NEAR EAST UNIVERSITY

THE GRADUATE STUDIES

"A RESEARCH STUDY ON THE CURRENT INFLATION
IN TURKEY AND IN THE WORLD
AND SUGGESTIONS ON KEEPING
INFLATION DOWN "

by

ATILLA TEKÇE

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PREFACE

I believe that, this research was a very big opportunity for me. It provided me a better position and it also shows my efficiency to the public. This will open new horizons to me and it also will make me more powerful to struggle toward all kind of problems and difficulties. I tried to evaluate every important items of inflation combining with examples and my ideas. During my research, I contacted with many people. This gained me a lot of knowledge. I developed my ideas by discussions. Discussions provided me to make profitable use of the opportunities. It also effected my point of view perfectly. I understand that a good communication creates a New World and the result of interactions, I produced highly visible results. I am sure that, everything that I learned from this research will be very useful at my future life.

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I want to extend my thanks to all of the people at Bilfer Palm Beach Hotel for their understanding and supports.

Finally, I like to thank to Near East University for giving me such an opportunity. It is always a pleasure to work on such a complex and necessary subject to get a Master Degree.

AUTOBIOGRAPHY

I was born in Istanbul in 1972. After completing my high school education at Sehremini high school I continued my university education at Eastern Mediterranean University at School of Tourism and Hospitality Management.

I completed my first year training program by working as a cashier at Cesme Altinyunus first class Holiday Village, Izmir. A year later I started to work as a receptionist at Palm Beach Hotel, Magusa.

After graduating from School of Tourism and Hospitality Management, I decide to expand my perspective a little bit and I attended to the MBA program of Near East University, Lefkosa.

Now, I am still working at Palm Beach Hotel as a Shift Leader at the Front Office Department and I am also working as a part-time instructor at School of Tourism and Hospitality Management at Eastern Mediterranean University.

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INTRODUCTION

We live in an age of inflation. So I decided to make a research on this most important aspect of today's world. This thesis is prepared to give general information about the inflation and it's importance in a country's future. It also has statistical comparison of Turkey's inflation with other countries.

At the beginning of this thesis the main aim was to make a research based on the most important problem of Turkey Inflation. I also tried to give brief explanations about the definitions of inflation, deflation, and stagflation, their types, causes, effects and the way of struggling with them. I support my research with statistical data and their evaluations by using different methods.

The statistical methods used in this thesis were descriptive statistical analysis, Frequency analysis, Anova Analysis, T-Tests, Partial correlation analysis, and Regression analysis. Part 7 includes all the facts and figures about the statistical analysis comparisons between Turkey and other countries.

At the last part I tried to give some important methods as examples, in struggling with inflation in Turkey. This part can not be considered as a full manual in struggling with the giant inflation of Turkey but can be considered as a starting point of a hard road of battling with inflation.

DEFINITION OF INFLATION:

Inflation is a process of continuously rising prices, or equivalently, of continuously falling the value of money. In addition, inflation is an expansion in the monetary circulation; more precisely, as an increase in the quantity of money times the velocity of circulation of money.

The rate of inflation in an economy is the rate at which the general level of prices in that economy is changing. It is the proportionate change in the general price level per unit of time. This definition rises two problems: first one related to the idea of a general price level, the second to the rate of change of any price.

Even if individual commodities do not change their nature the fact that the prices of different products may change at different rates presents difficulties in measuring the rate of inflation. The price of a particular good is the amount of money for which one you need of it can be exchange, the amount of money needed to purchase one unit.

DEFINITION OF DEFLATION:

If inflation were defined as a condition of rising prices, it would seem natural to define deflation symmetrically as a condition of falling prices. Deflation does not settle the question whether the policy of letting prices fall when output increases is advisable or not. However that reasons were given why we might well be satisfied if we are able to keep long run price level stable and that it would be unduly optimistic to expect a long run decline of the price level.

Deflation is often defined as equivalent to depression or recession that is, a low or falling level of real output and employment. It would seem to be better to keep the two terms, deflation and depression (recession), apart. Deflation will usually bring about depression, but there may be expectation to that rule: if wages and prices were perfectly flexible, deflation would result only in lower prices without ill effect on output and employment.

DEFINITION OF STAGFLATION:

Stagflation is a condition in which the price level is rising despite the existence of substantial unemployment. Indeed, the unemployment level may be rising at the same time.

In general we can distinguish two types of stagflation:

1) Stagflation as an adjustment process following demand inflation can be understood as a business-cycle phenomenon that appears as in the later phase of the cycle. It is generally accepted that in this phase prices and costs continue to rise, where as real output fails to increase or begins to decline.
2) Stagflation as supply inflation is explained by an upward shift of the supply function that was not induced by a preceding increase in aggregate demand.

EXPLANATIONS OF INFLATION

Explanations of inflation run along two lines: the general, or monetary, explanation and various special-factor explanations. The monetary explanation views inflation as always the result of an excessive growth rate of money. Special-factor explanation relates with each specific inflation to particular economic condition occurring before or during the inflation.

The monetary explanation starts with the observation that rising prices are the same things as a falling value of money. The more money there is, the relative the goods and services to be bought, the less valuable is each dollar. A period of increasing prices occurs when the quantity of money grows faster than real demand for it, measured in terms of the goods and services the money buys. Thus, inflation requires either a rapid growth in the money supply or a persistently falling real demand for money.

Rapid money-supply growth may occur for several reasons, depending on the type of money used in a country. When money consisted of gold coins or paper exchangeable for gold, inflations followed major gold discoveries. In the United States and most other countries money is no longer convertible to a precious metal but is either bank note printed by the government or checking deposits exchangeable only for paper money. Rapid monetary growth can occur when the government sells securities to finance a war or other programs. Thus expanding the money supply through deficit spending; in concert with the central bank the government may encourage growth of the money supply through an expansionary monetary policy that increases bank reserves, and thus loanable funds. Countries may also increase their money supply to maintain a stable domestic price for an inflating foreign currency, such as the U.S. dollar.

Monetarist economists believe that unusual events may decrease the growth rate of real-money demand in any particular year but that over any considerable period of

time these events average out. As a result the average growth rate of real-money demand measured in terms of the goods or services to be bought is quite stable, and sustained inflations arise only from rapid money-supply growth. It is here that the special-factor explanations differ. Special-factor explanations focus on particular events or sequences of events--not necessarily directly related to the money supply--to explain an episode of inflation. An example of this approach observes that a large increase in the price of imported oil would tend to make the consuming nation poorer and so reduce its purchasing power and raise prices.

A whole sequence of such events--and the absence of offsetting conditions (such as increased output) tending to increase real-money demand--may be used to explain a given inflation. Responding, the monetarist posits that over periods of four or five years there is very little variation in the growth of real money measured in terms of purchasing power.

A hybrid explanation of inflation begins with some special factor as the start of the process. If the initial cause relates to the costs of producing goods and services, some economists have termed the process cost-push inflation. If, for example, the price of oil increases, the resulting increase in prices results in higher wage demands by workers who want to maintain their current standards of living. Producers may try to pass wage increases along to the consumer trough higher prices; producers could meet increased wage demands by increased borrowing, which the central bank can accommodate through larger bank reserves, which increase the money supply. The government fears the temporary increase in unemployment that would result if the demands were frustrated. Thus, the argument goes, the government increases money-supply growth, which leads to further price increases and starts the whole process over again. This sort of price-cost-money vicious circle--or the so-called wage-price spiral--converts what might otherwise be a temporary increase in the rate of inflation into a substantial and sustained one.

TYPES OF INFLATION

1) Open or suppressed inflation: If inflation is open, the market economy basically continuos to function as a process in which prices are set. Any excess demand leads to an increase in prices and money wages. Suppressed inflation occurs when government controls prevent goods prices and money wages from rising, so that excess demand is not reduced but suppressed.

2) Creeping, moderate, or galloping inflation, hyperinflation: The criterion underlying this classification is the rate of the observed increase in the general price level. Inflationary processes in which the increase in prices does not exceed 2-3 percent and in which there are no expectations of inflation to speak of, may be characterised as creeping inflation. Higher rates of price increase are labelled moderate; a further acceleration of the increase in prices merits the epithet galloping. However, one can not set exact boundaries between any to of these categories. Extra ordinarily high rates of price increases, which in general are also accelerating, can be called hyperinflation. Hyperinflation is a condition in which the general price level is increasing at a rate of more than 50 percent per month. In hyperinflation money loses its function as a store of value and at least partly as a medium of exchange. In the period after World War I hyperinflation occurred in various European Countries such as Germany, Poland, Austria, Russia, and Hungary. After World War II it occurred in some South American Countries.

3) Anticipated and unanticipated inflation: In this case expectations are the criterion used to classify inflation. In its emphasis on the difference between anticipated and unanticipated inflation. The classification is relevant in determining the effects of inflation. Only unanticipated inflation produces real effects; that is unanticipated inflation affects output and employment.

4) Cost-push or Demand-pull inflation: The differentiation between Demand-pull and Cost-push inflation hinges on the cause of inflation. The former is considered to result from excess aggregate demand; the later from a shift in the aggregate supply function.

CAUSES OF INFLATION

Many different factors and policies have been held responsible for inflation. Some experts think that aggregate demand rising faster than aggregate supply " pulls up " prices and wages. This is called demand-pull inflation. The rise in demand in turn may be due to a government deficit (government inflation) or to an expansion of bank credit for private investment (credit expansion) or rising demand from abroad (imported inflation) or an increase in gold production (gold inflation).

Other experts think that rises are being pushed up by wage increases forced upon the economy by Labor unions under threat of strike (wages push inflation), or cost may be rise by business monopolies (administrative price inflation). To these positive factors can be added negative ones. For example, the failure of overall output to grow or of savings to stay on their normal level. These factors may be found in different causes.

It is not difficult to think of conditions under which one or the other of these hypotheses would be valid and for several of these possibilities actual examples can be found in recent economic history. But let me try to give a somewhat more orderly and systematic analysis of the primary cause. Let me start from the basic fact that there is no record in the economic history of the whole world, anywhere or at any time, of a serious and prolonged inflation which has not been accompanied and made possible, if not directly caused, by a large increase in the quantity of money. This generalisation holds for developed as well as underdeveloped countries, for capitalist, precapitalist, and even centrally planned economies. It is true that the velocity of circulation of money changes. It has a cyclical pattern usually going up during prosperity phases of the cycle and falling during depressions. In addition, expect in

periods of hyperinflation a rise in velocity by itself has never caused, or substantially intensified, serious inflationary trouble. During depression velocity of circulation of money falls and the economy becomes more liquid. Recovery from a depression can be financed to some extent by a more intensive utilisation of the existing money stocks.

It follows that in every inflation the quantity of money is a causal factor, either active or permissive and non of the factors and policies mentioned above can produce serious inflation unless they cause or induce or are accompanied by an increase in that quantity. Sometimes the connection between any one of these factors and the quantity of money is direct and noncontroversial. In other cases it is indirect and subtle.

THE ECONOMIC EFFECTS OF INFLATION

If all inflations could be examined, the effects could be different at different times. This, at best, results in a conditional set of generalisations: under condition A, then certain results; under condition B, then other results; and so on. Inflation and its effects cannot be isolated in a laboratory, it is never certain whether the results observed in any given period were caused by inflation (during the same or a preceding period) or by some other set of circumstances. For example, the fact that higher national output follows inflation may or may not mean that it was caused by the inflation, even if the sequence appeared a number of times.

Even if the effects of inflation in the past were known with certainty, there would be no way to be sure that the same effects would recur in another inflation. This problem is a complex one and the result will be reasonable conditional prediction: If a certain amount of inflation occurs under condition A in the future, then the effect on national income will probably be this: if the same amount of inflation occurs under condition B, then the effect will probably be that; and so on.

THE EFFECTS ON OUTPUT: It is convenient to consider four main ways in which inflation may affect the size of the total national real output:

1. Inflation may decrease current national output by disrupting normal relationships and diverting people from productive activity.
2. Inflation may decrease future output because inflation may be followed by deflation and depression, which means mass unemployment of men and machines; and it may decrease long-term output by discouraging saving and capital accumulation (i.e., it may reduce the rate of long-term economic growth).
3. Inflation may increase current output by increasing profit margins as wages and other costs lag behind rising prices, thereby stimulating employment and output; by

inducing people to work longer and harder in order to protect the real purchasing power of their incomes against diminution as inflation erodes the purchasing power of any given number of dollars; and by stimulating buying ahead because further price increases are expected.

4. Inflation may increase long-term national output by stimulating the rate of saving and capital accumulation (i.e., it may speed long-term economic growth).

THE EFFECTS ON INCOMES: In considering the redistribution effects of inflation, the following four propositions provide a useful analytical framework:

1. Inflation redistributes real purchasing power (over current output and over assets) from those whose incomes rise less rapidly relative to the prices they pay as a result of inflation to those whose incomes rise more rapidly relative to the prices they pay; more roughly, inflation redistributes real purchasing power from those whose incomes rise more slowly to those whose incomes rise more rapidly.

2. Inflation redistributes real purchasing power from those whose assets rise more slowly in price as a result of inflation to those whose assets rise more rapidly in price.

3. Inflation redistributes real purchasing power from creditors to debtors, when debts are stated in fixed-dollar terms.

4.To the extent that accurate expectations of continuing inflation affect economic behaviour, the redistribution effects indicated above will tend to be negated, except where readjustment of terms of economic contracts is prevented or retarded by government rules, long-term contracts, unequal knowledge, unequal bargaining power, and so on.

THE EFFECTS ON WEALTH: Inflation has another set of economic effects-effects on the distribution of wealth, as contrasted with the distribution of current income. It is well known that unanticipated inflation transfers wealth (future purchasing power) from creditors to debtors.

THE EFFECTS ON HOUSEHOLDS: Everyone is part of a household, and more information on particular types of households is needed in order to see clearly the impact of inflation on creditors. The main conclusion is that the elderly are heavily exposed to inflation; they have few debts and hold a relatively high proportion of their assets in fixed-value forms. Conversely, young families are generally heavily in dept (which is, other things being equal, a good thing to be in inflation) and have correspondingly high leverage ratios. Clearly, inflation transfers wealth from the old to the young. Among occupational groups the picture is mixed. Professional men appear to be best protected against inflation, mainly because of their high debt ratios.

THE EFFECTS ON BUSINESS CORPORATIONS: Businesses are commonly said to gain from inflation because profits grow when wages lag behind rising prices and because businesses gain as net debtors.

THE EFFECTS ON THE INTERNATIONAL ECONOMY: Inflation affects the international economic position of a nation. For international economic interdependence is an inescapable fact of life in the modern world, and if one nation inflates faster than others, its exports will, other things being equal, lose out in world markets. Workers in exports industries will lose their jobs, and owners will lose their profits. Thus inflation may directly affect a nation's economy through international channels.

INFLATION IN TURKEY

In Turkey economic information and data is prepared and issued by a wide variety of sources and institutions. Therefore the collection of material needed for a certain research, from different sources would be time-consuming and in most cases the researchers will suspect whether the information is current or not.

