1.77	2.21	2.89	1.77	2.21	2.89
1951	2.93	1.77	-	2.93	1.77	-	1.82	2.85	3.50	1.82	2.85	3.50
1952	2.95	1.64	-	2.95	1.64	-	1.75	2.76	3.46	1.75	2.76	3.46
1953	3.09	1.63	-	3.09	1.63	-	1.75	2.86	3.56	1.75	2.86	3.56
1954	2.85	1.51	2.19	2.85	1.51	2.19	1.62	2.66	3.45	1.62	2.66	3.45
1955	2.76	1.42	1.76	2.76	1.42	1.76	1.59	2.48	3.23	1.59	2.48	3.23
1956	2.57	1.36	1.68	2.57	1.36	1.68	1.43	2.44	3.14	1.43	2.44	3.14
1957	2.73	1.50	1.72	2.79	1.54	1.76	1.48	2.75	3.21	1.52	2.82	3.29
1958	5.72	3.12	3.51	4.39	2.40	2.70	3.12	5.73	6.78	2.39	4.40	5.21
1959	4.27	2.38	2.62	5.13	2.85	3.15	2.47	4.12	5.08	2.96	4.95	6.10
1960	4.14	2.26	2.54	4.15	2.26	2.54	2.34	3.99	4.98	2.34	4.00	4.99
1961	4.15	2.31	2.48	4.15	2.31	2.48	2.37	4.06	4.93	2.36	4.05	4.92
1962	4.11	2.36	2.40	4.12	2.36	2.40	2.36	4.11	4.71	2.36	4.12	4.72
1963	4.12	2.37	2.46	4.12	2.37	2.47	2.45	3.98	4.66	2.46	3.98	4.67
1964	4.21	2.49	2.82	4.21	2.49	2.82	2.58	4.07	4.70	2.58	4.07	4.71
1965	4.28	2.63	2.96	4.28	2.63	2.96	2.66	4.22	4.95	2.67	4.23	4.96
1966	4.17	2.68	3.01	4.18	2.69	3.01	2.74	4.08	4.77	2.74	4.09	4.77
1967	3.36	2.26	2.61	3.84	2.58	2.98	2.33	3.27	3.87	2.65	3.73	4.42
1968	3.32	2.30	2.64	3.33	2.31	2.64	2.38	3.22	3.80	2.39	3.22	3.81
1969	3.18	2.18	2.55	3.19	2.18	2.56	2.26	3.06	3.63	2.27	3.07	3.64
1970	5.02	3.53	4.25	3.81	2.67	3.23	3.71	4.77	5.62	2.81	3.62	4.26
1971	4.60	3.29	3.93	4.60	3.29	3.93	3.48	4.35	5.08	3.48	4.35	5.08
1972	4.34	3.26	3.98	4.29	3.22	3.93	3.32	4.26	5.08	3.29	4.21	5.02
1973	4.43	3.49	4.08	4.33	3.41	3.98	3.42	4.52	5.13	3.35	4.42	5.02
1974	4.03	3.40	3.68	3.90	3.28	3.56	3.05	4.50	4.72	2.94	4.35	4.56
1975	4.07	3.40	3.62	4.01	3.35	3.58	3.31	4.17	4.33	3.27	4.11	4.27
1976	3.83	3.31	3.53	3.77	3.25	3.47	3.25	3.90	4.10	3.19	3.84	4.03
1977	3.64	3.15	3.45	3.60	3.11	3.41	3.19	3.60	3.91	3.15	3.56	3.86
1978	4.18	3.86	4.27	3.67	3.39	3.75	3.77	4.28	4.67	3.31	3.76	4.10
1979	4.33	4.22	4.21	3.75	3.65	3.65	3.94	4.64	4.51	3.41	4.01	3.91
1980	5.22	4.81	5.40	4.86	4.49	5.03	4.68	5.36	5.98	4.36	5.00	5.58
1981	5.32	4.96	5.09	4.67	4.36	4.47	4.72	5.59	5.79	4.15	4.91	5.09
1982	5.18	5.05	4.90	5.16	5.03	4.88	4.68	5.59	5.51	4.66	5.56	5.48
1983	5.49	5.24	5.27	4.78	4.56	4.59	4.88	5.89	6.04	4.25	5.13	5.26
1984	5.75	5.58	5.63	5.12	4.96	5.01	5.07	6.32	6.49	4.51	5.62	5.77
1985	6.48	6.11	5.78	5.32	5.01	4.75	5.76	6.88	6.69	4.72	5.64	5.49
1986	7.89	7.55	7.23	6.64	6.35	6.08	7.56	7.89	7.59	6.36	6.64	6.39
1987	9.37	9.37	9.37	6.94	6.94	6.94	9.37	9.37	9.37	6.94	6.94	6.94
1988	9.67	9.65	9.98	7.38	7.37	7.62	9.83	9.49	9.74	7.50	7.25	7.43
1989	8.10	8.32	8.03	6.88	7.07	6.82	8.45	7.98	7.62	7.18	6.78	6.47
1990	7.79	7.95	7.81	6.59	6.73	6.61	8.49	7.29	7.05	7.18	6.17	5.97
1991	8.84	8.81	9.15	6.76	6.73	6.99	10.05	7.75	7.83	7.68	5.92	5.98
1992	7.86	7.81	8.49	7.07	7.01	7.63	9.34	6.57	6.89	8.39	5.90	6.19
1993	6.93	6.69	7.19	5.88	5.68	6.10	8.40	5.52	5.74	7.12	4.69	4.87
1994	9.29	9.82	10.42	6.99	7.38	7.83	11.31	8.07	8.34	8.51	6.06	6.27
1995	8.76	8.87	10.06	6.56	6.64	7.53	10.50	7.41	8.18	7.86	5.54	6.12

Note. WPIs are used for both Turkey and Spain to compute BRER₁.

CPIs are used for both Turkey and Spain to compute BRER₂.

GDP deflators are used for both Turkey and Spain to compute BRER₃.

CPIs are used for Spain and WPIs are used for Turkey to compute BRER₄.

WPIs are used for Spain and CPIs are used for Turkey to compute BRER₅.

WPIs are used for Spain and GDP deflators are used for Turkey to compute BRER₆.

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Table 20-A. Bilateral Real Exchange Rates (Pesetas & TL)
Formula (12): $RER_1 = (ER_1 / ER_{tn}) \cdot (P_n / P_d)$

1987=100

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	$BRER_1$	$BRER_2$	$BRER_3$	$BRER_1$	$BRER_2$	$BRER_3$	$BRER_4$	$BRER_5$	$BRER_6$	$BRER_4$	$BRER_5$	$BRER_6$
1949	20.00	15.22	-	26.98	20.53	-	15.56	19.55	26.12	21.00	26.38	35.23
1950	25.72	17.33	-	34.69	23.38	-	18.87	23.61	30.82	25.46	31.86	41.58
1951	31.25	18.95	-	42.17	25.56	-	19.46	30.43	37.35	26.25	41.06	50.39
1952	31.44	17.53	-	42.42	23.65	-	18.74	29.42	36.93	25.28	39.70	49.82
1953	32.95	17.38	-	44.46	23.45	-	18.73	30.57	38.00	25.27	41.25	51.27
1954	30.42	16.16	23.40	41.04	21.80	31.56	17.29	28.42	36.82	23.33	38.35	49.68
1955	29.49	15.20	18.74	39.79	20.51	25.28	16.96	26.43	34.53	22.88	35.66	46.59
1956	27.41	14.56	17.97	36.99	19.64	24.25	15.32	26.05	33.48	20.67	35.15	45.17
1957	29.10	16.02	18.33	40.18	22.11	25.31	15.85	29.40	34.29	21.89	40.59	47.35
1958	61.09	33.32	37.48	63.29	34.52	38.83	33.28	61.17	72.40	34.48	63.37	75.00
1959	45.63	25.39	28.03	73.89	41.11	45.38	26.32	44.01	54.23	42.62	71.26	87.81
1960	44.16	24.13	27.08	59.61	32.57	36.56	24.98	42.65	53.21	33.72	57.58	71.83
1961	44.33	24.71	26.51	59.72	33.29	35.71	25.28	43.32	52.63	34.06	58.37	70.91
1962	43.90	25.19	25.60	59.32	34.03	34.59	25.20	43.88	50.32	34.05	59.29	68.00
1963	43.97	25.32	26.30	59.40	34.21	35.53	26.21	42.49	49.78	35.41	57.40	67.25
1964	44.94	26.59	30.11	60.71	35.91	40.68	27.52	43.42	50.19	37.17	58.65	67.80
1965	45.67	28.06	31.60	61.71	37.91	42.71	28.43	45.06	52.90	38.42	60.89	71.49
1966	44.53	28.65	32.11	60.15	38.70	43.38	29.26	43.61	50.88	39.52	58.90	68.72
1967	35.89	24.16	27.91	55.26	37.20	42.98	24.84	34.92	41.36	38.24	53.76	63.68
1968	35.49	24.59	28.14	47.98	33.24	38.04	25.41	34.34	40.60	34.36	46.42	54.89
1969	33.93	23.23	27.26	45.92	31.44	36.89	24.13	32.66	38.76	32.66	44.20	52.45
1970	53.62	37.64	45.40	54.88	38.53	46.47	39.62	50.95	60.00	40.55	52.15	61.41
1971	49.10	35.15	41.92	66.28	47.45	56.59	37.17	46.43	54.19	50.18	62.67	73.16
1972	46.30	34.81	42.46	61.79	46.45	56.66	35.47	45.44	54.20	47.33	60.64	72.32
1973	47.32	37.26	43.52	62.41	49.14	57.39	36.55	48.25	54.78	48.20	63.63	72.25
1974	43.08	36.31	39.32	56.12	47.30	51.24	32.53	48.08	50.42	42.38	62.64	65.70
1975	43.41	36.28	38.70	57.77	48.29	51.50	35.37	44.53	46.24	47.08	59.26	61.54
1976	40.91	35.29	37.67	54.32	46.85	50.01	34.65	41.67	43.76	46.01	55.32	58.10
1977	38.92	33.61	36.82	51.89	44.81	49.10	34.03	38.43	41.74	45.37	51.25	55.66
1978	44.65	41.20	45.58	52.91	48.83	54.01	40.25	45.70	49.81	47.70	54.15	59.03
1979	46.27	45.06	44.98	54.05	52.63	52.54	42.11	49.51	48.16	49.19	57.83	56.25
1980	55.69	51.41	57.62	70.05	64.66	72.48	49.98	57.28	63.86	62.86	72.05	80.33
1981	56.78	52.94	54.30	67.30	62.75	64.36	50.39	59.64	61.82	59.73	70.70	73.27
1982	55.31	53.92	52.34	74.26	72.40	70.27	49.96	59.70	58.82	67.08	80.15	78.98
1983	58.58	55.91	56.22	68.85	65.71	66.07	52.10	62.86	64.46	61.23	73.89	75.76
1984	61.42	59.56	60.15	73.70	71.48	72.18	54.18	67.52	69.31	65.02	81.02	83.17
1985	69.21	65.23	61.77	76.59	72.19	68.35	61.45	73.46	71.42	68.01	81.30	79.04
1986	84.29	80.60	77.14	95.68	91.50	87.57	80.68	84.20	81.03	91.59	95.59	91.98
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	103.25	103.02	106.55	106.32	106.10	109.73	104.96	101.34	103.95	108.09	104.36	107.05
1989	86.47	88.87	85.73	99.16	101.91	98.30	90.18	85.22	81.33	103.41	97.72	93.26
1990	83.15	84.84	83.34	94.95	96.88	95.17	90.60	77.86	75.27	103.46	88.91	85.95
1991	94.39	94.08	97.66	97.31	96.99	100.68	107.31	82.76	83.57	110.63	85.32	86.16
1992	83.96	83.34	90.64	101.77	101.02	109.86	99.76	70.15	73.60	120.91	85.03	89.21
1993	74.02	71.45	76.75	84.71	81.76	87.82	89.68	58.98	61.26	102.62	67.49	70.10
1994	99.23	104.84	111.23	100.66	106.35	112.83	120.80	86.12	89.08	122.54	87.36	90.37
1995	93.58	94.69	107.42	94.48	95.60	108.45	112.08	79.06	87.32	113.16	79.83	88.16
Avg.	53.1	44.2	50.5	64.6	52.8	60.2	45.9	51.5	56.3	54.7	62.8	69.0
Std.	22.3	27.6	27.4	20.6	27.5	26.4	30.7	20.6	18.5	30.6	19.2	16.4
Min.	20.0	14.6	18.0	27.0	19.6	24.2	15.3	19.6	26.1	20.7	26.4	35.2
Max.	103.2	104.8	111.2	106.3	106.3	112.8	120.8	101.3	103.9	122.5	104.4	107.0

Note: The year which does not have data is excluded from the calculations of average (avg.), standart deviation (std.),

minimum (min.) and maximum (max.).

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Table 21. Nominal Effective Exchange Rates (TL/Foreign currencies)

Year	Formula (10) EER^1 ae	rf	EER^2 ae	rf	EER^3 ae	rf	Formula (11) EER^1 ae	rf	EER^2 ae	rf	EER^3 ae	rf
1949	3.6	4.3	3.1	3.8	3.0	3.6	2.4	2.8	1.5	1.8	1.3	1.5
1950	2.9	2.9	2.6	2.6	2.5	2.5	2.1	2.1	1.7	1.8	1.3	1.3
1951	2.7	2.7	2.6	2.6	2.4	2.4	1.7	1.7	1.4	1.4	1.0	1.0
1952	2.7	2.7	2.5	2.5	2.3	2.3	1.5	1.5	1.2	1.2	0.8	0.7
1953	2.8	2.8	2.5	2.5	2.1	2.1	1.7	1.7	1.3	1.3	0.8	0.8
1954	2.6	2.6	2.3	2.3	2.0	2.1	1.7	1.7	1.0	1.1	0.9	0.9
1955	2.5	2.5	2.4	2.3	2.1	2.1	1.7	1.7	1.1	1.1	0.8	0.8
1956	2.5	2.5	2.3	2.3	2.0	2.0	1.8	1.8	1.1	1.1	0.9	0.9
1957	3.4	3.4	3.3	3.3	2.8	2.8	2.6	2.6	1.9	1.9	1.3	1.3
1958	8.1	5.0	7.7	4.8	6.7	4.1	5.7	3.5	4.2	2.6	2.9	1.8
1959	8.8	8.8	8.2	8.3	7.2	7.2	5.9	5.9	4.2	4.2	3.0	3.0
1960	9.0	9.0	8.4	8.4	7.3	7.3	6.1	6.1	4.0	4.0	2.9	2.9
1961	9.5	9.5	8.8	8.8	7.4	7.4	6.2	6.2	3.6	3.6	2.7	2.7
1962	9.2	9.2	8.5	8.5	7.2	7.2	6.1	6.1	3.5	3.5	2.5	2.5
1963	9.6	9.6	9.0	9.0	7.7	7.7	6.4	6.4	3.6	3.6	2.6	2.6
1964	9.4	9.4	8.8	8.8	7.5	7.5	6.6	6.6	4.3	4.2	3.2	3.2
1965	9.1	9.1	8.5	8.5	7.3	7.3	6.4	6.4	4.0	4.0	3.2	3.2
1966	9.1	9.1	8.4	8.4	7.2	7.2	6.1	6.1	3.6	3.6	2.9	2.9
1967	8.2	8.8	7.4	7.9	6.4	6.8	5.4	5.6	3.0	3.2	2.4	2.5
1968	8.1	8.2	7.4	7.5	6.3	6.3	5.2	5.2	2.9	2.9	2.2	2.2
1969	7.9	7.8	7.3	7.2	6.1	6.0	5.0	4.9	2.8	2.7	1.9	1.9
1970	12.4	9.4	11.4	8.6	9.6	7.3	8.1	6.1	3.9	3.0	3.0	2.3
1971	11.9	12.0	10.9	11.1	8.8	8.9	7.4	7.4	3.8	3.8	2.8	2.8
1972	11.7	12.0	10.7	11.1	8.6	8.8	7.4	7.5	3.8	3.9	2.8	2.8
1973	12.1	12.5	11.1	11.4	8.8	9.1	8.6	8.8	4.7	4.9	3.4	3.5
1974	11.2	10.9	9.7	9.4	8.0	7.7	7.8	7.3	3.0	2.9	2.5	2.4
1975	11.0	11.0	9.7	9.8	8.2	8.1	7.7	7.7	2.6	2.6	2.0	1.9
1976	12.2	11.8	10.7	10.4	8.9	8.6	9.0	8.5	3.4	3.3	2.6	2.5
1977	15.0	13.0	12.8	11.1	10.5	9.0	10.7	9.3	3.3	2.9	2.5	2.2
1978	18.5	16.7	16.6	15.0	13.3	12.0	14.6	13.1	6.9	6.2	5.2	4.7
1979	28.7	24.2	23.5	19.8	19.3	16.3	21.6	18.1	8.3	7.0	6.7	5.7
1980	70.9	61.0	61.9	53.2	45.7	39.4	49.9	44.2	19.7	16.9	13.3	11.6
1981	98.6	83.8	85.2	72.4	65.8	55.2	69.9	59.3	30.7	26.0	22.6	18.9
1982	134.1	119.4	111.2	99.0	79.0	69.9	100.4	88.3	42.9	37.9	29.0	25.6
1983	185.4	153.4	153.7	127.2	99.2	81.8	136.1	114.6	61.2	50.8	35.8	29.6
1984	261.3	230.4	215.7	190.2	149.7	131.5	191.1	171.4	85.7	76.5	61.8	54.5
1985	392.9	324.8	328.6	271.6	233.7	194.2	297.4	236.9	157.1	127.6	104.8	86.4
1986	531.1	452.3	446.5	380.1	361.9	308.3	420.5	350.9	201.3	170.2	145.6	123.7
1987	837.6	640.3	703.5	537.8	555.0	424.4	680.8	515.2	332.6	251.6	250.1	190.6
1988	1 400.1	1 097.3	1 202.4	942.4	959.1	752.7	1 099.8	866.9	596.4	467.3	436.8	343.0
1989	1 786.5	1 585.5	1 558.6	1 382.9	1 267.4	1 129.7	1 455.6	1 259.7	723.4	640.1	513.5	457.5
1990	2 406.0	2 023.6	2 053.1	1 726.8	1 660.9	1 401.6	1 895.3	1 587.8	871.1	728.4	637.0	536.1
1991	4 157.3	3 226.0	3 545.4	2 750.8	2 822.6	2 197.3	3 291.7	2 521.9	1 547.6	1 190.8	1 136.0	877.4
1992	6 394.4	5 416.1	5 527.6	4 681.4	4 460.7	3 765.1	5 160.7	4 336.0	2 423.7	2 052.5	1 790.9	1 521.3
1993	10 489.9	8 137.9	9 026.3	7 003.1	7 337.0	5 682.7	8 058.9	6 310.4	3 627.9	2 831.1	2 697.5	2 101.0
1994	29 791.1	22 190.8	26 137.6	19 469.3	21 050.8	15 688.0	24 424.0	18 089.9	12 998.7	9 666.6	9 946.6	7 398.5
1995	47 873.9	36 936.3	42 023.8	32 424.4	34 120.0	26 286.6	39 359.4	30 194.0	18 397.8	14 261.7	13 638.7	10 510.8

Source: International Monetary Fund (IMF), International Financial Statistics (IFS), Various issues.

[1] Exchange rates of the countries USA, Germany, UK, France and Netherland are selected in the calculations of effective exchange rates.

[2] Exchange rates of USA, Germany, UK, France, Netherland, Austria, Japan, Greece and Spain are selected in effective exchange rate calculations.

[3] Exchange rates of the countries USA, Germany, UK, France, Italy,Switzerland, Netherlands, Austria, Japan, Iran, S.Arabia, Egypt, Greece and Spain are selected in the calculations of nominal effective exchange rates.

Note: The reason for the exclusion of some countries in the EER series are just due to data disavailability.

