THE EFFECTIVENESS OF MONETARY TRANSMISSION OF COMMERCIAL BANKS ON MONETARY AND MACROECONOMIC VARIABLES IN PAKISTAN

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ASIA e UNIVERSITY

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ABSTRACT

The central bank in every country uses its monetary policy as an instrument to control inflation, promote output and employment growth, and for overall economic management. This study aims to examine the role of financial intermediaries, i.e., commercial banks of Pakistan, and to determine whether they are effectively playing their expected role in monetary transmission. An extensive literature review revealed that the existing literature on commercial banks is widely divided on the impact and potential of commercial banks in influencing monetary and economic aggregates. A few studies have been conducted in Pakistan on the impact of monetary policy decisions on commercial banks from an aggregate perspective. However, some disaggregated aspects like the sectoral performance of bank loans, heterogeneity among banks and Islamic versus conventional philosophy of banks are the gaps in the literature that warrant research to identify the effectiveness of monetary transmission in Pakistan. As such, the study examines long and short-run relationships between monetary policy and the commercial banks' related variables and between the commercial banks' related variables and macroeconomic variables. The study used monthly and quarterly data with cross-sectional and panel characteristics from 1998 to 2018. The variables include central bank policy rate and the financial market dynamics. Data are collected from the official websites of the State Bank of Pakistan and tested by using econometric techniques. The outcome of the Study reveals that monetary decisions influence commercial banks to some extent. However, these could not influence the economic aggregates significantly. The likely reason may be the underdeveloped financial markets and undocumented economy, which diminish monetary policy influence/impact in Pakistan. In disaggregate analysis of commercial banks, however, certain areas like the sectoral performance of loans, and the Islamic banks contribute significantly to varying effects of monetary policy on Pakistan economy.

APPROVAL

This is to certify that this thesis conforms to acceptable standards of scholarly presentation and is fully adequate, in quality and scope, for the fulfillment of the requirements for the degree of Doctor of Philosophy.

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This thesis was submitted to Asia e University and is accepted as fulfillment of the requirements for the degree of Doctor of Philosophy.

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Chairman, Examination Committee

(21 February 2023)

DECLARATION

“I hereby declare that the thesis submitted in fulfillment of the PhD degree is my own work and that all contributions from any other persons or sources are properly and duly cited. I further declare that the material has not been submitted either in whole or in part, for a degree at this or any other university. In making this declaration, I understand and acknowledge any breaches in this declaration constitute academic misconduct, which may result in my expulsion from the program and/or exclusion from the award of the degree.”

Name: **Munib Badar**

Signature of Candidate: Date: **21 Feb 2023**

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“To Him belongs the dimension of the Heavens and the Earth, it is Allah who gives life and death, and Allah has power over all things.” – Al-Quran

It is my first and foremost duty to thank almighty Allah, who blessed me with the opportunity to accomplish this most challenging task. I am also grateful to my Father, Ch. Muhammad Akram (Late), who continually praised and motivated me to study at a higher level. His motivation and encouragement in my life had always been a source of energy for me. My mother and wife also deserve a word of thanks as they were the source of help and inspiration throughout the project writing process.

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LIST OF ABBREVIATIONS

AAOIFI	Accounting and Auditing Organization for Islamic Financial Institution
ADF	Augmented Dickey Fuller
ADV	Advances
AIC	Akaike's Information Criterion
AR	Auto Regression
ARDL	Autoregressive Distributed Lag
BPD	Banking Policy Department
bps	Basis Points
CD	Conventional Deposits
CDNS	Central Directorate of National Savings
CF	Conventional Finance
CI	Conventional Investment
CII	Council of Islamic Ideology
CPI	Consumer Price Index
CRR	Cash Reserve Requirement
DCR	Displaced Commercial Risk
DEP	Deposits
DTL	Demand and Time Liabilities
DR	Deposit Rate
ECM	Error correction model
EMU	European Monetary Unit
FSC	Federal Shariat Court
GDP	Gross Domestic Product
GIS	Government of Pakistan Ijara Sukuk

GMM	Generalized Method of Moments
GNP	Gross National Product
GOP	Government of Pakistan
GSEC	Government Securities
HBFC	House Building Finance Corporation
ICP	Investment Corporation of Pakistan
ID	Islamic Deposits
IF	Islamic Finance
II	Islamic Investment
IMF	International Monetary Fund
IPI	Industrial Production Index
IRC	Interest Rate Corridor
IRF	Impulse response functions
IRR	Investment Risk Reserve
JJ	Johanson and Juselious
KBR	KIBOR
KIBOR	Karachi Interbank Offer Rate
LA	Liquid Assets
LR	Lending Rate
MA	Moving Average
MENA	Middle East & North Africa
MM	Money Market
NBFC	Non-Banking Financial Corporation
NIT	National Investment trust
OLS	Ordinary Least Square