Secondary datas were used in this thesis of consumer price index of countries vs. Turkey. The range is between 1988-1997. I tried to analyse the fluctuations in the inflation rate of Turkey compared with the other world countries which are Austria, Belgium, Canada, France, Germany, Greece, Italy, Japan, Netherlands, South Africa, South Korea, Sweden, Tunisia, USA, UK, Turkey. By this way I realised the economic figures in a small portion of Turkey and other countries.

There are ten statistical analyses in my thesis according to the world countries inflation rates. Descriptive statistical analysis was used to see the means and standard deviations of the inflation rates of Turkey and other countries. After comparing the means and standard deviations I did frequency analysis as well. In order to see whether hypothesises are true or not, I used One-way ANOVA analysis. On the other hand I also did T-Test, partial correlation, chi-square and regression analysis. By using the curve fit and histogram I tried to see the fluctuations of inflation rate of world countries on yearly basis. I also did the pie chart to see which country has the highest inflation ratio.

Finally I tried to make comments on resent economic situations of Turkey and other world countries and to find solutions on several aspects that I had analysed in my thesis of view.

HYPOTHESIS

1. H_0: The ratio of the inflation rate of Turkey and other countries are the same.

   H_1: The ratio of the inflation rate of Turkey and other countries are not the same.

2. H_0 : Yearly increase in the inflation rate is same in Turkey.

   H_1 : Yearly increase in the inflation rate is not same in Turkey.

3. H_0 : The mean of the inflation rate of Turkey is equal to the grand mean of the European countries' inflation rate.

   H_1 : The mean of the inflation rate of Turkey is not equal to the grand mean of the European countries' inflation rate.

4. H_0 : The mean of the inflation rate of Turkey is equal to the grand mean of the other world countries' inflation rate.

   H_1 : The mean of the inflation rate of Turkey is not equal to the grand mean of the other world countries inflation rate.

Descriptive Statistical Analysis

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
AUSTRIA	10	1.70	3.70	2.7400	.7011
BELGIUM	10	1.20	3.40	2.3800	.7269
CANADA	10	.20	5.60	2.8100	1.8651
FRANCE	10	.90	3.50	2.3300	.8327
GERMANY	10	1.30	3.70	2.5000	.9626
GREECE	10	5.40	20.40	12.6000	4.7048
ITALY	10	1.60	5.30	4.2250	1.1774
JAPAN	10	.20	3.40	1.5800	1.3685
NETHERLA	10	.70	3.90	2.2500	.8947
S.AFRICA	10	.20	15.30	10.6200	4.6334
S.KOREA	9	4.50	9.70	6.5889	1.6359
SWEDEN	10	-.20	10.50	4.2600	3.7651
TUNISIA	10	3.70	8.30	5.6800	1.6130
TURKEY	10	60.30	125.50	78.2800	17.9860
UK	10	1.60	9.50	4.2500	2.6846
USA	10	2.20	5.40	3.5300	1.0264
Valid N (listwise)	9				

As you can see from the table above only Sweden is in -.20 deflation and its standard deviation is 3.765 which is not the lowest percentage for standard deviation. And the highest inflation rate is seen unfortunately in Turkey. The average inflation rate is 78.28% where its standard deviation is 17.986 which is very large. This also explains us why Turkey's inflation rate is not stable and changes every year with a different rate. The lowest average inflation rate is 1.58 which is Japans' inflation. The lowest standard deviation is .711 of Austria which means that the change in inflation rate is almost stable.

Frequency Analysis

Statistics

	N	
	Valid	Missing
AUSTRIA	10	9
BELGIUM	10	9
CANADA	10	9
FRANCE	10	9
GERMANY	10	9
GREECE	10	9
ITALY	10	9
JAPAN	10	9
NETHERLA	10	9
S.AFRICA	10	9
S.KOREA	9	10
SWEDEN	10	9
TUNISIA	10	9
TURKEY	10	9
UK	10	9
USA	10	9

AUSTRIA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.70	1	5.3	10.0	10.0
	1.90	1	5.3	10.0	20.0
	2.30	1	5.3	10.0	30.0
	2.40	1	5.3	10.0	40.0
	2.60	2	10.5	20.0	60.0
	3.30	2	10.5	20.0	80.0
	3.60	1	5.3	10.0	90.0
	3.70	1	5.3	10.0	100.0
	Total	10	52.6	100.0	
Missing	System Missing	9	47.4		
	Total	9	47.4		
Total		19	100.0		

As you can see from the frequency analysis of the country Austria there are some strike percentages and higher frequencies which must be recorded. In years 1989 and 1994 the inflation rate is between 2.6 and 3.3. Also in years 1990 and 1991 the inflation rate is between 3.3 and 3.6. The percentage of both intervals are 10.5.

BELGIUM

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.20	1	5.3	10.0	10.0
	1.60	1	5.3	10.0	20.0
	1.90	2	10.5	20.0	40.0
	2.40	1	5.3	10.0	50.0
	2.50	1	5.3	10.0	60.0
	2.60	1	5.3	10.0	70.0
	3.10	1	5.3	10.0	80.0
	3.20	1	5.3	10.0	90.0
	3.40	1	5.3	10.0	100.0
	Total	10	52.6	100.0	
Missing	System Missing	9	47.4		
	Total	9	47.4		
Total		19	100.0		

As you can see from the frequency analysis of the country Belgium there are some strike percentages and higher frequencies which must be recorded. In years 1994 and 1995 the inflation rate is between 1.9 and 2.4. The percentage of this interval is 10.5.

CANADA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.20	1	5.3	10.0	10.0
	1.50	3	15.8	30.0	40.0
	1.80	1	5.3	10.0	50.0
	2.20	1	5.3	10.0	60.0
	4.00	1	5.3	10.0	70.0
	4.80	1	5.3	10.0	80.0
	5.00	1	5.3	10.0	90.0
	5.60	1	5.3	10.0	100.0
	Total	10	52.6	100.0	
Missing	System Missing	9	47.4		
	Total	9	47.4		
Total		19	100.0		

As you can see from the frequency analysis of the country Canada there are no strike percentages or higher frequencies which must be recorded.

FRANCE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.90	1	5.3	10.0	10.0
	1.60	1	5.3	10.0	20.0
	1.70	1	5.3	10.0	30.0
	2.00	1	5.3	10.0	40.0
	2.10	1	5.3	10.0	50.0
	2.40	1	5.3	10.0	60.0
	2.70	1	5.3	10.0	70.0
	3.00	1	5.3	10.0	80.0
	3.40	1	5.3	10.0	90.0
	3.50	1	5.3	10.0	100.0
	Total	10	52.6	100.0	
Missing	System Missing	9	47.4		
	Total	9	47.4		
Total		19	100.0		

As you can see from the frequency analysis of the country France there are no strike percentages or higher frequencies which must be recorded.

GERMANY

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.30	1	5.3	10.0	10.0
	1.40	1	5.3	10.0	20.0
	1.50	1	5.3	10.0	30.0
	1.70	1	5.3	10.0	40.0
	2.70	2	10.5	20.0	60.0
	2.80	1	5.3	10.0	70.0
	3.50	1	5.3	10.0	80.0
	3.70	2	10.5	20.0	100.0
	Total	10	52.6	100.0	
Missing	System Missing	9	47.4		
	Total	9	47.4		
Total		19	100.0		

As you can see from the frequency analysis of the country Germany there are some strike percentages and higher frequencies which must be recorded. In years 1990 and 1994 the inflation rate is between 2.7 and 2.8. Also in years 1992 and 1993 the inflation rate is 3.7 or more. The percentages of both intervals are 10.5.

GREECE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5.40	1	5.3	10.0	10.0
	7.50	1	5.3	10.0	20.0
	9.10	1	5.3	10.0	30.0
	10.80	1	5.3	10.0	40.0
	12.30	1	5.3	10.0	50.0
	13.50	1	5.3	10.0	60.0
	13.70	1	5.3	10.0	70.0
	14.40	1	5.3	10.0	80.0
	18.90	1	5.3	10.0	90.0
	20.40	1	5.3	10.0	100.0
	Total	10	52.6	100.0	
Missing	System Missing	9	47.4		
	Total	9	47.4		
Total		19	100.0		

As you can see from the frequency analysis of the country Greece there are no strike percentages or higher frequencies which must be recorded.

ITALY

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.60	1	5.3	10.0	10.0
	2.70	1	5.3	10.0	20.0
	4.20	1	5.3	10.0	30.0
	4.40	2	10.5	20.0	50.0
	4.60	1	5.3	10.0	60.0
	4.90	1	5.3	10.0	70.0
	5.05	1	5.3	10.0	80.0
	5.10	1	5.3	10.0	90.0
	5.30	1	5.3	10.0	100.0
	Total	10	52.6	100.0	
Missing	System Missing	9	47.4		
	Total	9	47.4		
Total		19	100.0		

As you can see from the frequency analysis of the country Italy there are some strike percentages and higher frequencies which must be recorded. In years 1993 and 1995 the inflation rate is between 4.4 and 4.6. The percentage of this interval is 10.5.

JAPAN

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.20	3	15.8	30.0	30.0
	.50	1	5.3	10.0	40.0
	.70	1	5.3	10.0	50.0
	1.90	1	5.3	10.0	60.0
	2.30	1	5.3	10.0	70.0
	3.10	1	5.3	10.0	80.0
	3.30	1	5.3	10.0	90.0
	3.40	1	5.3	10.0	100.0
	Total	10	52.6	100.0	
Missing	System Missing	9	47.4		
	Total	9	47.4		
Total		19	100.0		

As you can see from the frequency analysis of the country Japan there are some strike percentages and higher frequencies which must be recorded. In years 1993, 1995 and 1996 the inflation rate is between 0.00 and 0.2. The percentages of both intervals are 15.8(which is three times greater than the other percentages).

NETHERLA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.70	1	5.3	10.0	10.0
	1.10	1	5.3	10.0	20.0
	2.00	1	5.3	10.0	30.0
	2.10	1	5.3	10.0	40.0
	2.20	1	5.3	10.0	50.0
	2.50	2	10.5	20.0	70.0
	2.60	1	5.3	10.0	80.0
	2.90	1	5.3	10.0	90.0
	3.90	1	5.3	10.0	100.0
	Total	10	52.6	100.0	
Missing	System Missing	9	47.4		
	Total	9	47.4		
Total		19	100.0		

As you can see from the frequency analysis of the country Netherlands there are some strike percentages and higher frequencies which must be recorded. In years 1990 and 1996 the inflation rate is between 2.5 and 2.6. The percentage of this interval is 10.5.

S.AFRICA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.20	1	5.3	10.0	10.0
	7.40	1	5.3	10.0	20.0
	8.60	1	5.3	10.0	30.0
	9.30	1	5.3	10.0	40.0
	9.70	1	5.3	10.0	50.0
	12.80	1	5.3	10.0	60.0
	13.90	1	5.3	10.0	70.0
	14.30	1	5.3	10.0	80.0
	14.70	1	5.3	10.0	90.0
	15.30	1	5.3	10.0	100.0
	Total	10	52.6	100.0	
Missing	System Missing	9	47.4		
	Total	9	47.4		
Total		19	100.0		

As you can see from the frequency analysis of the country South Africa there are no strike percentages or higher frequencies which must be recorded.

S.KOREA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4.50	1	5.3	11.1	11.1
	5.40	1	5.3	11.1	22.2
	5.70	1	5.3	11.1	33.3
	5.80	1	5.3	11.1	44.4
	6.20	1	5.3	11.1	55.6
	6.30	1	5.3	11.1	66.7
	7.10	1	5.3	11.1	77.8
	8.60	1	5.3	11.1	88.9
	9.70	1	5.3	11.1	100.0
	Total	9	47.4	100.0	
Missing	System Missing	10	52.6		
	Total	10	52.6		
Total		19	100.0		

As you can see from the frequency analysis of the country South Korea there are no strike percentages or higher frequencies which must be recorded.

SWEDEN

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-.20	1	5.3	10.0	10.0
	-.10	1	5.3	10.0	20.0
	1.10	1	5.3	10.0	30.0
	2.50	2	10.5	20.0	50.0
	4.70	1	5.3	10.0	60.0
	5.80	1	5.3	10.0	70.0
	6.40	1	5.3	10.0	80.0
	9.40	1	5.3	10.0	90.0
	10.50	1	5.3	10.0	100.0
	Total	10	52.6	100.0	
Missing	System Missing	9	47.4		
	Total	9	47.4		
Total		19	100.0		

As you can see from the frequency analysis of the country Sweden there are some strike percentages and higher frequencies which must be recorded. In years 1992 and 1994 the inflation rate is between 2.5 and 4.7. The percentage of this interval is 10.5.

TUNISIA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.70	2	10.5	20.0	20.0
	3.90	1	5.3	10.0	30.0
	5.00	1	5.3	10.0	40.0
	5.40	1	5.3	10.0	50.0
	6.20	1	5.3	10.0	60.0
	6.40	1	5.3	10.0	70.0
	6.80	1	5.3	10.0	80.0
	7.40	1	5.3	10.0	90.0
	8.30	1	5.3	10.0	100.0
	Total	10	52.6	100.0	
Missing	System Missing	9	47.4		
	Total	9	47.4		
Total		19	100.0		

As you can see from the frequency analysis of the country Tunisia there are some strike percentages and higher frequencies which must be recorded. In years 1996 and 1997 the inflation rate is between 0.0 and 3.7. The percentage of this interval is 10.5.

TURKEY

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	60.30	1	5.3	10.0	10.0
	66.00	1	5.3	10.0	20.0
	69.60	1	5.3	10.0	30.0
	70.10	1	5.3	10.0	40.0
	71.10	1	5.3	10.0	50.0
	79.40	1	5.3	10.0	60.0
	79.60	1	5.3	10.0	70.0
	80.40	1	5.3	10.0	80.0
	80.80	1	5.3	10.0	90.0
	125.50	1	5.3	10.0	100.0
	Total	10	52.6	100.0	
Missing	System Missing	9	47.4		
	Total	9	47.4		
Total		19	100.0		

As you can see from the frequency analysis of the country Turkey there are no strike percentages or higher frequencies which must be recorded. I can also suggest that as the

frequencies are all equal to 1 this means that every year the inflation rate is changing and that it is not stable.

UK

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.60	1	5.3	10.0	10.0
	2.20	1	5.3	10.0	20.0
	2.50	1	5.3	10.0	30.0
	2.60	2	10.5	20.0	50.0
	2.90	1	5.3	10.0	60.0
	4.90	1	5.3	10.0	70.0
	5.90	1	5.3	10.0	80.0
	7.80	1	5.3	10.0	90.0
	9.50	1	5.3	10.0	100.0
	Total	10	52.6	100.0	
Missing	System Missing	9	47.4		
	Total	9	47.4		
Total		19	100.0		

As you can see from the frequency analysis of the country UK there are some strike percentages and higher frequencies which must be recorded. In years 1992 and 1996 the inflation rate is between 2.6 and 2.9. The percentage of this interval is 10.5.

