

Financial Development and Growth the Case of South Korea

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Abstract. This study explores the relationship between financial development and growth in South Korea during the period of 1974-2009. The overall endogeneity¹ of the relationship between financial development and growth is an unresolved issue and it is still not proved. This study finds Reverse causality between financial development and growth in South Korea in most of the cases. Therefore it will be true to say that economic growth has created the demand and importance of financial services in South Korean economy. The economy of Korea is creating opportunities for financial deepening and welcomes financial integration.

Keywords: Finance, Growth, Endogeneity, South Korea, Granger Causality.

1. Introduction

Financial development varies noticeably across world, the enhancement in the level of financial services is known as financial deepening. This paper has the agenda to examine the link between financial development and the growth in South Korea during the period of 1974-2009. The overall endogeneity of the relationship between financial development and growth is an unresolved issue and it is still not proved, whether it is finance that leads growth or it is other way round i.e., the growth in an economy actually promotes the financial system of the country.

2. Overview of South Korean Economy

After World War II the republic of Korea (ROK)² was formed of Southern and Northern Korea. South Korea gained high growth rates after the end of Korean war (1950-53) and reported 17% higher GDP than North Korea. South Korea achieved democracy after 32 years of military rules in 1993. Today South Korea is fully functioning democratic country. It is focusing on global engagements however it has some serious tensions with North Korea. Remarkable growth rates have been observed in South Korean economy since 1960. It has excelled in global integration. Today it is rendered among some very high-tech economies. Around forty years ago the country was included among list of poor countries of Asia and was compared with low income economies of Africa. In 2004, South Korea joined the club of trillion-dollar economies of the world and gained a position among twenty largest economies of the globe. Government intervention played an important role to achieve these growth rates. Financial crisis of 1997-98 plunged Korean GDP by 6.9% in 1998, however, it resumed to 9% in 1999. Global financial crisis of 2007-08 hit South Korea once again but the economy restored with 6% growth rate in 2010 due to its exports demand and expansionary fiscal policy.

An overview of Korean economy in 2008-09 is presented in Table 1. Korea is one of the biggest trillion-dollar economies of the world with high GDP growth rate, i.e. 6.1%. Balance of trade is positive along with fiscal surplus. Inflation also seems average with developed countries. All these signs show a strong stable and booming economy.

3. Financial Development, Growth and Financial Crises in South Korea

Many countries started strengthening their financial systems during the era of 1960s. However Korean financial system was far beyond to these developments at that time due to strong government interventions. Korea started to reform its financial system in early 1980s. The post financial crisis (1997) reforms of

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¹ Whether it is finance that leads growth or it is growth in an economy that actually promotes the financial system of the country.

² World fact book (2011).

Korean economy brought the economy in formal structure. Korean economy grew from a small agricultural economy to industrial exporting economy in a span of thirty years' time. Chung et al. (2010) argued that in most of the developing countries strong institutions are missing, in that case good governance can play a vital role to substitute the absent and inefficient markets. Considering the experience of Korea it is suggested that deregulation of financial markets can efficiently work in the presence of strong institutions.

Table 1: Variable Abbreviations

Abbr	Variables
BA	Deposit Money Bank Assets to (Deposit Money + Central Bank) Assets
CR	Private Credit By Deposit Money Banks and Other Financial Inst. to GDP
LL	Liquid liabilities to GDP
SC	Stock Market Capitalization to GDP
ST	Stock Market Turnover ratio to Capitalization
SV	Stock Market Total value Traded to GDP
INF	Inflation
TR	Trade to GDP Ratio
FIS	Government Expenditures to GDP
XRR	Exchange Rate Regimes
GD	GDP per capita (constant 2000 US\$)

Until 1961 with military government, Korean financial system comprised of state-owned banks (e.g. Korean Agriculture and Development Bank) and a few private commercial banks. Cole et al (1983)³ asserted that around 71% of credit had been allocated through public sector banks in South Korea. Post financial crisis policy structure focused on the privatization of state-owned banks and to reduced government control over the banking sector.

The key effects of financial crisis of 1990s are studied by Adelman et al (1999), and it is argued that in 1996, the capital account deficit rose from 2% to 5% of GNP that reflected the initial signs of crisis in Korea. Growth rates of exports declined from 31% to 15% of GNP. Foreign debt increased from \$78 billion dollars to \$100 billion dollars in 1996. Major companies defaulted on their debts, e.g. Jinro group; KIA motors, Sangyong business group, etc. in 1997. IMF approved record largest rescue package for Korea to come out of recession. Korean bond's ratings downgraded from A1 to junk bonds by Moody's and Standard and Poors as Korea declared incapable to pay back its loans by the end of the year. Korean economy became ineligible to invest in international investment portfolios. Funds were withdrawn from Korean economy and foreign lending declined sharply from \$100 billion to \$20 billion in 1997.

