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Macroeconomic Factors and Economic Development: An Insight into China Economy Using ARDL Approach

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ABSTRACT

It is difficult to identify the factors that drive the macroeconomic growth of developing countries because of the social, infrastructural, and governance factors involved. To verify the existence of this connection, this study examines the macroeconomic variables that have influenced China's economy from 1979 to 2020, using data acquired from the world development indicators. Through the use of the ARDL bound model test, it is shown that China's economy is positively impacted by factors such as capital formation, government spending, foreign direct investment (FDI), exchange rate, human capital development, and trade openness over both the long and the short term. On the other hand, inflation has a detrimental impact on economic growth both in the long run and in the short run. Consequently, the real GDP per capita should be increased, human capital should be strengthened, trade should be reformed, and macroeconomic circumstances should be stabilized under fiscal and monetary policy. By enhancing human capital, and foreign direct investment, reforming government expenditures, and lowering inflation, China has the potential to achieve sustainable economic development. This study offers scholars and policymakers a fresh econometric examination of the primary macroeconomic elements that are contributing to the economy.

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Introduction

Economists have been doing study for a considerable amount of time in order to uncover the factors that are responsible for the development of economies in different countries. Several studies have shown that the factors that determine economic development vary from one country to another and throughout various time periods. This is because the structural and economic circumstances of a country are the primary factors that determine economic growth. As an example, Fischer (1993) discovered that the reduction of the budget deficit and the control of inflation were among the factors that led to the economic growth of Latin America, Chile, and Mexico. It was discovered by Kumar and Woo (2010) that loans have a detrimental effect on the economic development of a country. The research conducted by Dollar (1992) discovered that real exchange rate volatility hurts long-term economic development. Furthermore, increased exchange rate volatility harms the spread of technology in emerging nations. Qamruzzaman et al. (2021) discovered that both human and physical capital had a role in the growth of the economy. Since these research investigations are very particular to both time and location, it is necessary to identify crucial components and how they interact with the economy's growth across both the short-term and the long-term (Seo et al, 2020).

In the absence of a definitive list of macroeconomic factors, the formulation of a universal strategy proved to be a challenging task. The selection of China as a reference country is predicated on several different considerations. To begin, before the implementation of economic reforms and trade liberalization, China's economic policy maintained the country's economy in a state of stagnation, inefficiency, central management, and a significant degree of isolation from the rest of the world (Owen et al, 2017). According to Morrison (2019), China became one of the economies with the highest growth rates in the world when it began implementing free-market reforms in 1979. The country's economy has grown at an average annual growth rate of 9.5% through 2018. According to the World Bank, this achievement is regarded as "the fastest sustained expansion by a major economy" (Liu, 2017). According to Morrison (2019), China's GDP surpassed that of Japan in 2010, making it the world's second-largest economy. This achievement adds relevance to the country's placement in the list. According to Kuyucu's research from 2020, China can lift around 800 million people out of poverty as a result of its GDP doubling every eight years. In addition to having the biggest economy (as measured by purchasing power parity), China is also the greatest manufacturer, seller of products, and holder of foreign currency reserves. Furthermore, China has emerged as a significant trading partner for the United States. Additionally, China is the United States' greatest commercial partner in terms of goods trade, imports, and exports, and it is the owner of the majority of the United States Treasury securities (Khojayan, 2021).

Therefore, owing to China's fast growth of information technology and industrialization, the country's thriving economy has garnered a significant amount of interest from academics and practitioners all over the globe. It is of the utmost importance, from both a theoretical and a practical point of view, to investigate and identify the factors that have contributed to China's economic miracle. The lessons that may be learned from China's economic success can be shared with a great number of developing countries. The absence of agreement on the list of

macroeconomic causes of economic development and the outstanding importance of the Chinese economy are summarized by the fact that we analyzed a macroeconomic viewpoint by gathering data from 1979 through 2020.