USA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.20	1	5.3	10.0	10.0
	2.70	1	5.3	10.0	20.0
	2.90	3	15.8	30.0	50.0
	3.30	1	5.3	10.0	60.0
	4.00	1	5.3	10.0	70.0
	4.20	1	5.3	10.0	80.0
	4.80	1	5.3	10.0	90.0
	5.40	1	5.3	10.0	100.0
	Total	10	52.6	100.0	
Missing	System Missing	9	47.4		
	Total	9	47.4		
Total		19	100.0		

As you can see from the frequency analysis of the country USA there are some strike percentages and higher frequencies which must be recorded. In years 1992, 1993 and 1995 the inflation rate is between 2.9 and 3.3. The percentages of both intervals are 15.8(which is three times greater than the other percentages).

I am trying to figure out whether the inflation rate means of TURKEY and the mean of other world countries are same or not. So, I used oneway ANOVA Analysis to examine whether my null hypothesis is true or not. (Mean of Turkey is μ_1 and mean of other world countries is μ_2).

H_0: $\mu_1 >= \mu_2$

H_1: $\mu_1 < \mu_2$

Oneway

ANOVA Analysis between dependent variable TURKEY and independent variable AUSTRIA

		Sum of Squares	df	Mean Square	F	Sig.
TURKEY	Between Groups	1332.806	7	190.401	.241	.935
	Within Groups	1578.650	2	789.325		
	Total	2911.456	9			

When you look at the F statistic value and I compared it with 7 and 2 degrees of freedom F table value I can say that F statistic < F table, which is .241<19.35 (at significance level 0.05). So I accept the null hypothsis. And I come to a conclusion that the mean of Turkey is not equal to the mean of Austria.

Oneway

ANOVA Analysis between dependent variable TURKEY and independent variable BELGIUM

		Sum of Squares	df	Mean Square	F	Sig.
TURKEY	Between Groups	1912.411	8	239.051	.239	.925
	Within Groups	999.045	1	999.045		
	Total	2911.456	9			

When you look at the F statistic value and I compared it with 8 and 1 degrees of freedom F table value I can say that F statistic < F table, which is .239<238.88 (at significance level 0.05). So I accept the null hypothsis. And I come to a conclusion that the mean of Turkey is not equal to the mean of Belgium.

Oneway

ANOVA Analysis between dependent variable Turkey and independent variable CANADA

		Sum of Squares	df	Mean Square	F	Sig.
TURKEY	Between Groups	2842.729	7	406.104	11.818	.080
	Within Groups	68.727	2	34.363		
	Total	2911.456	9			

When you look at the F statistic value and I compared it with 7 and 2 degrees of freedom F table value I can say that F statistic < F table, which is 11.818<19.35 (at significance level 0.05). So I accept the null hypothsis. And I come to a conclusion that the mean of Turkey is not equal to the mean of Canada.

Oneway

ANOVA Analysis between dependent variable TURKEY and independent variable FRANCE

		Sum of Squares	df	Mean Square	F	Sig.
TURKEY	Between Groups	2911.456	9	323.495	.	
	Within Groups	.000	0	.		
	Total	2911.456	9			

There was no value given for the F statistic and p-value because there were missing values from the data given and because of these not enough observations I can not say any thing.

Oneway

ANOVA Analysis between dependent variable TURKEY and independent variable GERMANY

		Sum of Squares	df	Mean Square	F	Sig.
TURKEY	Between Groups	785.436	7	112.205	.106	.990
	Within Groups	2126.020	2	1063.010		
	Total	2911.456	9			

When you look at the F statistic value and I compared it with 7 and 2 degrees of freedom F table value I can say that F statistic < F table, which is .106<19.35 (at significance level 0.05). So I accept the null hypothsis. And I come to a conclusion that the mean of Turkey is not equal to the mean of Germany.

Oneway

ANOVA Analysis between dependent variable TURKEY and independent variable GREECE

		Sum of Squares	df	Mean Square	F	Sig.
TURKEY	Between Groups	2911.456	9	323.495	.	
	Within Groups	.000	0	.		
	Total	2911.456	9			

There was no value given for the F statistic and p-value because there were missing values from the data given and because of these not enough observations I can not say any thing.

Oneway

ANOVA Analysis between dependent variable TURKEY and independent variable ITALY

		Sum of Squares	df	Mean Square	F	Sig.
TURKEY	Between Groups	2864.411	8	358.051	7.611	.274
	Within Groups	47.045	1	47.045		
	Total	2911.456	9			

When you look at the F statistic value and I compared it with 8 and 1 degrees of freedom F table value I can say that F statistic < F table, which is 7.611< 238.88 (at significance level 0.05). So I accept the null hypothsis. And I come to a conclusion that the mean of Turkey is not equal to the mean of Italy.

Oneway

ANOVA Analysis between dependent variable TURKEY and independent variable JAPAN

		Sum of Squares	df	Mean Square	F	Sig.
TURKEY	Between Groups	2851.209	7	407.316	13.522	.071
	Within Groups	60.247	2	30.123		
	Total	2911.456	9			

When you look at the F statistic value and I compared it with 7 and 2 degrees of freedom F table value I can say that F statistic < F table, which is 13.522<19.35 (at significance level 0.05). So I accept the null hypothsis. And I come to a conclusion that the mean of Turkey is not equal to the mean of Japan.

Oneway

ANOVA Analysis between dependent variable TURKEY and independent variable NETHERLANDS

		Sum of Squares	df	Mean Square	F	Sig.
TURKEY	Between Groups	2709.451	8	338.681	1.677	.538
	Within Groups	202.005	1	202.005		
	Total	2911.456	9			

When you look at the F statistic value and I compared it with 8 and 1 degrees of freedom F table value I can say that F statistic < F table, which is 1.677< 238.88 (at significance level 0.05). So I accept the null hypothsis. And I come to a conclusion that the mean of Turkey is not equal to the mean of Netherlands.

Oneway

ANOVA Analysis between dependent variables TURKEY and independent variable SOUTH AFRICA

		Sum of Squares	df	Mean Square	F	Sig.
TURKEY	Between Groups	2911.456	9	323.495	.	
	Within Groups	.000	0	.		
	Total	2911.456	9			

There was no value given for the F statistic and p-value because there were missing values from the data given and because of these not enough observations I can not say any thing.

Oneway

ANOVA Analysis between dependent variable TURKEY and independent variable SOUTH KOREA

		Sum of Squares	df	Mean Square	F	Sig.
TURKEY	Between Groups	2909.520	8	363.690	.	
	Within Groups	.000	0	.		
	Total	2909.520	8			

There was no value given for the F statistic and p-value because there were missing values from the data given and because of these not enough observations I can not say any thing.

Oneway

ANOVA Analysis between dependent variable TURKEY and independent variable SWEDEN

		Sum of Squares	df	Mean Square	F	Sig.
TURKEY	Between Groups	1376.876	8	172.109	.112	.983
	Within Groups	1534.580	1	1534.580		
	Total	2911.456	9			

When you look at the F statistic value and I compared it with 8 and 1 degrees of freedom F table value I can say that F statistic < F table, which is .112< 238.88 (at significance level 0.05). So I accept the null hypothsis. And I come to a conclusion that the mean of Turkey is not equal to the mean of Sweden.

Oneway

ANOVA Analysis between dependent variable TURKEY and independent variable TUNISIA

		Sum of Squares	df	Mean Square	F	Sig.
TURKEY	Between Groups	2911.136	8	363.892	1137.162	.023
	Within Groups	.320	1	.320		
	Total	2911.456	9			

When you look at the F statistic value and I compared it with 8 and 1 degrees of freedom F table value I can say that F statistic > F table, which is 1137.162> 238.88 (at significance level 0.05). So I reject the null hypothsis. And I come to a conclusion that the mean of Turkey is equal to the mean of Tunusia.

Oneway

ANOVA Analysis between dependent variable TURKEY and independent variable UK

		Sum of Squares	df	Mean Square	F	Sig.
TURKEY	Between Groups	2866.331	8	358.291	7.940	.268
	Within Groups	45.125	1	45.125		
	Total	2911.456	9			

When you look at the F statistic value and I compared it with 8 and 1 degrees of freedom F table value I can say that F statistic < F table, which is 7.940< 238.88 (at significance level 0.05). So I accept the null hypothsis. And I come to a conclusion that the mean of Turkey is not equal to the mean of UK.

Oneway

ANOVA Analysis between dependent variable TURKEY and independent variable USA

		Sum of Squares	df	Mean Square	F	Sig.
TURKEY	Between Groups	2841.596	7	405.942	11.622	.081
	Within Groups	69.860	2	34.930		
	Total	2911.456	9			

When you look at the F statistic value and I compared it with 7 and 2 degrees of freedom F table value I can say that F statistic < F table, which is 11.622<19.35 (at significance level 0.05). So I accept the null hypothsis. And I come to a conclusion that the mean of Turkey is not equal to the mean of USA.

T-Test

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
AUSTRIA	10	2.7400	.7011	.2217
BELGIUM	10	2.3800	.7269	.2299
CANADA	10	2.8100	1.8651	.5898
FRANCE	10	2.3300	.8327	.2633
GERMANY	10	2.5000	.9626	.3044
GREECE	10	12.6000	4.7048	1.4878
ITALY	10	4.2250	1.1774	.3723
JAPAN	10	1.5800	1.3685	.4328
NETHERLA	10	2.2500	.8947	.2829
S.AFRICA	10	10.6200	4.6334	1.4652
S.KOREA	9	6.5889	1.6359	.5453
SWEDEN	10	4.2600	3.7651	1.1906
TUNISIA	10	5.6800	1.6130	.5101
TURKEY	10	78.2800	17.9860	5.6877
UK	10	4.2500	2.6846	.8490
USA	10	3.5300	1.0264	.3246

One-Sample Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
AUSTRIA	12.358	9	.000	2.7400	2.2385	3.2415
BELGIUM	10.353	9	.000	2.3800	1.8600	2.9000
CANADA	4.764	9	.001	2.8100	1.4758	4.1442
FRANCE	8.848	9	.000	2.3300	1.7343	2.9257
GERMANY	8.213	9	.000	2.5000	1.8114	3.1886
GREECE	8.469	9	.000	12.6000	9.2344	15.9656
ITALY	11.348	9	.000	4.2250	3.3827	5.0673
JAPAN	3.651	9	.005	1.5800	.6010	2.5590
NETHERLA	7.952	9	.000	2.2500	1.6099	2.8901
S.AFRICA	7.248	9	.000	10.6200	7.3055	13.9345
S.KOREA	12.083	8	.000	6.5889	5.3314	7.8463
SWEDEN	3.578	9	.006	4.2600	1.5666	6.9534
TUNISIA	11.136	9	.000	5.6800	4.5261	6.8339
TURKEY	13.763	9	.000	78.2800	65.4136	91.1464
UK	5.006	9	.001	4.2500	2.3295	6.1705
USA	10.876	9	.000	3.5300	2.7958	4.2642

Turkey has the largest confidence interval which is [65.4136, 91.1464]. Having a large confidence interval is not significant. I would like to decrease the interval and in order to do this I have to increase the sample size.

Austria has the narrowest confidence interval which is [2.2385, 3.2415]. Having a narrow confidence interval is good because by this I can understand that the inflation rate of Austria is almost stable.

Partial Correlation:

P A R T I A L C O R R E L A T I O N C O E F F I C I E N T S

Controlling for.. YEARS

	AUSTRIA	TURKEY
AUSTRIA	1.0000 (0) P= .	-.2873 (7) P= .454
TURKEY	-.2873 (7) P= .454	1.0000 (0) P= .

(Coefficient / (D.F.) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

P A R T I A L C O R R E L A T I O N C O E F F I C I E N T S

Controlling for.. YEARS

	TURKEY	BELGIUM
TURKEY	1.0000 (0) P= .	-.4739 (7) P= .198
BELGIUM	-.4739 (7) P= .198	1.0000 (0) P= .

(Coefficient / (D.F.) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

P A R T I A L C O R R E L A T I O N C O E F F I C I E N T S

Controlling for.. YEARS

	TURKEY	CANADA
TURKEY	1.0000 (0) P= .	-.6185 (7) P= .076
CANADA	-.6185 (7) P= .076	1.0000 (0) P= .

(Coefficient / (D.F.) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

P A R T I A L C O R R E L A T I O N C O E F F I C I E N T S

Controlling for.. YEARS

	TURKEY	FRANCE
TURKEY	1.0000 (0) P= .	-.4218 (7) P= .258
FRANCE	-.4218 (7) P= .258	1.0000 (0) P= .

(Coefficient / (D.F.) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

P A R T I A L C O R R E L A T I O N C O E F F I C I E N T S

Controlling for.. YEARS

	TURKEY	GERMANY
TURKEY	1.0000 (0) P= .	-.1278 (7) P= .743
GERMANY	-.1278 (7) P= .743	1.0000 (0) P= .

(Coefficient / (D.F.) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

P A R T I A L C O R R E L A T I O N C O E F F I C I E N T S

Controlling for.. YEARS

	TURKEY	GREECE
TURKEY	1.0000 (0) P= .	-.3046 (7) P= .425
GREECE	-.3046 (7) P= .425	1.0000 (0) P= .

(Coefficient / (D.F.) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

P A R T I A L C O R R E L A T I O N C O E F F I C I E N T S

Controlling for.. YEARS

	TURKEY	ITALY
TURKEY	1.0000 (0) P= .	.2214 (7) P= .567
ITALY	.2214 (7) P= .567	1.0000 (0) P= .

(Coefficient / (D.F.) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

P A R T I A L C O R R E L A T I O N C O E F F I C I E N T S

Controlling for.. YEARS

	TURKEY	JAPAN
TURKEY	1.0000 (0) P= .	-.4503 (7) P= .224
JAPAN	-.4503 (7) P= .224	1.0000 (0) P= .

(Coefficient / (D.F.) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

P A R T I A L C O R R E L A T I O N C O E F F I C I E N T S

Controlling for.. YEARS

	TURKEY	NETHERLA
TURKEY	1.0000 (0) P= .	-.1724 (7) P= .657
NETHERLA	-.1724 (7) P= .657	1.0000 (0) P= .

(Coefficient / (D.F.) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

P A R T I A L C O R R E L A T I O N C O E F F I C I E N T S

Controlling for.. YEARS

	TURKEY	S.AFRICA
TURKEY	1.0000 (0) P= .	-.9427 (7) P= .000
S.AFRICA	-.9427 (7) P= .000	1.0000 (0) P= .

(Coefficient / (D.F.) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

P A R T I A L C O R R E L A T I O N C O E F F I C I E N T S

Controlling for.. YEARS

	TURKEY	S.KOREA
TURKEY	1.0000 (0) P= .	-.1250 (6) P= .768
S.KOREA	-.1250 (6) P= .768	1.0000 (0) P= .

(Coefficient / (D.F.) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed.

P A R T I A L C O R R E L A T I O N C O E F F I C I E N T S

Controlling for.. YEARS

	TURKEY	SWEDEN
TURKEY	1.0000 (0) P= .	-.3189 (7) P= .403
SWEDEN	-.3189 (7) P= .403	1.0000 (0) P= .

