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Assessing the Role of Financial Development in Driving Economic Growth: The Case of G7 Countries

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Abstract
The study explores the effects of financial development on economic growth in G7 countries for the period 2005-2024. VM's central explanatory variable is the bank-based financial development index (FD) from the IMF, but also includes control variables, including R&D expense, gross capital maintenance (GCF), and the human development index (HDI). The Generalized Method of Moments (GMM) approach is used to control for potential endogeneity and to provide robust estimates. Results indicate that financial development has a positive and significant impact on economic growth. The bonding for control variables, R&D, GCF and HDI, are still positive as well, which implies the significance of innovation, investment and human capital. These results imply that developing the financial system and its related sectors can contribute to sound economic growth in advanced countries.
Keywords: Financial Development, Economic Growth, Panel Data Analysis, Generalized Method of Moments

1. Introduction

The association between development of financial system and growth of economy is an essential characteristic of long-run growth plan. Financial development implies increase and strengthening of financial systems, enabling efficient allocation of capital, risk management, and support for economic activities. Economic growth refers to the country's creation of goods and services growing at a sustained rate over a measured time period by changes in Gross Domestic Product. Through easing savings, mobilization, promoting investments and bettering the resource allocation efficiency, financial development makes obvious contributions to the general growth process (Ali & Rehman, 2015; Senturk & Ali, 2021). That relationship is, however affected by the country's stage of development and that of its financial system. In developed economies such as the G7 countries (Canada, France, Germany, Italy, Japan, the United Kingdom and the United States), there are strong and established financial systems that are an integral part of the financial and economic structure, that define how they are conducted. These countries have advanced financial systems, but here is less hard evidence of the connection between financial development and growth based on more current, direct measures. Existing work often relies on older data sources and traditional measures such as credit to the private sector or stock market dynamics. This paper fills that gap in the literature using updated data from 2005 to 2024 with a more accurate measure of financial development, the latest financial development index from the International Monetary Fund (IMF). In so doing, the research hope to contribute new empirical knowledge to inform advanced economies policy choices.

Economic growth is captured in the study by GDP growth rates, which is the dependent variable. The primary independent variable is financial development, and we utilize a direct and broad measure derived from the IMF. This new line of inquiry is different from existing work, providing a more precise characterization of the role of the financial system in the way to growth (Senturk & Ali, 2022). Control variables also include research and development (R&D) spending, gross capital formation (GCF) as a measure of investment, and human development index (HDI). All of these three are well-known for their connection with the economic performance, namely R&D (incentives for innovation and productivity), GCF (lunging capital infrastructure), and HDI (acceptable quality of the living through the education, health, and income). The model is robust when we add these controls, and a more accurate estimate of the role of financial development can be made.

Levine (2005) asserts, the functions of the financial system that help foster economic performance include serving as a payment system, mobilizing savings, collection of information to allocate investment, monitoring corporations, and risk management. Together these mechanisms promote investment and resource use. Moreover, Schumpeter stressed the importance of financial intermediaries in nurturing innovation and entrepreneurship as important engines of economic development. Endogenous growth theory also reinforces the significance of R&D and HDI in achieving a sustainable economic growth behavior. This study applies analysis of panel data with Generalized Method of Moment (GMM) estimation to control for potential sources of endogeneity and measurement errors. It provides strong and consistent results on the link between financial development and economic growth in the G7 countries. They imply that sound financial institutions not only boost current GDP but create the infrastructure for future GDP.

One of the motivations of this paper is that in financially developed countries inefficiencies can continue to exist unless the financial system is improved constantly. This study thus underscores the need for continued financial liberalization and investments in human capital and innovation. Due to the unavailability of funding instruments, inefficiency in the allocation of capital is experienced in economies where the financial system is weak. Where they encompass such barriers, such advanced economies with developed financial systems have shown that it can be surmounted if growth is to continue. The role of financial institutions in economic development was placed front and center by early theorists including Joseph Schumpeter, who pointed to how banks advance innovation by loaning money to entrepreneurs. The edifice has changed and current economies now have complex and nuanced financial systems. Since the 1980s, G7 nations have pursued reforms to deregulate capital markets, bolster competitiveness, and embrace digital technologies. However, in the wake of the 2008 economic crash and other economic shocks, questions have been raised about the potential dangers of over financialization.

