# Framing Growth: A Comprehensive Literature Survey on Macroeconomic Policies and their Impact on Turkey's Economic Trajectory

*Büyümeyi Çerçevelemek: Makroekonomik Politikalar ve Türkiye'nin Ekonomik Yörüngesi Üzerindeki Etkileri Üzerine Kapsamlı Bir Literatür Araştırması*

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## Özet

**Amaç:** *Bu çalışma, Türkiye'de makroekonomik politikalar ile ekonomik büyüme arasındaki karmaşık etkileşimi incelemektedir. Teorik ve ampirik alanları kapsayan kapsamlı bir literatür taraması yoluyla, bu ilişkiyi ampirik olarak araştırmak için bir temel oluşturur.*

**Yöntem:** *Çalışma, makroekonomik politikalar ve uzun vadeli büyüme ile ilgili temel kalıpları, eğilimleri ve tartışmaları ortaya çıkarmak için mevcut literatürün kapsamlı bir analizini yürüterek, etkili çalışmalardan elde edilen içgörülerin titiz bir sentezini kullanır. Farklı bakış açılarını bütünleştirerek, daha derin keşif için ampirik bir yaklaşım geliştirir.*

**Bulgular:** *Çalışma, makroekonomik politikalar ile Türkiye'nin ekonomik gidişatı arasındaki çok yönlü ilişkiye dair incelikli görüşler sunuyor. Kesin etki mekanizmaları tartışılmaya devam ederken, araştırma, politikaların büyüme sonuçlarını etkilemedeki önemli rolünün altını çiziyor. Karmaşık dinamikleri ortaya çıkarmak için yapılandırılmış ampirik keşif ihtiyacını vurgular.*

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***Sonuç ve Katkılar:*** *Çalışma, teorinin ötesinde, politika yapıcılara, ekonomistlere ve paydaşlara kapsamlı literatürden ve sağlam bir ampirik çerçeveden içgörü sağlayarak pratik bir önem sunuyor. Sürdürülebilir ekonomik büyümeyi teşvik etmede iyi bilgilendirilmiş makroekonomik politikaların hayati rolünü vurgulamaktadır. Yapılandırılmış metodoloji, ekonomiler genelinde politika odaklı büyüme yörüngeleri hakkında gelecekteki araştırmalar için rehberlik sağlar.*

***Sınırlılıklar:*** *Çalışma, potansiyel veri bağımlılığı, karmaşık dinamiklerin basitleştirilmesi, literatür sentezini şekillendiren varsayımlar, eksik politika manzarası yansıması, açık nedensel ilişkiler kurmadaki zorluklar, sınırlı genellenebilirlik ve çeşitli literatür kaynaklarının değerlendirilmesinde öznellik gibi sınırlamaları kabul etmektedir. Kısa vadeli etkilere, literatür kapsamındaki potansiyel boşluklara ve uzun vadeli sonuçların potansiyel gözetimine odaklanmayı kabul eder.*

**Anahtar Kelimeler:** Makroekonomik politikalar, Ekonomik büyüme, Türkiye.

**Jel Kodu:** C82, E69, F41.

## Abstract

***Purpose:*** *This study explores the intricate interplay between macroeconomic policies and economic growth in Turkey. Through an extensive review of literature spanning theoretical and empirical domains, it establishes a foundation for empirically investigating this relationship.*

***Methodology:*** *The study employs a meticulous synthesis of insights from influential works, conducting a comprehensive analysis of existing literature to uncover key patterns, trends, and debates related to macroeconomic policies and long-term growth. By integrating diverse perspectives, it crafts an empirical approach for deeper exploration.*

***Findings:*** *The study yields nuanced insights into the multifaceted relationship between macroeconomic policies and Turkey's economic trajectory. While the exact impact mechanisms remain debated, the research underscores the pivotal role of policies in influencing growth outcomes. It highlights the need for structured empirical exploration to uncover intricate dynamics.*

