The impact of the devaluation of the Turkish Lira on investment and trade and its impact on tourism

Salam Abdul Rahman Abdul Abbas Al-Ibrahimi*
Department of Finance and Banking
Faculty of Management and Economics
University of Kufa, Iraq

Hayder jawad kadhim Murshedi
Department of Finance and Banking
Faculty of Management and Economics
University of Kufa, Iraq

Haidar Hamoudi Al Zubaidi
Department of Finance and Banking,
Faculty of Management and Economics
University of Kufa, Iraq

Abstract

The Turkish economy has been affected by several factors, which have had an impact on the competitiveness of the economy in general, and these factors fall into the economic aspects. It is expected that the devaluation of the Turkish lira will have an impact on Turkey's trading partners and is expected to be in a direction that improves the status of trade exchange for the Turkish side because the prices of Turkish goods and services will be cheaper than that of the trading partner. Which fell to $ 55.016 billion and constitutes about 6.4% of GDP. The research found that the policy of devaluation of the lira is a deliberate act aimed at reducing the costs of high inflation and devaluation of the Turkish currency. Expectations of uncertainties about investors 'and legislators' profits in the economy were dominated by the start of the Turkish recession, and the outlook is likely to create a continuum of economic variables that will eventually lead to lower productivity, profits and capital return in the sectors that make up GDP. This policy is also linked to targeting inflation and influencing the trade balance tourism section within a long-term economic strategy.

Keywords: Turkish lira, tourism, investment, economics.

Introduction

In the Middle East, Turkey is one of the countries of economic importance with an economic impact on foreign economic relations (Kaplan, 2015). Without doubt, the economic policy of Turkey has become a factor in political ideology as politics has a profound impact on foreign economic relations. The result from the political and economic factors led to the effects that hit (Mishkin, 1999). However, the factors that strongly pushed the value of the currency down are economic factors. The concern of the study is to research the reasons for the decline and the main trading partners of Turkey, and the impact of inflation on the nature of economic transactions in Turkey. Since tourism has the main role to play in financial growth as well as development, governments promote tourism and thus have significant roles in financial growth and development for touristic institutions such as hotels and staff at these institutions. The quality of service in the hotel industry, which is a tourism subsector, relies on workers ' physical and mental health. The efficient and effective provision of facilities for physical and mentally healthy staff is to customers

' satisfaction with service (Arslaner & Boylu, 2017). The staff conduct in tourism institutions should, therefore, be examined. Competition in tourism as in all areas is fierce. Tourism executives strive to attract more people, so it is essential to correctly comprehend the variables influencing tourism in order for destinations to be successful in such a competitive setting (Yukseka, 2016).

In general, the economic transformation in the form of the Turkish state and the targeting of devaluation of the pound has affected the nature of the economy in relations with Turkey's most important trading partners, although these indicators indicate the factors of strength and direction right in the course of the Turkish economy and tourism. The research starts from the premise that economic policy led to the decline of the pound with the aim of raising inflation to achieve gains until the medium term. In addition to the rise in domestic investment in Turkey, it was supposed to inflow dollar deposits. The aim of this study is to identify the most important results of the economic and trade partnership of the era of devaluation and high inflation in Turkey. Furthermore, the aim of this study is to measure the effectiveness of Turkish Lira on investment and trade and its impact on tourism.

Literature Review

The Key Features of Turkish Economy

Meanwhile, the need for foreign financing is increased due to the current account imbalance caused by excessive reliance on domestic demand and external savings which led to increased risk and vulnerability to external shocks (Wade *et al.,*1998). Public investment was overly financed by debt, raising questions about quality and allocation although it was high in the economy. Inflation is still much higher than the target at the same time which undermines the credibility of monetary policy. Furthermore, the drastic reduction in the exchange rates and uncertainty about the future direction of economic policies has led to a negative impact on the economy in this fragile environment (Baharumshah *et al.,* 2006). In Table 1, where the World Bank data is presented, the Turkish economy has declined. In 2017, the GDP growth rate was -1.41% as the output dropped to 851.55 billion dollars in 2016 from 863.72 billion dollars. Generally, the output achieved is the positive growth rates with the exception of a few years during the period 1960-2016.

