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A Study on Inflation Theories and Turkey's Inflation Problem

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In the Turkish Economy, with the policies of opening up to the outside world and transition to a free market economy in the 1980s, there have been radical changes in the structure of the economy and the prices of all goods and services have begun to be determined by the market under market conditions. In the 1980s, which can be called the transition process to a free market economy and open economy, on the one hand, efforts were made to privatize state institutions in order to withdraw the state from economic life and to ensure that the prices of goods and services were determined under free market conditions, while on the other hand, efforts were made to grant freedom to foreign trade. While these two main issues were being realized, the import substitution industrialization strategy was abandoned and an export-based growth model was started to be implemented. The last step of this opening up and liberalization process was realized with the decision numbered 32 in 1989. With the liberalization of capital movements in the 1990s, we can say that economic growth and development was attempted to be achieved through hot money inflows rather than direct foreign investments. This orientation made the economy more vulnerable to crises, and for the first time, a crisis occurred in the form of the 1994 economic crisis, which was understood to be caused by hot money. The 1994 economic crisis was attempted to be overcome by providing state guarantees for bank deposits and applying high interest rates. Thus, it is noteworthy that high inflation was experienced in the period leading up to the 2001 economic crisis. Indeed, while the increase in the wholesale price index rarely remained below 30% on an annual basis between 1980 and 1990, increases of 50% and 60% began to be seen. However, the period between 1990 and 2000 was a period in which higher inflation rates were encountered. As a result of the environment created in the 1990s, we can say that the financial crisis experienced in 2001 deepened into an economic crisis and that this crisis had economic and political effects. Although there have been many economic crises in the history of the Republic, this crisis is considered to be the most deeply effective. While the crisis was overcome with the stand-by agreement made by the IMF and the announced Transition to a Strong Economy program, the economy began to grow rapidly with the ease of use of foreign resources, and the existence of political stability seems to have ensured that this economic growth process continued uninterruptedly except for 2009. A decrease was also experienced in inflation rates. After 2015, inflation rates began to rise again, and although negative economic growth rates were experienced between the 3rd quarter of 2018 and the 3rd quarter of 2019 during the exchange rate shock period in 2018, we can say that this was not effective enough to turn annual average growth rates into negatives. The exchange rate shock experienced in November 2021 both caused changes in economic policies and the adoption of new policies, and seems to have led to an economic crisis wave caused by the large increase in inflation rates. Within this framework, a post-Keynesian policy of combating inflation has been implemented, and with the new economic policies announced in June 2023,

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the Central Bank has gradually increased policy interest rates and started to implement tight monetary policy in cooperation with the Ministry of Treasury and Finance, and we can say that a new phase has been entered in the post-Keynesian policy of combating inflation. However, in our opinion, it is necessary to determine well where inflation originates from and what ensures its continuation. In this context, Turkey's inflation problem will be analyzed by utilizing the views of post-Keynesians on inflation and the profit-push inflation approach.

Keywords: Turkish economy, free market economy, export-based growth model, inflation theories, post-Keynesian approach to inflation, profit-push inflation approach

Introduction

Following the opening up and open economy policies of the 1980s, the Turkish economy began to integrate with foreign markets with the policies that liberalized capital movements in the 1990s, and this made the economy more vulnerable to crises. Indeed, the economic crises of 1994 and 2001 confirm this claim. However, although the economic policy approach based on borrowing abroad and thus increasing economic growth entered a difficult period with the increase of overnight interest rates in the interbank market to 7500% in the 2001 crisis, it continued to be maintained after the 2001 crisis and this policy approach did not encounter any serious problems until 2008. The world economic crisis of 2008 was also overcome with one year of negative economic growth and the implementation of the economic policy continued in the same way. However, after 2015, when a difference began to emerge between the depreciation of the country's currency and the increasing inflation rates, the Turkish Lira also began to appreciate in real terms. In this process, when the exchange rate increases were suppressed in order to prevent further acceleration of inflation, the exchange rate shock of 2018 was able to emerge. This first shock was overcome without the need for additional measures and the effect of the exchange rate shock on inflation was kept limited (Dolanay, 2024g, pp. 671-692).