The research design of the present study is a unique aspect. It uses panel data from 2005 to 2024 for the G7 countries. So the data here is uses has a dual benefit of simultaneously controlling for cross-sectional and time-series (between countries and within countries over time) variations. It is now possible to discern patterns and causation not visible in cross sectional or time series data alone. In addition, this work utilizes the Generalized Method of Moments (GMM) approach in the context of panel data. GMM,

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however, is highly appropriate in this case as it deals with problems that may arise from endogeneity, autocorrelation and unobserved heterogeneity. Endogeneity is a typical issue in financial-growth studies, as financial development and growth are likely to be mutually influenced. The GMM approach deals with this problem by employing internal instruments based on the lagged values of the variables, which should increase the precision of the estimates.

The major novelty of this work resides in its concentration on a contemporary and inclusive assessment of the financial development dimension in high-income, structurally heterogeneous societies. Although this relationship has been broadly studied in the literature in developing and emerging economies, for developed economies not much work has been done to address this issue in view of their sophisticated financial systems. The period of study contains important events like the Global Financial Crisis in 2008 and the COVID-19, that provides interesting insights about how financial systems reacts to and recover from exogenous shocks. Previous works frequently used measures of financial development that are traditional in nature such as domestic credit to the private sector, or stock market capitalization as instruments for financial development. Yet, these indicators reflect only a limited perspective on financial systems. To fill this void, in this research we use the Financial Development Index provided by the International Monetary Fund (IMF), which is a broad, systemic view on financial institutions and markets in the overall depth, access, and efficiency across the financial sector dimensions, giving an effective and consistent framework for analysis.

This study is also in line with current academic and policy concerns by taking on board technological and structural changes in financial systems. Fintech, digital banking and decentralized finance, the trio of trends that has entirely reimagined financial accessibility and efficiency. While these innovations have the potential to enable expansion, they also introduce new regulation and system risk. A structured empirical investigation of these developments offers useful policy lessons to those seeking to increase financial resilience and sustainable growth.

This analysis can give us a more effective understanding of the role of financial development across institutions and regulations that vary by country using a sample of G7 countries. The diversity of financial institutional structures among the G7 countries Japan with its bank-based system, the United States with its market-based system offers a natural laboratory to explore whether different financial systems result in differing growth performance. It also provides comparative evidence to help make policy decisions not only in these economies.

To conclude, the paper attempts to fill up a significant void in the literature on financial development and economic growth through a strong methodology, exhaustive dataset analysis and a good index to examine the correspondence that links the two. Its value is academic as well as practical as it provides evidence-based insights to economists, regulators, and decision-makers. The process of financial development must be regarded as involving an ongoing process that needs to be managed strategically and from time- to-time be adapted in the interest of a broad-based and inclusive economic development. The results of this research will establish whether the financial systems of the world's richest economies will remain as engines of growth or the need exists to recalibrate them in order to respond to a changing global economy.

2. Literature Review

The link between financial development and economic growth is a well-established subject in economic literature. There are many theoretical and empirical studies that attempted to ascertain whether it is the financial development that causes economic growth or it is the economic growth which causes the financial development. The conversation has adapted over time surrounding variety methodologies, economic frameworks and indicators of financial development.

The theoretical base of both theories of the link between financial development and growth is based on the classical approach and the endogenous growth models. Schumpeter (1911) famously was among the first economist to argue that financial intermediaries are instrumental in advancing economic development by guiding and sustaining innovation through the allocation of credit. Endogenous growth theory and especially the works of Romer (1990) and Aghion and Howitt (1992)), emphasizes the critical role of technological innovation and human capital for sustained economic growth which are to a large extent positively impacted by efficient financial intermediary. And banks that loan to innovation, R&D and education can drive longer-term economic growth.