(Coefficient / (D.F.) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

P A R T I A L C O R R E L A T I O N C O E F F I C I E N T S

Controlling for.. YEARS

	TURKEY	TUNISIA
TURKEY	1.0000 (0) P= .	-.4817 (7) P= .189
TUNISIA	-.4817 (7) P= .189	1.0000 (0) P= .

(Coefficient / (D.F.) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

P A R T I A L C O R R E L A T I O N C O E F F I C I E N T S

Controlling for.. YEARS

	TURKEY	UK
TURKEY	1.0000 (0) P= .	-.2590 (7) P= .501
UK	-.2590 (7) P= .501	1.0000 (0) P= .

(Coefficient / (D.F.) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

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P A R T I A L   C O R R E L A T I O N   C O E F F I C I E N T S

Controlling for..    YEARS

              TURKEY        USA

TURKEY         1.0000     -.3949
              (    0)     (    7)
              P= .       P= .293

USA           -.3949      1.0000
              (    7)     (    0)
              P= .293     P= .

(Coefficient / (D.F.) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed
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The correlation coefficient is essentially the average of the products of the standardized variables. The divisor in the average is degrees of freedom, rather than the number of cases .

The correlation coefficient has many properties, the most important of which are:

1. Its numerical value lies between –1 and +1 inclusive.

2. If the "r" value equals to 1, the scatter plot shows that the data lie exactly on a straight line with a positive slope; if the "r" value equals to –1, the scatterplot shows that the data lie on a straight line, with a negative slope.

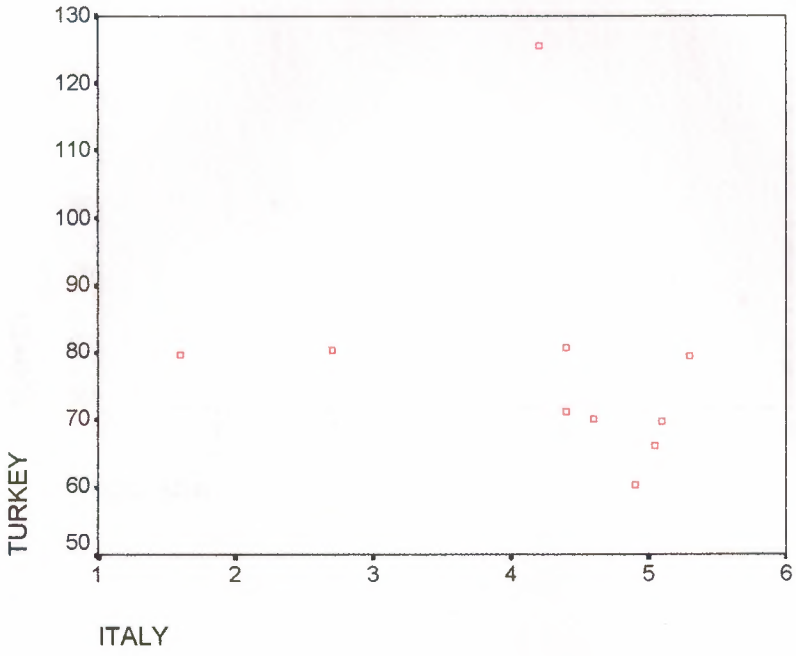
3. If the "r" value equals to zero, indicates that there is no straight line component in the relationship between the two variables.

The more the scatterplot looks like a positively sloping straight line, the closer the "r" value to +1 and the more the scatterplot looks like a negatively sloping straight line, the closer the "r" to –1.

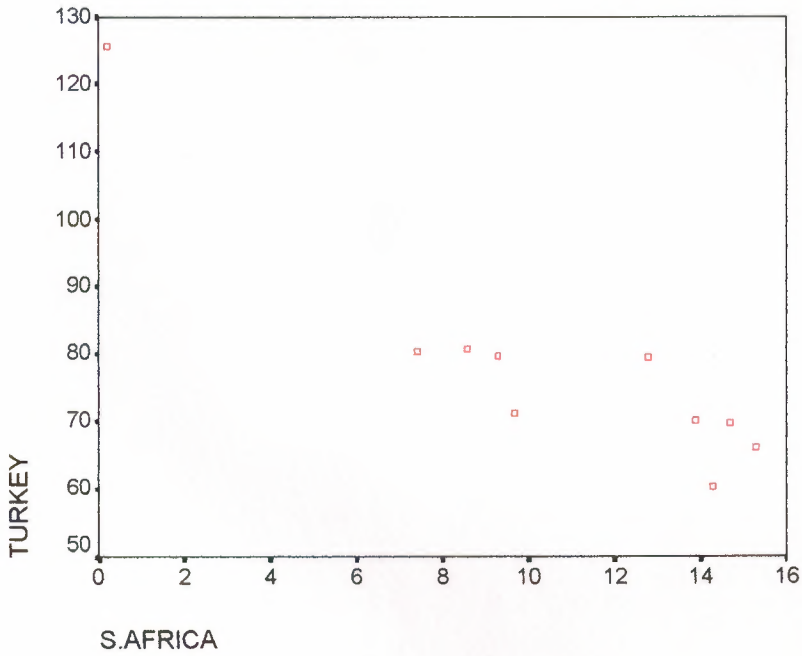
When I try to analyse the partial correlation given in the tables above, you can see that in generall all the countries have negative value of correlation coefficient with Turkey, except Italy. The "r" value of Italy is positive but as it is close to zero. I can say that there is no relationship between Turkey and Italys' inflation rates. The only acceptable correlation is the one of South Africa which is -.9427, which is almost –1. This means that Turkey and South Africa is negatively correlated with each other. There is no relationship between Turkey and Germany, Austria, Netherland, UK, Sweden, Greece, USA, South Korea, because the correlation coeffeciants are close to zero. Values of "r" less than 0.5 in magnitude signal a relatively weak straight line relationship between variables. The ones which have correlation coefficient between –1 and –0.5 and between +0.5 and +1 indicates a straight line relationship that is worty of attention. Canada is the only country which has -.6185 corellation coefficient with Turkey.

You can see the relationships from the scatterplots below:

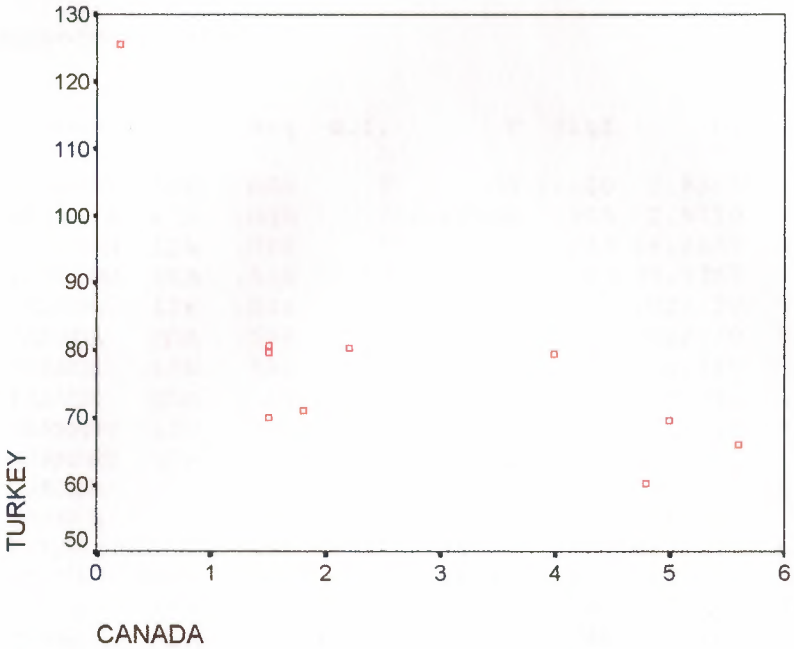
Graph r=+.2214



Graph r=-.9427



Graph r=-0.6185



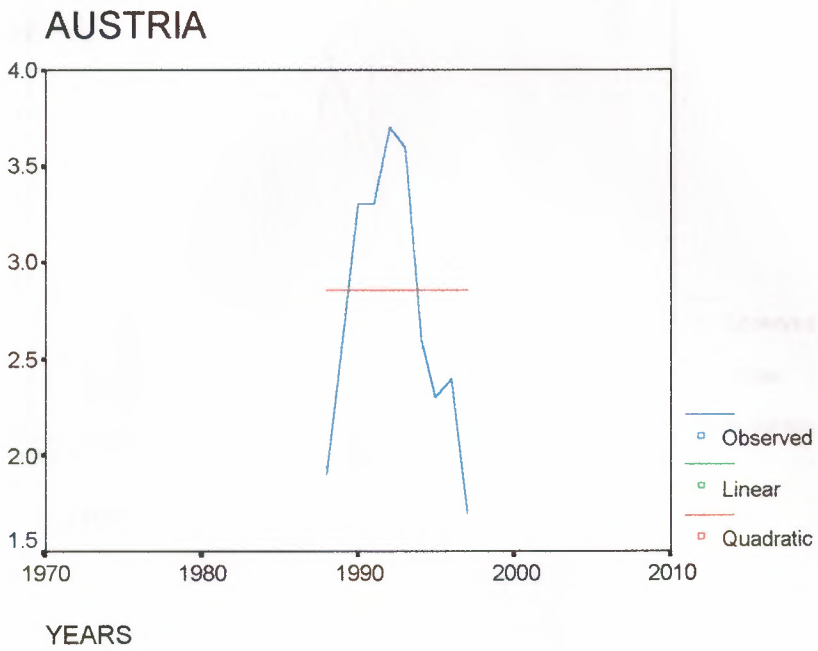
Regression Analysis

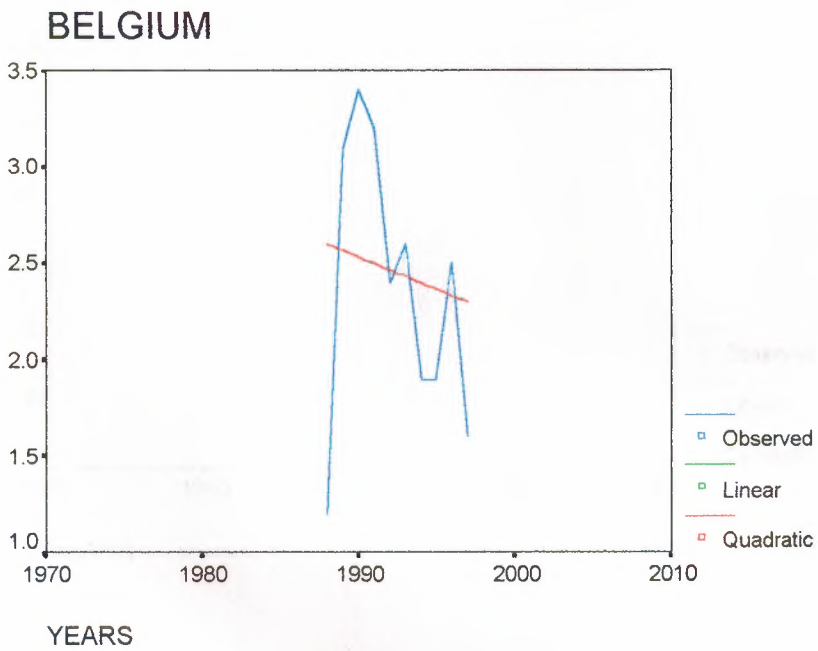
Independent: YEARS

	Dependent	Mth	Rsq	d.f.	F	Sigf	b0	b1	b2
	AUSTRIA	LIN	.000	7	.00	1.000	2.8556	-1.E-16	
9	AUSTRIA	QUA	.000	7	1.8E-06	.999	2.9719		-3.E-08
	BELGIUM	LIN	.016	7	.12	.743	68.8667	-.0333	
9	BELGIUM	QUA	.016	7	.12	.743	35.7367		-8.E-06
	CANADA	LIN	.534	7	8.03	.025	1022.20	-.5117	
9	CANADA	QUA	.534	7	8.03	.025	1022.20	-.5117	
	FRANCE	LIN	.585	7	9.86	.016	394.249	-.1967	
9	FRANCE	QUA	.585	7	9.86	.016	198.372		-5.E-05
	GERMANY	LIN	.017	7	.12	.740	92.2511	-.0450	
9	GERMANY	QUA	.017	7	.12	.739	47.6152		-1.E-05
	GREECE	LIN	.476	7	6.36	.040	2124.92	-1.0600	
9	GREECE	QUA	.476	7	6.37	.040	1069.61		-.0003
	ITALY	LIN	.732	7	19.12	.003	487.577	-.2425	
9	ITALY	QUA	.732	7	19.15	.003	246.096		-6.E-05
	JAPAN	LIN	.274	7	2.65	.148	552.664	-.2767	
9	JAPAN	QUA	.275	7	2.65	.148	277.263		-7.E-05
	NETHERLA	LIN	.159	7	1.33	.287	-273.30	.1383	
9	NETHERLA	QUA	.159	7	1.33	.287	-273.30	.1383	
	S.AFRICA	LIN	.473	7	6.29	.041	2457.61	-1.2283	
9	S.AFRICA	QUA	.473	7	6.29	.040	1234.31		-.0003
	S.KOREA	LIN	.278	7	2.70	.145	634.069	-.3150	
9	S.KOREA	QUA	.278	7	2.70	.144	320.448		-8.E-05
	SWEDEN	LIN	.575	7	9.47	.018	2016.66	-1.0100	
9	SWEDEN	QUA	.575	7	9.48	.018	1010.96		-.0003
	TUNISIA	LIN	.483	7	6.54	.038	786.100	-.3917	
9	TUNISIA	QUA	.483	7	6.54	.038	396.058		-1.E-04
	TURKEY	LIN	.172	7	1.45	.268	-5668.8	2.8850	
9	TURKEY	QUA	.172	7	1.45	.268	-2795.8		.0007
	UK	LIN	.519	7	7.57	.028	1461.91	-.7317	
9	UK	QUA	.519	7	7.57	.028	733.176		-.0002
	USA	LIN	.512	7	7.35	.030	508.318	-.2533	
9	USA	QUA	.512	7	7.35	.030	508.318	-.2533	

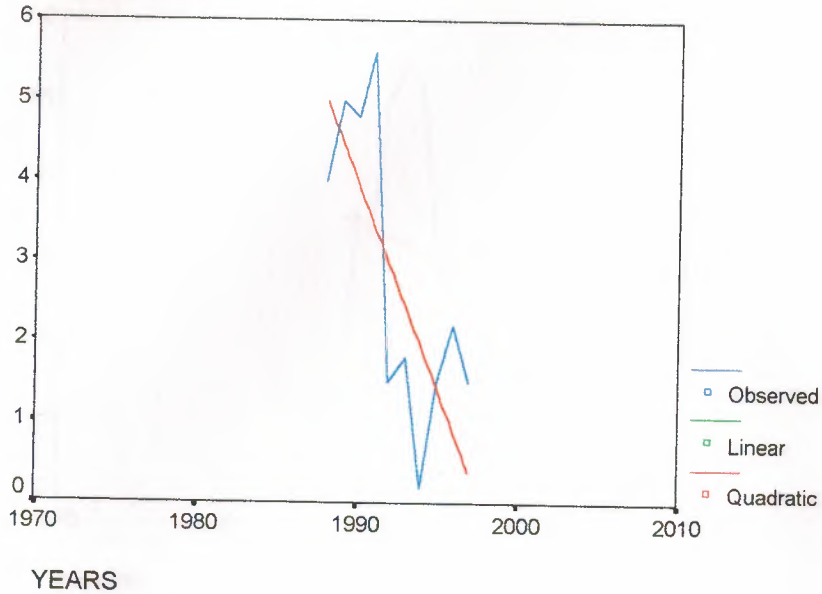
Notes:
9 Tolerance limits reached; some dependent variables were not entered.