***Implications:*** *Beyond theory, the study offers practical significance by furnishing policymakers, economists, and stakeholders with insights from extensive literature and a robust empirical framework. It emphasizes the crucial role of well-informed macroeconomic policies in fostering sustainable economic growth. The structured methodology provides guidance for future research on policy-driven growth trajectories across economies.*

***Limitations:*** *The study acknowledges limitations such as potential data reliance, simplification of complex dynamics, assumptions shaping literature synthesis, incomplete policy landscape reflection, challenges in establishing clear causal relationships, limited generalizability, and subjectivity in evaluating diverse literature sources. It acknowledges a focus on short-term effects, potential gaps in literature coverage, and the potential oversight of long-term implications.*

**Keywords:** Macroeconomic policies, Economic growth, Turkey.

**Jel Codes:** C82, E69, F41.

## 1. Introduction

Although a stable macroeconomic environment is important, many economists contend that it does not ensure long-term economic growth. Furthermore, forceful claims for the impacts of macroeconomic policy on economic growth have been made by both neoclassical and endogenous growth models, specifically the new growth literature. Several econometric and non-econometric research on the connection between macroeconomic policies and economic growth has tended to confirm these beliefs, while some investigations cast doubt on these statements, finding them to be overblown. One of these opponents' primary points is that even if a really bad policy can probably end any chance of growth, the conditions for high steady-state growth cannot be produced by excellent macroeconomic or trade policy alone. (Easterly, 2005).

However, similar claims about the growth effects of policies are often found in the papers of international agencies like the World Bank and the IMF. For example, several researchers of the World Bank argue that policy reform would boost growth in developing countries and halve world poverty rates (Collier and Dollar, 2001). However, these views of the researchers do not reflect the views of their institutions. For example, in IMF (2000), the IMF argues that when good macroeconomic policies are maintained, they increase growth and reduce poverty.

Real-world evidence is mixed, however, depending on the country or country group being analyzed and the period in question. For example, in the early 1990s, several Latin American countries' economic recovery was accompanied by a return to budget discipline and a decline in inflation. On the other hand, in Brazil, a growth crisis coexists alongside high inflation, interrupted by stabilization efforts and persistent macroeconomic fragility. Turkey is similar to these Latin American economies, with high inflation and macroeconomic instability during periods of declining average growth rates (Dogruel and Dogruel, 2003).

In East Asia, fast-growing economies have maintained single- or low-digit inflation and generally avoided balance-of-payment crises. While there have been some (for example, S. Korea, 1980), they responded quickly to them. Africa is a case in point for the claim that macroeconomic stability is insufficient for growth. Most of the countries in the franc zone of Africa have experienced slow growth since 1980, despite low inflation.

In light of the abovementioned claims and the mixed evidence, this paper aims to design a research proposal questioning the effects of macroeconomic policies on economic growth in the case of Turkey. To this end, some influential studies both in the theoretical and the empirical literature are referred and surveyed in detail. Then an empirical investigation is designed based on the theoretical framework adopted of how policies would affect economic growth and on the empirical studies related to the subject.

The first part of this designed empirical work roughly asks whether or not selected macroeconomic policies are effective in promoting the growth rates of the Turkish economy. If so, which policies do affect mostly? And which indicators of these policies are strongly linked with economic growth? In the second part, these questions are asked on an interactional base and it presumes the endogeneity of all variables

involved in the regressions. Accordingly, the analyses explore to what extent these policies affect the economic growth in Turkey.

This study is organized as follows. Section 2 provides the research questions of this study. Then, the significance of each research question is briefly discussed. Section 3 presents an overview of the adopted theoretical background as well as a selective survey of empirical studies from the relevant literature. Section 4 defines the dependent and independent variables, and then introduces the data which are planned to be used in the proposed empirical study indicating the possible data sources. Section 5 presents the methodological approaches proposed for the empirical investigations. Section 6 reveals thoughts on the expected empirical findings concerning the role of macroeconomic policies on the economic growth performances of Turkey. The study ends with conclusions.

## 2. Research Questions

The fundamental research question of this study is to what extent these policies have economically large effects on the growth rates of the Turkish economy. The second major question is which macroeconomic policies have a long-run relationship with the growth performance of Turkey.