Generally, there exists a positive relationship between financial development and economic growth as indicated by empirical evidences. King and Levine (1993) who used a sample of over 80 countries, and also found credit to private sector and here referred to as financial depth was positively related to the growth measures. These results were supported by dynamic panel methods in Levine, Loayza, and Beck (2000). Yet most early research focused on emerging economies, where better financial systems are likely to have clearer effects. The conclusions are different in the case of developed economies, most of them with developed financial systems. Arcand (2015), Marc & Ali (2023) and Amjad & Audi (2023) suggest that there is a point beyond which financial development can have a negative impact (i.e., the concept of too much finance).

Results have been contradictory for G7 countries in particular. The marginal effect of financial development on growth has declined over time in high-income countries according to Rousseau and Wachtel (2011). Beck et al. (2014) have argued the same, finding in economies with enhanced financial markets, services quality and regulation count more than the size or depth alone. A related important contribution is the work of Stiglingh (2019), which looked into G7 nations from 1996–2013 using different panel data methodologies, involving vector error correction and Granger causality analysis. The research stressed the role of financial systems' quality and highlights the differences at structural level among the G7 countries. It also underscored the difficulty of finding a one-size-fits-all policy for developed countries, with their different financial architectures.

The measure of financial development is crucial to the result of empirical research. Historically, a number of proxies such as domestic credit to the private sector, bank assets, and stock market capitalization had been used (Levine, 2005). Although such indicators give some insights, they do not really depict the multi-factor aspect of financial systems.

To overcome this shortcoming, the International Monetary Fund (IMF) has developed the Financial Development Index by summing the dimensions as depth, access and efficiency in the financial institutions and markets. Svirydzenka (2016) describes the methodology for this index, and stresses that it covers a wide array of activities, and is consistently documented. In this study the

IMF index has been used directly, providing a more precise and more recent evaluation of financial development in advanced countries.

Studies on the G7 economies show varied experiences because of structural differences in the financial systems. For example, Allen and Gale (2000) differentiate market-based systems and bank-based systems (exemplified by Germany and Japan). These differences also have implications for the effects of financial development on economic growth across countries. Cecchetti and Kharroubi (2012) argue that in highly developed countries the rapid growth in the financial sector can induce inefficiencies and crisis when the real economy does not follow the growth of the financial sector. Also, Demirgüç-Kunt, & Levine (2008) add that for advanced economies, regulation and financial innovation is an important indicator of effectiveness for financial development.

Some researchers have utilized panel data to gain insight finance-growth in developed countries. Pradhan et al. (2017) firm that with the help of panel vector autoregression (PVAR) the influence of financial development is stronger if it is complemented by good institutions and human capital. Recent literature acknowledges that the finance-growth relationship is nonlinear, perceived through heterogeneous threshold effects, and varies with the presence of other conditioning variables. Investment has become the reason of innovation and productivity growth (Griliches, 1998). Gross capital Formation (GCF), which is often taken as a proxy for investment, directly increases the productive capacity. Consideration of the broader development context of a country is an important corollary to the Human Development Index (HDI), which includes education, health, and income.

Barro (1996) and Hanushek and Woessmann (2012) underlie the importance of these complementary variables. By using econometric models which incorporate them, these variables help in making the finance-growth relationship more explanatory and robust. Notwithstanding the large number of studies, there are a few gaps, such as the assessment of financial development for very developed countries, with a modern, multidimensional index. Previous studies are concentrated on developing countries or rely on old or poor proxy indicators. This study adds to this literature and the first gap by focusing on G7 where financial systems are mature and structurally heterogeneous, using IMF's Financial Development Index directly instead of using indirect proxies, including control variables such as R&D, GCF and HDI to capture the broader growth process and implementation of GMM to address the potential endogeneity in the data and robustness of the empirical results.