Formula (10): $EER = [Sum\ w_i \cdot (ER_i)]$

Formula (11): $EER = \{w_x \cdot Sum[w_{ix} \cdot (ER_i)] + w_m \cdot [Sum\ (w_{im} \cdot (1 / ER_i)]^{-1}\}$

Table 21-A. Nominal Effective Exchange Rates (TL/Foreign currencies)

1987=100

Year	Formula (10)						Formula (11)					
	EER[1]		EER[2]		EER[3]		EER[1]		EER[2]		EER[3]	
	ac	rf	ac	rf	ac	rf	ac	rf	ac	rf	ac	rf
1949	0.3	0.4	0.7	3.0	-	-	0.3	0.4	0.6	0.8	-	-
1950	0.3	0.3	0.3	0.4	-	-	0.2	0.3	0.3	0.3	-	-
1951	0.2	0.3	0.3	0.4	-	-	0.2	0.3	0.2	0.3	-	-
1952	0.2	0.3	0.3	0.4	0.3	0.0	0.2	0.3	0.2	0.3	0.2	0.3
1953	0.2	0.3	0.3	0.4	0.3	0.4	0.2	0.3	0.2	0.3	0.3	0.3
1954	0.2	0.3	0.3	0.4	0.3	0.4	0.2	0.3	0.2	0.3	0.2	0.3
1955	0.3	0.3	0.3	0.3	0.3	0.4	0.2	0.3	0.2	0.3	0.2	0.3
1956	0.2	0.3	0.2	0.3	0.3	0.4	0.2	0.3	0.2	0.3	0.2	0.3
1957	0.3	0.4	0.3	0.4	0.4	0.5	0.3	0.4	0.3	0.4	0.3	0.4
1958	0.8	0.6	0.8	0.6	0.9	0.7	0.7	0.5	0.7	0.5	0.7	0.6
1959	0.8	1.0	0.8	1.0	0.9	1.1	0.7	0.9	0.7	0.9	0.7	0.9
1960	0.8	1.0	0.8	1.0	0.9	1.1	0.7	0.9	0.7	0.9	0.7	0.9
1961	0.8	1.0	0.8	1.0	0.9	1.2	0.7	0.9	0.7	0.9	0.8	1.0
1962	0.8	1.0	0.8	1.0	0.9	1.1	0.7	0.9	0.7	0.9	0.8	1.0
1963	0.8	1.0	0.8	1.1	0.9	1.2	0.7	0.9	0.7	0.9	0.8	1.0
1964	0.8	1.0	0.8	1.1	0.9	1.1	0.7	0.9	0.7	1.0	0.8	1.0
1965	0.8	1.0	0.8	1.0	0.9	1.1	0.7	0.9	0.7	0.9	0.8	1.0
1966	0.8	1.0	0.8	1.1	0.9	1.1	0.7	0.9	0.7	0.9	0.7	1.0
1967	0.7	1.0	0.7	1.0	0.8	1.1	0.6	0.9	0.6	0.8	0.7	0.9
1968	0.7	0.9	0.7	0.9	0.8	1.0	0.6	0.8	0.6	0.8	0.6	0.9
1969	0.7	0.9	0.7	0.9	0.8	1.1	0.6	0.8	0.6	0.8	0.7	0.9
1970	1.2	1.1	1.2	1.1	1.3	1.3	1.0	1.0	1.0	1.0	1.1	1.1
1971	1.2	1.5	1.2	1.6	1.3	1.7	1.1	1.4	1.1	1.4	1.1	1.4
1972	1.1	1.5	1.2	1.6	1.3	1.8	1.0	1.4	1.1	1.4	1.1	1.5
1973	1.2	1.6	1.1	1.7	1.4	1.8	1.1	1.5	1.2	1.6	1.2	1.6
1974	1.2	1.5	1.2	1.6	1.1	1.7	1.2	1.4	1.1	1.4	1.2	1.5
1975	1.2	1.6	1.2	1.6	1.3	1.9	1.2	1.5	1.1	1.5	1.1	1.5
1976	1.4	1.7	1.3	1.7	1.4	1.8	1.3	1.7	1.3	1.6	1.3	1.7
1977	1.7	2.0	1.7	1.9	1.8	2.0	1.7	1.9	1.6	1.8	1.6	1.9
1978	2.4	2.9	2.4	2.9	2.5	3.0	2.4	2.9	2.4	2.8	2.4	2.9
1979	3.6	4.0	3.6	4.0	3.7	4.2	3.6	3.9	3.3	3.8	3.5	4.0
1980	8.5	9.9	8.7	10.2	8.7	10.1	8.3	9.8	8.3	9.7	8.3	9.7
1981	11.1	12.4	11.2	12.6	11.4	12.5	10.9	12.2	10.9	12.2	11.1	12.2
1982	14.6	16.6	14.6	16.8	15.0	17.0	14.3	16.4	14.3	16.5	14.7	16.7
1983	19.7	21.4	19.4	21.2	20.3	21.9	19.0	21.1	18.7	20.8	19.7	21.5
1984	28.5	32.4	28.0	32.2	29.1	33.1	26.9	31.6	26.6	31.4	28.0	32.5
1985	42.9	45.2	42.1	44.5	43.0	45.8	42.0	44.0	41.2	43.4	42.3	44.9
1986	63.7	69.4	63.0	69.3	63.7	69.7	63.3	69.2	62.7	69.0	63.4	69.5
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988	164.2	170.1	164.7	171.2	164.6	170.2	163.9	170.0	164.4	171.0	164.3	170.1
1989	213.1	240.6	211.9	241.6	210.5	240.1	212.8	240.5	211.5	241.4	210.1	239.9
1990	298.3	329.6	295.4	328.0	292.8	325.0	298.1	329.1	294.8	327.2	291.8	324.0
1991	510.8	517.0	509.3	517.8	502.8	509.5	510.6	516.5	508.8	517.0	499.3	506.0
1992	806.9	887.7	803.9	889.2	783.9	868.5	804.7	885.5	802.2	886.5	776.1	859.9
1993	1 301.6	1 336.1	1 310.6	1 355.1	1 227.8	1 262.7	1 297.6	1 333.0	1 300.4	1 345.3	882.1	968.8
1994	3 760.5	3 660.1	3 773.3	3 696.9	3 488.1	3 415.1	3 751.7	3 652.0	3 746.1	3 665.5	2 498.9	2 448.0
1995	6 102.9	6 181.7	6 300.6	6 246.1	5 649.2	5 731.9	6 067.0	6 129.6	6 051.0	6 161.7	4 127.3	4 158.8

Source: International Monetary Fund (IMF), International Financial Statistics (IFS), various issues.

[1] Exchange rates of the countries USA, Germany, UK, France and Netherland are selected in the calculations of effective exchange rates.

[2] Exchange rates of USA, Germany, UK, France, Netherland, Austria, Japan, Greece and Spain are selected in effective exchange rate calculations.

[3] Exchange rates of the countries USA, Germany, UK, France, Italy, Netherland, Netherlands, Austria, Japan, Iran, S.Arabia, Egypt, Greece and Spain are selected in the calculations of nominal effective exchange rates.

Note: The reason for the exclusion of some countries in EER series are just due to data availability.

Table 22. Real Effective Exchange Rate for Major 5 Trading Partner Countries

Formula (13): $REER = Sum (w_i . RER_i)$

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	$REER_1$	$REER_2$	$REER_3$	$REER_1$	$REER_2$	$REER_3$	$REER_4$	$REER_5$	$REER_6$	$REER_4$	$REER_5$	$REER_6$
1949	-	261.31	-	-	298.20	-	267.26	-	-	304.99	-	-
1950	-	250.90	-	-	250.97	-	273.23	-	-	273.30	-	-
1951	-	251.75	-	-	252.38	-	258.55	-	-	259.20	-	-
1952	-	232.68	-	-	232.13	-	248.67	-	-	248.08	-	-
1953	320.82	245.02	-	320.93	245.11	-	264.09	297.66	370.02	264.18	297.76	370.15
1954	287.20	223.40	-	287.95	224.02	-	239.07	268.38	347.69	239.73	269.08	348.59
1955	275.49	204.93	-	275.28	204.75	-	228.61	246.95	322.62	228.41	246.76	322.38
1956	243.41	190.50	-	243.56	190.64	-	200.47	231.30	297.25	200.62	231.45	297.44
1957	288.91	240.64	-	288.20	239.75	-	238.21	291.86	340.48	237.33	291.14	339.64
1958	619.39	520.47	-	379.60	318.81	-	519.85	620.14	733.97	318.42	380.06	449.83
1959	519.97	427.02	-	520.25	427.28	-	442.76	501.49	617.97	443.93	501.75	618.30
1960	505.21	419.71	-	505.47	419.93	-	434.52	487.99	608.77	434.75	488.24	609.08
1961	511.94	436.26	-	511.22	435.64	-	446.36	502.30	610.21	445.71	501.60	609.36
1962	488.21	430.09	-	488.53	430.37	-	430.27	488.00	559.66	430.56	488.32	560.02
1963	477.23	412.79	-	477.32	412.87	-	427.22	461.12	540.25	427.29	461.21	540.35
1964	472.42	410.35	466.40	472.60	410.51	466.58	424.77	456.38	527.62	424.94	456.56	527.83
1965	445.40	395.92	459.48	445.35	395.84	459.38	491.21	439.52	515.98	401.33	439.48	515.93
1966	424.97	377.96	435.78	424.84	377.83	435.66	385.95	416.17	485.57	385.82	416.04	485.41
1967	366.96	330.95	387.69	383.01	346.23	405.41	340.19	356.99	422.90	355.90	372.60	441.40
1968	356.18	325.38	379.63	356.71	325.90	380.23	336.29	344.61	407.44	336.84	345.13	408.06
1969	344.39	316.47	371.19	340.05	312.28	366.57	328.77	331.50	393.37	324.43	327.32	388.42
1970	551.81	501.22	590.90	418.60	380.23	448.25	527.48	524.34	617.48	400.15	397.76	468.42
1971	469.97	428.66	502.79	476.31	434.58	510.09	451.36	444.36	518.69	459.63	450.38	525.72
1972	407.62	390.25	471.74	416.67	399.24	482.40	397.65	400.03	477.11	406.81	408.92	487.71
1973	385.38	377.75	428.95	394.83	387.31	439.56	370.49	392.93	446.12	379.87	402.57	457.06
1974	349.03	350.38	364.83	335.64	337.01	351.00	313.92	389.57	408.58	301.94	374.63	392.90
1975	349.11	328.93	341.67	347.98	328.68	341.15	320.68	358.09	371.87	320.43	356.91	370.67
1976	362.26	341.27	356.93	346.98	326.92	341.94	335.10	368.93	387.48	321.00	353.37	371.14
1977	392.71	358.75	385.80	341.71	311.35	335.30	363.25	387.85	421.23	315.25	337.42	366.52
1978	346.13	331.31	362.65	312.28	298.29	326.76	323.68	354.30	386.20	291.42	319.64	348.43
1979	350.70	348.66	340.09	296.03	293.92	286.77	325.86	375.25	365.01	274.69	316.75	308.11
1980	465.14	443.82	493.30	401.56	383.06	425.64	431.51	478.41	533.41	372.43	413.02	460.50
1981	520.91	502.57	514.61	441.69	426.55	436.89	478.42	547.21	567.14	406.04	463.99	480.89
1982	601.53	602.34	583.04	533.42	535.04	518.33	558.10	649.21	639.71	495.74	575.71	567.28
1983	654.42	658.07	666.12	541.25	544.64	551.15	613.23	702.27	720.12	507.53	580.82	595.59
1984	638.13	652.40	659.94	561.66	575.19	581.63	593.45	701.51	720.13	523.23	617.45	633.84
1985	696.39	702.10	671.81	575.05	579.76	555.29	661.46	739.19	718.63	546.20	610.39	593.41
1986	731.52	719.81	689.52	622.18	612.47	586.86	720.52	730.80	703.23	611.07	621.57	598.12
1987	837.56	837.56	837.56	640.33	640.33	640.33	837.56	837.56	837.56	640.33	640.33	640.33
1988	850.37	832.08	856.97	666.46	652.01	671.48	847.70	834.71	856.15	664.25	653.19	670.99
1989	694.75	680.93	649.29	616.69	605.33	577.23	690.92	684.71	653.46	614.21	607.77	580.04
1990	628.95	602.16	576.37	520.19	506.50	484.77	643.04	588.96	569.32	540.89	495.55	479.02
1991	714.89	654.67	657.34	555.04	508.58	510.55	746.72	626.76	632.97	580.09	486.62	491.44
1992	684.65	609.97	639.08	581.53	518.31	543.00	730.09	572.01	600.12	620.37	485.85	509.73
1993	719.49	622.00	644.92	557.70	482.15	500.06	780.69	573.24	595.41	605.16	444.34	461.53
1994	922.93	876.52	908.29	687.93	653.35	676.96	1010.00	800.96	828.57	752.84	597.02	617.60
1995	811.50	744.74	822.41	626.48	574.88	634.81	881.50	685.60	757.17	680.44	529.28	584.54

Note 1: USA, Germany, UK, Netherlands and France are taken into account as 5 major trading partners of Turkey.

Note 2: WPIs are used for both home country (Turkey) and 5 trading partner countries to compute REER.

CPIs are used for both home country and 5 trading partner countries to compute REER.

GDP deflators are used for both home country and 5 trading partner countries to compute REER.

CPIs are used for 5 trading partner countries and WPIs are used for home country to compute REER.

WPIs are used for 5 trading partner countries and CPIs are used for Turkey to compute REER.

WPIs are used for 5 trading partner countries and GDP deflators are used for Turkey to compute REER.

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Table 22-A. Real Effective Exchange Rate for Major 5 Trading Partner Countries

Formula (13): REER = Sum (w$_i$. RER$_i$) . 100

1987=100

Year	ae (end of period) REER₁	REER₂	REER₃	rf (period averages) REER₁	REER₂	REER₃	ae (end of period) REER₄	REER₅	REER₆	rf (period averages) REER₄	REER₅	REER₆
1949	-	31.20	-	-	46.57	-	31.91	-	-	47.63	-	-
1950	-	29.96	-	-	39.19	-	32.62	-	-	42.68	-	-
1951	-	30.06	-	-	39.41	-	30.87	-	-	40.48	-	-
1952	-	27.78	-	-	36.25	-	29.69	-	-	38.74	-	-
1953	38.30	29.35	-	50.12	38.28	-	31.53	35.54	44.18	41.26	46.50	57.81
1954	34.29	26.67	-	44.07	34.08	-	28.54	32.04	41.51	37.44	42.02	54.44
1955	32.89	24.47	-	42.99	31.08	-	27.30	29.48	38.52	35.67	38.54	50.35
1956	29.06	22.74	-	38.01	29.77	-	23.94	27.62	35.49	31.33	36.15	46.45
1957	34.49	28.73	-	45.01	37.44	-	28.44	34.85	40.65	37.06	45.47	53.04
1958	73.95	62.14	-	59.28	49.79	-	62.07	74.04	87.63	49.73	59.35	70.25
1959	62.08	50.98	-	81.25	66.73	-	52.86	59.87	73.78	69.19	78.36	96.56
1960	60.32	50.11	-	78.94	65.58	-	51.88	58.26	72.68	67.89	76.25	95.12
1961	61.36	52.09	-	80.15	68.03	-	53.29	59.97	72.86	69.61	78.34	95.16
1962	58.29	51.35	-	76.29	67.21	-	51.37	58.26	66.82	67.24	76.26	87.46
1963	56.98	49.29	-	74.54	64.48	-	51.01	55.06	64.50	66.73	72.03	84.39
1964	56.40	48.99	55.69	73.83	64.11	72.83	50.71	54.49	62.99	66.36	71.30	82.43
1965	53.18	47.27	54.86	69.55	61.82	71.74	47.90	52.48	61.61	62.64	68.63	80.57
1966	50.74	45.13	52.03	66.35	59.81	68.01	46.08	49.69	57.97	60.25	64.97	75.81
1967	43.81	39.51	46.29	59.82	54.07	63.11	40.62	42.62	50.49	55.58	58.19	68.93
1968	42.53	38.85	45.33	55.71	50.90	50.38	40.15	41.14	48.65	52.60	53.90	63.73
1969	41.12	37.78	44.32	51.11	48.77	57.25	39.25	39.58	46.97	50.67	51.12	60.66
1970	65.88	59.84	70.55	65.37	59.38	70.00	62.98	62.60	73.72	62.49	62.12	73.15
1971	56.11	51.18	60.03	73.39	67.87	79.66	54.13	53.05	61.93	71.78	70.34	82.10
1972	48.67	46.59	56.32	65.07	62.35	75.33	47.48	47.76	56.96	63.53	63.86	76.17
1973	46.03	45.10	51.21	61.66	60.49	68.65	44.23	46.91	53.26	59.32	62.87	71.38
1974	41.67	41.83	43.56	52.42	52.63	54.82	37.48	46.51	48.78	47.15	58.51	61.36
1975	41.68	39.27	40.79	54.34	51.33	53.28	38.29	42.75	44.40	50.04	55.74	57.89
1976	43.25	40.75	42.62	54.19	51.05	53.40	40.04	44.05	46.26	50.13	55.19	57.96
1977	46.89	42.83	46.06	53.36	48.62	52.36	43.37	46.31	50.29	49.23	52.70	57.24
1978	41.33	39.56	43.30	48.77	46.58	51.03	38.65	42.30	46.11	45.51	49.92	54.41
1979	41.87	41.63	40.64	46.23	45.90	44.79	38.91	44.80	43.58	42.90	49.47	48.12
1980	55.53	52.99	58.98	62.71	59.82	66.47	51.52	57.12	63.69	58.16	64.50	71.92
1981	62.19	60.00	61.44	68.98	66.61	68.23	57.12	65.33	67.71	63.41	72.46	75.10
1982	71.82	71.92	69.61	83.31	83.56	80.92	66.63	77.51	76.38	77.42	89.91	88.59
1983	78.11	78.57	79.53	84.53	85.06	86.07	73.22	83.85	85.98	79.26	90.71	93.01
1984	76.19	77.89	78.79	87.72	89.83	90.83	70.85	83.76	85.98	81.71	96.43	98.99
1985	83.15	83.83	80.21	89.81	90.54	86.72	78.97	88.25	85.80	85.30	95.32	92.67
1986	87.33	85.91	82.32	97.17	95.65	91.65	86.03	87.25	83.96	95.74	97.07	93.41
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	101.53	99.35	102.32	104.08	101.83	104.87	101.21	99.66	102.22	103.74	102.16	104.79
1989	82.95	81.30	77.52	96.31	94.54	90.15	82.49	81.75	78.02	95.92	94.92	90.58
1990	75.02	71.89	68.82	82.64	79.10	75.71	76.78	70.32	67.97	84.47	77.39	74.81
1991	85.35	78.16	78.48	86.68	79.32	79.73	89.15	74.83	75.57	90.59	76.00	76.75
1992	81.74	72.83	76.30	90.82	80.94	84.80	87.17	68.29	71.65	96.88	75.88	79.60
1993	85.90	71.26	77.00	87.10	75.38	78.00	93.21	68.44	71.09	94.51	69.39	72.08
1994	110.19	104.65	108.44	107.44	102.03	105.72	120.59	95.63	98.93	117.57	93.24	96.45
1995	96.89	88.92	98.19	97.83	89.78	99.14	105.25	81.86	90.40	106.27	82.66	91.29
Avg.	61.3	54.4	65.4	71.0	63.3	74.5	56.1	59.7	65.1	65.2	69.2	75.9
Std.	21.1	22.0	19.7	18.7	20.2	16.6	24.1	19.6	18.0	21.9	17.8	16.3
Min.	29.1	22.7	40.6	38.0	29.8	44.8	23.9	27.6	35.5	31.3	36.1	46.5
Max.	110.2	104.7	108.4	107.4	102.0	105.7	120.6	100.0	102.2	117.6	102.2	104.8

Note: The year which does not have data is excluded from the calculations of average (avg), standard deviation (std), minimum (min) and maximum (max).