These two questions aim to reveal and identify the roles of macroeconomic policies in the economic growth process of Turkey. One of the main motivations behind this investigation is the mixed results of the empirical literature inquiring about the effectiveness of policies. Although it is a common belief that policies have distinct impacts on economic growth, there is considerable disagreement about which policies are most strongly linked with economic growth. On the one hand, some studies conclude that policy matters and macroeconomic policies are strongly linked with economic growth. On the other hand, some empirical studies argue that the estimated effects of policies are not robust. So there is an obvious conundrum about the effectiveness of macroeconomic policies in the literature.

Turkey is a country where many macroeconomic policies have been frequently suggested by international agencies, notably WB and IMF, and even its policy choices have been intervened and controlled over time. Macroeconomic stability is a key phrase in Turkey. But the fact is that the growth performance of Turkey does not seem to be permanently stable since its foundation. Especially after wars (World War I and II) and after 1980 onwards, the economic growth rates of Turkey have shown unstable movements. Therefore, the roles of macroeconomic policies need further investigation. This necessity especially arises after the initial years of trade and financial liberalizations in Turkey (1980 and 1989).

## 3. Literature Survey

This section initiates looking for the questions asked in the former section by reviewing selected studies from both theoretical and empirical growth literature. From the pioneering work of Romer (1986) to the extensive literature on the drivers of economic growth, national economic policies have been studied extensively as determinants of long-term growth (Easterly, 2005).

Easterly (2005) divides the theoretical models into two subgroups which, first, predict strong policy effects and, second, predict small policy effects on growth. A similar approach is adopted in this study following the models depicted in Easterly (2005) and the empirical investigation is proposed to be built on these models. In the first section of this subsection, we look at three models: the neoclassical, increasing returns to capital, and constant returns to capital models. In the second section, we look at reviewed theoretical models. These models emphasize substitutability between formal and informal sectors and have a large fraction for the informal sector. In other words, they emphasize technological change over factor accumulation. According to Easterly (2005), more modest policy effects are consistent with this kind of theoretical model.

AK model of Rebelo (1991) is the simplest theoretical model of endogenous growth. Rebelo (1991) proposed that output ($Y$) could be proportional to a broad concept of capital ($K$) that includes both physical and human capital:

[1]     $Y = AK$

$K$ is a purely private good –both excludable and rival. And so, there is no role for the government in this model. This means that the market equilibrium yields the first best solution, and any government intervention in the form of taxes or price distortions must worsen the welfare. Easterly (2005) argues that in this model, policies like tax rates have large effects on steady-state growth. He defines a tax ($\tau$) on the purchase of investment goods ($I$). Then the consumption ($C$) is given by output less investment spending and taxes:

[2]     $C = Y - (1 + \tau)I$

Under the constant population size assumption, each identical household maximizes welfare over an infinite horizon:

[3]     $max \int_0^\infty e^{-\rho t} \frac{C^{1-\sigma}}{1-\sigma} dt$

[4]     $\dot{K} = I - \delta K$

Then the investment rate of the consumer-producer in the steady states is as follows:

[5]     $\frac{\dot{C}}{C} = \frac{(A/(1+\tau)) - \delta - \rho}{\sigma}$

Here, Easterly (2005) argues that policy has large effects on steady-state growth. The numerical example given by the author reveals the fact that an increase from a tax rate of 0 to one of 30% would lower growth by 3.5 percentage points. While it's easy to see why this model appeals to aid agencies and policymakers who want to support economic growth, the Easterly calculation of 65% lower income over 30 years (Easterly, 2005) does make sense.

The impact of taxation on accumulation is even more dramatic. Here is the solution for the broad categories of investment that include physical assets, human assets, technology assets, and knowledge accumulation:

[6] $\quad \dfrac{I}{Y} = \dfrac{(A/(1+\tau)) - \delta(1-\sigma) - \rho}{\sigma A}$

According to this solution, raising the tax rate from zero to 30 percent would shave 23 percentage points off GDP. This was the first model that predicts a strong policy effect on growth.