Thus, it was possible to come to November 2021 without making any changes in economic policies. When the TL lost approximately 100% of its value in a week with the exchange rate shock in November 2021, the Exchange Rate Protected Deposit application, which aims to protect all TL deposits from the risk of an increase in the exchange rate, was introduced without making any comprehensive changes to the economic policies that have been implemented for many years. Thus, there was a slight decrease in the exchange rate, but since the low interest rate policy continued, the problem of withdrawing hot money from abroad continued, and the foreign exchange need was tried to be met with the application that obliged a portion of the foreign exchange obtained with export revenues to be given to the Treasury. With the diagnosis that inflation is cost-based, the demand side was ignored and both pensions and minimum wage were increased to levels exceeding the official inflation rate until June 2023. In June 2023, as a new economic policy, the Central Bank began to gradually increase policy interest rates, while the Ministry of Treasury and Finance implemented monetary tightening within the framework of the medium-term program and initiated savings in the public sector over time. As a result of these practices, although the inflation rate in 2023 rose to 4%, it was targeted for inflation to fall to around 40% by the end of 2024 (Dolanay, 2024g, pp. 671-692).

Inflation Theories

The first book we come across in the literature that deals with Inflation Theories is the book of the same name by Frish, translated into Turkish by Ertan Oktay and Aslan Yiğidim. Considering the high inflation years

experienced in Turkey in the 1980s and especially in the 1990s, this book can be considered to have filled a gap (Dolanay, 2023ı; 2023i; 2023j; 2024g, pp. 671-692; Frish, 1989).

However, the interest in the subject of inflation worldwide goes back much further. Although there were unprecedented economic growth rates in England with the Industrial Revolution, it is not easy to say that this process created high inflation rates with our current knowledge (Freeman & Soete, 2003). However, high inflation rates were experienced in certain periods in the Ottoman Empire and Spain before this industrial revolution (Cameron & Neal, 2003; Dolanay, 2024g, pp. 671-692).

Traditional Theories

In the contemporary sense, it is possible to say that the subject of inflation was first addressed in scientific studies in detail with Keynes's *Treatise on Money*. Because classical economists saw money as a cover, they thought that full employment balance would always be achieved in the economy (Keynes, 1930; Dolanay, 2024g, pp. 671-692).

Fisher investigated the relationship between the money supply and the general level of prices in his study. According to him, when the money supply increases more than the increase in production, the excess that occurs leads to inflation. In addition, Fisher found a one-to-one relationship between the nominal interest rate level and changes in the inflation rate. In this way, we can say that Fisher, who was a member of the Classical Economics school that created an inflation theory, deeply influenced the economists after him (Frish, 1989, pp. 180-188; Zhong, 2022, p. 337; Dolanay, 2024g, pp. 671-692).

According to the neoclassicals, prices are determined by supply and demand in the real sector. However, the general level of prices is a function of the money supply, in other words, it is determined by the money supply. According to monetarists, changes in the money supply can affect both the general price level and real variables in the short term. However, since the economy will reach full employment equilibrium after all adjustments and adjustments are made in the long term, the results of the monetarist theory are the same as the neo-classical theory (Frish, 1989, pp. 187-188; Dolanay, 2024g, pp. 671-692). According to Keynes, the inflationary deficit is caused by the excess demand in the consumption goods and services market. In Keynes' example, this deficit increases the general price level by 20%. Sellers have made additional profit from the bonus due to this increase in the general price level. However, in fact, firms' saving tendency is higher than the profit from the bonus and firms' relatively higher marginal taxation rates allow only a portion of the profit from the bonus to affect inflation. Keynes assumed that a price increase of 2%-3% could end the inflationary process by eliminating the excess real demand. Keynes assumed in this analysis that money wages would remain constant. However, the excess demand in the goods market at full employment in the beginning may also create demand pressure in the labor market. This situation will lead entrepreneurs to increase money wages as much as the increase in prices in optimistic market conditions. When real wages return to their initial level, a new inflationary gap will occur in the goods market. If real wages change in a way that will adapt in the next period, it will stimulate price increases again and thus enter a vicious circle of inflation (Frish, 1989, p. 189; Dolanay, 2024g, pp. 671-692).

New Theories

In Hansen's model, the amount of labor is given exogenously and is fixed. Prices and money wages are completely volatile. According to Hansen, as the ratio of prices to wages (P/W) increases, entrepreneurs increase their planned output supply. As P/W increases, private sector demand for goods decreases. The increase in P/W

has caused the share of profits to increase and the share of wages to decrease in a fixed full employment real income. Since the marginal propensity to consume of those who earn profit income is lower than those who earn wage income, planned demand decreases while P/W increases (Frish, 1989, pp. 194-195). According to Taylor, one of the pioneers of the New Keynesian model, when inflation increases, Central Banks, with the classical Keynesian approach, increase interest rates to a value above inflation and try to prevent inflation in the long run. New Keynesian models indicate the exact opposite dynamics: The Central Bank undertakes to increase future inflation explosively in response to higher inflation today. We cannot see such an explosion for just one value of inflation today. New Keynesian modelers, who exclude explosive paths or more generally "non-local" paths, conclude that inflation will jump to that unique value today. In summary, when we think for a moment, we cannot say that an interest rate target following the Taylor rule alone determines the inflation rate in this model class (Cochrane, 2007, p. 2, 6; Dolanay, 2024g, pp. 671-692).