Korea has worked really hard to manage its interest rates, foreign exchange and liberalization of its capital markets. Kim *et al.* (2003) asserted that Korea has learnt an invaluable lesson from financial crisis of 1997. Negative impacts of financial globalisation could be blocked with the strong and international standard financial system. Korean government made every effort to make its financial system transparent. Audit and

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accounting procedures are applied in that regard and today Korea is standing out in top high-tech economies of the world.

4. Empirical Analysis and Findings

The effect of financial development over growth in Korea during the period of 1974-2009 is reported in Table 2. It can be observed that the impact of stock market indicators over the growth of Korean economy is found positive. The stock market capitalisation and stock market turnover have shown the significant values with expected positive signs. It means that the development of stock market exert a positive impact over the growth of South Korean Economy. The fiscal variable has shown the negative significant results that suggest that the government expenditure has a negative impact over the growth of South Korean economy. Fiscal represents the expenditures incurred by the government and if these are made for the welfare of state, so they show a positive sign. However, expenditures incurred in non potential areas depict a negative impact over the growth of an economy.

Table 2: Estimation Results Korea (1974-2009)

Variable	Coefficient	T-stats	Probability.
BA	-0.2239	-0.5850	0.5651
CR	-0.0846	-1.3294	0.1987
LL	-0.0825	-1.3627	0.1881
SC	0.0428***	1.9457	0.0659
ST	0.0226***	2.0358	0.0552
SV	-0.0230	-1.5589	0.1347
INF	-0.0401	-0.3827	0.7059
TR	-0.1426**	-2.8392	0.0101
LXRR	-0.0292***	-1.8053	0.0861
FIS	-0.2598**	-2.7254	0.0130
R ²	0.8535	F-statistic	11.6555
Adjusted R ²	0.7803	Prob(F-statistic)	0.0000

*shows 1% level of significance, **shows 5% level of significance, ***shows 10% level of significance

The causal impact of financial development over growth of Korean economy is examined by Granger's causality tests, and the results are presented in Table 3. Studenmund (2006) defines the Granger test, when one variable in terms of time series predictably and consistently varies before the other variable. It is an important technique since it helps to examine which variable leads or precedes the other variable" and forecasting becomes easier.

This study aims at finding the causal effect of finance over the growth. Table 3 is divided into different parts that include the null hypothesis, F-Statistics, and the probability for all the variables. This study finds reverse causality between financial development and growth of South Korea in most of the cases.

GD→CR shows a causal relationship, growth causes private credit.

SC→GD shows that stock market capitalization causes growth.

GD→SC shows that growth also causes the stock market capitalization.

ST→GD shows that stock market turnover causes growth.

GD→SV shows that growth causes stock market value traded.

The growth of South Korean economy has the causal impact over financial development in most cases. Therefore, it will be true to say that economic growth has created the demand and importance of financial services in Korean economy. The economy of Korea is creating opportunities for financial deepening and welcomes financial integration. Around four decades ago Korea was compared with low-income countries of Africa. Today it is standing out with trillion-dollar high tech economies. Macroeconomic indicators of Korea are impressive. The economy of Korea was badly stroked by the financial crisis of 1990s causing drastic

capital flight from economy. However, Korea has made every effort to achieve high growth rates and make the financial system transparent.

Ang (2010) suggested that models base on innovation helps to determine the patterns of growth rates in Korea. More research and development can contribute to achieve higher level of growth rates. The results of this study are contrary to conventional findings of finance growth nexus and suggest that economic growth cause financial depth in case of Korea.

Table 3: Granger Causality Test Result South Korea

Null Hypothesis:	Causal Inference	F-Statistic	Probability
BA does not Granger Cause GD	Accept H ₀	0.3934	0.5351
GD does not Granger Cause BA	Accept H ₀	0.0637	0.8025
CR does not Granger Cause GD	Accept H ₀	0.9232	0.3441
GD does not Granger Cause CR	Reject H ₀	13.4267*	0.0009
LL does not Granger Cause GD	Accept H ₀	1.1133	0.2995
GD does not Granger Cause LL	Accept H ₀	0.8000	0.3780
SC does not Granger Cause GD	Reject H ₀	7.4439**	0.0107
GD does not Granger Cause SC	Reject H ₀	4.1625***	0.0505
ST does not Granger Cause GD	Reject H ₀	9.9235*	0.0037
GD does not Granger Cause ST	Accept H ₀	0.0402	0.8424
SV does not Granger Cause GD	Accept H ₀	1.1877	0.2845
GD does not Granger Cause SV	Reject H ₀	6.6875*	0.0148

*shows 1% level of significance, **shows 5% level of significance, ***shows 10% level of significance

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