2.0 Literature Review

This section establishes the theoretical and empirical justification of including several macroeconomic factors that might have an impact on the China's economic growth. The generation of capital is a crucial determinant in influencing economic progress, impacting both immediate and future possibilities. Rapidly increasing capital formation may stimulate economic activity by providing businesses with the necessary financial resources to expand their operations, invest in cutting-edge technology, and create employment opportunities. The injection of capital enhances productivity and efficacy, hence resulting in rapid economic growth. Over time, the continuous generation of wealth leads to the accumulation of physical and non-physical resources, fostering innovation, skill development, and technological progress. China's remarkable economic growth in recent decades may be attributed in part to substantial investments in capital creation. The Chinese government's prioritization on infrastructure development, education, and technology has propelled the country to achieve the status of a global economic powerhouse.

Moreover, the process of capital creation fosters the establishment of a robust financial system, so encouraging the accumulation of savings and investment. In the context of China, this has resulted in the establishment of a dynamic and cutthroat market. The long-lasting benefits of capital creation, such as increased productivity, improved infrastructure, and a skilled workforce, are essential for maintaining economic growth and ensuring China's position as a significant player in the global economy.

Various economic theories claim that capital production plays a crucial role in fostering economic growth. According to the classical approach, any disturbance in the economy would naturally repair itself over a lengthy period of time (Robb, 2019). The Keynesian hypothesis posits that the implementation of fiscal and monetary policy measures may effectively address the issues of unemployment and economic stagnation (Gordon, 1990). The Harrod–Domar hypothesis deviates from the conventional viewpoints of the classical and Keynesian schools of thought by asserting that the first stage for economic growth and job creation is the accumulation of capital (Yoshino et al., 2020). The capital supply, via the multiplier effect, provides more income, hence stimulating economic growth (Makris & Stavroyiannis 2019). In contrast, via the process of amassing capital, the economy experiences a boost in productivity and a rise in employment rates (Limosani & Monteforte 2017). In addition, the balanced theory of capital production establishes a connection between economic development and the process of gross capital formation. The proponents of this view believe the government should invest in capital goods to increase production that in turn will increase economic growth and (Agbo et al, 2018).

The relevance of government expenditures – second macroeconomic determinant of this study – for driving economic growth remains controversial. Government expenditures are mainly viewed from two distinct perspectives when it comes to encouraging economic growth and development. The Keynesian perspective proposes that government intervention as an exogenous fiscal policy instrument can smooth out swings in economic growth (Arestis et al, 2021). Tax revenue decreases may offset government growth. The multiplier effect may therefore be one if the government grows but tax revenue increases. Accordingly, the right size of government tends to increase aggregate demand, thus boosting a country's output. In Keynes' view, government expenditures increase GDP, and there is a causal relationship between them. Similarly, the

neoclassical growth model established by Swan (1956) and Solow (1957), also advocate active role of government spending for increasing economic growth (Guerrini, 2006). However, the Ricardian economists believe a country can still experience growth and development without government spending (Henderson, 1998). As a result, it is cumbersome for the government to change citizen consumption patterns, despite the amount of money it spends in the economy.

At third is the foreign direct investment (FDI) that facilitates knowledge transfer, enhances productivity, and promotes economic development through spillover effects (Buckely et al, 2010). FDI improves workforce skills and introduces foreign financial institutions. FDI can increase competition between domestic industries, thereby, accelerates economic growth. As a result, it may also help resolve domestic budgetary issues by generating more tax money (Majeed, 2017). Contrary to this, FDI may increase the value of the home currency ("Dutch disease"), or it may simply transform governmental monopolies into foreign-owned private monopolies without affecting economic growth (Lartey, 2011). Net inflows of money associated with FDI may be lower than gross inflows when foreign enterprises leverage domestic investment and borrow from local credit markets. Money borrowed from domestic financial markets may be repatriated by multinational corporations. Since marginal capital efficiency differs across sectors, FDI impacts may differ according to the economy sector in which it occurs.

The exchange rate is the next macroeconomic factor that has long intrigued policymakers with its microeconomic and macroeconomic implications. Following the fall of the Bretton Woods system, financial liberalization and capital market integration exposed countries to significant exchange rate volatility (Officer, 2022). Variations in exchange rates affect a country's economy in a number of ways. For instance, as a result of devaluation the initial rise in the prices of foreign goods may stimulate economic activity that increases domestic inflation and economic growth. On the other hand, appreciation of the home currency can have a negative impact on the economy. According to numerous studies, the competitive exchange rate strongly impacts economic development in emerging economies (Barbosa et al, 2018).