Inflation is generally divided into two as demand and cost inflation (Hein, 2023).

When aggregate demand increases due to reasons such as an increase in private sector consumption expenditures and/or a change in autonomous investment expenditures, an increase in public expenditures, an increase in money supply, an increase in exports in an open economy, this increase leads to a goods deficit. The general level of prices increases due to the increase in demand. In this case, firms will want to employ workers with higher wages. Workers will determine the supply of labor according to the expected real wage, but since price expectations will adjust to the increase in the general level of prices with a lag, workers will perceive the increase in money wages as a real increase. In demand-pull inflation, labor supply and employment may be beyond what is necessary. However, after a while, workers will realize that there is no increase in their real wages and will demand a wage increase above inflation expectations, and thus a nominal wage increase will occur that will bring real wages to the equilibrium level. While real wages return to their original level, nominal wages and the general level of prices will have increased (Frish, 1989, pp. 200-201; Dolanay, 2024g, pp. 671-692).

In cost-push inflation; inflation may occur as a result of a one-time autonomous monetary wage increase without any previous increase in labor productivity or an increase in the general level of prices, and as a result of increases in other input prices as a result of monopolistic practices (Frish, 1989, p. 201; Dolanay, 2024g, pp. 671-692).

In addition to this dual definition of inflation, some economists also introduce the additional definition of price inflation (Dolanay, 2024g, pp. 671-692).

In price inflation, prices are determined by the state in economies where the state intervenes in the markets too much. The main purpose of the state here is to protect the consumer, to follow a uniform input price policy in production, to protect the farmer with base prices, to be able to pay a balanced and appropriate wage, etc. In this way, the state wants to provide income distribution and social balance. In base price applications, base price applications can be implemented in order to prevent welfare losses that will arise from instability, especially for producers and input suppliers who are in a weak position, and to ensure development in the economy. In base price applications, prices are determined above the market price in order to protect the labor force, which is one of the production factors, and in terms of producers, it is aimed to ensure stable production of goods and services (such as wheat and hazelnuts) that are basic needs of the society. In both applications, prices are a reflection of the dislike of the market price and this price is above the market price. The fact of determining prices above the market price has an increasing effect on the general level of prices in the economy (Turan, 2010, pp. 18-19; Dolanay, 2024g, pp. 671-692).

According to Post-Keynesians, inflation is a conflict phenomenon everywhere and at all times (Hein, 2023; Dolanay, 2024g, pp. 671-692).

Post-Keynesian economics essentially opposes the assumptions of full information, logical (mechanical) time, perfect competition, and general equilibrium (full employment equilibrium) underlying neoclassical economics. The first criticism is related to the assumption that market actors have full information. First, according to Post-Keynesian economics, economic units make decisions in an environment dominated by uncertainty. In other words, the deterministic inference of fully predicting the future with information obtained in the past is a very difficult situation to encounter in real life. It is more common for decision-making units to make decisions with different mindsets in different periods. On the other hand, historical time conditions are valid in the economy instead of mechanical time. This assumption of neoclassicals, which means that decisions taken in the past have an effect on future economic events, expresses the general equilibrium state that occurs simultaneously in the economy. However, according to Post-Keynesians, unexpected events that occur within historical time conditions lead to deviations from the equilibrium. Post-Keynesian economics accepts that markets are organized as oligopolies (megacorps) and that prices are determined by adding a mark-up to costs, unlike the marginal cost-marginal revenue approach in the neoclassical model (Cengiz, Develi, & Yünsel, 2019, p. 35; Dolanay, 2024g, pp. 671-692).

According to means' basic approach, firstly, prices are determined in large modern companies rather than being formed under market conditions expressed in neoclassical price theory. Secondly, the determined prices are fixed as a result of an administrative decision before the transactions in the market start and are kept constant for transactions to be carried out in certain periods. In periods of recession, a determined price may be lower than classically competitive market prices, may not show a significant change or may increase. In the opposite case, i.e. in periods of economic expansion, a determined price may increase less, may not show any change or may actually decrease (Cengiz et al., 2019, p. 37; Dolanay, 2024g, pp. 671-692).