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Table 23. Real Effective Exchange Rate for Major 9 Trading Partner Countries

Formula (13): REER = Sum (w$_i$ · RER$_i$)

	ac (end of period)			rf (period averages)			ac (end of period)			rf (period averages)		
Year	REER$_1$	REER$_2$	REER$_3$	REER$_1$	REER$_2$	REER$_3$	REER$_4$	REER$_5$	REER$_6$	REER$_4$	REER$_5$	REER$_6$
1949	-	228.67	-	-	261.01	-	233.88	-	-	266.96	-	-
1950	-	230.04	-	-	230.14	-	250.51	-	-	250.62	-	-
1951	-	239.58	-	-	240.18	-	246.05	-	-	246.67	-	-
1952	-	221.37	-	-	220.85	-	236.57	-	-	236.02	-	-
1953	288.12	219.92	-	288.23	220.01	-	237.04	267.32	332.31	237.13	267.42	332.15
1954	252.52	196.26	-	253.18	196.81	-	210.03	235.96	305.69	210.62	236.58	306.23
1955	254.70	189.32	-	254.52	189.16	-	211.20	228.32	298.28	211.02	228.15	297.72
1956	225.16	176.12	-	225.31	176.25	-	185.34	213.96	274.97	185.47	214.11	274.91
1957	277.76	231.27	-	277.08	230.42	-	228.94	280.58	327.33	228.10	279.90	326.36
1958	590.46	495.96	-	363.88	303.79	-	495.36	591.18	699.69	303.43	362.32	428.53
1959	489.02	401.36	-	489.29	401.61	-	416.15	471.64	581.19	416.41	471.90	580.97
1960	470.43	390.62	-	470.67	390.82	-	404.40	454.39	566.85	404.62	454.63	566.79
1961	478.64	406.12	-	477.97	405.54	-	415.53	467.80	568.30	414.93	467.15	567.22
1962	450.96	397.10	-	451.25	397.36	-	397.27	450.77	516.96	397.53	451.06	517.05
1963	445.55	385.27	-	445.63	385.34	-	398.73	430.51	504.39	398.81	430.59	504.33
1964	443.07	384.70	437.22	443.25	384.85	437.39	398.22	428.93	494.85	398.38	428.20	494.80
1965	414.14	367.97	427.01	414.10	367.90	426.92	372.88	408.68	479.78	372.83	408.64	479.46
1966	391.50	348.05	401.28	391.38	347.94	401.18	355.41	383.40	447.33	355.29	383.28	447.00
1967	331.20	298.55	349.72	345.66	312.31	365.69	306.89	322.20	381.69	321.04	336.27	398.18
1968	325.90	297.57	347.37	326.39	298.04	347.71	307.55	315.32	372.81	308.04	315.80	373.19
1969	318.70	292.73	343.33	314.70	288.87	339.07	304.11	306.77	364.03	300.10	302.92	359.30
1970	504.78	458.28	540.26	382.92	347.65	409.84	482.29	479.65	564.85	365.86	363.86	428.31
1971	433.65	395.30	463.66	439.50	400.75	470.36	418.08	410.02	478.61	423.84	415.56	484.80
1972	374.35	358.21	433.01	382.64	366.45	442.77	365.09	367.38	438.17	373.40	375.52	447.67
1973	351.94	344.83	391.59	360.56	353.54	401.26	338.20	358.84	407.41	346.75	367.63	417.23
1974	303.10	304.09	316.66	291.44	292.45	304.62	272.45	338.31	354.81	262.02	325.29	340.94
1975	310.09	292.02	303.32	309.09	291.80	302.86	284.69	318.07	330.31	284.48	317.05	329.06
1976	319.17	300.54	314.31	305.65	287.85	301.04	295.10	325.05	341.40	282.64	311.29	326.77
1977	334.38	305.32	328.31	290.92	263.95	285.31	309.15	330.24	358.66	268.27	287.31	311.86
1978	310.30	296.89	324.93	279.91	267.27	292.74	298.04	317.62	346.22	261.11	286.52	312.11
1979	287.20	285.35	278.30	242.40	240.53	234.65	266.69	307.30	298.91	224.79	259.36	252.05
1980	405.98	387.14	430.24	350.57	334.21	371.31	376.40	417.57	465.57	324.94	360.57	403.66
1981	450.39	434.32	444.69	383.86	368.59	377.50	413.45	473.13	490.36	350.88	401.14	415.47
1982	498.93	499.36	483.35	442.35	443.48	429.45	462.68	538.48	530.60	410.91	477.42	470.12
1983	542.53	545.35	551.99	448.78	451.41	456.79	508.19	582.20	597.00	420.65	481.59	493.56
1984	526.92	538.57	544.78	463.84	474.90	480.19	489.91	579.25	594.63	431.99	509.91	523.24
1985	582.62	587.22	561.85	480.93	484.73	464.25	553.23	618.42	601.22	456.67	510.48	496.12
1986	615.07	605.15	579.68	523.01	514.79	493.24	605.75	614.46	591.28	515.30	522.50	502.73
1987	703.51	703.51	703.51	537.75	537.75	537.75	703.51	703.51	703.51	537.75	537.75	537.75
1988	730.16	714.55	735.92	572.28	559.94	576.67	727.96	716.71	739.12	570.45	561.73	576.21
1989	605.99	594.01	566.44	537.80	527.96	503.48	602.72	597.23	569.97	535.70	530.03	505.87
1990	536.59	513.77	491.82	451.47	432.15	413.61	548.65	502.48	485.71	461.48	422.77	408.71
1991	609.46	558.18	560.51	473.12	433.56	435.28	636.66	534.33	539.62	494.52	414.79	419.00
1992	591.64	527.21	552.40	502.47	447.94	469.31	631.02	494.30	518.59	536.14	419.80	440.59
1993	618.82	535.12	554.86	479.71	411.84	430.27	671.65	493.04	512.11	520.68	382.20	397.16
1994	809.43	768.95	796.86	603.33	573.17	593.91	886.05	702.46	726.67	660.45	523.60	541.90
1995	712.01	653.67	-	549.69	504.60	-	773.73	601.55	664.34	597.26	464.41	513.14

Note 1: USA, Germany, UK, Netherlands, France, Austria, Japan, Greece and Spain are taken into account as 9 major trading partners of Turkey.

Note 2: WPIs are used for both home country (Turkey) and 9 trading partner countries to compute REER$_1$.

CPIs are used for both home country and 9 trading partner countries to compute REER$_2$.

GDP deflators are used for both home country and 9 trading partner countries to compute REER$_3$.

CPIs are used for 9 trading partner countries and WPIs are used for home country to compute REER$_4$.

WPIs are used for 9 trading partner countries and CPIs are used for Turkey to compute REER$_5$.

WPIs are used for 9 trading partner countries and GDP deflators are used for Turkey to compute REER$_6$.

Table 23-A. Real Effective Exchange Rate for Major 9 Trading Partner Countries

Formula (13): REER = Sum (w_i . RER_i) . 100

1987=100

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	REER₁	REER₂	REER₃	REER₁	REER₂	REER₃	REER₄	REER₅	REER₆	REER₄	REER₅	REER₆
1949	-	32.50	-	-	48.54	-	33.24	-	-	49.64	-	-
1950	-	32.70	-	-	42.80	-	35.61	-	-	46.61	-	-
1951	-	34.05	-	-	44.66	-	34.97	-	-	45.87	-	-
1952	-	31.47	-	-	41.07	-	33.63	-	-	43.89	-	-
1953	40.95	31.26	-	53.60	40.91	-	33.69	38.00	47.24	44.10	49.73	61.77
1954	35.89	27.90	-	47.08	36.60	-	29.85	33.54	43.45	39.17	43.99	56.95
1955	36.20	26.91	-	47.33	35.18	-	30.02	32.45	42.40	39.24	42.43	55.36
1956	32.01	25.03	-	41.90	32.78	-	26.34	30.41	39.09	34.49	39.82	51.12
1957	39.48	32.87	-	51.52	42.85	-	32.54	39.88	46.53	42.42	52.05	60.69
1958	83.93	70.50	-	67.30	56.49	-	70.41	84.03	99.46	56.43	67.38	79.69
1959	69.51	57.05	-	90.99	74.68	-	59.15	67.04	82.61	77.44	87.75	108.04
1960	66.87	55.52	-	87.53	72.68	-	57.48	64.59	80.57	75.24	84.54	105.40
1961	68.04	57.73	-	88.88	75.41	-	59.06	66.50	80.78	77.16	86.87	105.48
1962	64.10	56.44	-	83.91	73.89	-	56.47	64.07	73.48	73.92	83.88	96.15
1963	63.33	54.76	-	82.87	71.66	-	56.68	61.19	71.70	74.16	80.07	93.78
1964	62.98	54.68	62.15	82.43	71.57	81.34	56.60	60.84	70.34	74.08	79.63	92.01
1965	58.87	52.38	60.70	72.01	68.41	79.39	53.00	58.09	68.20	69.33	75.99	89.16
1966	55.65	49.47	57.04	72.78	64.70	74.60	50.52	54.50	63.58	66.07	71.27	83.12
1967	47.08	42.44	49.71	64.28	58.08	68.00	43.62	45.80	54.25	59.70	62.53	74.05
1968	46.33	42.30	49.35	60.79	55.42	64.66	41.72	44.82	52.99	57.28	58.73	69.40
1969	45.30	41.61	48.80	58.52	51.72	63.05	43.23	43.61	51.74	55.81	56.33	66.81
1970	71.75	65.14	76.79	71.21	64.65	76.21	68.55	68.18	80.29	68.04	67.66	79.65
1971	61.64	56.19	65.91	81.73	74.52	87.47	59.43	58.28	68.03	78.82	77.28	90.15
1972	53.21	50.92	61.55	71.16	68.14	82.34	51.88	52.22	62.28	69.44	69.83	83.25
1973	50.03	49.02	55.66	67.05	65.74	74.62	48.07	51.01	57.91	64.48	68.36	77.59
1974	43.08	43.23	45.01	54.20	54.38	56.65	38.73	48.09	50.43	48.72	60.49	63.40
1975	44.08	41.51	43.12	57.48	54.26	56.52	40.47	45.21	46.95	52.90	58.96	61.19
1976	45.37	42.72	44.68	56.84	53.53	55.98	41.95	46.20	48.53	52.56	57.89	60.77
1977	47.53	43.40	46.67	54.10	49.27	53.06	43.94	46.94	50.98	49.89	53.43	57.99
1978	44.11	42.20	46.19	52.05	49.70	54.44	41.23	45.15	49.21	48.56	53.28	58.04
1979	40.82	40.56	39.56	45.08	44.73	43.61	37.91	41.68	42.49	41.80	48.23	46.87
1980	57.71	55.03	61.16	65.19	62.15	69.05	53.50	59.15	66.18	60.43	67.05	74.69
1981	64.02	61.74	63.21	71.01	68.54	70.20	58.77	67.25	69.70	65.25	74.60	77.26
1982	70.92	70.98	68.71	82.26	82.47	79.86	65.77	76.54	75.42	76.41	88.78	87.42
1983	77.12	77.52	78.46	83.46	83.94	84.91	72.24	82.76	84.86	78.22	89.56	91.78
1984	74.90	76.55	77.44	86.26	88.31	89.30	69.64	82.34	84.52	80.33	94.82	97.30
1985	82.82	83.47	79.86	89.43	90.14	86.33	78.64	87.90	85.46	84.92	94.93	92.26
1986	87.43	86.02	82.40	97.26	95.73	91.73	86.10	87.34	84.05	95.82	97.16	93.49
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	101.79	101.57	101.61	106.42	104.13	107.24	103.47	101.88	104.49	106.08	104.46	107.15
1989	86.14	83.43	80.52	100.01	98.18	93.63	85.67	84.89	81.02	99.62	98.56	94.07
1990	76.27	73.03	69.91	83.96	80.36	76.92	77.99	71.42	69.04	85.82	78.62	76.00
1991	86.63	79.34	79.67	87.98	80.62	80.95	90.50	75.95	76.70	91.96	77.14	77.92
1992	84.10	71.94	78.52	93.44	83.30	87.27	89.70	70.26	73.71	99.70	78.07	81.93
1993	87.96	76.06	78.87	89.21	77.14	80.01	95.47	70.08	72.79	96.83	71.07	73.86
1994	115.06	109.30	113.27	112.20	106.59	110.44	125.95	99.85	103.29	122.82	97.37	100.77
1995	101.21	92.92	-	102.22	93.84	-	109.98	85.51	94.43	111.07	86.36	95.42
Avg.	64.5	57.2	66.8	74.9	66.7	76.8	59.1	62.7	68.6	68.8	73.0	80.2
Std.	20.8	21.6	18.7	18.5	19.6	16.0	23.9	19.2	18.1	21.6	17.3	16.8
Min.	32.0	25.0	39.6	41.9	32.8	43.6	26.3	30.4	39.1	34.5	39.8	46.9
Max.	115.1	109.3	113.3	112.2	106.6	110.4	125.9	101.9	104.5	122.8	104.5	108.0

Note: The year which does not have data is excluded from the calculations of average (avg.), standard deviation (std.), minimum (min.) and maximum (max.).

Table 24. Real Effective Exchange Rate for the First 14 Trading Partner Countries

Formula (13): REER = Sum (w_i . RER_i)

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	$REER_1$	$REER_2$	$REER_3$	$REER_1$	$REER_2$	$REER_3$	$REER_4$	$REER_5$	$REER_6$	$REER_4$	$REER_5$	$REER_6$
1949	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	331.71	-	-	331.76	-	343.30	-	-	343.35	-	-
1964	-	329.97	-	-	330.09	-	341.57	-	-	341.69	-	-
1965	-	319.66	-	-	319.59	-	323.93	-	-	323.86	-	-
1966	-	301.62	-	-	301.53	-	308.00	-	-	307.90	-	-
1967	-	259.19	-	-	270.63	-	266.43	-	-	278.19	-	-
1968	-	256.13	-	-	256.49	-	264.72	-	-	265.10	-	-
1969	-	244.61	-	-	241.59	-	254.12	-	-	250.99	-	-
1970	-	390.17	-	-	296.00	-	410.61	-	-	311.50	-	-
1971	-	324.78	-	-	328.95	-	341.50	-	-	347.91	-	-
1972	-	291.83	-	-	297.75	-	297.36	-	-	303.40	-	-
1973	-	284.06	-	-	290.84	-	278.60	-	-	285.25	-	-
1974	-	258.04	-	-	245.93	-	231.19	-	-	220.34	-	-
1975	-	252.72	-	-	251.39	-	246.38	-	-	245.08	-	-
1976	-	254.03	-	-	242.98	-	249.43	-	-	238.59	-	-
1977	-	254.55	-	-	218.48	-	257.75	-	-	221.22	-	-
1978	-	236.21	-	-	212.24	-	230.77	-	-	207.35	-	-
1979	-	234.31	-	-	197.45	-	218.98	-	-	184.54	-	-
1980	-	286.38	-	-	247.69	-	278.44	-	-	240.82	-	-
1981	-	318.68	-	-	283.39	-	322.40	-	-	269.77	-	-
1982	-	351.13	355.63	-	311.87	314.03	327.20	-	-	288.96	-	-
1983	-	350.69	362.58	-	289.52	299.09	326.79	-	-	269.79	-	-
1984	-	369.48	381.62	-	324.73	334.88	336.10	-	-	295.39	-	-
1985	407.71	411.52	400.86	337.94	342.95	333.17	389.58	432.77	420.73	323.09	358.71	348.63
1986	495.74	488.25	468.02	421.69	415.51	398.41	488.73	495.26	476.57	415.92	421.28	405.34
1987	554.99	554.99	554.99	424.40	424.40	424.40	554.99	554.99	554.99	424.40	424.40	424.40
1988	587.55	572.34	588.00	461.09	449.09	461.36	583.08	576.72	591.54	457.52	452.60	464.26
1989	496.55	484.75	462.17	443.73	433.43	413.11	491.86	489.37	467.04	439.79	437.32	417.38
1990	416.40	416.00	399.88	369.12	353.51	337.86	444.24	408.66	395.02	375.37	345.66	334.16
1991	488.28	444.16	448.88	380.56	346.18	349.88	506.61	428.08	432.32	394.86	333.65	337.02
1992	481.34	425.69	448.67	407.14	360.36	379.68	509.51	402.15	421.91	431.32	340.15	356.98
1993	-	435.40	-	-	337.00	-	516.18	-	-	422.97	-	-
1994	-	620.47	-	-	462.74	-	714.96	-	-	533.20	-	-
1995	-	533.56	-	-	411.25	-	631.54	-	-	486.77	-	-

Table 24-A. Real Effective Exchange Rate for the First 14 Trading Partner Countries
Formula (13): REER = Sum (w$_i$. RER$_i$) . 100

1987=100

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	REER$_1$	REER$_2$	REER$_3$	REER$_1$	REER$_2$	REER$_3$	REER$_4$	REER$_5$	REER$_6$	REER$_4$	REER$_5$	REER$_6$
1949	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	59.77	-	-	78.17	-	61.86	-	-	80.90	-	-
1964	-	59.45	-	-	77.78	-	61.54	-	-	80.51	-	-
1965	-	57.60	-	-	75.30	-	58.37	-	-	76.31	-	-
1966	-	54.35	-	-	71.05	-	55.50	-	-	72.55	-	-
1967	-	46.70	-	-	61.27	-	48.01	-	-	65.55	-	-
1968	-	46.35	-	-	60.44	-	47.70	-	-	62.46	-	-
1969	-	44.08	-	-	56.93	-	45.79	-	-	59.14	-	-
1970	-	70.30	-	-	69.75	-	73.98	-	-	73.40	-	-
1971	-	58.52	-	-	77.51	-	61.89	-	-	81.98	-	-
1972	-	52.58	-	-	70.16	-	53.58	-	-	71.49	-	-
1973	-	51.18	-	-	68.53	-	50.20	-	-	67.21	-	-
1974	-	46.49	-	-	57.95	-	41.66	-	-	51.92	-	-
1975	-	45.54	-	-	59.24	-	44.39	-	-	57.75	-	-
1976	-	45.27	-	-	57.25	-	44.94	-	-	56.22	-	-
1977	-	45.87	-	-	51.48	-	46.44	-	-	52.13	-	-
1978	-	42.56	-	-	50.01	-	41.58	-	-	48.86	-	-
1979	-	42.22	-	-	46.53	-	39.46	-	-	43.48	-	-
1980	-	51.60	-	-	58.36	-	50.17	-	-	56.74	-	-
1981	-	61.02	-	-	66.77	-	58.09	-	-	63.56	-	-
1982	-	63.63	64.08	-	73.48	73.99	58.96	-	-	68.09	-	-
1983	-	63.19	65.33	-	68.22	70.47	58.88	-	-	63.57	-	-
1984	-	66.58	68.76	-	70.52	78.91	64.56	-	-	69.60	-	-
1985	73.46	74.51	72.23	79.63	80.83	78.51	70.20	77.98	75.81	76.13	84.52	82.15
1986	89.32	87.97	84.33	99.36	97.91	93.88	88.06	89.24	85.87	98.00	99.27	95.51
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	105.87	103.33	105.95	108.65	105.82	108.71	105.06	103.92	106.59	107.80	106.64	109.39
1989	89.47	87.34	83.28	104.56	102.13	97.34	88.63	88.18	84.15	103.63	103.04	98.35
1990	78.63	74.96	72.05	86.98	82.83	79.61	80.04	73.63	71.18	88.45	81.45	78.74
1991	87.98	80.03	80.88	89.67	81.57	82.44	91.28	77.13	77.90	93.04	78.62	79.41
1992	86.73	76.70	80.84	95.93	84.91	89.46	91.81	72.46	76.02	101.63	80.15	84.12
1993	-	78.15	-	-	79.41	-	98.47	-	-	99.66	-	-
1994	-	111.80	-	-	109.03	-	128.82	-	-	125.64	-	-
1995	-	96.14	-	-	96.90	-	113.79	-	-	114.70	-	-
Avg	88.9	65.0	79.8	95.6	74.4	86.7	67.3	85.3	84.7	76.7	91.7	91.0
Std.	10.4	19.4	13.5	9.6	16.5	12.1	23.6	12.0	12.5	20.7	11.6	11.4
Min	73.5	42.2	64.1	79.6	46.5	70.5	39.5	72.5	71.2	43.5	78.6	78.7
Max.	105.9	111.8	105.9	108.6	109.0	108.7	128.8	103.9	106.6	125.6	106.6	109.4

Note: The year which does not have data is excluded from the calculations of average (avg.) standard deviation (std.),

minimum (min.) and maximum (max.)