Table 1. The GDP of Turkey for selected years (billion dollars) (OECD,2019).

Years	GDP	Rate of change	Years	GDP	Rate of change
1960	13.99	-	2005	501.42	83.68
1965	11.94	-14.65	2010	777.9	55.14
1970	17.09	43.13	2011	832.52	7.02
1975	44.63	161.15	2012	873.92	4.97
1980	68.79	54.13	2013	950.58	8.77
1985	67.23	-2.27	2014	934.19	1.72 -
1990	150.68	124.13	2015	859.8	7.96 -
1995	169.49	12.48	2016	863.72	0.46
2000	272.98	61.06	2017	851.55	1.41 -

Table 2. Some indicators of the Turkish economy (Svetlana,2019): (*) Expected, (**) 2015 data, (-) Not available

Year	2017	*2018	*2019
Private consumption	6.1	9.0	6.7
Total fixed capital formation	7.3	9.3	7.2
Exports	12.0	8.1	9.9
Imports	10.1	5.7	5.0
Unemployment rate	10.9	10.2	10.4
Core Consumer Prices	10.1	13.0	10.5
Current Account Ratio to GDP	5.6-	5.7-	4.3-
Per individual GDP (thousand dollars)	10.94	-	-
Percentage of population below the national poverty line	**1.6	-	-
Volume of trade exchange (billion dollars)	391	-	-

The Turkish Lira and Monetary Policy

The process of targeting inflation and raising the rate of economic growth is one of the main objectives of interest in industrialized countries and advanced economies (Mishkin *et al.,* 2000). Turkey is one of the countries that have succeeded in targeting inflation to achieve the ultimate goal of raising economic growth. To raise interest rates on long-term deposits is the policy of the Central Bank of Turkey (TCMB) which was influenced by monetary policy at the global interest rate. The aim of the monetary policy is raising the interest rate to affect the level of credit and attract savings particularly the dollar savings (Başçı *et al.,* 2008). However, reduction in the interest rates has been forced by the political intervention in the work of the central bank which led to a decline in the value of the Turkish currency. The inflation was failed to check by the Turkish Central Bank until it reached (9%) and its inability to prevent the steady decline in the value of the Turkish lira which is half of the dollar since 2010 (Hassan *et al.,* 2016).The increase in consumer debt was due to the relaxed fiscal policy measures supported by Erdogan as believed by many economists which grew from an average of about 5% of household income in 2002 to 55% in 2013. Over the past decade, the nominal wealth of Turkish households has tripled. In 2014, the savings rate has consistently fallen to only 12.6% of GDP and that was the lowest in any major emerging market (Cagaptay, 2017).

As supported by Erdogan, the low interest rates have tended to make people invest far from the industry in sectors with faster returns such as imports of consumer goods and speculation. The ratio of bank credit allocated for construction between mid-2012 and mid-2014 increased from less than 50% to more than 70% of all loans while offices and shopping malls are much more than new factories (Cagaptay,2017).The overall supply shock and factors associated with it were also addressed. That was the reason for the sudden rise in prices. Through a highly flexible targeting policy, the impact of expectations was reduced (Domac *et al.,* 2004)

Foreign Capital Flows

The foreign direct investment (FDI) flowing towards Turkey may deteriorate as a result of the political effects of the decline in political relations between Turkey on the one hand, and the United States and the European Union on the other hand. Until 2018, when FDI flowed to Turkey with 11 billion dollars only, this decline continued which is the lowest level since 2010. However in this regard, what is referred to is that, the Turkish economy has resorted to the use of compensatory investment policy as a solution to reduction in the volume of foreign direct investment by encouraging foreign investors to invest in the portfolio known as the Turkish bonds and assets in global markets. This policy was started by Turkey in 2012 bringing the volume of foreign investment in assets to 24 billion in 2017, partially offsetting the decline in FDI (Bryson & Michael, 2017). In the medium term, the decline in investment in infrastructure and compensation for investing in the stock market has put a great risk on Turkish funds as a result of this financing behavior. Therefore, the level of economic activity and economic performance has declined in the value of the Turkish currency to about 40% and the volume of losses to about 48%. However, by increasing annual revenues by 23% in 2017 from 12% in 2012, the Turkish government has continued to sell government bonds in foreign markets (OECD, 2019).