Human capital development – the fifth macroeconomic determinant in this study – can play an exclusive role to define the direction of a country’s economy. Economists believe that whatever the economic situation remains, the human capital is the most important factor in determining growth. Increasingly, human capital development facilitates technological innovation and adaptation, reduces wealth inequality, and increases labor productivity. Skilled labor increases production and injects vitality into economic activities (Gil et al, 2016). By raising education levels and skills human capital improves capacity building (Rola-Rubzen & Burgess, 2016). It has been proven that human capital development positively impacts the development of physical capital in the economy, since it reduces income inequality (Ding et al, 2021) and ensures a higher quality of manpower for the economy (Wang et al, 2022), resulting in long-term growth. Accordingly, human capital is considered a major driver of economic progress in emerging economies (Lucas, 1990).

We discussed inflation in sixth place as a macroeconomic factor to predict china’s economic growth. Extant literature establishes that these two factors have a positive relationship; nevertheless, empirical conclusions about this relationship are contradictory and seem to be based on data and empirical methods. Fischer (1993), for instance, demonstrated that inflation and growth have a negative relationship. However, a considerate inflation rate is necessary for a sustainable economic growth. Adusei (2012) identifies a 7% inflation as a minimum threshold beyond which inflation has a detrimental effect on the economic growth.

The final macroeconomic factor we consider in the current study is trade openness. Based on the comparative advantage hypothesis, a country with a comparative advantage will produce

goods it has an advantage in terms of better endowments, therefore, produces more items on a larger scale. In the long run, trade liberalization can increase productivity and efficiency by allowing industries with economies of scale to specialize (Rosenzweig & Zhang, 2013). The global dissemination of cutting-edge technologies explains the positive relationship between trade openness and economic growth. With a higher degree of openness, a country is able to better utilize technology developed in advanced economies. This allows them to expand more rapidly than those with a lower level of openness. Whether a country benefits from international trade is also determined by how easily it is able to integrate foreign technology into its local environment (Grossman & Helpman, 1991).

3.0 Methodology

To account for the limitation of data sizes and the stationarity at different levels, this article employs auto-regressive distributed lag (ARDL) approach (Pesaran & Pesaran, 1997) to investigate short- and long-run impact of macroeconomic factors on China's economic growth by taking annual data from 1979-2020 from world bank development indicators. Furthermore, the error correction model (ECM) in the ARDL approach combines short-run and long-run data without discarding long-run evidence (Liu et al, 2018).

Model Specification

Theoretical imputes from classical, neoclassical, and modern growth theories and empirical evidences were taken to specify following model for this study.

$$GDP = f(CAP\_F, G\_EXP, FDI, INT\_R, H\_DV, EXC\_R)$$

Therefore, the specified econometric model is presented as follows;

$$LogGDP = \beta_0 + \beta_1 Log\ CAPF_{it} + \beta_2 LogGEXP_{it} + \beta_3 LogFDI_{it} + \beta_4 LogEXCR_{it} + \beta_5 LogHDV_{it} + \beta_6 LogINFR_{it} + \beta_7 LogTROP_{it} + \varepsilon_{it} \ldots (1)$$

Sr. No.	Type	Variable Name	Symbol	Measurement
1	Dependent	Economic Growth	GDP	Log of GDP per capital (in US$) of the country i in time t
2	Independent	Capital Formation	CAPF	Log of Net amount of Capital Formation (In US$) of the country i in time t
3	Independent	Government Expenditures	GEXP	Log of Government Expenditures (percentage of GDP) of the country i in time t
4	Independent	Foreign Direct Investment	FDI	Log of Foreign Direct Investment (percentage of GDP) of the country i in time t
5	Independent	Exchange Rate	EXCR	Average Exchange Rate of the country i in time t
6	Independent	Human Capital Development	HDV	Log of Official Enrollment in the secondary school of the country i in time t
7	Independent	Inflation Rate	INFR	Average Inflation Rate of the country i in time t
8	Independent	Trade Openness	TROP	Ratio of Total Exports and Imports to the GDP of country i in time t

Findings and Discussion

5.1 Descriptive statistics of selected variables

Table 1 covers descriptive statistics of the variables. The average per capita gross domestic product is 3704.1382, with a standard deviation of 3838.1965 shows that GDP per capita grows substantially during the study reference period. We found similar patterns of average values for capital formation (10.8097-12.8041); FDI (4.9030-11.4637); human capital development (7.6708-8.019); and trade openness (0.1108-0.6447). The average values of absolute inflation rates (-1.2603 to 12.1076) and exchange rate (1.4983-8.2789) shows a considerable consistent pattern over years.