Table 25. Real Effective Exchange Rate for Major 5 Trading Partner Countries

Formula (14): $REER = [X/(X+M)].(Sum\ w_{i*}.RER_i) + M/(X+M).[Sum(w_{i*}.1/RER_i)]^{-1}$

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	REER₁	REER₂	REER₃	REER₁	REER₂	REER₃	REER₄	REER₅	REER₆	REER₄	REER₅	REER₆
1949	-	192.09	-	-	213.77	-	196.47	-	-	218.64	-	-
1950	-	200.22	-	-	200.29	-	218.04	-	-	218.11	-	-
1951	-	197.82	-	-	198.10	-	203.17	-	-	203.45	-	-
1952	-	176.20	-	-	176.11	-	188.31	-	-	188.20	-	-
1953	265.60	190.54	-	265.69	190.59	-	205.37	246.50	306.33	205.43	228.37	306.43
1954	233.18	170.96	-	233.59	171.27	-	182.96	218.28	282.29	183.29	200.63	282.78
1955	221.18	154.94	-	221.17	154.92	-	172.85	198.26	259.02	172.82	181.47	259.01
1956	203.55	153.34	-	203.59	153.38	-	161.36	193.47	248.58	161.41	182.48	248.63
1957	243.26	194.29	-	245.95	196.85	-	192.33	248.46	286.67	194.86	234.11	289.85
1958	504.36	409.41	-	313.03	254.53	-	408.92	313.41	597.67	254.22	298.54	370.94
1959	420.32	331.06	-	420.26	331.04	-	343.27	405.32	499.54	343.24	383.98	499.46
1960	410.85	328.71	-	411.25	329.05	-	340.31	397.22	495.06	340.67	378.72	495.54
1961	417.08	338.08	-	416.43	337.60	-	345.91	407.00	495.21	345.42	384.69	494.44
1962	390.19	329.19	-	390.71	329.67	-	329.33	390.54	447.29	329.82	368.89	447.89
1963	376.76	311.93	-	377.02	312.23	-	322.83	364.29	426.51	323.12	342.64	426.80
1964	391.86	327.84	365.94	392.27	328.21	366.35	339.37	378.95	437.65	339.75	360.67	438.10
1965	370.21	317.73	361.95	370.66	318.13	362.10	321.97	365.78	428.88	322.38	349.09	429.41
1966	338.24	286.09	323.78	338.08	286.02	323.70	292.13	331.08	386.47	292.06	308.97	386.29
1967	302.52	263.72	303.14	309.70	270.15	310.49	271.08	301.28	348.63	277.70	288.52	356.91
1968	287.07	255.23	291.68	287.31	255.42	291.90	263.80	277.98	328.39	263.99	268.93	328.66
1969	276.42	243.96	280.47	271.83	240.53	276.19	253.45	261.64	315.74	249.89	250.21	310.47
1970	442.91	382.40	445.27	336.09	290.21	337.92	402.44	319.36	495.62	305.41	302.07	376.09
1971	361.31	309.99	361.34	360.49	309.26	360.54	327.86	340.85	398.77	327.08	317.94	397.86
1972	317.86	288.72	346.68	322.14	292.72	351.44	294.20	316.15	372.05	298.28	298.06	377.06
1973	326.13	298.16	339.19	334.35	306.26	348.30	292.43	340.90	377.53	300.37	314.20	387.05
1974	292.83	264.52	275.44	275.95	249.10	259.38	237.00	308.01	342.79	223.18	265.21	321.03
1975	276.21	250.18	259.37	275.43	249.41	258.57	243.90	282.52	294.22	243.15	263.56	293.39
1976	289.65	259.03	271.93	275.75	247.35	259.56	254.34	280.83	309.82	242.87	259.80	294.95
1977	301.36	261.18	282.91	261.94	227.32	246.19	264.46	258.69	323.24	230.37	237.40	280.96
1978	275.96	255.43	280.71	246.71	228.31	250.94	249.54	252.53	307.91	223.05	236.99	275.27
1979	273.64	258.87	253.28	229.14	216.73	212.05	241.94	245.18	284.80	202.55	224.65	238.49
1980	343.46	308.52	342.24	304.91	273.74	303.63	299.96	313.61	349.87	266.14	285.29	349.66
1981	388.88	352.84	359.11	330.02	300.05	305.40	335.88	346.68	423.40	285.63	317.15	359.31
1982	468.57	452.31	435.49	411.11	397.51	382.80	419.09	443.70	498.31	368.33	419.10	437.21
1983	503.94	489.26	491.50	424.15	412.11	413.95	455.92	455.17	554.53	384.03	430.16	466.74
1984	493.01	483.83	484.83	441.72	433.70	434.60	440.12	485.59	556.36	394.52	455.00	498.48
1985	552.91	534.49	508.42	440.06	425.50	404.90	503.55	467.10	570.56	400.87	441.14	454.11
1986	580.09	571.87	547.95	483.92	477.08	457.13	572.43	483.45	557.66	477.55	483.91	465.23
1987	680.77	680.77	680.77	515.17	515.17	515.17	680.77	515.17	680.77	515.17	515.17	515.17
1988	690.92	650.66	669.51	544.60	512.81	527.65	662.87	534.57	695.61	522.44	511.57	518.30
1989	597.57	548.68	523.00	517.21	475.18	452.98	556.72	509.73	562.05	482.15	473.35	486.47
1990	504.14	464.34	446.13	422.31	388.89	373.65	495.87	395.46	456.34	415.29	382.85	382.27
1991	559.06	503.80	507.34	428.40	386.09	388.78	574.64	375.59	495.00	440.38	375.73	379.31
1992	533.47	479.43	503.67	448.96	403.50	423.85	573.85	375.09	467.63	482.96	386.63	393.53
1993	514.37	463.73	482.14	402.65	363.03	377.45	582.04	320.81	425.67	455.65	343.22	333.22
1994	735.72	701.14	726.04	545.10	519.45	537.89	807.90	473.06	660.50	598.55	483.05	489.37
1995	657.59	594.27	656.70	504.66	455.97	503.85	703.40	426.37	613.57	539.70	425.46	470.88

Note 1. USA, Germany, UK, Netherlands and France are taken into account as 5 major trading partners of Turkey.

Note 2. WPIs are used for both home country (Turkey) and 5 trading partner countries to compute REER₁.

CPIs are used for both home country and 5 trading partner countries to compute REER₂.

GDP deflators are used for both home country and 5 trading partner countries to compute REER₃.

CPIs are used for 5 trading partner countries and WPIs are used for home country to compute REER₄.

WPIs are used for 5 trading partner countries and CPIs are used for Turkey to compute REER₅.

WPIs are used for 5 trading partner countries and GDP deflators are used for Turkey to compute REER₆.

Table 25-A. Real Effective Exchange Rate for Major 5 Trading Partner Countries

Formula (14): $REER=[X/(X+M).(Sum\ w_{Xi}.RER_i)+M/(X+M).[Sum(w_{Mi}.1/RER_i)]^{-1}].100$

1987=100

Year	ae (end of period) REER₁	REER₂	REER₃	rf (period averages) REER₁	REER₂	REER₃	ae (end of period) REER₄	REER₅	REER₆	rf (period averages) REER₄	REER₅	REER₆
1949	-	28.22	-	-	41.50	-	28.86	-	-	42.44	-	-
1950	-	29.41	-	-	38.88	-	32.03	-	-	42.34	-	-
1951	-	29.06	-	-	38.45	-	29.84	-	-	39.49	-	-
1952	-	25.88	-	-	34.18	-	27.66	-	-	36.53	-	-
1953	39.01	27.97	-	51.57	37.00	-	30.17	36.20	45.00	39.88	47.85	59.48
1954	34.25	25.11	-	45.34	33.25	-	26.87	32.01	41.47	35.58	42.37	54.89
1955	32.49	22.76	-	42.93	30.07	-	25.39	29.12	38.05	33.55	38.48	50.28
1956	29.90	22.52	-	39.52	29.77	-	23.70	28.41	36.51	31.33	37.55	48.26
1957	35.73	28.54	-	47.74	38.21	-	28.25	36.10	42.11	37.83	48.23	56.26
1958	74.09	60.14	-	60.76	49.41	-	60.07	74.18	87.79	49.35	60.84	72.00
1959	61.74	48.63	-	81.58	64.26	-	50.42	59.55	73.38	66.63	78.68	96.95
1960	60.35	48.28	-	79.83	63.87	-	49.99	58.29	72.72	66.13	77.11	96.19
1961	61.27	49.66	-	80.83	65.53	-	50.81	59.88	72.74	67.05	79.00	95.98
1962	57.32	48.36	-	75.84	63.99	-	48.38	57.29	65.70	64.02	75.81	86.94
1963	55.34	45.82	-	73.18	60.60	-	47.42	53.47	62.65	62.72	70.71	82.85
1964	57.56	48.16	53.75	76.14	63.71	71.11	49.85	55.61	64.29	65.95	73.56	85.04
1965	54.38	46.67	53.17	71.95	61.75	70.35	47.30	53.66	63.00	62.58	71.00	83.35
1966	49.69	42.02	47.56	65.63	55.52	62.83	42.91	48.66	56.77	56.69	64.27	74.98
1967	44.44	38.74	44.53	60.12	52.44	60.27	39.82	41.23	51.21	53.90	58.48	69.28
1968	42.17	37.49	42.85	55.77	49.58	56.66	38.75	40.80	48.24	51.24	53.96	63.80
1969	40.60	35.84	41.20	52.76	46.69	53.67	37.23	39.08	46.38	48.51	50.79	60.27
1970	65.06	56.17	65.41	65.24	56.33	65.59	59.11	61.82	72.80	59.28	61.99	73.00
1971	53.07	45.54	53.08	69.98	60.03	69.99	48.16	50.18	58.58	63.49	66.16	77.23
1972	46.69	42.41	50.92	62.53	56.82	68.22	43.22	45.82	54.65	57.90	61.37	73.19
1973	47.91	43.80	49.82	64.90	59.45	67.64	42.96	48.84	55.46	58.31	66.17	75.13
1974	43.01	38.86	40.46	53.57	48.35	50.35	34.81	48.01	50.35	43.32	59.79	62.70
1975	40.57	36.75	38.10	53.46	48.41	50.19	35.83	41.62	43.22	47.20	54.84	56.95
1976	42.55	38.05	39.94	53.53	48.01	50.38	37.36	43.33	45.51	47.14	54.51	57.25
1977	44.27	38.37	41.56	50.85	44.13	47.79	38.85	43.72	47.48	44.68	50.22	54.54
1978	40.54	37.52	41.23	47.89	44.32	48.71	36.66	41.49	45.23	43.30	49.02	53.43
1979	40.20	38.01	37.21	44.48	42.07	41.16	35.54	43.01	41.84	39.32	47.59	46.29
1980	50.45	45.32	50.27	59.39	53.14	58.94	44.06	51.89	57.86	51.66	60.88	67.87
1981	57.12	51.83	52.75	64.06	58.24	59.28	49.33	60.01	62.19	55.44	67.30	69.75
1982	68.83	66.44	63.97	79.80	77.16	74.31	61.56	74.29	71.20	71.50	86.13	84.87
1983	74.02	71.87	72.20	82.33	80.00	80.35	66.97	79.44	81.46	74.54	88.35	90.60
1984	72.42	71.07	71.22	85.74	84.19	84.36	64.65	79.61	81.73	76.58	94.26	96.76
1985	81.22	78.51	74.68	85.42	82.59	78.60	73.97	86.21	83.81	77.81	90.67	88.15
1986	85.21	84.00	80.49	93.93	92.61	88.74	84.09	85.13	81.92	92.70	93.84	90.30
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	101.49	95.58	98.35	105.71	99.54	102.42	97.37	99.62	102.18	101.41	103.77	106.43
1989	87.78	80.60	76.82	100.40	92.24	87.93	81.78	86.51	82.56	93.59	98.94	94.43
1990	74.05	68.21	65.53	81.97	75.49	72.53	72.84	69.35	67.03	80.61	76.76	74.20
1991	82.12	74.00	74.52	83.16	74.94	75.47	84.41	72.00	72.71	85.48	72.91	73.63
1992	78.36	70.43	73.99	87.15	78.32	82.27	84.29	65.47	68.69	93.75	72.83	76.39
1993	75.56	68.12	70.82	78.36	70.47	73.27	85.50	60.20	62.53	88.45	62.27	64.68
1994	108.07	103.99	106.65	105.81	100.83	104.41	118.67	93.79	97.02	116.19	91.83	94.99
1995	96.59	87.29	96.46	97.96	88.51	97.80	103.32	81.61	98.13	104.76	82.76	91.40
Avg.	60.2	51.5	61.5	70.2	60.3	70.5	53.2	58.6	63.9	62.2	68.5	75.1
Std.	20.5	21.4	19.9	18.2	19.7	17.0	23.6	19.2	17.7	21.5	17.5	16.2
Min.	29.9	22.5	37.2	39.5	29.8	41.2	23.7	28.4	36.5	31.3	37.6	46.3
Max.	108.1	103.0	106.7	105.8	100.8	104.4	118.7	100.0	102.2	116.2	103.8	106.4

Note: The year which does not have data is excluded from the calculations of average (avg.), standard deviation (std.), minimum (min.) and maximum (max.)

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Table 26. Real Effective Exchange Rate for Major 9 Trading Partner Countries

$$\text{Formula (14): } REER = \{X/(X+M).(\text{Sum } w_{ir}.RER_i) + M/(X+M).[\text{Sum}(w_{im}.1/RER_i)]^{-1}\}$$

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	REER1	REER2	REER3	REER1	REER2	REER3	REER4	REER5	REER4	REER	REER	REER
1949	-	112.69	-	-	127.16	-	115.26	-	-	130.06	-	-
1950	-	154.16	-	-	155.19	-	167.88	-	-	169.00	-	-
1951	-	157.68	-	-	157.93	-	161.94	-	-	162.20	-	-
1952	-	126.53	-	-	126.49	-	135.22	-	-	135.18	-	-
1953	159.65	117.02	-	161.23	117.74	-	126.12	148.12	184.13	126.90	149.59	183.27
1954	121.55	90.74	-	121.80	90.94	-	97.10	113.58	147.15	97.32	113.82	147.05
1955	121.16	82.70	-	121.10	82.64	-	92.26	108.61	141.89	92.19	108.56	140.58
1956	114.76	84.08	-	114.86	84.16	-	88.48	109.05	140.14	88.57	109.15	139.75
1957	171.42	130.41	-	171.83	130.40	-	129.09	173.17	202.02	129.09	173.58	200.14
1958	334.47	256.09	-	209.44	159.72	-	255.78	334.88	396.35	159.53	209.69	244.23
1959	274.31	206.70	-	276.64	208.14	-	214.32	264.56	326.01	215.81	266.81	321.04
1960	235.97	179.77	-	236.80	179.81	-	186.12	227.93	284.34	186.15	227.96	282.26
1961	211.86	167.67	-	211.63	167.47	-	171.56	207.06	251.55	171.35	206.84	250.63
1962	194.29	161.93	-	194.29	161.95	-	162.00	194.21	222.73	162.02	194.20	222.24
1963	180.10	146.59	-	180.18	146.64	-	151.71	174.02	203.88	151.76	174.09	203.56
1964	225.83	184.16	211.55	225.68	184.06	211.43	190.63	218.16	252.22	190.53	218.01	250.79
1965	209.11	176.22	205.89	209.08	176.19	205.85	178.58	206.35	242.25	178.54	206.33	241.29
1966	179.16	151.03	175.80	179.11	150.98	175.76	154.22	175.45	204.71	154.17	175.40	204.35
1967	154.67	131.62	156.73	159.15	135.78	161.60	135.29	150.47	178.25	139.58	154.82	183.06
1968	148.38	126.28	150.37	148.35	126.30	150.38	130.52	143.56	169.73	130.54	143.53	169.11
1969	139.35	119.58	141.44	137.49	117.83	139.51	124.22	134.14	159.17	122.42	132.35	156.53
1970	193.47	165.54	197.07	146.74	125.56	149.47	174.21	183.84	216.49	132.14	139.43	163.92
1971	174.38	150.44	179.04	174.38	150.74	179.43	159.11	164.88	192.46	159.43	164.88	192.03
1972	153.55	140.63	172.47	155.45	142.52	174.70	143.30	150.70	179.73	145.22	152.56	181.67
1973	161.78	152.09	176.00	165.42	155.64	180.00	149.17	164.95	187.27	152.65	168.66	191.30
1974	104.90	101.81	107.61	101.35	98.20	103.88	93.22	117.09	122.80	87.98	113.12	118.50
1975	92.11	82.46	87.03	91.09	81.74	86.21	80.39	94.48	98.11	79.69	93.44	96.89
1976	109.09	99.67	105.29	104.25	95.25	100.62	97.87	111.10	116.68	93.52	106.17	111.40
1977	94.17	84.56	91.61	81.35	72.90	79.07	85.62	93.00	101.03	73.82	80.34	87.16
1978	132.88	125.95	138.69	119.37	112.97	124.46	123.04	136.01	148.26	110.37	122.18	133.01
1979	104.22	103.98	101.60	88.48	88.12	86.16	97.18	111.51	108.47	82.35	94.67	91.99
1980	131.85	123.16	137.32	114.17	106.55	118.75	119.74	135.61	151.20	103.60	117.43	130.65
1981	167.11	157.98	161.68	141.20	133.55	136.71	150.39	175.55	181.94	127.13	148.33	153.49
1982	195.52	194.15	187.77	172.34	171.19	165.83	179.89	211.02	207.93	158.80	186.01	183.07
1983	217.63	218.17	220.36	180.82	181.35	183.12	203.31	233.54	239.47	168.99	194.04	198.81
1984	210.51	215.02	216.61	187.68	191.96	193.32	195.59	231.42	237.57	174.62	206.32	211.66
1985	278.69	280.65	268.13	226.06	227.67	217.69	264.41	295.81	287.59	214.49	239.95	233.38
1986	278.70	273.46	261.82	235.35	231.01	221.24	273.73	278.43	267.92	231.24	235.12	226.21
1987	332.60	332.60	332.60	251.56	251.56	251.56	332.60	332.60	332.60	251.56	251.56	251.56
1988	360.81	353.81	364.93	282.69	277.16	285.84	360.45	354.17	363.26	282.37	277.48	284.65
1989	280.16	275.04	262.88	248.03	243.84	233.10	279.07	276.11	263.51	247.42	244.44	233.31
1990	226.21	216.95	208.14	189.18	181.38	173.99	231.67	211.83	204.76	193.69	177.15	171.26
1991	263.36	240.76	242.13	202.75	185.44	186.46	274.61	230.89	233.18	211.52	177.76	179.57
1992	257.32	229.49	241.26	218.39	194.81	204.71	274.69	214.99	225.55	233.17	182.46	191.53
1993	245.69	213.82	222.46	191.43	166.61	173.34	268.37	195.75	203.32	209.11	152.53	158.53
1994	399.23	382.20	396.08	297.04	283.37	294.67	430.40	346.46	358.40	327.68	257.78	266.85
1995	306.54	284.51	-	237.91	220.85	-	336.75	258.99	286.02	261.41	201.00	222.15

Note 1. USA, Germany, UK, Netherlands, France, Austria, Japan, Greece and Spain are taken into account as 9 major trading partners of Turkey

Note 2. WPIs are used for both home country (Turkey) and 9 trading partner countries to compute REER1

    CPIs are used for both home country and 9 trading partner countries to compute REER2

    GDP deflators are used for both home country and 9 trading partner countries to compute REER3

    CPIs are used for 9 trading partner countries and WPIs are used for home country to compute REER4

    WPIs are used for 9 trading partner countries and CPIs are used for Turkey to compute REER5

    WPIs are used for 9 trading partner countries and GDP deflators are used for Turkey to compute REER6

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Table 26-A. Real Effective Exchange Rate for Major 9 Trading Partner Countries

Formula (14): $REER = \{X/(X+M).(Sum\ w_{ij}.RER_i) + M/(X+M).[Sum(w_{im}.1/RER_i)]^{-1}\}.100$