The literature offers robust theoretical and empirical frameworks for the examination of the financial development. But there are challenges and lessons to be gleaned from the context of advanced economies like the G7. Utilizing an extensive index of financial development, current data and robust methodology, this paper aims to contribute to our knowledge of how financial development still affects growth in high income economies. The results are intended to help guide more focused and effective financial and economic interventions.

A further trend in recent literature is the impact of financial technology (FinTech) and digital financial services in shaping financial development. Other studies (Ali & Rehman, 2015; Zalan and Toufaily 2017; Frost 2020; Marc et al., 2023) emphasize the transformation of financial intermediation brought by digital platforms, cell phone banking and blockchain technologies. FinTech has made G7 economies more efficient and accessible, but it also means a new type of regulation is needed. These new technologies could increase financial inclusion and reduce transaction costs, although their long-run effect on growth is a developing field of research that needs more empirical work.

Moreover, the institutional quality and governance system in a country have also been the focus of growing attention in mediating the finance-grow relationship. La Porta et al. (1998) and Acemoglu and Robinson (2012) show that financial development generates growth only if it is characterized by transparent legal environments, protection of the property rights and efficient supervising institutions. In high-income countries such as the G7, where institutional frameworks are broadly sound, the concentration should not be so much on the volume of financial services, risk-taking and alignment with development goals. These findings lend support to the incorporation of institutional and structural factors in recent empirical studies.

A few studies highlighted the nonlinear impacts of financial development over the business cycle. For instance, Loayza and Rancière (2006) claim that while financial development fuels long run growth, it might also raise exposure to short run volatility and crisis if financial regulation is poor. Likewise, Kaminsky and Reinhart (1999) show evidence of poorly managed credit booms preceding financial instability. This highlights the subjective character of the relationship finance-growth in advanced economies which is not linear nor constant but instead it might be relative to macroeconomic conditions, prudential control, and complementarities within fiscal and monetary policies. All these elements are more important in a post-crisis context, where financial stability is a policy goal.

3. Data and Research Methodology

This section discusses the operational framework developed for the analysis of the contribution of financial development on economic growth in G7 nations. It describes the data that was collected, how variables were defined and the model specification for the analysis. The approach is transparent, replicable and based on pre-existing empirical studies. This study examines the impact of financial development on economic growth net of research and development (R&D), gross capital formation (GCF), and the Human Development Index (HDI). The time frame of the panel dataset is long 20 years from 2005 to 2024 which allows for considering not just long-term effects, but also the cyclical variations in financial and economic relationships in the G7 economies.

To make sure that methodology is rigorous, the research is based on a quantitative methodology, so secondary data taken is from the international databases that are acknowledged as the IMF, World Bank, OECD, and UNDP. These databases increase the validity and reliability of the conclusions, by providing consistent and comparable data across all G7 countries. The study draws on macroeconomic variables capturing financial and real-sector performance to provide a comprehensive analysis of the finance-growth linkages. The emphasis on G7 countries is particularly important in light of their developed financial markets, established financial institutional structures and the prominence of their economies in the world.

So as to control the various dynamic relationships between variables as well as the possible endogeneity, and the existence of unobserved heterogeneity, the study uses the System GMM estimator. The GMM is especially appropriate for panel data having a short time series dimension (T) and a large cross-section exhibiting more structure, such as G7 countries for two decades. The

advantages of this estimator is that it takes the form of a weighted-average over random effects coefficients and deals with the problems of autocorrelation, measurement errors, and simultaneity bias commonly found in the classical panel regression model. Lagged dependent variables are also added to account for inertia in economic growth for better, policy-oriented inferences.

3.1. Data Collection

The study uses secondary data from two well-known international sources including data of Financial Development Index (FDI) which is from the International Monetary Fund (IMF). The index reflects the size¸ availability and effectiveness of financial institutions and financial markets. It provides an all-encompassing multidimensional index of financial development for countries and time periods. All other macroeconomic variables such as Gross Domestic Production (GDP) growth, R&D investment, Gross Capital Formation (GCF), and HDI proxy are obtained from the World Development Indicators (WDI), a product of the World Bank. The WDI is an internationally-accepted, standardized database that allows for the coherent and comparable data. The time frame selected for this study is from 2005-2024 which covers time period of 20 years including G7 countries G7 (Canada, France, Germany, Italy, Japan, the United Kingdom, United States).