The probability values of Jarque-Bera statistics for GDP, CAPF, EXCR, INFR is greater than 5% showing the normality of the data. However, this value was less than 5% for GEXP, FDI, HDV, indicating the time series were not normally distributed. The positive skewness of GDP and INFR shows they were peaked to the right of the distribution, in comparison to the CAPF, GEXP, EXCR, FDI, HDV, and TROP those were peaked to the left of the distribution. Lower than 3 values of the kurtosis for GDP, CAPF, GEXP, EXCR, HDV, INFR, and TROP shows they are platykurtic means they have a smaller number of outliers compared to a normal distribution in contrary to the FDI with an above 3 value of kurtosis that make that distribution leptokurtic. The absolute values of the correlation coefficients range 0.114429104 (INFR-TROP) to 0.700963691 (HDV-CAPF) shows that correlation was weak to moderate.

Table 1: Descriptive Statistics and Correlation

	GDP	CAPF	GEXP	FDI	EXCR	HDV	INFR	TRAO
Mean	3704.1382	11.86001907	11.44082432	10.31910479	5.824781699	7.885602133	3.466854366	0.36950
Standard Error	668.14426	0.126833649	0.123904408	0.250853349	0.416901062	0.020612188	0.563961768	0.02802
Median	1753.4178	11.91289022	11.45632988	10.83325725	6.644477829	7.935011706	2.603177719	0.37632
SD	3838.1965	0.728603842	0.711776634	1.441042781	2.394914269	0.118408006	3.239713704	0.16098
Sample Variance	14731752.	0.530863559	0.506625976	2.076604296	5.735614355	0.014020456	10.49574488	0.02591
Kurtosis	-0.7152017	1.504383193	1.437740369	5.020177206	0.959467496	1.148459111	0.359928344	1.02452
Skewness	0.8194867	0.176609577	-0.20213678	2.007209719	0.739363364	-0.67701543	0.847872039	0.06075
Range	12361.528	1.9943103	2.01037806	6.560696178	6.780572275	0.348751438	13.37072044	0.53392
Minimum	194.80472	10.80979884	10.39033576	4.903089987	1.498386058	7.670850104	-1.263058939	0.11086
Maximum	12556.333	12.80410914	12.40071382	11.46378617	8.278958333	8.019601542	12.1076615	0.64478
J-B Statistics	1.822486	2.827539	7.340915	79.25911	0.433295	194.1253	10.345472	163.174
Probability	0.415432	0.538201	0.017245	0.000000	0.913472	0.000000	0.813472	0.00000
Count	33	33	33	33	33	33	33	33
Correlation								
Log GDP	1.0000000							
Log CAPF	0.6982093	1.00000000						
Log GEXP	0.5975517	0.577631177	1.00000000					
Log FDI	0.6318350	0.63012661	0.635916094	1.00000000				
Log EXCR	0.6921460	0.684784019	0.70497499	0.512064636	1.00000000			

Log HDV	0.5609652	0.700963691	0.649040952	0.688011636	0.604482944	1.00000000		
Log INFR	-0.1163743	0.098657178	0.142566765	0.062130247	0.171978257	0.041533305	1.00000000	
Log TRAP	0.5798956	0.620487456	0.51404096	0.682355319	0.546931442	0.509011203	-0.114429104	1.00000

5.2 Stationarity test and bound test results

We followed the suggestions of Philip-Perron (1988) and Dickey-Fuller (1979) to detect stationarity in the data. The statistics show that GDP, CAPF, GEXP. EXCR, HDV, INFR were stationarity at level I (0) whereas FDI and TROP were stationary at first difference I (1) (See Table 2). Since the variables were not equally stationary at a constant level, we applied bound test to check the co-integration among variables (Natsiopoulos & Tzeremes, 2022). The values of F-statistics (11.52132) were higher than lower and upper bound values at 1% and 5% confirming the presence of co-integration among macroeconomic indicators and gross domestic development growth. Following these diagnostic tests, we applied ARDL approach instead of Johansen co-integration approach for three reasons. First, an ARDL approach is best used when the variables are stationary at different levels (Pesaran & Shin, 1995). Second, ARDL model provides both long and short run estimates. Third, ARDL approach allows more flexibility for sample size than Johansen Co-Integration test. The long run results of the ARDL tests are presented in Table 3.