1987=100

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	REER₁	REER₂	REER₃	REER₁	REER₂	REER₃	REER₁	REER₂	REER₃	REER₁	REER₂	REER₄
1949	.	33.88	.	.	50.55	.	34.65	.	.	51.70	.	.
1950	.	46.35	.	.	63.69	.	50.47	.	.	67.18	.	.
1951	.	47.11	.	.	62.78	.	48.69	.	.	64.48	.	.
1952	.	38.04	.	.	50.28	.	40.66	.	.	53.74	.	.
1953	48.00	35.18	.	64.02	46.80	.	37.92	44.53	55.36	50.44	59.46	72.85
1954	36.55	27.28	.	48.42	36.15	.	29.19	34.15	44.24	38.69	45.25	58.45
1955	36.43	24.86	.	48.14	32.85	.	27.74	32.65	42.66	36.65	43.15	55.89
1956	34.50	25.28	.	45.66	33.46	.	26.60	32.79	42.14	35.21	43.39	55.55
1957	51.54	39.21	.	68.31	51.84	.	38.83	52.07	60.74	51.32	69.00	79.56
1958	100.56	77.00	.	83.25	63.49	.	76.90	100.68	119.17	63.42	83.36	97.09
1959	82.47	62.15	.	109.97	82.74	.	64.44	79.54	98.02	85.79	106.06	127.62
1960	70.95	54.05	.	93.82	71.48	.	55.96	68.51	85.49	74.00	90.62	112.20
1961	63.70	50.41	.	80.13	66.57	.	51.58	62.26	75.63	68.11	82.22	99.63
1962	58.42	48.69	.	77.23	64.38	.	48.71	58.39	66.97	64.41	77.20	88.34
1963	54.15	44.07	.	71.62	58.29	.	45.61	52.32	61.30	60.33	69.21	80.92
1964	67.90	55.37	63.60	89.71	73.17	84.05	57.31	65.59	75.83	75.74	86.66	99.69
1965	62.87	52.98	61.90	83.11	70.04	81.83	53.69	62.04	72.83	70.97	82.02	95.92
1966	53.87	45.41	52.86	71.20	60.02	69.87	46.37	52.75	61.55	61.29	69.73	81.15
1967	46.50	39.57	47.12	61.26	53.98	64.24	40.68	45.24	53.59	55.48	61.55	72.77
1968	44.61	37.97	45.21	58.97	50.21	59.78	39.24	43.16	51.03	51.89	57.06	67.22
1969	41.90	35.95	42.53	54.66	46.84	55.46	37.35	40.33	47.86	48.66	52.61	62.22
1970	58.17	49.77	59.25	58.33	49.91	59.42	52.38	55.27	65.09	52.53	55.43	65.16
1971	52.43	45.23	53.81	69.32	59.92	71.33	47.84	49.57	57.86	63.38	65.54	76.34
1972	46.17	42.28	51.86	61.79	56.65	69.45	43.08	45.31	54.04	57.73	60.64	72.22
1973	48.64	45.73	52.92	65.76	61.87	71.55	44.85	49.59	56.31	60.68	67.05	76.04
1974	31.54	30.61	32.35	40.29	39.04	41.29	27.43	35.20	36.92	34.97	44.97	47.11
1975	27.69	24.79	26.17	36.21	32.49	34.27	24.17	28.41	29.50	31.68	37.14	38.52
1976	32.80	29.97	31.66	41.44	37.86	40.00	29.42	33.40	35.08	37.18	42.20	44.28
1977	28.31	25.42	27.54	32.34	28.98	31.43	25.74	27.96	30.37	29.34	31.94	34.65
1978	39.95	37.87	31.70	47.45	44.91	49.48	36.99	40.89	44.58	43.87	48.57	52.87
1979	31.33	31.26	30.55	35.17	35.03	34.25	29.22	33.51	12.61	32.74	37.63	36.57
1980	39.64	37.03	41.29	45.39	42.36	47.21	36.00	40.77	45.46	41.18	46.68	51.93
1981	50.24	47.50	48.65	56.13	53.09	54.34	45.22	52.78	54.70	50.54	58.96	61.02
1982	58.79	58.37	56.45	68.51	68.13	65.92	54.09	63.45	62.52	63.13	73.94	72.77
1983	65.43	65.60	66.25	71.88	72.09	72.79	61.13	70.22	72.00	67.18	77.13	79.03
1984	63.29	64.65	65.13	74.61	76.31	76.85	58.81	69.58	71.43	69.41	82.02	84.14
1985	83.79	84.38	80.62	89.86	90.50	86.54	79.50	88.94	86.47	85.26	95.39	92.69
1986	83.79	82.22	78.72	91.55	91.83	87.95	82.30	83.71	80.55	91.92	93.46	89.92
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	108.48	106.38	109.72	112.37	110.18	113.63	108.37	106.48	109.22	112.25	110.30	113.15
1989	84.23	82.69	79.04	98.60	96.93	92.66	83.91	83.02	79.23	98.35	97.17	92.75
1990	68.01	65.23	62.58	75.20	72.10	69.16	69.66	63.69	61.56	77.00	70.42	68.08
1991	79.18	72.39	72.80	80.60	73.72	74.12	82.56	69.42	70.11	84.08	70.66	71.38
1992	77.37	69.00	72.54	86.82	77.44	81.38	82.59	64.64	67.82	92.69	72.53	76.14
1993	73.87	64.29	66.89	76.10	66.23	68.91	80.69	58.85	61.13	83.13	60.63	63.02
1994	120.03	114.91	119.09	118.08	113.04	117.13	132.43	104.17	107.76	130.26	102.47	106.08
1995	92.17	85.53	.	91.57	87.79	.	101.25	77.87	86.00	103.91	79.90	88.31
Avg.	60.5	52.9	59.4	70.8	62.3	68.6	54.7	58.7	64.5	64.3	68.9	75.8
Std.	23.0	22.2	22.7	21.8	20.7	21.6	24.5	21.3	21.7	22.8	20.4	21.6
Min.	27.7	24.8	26.2	32.3	29.0	31.4	24.2	28.0	29.5	29.3	31.9	34.6
Max.	120.0	114.9	119.1	118.1	113.0	117.1	132.4	106.5	119.2	130.3	110.3	127.6

Table 27. Real Effective Exchange Rate for the First 14 Trading Partner Countries

Formula (14): $REER = [X/(X+M).(Sum\ w_{ix}\ RER_i) + M/(X+M).[Sum(w_{im}.1/RER_i)]^{-1}]$

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	REER₁	REER₂	REER₃	REER₁	REER₂	REER₃	REER₄	REER₅	REER₆	REER₄	REER₅	REER₆
1949	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	103.64	-	-	103.66	-	107.26	-	-	107.28	-	-
1964	-	134.51	-	-	134.56	-	139.23	-	-	139.29	-	-
1965	-	136.40	-	-	136.37	-	138.22	-	-	138.19	-	-
1966	-	117.65	-	-	117.60	-	120.13	-	-	120.09	-	-
1967	-	103.26	-	-	106.58	-	106.15	-	-	109.56	-	-
1968	-	92.56	-	-	92.65	-	95.67	-	-	95.76	-	-
1969	-	83.07	-	-	81.75	-	86.30	-	-	84.92	-	-
1970	-	124.01	-	-	94.07	-	130.50	-	-	99.00	-	-
1971	-	109.57	-	-	110.64	-	115.88	-	-	117.02	-	-
1972	-	102.77	-	-	104.13	-	104.72	-	-	106.10	-	-
1973	-	110.07	-	-	112.66	-	107.96	-	-	110.49	-	-
1974	-	81.45	-	-	77.30	-	72.98	-	-	69.25	-	-
1975	-	59.83	-	-	59.25	-	58.33	-	-	57.76	-	-
1976	-	73.42	-	-	70.15	-	72.09	-	-	68.88	-	-
1977	-	60.37	-	-	51.79	-	61.12	-	-	52.44	-	-
1978	-	91.25	-	-	82.02	-	89.14	-	-	80.13	-	-
1979	-	80.39	-	-	67.58	-	75.13	-	-	63.16	-	-
1980	-	82.49	-	-	72.07	-	80.20	-	-	70.07	-	-
1981	-	112.79	-	-	94.15	-	107.37	-	-	89.62	-	-
1982	-	124.31	127.54	-	109.30	112.13	115.18	-	-	101.27	-	-
1983	-	125.59	131.28	-	104.07	108.64	117.03	-	-	96.98	-	-
1984	-	150.07	157.56	-	132.75	138.96	136.51	-	-	120.76	-	-
1985	179.77	183.16	179.13	147.71	150.59	147.76	172.55	190.82	185.51	141.87	156.79	152.38
1986	198.53	195.39	187.45	168.36	165.79	159.30	195.59	198.33	190.85	165.95	168.20	161.84
1987	250.09	250.09	250.09	190.58	190.58	190.58	250.09	250.09	250.09	190.58	190.58	190.58
1988	269.26	261.64	268.40	211.42	205.41	210.72	266.55	264.30	271.09	209.26	207.53	212.87
1989	202.62	197.18	187.90	181.42	176.52	168.10	200.08	199.69	190.58	179.11	178.80	170.65
1990	167.86	159.89	153.74	141.86	134.91	129.69	170.75	157.19	151.95	144.07	132.84	128.42
1991	196.58	178.26	179.93	152.10	137.92	139.19	203.32	172.34	174.05	157.32	133.35	134.69
1992	194.24	171.23	180.23	165.35	145.89	153.93	204.95	162.28	170.26	174.62	138.14	144.99
1993	-	160.62	-	-	124.98	-	201.60	-	-	156.86	-	-
1994	-	294.12	-	-	218.99	-	338.91	-	-	252.33	-	-
1995	-	213.88	-	-	164.88	-	253.15	-	-	195.16	-	-

Note 1. The first 14 trading partners of Turkey are USA, Germany, UK, Italy, France, Switzerland, Netherlands, Austria, Japan, Saudi Arabia, Iran, Egypt, Greece and Spain.

Note 2. WPIs are used for both home country (Turkey) and 14 trading partner countries to compute REER₁.

CPIs are used for both home country and 14 trading partner countries to compute REER₂.

GDP deflators are used for both home country and 14 trading partner countries to compute REER₃.

CPIs are used for 14 trading partner countries and WPIs are used for home country to compute REER₄.

WPIs are used for 14 trading partner countries and CPIs are used for Turkey to compute REER₅.

WPIs are used for 14 trading partner countries and GDP deflators are used for Turkey to compute REER₆.

Table 27-A. Real Effective Exchange Rate for the First 14 Trading Partner Countries

Formula (14): $REER = \{X/(X+M).(\text{Sum } w_{ix}.RER_i) + M/(X+M).[\text{Sum}(w_{im}.1/RER_i)]^{-1}\}.100$

1987=100

Year	ae (end of period) REER₁	REER₂	REER₃	rf (period averages) REER₁	REER₂	REER₃	ae (end of period) REER₄	REER₅	REER₆	rf (period averages) REER₄	REER₅	REER₆
1949	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	41.44	-	-	54.39	-	42.89	-	-	56.29	-	-
1964	-	53.78	-	-	70.63	-	55.67	-	-	73.09	-	-
1965	-	54.54	-	-	71.56	-	55.27	-	-	72.51	-	-
1966	-	47.04	-	-	63.71	-	48.04	-	-	63.01	-	-
1967	-	44.29	-	-	55.93	-	42.44	-	-	57.49	-	-
1968	-	37.01	-	-	48.62	-	38.25	-	-	50.25	-	-
1969	-	33.21	-	-	42.89	-	34.51	-	-	44.56	-	-
1970	-	49.59	-	-	49.36	-	52.18	-	-	51.95	-	-
1971	-	43.81	-	-	58.05	-	46.34	-	-	61.40	-	-
1972	-	41.09	-	-	54.64	-	41.87	-	-	55.68	-	-
1973	-	44.01	-	-	59.11	-	43.17	-	-	57.98	-	-
1974	-	32.57	-	-	40.56	-	29.18	-	-	36.34	-	-
1975	-	23.92	-	-	31.09	-	23.32	-	-	30.31	-	-
1976	-	29.36	-	-	36.81	-	28.82	-	-	36.15	-	-
1977	-	24.14	-	-	27.18	-	24.44	-	-	27.52	-	-
1978	-	36.49	-	-	43.04	-	35.64	-	-	42.05	-	-
1979	-	32.14	-	-	35.36	-	30.04	-	-	33.14	-	-
1980	-	32.98	-	-	37.82	-	32.07	-	-	36.77	-	-
1981	-	45.10	-	-	49.40	-	42.93	-	-	47.03	-	-
1982	-	49.71	51.00	-	57.35	58.84	46.06	-	-	53.14	-	-
1983	-	50.22	52.49	-	54.64	57.04	46.80	-	-	50.89	-	-
1984	-	60.01	63.00	-	69.63	72.92	54.59	-	-	63.37	-	-
1985	71.88	73.24	71.62	77.51	79.02	77.53	69.00	76.30	74.18	74.44	82.27	79.96
1986	79.38	78.13	74.95	88.34	86.99	83.48	78.21	79.30	76.31	87.08	88.26	84.92
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	107.67	104.62	107.32	110.94	103.78	110.57	106.58	105.68	108.40	109.81	108.89	111.70
1989	81.02	78.84	75.13	95.20	92.63	88.21	80.00	79.85	76.20	93.99	93.82	89.55
1990	67.12	63.93	61.47	74.43	70.79	68.05	68.27	62.85	60.76	75.60	69.70	67.38
1991	78.60	71.28	71.94	79.81	72.37	73.04	81.30	68.91	69.60	82.55	69.97	70.68
1992	77.67	68.47	72.27	86.76	76.55	80.77	81.95	64.89	68.08	91.63	72.49	76.08
1993	-	64.22	-	-	65.58	-	80.61	-	-	82.31	-	-
1994	-	117.61	-	-	114.91	-	135.52	-	-	132.40	-	-
1995	-	85.52	-	-	86.52	-	101.22	-	-	102.40	-	-
Avg.	82.9	54.8	72.8	89.1	62.5	79.1	56.9	79.7	79.2	64.6	85.7	85.0
Std.	13.8	23.5	17.5	12.4	22.0	16.2	27.0	15.7	16.4	25.3	14.7	15.0
Min.	67.1	23.9	51.0	74.4	27.2	57.0	23.3	62.9	60.8	27.5	69.7	67.4
Max.	107.7	117.6	107.3	110.9	114.9	110.6	135.5	105.7	108.4	132.4	108.9	111.7

Note: The year which does not have data is excluded from the calculations of average (avg.), standard deviation (std.), minimum (min.) and maximum (max.).

Table 28. Real Effective Exchange Rate for Major 5 Trading Partner Countries

Formula (15a): $REER = EER_{Formula(15)} \cdot [Sum\ (w_i P_D / P_d)]$

Year	ne (end of period)			rf (period averages)			ne (end of period)			rf (period averages)		
	REER₁	REER₂	REER₃	REER₁	REER₂	REER₃	REER₄	REER₅	REER₆	REER₄	REER₅	REER₆
1949	-	368.15	-	-	446.41	-	376.53	-	-	456.58	-	-
1950	-	358.54	-	-	358.62	-	390.45	-	-	390.53	-	-
1951	-	378.51	-	-	379.95	-	388.74	-	-	390.22	-	-
1952	-	354.06	-	-	352.68	-	378.38	-	-	376.91	-	-
1953	485.74	350.55	-	485.93	350.68	-	377.83	450.67	560.24	377.97	450.84	560.45
1954	411.65	305.83	-	413.46	307.15	-	327.26	384.66	498.34	328.69	386.35	500.52
1955	378.13	268.56	-	377.44	268.06	-	299.59	338.96	442.82	299.05	338.33	442.01
1956	337.12	255.23	-	337.63	255.62	-	268.59	320.35	431.69	269.00	320.84	412.31
1957	374.78	302.11	-	372.36	300.16	-	299.07	378.69	441.67	297.14	376.16	438.82
1958	810.84	662.38	-	497.50	406.41	-	661.58	811.82	960.85	405.91	498.30	589.53
1959	729.59	580.12	-	730.61	580.93	-	601.50	703.65	867.10	602.34	704.63	868.31
1960	707.11	568.29	-	707.67	568.74	-	588.35	683.00	852.04	588.82	683.55	852.73
1961	709.41	580.76	-	708.40	579.94	-	594.21	693.34	842.29	593.37	692.36	841.10
1962	666.43	570.04	-	667.11	570.62	-	570.28	666.14	763.96	570.86	666.82	764.74
1963	655.70	550.61	-	656.11	550.96	-	569.85	633.57	742.29	570.21	633.96	742.75
1964	643.26	542.76	600.99	643.61	543.06	601.32	563.84	621.41	718.42	562.15	621.76	718.82
1965	603.68	522.59	590.80	603.21	522.18	590.34	529.57	595.72	699.35	529.16	595.25	698.81
1966	587.42	506.71	567.20	587.58	506.85	567.35	517.43	575.26	671.18	517.56	575.42	671.36
1967	504.12	445.87	504.56	539.74	477.38	540.22	458.33	490.41	580.96	490.72	525.07	622.02
1968	495.60	446.09	503.80	496.67	447.05	504.89	461.06	479.51	566.94	462.05	480.55	568.16
1969	467.51	421.15	483.11	463.75	417.77	477.25	437.52	450.03	534.00	434.01	446.40	529.71
1970	731.14	644.19	749.79	554.74	488.77	568.89	677.04	694.74	818.15	514.38	527.13	620.76
1971	621.85	550.05	641.77	630.48	557.68	650.69	581.75	587.96	686.31	589.82	596.33	695.84
1972	537.44	503.66	603.39	555.27	520.37	623.41	513.21	527.44	629.06	530.24	544.94	649.94
1973	510.02	483.82	548.92	527.03	499.95	567.23	474.52	520.01	590.40	490.35	537.36	610.09
1974	435.90	422.29	439.88	422.89	409.68	426.75	378.34	486.54	510.27	367.05	472.01	495.04
1975	408.64	382.67	395.46	409.56	383.53	396.35	373.07	419.16	435.29	373.91	420.10	436.27
1976	408.04	379.50	396.06	395.68	368.00	384.06	372.63	415.56	436.46	361.34	402.97	423.24
1977	430.17	389.04	419.38	338.31		364.69	393.92	424.84	461.40	342.55	369.44	403.24
1978	364.78	347.43	380.33	329.67	313.98	343.72	339.42	373.39	407.01	306.75	337.45	367.83
1979	370.83	362.01	353.36	312.82	305.38	298.08	338.33	396.79	385.96	285.40	334.72	325.58
1980	492.09	456.47	505.81	423.07	392.44	434.86	443.81	506.14	564.32	381.56	435.14	485.16
1981	549.51	512.38	520.94	467.26	435.68	442.96	487.75	577.26	598.28	414.74	490.85	508.72
1982	627.89	614.57	591.00	558.99	547.13	526.34	569.44	677.66	667.74	506.95	603.29	594.47
1983	684.35	675.14	677.19	566.06	558.45	560.14	629.14	734.39	753.05	520.40	607.45	622.89
1984	664.91	665.85	666.69	586.32	587.14	587.88	605.69	730.95	750.35	534.10	644.55	661.66
1985	725.10	711.95	675.60	599.44	588.57	558.52	670.74	769.66	748.25	554.50	636.27	618.58
1986	736.68	724.07	693.21	627.38	616.65	590.37	724.79	735.95	708.19	617.25	626.76	603.12
1987	837.56	837.56	837.56	640.33	640.33	640.33	837.56	837.56	837.56	640.33	640.33	640.33
1988	868.12	826.58	850.01	680.37	647.81	666.18	842.09	852.13	874.02	659.97	667.84	684.99
1989	721.42	671.90	640.26	640.23	596.28	568.20	681.75	710.99	678.54	605.03	630.97	602.18
1990	630.94	587.25	564.65	530.67	493.92	474.91	627.12	590.83	571.12	527.45	496.93	480.35
1991	703.37	635.50	640.34	545.81	493.14	496.90	724.85	616.66	622.77	562.48	478.53	483.27
1992	666.59	594.16	624.63	564.61	503.26	529.07	711.17	556.92	584.29	602.36	471.71	494.90
1993	688.16	605.91	629.64	533.86	470.06	488.46	760.49	548.28	569.49	589.98	425.34	441.80
1994	896.52	855.44	886.60	667.80	637.20	660.41	985.71	778.04	804.86	734.23	579.55	599.52
1995	794.97	726.45	803.55	613.35	560.48	619.97	859.85	671.64	741.76	663.40	518.19	572.29

Note 1. USA, Germany, UK, Netherlands and France are taken into account as 5 major trading partners of Turkey.

Note 2. WPIs are used for both home country (Turkey) and 5 trading partner countries to compute REER₁.

CPIs are used for both home country and 5 trading partner countries to compute REER₂.

GDP deflators are used for both home country and 5 trading partner countries to compute REER₃.

CPIs are used for 5 trading partner countries and WPIs are used for home country to compute REER₄.

WPIs are used for 5 trading partner countries and CPIs are used for Turkey to compute REER₅.

WPIs are used for 5 trading partner countries and GDP deflators are used for Turkey to compute REER₆.