In Kalecki's analysis, short-term price changes can be divided into two main groups as "production cost" and "demand" determined. In general terms, while changes in the prices of final goods are determined by cost, changes in the prices of raw materials, including primary foodstuffs, are demand-oriented. When a company determines a price and thinks that it will sell at that price, it takes into account its average variable costs and the prices of companies producing similar goods. Since the company can significantly reduce its sales, it should make sure that the price it determines is not higher than the prices of other companies. If the average variable cost increases, the price can be increased proportionally, and the weighted average prices of other companies also increase proportionally. However, if the weighted average prices of other companies increase less than the average variable cost, the company's price will be lower than the average variable cost. "Apart from these, it can be stated that the Kalecki model does not include price rigidity." Because producers can supply the raw material/material they want at the price they determine in line with their own interests. In imperfectly competitive markets, there is a price that is sensitive to changes in demand (Cengiz et al., 2019, p. 38; Dolanay, 2024g, pp. 671-692).

The normal cost pricing approach, also known as full-cost pricing, was first put forward by Hall and Hitch (1939) based on studies on firm behavior. In this approach, companies fix prices by taking into account not only direct costs but also all costs. According to research, approximately half of the companies consider either actual output or expected output level; but unit costs are calculated at various conventional levels of production. The

conventional level in question can be either full capacity output level or standard output level depending on the standard rate of usage capacity (Cengiz et al., 2019, p. 38; Dolanay, 2024g, pp. 671-692). According to Hall and Hitch (1939), under conditions of uncertainty, companies will not try to maximize their profits in line with the equality of marginal cost and marginal revenue. Instead, they will create their prices by adding a mark-up to full cost in order to maintain their profits and reputation (Downward, 2000, pp. 212-213; Cengiz et al., 2019, p. 38; Dolanay, 2024g, pp. 671-692). Although the prices obtained in this way are generally stable, they may change in the event of significant changes in wages and raw material costs, although they are not dependent on normal or temporary demand shifts (Cin, 2005, p. 492; Cengiz et al., 2019, p. 38; Dolanay, 2024g, pp. 671-692).

Therefore, prices depend on normal or standard costs, which are conventional measures of some costs, rather than actual costs. While Andrews's study assumes that the gross cost margin is added to direct unit costs at the normal production level, Andrews and Brunner's studies accept that many firms determine prices by adding net cost margins to normal unit costs. These costs represent direct and general unit costs at the normal production level (Lavoie, 2014, p. 160; Cengiz et al., 2019, p. 39; Dolanay, 2024g, pp. 671-692).

According to Frederic Lee (1998), large companies have been using the normal cost approach in contrast to mark-up pricing since the 1920s. In this approach, companies must first calculate normal unit costs, which include net cost margins added to profits. Unit costs consist of indirect and direct costs. The advantage of this approach is that it does not require companies to know unit costs at all levels of production. Rather, it is sufficient for them to know unit costs at a single stage of production corresponding to the normal capacity utilization rate. Normal unit cost is independent of demand changes (Lavoie, 2006, pp. 45-46; Cengiz et al., 2019, p. 39; Dolanay, 2024g, pp. 671-692).

The Return Target-Based Pricing approach is under the umbrella of normal cost pricing and is explained with the formula expressed in the cost plus pricing method. The study titled "Pricing in Big Business: A Case Approach" published by Kaplan, Dirlam, and Lanzillotti in 1958 is about the pricing approach of large firms. In this approach, the price is obtained by adding a profit rate targeted by the firm to the average total cost when output is at a normal level (Lavoie, 1992, p. 133; Cengiz et al., 2019, p. 39; Dolanay, 2024g, pp. 671-692).

Alfred Eichner made notable contributions to post-Keynesian economics not only with the pricing approach but also in areas such as methodology, money and credit, and short-term analysis. Eichner's studies in the field of pricing, *The Emergence of Oligopoly: Sugar Refining as a Case Study* (1969), "A Theory of the Determination of the Mark-up under Oligopoly" (1973), *The Megacorp and Oligopoly: Micro Foundations of Macro Dynamics* (1976), are quite important (Cengiz et al., 2019, p. 40; Dolanay, 2024g, pp. 671-692).

In Eichner's model, megacorps, which are characterized as large firms, especially in the manufacturing sector, have a distinctive feature. The first of these features is the spread from firm ownership to management. Contrary to neoclassical thought, the manager's goal is not to maximize short-term profits but to maximize long-term growth. The institutional nature of megacorps dictates growth maximization as the primary goal of the firm. Secondly, the production of megacorps takes place within multiple facilities and facility divisions. The factor coefficients for these facilities are fixed in the short term due to institutions and technological factors. The fact that the production coefficient is fixed is very important in terms of deriving cost curves that are different from the U-shaped cost curves as in neoclassical economics. In the short term, megacorps operate with decreasing or increasing costs, despite the assumption that at least one of the production factors is fixed. Thirdly, in Eichner's model, there is a "recognition of mutual solidarity" relationship between some of the megacorps, as in the

oligopoly market, that perform a significant part of the production in the industry. In addition, the firm is not a price taker but a price maker. A small number of oligopolistic firms with a large market structure or low cost advantage become leaders and declare that they will increase prices in the industry. Using this advantage, firms in the price leadership position respond to the price changes of other firms (Dzarasov, 2010, p. 201; Cengiz et al., 2019, p. 40; Dolanay, 2024g, pp. 671-692).