Curve Fit

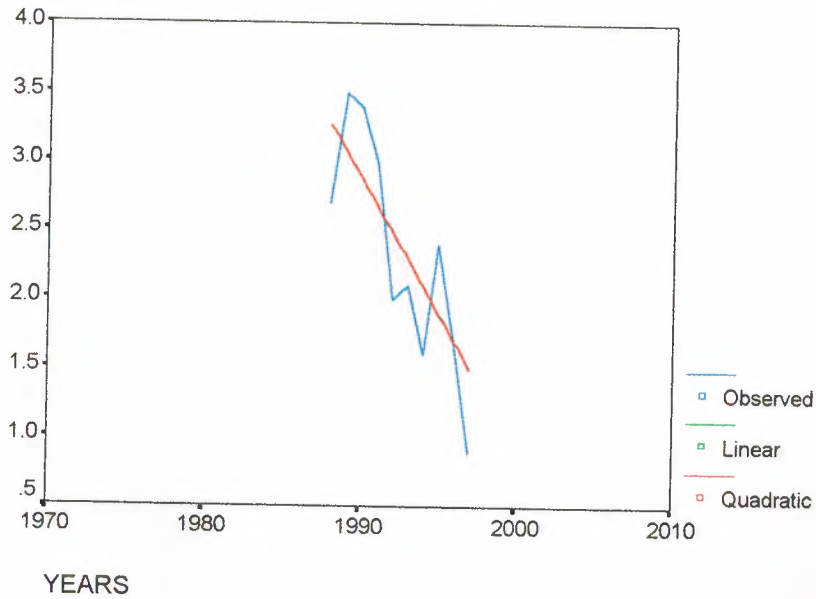

AUSTRIA
4.0
3.5
3.0
2.5
2.0
1.5
1970
1980
1990
2000
2010
YEARS
Observed
Linear
Quadratic


BELGIUM
3.5
3.0
2.5
2.0
1.5
1.0
1970
1980
1990
2000
2010
YEARS
Observed
Linear
Quadratic

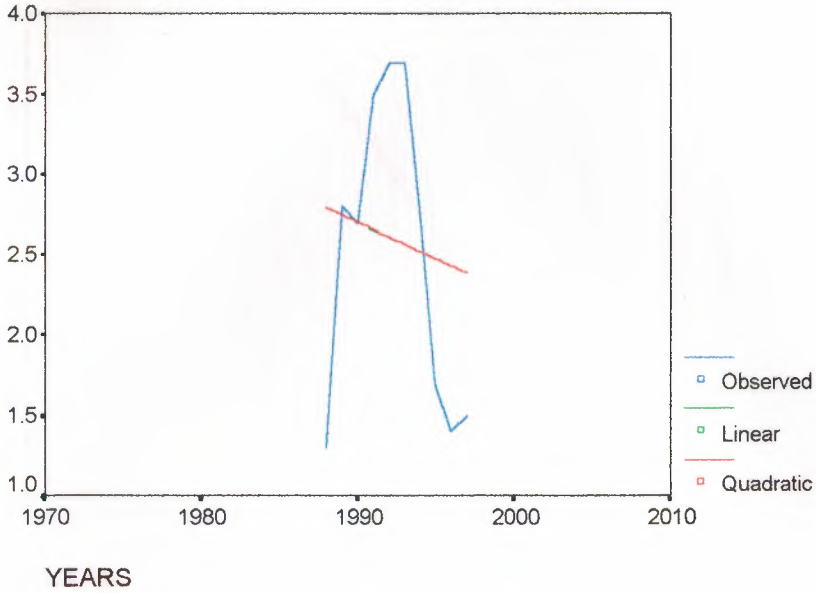
CANADA



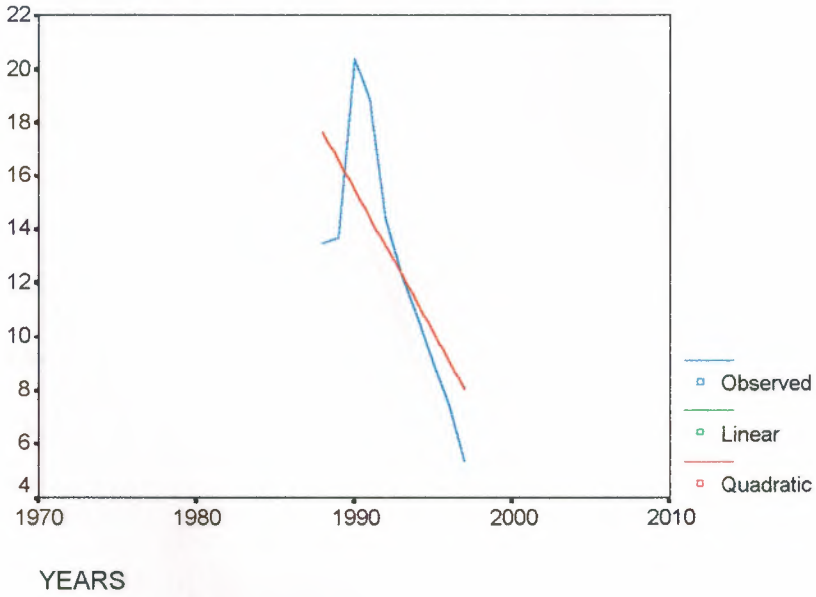
FRANCE



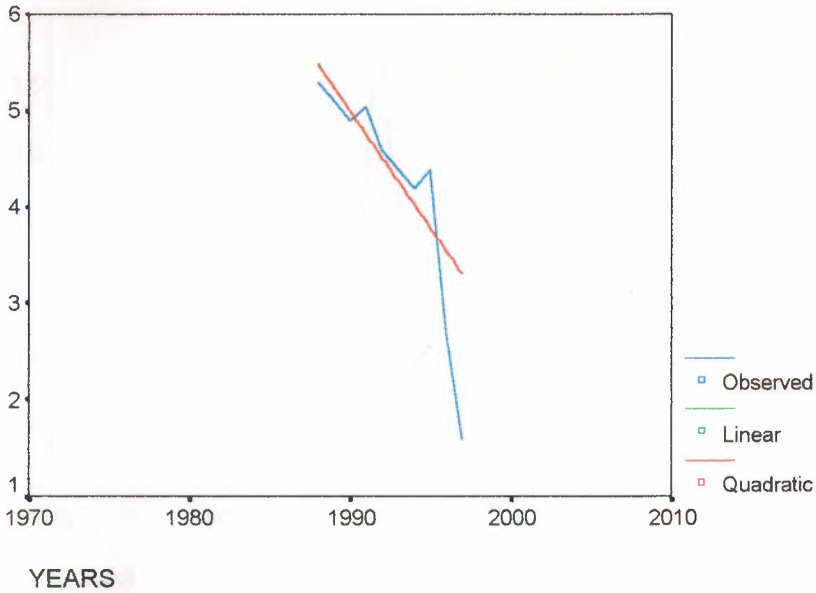
GERMANY



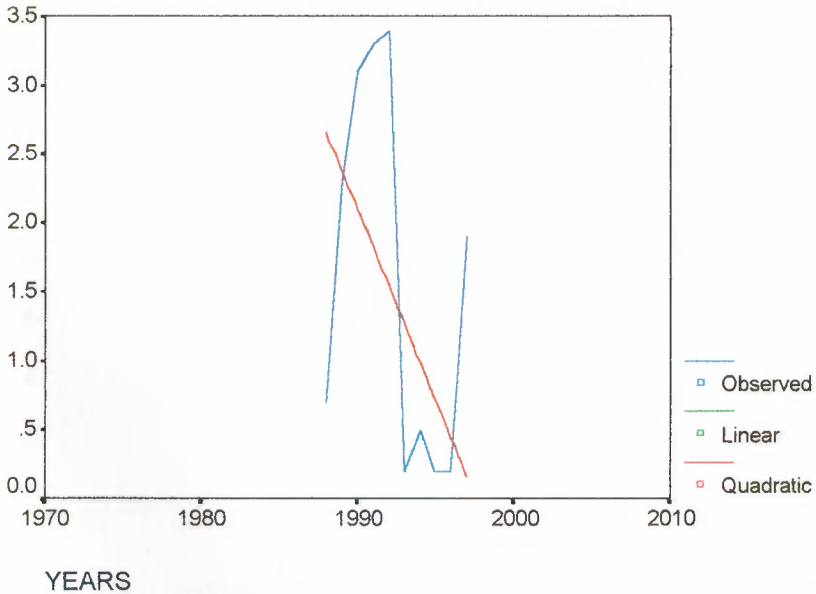
GREECE



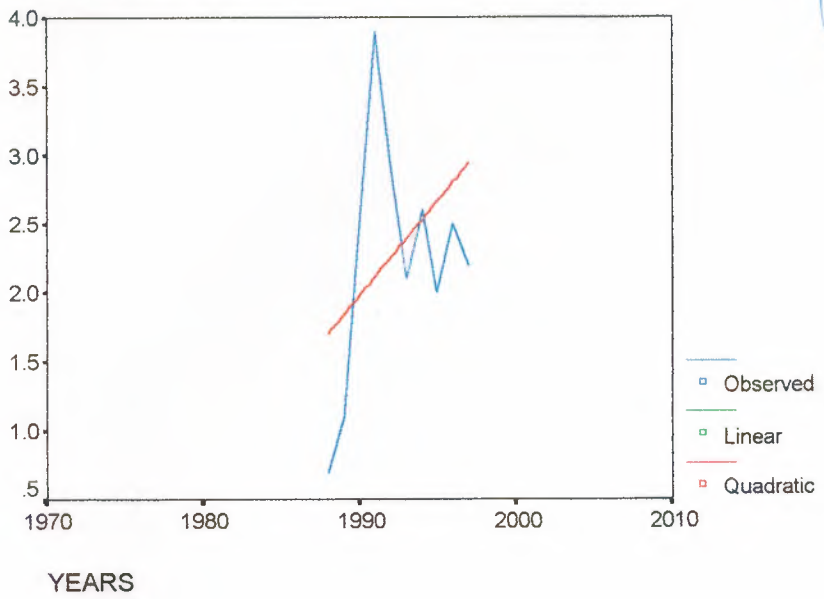
ITALY


6
5
4
3
2
1
1970
1980
1990
2000
2010
YEARS
Observed
Linear
Quadratic

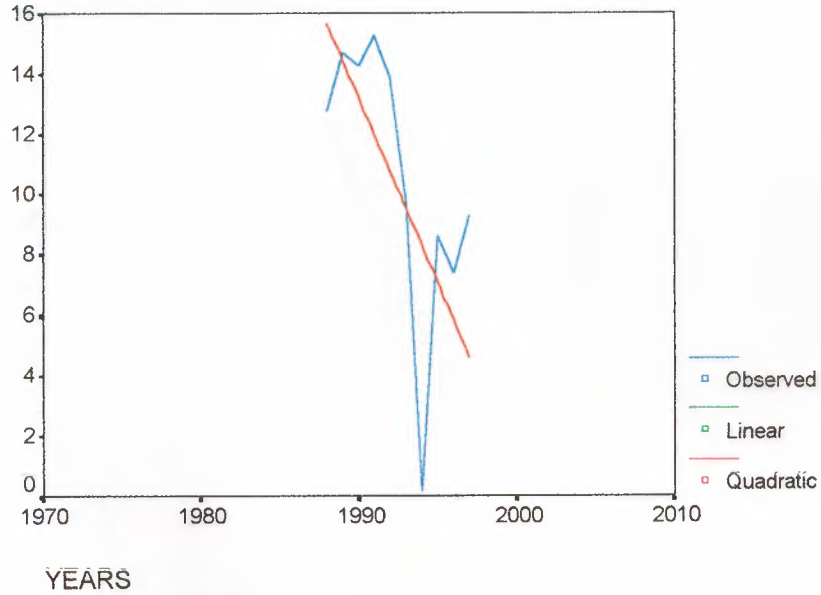
JAPAN


3.5
3.0
2.5
2.0
1.5
1.0
.5
0.0
1970
1980
1990
2000
2010
YEARS
Observed
Linear
Quadratic