According to Easterly (2005), the claim for large policy impacts increases as growth models grow in terms of return on capital and externalities. Here, social contacts that are supposed to be identical, free, and exogenous for all members of the society are referred to as spillovers from the neighborhood's average human capital to each resident. The production function for each member can therefore be expressed as follows:

[7] $\quad y = Ak^{\alpha}\bar{k}^{\beta}$

The optimal path of consumption (the growth rate for each individual) is now given by:

[8] $\quad \dfrac{\dot{C}}{C} = \dfrac{(A\alpha\bar{k}^{\alpha+\beta-1}/(1+\tau)) - \delta - \rho}{\sigma}$

In the multiple equilibria case (if $\alpha + \beta - 1 > 0$), the return to capital increases the more initial capital there is, this is the opposite of the usual diminishing returns to capital. According to Easterly (2005), initial conditions are crucial in all multiple equilibria models and even seemingly little factors (like policy) can have significant repercussions. He concludes that this is even more alluring to policymakers than the initial endogenous growth model was.

The third model considered by Easterly (2005) is a neoclassical exogenous growth model. Here again, the term "capital" refers to more than simply tangible assets like machinery and buildings; it also includes people, possibly even technology, and expertise. The neoclassical production function with labor-augmenting technological change is:

[9] $\quad Y = K^{\alpha}(AL)^{1-\alpha}$

Or in per capita terms:

[10] $\quad y = k^{\alpha}A^{1-\alpha}$

Here the consumer-producer's maximization problem is the same as before and the technological progress (the percent growth in A) is assumed to be constant at an exogenous rate $x$. In contrast to the earlier models, this one cannot support continuous growth by policy alone because it only influences the outcome through the incentive to accumulate capital. Here is the optimal growth of per capita consumption is:

[11] $\quad \dfrac{\dot{C}}{C} = \dfrac{(\alpha(k/A)^{\alpha-1}/(1+\tau)) - \delta - \rho}{\sigma}$

Since (11) must equal $x$ in the steady state, the per capita income relative to technology is

[12] $\quad \dfrac{y}{A} = \left[\dfrac{\alpha}{(1+\tau)(\sigma x + \delta + \rho)}\right]^{\frac{\alpha}{1-\alpha}}$

As is clear from (12), a high investment tax discourages capital accumulation and subsequently lowers the level of per capita income concerning the level of technology.

Easterly (2005) initially distinguishes between two categories of capital, formal sector capital ($K_1$) and informal sector capital ($K_2$), both of which can be taxed, for the models that forecast minimal policy effects on growth. Here is the whole model:

[13] $\quad Y = A(\alpha K_1^\gamma + (1-\alpha)K_2^\gamma)^{\frac{1}{\gamma}},$

[14] $\quad C = Y - (1+\tau)I_1 - I_2,$

[15] $\quad \dot{K}_1 = I_1 - \delta K_1,$

[16] $\quad \dot{K}_2 = I_2 - \delta K_2,$

[18] $\quad \dfrac{\dot{C}}{C} = \dfrac{(A\alpha[\alpha + (1-\alpha)(K_2/K_1)^\gamma]^{\frac{1-\gamma}{\gamma}}/(1+\tau)) - \delta - \rho}{\sigma}$

The effects of taxes on growth tend to be zero if these two capital products are almost perfect substitutes (with $\gamma$ close to 1). Additionally, the neoclassical model's ability to levy taxes would be restricted by decreasing the share of taxable capital (lowering $\alpha$)

Then, Easterly (2005) searches for a second element that lessens the effects of policies on growth, namely the fact that many policies distort relative pricing among various sectors or types of commodities rather than punishing all capital goods. Taking (15) and (16) as still the capital accumulation equations, other equations in the mind of the author are as follows:

[19] $\quad Y = AK_1^\alpha K_2^{1-\alpha},$

[20] $\quad C = Y - (1+\tau)I_1 - (1-s)I_2,$

where $s$ is the subsidy rate.