According to Eichner, in the short term, the mark-up rate depends on the unit production costs when the price changes. In order to adapt to the new prices, the mark-up should be added at the same rate as the changing unit costs. This situation indicates that the mark-up rate is accepted as a given in the short term. In the long term, the mark-up is variable and is determined by the additional investment funds required by the dominant firm in the market. The increase in implicit costs due to additional investment funds leads to an increase in the mark-up rate (Cengiz et al., 2019, p. 41; Dolanay, 2024g, pp. 671-692).

In post-Keynesianism, the investment rate is determined by the ratio of wage income and profit income in national income. It is assumed that wage income is determined exogenously by the bargaining power of unions. The money wage level, which is an element of cost, affects all prices and employment through money demand. A change in a single price affects all prices simultaneously (Savaş, 2000, pp. 943-944; Dolanay, 2020c, p. 70; 2024g, pp. 671-692).

The increase in money wages creates both cost-push and demand-pull effects. Therefore, post-Keynesians state that prices can only be known if money wages are known (Savaş, 2000, pp. 944-945; Dolanay, 2020c, pp. 70-71; 2024g, pp. 671-692).

When individuals see the future as uncertain, there is an increase in the demand for money. In this case, entrepreneurs seek additional resources to find money (Dolanay, 2020c, p. 71; 2024g, pp. 671-692).

Trade is based on financing and trust. However, what is valid in the real world is uncertainty, fallibility, contracts, and institutions. The failure of markets to provide full employment is also the reason for the arbitrary and unequal distribution of wealth and income (Savaş, 2000, pp. 941-943; Dolanay, 2020c, p. 72; 2024g, pp. 671-692).

According to post-Keynesians, money is both an element of uncertainty and a way to reduce uncertainty. According to post-Keynesians, the demand for credit determines the supply of money. Banks first provide credit and then provide reserves (Togay, 1994, p. 51; Dolanay, 2020c, p. 73; 2024g, pp. 671-692).

According to post-Keynesians, the goal of the firm is to increase sales revenues over time under a minimum cost constraint. It is assumed that there is competition between firms to the extent that it allows the use of a profitable investment opportunity. There should be enough competition to ensure that the expected profit rate from the investment is equal for all firms. Firms can create the necessary internal funds for investments by keeping prices above normal production costs. Prices depend on the firm's investment plans. The amount of investment funds needed determines the profit margin (Doanay, 2020c, p. 77; 2024g, pp. 671-692).

The concept of price inflation, which is overlooked in many studies but can be found in some publications, is important in order to determine the source of the inflation experienced in Turkey today (Dolanay, 2024g, pp. 671-692).

In the base price application, prices are determined above the market price in order to protect the labor force from the production factors, while in terms of producers, it is aimed to ensure the stable production of goods and services that are the basic needs of the society (such as wheat and hazelnuts). In both applications, prices are a

reflection of the dislike of the market price and this price is above the market price. The fact of determining prices above the market price has an increasing effect on the general level of prices in the economy. When we thought that it was shown on a figure, while the market price is P0, the new price as a result of the state's base price application is realized above P0, at the level of P1. This has an increasing effect on inflation in proportion to the share of the factor or goods and services in question in the general price level (Turan, 2010, pp. 18-19; Dolanay, 2024g, pp. 671-692).

With the rise in inflation since 2021, discussions about the causes of inflation have resurfaced in economic research and economic policy. Various empirical studies suggest that the rise in inflation during the recovery from the Covid-19 crisis and Russia's war in Ukraine is associated with increased profits or increased profit margins in many countries, not just the US. Various reasons have been suggested for this: high import prices, high energy prices, bottlenecks due to disruptions in global value chains in the production of goods, high profit margins of firms for various reasons, and changes in the structure of demand. Perhaps the most prominent view has been that current inflation can best be understood as profit-driven inflation or "sales inflation". These thinkers argue that inflation driven by excess aggregate demand (based on government spending) or excess money supply is opposed to inflation driven by excess aggregate demand (based on government spending). They distinguished three stages of the process towards rising inflation rates (Hein, 2023; Dolanay, 2024g, pp. 671-692).