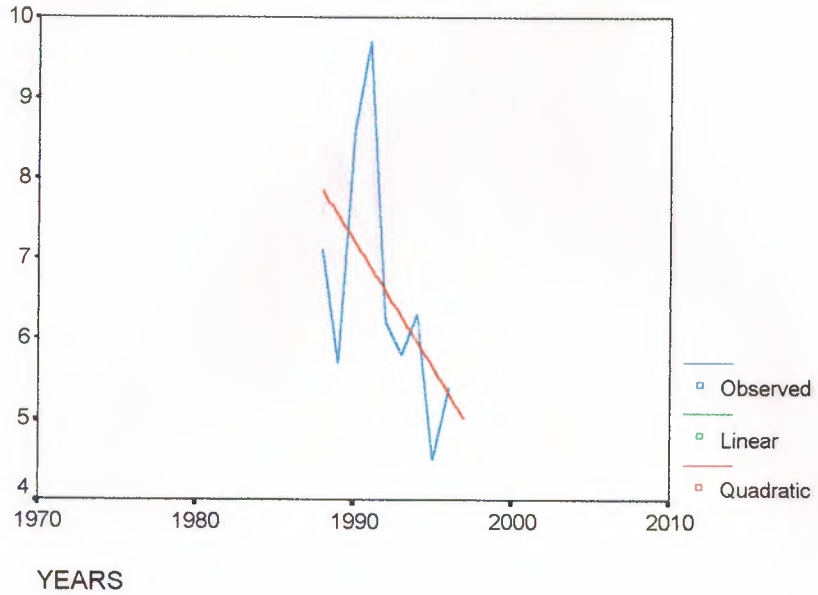
NETHERLA



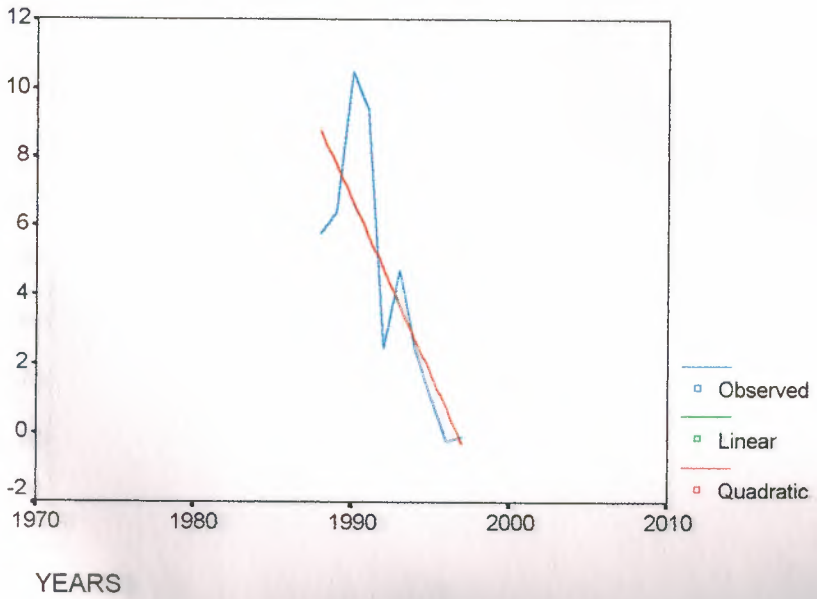
S.AFRICA



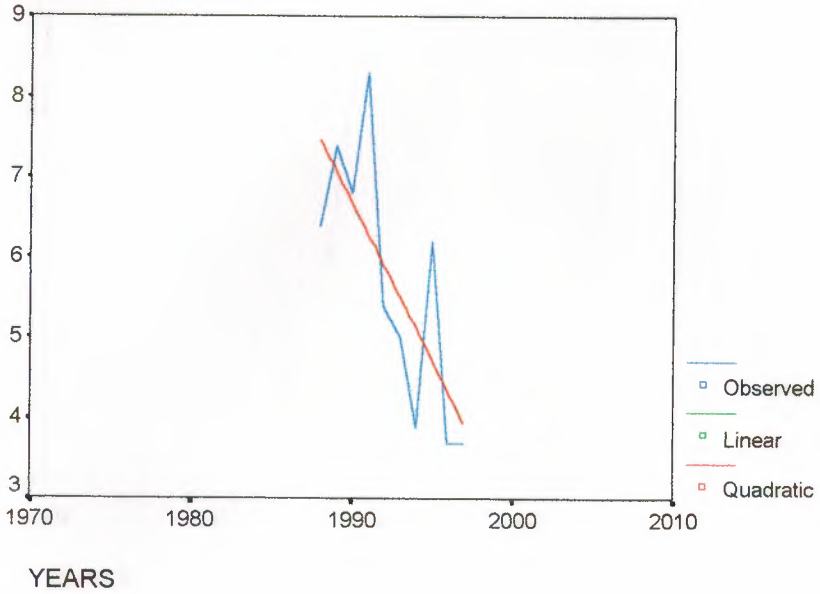
S.KOREA



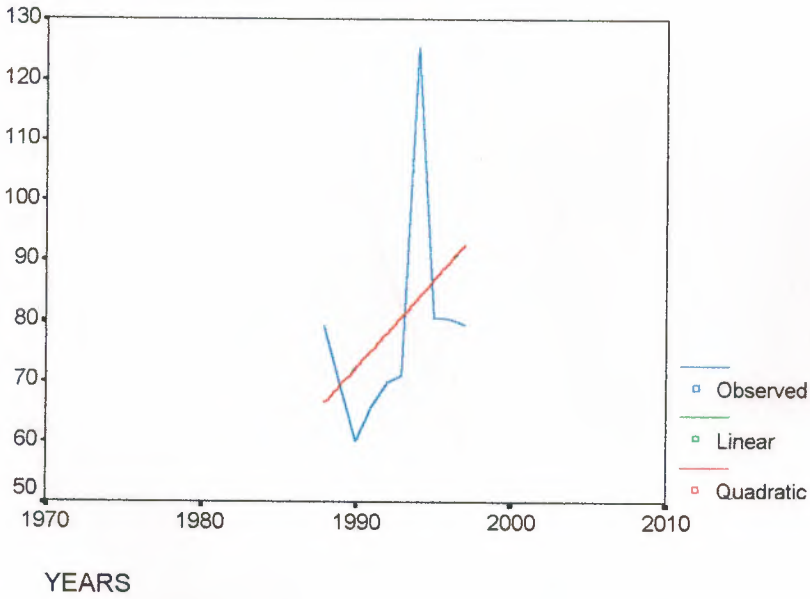
SWEDEN

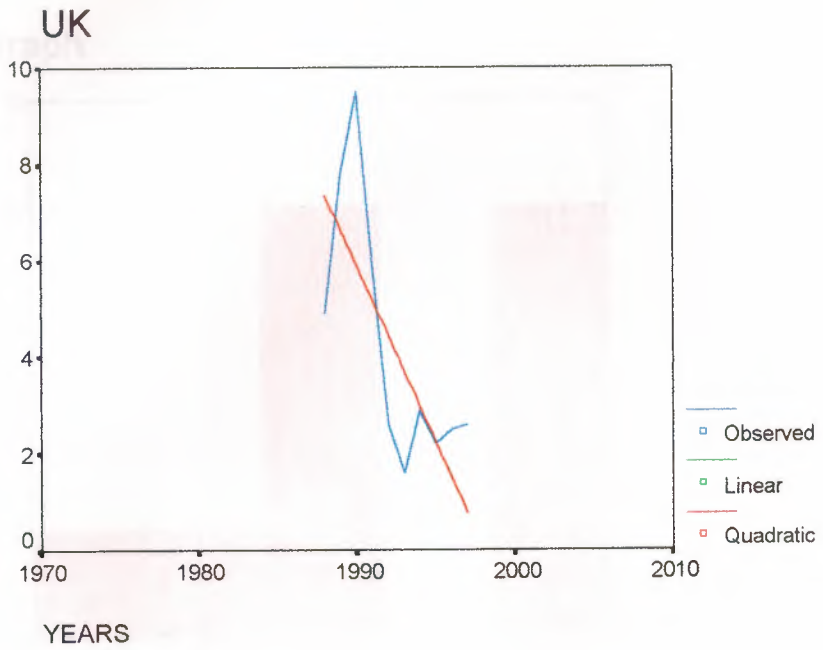


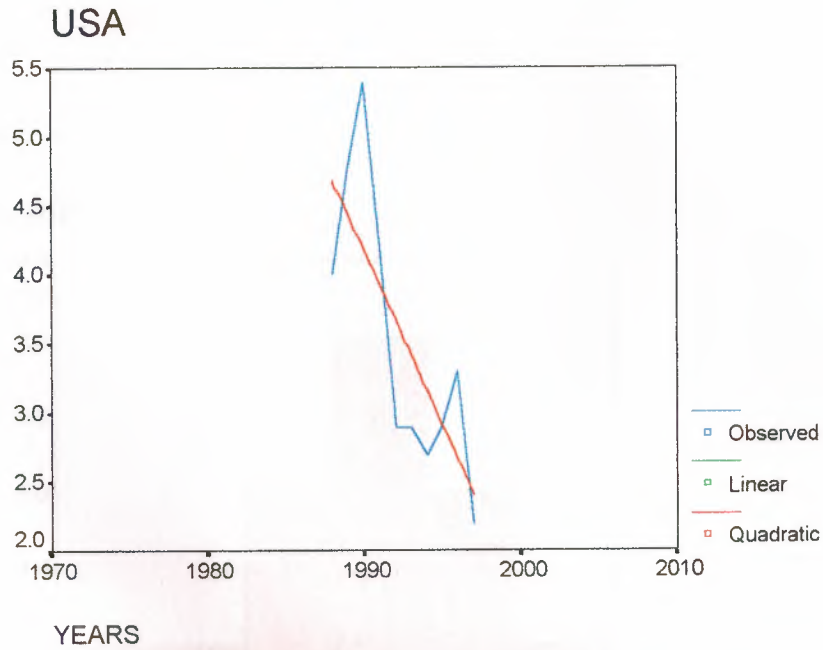
TUNISIA



TURKEY

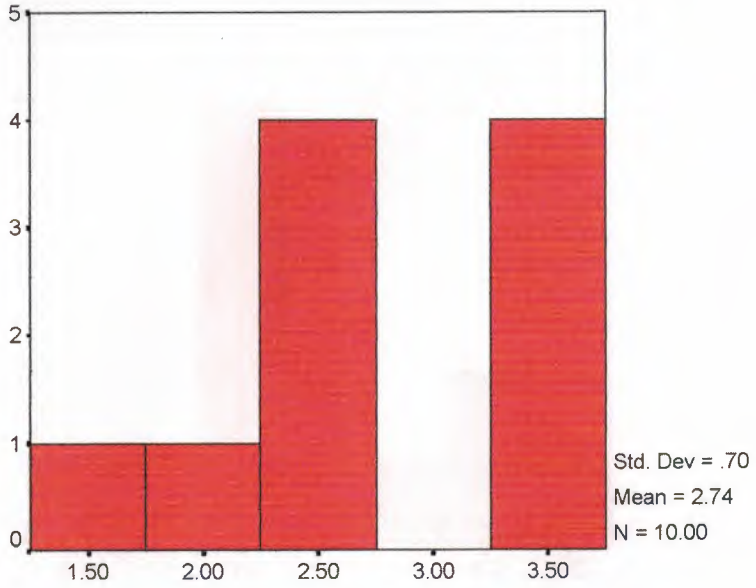






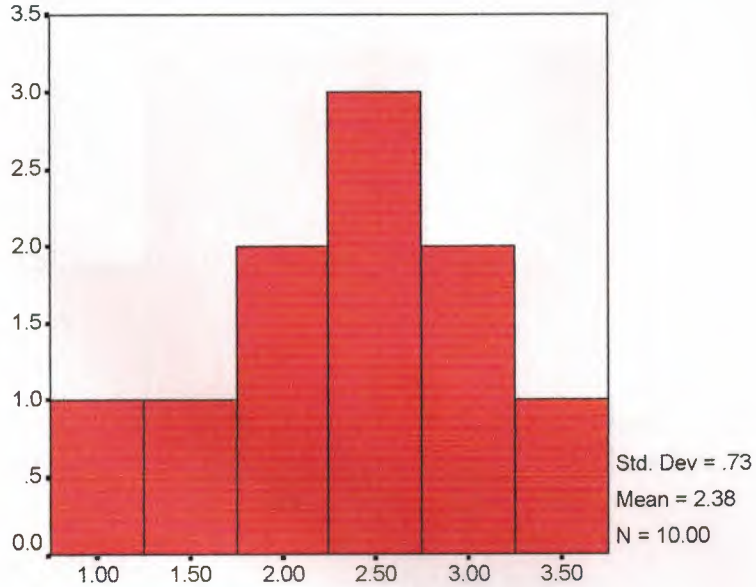
By using the regression analysis it can be figured out that most of the countries are almost on the trend. But on the other hand the curve fit of Turkey shows that it is extremely different from the trend line which is found from the regression analysis. This means that trying to forecast or estimate the future inflation rates of Turkey is almost imposible because it is not related with the trend line. So using the regression equation in order to estimate the future inflation rates will not give correct values.