Since the government must balance its budget ($\tau I_1 = sI_2$), the optimal capital ratio as a function of the subsidy rate ($s$) is simply:

[21] $\quad \dfrac{K_2}{K_1} = \dfrac{1-\alpha}{\alpha - s}$

Then,

[22] $$\frac{\dot{C}}{C} = \frac{(A(1-\alpha)((\alpha-s)/(1-\alpha))^{\alpha}/(1-s)) - \delta - \rho}{\sigma}$$

According to Easterly (2005), if it can be demonstrated that the balanced budget condition is in place ($\tau I_1 = sI_2$), then this type of tax-cum-subsidy system cannot increase the rate of growth.

Other many factors weaken the effects of policies on growth. These are heavily stemmed from a lack of institutions and social structures, some of these factors are namely policy uncertainty, political rent-seeking, close to subsistence consumption, etc.

The impacts of economic policies on growth are estimated in a large body of empirical literature. Some studies focus on openness to international trade, others on fiscal policy, others on financial development, others on macroeconomic factors, and others on real exchange overvaluation. These studies all discover that some national policy indicator is closely related to economic growth, which is a common finding across all of them (Easterly, 2005). According to Rodrik (2012), the economic policies that have been most frequently included in empirical growth studies are fiscal policy, government consumption, inflation, the black-market premium on foreign exchange, overvaluation of the exchange rate, financial liberalization and development, trade policy (openness to international trade), state ownership in industry or banking, and industrial policy. The "Washington Consensus" is the proposal that nations seek good policies in each of these areas.

Here it should be emphasized that this study considers the role of macroeconomic policies separate from "institutions". There is rich literature interested in the relationship between institutions and economic growth. Institutions, according to Easterly (2005), are a reflection of ingrained social norms such as property rights, the rule of law, legal traditions, interpersonal trust, democratic accountability of governments, and human rights. It takes much more time to reform the institutions. In a nutshell, unlike the above-mentioned macroeconomic policy adjustments, they are not "stroke of the pen" reforms (Easterly, 2005).

There are some empirical caveats to note about the evidence on policies and growth before proceeding to the design of a new empirical design. According to Rodrik (2012), there has been extensive discussion of growth regression's drawbacks in recent years, with the main issues being parameter heterogeneity, outliers, omitted variables, model uncertainty, measurement error, and endogeneity. The difficulties with the time-series data are given in Section 5 after the methodologies for econometric work are proposed.

## 4. Data and Variables

Referring to Durlauf et al. (2004), frequently used right-hand side variables in the policy-growth empirical literature are summarized in Table A1 (see Appendix, A1). This study does not propose to put all these macroeconomic policy variables into a regression. Instead of that, three major policy variables are planned to be examined in the empirical work. Since this study aims to design an investigation of the relationship between macroeconomic policies and economic growth just for Turkey, and following the relevant literature, these policies are thought to be the most influential and determinant in shaping the growth performance of Turkey. Following the recent

national empirical literature, these policies are chosen as inflation, openness to trade, and financial development. All of the indicators have time-series data. Data sources and definitions of the variables are given in the Appendix (see A2).

## 5. Methodology

In this section of the paper, first, the methodology that would be used along the study is explained introducing the econometric models and techniques. Then, the pros and cons of this way of dealing with the data are discussed in short. Even though there is a large body of literature that utilizes cross-country regressions to look for empirical relationships between long-run growth rates and different macroeconomic policies, this study solely cares about Turkey and only employs certain policy variables. Therefore, the plausible methodology for the econometric work proposed is considerably constrained by the time-series data described in the previous section.

Although there seem to be strict limitations due to context, some guide studies for growth econometrics emphasize the importance of using a time-series approach while focusing on an individual country. In their extensive survey for growth econometrics, According to Durlauf et al. (2004), the best way to understand growth would be to look at time series data for each country separately because growth varies significantly over time and different countries experience different events that contribute to this variation, such as changes in government and economic policy.