(1) Increasing prices in systemically important production sectors due to commodity market dynamics or bottlenecks create windfall profits and provide the impetus for further price increases. (2) Sub-sectors multiply to protect profit margins from rising costs, and temporary monopoly situations due to pressures or bottlenecks also increase prices. (3) Labor responds by trying to fend off real wage declines in the conflict phase (Weber & Wasner, 2023, p. 183; Hein, 2023; Dolanay, 2024g, pp. 671-692).

It can be summarized by stating that the post-Keynesian approach argues that inflation is always and everywhere a conflict phenomenon, that is, inflation can only occur if the claims of different groups regarding real income consistently exceed real output (Hein, 2023; Dolanay, 2024g, pp. 671-692).

Expectations play an important role in inflation. These can be generally distinguished as follows: (1) the claims of capitalists, including firms, rentiers, and landowners, on unit profits or dividends, including undistributed profits, interest, dividends, and rents; (2) the claims of workers on real wages or wage shares; (3) the claims of the government in terms of net tax revenues; and (4) the claims of the external sector on the value of imports of the domestic economy. Inflation can therefore be triggered by an increase in the demands of one or more of these groups of actors, but this increase cannot be compared with a decrease in the demands of any other group of actors. Inflation can therefore be generated by an increase in the real profits or dividend demands of capitalists, triggered by excess demand, changes in the degree of price competition or higher interest or dividend demands, creating profit-driven conflict inflation. It can be generated by an increase in the real wages or wage share demands of workers, triggered by changing bargaining (Hein, 2023; Dolanay, 2024g, pp. 671-692).

Post-Keynesians believe that in order to overcome situations such as moving away from full employment balance as a result of inflation and inequalities in income and wealth distribution, policy tools such as interest rates, debt management, and legal regulations should be used. However, they think that the desired goals cannot be achieved with these policies due to the complexity of the relationship between these policy tools and the variables that these tools can interact with. For this reason, post-Keynesians argue that the Central Bank should target inflation by using its role as a market regulator (Terra & Arestis, 2017, pp. 3-5; Dolanay, 2020c, p. 77; 2024g, pp. 671-692).

Inflation in the World

After the Second World War, institutions such as the IMF and the World Bank were established and a new economic system focused on liberal, finance, and capital was considered. In this direction, the foundations of the global monetary system were laid with the Bretton Woods system in order for the new economic system to function. This system was mostly based on a fixed exchange rate regime (Seyidoğlu, 2011, p. 144). Thus, fixed exchange rate regimes were seriously supported until the 1970s with gold money and the Bretton Woods system. However, after the 1970s, with the collapse of the Bretton Woods system, interest in alternative exchange rate regimes increased. Thus, industrialized countries turned towards a flexible exchange rate regime, but many countries around the world continued to implement fixed exchange rates (Hagen & Zhou, 2004, p. 2; Şanlı, 2021, p. 118; Dolanay, 2024g, pp. 671-692). After the 1950s, new studies emerged on the benefits of flexible exchange rate regimes under the leadership of M. Friedman. The crises experienced immediately after the 1970s mostly occurred in countries implementing fixed exchange rate regimes, which increased the interest in Friedman-supporting views. Thus, by the 2000s, the number of countries implementing fixed exchange rate regimes gradually decreased (Şanlı, 2021, p. 119; Dolanay, 2024g, pp. 671-692).

The IMF has divided exchange rate regimes into different categories according to the intensity of flexibility of the regime implemented in line with the notifications received from the countries. Accordingly, exchange rate regimes are divided into three. These are fixed exchange rate regime, limited flexible exchange rate regime, and intensive flexible exchange rate regime (Babula & Otker-Robe, 2002, p. 6; Şanlı, 2021, p. 120; Dolanay, 2024g, pp. 671-692).

Shocks, speculative attacks, and expectations in an economy are tried to be controlled with exchange rate regimes. Discussions on the exchange rate regime that should be implemented against real shocks and reactions have been ongoing since M. Friedman. According to Friedman's theory, countries implementing flexible exchange rate regimes are more capable of withstanding real shocks than countries implementing fixed exchange rate regimes. Friedman's theory is based on the sticky price mechanism. In an economy where sticky prices are valid, the flexible exchange rate system is more effective in real price adjustments against real shocks. However, countries implementing a fixed exchange rate regime respond much more slowly to real shocks (Friedman, 1953). Especially in an economy with a short-term sticky price mechanism and incomplete exchange rate adjustments, real shocks lead to disruptions in the price system and misallocation of resources. Accordingly, high volatility is observed in output in fixed exchange rate regimes (Levy-Yeati & Sturzenegger, 2003, p. 1173; Şanlı, 2021, pp. 121-122; Dolanay, 2024g, pp. 671-692).