Graph



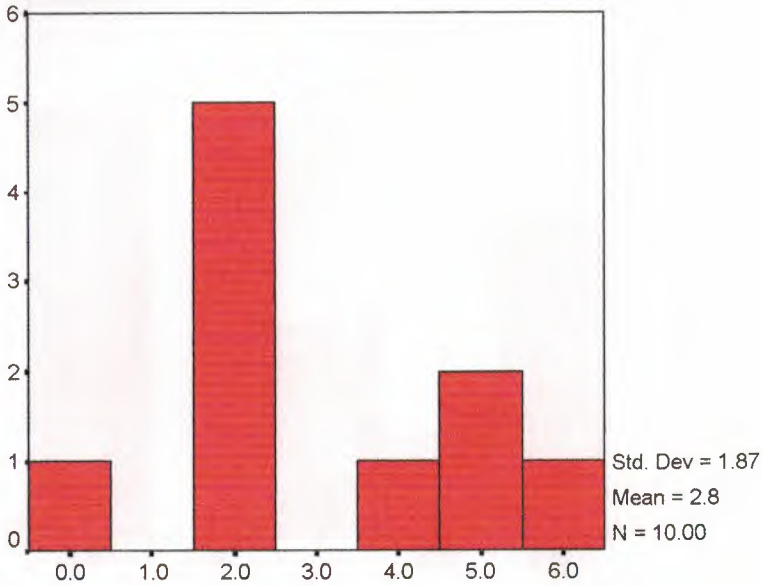
AUSTRIA

Graph



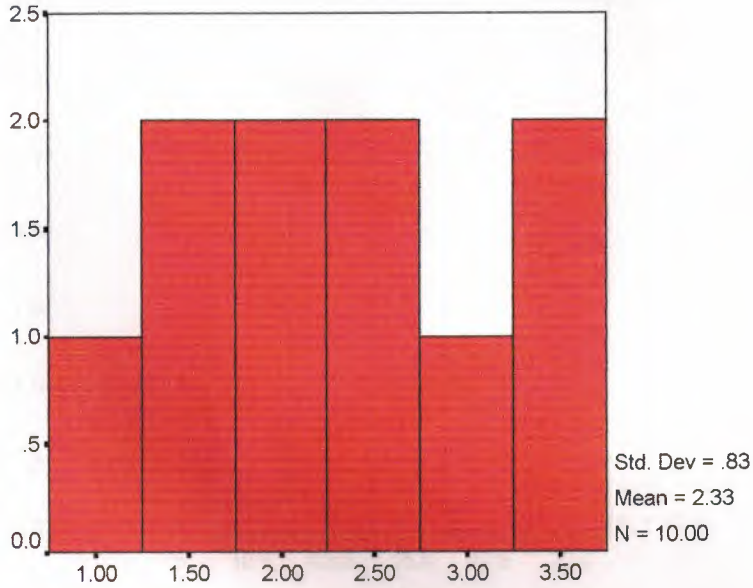
BELGIUM

Graph



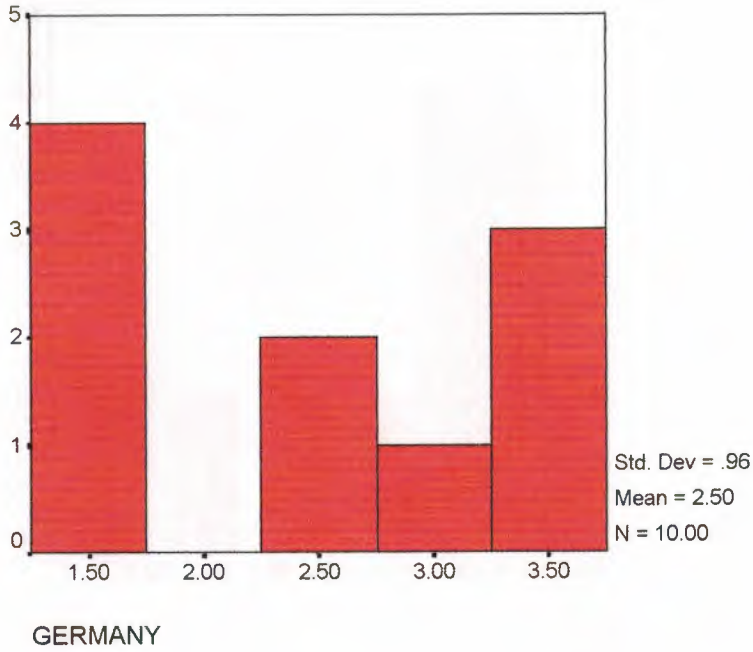
CANADA

Graph

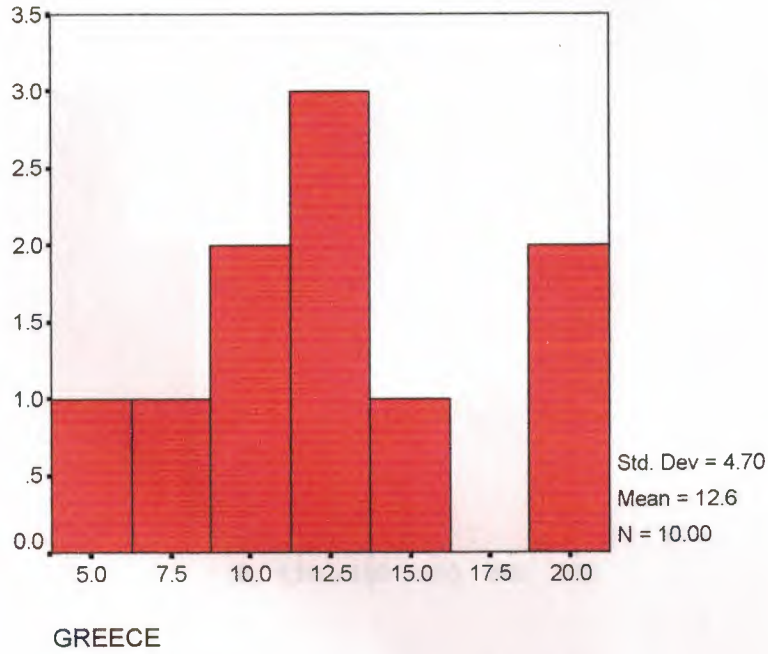


FRANCE

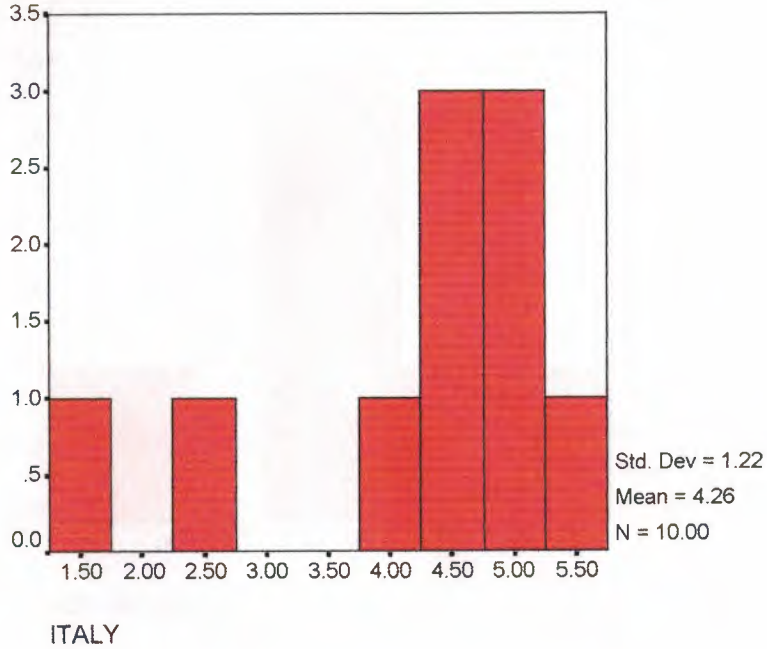
Graph


5
4
3
2
1
0
1.50
2.00
2.50
3.00
3.50
Std. Dev = .96
Mean = 2.50
N = 10.00
GERMANY

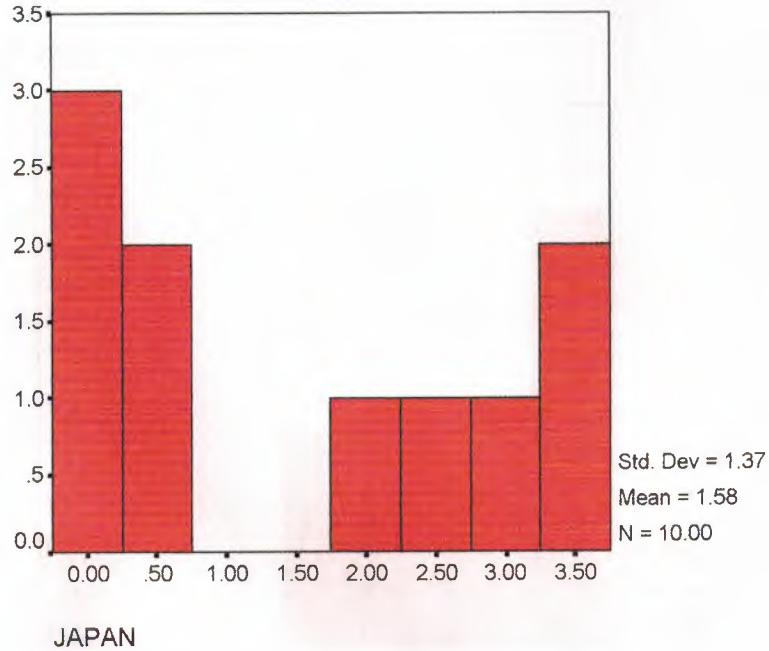
Graph


3.5
3.0
2.5
2.0
1.5
1.0
.5
0.0
5.0
7.5
10.0
12.5
15.0
17.5
20.0
Std. Dev = 4.70
Mean = 12.6
N = 10.00
GREECE

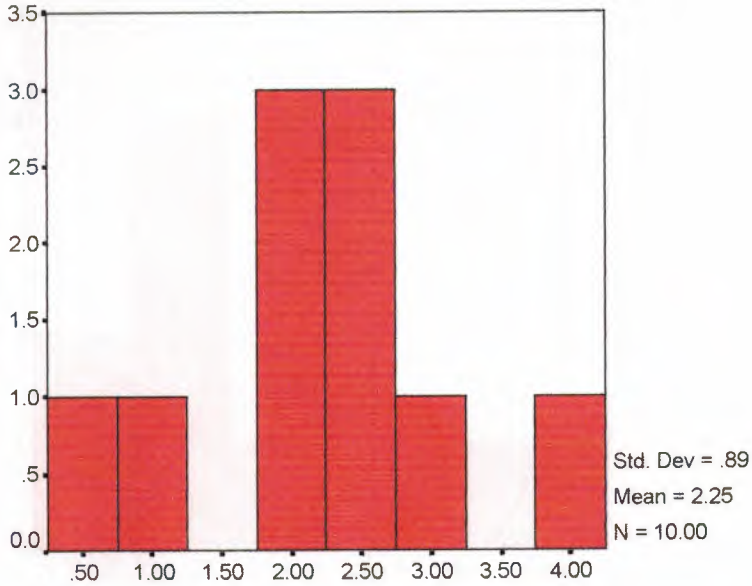
Graph


3.5
3.0
2.5
2.0
1.5
1.0
.5
0.0
1.50 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50
Std. Dev = 1.22
Mean = 4.26
N = 10.00
ITALY

Graph

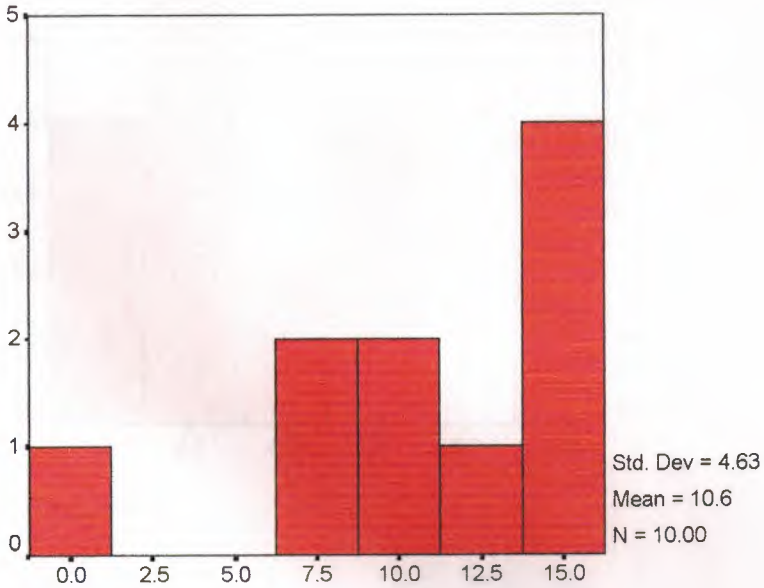

3.5
3.0
2.5
2.0
1.5
1.0
.5
0.0
0.00 .50 1.00 1.50 2.00 2.50 3.00 3.50
Std. Dev = 1.37
Mean = 1.58
N = 10.00
JAPAN

Graph



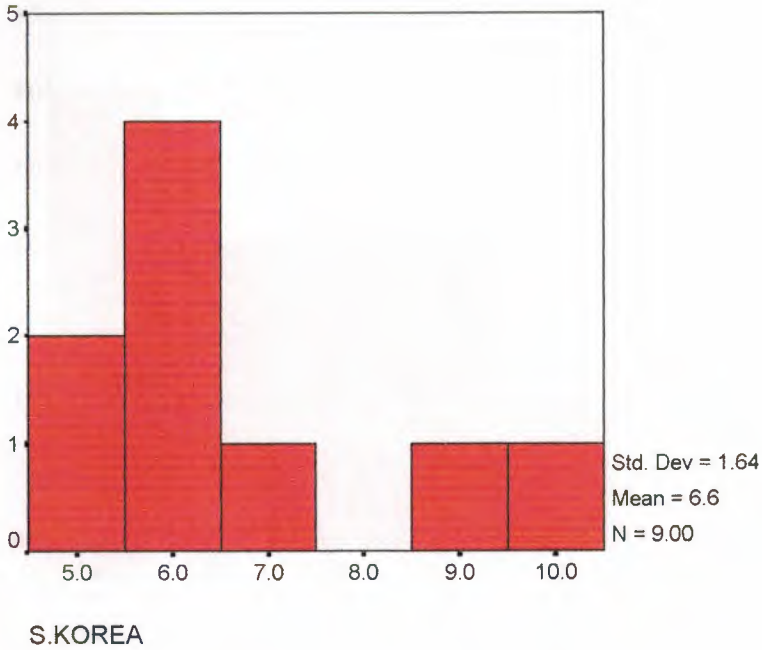
NETHERLA

Graph

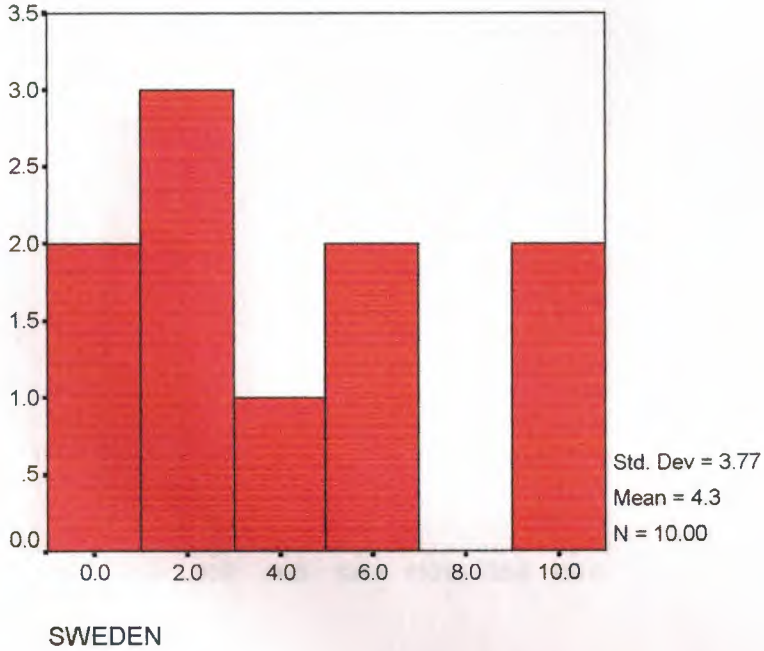


S.AFRICA

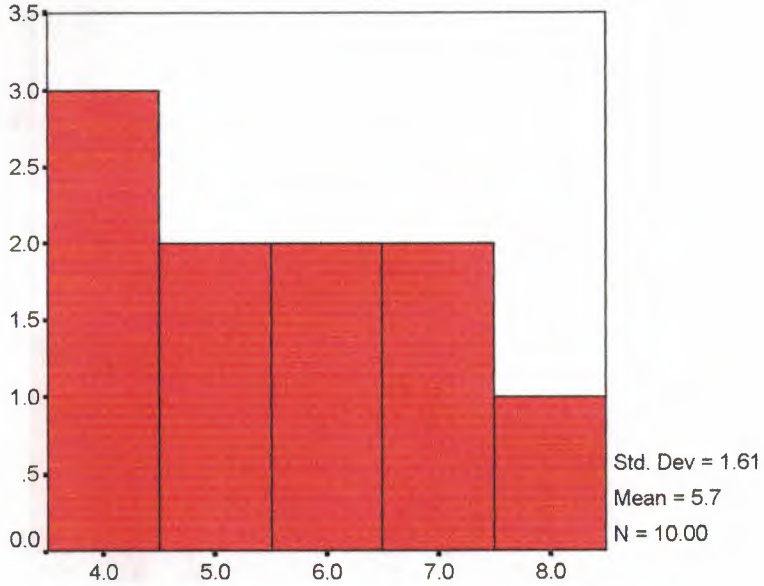
Graph


5
4
3
2
1
0
5.0
6.0
7.0
8.0
9.0
10.0
Std. Dev = 1.64
Mean = 6.6
N = 9.00
S.KOREA

Graph

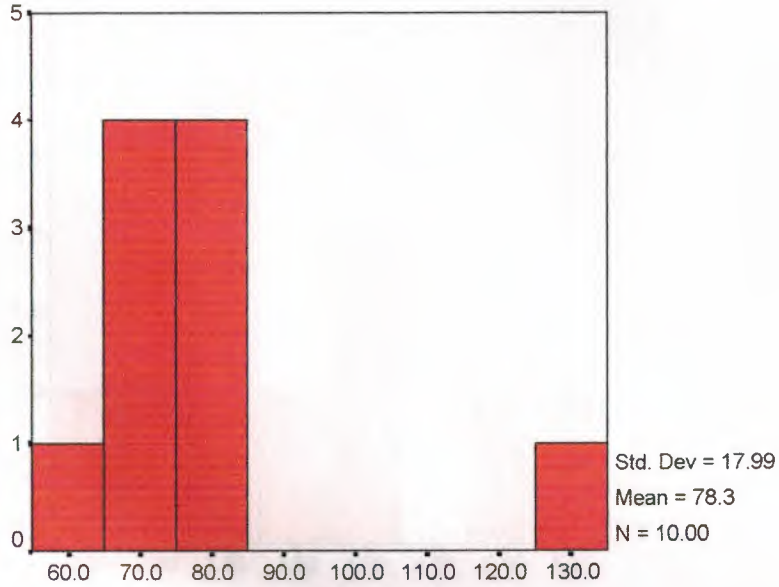

3.5
3.0
2.5
2.0
1.5
1.0
.5
0.0
0.0
2.0
4.0
6.0
8.0
10.0
Std. Dev = 3.77
Mean = 4.3
N = 10.00
SWEDEN