The economic improvement in 2011 was linked to increased foreign investment and higher government investment after the economic crisis. Until the end of 2014, the course of the Turkish economy continued. For investors and companies, the year 2015 was accompanied by uncertain economic prospects where expectations have been due to the situation within Turkey. The geopolitical tensions that emerged were as a result of the militant Islamic organization (Da'ash) on large areas of Iraq and Syria. This has an impact of the competitiveness of companies on the business sector and the labor market. There has been a wave of uncertainty about exchange rates that have fluctuated while the inflation also rose above the target level (OECD, 2019).

In similar view, the political constraints affected the order of Turkish companies, which affected the long-term capital flows. In this regard, the competitiveness of companies on one hand and the scientific and technological approach on the other hand have an important impact on the extent of capital changes that affect the geopolitical factors and the process of deployment or concentration depending on the operational mergers and acquisitions. The technological and scientific use certainly has an adverse effect on research, development and industrialization; they can indirectly affect the new investment map and international relations.

According to the model of Porter (1981), industry profitability is a function of the interaction between the five factors of competition: suppliers, buyers, competition between organizations, alternative products, and potential competitors. Meanwhile, companies that have invested in Turkey have been studying the five factors of competition. The organizational characteristics in the industry determine the sector in which it operates and then choose a strategy that ensures a competitive position in the market based. Either by manufacturing products or providing services at a lower cost than competitors through the cost leadership strategy (Cost by looking for cheap production elements such as low-wage labor), the projects can achieve the highest profits.

In the transfer of some industries or industrial establishments between Turkey and the countries with branches in them, this is what has already happened. The competitive advantage of an organization can be maintained by manufacturing products or providing services of high quality

and distinctive to a class of customers, especially those who are willing to pay higher prices through the strategy of differentiation strategy.

The Impact of Targeting Inflation in Trading Partners

The trade relations and trade partners in Turkey are affected by the economic crisis. This has led Turkey to try to make long-term economic and monetary adjustments and reforms with the move to declare the law of independence of the Central Bank of Turkey. Thus, emphasis was placed on implicit inflation targeting and price stability. There was fluctuation in the exchange rate of the Turkish lira in accordance with the supply and demand forces of the currency. The public funds were not wasted in projects and the fiscal discipline law was tightened with large costs and years of need. Therefore, inflation has been reduced to one-digit rather than two-digit numbers by the combination of fiscal reforms and monetary reforms (Bozkurt, 2014).

Due to several reasons, there was decline in the value of the Turkish currency in conjunction with the US sanctions in 2018 most relative in the relative recovery of oil prices worldwide, and the expectations of the Central Bank of Turkey. The early reduction of interest rates on deposits after the decline in inflation and the end of the period of reduction in local credit costs in Lira exceeds one year in return for the increase in taxes on deposits in foreign currency, which also reaches one year.

Methodology

Reduction in the value of monetary unit on productivity: The standard entry
Mathematical Interpretation of the Concept of Targeting the Devaluation of the Currency and its Effects

Looking at the currency devaluation, it is located in the gap area between total demand and total output, where:

$$y_t = \log y_t^d - \log y_t^n$$

Where:

y_t^d represents the total demand, y_t^n is the real total width.
The effect of devaluation and inflation on output is demonstrated by the design introduced in the Svensson (1997) model.

$$\pi_{t+1} = \pi_t + a_1 \pi_t + \varepsilon_{t+1}$$

$$y_{t+1} = \beta_1 y_t + \beta_2 (i_t - \pi_t) + n_{t+1}$$

Where:

π_t is the inflation rate in the current period t,

y is the real output, which is an internal variable. $\varepsilon \,\&\, n$ are the two variables that represent shocks in changes in the rate of inflation, which increases the output in the last year and smooth output changes that would affect the real exchange rate:

If we assume that the external variable here is the expected magnitude of the shock in productivity, which occurs for reasons related to the nature of the economic activity or the changes that result from changes in employment, then the following equation holds:

$$y_t^n + 1 = \mu_y^n \, y_t^n + \, y_{t+1}^n$$

Where:
μ_y^n is a variable between zero and one true $\geq \mu_y^n > 1 \; 0$

Cost is used to express shock in productivity and the economy has to be seen as a price to reduce the gap between actual output and output that can be achieved under optimal conditions with available outputs. Looking at achieving a degree of productivity however implies sacrificing the ability to target inflation within the desired limits. This leads to adoption of a monetary policy of deflation and interest rates that reduce investment, consequently, this reduces the overall demand and leads to inflation. To resolve the contradiction between the monetary and financial policies, the state depends on the impact of exchange rates in such case. Then, that led to change in the value of currency or purchasing power of the currency. Two factors determine this measure: calculating the trends of changes in the prices of imported goods and the general trend of prices at home. The change in the exchange rate of the local currency is the difference between them.

$$i^t = \pi + \, p_t^{ex} + \, p_t^{in}$$

In terms of theory, interest rates have an impact on the real sector by lowering the cost of borrowing to improve the level of investment. This improves the currency of the country against other currencies. Therefore, there is an indirect impact on exchange rates. This shows that the exchange rate is effective in inflation from monetary policy in isolation in the short term.

Given that the imported inflation rate (causes inflation deviation from the target) p_t^{ex} in short term depends on the price of the equivalent currency and on the price inflation rate at home. The price will be calculated as:

$$p_t^{ex} = p_t^{in} + \dot{\omega}(i_t - i_{t-1})$$

Given that, the rate at which society reaches the highest level of economic well-being is the target inflation rate, according to (Friedman & Schwartz, 2008), the calculation of inflation targets assumes that the huge rate is R and the real interest rate is r. Two conditions are taken into accounts (16):

$$(1 + R) = (1 + r)(1 + \pi) \; , \; if : R = 0$$
$$\pi^f = \frac{r}{1 + \, r^*}$$

It is clear from the above equation that higher interest rates above their expected level lead to higher inflation. Theoretically, it is known that the rise in the general price level leads to a decrease in the real interest rate (i.e. real interest = nominal interest minus inflation). This means that the profits of borrowers will rise, and this may this may at first glance seem to not affect changes in real indicators. However, higher nominal profits mean a temporary reduction of financing through financial assets.

Reaction of monetary policy: The standard entry

The monetary policy is likely to resort to a long-term reaction in the event of a higher interest rate through quantitative easing to counter the decline in output through expansionary fiscal policies. In order for government allocation to have its compensated effects for example, an increase in interest may be compensated by the offsetting public finance in the case of deflationary shock.
The Taylor's rule states that the monetary policy reaction which includes its ability to effect changes in interest rates, depends on the extent of the change in output and on inflation deflection from its target level. The following equation explains the rule (Klein, 2012):

$$i^* = r^n + \pi_t^e + (\beta - 1)(\pi_t^e - \pi_t^*) + Y \, \tilde{y}_t$$

Where:

i^* is the target price of the currency, r^n is the natural exchange rate of the currency, π_t^* is the inflation target, π_t^e is the expected inflation, $\tilde{y}_t$ means the gap in the real output.

Note that β should be above the level Stability of prices, which means the equivalent of other variables in this case. A real increase in the currency rate above normal will be achieved by a 1 per cent of deviation in the inflation rate expected from its target level. According to Taylor, $\tilde{y}_t$ must be positive for stabilizing output in the case of the negative effect of the real exchange rate on aggregate demand. It is possible to describe the assessment of the reaction of the central bank policy towards changes despite what Tyler raised in the equation above. Also, it is necessary to emphasize the policy of reaction in disbursement especially as it relates to inflation changes from its target level. This requires examining the variables that affect the exchange rate and its potential effects on the rise of the inflationary gap $(\pi_t^e - \pi_t^*)$. Similarly, it requires a return to the relative weights of the target interest rate and the interest gap between periods in the series of important studies whose predictions and trends are difficult to predict in the long run. This means implicit price targeting cannot be achieved by targeting exchange rates.