Table 2: Stationary and Bound Test Statistics

	Stationarity at I (0)				**Stationarity at I (1)**			
	Phillip–Perron		**Augmented Dickey Fuller**		**Phillip–Perron**		**Augmented Dickey Fuller**	
	Intercept	**Trend and Intercept**	**Intercept**	**Trend and Intercept**	**Intercept**	**Trend and Intercept**	**Intercept**	**Trend and Intercept**
LogGDP	0.4061	0.5148	0.0231**	0.0814*	0.0000***	0.0000***	0.0009***	0.0044***
LogCAPF	0.0528*	0.01217	0.0669*	0.3219	0.0000***	0.0000***	0.0000***	0.0034***
LogGEXP	0.0743*	0.1238	0.1138	0.3106	0.0000***	0.0000***	0.0000***	0.0000***
LogFDI	0.0435**	0.2476	0.0415**	0.2446	0.0000***	0.0000***	0.0000***	0.0000***
LogEXCR	0.5156	0.6054	0.0030***	0.1848	0.0028***	0.0000***	0.0000***	0.0007***
LogHDV	0.4180	0.8026	0.4355	0.7103	0.0000***	0.0000***	0.0000***	0.0000***
LogINFR	0.5986	0.5947	0.5405	0.3908	0.000***	0.0000***	0.0000***	0.0000***
LogTRAO	0.0346**	0.0201**	0.0065***	0.0023***	0.0000***	0.0000***	0.0000***	0.0000***
Bound Test Statistics								
F-Statistics 11.52132 **								
Critical Values			Lower bound 1(0)				Upper bound 1(1)	
1% significant level			2.90				3.73	
2.5% significant level			2.37				3.51	
5% significant level			1.94				2.01	
10% significant level			1.42				1.95	
*** denotes 1%, ** denotes 5% and * denotes 10% significance level								

5. 3 Long-Run Coefficients Results

The value of R^2 (0.493565) imply that the current econometric model explains 49% variance in the China's GDP growth. F-statistics was 128.1372(.0000021) indicates overall model fitness. The Durbin-Watson statistic (2.7329883) also confirms the absence of autocorrelation. The lag values of GDP demonstrate that increasing 1% GDP results 57% GDP rise in the following year. Results provide that increasing 1% CAPF, GEXP, FDI, and HDV will increase GDP by 56%, 63%, 31% and 75% respectively whereas inflation reduces GDP growth rate at 1%.

Table 3: Long-Run Test

DV: LogGDP
DR (2 lags, auto): CAPF GEXP FDI EXCR HDV INFR TROP
S M: ARDL (1,2,1,2,2,1,2,2)

Var.	B	Std. Error	t-statistic	Probability
LogGDP (-1)	0.571246	0.205983	2.231431	0.0591
LogCAPF	0.561053	0.235435	4.241493	0.0018
LogCAPF (-1)	-0.865191	0.211938	-4.365547	0.0073
LogCAPF(-2)	-0.334596	0.144929	2.461081	0.0734
LogGEXP	0.631774	0.197521	3.432352	0.0453
LogGEXP(-1)	-0.234508	0.093739	3.415483	0.0083
LogFDI	0.314013	0.245673	1.088439	0.1371
LogFDI (-1)	-0.536740	0.314567	-2.654191	0.0049
LogFDI (-2)	-0.243316	0.043653	4.343563	0.0932
EXCR	0.645493	0.074394	3.435630	0.0402
EXCR (-1)	-0.466143	0.084381	-5.653923	0.0043
EXCR (-2)	0.366231	0.075482	4.839851	0.0039
LogHDV	0.752651	0.143798	-4.253674	0.0032
LogHDV (-1)	-0.715472	0.085463	6.409832	0.0003
INFR	-0.087354	0.021748	-4.522041	0.0079
INFR (-1)	0.045637	0.031741	2.436591	0.0439
INFR (-2)	0.481630	0.113591	4.541642	0.0035
TROP	0.034593	0.011435	-3.345983	0.0291
TROP (-1)	0.034725	0.006930	-4.193441	0.0017
TROP (-2)	-0.036724	0.007423	-2.353412	0.0231
C	-0.623793	1.456534	-0.637462	0.6405
R2	0.493565	Adjusted R2		0.487583
F-Statistics	128.1372	Prob (F-statistics)		.0000021
Schwarz Criterian	-4.139923	Durbin-Watson Statistics		2.7329883
Akaike info criterion	-4.834582	Hannan-Quinn criterion		-5.246453