Graph



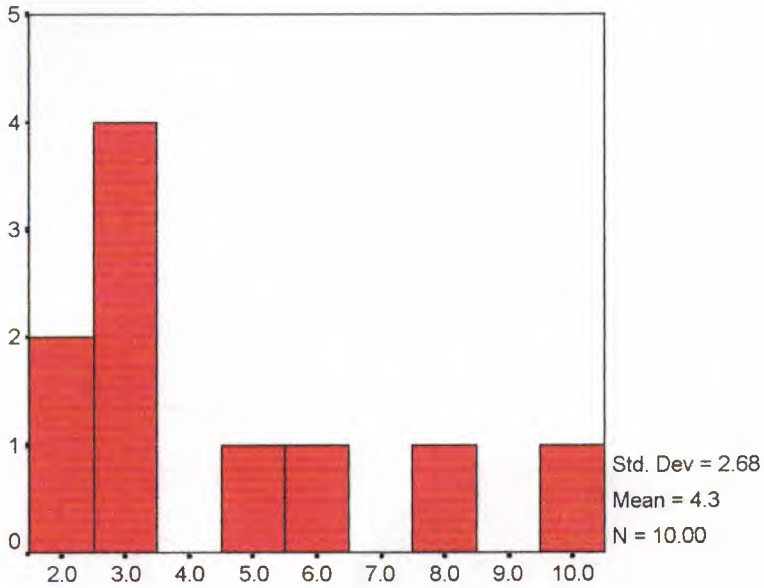
TUNISIA

Graph



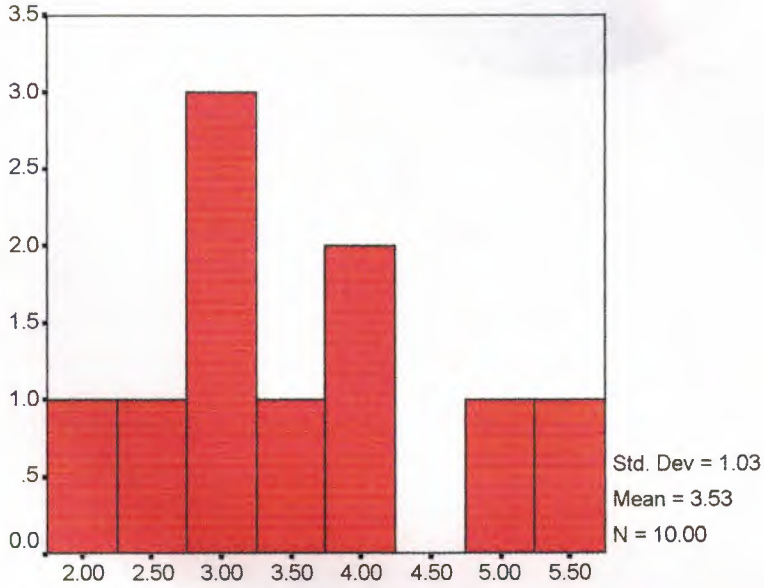
TURKEY

Graph



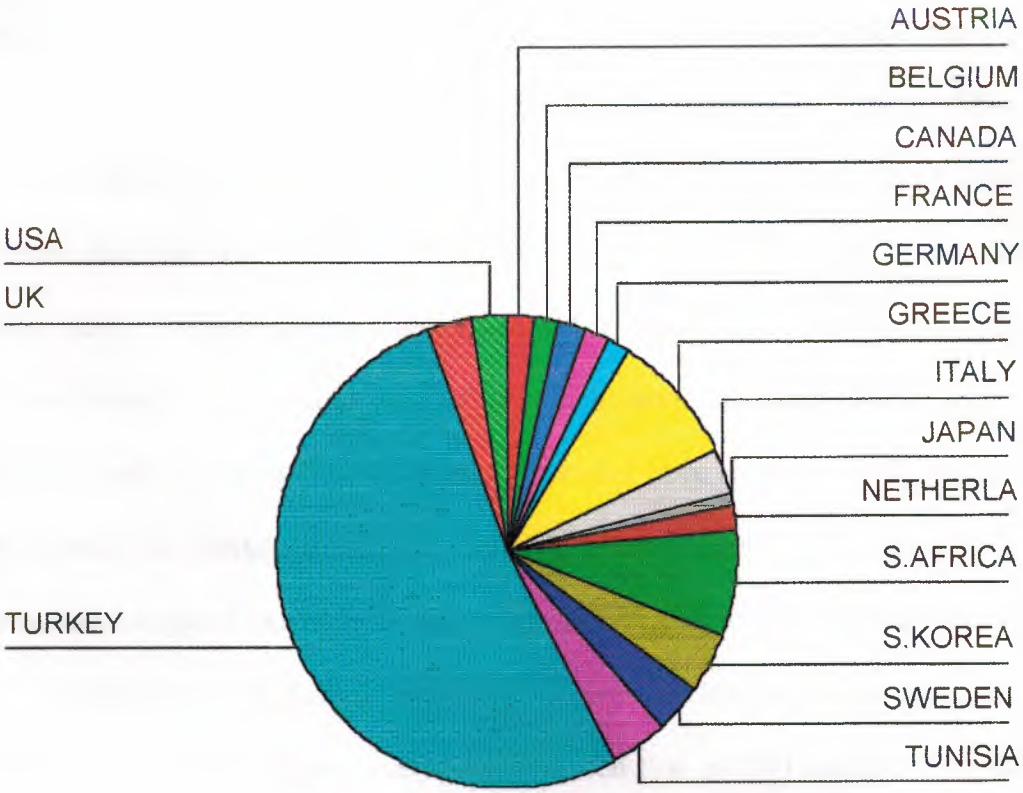
UK

Graph



USA

Pie-Chart of the inflation rates according to the countries:



As a result of my statistical analysis studies it is seen that Turkey has a larger inflation rate than the other countries. The descriptive statistics helps us to see why the inflation rate of Turkey is not stable and changes every year with a different rate which, is because of the high standard deviation. Also as in the frequency table there are no strike percentages or higher frequencies which must be recorded for Turkey. This again shows the unstable inflation rate. On the other hand in ANOVA analysis I came to a conclusion that the mean of the inflation rate of Turkey is not equal to the mean of inflation rates of other countries I have analyzed. In one sample test I realized that the confidence interval is too large for Turkey which means that the inflation rate is not significant. And to narrow this confidence interval I have to increase the sample size. When I analyzed partial correlation coefficient I have seen that in general all the countries have negative value of correlation coefficient with Turkey. In addition I can say that the inflation rates of Turkey taken year by year are independent from each other. Also when looking at the curve fit analysis it is seen that in 1994 suddenly the inflation rate of Turkey jumped to 125.5% from 71.1% which is a substantial increase. However it began to decrease very fast down to 80.8% in 1995. The reason for this decrease was that in 1994 the government has made a decision to decrease this high inflation rate to an acceptable level, by devaluating TL. Although devaluation is not a good action to take it was necessary for Turkey in those days. However in following years the Turkish government did not follow up the necessary economic actions to continue decreasing the inflation rate. As a result I can say that Turkeys' economic situation is not in a good position today.

THE STRUGGLE WITH INFLATION IN TURKEY

There are several ways to stop or struggle with inflation in Turkey. Some of them are hard to do, some of them are easy to do but not so effective.

People dislike inflation because it forces them to take actions to protect themselves, and because it makes decisions more difficult to make. Decisions to buy, sell or invest are based on a person's knowledge of what normal prices are, and this knowledge of normal prices is based on remembering past prices. With inflation, a person must remember not only the past prices, but also the dates of those past prices, and then must try to compute what their present values would be. Because our mental capacity to handle amounts of information is limited, and because inflation requires us to handle more information in order to make decisions.

As a result of the most severe economic crisis in the history of the Turkish economy, the rate of inflation has rose to over 100 percent several times in the last decades. However, the rate of inflation fluctuates roughly in the range of 60-85 percent, with exception of the rate of 1994, where the rate of inflation was 120 percent as a result of a serious financial crisis in April 5. An interesting point regarding the time line of the inflation in Turkey is that it is more or less stable in the range of 60-80 percent, however it is never out of control.

The government of Turkey is in the process of mapping out a much needed stabilization program. According to the EIU's latest Country Risk Service report, it appears to have opted for a gradual reduction in inflation to 50% by the end of 1998 through moderate austerity measures which would slow real GNP growth to 3% from around 6% this year. Although more radical programs were considered-including a shock program that would have aimed to reduce inflation to 24% in one year-the weakness of the present government, the ever-present prospect of elections and Turkey's high level of

foreign reserves, made a radical approach highly unlikely.

The key to a reduction of inflation in Turkey is a reduction in the public-sector-borrowing requirement.

In Turkey, firms try to predict the following year's inflation rate, by combining their inflation rate expectations with the inflation rate of the previous year. Because of these expectations it takes too many years to decrease inflation rate when it is too high, as it is in Turkey. Therefore, in order to decrease inflation rate government should reduce aggregate demand below potential level of output. But producing less than the potential level of output means unemployment will increase and the existing capital stock will start to decrease. So this unemployment must be maintained for several years until inflation rate falls down to reasonable levels. Of course, the speed at which inflation will fall also depends on technology, labor force, and capital. As inflation rate decreases the expected inflation rate will fall as well, because the expected rate is equal to the previous year inflation rate. Therefore over years, as inflation decrease due to government policy of keeping aggregate demand below potential level of output, expected inflation rate will decrease as well. But it will take many years before inflation rate falls to low levels.
The problem is, of course, not simply to stop inflation – that would be easy – but to stop it or slow it down without reducing the rate of growth below the otherwise attainable level; in another words, without creating a lot of unemployment.

Simple acceptance of inflation is in many ways the most appealing solution. Unexpected increases in inflation benefit debtors and hurt creditors by reducing the purchasing power of contracted payments, but a constant, expected inflation rate has no such effect. Interest rates are adjusted to account for the expected decrease in the value of

money, and therefore neither side benefits. Nor is there any evidence that any particular income group is disproportionately harmed by a steady, expected inflation.

More rapid growth in output of goods and services would increase the real-money-demand growth and so tend to reduce inflation. This goal is hard to achieve in practice.

Elimination of excessive money growth is the most direct solution to inflation. A number of countries have ended severe inflation or even hyperinflation by reforming their central banks so they are charged solely with maintaining the domestic price of a stable foreign currency or earlier, gold. Such reforms eliminate the responsibility of the central bank to finance the government deficit or avoid unemployment.

All of these proposals--or even a realistic acceptance of the current inflation rate--require the government to constrain itself not to pursue short-run gains at the long-run cost of permanently higher inflation.

CONCLUSION

While making some researches to prepare this thesis, I finded out that the problem of Turkey is so big. After preparing the entire thesis I decided that we have to work in Turkey not to stop it but to work to decrease the inflation to an acceptable level. In my opinion here at this step there are two conditions, first avoidance of unemployment and second maximizing the rate of growth these conditions are not identical but they go together for a large part of the way. It can be demonstrated, I believe, that the continuous maintenance of extremely high levels of employment – "overfull employment" – is not conductive to maximizing the long-run rate of growth output. In other words, a little unemployment and slight fluctuations in employment and output are a condition of long-run maximization of growth.

In addition to that, there has never been a serious inflation without an increase in the quantity of money. No wage push in the world can produce inflation, if the monetary authorities stand firm and refuse to create enough money; but the wage push can produce unemployment. And for that matter, no government deficit can produce inflation, even in full employment, unless the quantity of money goes up. If monetary expansion is ruled out, the deficit would have to be financed by taxes or by borrowing "from current savings". This would reduce private consumption, drive up interest rates, squeeze private investment, slow the rate of growth, but it would not cause inflation.

These are just my ideas; I do not know how efficient will it be if someone tries these ideas of mine in a real battle with inflation. But in these days there is a big battle in Turkey with inflation and I am sure that they are going to find a suitable and long-term solution in order to slow down or stop the inflation.

APENDICES

	YEARS	GERMANY	AUSTRIA	BELGIUM	FRANCE	NETHERLAND	U.K.
1	1988	1.3	1.9	1.2	2.7	0.7	4.9
2	1989	2.8	2.6	3.1	3.5	1.1	7.8
3	1990	2.7	3.3	3.4	3.4	2.5	9.5
4	1991	3.5	3.3	3.2	3	3.9	5.9
5	1992	3.7	3.7	2.4	2	2.9	2.6
6	1993	3.7	3.6	2.6	2.1	2.1	1.6
7	1994	2.7	2.6	1.9	1.6	2.6	2.9
8	1995	1.7	2.3	1.9	2.4	2	2.2
9	1996	1.4	2.4	2.5	1.7	2.5	2.5
10	1997	1.5	1.7	1.6	0.9	2.2	2.6

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	YEARS	SWEDEN	GREECE	ITALY	USA	CANADA	S.AFRICA	TUNUSIA
1	1988	5.8	13.5	5.6	4	4	12.8	6.4
2	1989	6.4	13.7	5.2	4.8	5	14.7	7.4
3	1990	10.5	20.4	4.8	5.4	4.8	14.3	6.8
4	1991	9.4	18.9	5.1	4.2	5.6	15.3	8.3
5	1992	2.5	14.4	4.6	2.9	1.5	13.9	5.4
6	1993	4.7	12.3	4.4	2.9	1.8	9.7	5
7	1994	2.5	10.8	4.2	2.7	0.2	0.2	3.9
8	1995	1.1	9.1	4.4	2.9	1.5	8.6	6.2
9	1996	-0.2	7.5	2.7	3.3	2.2	7.4	3.7
10	1997	-0.1	5.4	1.6	2.2	1.5	9.3	3.7

1-2

	YEARS	JAPAN	S.KOREA	TURKEY
1	1988	0.7	7.1	79.4
2	1989	2.3	5.7	69.6
3	1990	3.1	8.6	60.3
4	1991	3.3	9.7	66
5	1992	3.4	6.2	70.1
6	1993	0.2	5.8	71.1
7	1994	0.5	6.3	125.5
8	1995	0.2	4.5	80.8
9	1996	0.2	5.4	80.4
10	1997	1.9	5.6	79.6

1-3

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