3.2. Variable Description

This research used one dependent variable, one main independent variable and three control variables to analyze the impact of financial development on economic growth in G7 countries. We include each variable based on theoretical considerations and empirical evidence from prior studies.

3.2.1. Dependent Variable

Economic Growth (GDPG): The dependent variable is the economic growth captured in the annual percentage change on GDP annual growth rate of the Gross Domestic Product (GDP) at market prices based on constant local currency. This is a measure of the actual growth in a country's aggregate economic output over time and is an indicator of general macroeconomic health and performance. To the extent that one cares for economic activity and standards of living, a higher growth rate would be desirable, that is improving the standard of living for the populace and another one of the objectives of macroeconomics.

3.2.2. Independent Variable

Financial Development Index (FDI): The main independent variable is the Financial Development Index, created by the International Monetary Fund (IMF). It is a broad, composite indicator of depth, access, and efficiency in the provision of financial services for both the banking sector (including banks, insurance companies, and other financial institutions) and the capital markets (including equity and bond markets). This index offers an overall measure of a country's financial system performance with respect to economic activities in general. Larger values of the indexes indicate that relative financial sophistication, inclusivity, and efficiency are higher, and result in supporting investment, innovation, and growth via facilitating capital allocation in a more optimal way and minimizing transaction costs.

3.2.3. Control Variables

Research and Development (R&D): Total research and development expenditure as percentage of GDP (GERD). R&D investment is commonly considered to be a crucial determinant of technological change and productivity growth. R&D stimulates long-term competitiveness and sustainable economic growth for a nation through new product and process developments and knowledge creation. In this study R&D spending is predicted to positively correlate with GDP growth.

Gross Capital Formation (GCF): Gross capital formation is the total investment in fixed assets (such as infrastructure, machinery, and equipment) displayed as a percentage of GDP. It is the cornerstone of economic growth, because the accumulation of physical capital expands the capacity of production, and it supports the long-run growth. GCF also incorporates inventory movement, so it's a broad-based measure of investment behavior. Gross capital formation forming faster is usually an indicator of booming business confidence and future output capacity.

HDI (Human Development Index): The Human Development Index is a summary measure of average achievement in key dimensions of human development: a long and healthy life (health), being knowledgeable (education) and standard of living. I use WDI proxies to measure these dimensions: (i) life expectancy at birth, (ii) gross enrollment ratios in education, and (iii) GNI per capita. HDI functions as a control variable to control for the effect of human capital on economic growth. Countries with a higher level of human development achieve more inclusive and sustainable growth, as reflected by a higher skilled and healthy population that is more capable of productive work.

3.3. Econometric Model

The econometric model used in this study is a panel regression model, chosen for its ability to analyze data across both cross-sectional and time-series dimensions. In order to test the correspondence between financial development and economic growth, the following panel regression model is employed

The general form of the regression equation is as follows:

$$GDPG\_it = \beta0 + \beta1\ FDI\_it + \beta2\ R\&D\_it + \beta3\ HDI\_it + \beta4\ GCF\_it + \varepsilon\_it$$

Where, GDPG-it: growth of the economy of country i at time t, FDI-it: Financial Development Indicator, R&D-it: Investment in Research & Development, HDI_it: Human Development Index (proxy), GCF: Gross Capital Formation, β0: Constant term, β1, β2, β3, β4: Parameters of Independent Variables, ε: Residual that takes into account factors not observed

4. Description of Results

This section contains the empirical results of the investigation carried out to examine the relationship between financial development and economic growth in the G7 nations. These nations are home to few worlds' biggest economies with established financial systems, innovative capabilities, and sound macroeconomic frameworks. Our analysis applied a panel data covering the period 2005-2024 with selected macroeconomic indicators that are theoretically and empirically associated. To enhance the methodological validity of current study, it adopts the Generalized Method of Moments (GMM) estimation method which is suitable for using the panel data under possible endogeneity and interdependence among variables. The study is intended to check empirically postulated in theory proposition that financial development leads to economic growth, especially in developed economies having long-standing

financial system. We provide the descriptive statistics of the data in this section, as well as the GMM regression results and the interpretation of the coefficients in detail.