Source: Author Creation (2022)

5.4 Short Run Coefficients Results

Table 4 covers the short run association between China's macroeconomic factors and economic growth. The results of short run ECM show that capital formation, government expenditures, foreign direct investment, exchange rate, human development, inflation rate, and trade openness all have a considerable influence on GDP growth.

Table 4: Short-Run Test Results

DV :D(LogGDP)
M: No trend and restricted constant
SM: ARDL (1,2,1,2,2,1,2,2)

Var.	β	Std. Error	t-statistic	Probability
D(LogCAPF))	0.432332	0.227327	4.345916	0.0006***
D(LogCAPF (-1))	-0.863523	0.113763	-5.625474	0.0000***
D(LogGEXP)	0.416537	0.167933	3.833682	0.0005***
D(LogGEXP(-1))	-0.346582	0.096560	3.627493	0.0000***
D(LogFDI)	0.356723	0.498701	0.183884	0.0037***
D(LogFDI (-1))	-0.756834	0.3287431	-2.372834	0.0002***
D(EXCR)	0.856538	0.074394	3.347528	0.0001***
D(EXCR (-1))	-0.542648	0.084381	-5.354759	0.0000***
D(LogHDV)	0.452151	0.143798	-4.346274	0.0007***
D(LogHDV (-1))	-0.384148	0.085463	6.346593	0.0000***
D(INFR)	-0.036731	0.021748	-4.093475	0.0000***

D(INFR (-1))	-0.041954	0.173943	2.347548	0.0005***
D(TROP)	0.034653	0.138231	-3.346573	0.0000***
D(TROP (-1))	0.032357	0.125304	-4.347658	0.0001***
ECM(-1)	-0.236232	0.176309	-16.463922	0.0000***
R2	0.464334	Adjusted R2		0.453432

Diagnostic Test Results	F-Statistics	P-Value	Interpretation
Breusch-Pegan Godfrey Test	0.597382	0.5934**	Homoscedastic
J_B test	0.081322	0.4362**	Normally Distributed
Ramsey RESET stability	0.694916	0.6382**	Correct Specification

The values of diagnostic tests confirm the absence of heteroskedasticity, autocorrelation, and the normality.

Discussion and Conclusion

The results of our study indicate a strong and statistically significant correlation between the accumulation of capital and China's economic success, both in the short and long run. Augmented capital formation in the immediate environment boosts economic activity by enhancing productivity and creating more job possibilities (Aslan & Altinoz, 2021), leading to fast economic expansion (Etokakpan et al, 2020; Gosh, 2019). Simultaneously, over long term, the combined impact of accumulating physical and human resources greatly contributes to continuous economic growth, promoting the advancement of new ideas and technical improvement (Mohamed et al, 2022). The recent disclosures highlight the crucial importance of capital creation in guiding China's remarkable economic development path, emphasizing the fundamental necessity of strategic investment policies in molding the country's economic environment.

Furthermore, our investigations indicate a strong and statistically significant positive impact of government expenditure on China's economic patterns, both in the short term and in the long term (Wei et al. 2023). In the short term, more government spending acts as a catalyst for economic growth by injecting funds into public and social projects, therefore boosting demand and driving production (Yang et al, 2022). Long-term government spending has a vital role in stimulating economic growth, particularly via investments in infrastructure (Irshad & Ghafoor, 2023) and strategic initiatives (Zhang et al, 2022). This emphasizes its importance as a crucial catalyst of China's remarkable economic narrative. These findings highlight the critical importance of cautious budgetary policies in defining China's economic trajectory and validate the effectiveness of government intervention in sustaining enduring economic development.