Table 28-A. Real Effective Exchange Rate for Major 5 Trading Partner Countries

Formula (15a): $REER = EER_{r-adj(1t)} \cdot [Sum\ (w_t\ P_0/P_t)] \cdot 100$

1987=100

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	REER₁	REER₂	REER₃	REER₁	REER₂	REER₃	REER₄	REER₅	REER₆	REER₄	REER₅	REER₆
1949	-	43.95	-	-	69.72	-	44.96	-	-	71.30	-	-
1950	-	42.81	-	-	56.01	-	46.62	-	-	60.99	-	-
1951	-	45.19	-	-	59.34	-	46.41	-	-	60.94	-	-
1952	-	42.27	-	-	55.08	-	45.18	-	-	58.86	-	-
1953	58.00	43.85	-	75.89	54.77	-	45.11	53.81	66.89	59.03	70.41	87.53
1954	49.15	36.51	-	64.57	47.97	-	39.07	45.93	59.50	51.33	60.34	78.17
1955	45.15	32.06	-	58.94	41.86	-	35.77	40.47	52.87	46.70	52.84	69.03
1956	40.25	30.47	-	52.73	39.92	-	32.07	38.25	49.15	42.01	50.11	64.39
1957	44.75	36.07	-	58.35	46.88	-	35.71	45.20	52.73	46.40	58.74	68.53
1958	96.81	79.08	-	77.69	63.47	-	78.99	96.93	114.72	63.39	77.79	92.07
1959	87.11	69.26	-	114.30	90.72	-	71.82	84.01	103.53	94.07	110.04	135.60
1960	84.42	67.85	-	110.52	88.82	-	70.24	81.55	101.73	91.96	106.75	133.17
1961	84.70	69.34	-	110.63	90.57	-	70.95	82.78	100.56	92.67	108.13	131.36
1962	79.57	68.96	-	103.18	89.11	-	68.09	79.53	91.21	89.15	104.14	119.43
1963	78.29	65.74	-	102.47	86.04	-	68.04	75.64	88.62	89.05	99.01	116.00
1964	76.80	64.80	71.75	100.51	84.81	93.91	67.08	74.19	85.78	87.79	97.10	112.26
1965	72.08	62.39	70.53	94.20	81.55	92.19	63.23	71.13	83.50	82.64	92.96	109.13
1966	70.13	60.50	67.72	91.76	79.16	88.60	61.78	68.68	80.14	80.83	89.86	104.85
1967	60.19	53.23	60.24	84.29	74.55	84.37	54.72	58.55	69.36	76.64	82.00	97.14
1968	59.17	53.26	60.15	77.57	69.82	78.85	55.05	57.25	67.69	72.16	75.05	88.73
1969	55.82	50.28	57.44	72.42	65.24	74.53	52.24	53.73	63.76	67.78	69.71	82.73
1970	87.29	76.91	89.52	86.63	76.33	88.84	80.94	82.95	97.68	80.33	82.32	96.94
1971	74.25	65.67	76.62	98.46	87.09	101.62	69.46	70.20	81.94	92.11	93.10	108.67
1972	64.17	60.13	72.04	86.72	81.27	97.36	61.27	62.97	75.11	82.81	85.10	101.50
1973	60.89	57.77	65.54	82.31	78.08	88.58	56.66	62.09	70.49	76.58	83.92	95.28
1974	52.04	50.42	52.52	66.04	63.98	66.65	45.17	58.09	60.92	57.32	73.74	77.31
1975	48.79	45.69	47.22	63.96	59.90	61.90	44.54	50.05	51.97	58.39	65.61	68.13
1976	48.72	45.31	47.29	61.79	57.47	59.99	44.49	49.62	52.11	56.43	62.93	66.10
1977	51.36	46.45	50.07	58.42	52.83	56.95	47.03	50.72	55.09	53.50	57.70	62.66
1978	43.55	41.48	45.41	51.48	49.03	53.68	40.52	44.58	48.59	47.90	52.70	57.44
1979	44.28	41.22	42.19	48.85	47.69	46.55	40.39	47.37	46.08	44.57	52.27	50.85
1980	58.75	54.50	60.39	66.07	61.29	67.91	52.99	60.43	67.38	59.59	67.96	75.77
1981	65.61	61.18	62.20	72.97	68.04	69.18	58.23	68.92	71.43	64.77	76.66	79.45
1982	74.97	73.18	70.56	87.30	85.45	82.17	67.99	80.91	79.72	79.17	94.22	92.84
1983	81.71	80.61	80.85	88.40	87.21	87.48	75.12	87.68	89.91	81.27	94.87	97.28
1984	79.39	79.50	79.60	91.57	91.69	91.81	72.32	87.27	89.59	83.41	100.66	103.33
1985	86.57	85.00	80.66	93.61	93.92	87.22	80.08	91.89	89.34	86.60	99.37	96.60
1986	87.96	86.45	82.77	97.98	96.30	92.20	86.54	87.87	84.55	96.40	97.88	94.19
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	103.65	98.69	101.49	106.25	101.17	103.84	100.54	101.74	104.35	103.07	104.30	106.98
1989	86.13	80.22	76.44	99.98	93.12	88.74	81.40	84.89	81.01	94.49	98.54	94.04
1990	75.33	70.11	67.42	82.87	77.14	74.17	74.87	70.54	68.19	82.37	77.61	75.02
1991	83.98	78.87	76.45	85.24	77.01	77.60	86.54	73.63	74.36	87.84	74.73	75.47
1992	79.59	70.04	74.58	88.17	78.59	82.62	84.91	66.49	69.76	94.07	73.67	77.29
1993	82.16	72.34	75.18	83.37	73.41	76.28	90.80	65.46	67.99	92.14	66.43	69.00
1994	107.04	102.33	105.86	104.29	99.53	103.14	117.69	92.89	96.10	114.67	90.51	93.63
1995	94.92	86.73	95.94	95.79	87.53	96.82	102.66	80.19	88.56	103.60	80.93	89.37
Avg.	71.3	62.2	70.8	83.7	73.6	81.7	64.2	69.5	76.6	75.7	81.7	90.6
Std.	18.1	18.3	16.6	17.7	17.0	15.2	20.2	17.2	17.8	18.4	17.4	20.3
Min.	40.3	30.5	42.2	48.9	39.9	46.6	32.1	38.2	46.1	42.0	50.1	50.8
Max.	107.0	102.1	105.9	114.1	101.2	104.0	117.7	101.7	114.7	114.7	110.0	135.6

Note: The year which does not have data is excluded from the calculations of average (avg.), standard deviation (std.), minimum (min.) and maximum (max.)

Table 29. Real Effective Exchange Rate for Major 9 Trading Partner Countries

$$\text{Formula (15a): } REER = EER_{Formula(10)} \cdot [\text{Sum } (w_i \cdot P_p / P_o)]$$

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	REER₁	REER₂	REER₃	REER₁	REER₂	REER₃	REER₄	REER₅	REER₆	REER₄	REER₅	REER₆
1949	-	302.24	-	-	365.86	-	309.13	-	-	374.19	-	-
1950	-	317.17	-	-	317.29	-	345.39	-	-	345.52	-	-
1951	-	353.24	-	-	354.59	-	362.79	-	-	364.17	-	-
1952	-	332.78	-	-	333.50	-	355.64	-	-	354.27	-	-
1953	423.07	299.58	-	423.28	299.73	-	322.89	392.53	487.96	323.05	392.72	488.20
1954	347.85	252.12	-	349.37	253.22	-	269.80	325.05	421.10	270.98	326.47	422.94
1955	348.12	242.93	-	347.49	242.49	-	271.00	312.06	407.68	270.51	311.49	406.94
1956	313.39	231.18	-	313.87	231.54	-	243.28	297.80	382.71	243.66	298.26	383.29
1957	361.46	288.19	-	359.13	286.33	-	285.28	365.14	425.97	283.44	362.78	423.22
1958	772.18	625.19	-	473.80	383.61	-	624.43	773.11	915.03	383.14	474.37	561.45
1959	687.98	539.02	-	688.96	539.78	-	558.89	663.52	817.65	559.68	664.47	818.82
1960	655.39	516.80	-	655.91	517.22	-	535.04	633.04	789.72	535.47	633.55	790.36
1961	667.00	531.97	-	666.06	531.21	-	544.29	651.90	791.95	543.52	650.98	790.83
1962	615.65	513.79	-	616.28	514.32	-	514.01	615.38	705.75	514.54	616.01	706.47
1963	614.44	504.48	-	614.82	504.79	-	522.10	593.69	695.57	522.43	594.06	696.00
1964	603.03	500.62	555.65	603.36	500.90	555.95	518.22	582.55	673.49	518.50	582.87	673.86
1965	564.61	479.27	543.68	564.18	478.89	543.26	485.67	557.17	654.10	485.29	556.74	653.59
1966	543.91	458.47	516.33	544.06	458.60	516.47	468.17	532.66	621.47	468.29	532.80	621.64
1967	466.18	397.06	454.93	499.09	425.09	487.04	408.15	453.51	537.24	436.97	485.52	575.17
1968	458.29	401.61	457.31	458.29	402.48	458.29	415.09	443.42	524.26	415.99	444.37	525.39
1969	433.28	382.61	439.68	429.80	379.54	436.16	397.48	417.06	494.90	394.30	413.72	490.94
1970	679.38	583.32	684.26	515.47	442.59	519.17	613.88	645.56	760.23	465.77	489.81	576.81
1971	577.62	501.62	587.89	585.62	508.57	596.04	530.53	546.14	637.50	537.88	553.71	646.33
1972	493.13	454.38	547.07	509.46	469.42	565.17	463.00	483.95	577.20	478.33	499.97	596.31
1973	466.29	434.94	497.15	481.81	449.42	513.70	426.59	475.43	539.78	440.78	491.25	557.75
1974	387.86	364.52	384.70	376.24	353.60	373.18	326.59	412.91	454.03	316.80	419.94	440.43
1975	373.52	340.80	354.76	374.36	341.56	355.56	332.24	383.13	397.87	332.99	383.99	398.77
1976	369.04	335.60	352.39	357.80	325.38	341.65	329.53	375.84	394.74	319.49	364.39	382.72
1977	377.48	334.62	362.93	328.25	290.98	315.59	338.82	372.80	404.88	294.63	324.18	352.08
1978	330.17	311.85	342.16	298.36	281.80	309.19	304.66	337.96	368.39	275.31	305.39	332.89
1979	308.07	296.66	290.91	259.86	250.24	245.38	277.25	329.64	320.64	233.87	278.05	270.47
1980	428.72	392.80	435.53	368.69	337.80	374.55	381.90	440.96	491.65	328.43	379.21	422.80
1981	474.40	437.66	445.66	403.36	372.12	378.92	416.63	498.36	516.51	354.24	423.73	439.16
1982	519.44	500.86	483.25	462.36	445.82	430.14	464.07	560.61	552.41	413.07	499.01	491.71
1983	567.11	552.65	555.30	469.17	457.20	459.40	514.99	608.58	624.05	426.05	503.48	516.27
1984	545.93	542.45	544.56	481.46	478.39	480.25	493.44	600.15	616.08	435.17	529.28	543.33
1985	606.41	591.15	561.79	501.16	488.55	464.28	556.93	643.68	625.78	460.26	531.95	517.16
1986	620.96	607.94	582.43	528.71	517.63	495.91	608.54	620.35	596.95	518.13	528.19	508.27
1987	703.51	703.51	703.51	537.75	537.75	537.75	703.51	703.51	703.51	537.75	537.75	537.75
1988	740.81	710.52	733.25	580.63	556.88	574.70	723.85	727.16	745.84	567.33	569.93	584.57
1989	624.39	587.76	563.09	554.02	521.51	499.62	596.38	615.36	587.28	529.16	546.01	521.09
1990	536.52	503.31	486.68	451.24	423.31	409.32	537.48	502.41	485.65	452.04	422.55	408.46
1991	599.10	545.12	551.92	464.83	422.95	428.22	621.78	525.24	530.44	482.42	407.52	411.56
1992	577.01	518.15	547.51	488.68	438.84	463.70	620.19	482.08	505.77	525.25	408.28	428.35
1993	592.12	525.26	547.88	459.40	407.52	425.07	659.27	471.76	490.01	511.49	366.02	380.18
1994	789.80	761.73	794.01	538.31	567.38	591.44	877.71	685.43	709.05	653.79	510.56	528.16
1995	698.15	646.54	-	538.68	498.86	-	765.27	589.84	651.42	590.46	455.10	502.62

Note 1. USA, Germany, UK, Netherlands, France, Austria, Japan, Greece and Spain are taken into account as 9 major trading partners of Turkey.

Note 2. WPIs are used for both home country (Turkey) and 9 trading partner countries to compute REER₁

CPIs are used for both home country and 9 trading partner countries to compute REER₂

GDP deflators are used for both home country and 9 trading partner countries to compute REER₃

CPIs are used for 9 trading partner countries and WPIs are used for home country to compute REER₄

WPIs are used for 9 trading partner countries and CPIs are used for Turkey to compute REER₅

WPIs are used for 9 trading partner countries and GDP deflators are used for Turkey to compute REER₆

Table 29-A. Real Effective Exchange Rate for Major 9 Trading Partner Countries

Formula (15a): $REER=EER_{formula(15)}\cdot[Sum\ (w_i P_n/P_d)]\cdot100$

1987=100

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	$REER_1$	$REER_2$	$REER_3$	$REER_1$	$REER_2$	$REER_3$	$REER_4$	$REER_5$	$REER_6$	$REER_4$	$REER_5$	$REER_6$
1949	-	42.96	-	-	68.03	-	43.94	-	-	69.58	-	-
1950	-	45.08	-	-	59.00	-	49.09	-	-	64.25	-	-
1951	-	50.21	-	-	65.94	-	51.57	-	-	67.72	-	-
1952	-	47.30	-	-	61.64	-	50.55	-	-	65.88	-	-
1953	60.14	42.58	-	78.71	55.74	-	45.90	55.80	69.36	60.07	73.03	90.79
1954	49.44	35.84	-	64.97	47.09	-	38.35	46.20	59.86	50.39	60.71	78.65
1955	49.48	34.53	-	61.62	45.09	-	38.52	44.36	57.95	50.30	57.92	75.67
1956	44.55	32.86	-	58.37	43.06	-	34.58	42.33	54.40	45.31	55.46	71.28
1957	51.38	40.96	-	66.78	53.25	-	40.55	51.90	60.57	52.71	67.46	78.70
1958	109.76	88.87	-	88.11	71.34	-	88.76	109.89	130.07	71.25	88.21	104.41
1959	97.79	76.62	-	128.12	100.38	-	79.44	94.32	116.22	104.08	123.56	152.27
1960	93.16	73.46	-	121.97	96.18	-	76.05	89.98	112.25	99.58	117.82	146.97
1961	94.81	75.62	-	123.86	98.78	-	77.37	92.66	112.57	101.07	121.06	147.06
1962	87.51	73.03	-	114.60	95.61	-	73.06	87.47	100.32	95.68	114.55	131.38
1963	87.33	71.71	-	114.33	93.87	-	74.21	84.39	98.87	97.15	110.47	129.43
1964	85.72	71.16	78.98	112.20	93.35	103.38	73.66	82.81	95.73	96.42	108.39	125.31
1965	80.26	68.12	77.28	104.91	89.06	101.02	69.04	79.20	92.98	90.25	103.53	121.54
1966	77.31	65.17	73.39	101.17	85.28	96.04	66.55	75.71	88.34	87.08	99.08	115.60
1967	66.26	56.44	64.67	92.81	79.05	90.57	58.02	64.46	76.37	81.26	90.29	106.96
1968	65.14	57.09	65.00	85.41	74.85	85.22	59.00	63.03	74.52	77.36	82.64	97.70
1969	61.59	54.38	62.50	79.93	70.58	81.11	56.50	59.28	70.35	73.32	76.93	91.29
1970	96.57	82.92	97.26	95.86	82.30	96.55	87.26	91.76	108.06	86.61	91.08	107.26
1971	82.10	71.30	83.57	108.90	94.57	110.84	75.41	77.63	90.62	100.02	102.97	120.19
1972	70.10	61.59	77.76	94.71	87.29	105.10	65.83	68.79	82.05	88.95	92.97	110.89
1973	66.28	61.82	79.67	89.60	83.57	95.53	60.64	67.58	76.73	81.97	91.35	103.72
1974	55.11	51.81	54.68	69.07	65.76	69.40	46.42	61.54	64.54	58.91	78.09	81.90
1975	53.09	48.44	50.43	69.62	63.52	66.12	47.23	54.46	56.56	61.92	71.41	74.15
1976	52.46	47.70	50.09	66.54	60.51	63.53	46.84	53.42	56.11	59.41	67.76	71.17
1977	53.66	47.56	51.59	61.04	54.11	58.69	48.16	52.99	57.55	54.79	60.28	65.47
1978	46.93	44.33	48.64	55.48	52.30	57.50	43.31	48.04	52.36	51.20	56.79	61.90
1979	43.79	42.17	41.35	48.32	46.53	45.63	39.41	46.86	45.58	43.49	51.71	50.30
1980	60.94	55.83	61.91	68.56	62.82	69.65	54.29	62.68	69.88	61.07	70.52	78.62
1981	67.43	62.23	63.35	75.01	69.20	70.46	59.22	70.84	73.42	65.87	78.80	81.67
1982	73.84	71.19	68.69	85.98	82.90	79.99	65.97	79.69	78.52	76.82	92.79	91.44
1983	80.61	78.56	78.93	87.25	85.02	85.41	73.20	86.51	88.70	79.23	93.63	96.01
1984	77.60	77.11	77.41	89.51	88.96	89.31	70.14	85.31	87.57	80.92	98.42	101.04
1985	86.20	84.03	79.85	93.20	90.85	86.34	79.16	91.49	88.95	85.59	98.92	96.17
1986	88.27	86.42	82.79	98.32	96.26	92.22	86.50	88.18	84.85	96.35	98.22	94.52
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	105.10	101.00	101.23	107.97	103.56	106.87	102.89	103.36	106.02	105.59	105.98	108.71
1989	88.75	81.55	80.04	103.02	96.98	92.91	84.77	87.47	83.48	98.40	101.54	96.90
1990	76.26	71.54	69.18	83.91	78.72	76.12	76.40	71.41	69.03	84.06	78.58	75.96
1991	85.16	77.49	78.45	86.44	78.65	79.63	88.38	74.66	75.40	89.71	75.78	76.53
1992	82.02	73.65	77.83	90.87	81.61	86.23	88.16	68.52	71.89	97.68	75.92	79.65
1993	84.17	74.66	77.88	85.43	75.78	79.05	93.71	67.06	69.65	95.12	68.06	70.70
1994	112.27	108.27	112.86	109.40	105.51	109.98	124.76	97.43	100.79	121.58	94.94	98.22
1995	99.24	91.90	-	100.17	92.77	-	108.78	83.84	92.59	109.80	84.63	93.47
Avg.	75.6	65.2	72.9	89.0	77.2	84.9	67.3	73.6	81.4	79.5	86.8	96.5
Std.	18.9	18.7	16.6	19.6	17.7	16.5	20.9	17.7	19.7	19.4	18.9	23.6
Min.	43.8	32.9	41.4	48.3	43.1	45.6	34.6	42.3	45.6	43.5	51.7	50.3
Max.	112.3	108.3	112.9	128.1	105.5	110.8	124.8	109.9	130.1	121.6	123.6	152.3

Note: The year which does not have data is excluded from the calculations of average (avg.), standard deviation (std.), minimum (min.) and maximum (max.)

Table 30. Real Effective Exchange Rate for the First 14 Trading Partner Countries

Formula (15a): $REER = EER_{Formula(19)} \cdot [Sum\,(w_t\,P_{ft}/P_d)]$

Year	ae (end of period) REER₁	REER₂	REER₃	rf (period averages) REER₁	REER₂	REER₃	ae (end of period) REER₄	REER₅	REER₆	rf (period averages) REER₄	REER₅	REER₆
1949	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	405.71	-	-	405.95	-	419.88	-	-	420.13	-	-
1964	-	406.14	-	-	406.36	-	420.42	-	-	420.64	-	-
1965	-	394.44	-	-	394.14	-	399.73	-	-	399.40	-	-
1966	-	376.84	-	-	376.94	-	384.81	-	-	384.91	-	-
1967	-	325.92	-	-	348.24	-	335.03	-	-	357.97	-	-
1968	-	323.52	-	-	324.18	-	334.38	-	-	335.05	-	-
1969	-	297.45	-	-	295.21	-	309.01	-	-	306.69	-	-
1970	-	468.58	-	-	355.53	-	493.13	-	-	374.16	-	-
1971	-	382.75	-	-	388.01	-	404.81	-	-	410.37	-	-
1972	-	340.66	-	-	351.04	-	347.12	-	-	357.69	-	-
1973	-	329.86	-	-	340.26	-	323.52	-	-	333.72	-	-
1974	-	286.71	-	-	276.45	-	256.87	-	-	247.68	-	-
1975	-	273.63	-	-	273.25	-	266.77	-	-	266.39	-	-
1976	-	261.56	-	-	253.09	-	256.82	-	-	248.51	-	-
1977	-	254.50	-	-	219.56	-	257.69	-	-	222.31	-	-
1978	-	222.82	-	-	201.38	-	217.69	-	-	196.74	-	-
1979	-	224.14	-	-	189.15	-	209.48	-	-	176.78	-	-
1980	-	258.97	-	-	223.17	-	251.78	-	-	216.08	-	-
1981	-	322.50	-	-	270.42	-	307.00	-	-	257.42	-	-
1982	-	330.37	339.07	-	292.28	299.97	306.30	-	-	270.81	-	-
1983	-	323.54	334.78	-	266.90	276.17	301.49	-	-	248.72	-	-
1984	-	349.54	358.18	-	306.97	314.56	317.96	-	-	279.24	-	-
1985	392.43	393.83	381.07	326.06	327.23	316.63	371.03	416.54	404.96	308.28	346.30	336.47
1986	491.58	484.57	464.67	418.78	412.83	395.85	485.05	491.10	472.57	413.21	418.36	402.58
1987	554.99	554.99	554.99	424.40	424.40	424.40	554.99	554.99	554.99	424.40	424.40	424.40
1988	600.51	579.71	594.41	471.28	454.95	466.50	590.59	589.45	604.59	463.49	462.60	474.48
1989	516.02	491.30	469.40	459.95	437.92	418.40	498.51	508.56	485.35	444.34	453.30	432.62
1990	451.79	419.73	410.36	381.27	354.21	346.31	448.22	423.07	408.96	378.26	357.03	345.12
1991	502.90	446.55	460.29	391.50	347.62	358.33	509.33	440.91	445.27	396.50	343.23	346.63
1992	506.31	437.80	470.45	427.36	369.53	397.08	524.01	423.01	443.80	442.30	357.05	374.59
1993	-	453.63	-	-	351.35	-	569.36	-	-	440.99	-	-
1994	-	670.24	-	-	499.50	-	772.31	-	-	575.56	-	-
1995	-	591.61	-	-	455.79	-	700.25	-	-	539.48	-	-

Note 1. The first 14 trading partners of Turkey are USA, Germany, UK, Italy, France, Switzerland, Netherlands, Austria, Japan, Saudi Arabia, Iran, Egypt, Greece and Spain.