The time series technique, however, faces significant obstacles. One crucial constraint as it was mentioned in the previous section is the available data. Especially for developing countries, only annual data is available and this is generally limited to the periods after the 1960s. Furthermore, online databases and widely used sources might be deceptive due to less frequent measurement of some key variables. So, some problems can be arisen due to misleading standard errors of parameter estimates when interpolated data are employed. These problems are partially overcome for that study by the data defined and data sources given above. Another key issue with the time series technique is that the parameter estimates become inconsistent when output lags or growth rates are used as explanatory factors when the log output is trend stationary. Moreover, Pritchett (2000) argued that in developing nations, where severe slumps or crises are common and output can diverge for extended periods from any prior structural trend, such issues are likely to be substantially more severe. This short-run output instability problem may make isolation of the effects of some variables on growth difficult. For instance, inflation is highly expected to be correlated with the difference between observed and potential output. So, it is not so easy to learn about the long-run growth of developing countries using time series regressions.

Then, in the second part, following the studies from recent national literature, modern econometric methodologies developed in recent years are employed for the relationship between inflation, openness to trade, financial development, and economic growth.

For the inflation-growth relation, the bound test approach developed by Pesaran et al. (2001) will be used to examine the existence of the long-term relationship between these two variables. The existence of a cointegration relationship between the two series will be decided following the test results. Also, Granger-causality tests

will be done. Then the direction of the causality will be detected according to the results.

For the openness to trade-growth relation, it is planned to follow again a cointegration analysis and additionally apply Error Correction Models (ECM). Here, again some tests are necessary. After standard Dickey-Fuller tests and cointegration analyses, some additional tests may be required. This is due to the possible existence of structural breaks in the time series. It is well known that structural breaks may create spurious unit roots and this may affect integration-cointegration results (Utkulu and Ozdemir, 2004). Zivot-Andrews unit root test and Gregory-Hansen cointegration test are some of the tests considering this structural break possibility.

For the financial development-growth relation, a similar methodological procedure within the inflation-growth relation is planned to apply. Again, following the bound test approach of Pesaran et al. (2001), the dynamic error-correction representations for the variables involved will be tested to detect whether or not the lagged levels of the variables are statistically significant. This will be done in the form of an unrestricted error correction model (UECM). Then, the F-tests are used to test the existence of long-run relationships. Lastly, an augmented Granger-causality test with a lagged error-correction term is used to check for the causal effects among the set of variables considered.

Since the extent of the planned study is a proposal, it is designed to involve different empirical techniques which are appropriate to the purposes. The next section will summarize the expected empirical findings after the abovementioned estimations and tests are conducted.

## 6. Expected Empirical Findings

It is well known that the inflation rate in Turkey is displaying a cyclical movement around an increasing trend line since the 1950s. Therefore, it is hard to explain these movements by just considering the short-run instabilities of the Turkish economy. So, the relation between inflation and growth is determinant at this point. Here, the results of Granger-causality tests are expected to be informative. Besides, it is likely to find only a short-run relationship between these two variables (probably negative and statistically significant) and the direction of causality is expected to be from inflation to growth.

For the openness to trade and growth relation, it is expected to find a joint causality between these variables. Also, it will not be surprising to find a causal link between declining trade distortions to economic growth. In other words, it is expected both a short and long-run relationship between trade policy and growth.

After the empirical work, another expectation is to find a positive relationship between financial development and economic growth. Moreover, it is highly possible to find a long-run relationship between the proxies of financial development and economic growth.

## 7. Conclusions

This study embarks on an exploration of the intricate relationship between macroeconomic policies and economic growth, with a particular focus on the case of Turkey. The discourse surrounding this topic has been highly contentious, with

economists and policymakers alike debating the extent to which macroeconomic policies can serve as catalysts for sustainable economic growth. This study delves into the divergent viewpoints presented by various economic models, such as neoclassical and endogenous growth theories, as well as the perspectives put forth by international institutions like the World Bank and the IMF.

The review of real-world evidence from different regions, including Latin America, East Asia, and Africa, revealed a complex tapestry of outcomes. While some economies exhibited positive growth coupled with improved macroeconomic stability, others faced growth crises amidst macroeconomic volatility. These heterogeneous experiences underscore the importance of contextual factors in shaping the impact of macroeconomic policies on economic growth.