Result and Discussion

Factors that caused the reduction of the Turkish Lira will be studied in this aspect:

$$DIFN = \alpha + \pi_t^e \, IT \, policy + (\pi_t^e - \pi_t^*)Y \, Gap + \varepsilon \, CINF$$

IT policy is the inflation targeting policy while DIFN refers to the decline in the value of the Turkish Lira (on a quarterly basis). Y Gap is the amount of gap in real output, and CIN represents the impact of the interest rate on attracting savings. This has been considered under the variables based on weighted changes Interest rate for 2005 and 2006 as years of testing and stability in monetary aggregates in Turkey.

Regression output

Variables Entered/Removed[d]

Model	Variables Entered	Variables Removed	Method
1	ITpolicy, YGap, CINF	.	Enter

a. All requested variables entered.
b. Dependent Variable: DINF

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.597[a]	.356	.268	3.7485	.356	4.056	3	22	.019	.700

a. Predictors: (Constant), ITpolicy, YGap, CINF
b. Dependent Variable: DINF

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	170.972	3	56.991	4.056	.019[a]
	Residual	309.129	22	14.051		
	Total	480.100	25			

a. Predictors: (Constant), ITpolicy, YGap, CINF

b. Dependent Variable: DINF

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	3.475	2.424		1.433	.166					
	YGap	-.078	.267	-.050	-.293	.772	-.058	-.062	-.050	.998	1.002
	CINF	.313	.146	.451	2.149	.043	.571	.417	.368	.664	1.506
	ITpolicy	-1.811	1.854	-.205	-.977	.339	-.466	-.204	-.167	.664	1.506

a. Dependent Variable: DINF

Collinearity Diagnostics

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	YGap	CINF	ITpolicy
1	1	2.932	1.000	.01	.03	.01	.02
	2	.720	2.018	.00	.00	.06	.42
	3	.289	3.187	.01	.83	.13	.05
	4	.059	7.042	.97	.13	.80	.51

a. Dependent Variable: DINF

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.631	12.601	5.781	2.6151	26
Residual	-5.3008	9.2430	.0000	3.5164	26
Std. Predicted Value	-1.587	2.608	.000	1.000	26
Std. Residual	-1.414	2.466	.000	.938	26

a. Dependent Variable: DINF

The monetary policy as a new framework in the Turkish economy has been adopted by the method of direct targeting of inflation through a specific objective or range, in order to manage inflation and achieve targeting in the overall level of prices. There is significant impact on the growth rate, sole and dominant from the results of the moral tests.

The results of the R-squared showed that there is low level impact on the economic factors. There was no increase in the output for the targeting policy and the interest rate that caused the devaluation of the Lira. The effect of the model among the variables indicates that the reasons are due to other external variables.

Notably, the first relationship is in accordance with the economic theory that provides an inverse relationship between inflation rates and growth rates. The real inflation rates to be applied is obtained if the first increase decreased the second and vice versa, when subtracting the amount of inflation target of real inflation. The targeting policy will be reduced to 3% according to the targeting policy. Thus, in Turkey, the 3% target rate of 12% represents the real rate of inflation. According to the targeting policy, the output (14%) is the level of the most acceptable inflation rates.

Conclusion

As a monetary policy, moving the price higher in Turkey is directed to avoid the crisis and shift the influence on other countries. Thus, this makes the post-crisis era to be fought with unfavorable and consistent risks. For the investing companies, the intended change would be linked to a broad integration stage. This would encourage them to invest capital abroad especially in relatively high-interest areas. This is because a broad merger movement would change the capital elasticity of the interest rate which would lead companies to invest in less developed countries. Inevitably, this action will be expectedly connected to the high liquidity it has enjoyed in the recovery era.

A major shift is represented by the investment returns in 2018 in Turkey which suffered losses but are now enjoying positive results. This shows that the investment value to major financiers has eroded their returns. In the last 10 years, the Turkish stock market returns were the highest. In order to facilitate the business environment, the steps taken by Turkey helped to create a more flexible economic environment for tourism which was the most influential factor in making changes in profit rates.

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