Currency crises are based on a simple mechanism. In an economy where nominal prices are rigid in the short term, the depreciation of the local currency leads to an increase in the borrowing cost in the production sector with foreign exchange liabilities. The increase in the borrowing cost reduces profit rates. In the following periods, it may result in a decrease in investments and therefore in production. In this case, the demand for money decreases and the depreciation of the local currency begins to increase. Arbitrage movements in foreign exchange markets also accelerate the loss of currency value. Thus, the depression caused by expectations or bad shocks leads to currency crises (Aghion et al., 2001, pp. 1122-1123; Dolanay, 2024g, pp. 671-692). Especially in developing countries, since there is a reserve problem, the intervention of central banks by reducing their reserves and increasing interest rates leads to a further deepening of the economic impact of the crises. In the final stage,

exchange rate regimes may change and the crisis in the country may gain a global dimension (Şanlı, 2021, p. 122; Dolanay, 2024g, pp. 671-692).

Inflation in Turkey

In this section of our study, the inflation rates between 1980 and 2020 will be briefly discussed in Turkey, and the inflation process experienced in Turkey after 2020 will be focused on. In the 11-year period between 1980 and 1990, the annual average inflation rate (average annual increase rate in the wholesale price index) was 46.35% (Dolanay, 2023d, p. 169; 2024g, pp. 671-692). In the 11-year period between 1990 and 2000, the annual average inflation rate (average annual increase rate in the wholesale price index) was 69.98% (Dolanay, 2023a, p. 459; 2024, pp. 671-692). Thus, the annual average inflation rate increased by approximately 15% between 1990 and 2000 compared to the previous period. With the Transition to a Strong Economy Program, which was implemented after the economic crisis in 2001, inflation targeting was implemented together with other structural regulations, and thus, the annual average inflation rate (average annual increase rate in the consumer price index) decreased to 19.43% in the 11-year period between 2000 and 2010 (Dolanay, 2023b, p. 257; 2024g, pp. 671-692). While economic growth continued with low inflation rates in the period between 2010 and 2020, the 30% increase in the minimum wage at the end of 2015 and the beginning of 2016 was above the 2015 inflation rate. The annual inflation rate in 2015 was 8.81% in the calculation with the consumer price index, but the possible increase in the inflation rate at the rate of increase in real wages could be postponed until August 2018 with the policy of real valuable TL, i.e. low exchange rate. After the exchange rate shock experienced on this date, the inflation rate in 2018 increased to 20.30% (Dolanay, 2023j, pp. 62-71). We can say that the fact that production in Turkey is largely dependent on imported raw materials and intermediate goods has caused an increase in the inflation rate (Dolanay, 2023a; 2023i; 2023j; 2023d; 2024g, pp. 671-692). Despite the increase in the inflation rate in 2018, a decrease in the inflation rate was experienced in 2019 and 2020, and it was understood with the exchange rate shock in 2021 that this decrease was due to the appreciation of the TL over time and the decline in the exchange rate (Dolanay, 2024g, pp. 671-692).

Table 1

Inflation Rates in Turkey Between 2020-2023

Years	Increase in consumer price index (%)
2020	14.60
2021	36.08
2022	64.27
2023	64.77

Source: T.C. Cumhurbaşkanlığı Strateji ve Bütçe Başkanlığı (Presidency of the Republic of Turkey, Strategy and Budget Directorate), htttps://wwww.sbb.org.tr; https://www.legalbank.net; Dolanay, 2024g, pp. 671-692.

With the exchange rate shock experienced in November 2021, inflation rates started to rise and the inflation rates in 2022 and 2023 were more or less at the same level. In order to understand the reason for this, we need to look at real wage increases. For this, looking at the minimum wage increase rates will give us an idea. While the net minimum wage increased by 30% compared to the previous year as of the end of 2015, it increased by 21.5% compared to the previous year as of the end of 2021. While a minimum wage increase above the inflation rate was seen as of the end of 2015, there was an increase below the inflation rate as of the end of 2021. However, as of 2022, increases were made twice a year and thus, real wages could be increased with minimum wage increases

above inflation. An increase of 50.55% was made in June 2022 and 29.32% in December 2022. Thus, the net minimum wage was increased by 94.69% in total. Therefore, the increase in the real wage level was approximately 30%. As of June 2023, the minimum wage was increased by 54.65% and by 49.11% in December 2023. Thus, the total increase rate in 2023 reached 130%. Therefore, real wages increased by 65% (https://www.csgb.org.tr>asgari-ucret; Dolanay, 2024g, pp. 671-692).