In response to this complex landscape, this paper aimed to outline a research proposal that would critically investigate the relationship between macroeconomic policies and economic growth in Turkey. It poses fundamental questions about the effectiveness of selected macroeconomic policies in promoting economic growth within the Turkish context. This study also sought to identify which policies wielded the most significant influence and which policy indicators exhibited robust correlations with economic growth.

Moreover, the research design of the paper incorporated an exploration of the intricate interplay among these variables, acknowledging the potential endogeneity of the factors involved. This comprehensive approach aimed to shed light on the nuanced dynamics of macroeconomic policies and their impact on Turkey's economic growth.

The structure of the study, outlined in preceding sections, serves as a roadmap for this research endeavor. It began by formulating research questions, highlighting their significance, and providing an overview of the theoretical foundation that underpins our inquiry. We also conducted a selective review of pertinent empirical studies from the existing literature to contextualize our research.

In subsequent sections, we defined our dependent and independent variables and introduced the data sources that would support our empirical investigation. We presented the methodological approaches envisioned for our research and outlined our expectations regarding the empirical findings pertaining to the role of macroeconomic policies in Turkey's economic growth.

As we draw our manuscript to a close, we emphasize the importance of this research undertaking. The findings from this study will not only contribute to the ongoing discourse on the relationship between macroeconomic policies and economic growth but will also offer valuable insights for policymakers and stakeholders in Turkey. In a rapidly evolving global economic landscape, understanding the nuanced impact of macroeconomic policies is crucial for crafting strategies that promote sustainable economic growth and stability.

In conclusion, this paper represents a vital step towards unraveling the intricate web of factors that influence economic growth in Turkey, and by extension, in other economies facing similar challenges. The empirical research proposed herein promises to enhance our comprehension of the multifaceted relationship between

macroeconomic policies and economic growth, ultimately paving the way for more informed decision-making and policy formulation in the realm of economics.

To navigate the intricate relationship between macroeconomic policies and economic growth in Turkey, policymakers should adopt a flexible approach, prioritize data transparency, and encourage multidisciplinary research. Evidence-based policymaking and stakeholder engagement are crucial, and a long-term vision for sustainable growth should be developed. Risk management, international cooperation, and investments in education and capacity building are essential components of effective policy design. Regular monitoring and evaluation should guide adjustments to policies, ultimately fostering informed decision-making and promoting sustainable economic growth in Turkey and similar economies.

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**Research and Publication Ethics Statement**

The authors declare that ethical rules are followed in all preparation processes of this study. In case of detection of a contrary situation, Journal of Commercial Sciences has no responsibility and all responsibility belongs to the authors of the study. This study does not require ethics committee approval.

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**Appendix**

**A1. Empirical Literature Survey**

*Table A1 – Summary Evidence on Macroeconomic Policies and Economic Growth*

| Macroeconomic Policies | RHSψ Variables | | Sources |
|---|---|---|---|
| **Financial Development** | Stock Markets | | Levine and Zervos (1993) (+,*) |
| | | | Bekaert, et al. (2001) (+,*) |
| | | | Beck and Levine (2004) (+,*) |
| | Banks | | Beck and Levine (2004) (+,*) |
| | Dollarization | | Edwards and Magendzo (2003) (+,_) |
| | Depth | (+,*) | Berthelemy and Varoudakis (1996) |
| | | | Odedokun (1996) (+,*) |
| | | | Ram (1999) (+,_) |
| | | | Rousseau and Sylla (2001) (+,*) |
| | | | Deidda and Fattouh (2002) (+,_) |
| | | | Demetriades and Law (2004) (+,*) |
| | Competition*development | | Claessens and Laeven (2003) (+,*) |
| | Repression | | Roubini and Sala-i-Martin (1992) (-,*) |
| | | | Easterly (1993) (-,*) |
| **Government** | Consumption (growth) | | Kormendi and Meguire (1985) (+,_) |
| | Consumption (level) | | Barro (1991) (-,*) |
| | | | Sachs and Warner (1995) (-,*) |
| | | | Barro (1996) (-,*) |
| | | | Caselli, et al. (1996) (+,*) |
| | | | Barro (1997) (-,*) |
| | | | Acemoglu, et al. (2003) (-,_) |
| | Deficits | | Levine and Renelt (1992) (-, not robust) |
| | | | Fischer (1993) (-,*) |
| | | | Nelson and Singh (1994) (+,_) |
| | | | Easterly and Levine (1997a) (-,*) |
| | | | Bloom and Sachs (1998) (+,*) |