The research emphasizes a robust and statistically significant positive effect of foreign direct investment (FDI) on China's economy, seen in both the short and long run. Foreign direct investment (FDI) inflows in the immediate context result in the infusion of capital, advanced technology, and expertise, hence stimulating immediate economic growth (Odhiambo, 2022). This trend persists for a considerable duration, with Foreign Direct Investment (FDI) playing a pivotal role in fostering persistent economic expansion (Gyamfi et al, 2022), boosting innovation (Song & Han, 2022), and enhancing China's global competitiveness (Ayenew, 2022). These revelations underscore the vital significance of foreign investment in propelling China's economic achievements, underscoring the need of maintaining a hospitable and attractive investment environment for continued prosperity and seamless integration into the global economy.

In addition, our investigation uncovers significant and statistically significant positive

effects of exchange rates on China's economic performance, both in the short term and in the long term. Implementing a controlled exchange rate policy in the short term enhances the ability of exports to compete in the market (Ridhwan et al, 2023), so promoting economic growth via ensuring favorable conditions for international trade (Cao et al. 2023). The long-term advantages of maintaining a stable currency rate are evident, as it fosters continuous economic expansion by establishing a conducive environment for commerce and bolstering international demand for Chinese goods and services (Chen et al, 2022). The findings underscore the pivotal importance of currency management in China's economic policy, bolstering the nation's position in the international market and promoting enduring economic stability and prosperity.

Furthermore, our research demonstrates a robust and statistically significant positive impact of human capital development on China's economic trajectory, seen in both the short and long term. Allocating resources to education and skill training results in a timely and highly skilled workforce, hence fostering innovation and efficiency in the short term (Islam, 2020). Investing in human capital over a prolonged period is essential for attaining sustained economic growth, since a well-educated and skilled workforce plays a critical role in advancing technology and improving competitiveness (Diebolt et al, 2022). The findings emphasize the significant and lasting impact of human resources on China's economic trajectory, underscoring the long-lasting benefits of intentional investments in education and skill development for the overall welfare of the nation (Riaz et al, 2022; Wang et al, 2023).

Moreover, our study has shown a compelling and statistically significant positive impact of trade openness on China's economic performance, seen in both the short and long run. Increased trade openness in the near term promotes economic development by facilitating entry into global markets and encouraging expansion driven by exports (Wang et al, 2023). Trade openness for a long period of time boosts economic growth, promoting a mutually advantageous global economic interdependence (Aghaei et al, 2023). This discovery emphasizes the crucial significance of international commerce as a primary catalyst for China's economic achievements, emphasizing the long-lasting advantages of a transparent and linked global market for sustained economic well-being and expansion.

Our study reveals a large and statistically significant detrimental effect of inflation rates on China's economic dynamics over both short and long periods of time. In the short term, the increasing inflation seems to hinder economic development by gradually reducing the ability to buy goods and services and weakening customer trust (Wang et al, 2022). Long-term, sustained inflationary pressures may hinder investment and threaten economic stability (Azam & Khan, 2022). These findings emphasize the crucial significance of actively managing inflationary trends to maintain China's economic well-being (Uddin & Rahman, 2023). They suggest that implementing effective monetary policies to control inflation can greatly contribute to creating a more stable and favorable environment for long-term economic growth and prosperity.

Policy Implications

In light of these findings, the Chinese government should formulate policies to strengthen

macroeconomic situation. Moreover, the findings suggest that governments should back the ecology of assistance trading. Furthermore, it is essential to cultivate an environment that is both professionally focused and technologically motivated in order to guarantee the contribution of human resources to economic development.

Research Limitations

This study attempts to quantify the effect of seven macroeconomic factors on economic growth. However, these factors tend to have unidirectional or bidirectional effects on one another. In addition, the current study cannot account for the influence of vocational education and job experience when measuring human capital development. Nonetheless, the current empirical research provides an objective analysis of the impact of some of the most important macroeconomic drivers on China's economic development.

Raheel Mumtaz: Problem Identification and Model Development
Khalid Hussain: Literature Review and methodology
Shoaib Masood Khan: Data Analysis, Supervision and Drafting

Conflict of Interests/Disclosures

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