4.1. Descriptive Statistics

Descriptive statistics gives basic idea of type of statistics used in analysis. It may be useful in looking at the means, variability and distributional trends of the variables before we perform regression modeling. The major coefficients of the model are economic growth (GDPG), financial development (FD), gross capital formation (GCFG), and human capital index (HCI). Descriptive statistics for all the variables are defined in the table 1.

Table 1: Descriptive Statistics

Variable	Observations	Mean	Std. Dev.	Min	Max
GDPG	133	1.2049	2.8008	-10.297	8.9311
FD	133	0.8300	0.0708	0.6698	0.9558
GCFG	133	1.4019	6.7972	-18.642	28.2390
HCI	133	0.7701	0.0359	0.6915	0.8440
RD	133	2.3263	0.6890	1.0444	3.5862

Source: Authors own calculation

4.1.1. GDPG (Growth in GDP)

A mean growth rate of 1.20 percent indicates steadiness and low growth amongst the G7 member countries. However, the spread from -10.30% to 8.93% implies great instability that most probably can be attributed to global financial crises, oil price hikes and even the coronavirus! The relatively high standard deviation (2.80) is an additional indication of the existence of cyclical economic variations in our sample.

4.1.2. FD (Financial Development Index)

The FD has a relatively high average of 0.83 and low dispersion, implying that G7 countries have very developed and relatively homogenized financial markets. The minimum and maximum of the average are from 0.67 and 0.95, and this means that some countries may be more financially open or perform better than others but have the same strong institutional quality and availability of financial resources.

4.1.3. GCFG (Gross Capital Formation)

Average is 1.40% and std. dev. is 6.80 indicating large variation in investment behavior. The minimum value is -18.64% (droughts of investment); the maximum value is 28.24% (floods of investment). The magnitude of this varies significantly across different contexts, and is key to understanding how capital accumulation explains economic growth.

4.1.4. HCI (Human Capital Index)

The average HCI 0.77 suggests the G7 has performed strongly on health and education outcomes. The small range (0.69 to 0.84) indicates low variability between the member states. Nevertheless, even small advances in HCI can accumulate to considerable gains in labor productivity and technology readiness.

4.1.5. R&D (Research and Development)

This is an indicator value of 2.33% of GDP on average as it is a high priority in G7 countries (3%). The spread from 1.04–3.59% illustrates that not every country is investing as aggressively in innovation, see Japan and the US, while others are only modestly less so. This dimension of competition is significant in the context of long-run determinants of competitiveness and sustainable growth.

4.2. GMM Results

GMM is especially convenient in dynamic models with lagged dependent function as internal instruments (few-lag values) are applied to generate consistent parameter values. Because of the macroeconomic nature of the interrelationship in G7 countries, the past growth becomes a determinant of current performance and the repressors may suffer from endogeneity hence, GMM is the best and statistically efficient procedure. The GMM results are discussed in table 2 as followings.

Table 2: GMM Results

Variable	Coefficient	Std. Error	z	p-value	95% Confidence Interval
L1. GDPG	0.2172	0.0546	3.98	0.000	[0.1102, 0.3241]
FD	4.1075	1.9641	2.09	0.037	[0.2580, 7.9569]
GCFG	0.6316	0.0247	25.55	0.000	[0.5832, 0.6801]
HCI	15.4884	4.0960	3.78	0.000	[7.4605, 23.5164]
RD	1.0267	0.2416	4.25	0.000	[0.5532, 1.5001]
Constant	-19.0679	3.2868	-5.80	0.000	[-25.5098, -12.6259]

Source: Authors own Calculation

4.2.1. L1. GDPG (Lagged Economic Growth)

Its estimated coefficients (0.2171) significantly positive at 1% level suggest the presence of inertia (or persistence) in the country's economic growth i.e. the growth rate of previous period shows productive effect on current economic activity.