There are two situations in case the national currency loses value against foreign currencies. First, the increase in the price of imported goods as a result of the depreciation of the national currency will cause inflation to increase in the country. Second, the increasing exchange rate as a result of the depreciation of the national currency will cause domestic prices to increase (Türk, 2016, p. 82). Therefore, preventing the exchange rate from appreciating at the inflation rate in order to prevent inflation may be effective in reducing the inflation rate (Dolanay, 2024g, pp. 671-692).

However, an increase in nominal wages above the inflation rate and an increase in real wages can also increase inflation (Dolanay, 2020; 2024g, pp. 671-692; Turan, 2010).

As Hein (2023) also stated, when the general level of prices increases due to excessive demand and/or an increase in costs, Megacorp companies increase their prices, and those who earn wage income demand a wage increase to compensate for the decline in their real wages. When the increase in nominal wages increases the general level of prices, those who earn profit income, namely Megacorps, increase their prices to compensate for the decline in their profits (Hein, 2023; Dolanay, 2024g, pp. 671-692).

In order to get out of the vicious circle of inflation that Turkey entered after 2021, the Ministry of Treasury and Finance announced a medium-term program and the Central Bank started to implement an inflation targeting policy (http://www.hmb.org.tr; https://www.tcmb.org.tr; Dolanay, 2024g, pp. 671-692).

In the inflation assessment made by the Ministry of Treasury and Finance in June 2023, it was stated that inflation would start to decrease as of 2024 (http://www.hmb.org.tr; Dolanay, 2024g, pp. 671-692).

The exchange rate gained 35% in value in one month, and 18.5% in the following 13 months (https://www.altinkaynak.com). On the other hand, indicative interest rates were increased from 8.5% to 50% over time (http://www.hmb.org.tr). Despite the implementation of all these disinflation policies, the annual inflation rate as of July 2024 was 71.60% (https:/www.turkis.org.tr>tuketici-fiyat-endeksi-hazira…; Dolanay, 2024g, pp. 671-692).

As can be seen, the annual inflation rate as of July 2024 was above the 2023 inflation. There may be two reasons for this situation. First, inflation emerged with a delay after the first price increases, and the effects of the anti-inflation program may also emerge with a delay. Second, since the disinflation program has failed, it is necessary to take structural measures (make structural reforms) in order to prevent inflation. However, in any case, it is necessary to test whether the program has achieved its inflation target by the end of 2024 (Frish, 1989; Şanlı, 2021; Dolanay, 2024g, pp. 671-692). However, since the inflation increase rates have remained above the increases in the exchange rate, the economy has become open to the risk of the effects that sudden rapid increases in the exchange rate may have on the economy. It can be said that in the work of Dolanay (Dolanay, 2024g, pp. 671-692).

Profit-Pushed Inflation

However, there is no price theory in the tradition of economic thought where distribution is not effective. We can say that this basic determination is valid for Marxist economics as well as neoclassical economics. As a

rule, neoliberal stabilization programs with or without the IMF are essentially a type of "reimbursement" (austerity) tool where costs are imposed on the masses. We can say that these short-term measures, which center on price stability, are supported by medium-term structural adjustments and a new long-term capital accumulation "path" is tried to be drawn for the economy. The first-hand meaning of the new path for capital is to maintain profitability and to provide the necessary conditions for the continuity of capital accumulation (Yeldan, Köse, & Boratav, 2023, pp. 8-9; Dolanay, 2024g, pp. 671-692).

As post-Keynesians also state, those who earn profit income try to maintain their profit rates by increasing their prices in recovery, i.e. inflationary environments, and by not decreasing their prices in periods of struggle against inflation and stagnation. Therefore, they are always in conflict with the demands for an increase by those who earn wage income (Cengiz et al., 2019; Hein, 2023; Dolanay, 2024g, pp. 671-692).

Conclusion

Although the problem of high inflation has always been on the agenda in Turkey since the 1980s, low inflation rates began to be the issue since 2002, but this process began to reverse with the inflation rate of approximately 20% in 2018, the inflation rate slightly exceeded 35% in 2021 and rose to around 64% in 2023.

While the increase in the minimum wage above inflation at the end of 2015 triggered the process of price increases by megacorps that did not want their profits to fall, the inflation rate reaching a high level compared to previous years as of 2018 triggered minimum wage increases and a small price increase spiral began to be entered. As of the end of 2021, this price spiral deepened as it reached the next level of 35%, and the high minimum wage increases in 2022 and 2023 brought the inflation rate to approximately 64%, and the price spiral deepened a little more.

The difficulty of combating inflation stems from the need for all segments of society to participate in the process of combating inflation. Even if the targets announced by the Disinflation Program for the end of 2024 are achieved, those who earn profit through structural reforms may also need to participate in the process of combating inflation in order to further reduce inflation. This implies a stagnation process.

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