| | | |
|---|---|---|
| | Investment | Barro (1991) (+,_) |
| | | Sala-i-Martin (1997a,b) (?,_) |
| | | Kelly (1997) (+,*) |
| | Various Taxes | Levine and Renelt (1992) (?, not robust) |
| **Inflation** | Growth | Kormendi and Meguire (1985) (-,*) |
| | Level | Levine and Renelt (1992) (-, not robust) |
| | | Levine and Zervos (1993) (?, not robust) |
| | | Barro (1997) (-,*) (in the range above 15%) |
| | | Bruno and Easterly (1998) (-,*) |
| | | Motley (1998) (-,*) |
| | | Li and Zou (2002) (-,*) |
| | Variability | Levine and Renelt (1992) (-, not robust) |
| | | Fischer (1993) (-,*) |
| | | Barro (1997) (+,_) |
| | | Sala-i-Martin (1997a,b) (?,_) |
| **Trade** | Import Penetration | Levine and Renelt (1992) (?, not robust) |
| | Leamer's Intervention Index | Levine and Renelt (1992) (-, not robust) |
| | Years-Open 1950-1990 | Sachs and Warner (1995) (+,*) |
| | | Sala-i-Martin (1997a,b) (+,*) |
| | Openness Indices (growth) | Harrison (1996) (+,*) |
| | Openness Indices (level) | Levine and Renelt (1992) (?, not robust) |
| | | Sachs and Warner (1995) (+,*) |
| | | Harrison (1996) (+,*) |
| | | Wacziarg and Welch (2003) (+,*) |
| | Outward Orientation | Levine and Renelt (1992) (?, not robust) |
| | | Sala-i-Martin (1997a,b) (?,_) |

| | | |
|---|---|---|
| | Tariff | Barro and Lee (1994) (-,_) |
| | | Sala-i-Martin (1997a, b) (?,_) |
| | Fraction of Export/Import/Total Trade in GDP | Levine and Renelt (1992) (+, not robust) |
| | | Easterly and Levine (1997a) (?,_) |
| | | Frankel and Romer (1999) (+,*) |
| | | Dollar and Kraay (2003) (+,_) |
| | | Alcala and Ciccone (2004) (+,*) |
| | | Rodrik et al. (2004) (+,_) |
| | Fraction of Primary Products in Total Exports | Sachs and Warner (1996) (-,*) |
| | | Sala-i-Martin (1997) (-,*) |
| | Growth in Export-GDP Ratio | Feder (1982) (+,*) |
| | | Kormendi and Meguire (1985) (+,*) |
| | FDI inflows relative to GDP | Blomstrom, et al. (1996) |
| | Machinery and Equipment Import | Romer (1993) (+,*) |

**Source:** Durlauf et al. (2004), see for the full references of sources.

Notes:

Ψ = right-hand side variables.

+/- = sign of coefficient.

? = sign not reported.

* = significant.

_ = insignificant.

## A2. Definitions of the Variables and Data Sources

*Table A2 – Variables, Definitions, and Data Sources*

| Variables | Definitions | Sources |
|---|---|---|
| LGDPG | Log Per Capita Growth Rate | World Bank |
| INFL | Log (1 + inflation rate) | World Bank, TURKSTAT |
| TRADE | (Export + Import) / GDP | World Bank, TURKSTAT |
| M2 | M2 / GDP | World Bank, CBRT |
| PRIV | Private Sector Credit/Total Credit | World Bank, CBRT |