4.2.2. FD (Financial Development)

Parameter coefficient of 4.1075, which is statistically significant at the 5% level, indicates a significant positive effect of financial development on economic growth. As financially developed economies can distribute resources more efficiently, lower transaction costs and promote entrepreneurship and innovation.

4.2.3. GCFG (Gross Capital Formation)

This factor has the most powerful as well as one of the most statistically significant effects on growth. A 1% rise in investment corresponds to a 0.63% rise in economic growth, stressing the value of physical capital accumulation behind productivity and output in advanced economies

4.2.4. CI (Human Capital Index)

With a greater coefficient of 15.49, HCI applies a powerful impact on growth. Even marginal gains in health, education and the quality of the work force result in large macroeconomic benefits. This verifies human capital theory which states that knowledge and skills are the engines that drive long-term development.

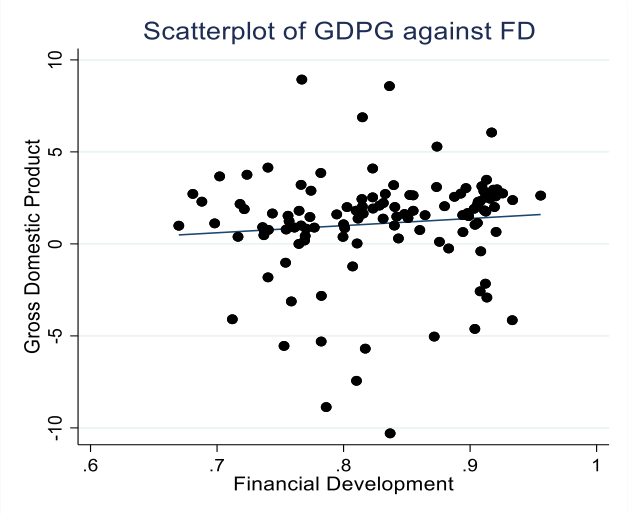
4.2.5. D (Research and Development)

Statistical and significant impact (1.03) reveals that the investment in R&D creates more technology, innovation by products, competitiveness especially important in knowledge-economies like G7.

4.3. Graphical Analysis

The relationship between economic growth and financial development is described in the following graph.

Figure 1: Scatter plot of GDPG & Financial Development.



Source: Authors own calculation

The scatter plot suggests a positive correlation between Financial Sector development and GDP growth. Financial development raises GDP growth suggesting an active financial sector promotes economic prosperity by facilitating access to funds, investment, and funds allocation. The positive relationship indicating that the enhancement in financial sector have significant contributions on the economic growth of G7 members as the theory dictates. So, the evidence from graphics also confirms the statistical results and helps to give a more complete profile of the dynamics involved.

5. Conclusion

This study aimed to examine the relationship between financial development and economic growth in the range of G7 countries over 2005 to 2024. By using a robust panel data set and GMM estimation method, the study aimed to extend the testing of the theoretical case that finance development leads to long-run economic growth, particularly within developed economies. The results contributed to the existence of positive and significant relationship between financial development and economic growth. This finding confirms the endogenous growth theory, which states that the financial system is particularly important in mobilizing savings and allocating the capital efficiently and promoting the innovation and entrepreneurship. A developed financial sector expands access and reduces the cost of credit and mobilizes savings for productive investment, which are vital for development. Second, we included three main control variables Gross Capital Formation (GCFG), Human Capital Index (HCI) and Research and Development (RD) to hold constant the macro-environment. The effect on economic growth was found to be strong and statistically significant for all three variables. Endogeneity and Dynamic Panel Bias were addressed using GMM estimation and thus the relationships observed represent so causality not just correlation. These findings support the view that financial development is not an independent driver of growth but interacts positively with other structural policies to determine economic performance.

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