Note 2. WPIs are used for both home country (Turkey) and 14 trading partner countries to compute REER₁.

CPIs are used for both home country and 14 trading partner countries to compute REER₂.

GDP deflators are used for both home country and 14 trading partner countries to compute REER₃.

CPIs are used for 14 trading partner countries and WPIs are used for home country to compute REER₄.

WPIs are used for 14 trading partner countries and CPIs are used for Turkey to compute REER₅.

WPIs are used for 14 trading partner countries and GDP deflators are used for Turkey to compute REER₆.

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Table 30-A. Real Effective Exchange Rate for the First 14 Trading Partner Countries

Formula (15a): $REER=FER_{r...c...}[Sum (w_i P_w/P_d)].100$

1987=100

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	REER₁	REER₂	REER₃	REER₁	REER₂	REER₃	REER₄	REER₅	REER₆	REER₄	REER₅	REER₆
1949	.	-	.	.	-	.	.	-	-	.	-	-
1950	.	-	.	.	-	.	.	-	-	.	-	-
1951	.	-	.	.	-	.	.	-	-	.	-	-
1952	.	-	.	.	-	.	.	-	-	.	-	-
1953	.	-	.	.	-	.	.	-	-	.	-	-
1954	.	-	.	.	-	.	.	-	-	.	-	-
1955	.	-	.	.	-	.	.	-	-	.	-	-
1956	.	-	.	.	-	.	.	-	-	.	-	-
1957	.	-	.	.	-	.	.	-	-	.	-	-
1958	.	-	.	.	-	.	.	-	-	.	-	-
1959	.	-	.	.	-	.	.	-	-	.	-	-
1960	.	-	.	.	-	.	.	-	-	.	-	-
1961	.	-	.	.	-	.	.	-	-	.	-	-
1962	.	-	.	.	-	.	.	-	-	.	-	-
1963	-	73.10	-	-	95.65	-	75.66	-	-	98.99	-	-
1964	-	73.18	-	-	95.75	-	75.75	-	-	99.11	-	-
1965	-	71.07	-	-	92.87	-	72.02	-	-	94.11	-	-
1966	-	67.90	-	-	88.82	-	69.34	-	-	90.70	-	-
1967	-	58.73	-	-	82.06	-	60.37	-	-	84.35	-	-
1968	-	58.29	-	-	76.39	-	60.25	-	-	78.95	-	-
1969	-	53.50	-	-	69.56	-	55.68	-	-	72.26	-	-
1970	-	84.43	-	-	83.77	-	88.85	-	-	88.16	-	-
1971	-	68.97	-	-	91.43	-	72.94	-	-	96.70	-	-
1972	-	61.38	-	-	82.71	-	62.55	-	-	84.28	-	-
1973	-	59.44	-	-	80.17	-	58.29	-	-	78.63	-	-
1974	-	51.66	-	-	65.14	-	46.28	-	-	58.36	-	-
1975	-	49.30	-	-	64.39	-	48.07	-	-	62.77	-	-
1976	-	47.13	-	-	59.63	-	46.28	-	-	58.56	-	-
1977	-	45.86	-	-	51.73	-	46.43	-	-	52.38	-	-
1978	-	40.15	-	-	47.45	-	39.22	-	-	46.36	-	-
1979	-	40.39	-	-	44.57	-	37.75	-	-	41.65	-	-
1980	-	46.66	-	-	52.59	-	45.37	-	-	51.13	-	-
1981	-	58.11	-	-	63.72	-	55.32	-	-	60.66	-	-
1982	-	59.53	61.09	-	68.87	70.68	55.16	-	-	63.81	-	-
1983	-	58.30	60.32	-	62.89	65.07	54.32	-	-	58.60	-	-
1984	-	62.98	64.54	-	72.33	74.12	57.29	-	-	65.80	-	-
1985	70.73	70.96	68.66	76.83	77.10	73.61	66.85	75.05	72.97	72.64	81.55	79.28
1986	88.57	87.33	83.73	98.68	97.27	93.27	87.40	88.49	85.15	97.36	98.58	94.86
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	108.20	104.45	107.10	111.05	107.30	109.92	106.41	106.21	108.94	109.21	109.00	111.80
1989	92.98	88.53	84.58	108.38	103.19	98.59	89.82	91.63	87.45	104.70	106.81	101.94
1990	81.41	75.63	73.94	89.84	83.46	81.60	80.76	76.23	73.69	89.13	84.13	81.32
1991	90.61	80.46	82.94	92.25	81.91	84.43	91.77	79.44	80.23	93.43	80.88	81.68
1992	91.23	78.88	83.77	100.70	87.07	93.56	94.42	76.22	79.97	104.22	84.13	88.26
1993	-	81.73	-	-	82.79	-	102.59	-	-	103.91	-	-
1994	-	120.77	-	-	117.70	-	139.16	-	-	135.62	-	-
1995	-	106.60	-	-	107.40	-	126.17	-	-	127.12	-	-
Avg.	90.5	69.3	79.2	97.2	79.9	86.0	71.8	86.7	86.0	82.5	93.1	92.4
Std.	11.3	19.8	15.3	10.9	18.3	14.1	24.8	11.9	12.6	23.0	11.7	11.7
Min.	70.7	40.1	68.3	76.8	44.6	65.1	37.7	75.1	73.0	41.7	80.9	79.3
Max.	108.2	120.8	107.1	111.0	117.7	109.9	139.2	106.2	108.9	135.6	109.0	111.8

Note: The year which does not have data is excluded from the calculations of average (avg), standard deviation (std),

minimum (min) and maximum (max).

Table 31. Real Effective Exchange Rate for Major 5 Trading Partner Countries

Formula (15b): $REER = EER_{Formula(11)} \cdot Sum\{[X/(X+M).w_{ix} + M/(X+M).w_{im}].P_{0}/P_{d}\}$

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	REER₁	REER₂	REER₃	REER₁	REER₂	REER₃	REER₄	REER₅	REER₆	REER₄	REER₅	REER₆
1949	-	250.41	-	-	287.37	-	256.11	-	-	293.92	-	-
1950	-	262.39	-	-	262.48	-	285.74	-	-	285.84	-	-
1951	-	230.23	-	-	230.71	-	236.45	-	-	236.94	-	-
1952	-	193.95	-	-	193.75	-	207.28	-	-	207.06	-	-
1953	305.59	220.53	-	305.71	220.62	-	237.70	283.53	352.46	237.79	283.63	352.59
1954	276.48	205.39	-	277.26	205.97	-	219.80	258.35	334.70	220.42	259.09	335.65
1955	256.48	182.16	-	256.32	182.05	-	203.21	229.91	300.37	203.09	229.77	300.18
1956	238.26	180.38	-	238.42	180.51	-	189.82	226.41	290.96	189.96	226.56	291.16
1957	277.57	223.75	-	278.21	224.27	-	221.49	280.40	327.11	222.01	281.05	327.87
1958	568.01	464.01	-	350.58	286.39	-	463.45	568.70	673.09	286.04	351.01	415.44
1959	490.51	390.02	-	490.68	390.16	-	404.39	473.07	582.96	404.54	473.24	583.17
1960	476.98	383.34	-	477.40	383.68	-	396.87	460.72	574.75	397.22	461.12	575.25
1961	464.10	379.93	-	463.19	379.19	-	388.74	453.59	551.03	387.97	452.70	549.95
1962	442.76	378.72	-	443.28	379.17	-	378.88	442.57	507.56	379.33	443.09	508.16
1963	439.12	368.74	-	439.32	368.91	-	381.62	424.29	497.10	381.80	424.49	497.33
1964	454.81	383.75	424.92	455.19	384.08	425.28	397.24	439.36	507.95	397.58	439.74	508.39
1965	427.44	370.02	418.32	427.67	370.23	418.55	374.97	423.80	495.18	375.17	422.03	495.45
1966	391.89	338.05	378.40	391.70	337.88	378.21	345.19	383.78	447.77	345.02	383.59	447.55
1967	332.22	293.83	332.51	344.22	304.45	344.53	302.04	323.19	382.86	312.96	334.87	396.69
1968	313.94	282.58	319.14	314.34	282.94	319.54	292.06	303.75	359.33	292.43	304.14	359.59
1969	297.45	267.95	306.10	292.06	263.10	300.55	278.37	286.31	339.75	273.33	281.12	333.60
1970	475.62	419.05	487.75	360.89	317.97	370.10	441.01	451.94	532.21	334.63	342.92	403.84
1971	390.49	345.40	403.00	390.10	345.06	402.60	365.31	369.21	430.97	364.94	368.84	430.54
1972	342.30	320.78	384.30	347.99	326.11	390.69	326.87	335.93	400.65	332.30	341.51	407.31
1973	360.51	341.99	388.01	370.48	351.44	398.74	335.42	367.57	417.33	344.69	377.74	428.87
1974	302.50	293.05	305.26	285.85	276.92	288.46	262.55	337.64	354.11	248.10	319.06	334.62
1975	285.81	267.65	276.59	285.51	267.37	276.30	260.93	293.17	304.45	260.66	292.86	304.13
1976	300.17	279.17	291.35	285.56	265.58	277.37	274.12	305.70	321.07	260.77	290.82	305.44
1977	307.53	278.12	299.81	266.78	241.27	260.09	281.61	303.72	329.86	244.30	263.48	286.16
1978	287.47	273.80	299.73	257.06	244.83	268.02	267.49	294.26	320.75	239.18	263.12	286.81
1979	279.25	272.61	266.10	233.87	228.30	222.85	254.78	298.80	290.65	213.37	250.24	243.41
1980	346.24	321.18	355.89	306.98	284.76	315.54	312.26	356.12	397.06	276.85	315.71	352.03
1981	389.49	363.17	369.24	330.87	308.51	313.67	345.72	409.16	424.06	293.69	347.58	360.24
1982	470.36	460.38	442.72	413.44	404.67	389.15	426.57	507.64	500.21	374.95	446.21	439.68
1983	502.38	495.62	497.13	422.93	417.24	418.51	463.85	539.11	552.82	388.81	453.85	465.39
1984	486.36	487.05	487.66	436.07	436.69	437.24	443.04	534.67	548.86	397.23	479.38	492.11
1985	548.86	538.90	533.39	437.16	429.23	407.32	507.71	582.58	566.38	404.38	464.92	451.12
1986	583.35	573.37	548.93	486.77	478.44	458.05	573.93	582.78	560.79	478.91	486.29	467.95
1987	680.77	680.77	680.77	515.17	515.17	515.17	680.77	680.77	680.77	515.17	515.17	515.17
1988	681.95	649.32	667.72	532.53	511.81	526.32	661.50	669.39	686.59	521.41	527.63	541.18
1989	587.79	547.44	521.66	508.67	473.75	451.44	555.47	579.29	552.85	480.70	501.31	478.43
1990	497.03	462.61	444.81	416.38	387.54	372.63	494.02	465.44	449.91	413.85	389.91	376.90
1991	556.92	503.18	507.02	426.69	385.51	388.45	573.93	488.27	493.10	439.72	374.09	377.79
1992	537.98	479.53	504.12	452.02	402.90	423.56	573.96	449.47	471.56	482.24	377.65	396.21
1993	528.68	465.49	483.72	413.97	364.49	378.77	584.25	421.22	437.51	457.49	329.82	342.58
1994	735.01	701.33	726.88	544.39	519.45	538.37	808.12	637.87	659.86	598.55	472.45	488.73
1995	653.59	597.25	660.64	501.39	458.17	506.80	706.92	552.19	609.83	542.31	423.60	467.83

Note 1. USA, Germany, UK, Netherlands and France are taken into account as 5 major trading partners of Turkey.

Note 2. WPIs are used for both home country (Turkey) and 5 trading partner countries to compute REER₁.

    CPIs are used for both home country and 5 trading partner countries to compute REER₂.

    GDP deflators are used for both home country and 5 trading partner countries to compute REER₃.

    CPIs are used for 5 trading partner countries and WPIs are used for home country to compute REER₄.

    WPIs are used for 5 trading partner countries and CPIs are used for Turkey to compute REER₅.

    WPIs are used for 5 trading partner countries and GDP deflators are used for Turkey to compute REER₆.

Table 31-A. Real Effective Exchange Rate for Major 5 Trading Partner Countries
Formula (15b): $REER = FEER_{r...}.Sum([X/(X+M).w_n + M/(X+M).w_m].P_n/P_d).100$

1987=100

Year	ae (end of period) REER₁	REER₂	REER₃	rf (period averages) REER₁	REER₂	REER₃	ae (end of period) REER₄	REER₅	REER₆	rf (period averages) REER₄	REER₅	REER₆
1949	-	36.78	-	-	55.78	-	37.62	-	-	57.05	-	-
1950	-	38.54	-	-	50.95	-	41.97	-	-	55.48	-	-
1951	-	33.82	-	-	44.78	-	34.73	-	-	45.99	-	-
1952	-	28.49	-	-	37.61	-	30.45	-	-	40.19	-	-
1953	44.89	32.39	-	59.34	42.82	-	34.92	41.65	51.77	46.16	55.06	68.44
1954	40.61	30.17	-	53.82	39.98	-	32.29	37.95	49.16	42.79	50.29	65.15
1955	37.68	26.76	-	49.76	35.33	-	29.85	33.77	44.12	39.42	44.60	58.27
1956	35.00	26.50	-	46.28	35.04	-	27.88	33.26	42.74	36.87	43.98	56.52
1957	40.77	32.87	-	54.00	43.53	-	32.54	41.19	48.05	43.09	54.55	63.64
1958	83.44	68.16	-	68.05	55.59	-	68.08	83.54	98.87	55.52	68.13	80.64
1959	72.05	57.29	-	95.25	75.73	-	59.40	69.49	85.63	78.53	91.86	113.20
1960	70.06	56.31	-	92.67	74.48	-	58.30	67.68	84.43	77.10	89.51	111.66
1961	68.17	55.81	-	89.91	73.60	-	57.10	66.63	80.94	75.31	87.87	106.75
1962	65.04	55.63	-	86.05	73.60	-	55.65	65.01	74.56	73.63	86.01	98.64
1963	64.50	54.17	-	85.28	71.61	-	56.06	62.33	73.02	74.11	82.40	96.54
1964	66.81	56.37	62.42	88.36	74.55	82.55	58.35	64.54	74.61	77.18	85.36	98.68
1965	62.79	54.35	61.45	83.02	71.87	81.24	55.08	61.96	72.74	72.83	81.92	96.17
1966	57.57	49.66	55.58	76.03	65.59	73.42	50.71	56.37	65.77	66.97	74.46	86.88
1967	48.80	43.16	48.84	66.82	59.10	66.88	43.37	47.47	56.24	60.75	65.00	77.00
1968	46.12	41.51	46.88	61.92	54.92	62.03	42.90	44.62	52.75	56.76	59.04	69.80
1969	43.69	39.36	44.96	56.69	51.07	58.34	40.89	42.06	49.91	53.06	54.57	64.75
1970	69.86	61.56	71.65	70.05	61.72	71.84	64.78	66.39	78.18	64.96	66.57	78.39
1971	57.36	50.74	59.20	75.72	66.98	78.15	53.66	54.23	63.31	70.84	71.60	83.57
1972	50.28	47.12	56.45	67.55	63.30	75.84	48.01	49.35	58.85	64.50	66.29	79.06
1973	52.96	50.24	57.00	71.91	68.22	77.40	49.27	53.99	61.30	66.91	73.32	83.25
1974	44.43	43.05	41.84	55.49	53.75	55.99	38.57	49.60	52.02	48.16	61.93	64.95
1975	41.98	39.32	40.63	55.42	51.90	53.63	38.33	43.06	44.72	50.60	56.85	59.03
1976	44.09	41.81	42.80	55.43	51.55	53.80	40.27	44.91	47.16	50.62	56.45	59.29
1977	45.17	40.85	44.04	51.72	46.83	50.49	41.37	44.61	48.45	47.42	51.14	55.55
1978	42.23	40.22	44.03	49.90	47.52	52.03	39.29	43.22	47.12	46.43	51.08	55.67
1979	41.02	40.03	39.09	45.40	44.32	43.26	37.42	43.89	42.69	41.42	48.57	47.25
1980	50.86	47.18	52.28	59.59	55.27	61.25	45.87	52.31	58.32	53.74	61.29	68.33
1981	57.21	53.35	54.24	64.23	59.89	60.89	50.78	60.10	62.29	57.01	67.47	69.93
1982	69.09	67.63	65.03	80.25	78.55	75.54	62.66	74.57	73.48	72.78	86.62	85.35
1983	73.80	72.80	73.02	82.10	80.09	81.24	67.84	79.19	81.20	75.47	88.10	90.34
1984	71.44	71.54	71.63	84.65	84.77	84.87	65.08	78.54	80.62	77.11	93.05	95.52
1985	80.62	79.16	75.12	83.86	83.32	79.07	74.58	85.58	83.20	78.50	90.07	87.57
1986	85.69	84.22	80.63	94.19	92.87	88.91	84.31	85.61	82.38	92.96	94.39	90.83
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	100.17	95.38	98.08	104.33	99.35	102.16	97.17	98.33	100.85	101.21	102.42	105.05
1989	86.34	80.41	76.63	98.74	91.96	87.63	81.59	85.09	81.21	93.31	97.31	92.87
1990	73.01	67.95	65.39	80.82	75.23	72.33	72.57	68.37	66.09	80.33	75.69	73.16
1991	81.81	73.91	74.48	82.82	74.83	75.40	84.31	71.72	72.41	85.35	72.61	73.33
1992	79.03	70.44	74.05	87.74	78.21	82.22	84.31	66.02	69.27	93.61	73.31	76.91
1993	77.66	68.38	71.05	80.36	70.75	73.52	85.82	61.87	64.27	88.80	64.02	66.50
1994	107.97	103.02	106.77	105.62	100.83	104.50	118.71	93.70	96.93	116.18	91.71	94.87
1995	96.01	87.73	97.04	97.13	88.94	98.38	103.84	81.11	89.58	105.27	82.23	90.81
Avg.	63.4	55.2	64.2	74.4	65.1	73.9	57.0	61.7	67.7	67.1	72.5	80.0
Std.	19.2	19.8	18.4	17.4	17.9	15.8	21.9	17.9	17.1	19.7	16.6	17.0
Min.	35.0	26.5	39.1	45.4	35.0	43.3	27.9	33.3	42.7	36.9	44.0	47.2
Max.	108.0	103.0	106.8	105.7	100.8	104.5	118.7	100.0	100.9	116.2	102.4	113.2

Note: The year which does not have data is excluded from the calculations of average (avg.), standard deviation (std.), minimum (min.) and maximum (max.)

Table 32. Real Effective Exchange Rate for Major 9 Trading Partner Countries

Formula (15b): $REER=EER_{Formula(11)}.Sum\{[X/(X+M).w_{ix}+M/(X+M).w_{im}].P_D/P_d\}$

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	REER₁	REER₂	REER₃	REER₁	REER₂	REER₃	REER₄	REER₅	REER₆	REER₄	REER₅	REER₆
1949	-	144.12	-	-	171.10	-	147.40	-	-	175.00	-	-
1950	-	209.35	-	-	210.55	-	227.98	-	-	229.29	-	-
1951	-	194.11	-	-	194.57	-	199.35	-	-	199.83	-	-
1952	-	158.36	-	-	158.23	-	169.24	-	-	169.10	-	-
1953	214.80	152.10	-	215.43	152.54	-	163.94	199.29	247.74	164.42	199.87	248.47
1954	161.64	117.08	-	162.12	117.50	-	125.29	150.95	195.55	125.74	151.49	196.26
1955	160.98	112.33	-	160.75	112.18	-	125.32	144.30	188.52	125.14	144.10	188.26
1956	151.94	112.09	-	152.39	112.27	-	117.96	144.39	185.56	118.15	144.62	185.86
1957	208.73	166.42	-	208.03	165.86	-	164.74	210.86	245.98	164.19	210.15	245.16
1958	414.27	335.41	-	256.08	207.33	-	335.00	414.77	490.91	207.08	256.39	303.45
1959	351.23	275.18	-	352.27	275.99	-	285.32	338.74	417.43	286.17	339.74	418.66
1960	309.51	244.06	-	309.63	244.16	-	252.68	298.96	372.95	252.78	299.07	373.10
1961	270.20	215.50	-	269.89	215.25	-	220.49	264.08	320.82	220.24	263.78	320.45
1962	251.81	210.15	-	251.92	210.24	-	210.24	251.70	288.66	210.33	251.81	288.79
1963	246.39	202.29	-	246.58	202.45	-	209.36	238.07	278.92	209.53	238.26	279.14
1964	291.81	242.26	268.88	291.74	242.20	268.82	250.77	281.90	325.91	250.71	281.83	325.83
1965	268.37	227.80	258.42	268.36	227.62	258.22	230.85	264.83	310.90	230.67	264.62	310.66
1966	231.73	195.33	219.98	231.79	195.38	220.03	199.46	226.94	264.78	199.51	226.99	264.84
1967	189.98	161.81	185.39	199.70	170.09	194.88	166.33	184.82	218.94	174.85	194.28	230.15
1968	177.68	155.70	177.30	177.79	155.81	177.43	160.93	171.91	203.25	161.03	172.02	203.39
1969	164.51	145.27	166.94	162.94	143.88	165.35	150.92	158.35	187.91	149.48	156.84	186.11
1970	233.57	200.54	235.25	177.19	152.14	178.47	211.05	221.94	261.36	160.11	168.37	198.28
1971	200.74	174.33	204.31	201.46	174.95	205.04	184.38	189.80	221.55	185.03	190.48	222.34
1972	177.30	163.37	196.70	181.00	166.78	200.79	166.47	174.00	207.53	169.94	177.63	211.85
1973	198.30	184.97	211.42	204.34	190.60	217.86	181.41	202.18	229.55	186.94	208.34	236.54
1974	120.84	113.57	119.86	117.43	110.37	116.48	101.75	134.88	141.45	98.88	131.07	137.47
1975	98.64	90.00	93.69	97.98	89.40	93.06	87.74	101.18	105.07	87.16	100.53	104.37
1976	118.24	107.52	112.90	114.13	103.79	108.98	105.58	120.41	126.47	103.91	116.23	122.08
1977	98.58	87.39	94.78	85.04	75.39	81.77	88.49	97.36	105.74	76.34	83.99	91.22
1978	137.49	129.86	142.48	123.75	116.88	128.24	126.87	140.73	153.40	114.19	126.67	138.07
1979	108.49	104.47	102.45	92.04	88.63	86.91	97.64	116.09	112.92	82.83	98.48	95.80
1980	136.72	125.27	138.89	117.08	107.27	118.94	121.79	140.62	156.79	104.30	120.42	134.27
1981	170.88	157.65	160.53	144.58	133.38	135.82	150.07	179.51	186.05	126.97	151.88	157.41
1982	200.30	193.13	186.34	177.12	170.79	164.78	178.95	216.18	213.01	158.24	191.16	188.36
1983	225.90	220.13	221.19	187.55	182.77	183.65	205.13	242.41	248.57	170.32	201.27	206.38
1984	216.91	215.52	216.36	193.64	192.40	193.15	196.05	238.45	244.78	175.02	212.87	218.52
1985	289.91	282.61	268.57	235.36	229.44	218.04	266.25	307.72	299.16	216.16	249.83	242.88
1986	279.99	274.12	262.62	236.73	231.76	222.04	274.39	279.71	269.16	231.99	236.49	227.57
1987	332.60	332.60	332.60	251.56	251.56	251.56	332.60	332.60	332.60	251.56	251.56	251.56
1988	367.45	352.42	363.70	287.91	276.14	284.97	359.04	360.68	369.94	281.32	282.61	289.86
1989	289.81	272.80	261.35	256.44	241.40	231.26	276.81	285.62	272.58	244.94	252.73	241.20
1990	227.64	213.54	206.49	190.34	178.56	172.66	228.04	213.16	206.05	190.68	178.24	172.29
1991	261.52	237.96	240.93	201.23	183.10	185.38	271.42	229.28	231.55	208.84	176.42	178.17
1992	253.00	227.19	240.07	214.25	192.40	203.30	271.93	211.38	221.76	230.29	179.00	187.80
1993	237.99	213.11	220.20	185.72	164.74	171.84	264.97	189.61	196.95	206.77	147.97	153.69
1994	392.78	378.81	394.88	292.10	281.71	293.65	436.50	340.87	352.62	324.61	253.49	262.23
1995	305.65	283.05	-	236.93	219.42	-	335.03	258.23	285.19	259.71	200.18	221.07

Note 1. USA, Germany, UK, Netherlands, France, Austria, Japan, Greece and Spain are taken into account as 9 major trading partners of Turkey

Note 2. WPIs are used for both home country (Turkey) and 9 trading partner countries to compute REER₁

CPIs are used for both home country and 9 trading partner countries to compute REER₂

GDP deflators are used for both home country and 9 trading partner countries to compute REER₃.

CPIs are used for 9 trading partner countries and WPIs are used for home country to compute REER₄.

WPIs are used for 9 trading partner countries and CPIs are used for Turkey to compute REER₅

WPIs are used for 9 trading partner countries and GDP deflators are used for Turkey to compute REER₆.

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Table 32-A. Real Effective Exchange Rate for Major 9 Trading Partner Countries

Formula (15b): REER=EER$_{Formula(1)}$.Sum[[X/(X+M).w$_{ft}$+M/(X+M).w$_{hm}$].P$_{ft}$/P$_d$].100

1987=100

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	REER₁	REER₂	REER₃	REER₁	REER₂	REER₃	REER₃	REER₃	REER₄	REER₄	REER₄	REER₄
1949	-	43.33	-	-	68.02	-	44.32	-	-	69.56	-	-
1950	-	62.94	-	-	83.70	-	68.54	-	-	91.15	-	-
1951	-	58.36	-	-	77.35	-	59.94	-	-	79.44	-	-
1952	-	47.61	-	-	62.90	-	50.88	-	-	67.22	-	-
1953	64.58	45.73	-	85.64	60.64	-	49.29	59.92	74.49	65.36	79.45	98.77
1954	48.57	35.20	-	64.44	46.71	-	37.67	45.38	58.80	49.99	60.22	78.02
1955	48.40	33.77	-	63.90	44.59	-	37.68	43.39	56.68	49.75	57.28	74.84
1956	45.68	33.70	-	60.50	44.63	-	35.46	43.41	55.79	46.97	57.49	73.88
1957	62.76	50.04	-	82.70	65.93	-	49.53	63.40	73.96	65.27	83.54	97.46
1958	124.55	100.84	-	101.80	82.42	-	100.72	124.71	147.60	82.32	101.92	120.63
1959	105.60	82.74	-	140.03	109.71	-	85.79	101.85	125.50	113.76	135.05	166.43
1960	93.06	73.18	-	123.08	97.06	-	75.97	89.89	112.13	100.48	118.89	148.31
1961	81.24	64.79	-	107.29	85.57	-	66.29	79.40	96.46	87.55	104.86	127.38
1962	75.71	63.18	-	100.14	83.58	-	63.21	75.68	86.79	83.61	100.10	114.80
1963	74.08	60.82	-	98.02	80.48	-	62.95	71.58	83.86	83.29	94.71	110.96
1964	87.74	72.84	80.84	115.97	96.28	106.86	75.40	84.76	97.99	99.66	112.03	129.52
1965	80.69	68.49	77.70	106.60	90.48	102.65	69.41	79.63	93.48	91.69	105.19	123.49
1966	69.67	58.73	66.14	92.14	77.67	87.47	59.97	68.23	79.61	79.31	90.23	105.28
1967	57.12	48.65	55.74	79.39	67.62	77.47	50.01	55.57	65.83	69.50	77.23	91.49
1968	53.42	46.81	53.31	70.68	61.94	70.52	48.38	51.69	61.11	64.01	68.38	80.85
1969	49.46	43.68	50.19	64.77	57.20	65.73	45.38	47.61	56.50	59.42	62.35	73.98
1970	70.23	60.30	70.73	70.44	60.48	70.94	63.45	66.73	78.58	63.65	66.93	78.82
1971	60.36	52.41	61.43	80.08	69.55	81.51	55.44	57.07	66.61	73.55	75.72	88.38
1972	53.31	49.12	59.14	71.95	66.30	79.82	50.05	52.32	62.40	67.55	70.61	84.22
1973	59.62	55.61	63.57	81.23	75.77	86.60	54.54	60.79	69.02	74.31	82.82	94.03
1974	36.33	34.15	36.04	46.68	43.87	46.30	30.59	40.55	42.53	39.31	52.10	54.65
1975	29.66	27.06	28.17	38.95	35.54	36.99	26.38	30.42	31.59	34.65	39.95	41.49
1976	35.55	32.33	33.94	45.17	41.26	43.32	31.74	36.20	38.02	40.51	46.21	48.53
1977	29.64	26.27	28.50	33.81	29.97	32.50	26.60	29.27	31.79	30.34	33.39	36.26
1978	41.34	39.04	42.84	49.19	46.46	50.98	38.14	42.31	46.12	45.39	50.35	54.89
1979	32.62	31.41	30.80	36.59	35.23	34.55	29.36	34.90	33.95	32.93	39.15	38.08
1980	41.11	37.66	41.76	46.54	43.64	47.28	36.62	43.28	47.14	41.46	47.87	53.37
1981	51.38	47.40	48.26	57.47	53.02	53.99	45.12	51.97	55.94	50.47	60.38	62.57
1982	60.22	58.07	56.03	70.41	67.89	65.50	53.80	65.00	64.05	62.90	75.99	74.88
1983	67.92	66.19	66.50	74.56	72.65	73.00	61.68	72.88	74.74	67.70	80.01	82.04
1984	65.22	64.80	65.05	76.97	76.48	76.78	58.05	71.69	73.60	69.57	84.62	86.87
1985	87.16	84.97	80.75	93.56	91.21	86.68	80.05	92.52	89.95	85.93	99.31	96.55
1986	84.18	82.42	78.96	94.10	92.13	88.26	82.50	84.10	80.93	92.22	94.01	90.46
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	110.48	105.96	109.35	114.45	109.77	113.28	107.95	108.44	111.23	111.83	112.34	115.23
1989	87.13	82.02	78.58	101.94	95.96	91.93	83.22	85.87	81.95	97.37	100.47	95.88
1990	68.44	64.20	62.08	75.66	70.98	68.63	68.56	64.09	61.95	75.80	70.85	68.49
1991	78.63	71.55	72.44	79.99	72.79	73.69	81.61	68.94	69.62	83.02	70.13	70.83
1992	76.07	68.31	72.18	85.17	76.48	80.82	81.76	63.55	66.68	91.54	71.16	74.65
1993	71.55	63.47	66.21	73.83	65.49	68.31	79.67	57.01	59.21	82.20	58.82	61.09
1994	118.09	113.80	118.72	116.11	111.98	116.73	131.24	102.49	106.02	129.04	100.77	104.24
1995	93.90	85.10	-	94.19	87.22	-	100.73	77.64	85.74	103.24	79.57	87.88
Avg.	68.2	59.6	63.1	80.6	71.0	73.5	61.6	66.2	73.4	73.3	78.4	87.5
Std.	23.7	21.3	22.1	24.7	20.9	22.6	23.4	22.4	25.0	22.9	23.6	28.5
Min.	29.6	26.3	28.2	33.8	30.0	32.5	26.4	29.3	31.6	30.3	33.4	36.3
Max.	124.6	113.9	118.7	140.0	112.0	116.7	131.2	124.7	147.6	129.0	135.1	166.4

Note: The year which does not have data is excluded from the calculations of average (avg), standard deviation (std).

minimum (min.) and maximum (max.)

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Table 33. Real Effective Exchange Rate for the First 14 Trading Partner Countries

Formula (15b): $REER=EER_{Formula(11)} \cdot Sum[[X/(X+M).w_{ix}+M/(X+M).w_{im}].P_f/P_d]$

Year	ae (end of period)			rf (period averages)			ae (end of period)			rf (period averages)		
	REER₁	REER₂	REER₃	REER₁	REER₂	REER₃	REER₄	REER₅	REER₆	REER₄	REER₅	REER₆
1949	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	137.30	-	-	137.40	-	142.09	-	-	142.20	-	-
1964	-	172.67	-	-	172.77	-	178.74	-	-	178.85	-	-
1965	-	173.31	-	-	173.17	-	175.63	-	-	175.49	-	-
1966	-	149.55	-	-	149.59	-	152.72	-	-	152.75	-	-
1967	-	123.44	-	-	129.89	-	126.89	-	-	133.52	-	-
1968	-	111.30	-	-	111.47	-	115.03	-	-	115.21	-	-
1969	-	95.19	-	-	94.30	-	98.90	-	-	97.96	-	-
1970	-	147.27	-	-	111.72	-	154.99	-	-	117.57	-	-
1971	-	121.46	-	-	122.93	-	128.46	-	-	130.02	-	-
1972	-	110.83	-	-	113.21	-	112.93	-	-	115.36	-	-
1973	-	127.01	-	-	130.87	-	124.57	-	-	128.35	-	-
1974	-	89.09	-	-	85.68	-	79.82	-	-	76.76	-	-
1975	-	65.73	-	-	65.20	-	64.08	-	-	63.56	-	-
1976	-	76.78	-	-	74.18	-	75.39	-	-	72.84	-	-
1977	-	60.72	-	-	52.49	-	61.48	-	-	53.15	-	-
1978	-	86.88	-	-	78.59	-	84.88	-	-	76.78	-	-
1979	-	78.03	-	-	65.81	-	72.93	-	-	61.50	-	-
1980	-	75.16	-	-	65.45	-	73.08	-	-	63.64	-	-
1981	-	110.62	-	-	92.53	-	105.30	-	-	88.09	-	-
1982	-	121.42	124.62	-	106.88	109.69	112.50	-	-	99.03	-	-
1983	-	116.80	120.85	-	96.68	100.04	108.84	-	-	90.10	-	-
1984	-	144.26	147.83	-	127.32	130.47	131.23	-	-	115.82	-	-
1985	175.89	176.52	170.80	145.04	145.56	140.85	166.30	186.70	181.50	137.13	153.95	149.67
1986	197.71	194.89	186.89	167.97	165.58	158.77	195.09	197.52	190.07	165.74	167.83	161.48
1987	250.09	250.09	250.09	190.58	190.58	190.58	250.09	250.09	250.09	190.58	190.58	190.58
1988	273.51	264.04	270.73	214.77	207.33	212.59	268.99	268.47	275.37	211.22	210.82	216.23
1989	209.09	199.07	190.20	186.29	177.37	169.46	201.99	206.07	196.66	179.97	183.60	175.22
1990	173.28	160.98	157.39	145.84	135.49	132.46	171.91	162.27	156.85	144.68	136.57	132.01
1991	202.41	179.72	185.26	156.32	138.80	143.07	205.00	177.45	179.21	158.32	137.05	138.41
1992	203.27	175.77	188.87	172.68	149.31	160.45	210.38	169.83	178.17	178.71	144.27	151.36
1993	-	166.78	-	-	129.90	-	209.33	-	-	163.04	-	-
1994	-	316.69	-	-	235.56	-	364.92	-	-	271.43	-	-
1995	-	236.49	-	-	182.25	-	279.91	-	-	215.71	-	-

Note 1. The first 14 trading partners of Turkey are USA, Germany, UK, Italy, France, Switzerland, Netherlands, Austria, Japan, Saudi Arabia, Iran, Egypt, Greece and Spain.

Note 2. WPIs are used for both home country (Turkey) and 14 trading partner countries to compute REER,

CPIs are used for both home country and 14 trading partner countries to compute REER,

GDP deflators are used for both home country and 14 trading partner countries to compute REER,

CPIs are used for 14 trading partner countries and WPIs are used for home country to compute REER,

WPIs are used for 14 trading partner countries and CPIs are used for Turkey to compute ReFR,

WPIs are used for 14 trading partner countries and GDP deflators are used for Turkey to compute REER.

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Table 33-A. Real Effective Exchange Rate for the First 14 Trading Partner Countries

Formula (15b): $REER = REER_{Formula(11)} \cdot Sum\{[X/(X+M).w_{ix} + M/(X+M).w_{im}].P_n/P_d\} \cdot 100$

Year	ae (end of period) REER₁	REER₂	REER₃	rf (period averages) REER₁	REER₂	REER₃	ae (end of period) REER₄	REER₅	REER₆	rf (period averages) REER₄	REER₅	REER₆
1949	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-
1959	-	-	-	-	-	-	-	-	-	-	-	-
1960	-	-	-	-	-	-	-	-	-	-	-	-
1961	-	-	-	-	-	-	-	-	-	-	-	-
1962	-	-	-	-	-	-	-	-	-	-	-	-
1963	-	54.90	-	-	72.09	-	56.82	-	-	74.61	-	-
1964	-	69.03	-	-	90.66	-	71.47	-	-	93.84	-	-
1965	-	69.30	-	-	90.87	-	70.23	-	-	92.08	-	-
1966	-	59.80	-	-	78.49	-	61.06	-	-	80.15	-	-
1967	-	49.36	-	-	68.16	-	50.74	-	-	70.06	-	-
1968	-	44.50	-	-	58.49	-	46.00	-	-	60.45	-	-
1969	-	38.06	-	-	49.48	-	39.54	-	-	51.40	-	-
1970	-	58.89	-	-	58.62	-	61.97	-	-	61.69	-	-
1971	-	48.57	-	-	64.51	-	51.37	-	-	68.22	-	-
1972	-	44.32	-	-	59.41	-	45.16	-	-	60.53	-	-
1973	-	50.78	-	-	68.67	-	49.81	-	-	67.35	-	-
1974	-	35.62	-	-	44.96	-	31.92	-	-	40.28	-	-
1975	-	26.28	-	-	34.21	-	25.62	-	-	33.35	-	-
1976	-	30.70	-	-	38.92	-	30.15	-	-	38.22	-	-
1977	-	24.28	-	-	27.54	-	24.58	-	-	27.89	-	-
1978	-	34.74	-	-	41.24	-	33.94	-	-	40.29	-	-
1979	-	31.20	-	-	34.53	-	29.16	-	-	32.27	-	-
1980	-	30.06	-	-	33.35	-	29.22	-	-	33.39	-	-
1981	-	44.23	-	-	48.55	-	42.11	-	-	46.22	-	-
1982	-	48.55	49.83	-	56.08	57.56	44.98	-	-	51.96	-	-
1983	-	46.70	48.32	-	50.73	52.49	43.52	-	-	47.28	-	-
1984	-	57.68	59.11	-	66.81	68.46	52.47	-	-	60.77	-	-
1985	70.33	70.58	68.30	76.11	76.38	73.90	66.49	74.65	72.58	71.96	80.78	78.54
1986	79.06	77.93	74.73	88.14	86.88	83.31	78.01	78.98	76.00	86.97	88.05	84.73
1987	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1988	109.36	105.58	108.25	112.70	108.79	111.55	107.56	107.35	110.11	110.83	110.62	113.46
1989	83.61	79.60	76.05	97.75	93.07	88.92	80.77	82.40	78.64	94.43	96.34	91.94
1990	69.29	64.37	62.93	76.52	71.00	69.51	68.74	64.88	62.72	75.92	71.66	69.27
1991	80.93	71.86	74.08	82.02	72.83	75.07	81.97	70.96	71.66	83.07	71.91	72.62
1992	81.28	70.28	75.52	90.61	78.35	84.19	84.12	67.91	71.24	93.78	75.70	79.42
1993	-	66.69	-	-	68.16	-	83.70	-	-	85.55	-	-
1994	-	126.63	-	-	123.60	-	145.91	-	-	142.43	-	-
1995	-	94.56	-	-	95.63	-	111.92	-	-	113.19	-	-
Avg.	84.2	58.4	72.5	90.5	67.0	78.6	60.6	80.9	80.4	69.4	86.9	86.2
Std.	13.9	24.1	18.6	12.6	23.3	17.5	28.1	15.3	16.1	27.1	14.4	14.9
Min.	69.3	24.3	48.3	76.1	27.5	52.5	24.6	64.9	62.7	27.9	71.7	69.3
Max.	109.4	126.6	108.3	112.7	123.6	111.6	145.9	107.4	110.1	142.4	110.6	113.5

Note: The year which does not have data is excluded from the calculations of average (avg.), standard deviation (std.), minimum (min.) and maximum (max.)

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