OMO	Open Market Operations
PER	Profit Equalization Reserve
PIDE	Pakistan Institute of Economic Development
PLS	Profit and Loss Sharing
RREPO	Reverse Repo Rate
SAARC	South Asian Association of Regional Cooperation
SAB	Shariah Appellate Bench
SBC	Schwartz Bayesian Criterion
SBP	State Bank of Pakistan
SLR	Statutory Liquidity Requirement
SVAR	Structural Vector Auto Regression
TA	Total Assets
TB3	Three-Month Treasury Bill Rate
TBR	Treasury Bill Rate
UAE	United Arab Emirates
UK	United Kingdom
USA	United States of America
USD	United States Dollar
VAR	Vector Auto Regression
VECM	Vector Error Correction Model

CHAPTER 1

INTRODUCTION

1.1 Background

Economic growth is related to the overall economic circumstances prevailing in a country during a particular time period. Denison (1962) affirmed that economic growth is meant to increase real Gross Domestic Product (GDP) or per capita or increase national product (Denison, 1962). Trade was considered a primary driving force for economic activity during the mercantilist era, i.e., sixteenth to the eighteenth century. At that time, gold and trade were the main economic factors to lead growth.

Prof. Solow emphasized capital deepening (increased capital per capita) and technological progress in economic development. He stressed the importance of capital formation originating from physical and human capital investments. Hence, Finance is the facilitating factor that can prop up capital deepening with the help of an effective monetary transmission (Solow, 1956).

In the twentieth century, fast technology growth and its productive role in economic development made it essential in economic growth. Hence, Todaro brought forward technological progress as the main factor that may influence economic growth in addition to labor force and capital formation (Todaro, 1977).

Growth in economic development can be classified into two leading groups; one is direct factors, e.g., human resources (population growth, investing in human capital), natural resources (land, underground resources), and the rise in capital employed or technological progression.

Secondly, Indirect factors include institutions (financial institutions, public administrations, etc.), the size of the aggregate demand, saving rates and investment rates, the efficiency of the financial system, budgetary and fiscal policies, migration of labor and capital, and the efficiency of the government.

GDP measures economic growth means the increase of the growth rate of GDP with various components, e.g., public expenditure, capital formation, private or public investment, employment rates, exchange rates etc., have varying impacts on economic growth and these determinants have different implications if the states are developed or not.

The government utilized its revenues and expenditures to influence economic growth through its fiscal policy, as per John Maynard Keynes, whose, Keynesian economics conceived that fiscal policy is based on government changes that influence aggregate demand with the help of government spending habits and taxation (Keynes, 1937).

Fiscal and monetary factors are the critical elements used by a government and central bank to achieve its economic goals. The combination of these enables authorities to target inflation and increase employment. However, in this study, we shall concentrate on the financial system and monetary aspects of government policies.

In a financial system, surplus funds flow from direct market-based finance or indirect bank-based finance to those with a shortage of funds. The former British Prime Minister William Gladstone expressed the importance of finance for the economy in 1858 as follows:

"Finance is, as it were, the stomach of the country where all the other organs take their tone."

1.1.1 Financial Institutions and Economic Development

A financial system consists of all financial markets, instruments, and institutions where the financial system's design matters for economic growth. According to cross-country comparisons, individual country studies, and industry and firm-level analyses, a positive link exists between the sophistication of the financial system and economic growth.

Financing with the help of financial intermediaries overcome the issues like adverse selection and moral hazard which exist between lenders and borrowers. Banks are found experts in distinguishing between good and bad borrowers. In countries with a highly developed financial system, a more significant share of resources is allocated to relatively fast-growing areas. However, we observed in the past, like a century ago, during the Industrial Revolution, England's financial system performed better in identifying and funding profitable projects than other countries in the mid-1800s. This facilitated England to earn tremendous economic success. The banker and former editor of "The Economist", Walter Bagehot, expressed this in 1873.

"In England, however, capital runs as surely and instantly where it is most wanted, and where there is most to be made of it, as water runs to find its level".

In a perfect Arrow Debreu (1954) world, Symmetric information is relatively the primary source of pricing financial assets. Therefore, savers and investors do not have to incur intermediation costs to locate each other. However, in reality information asymmetries prevail, which requires financial intermediaries to exist so that savers and investors may be gathered with the help of financial instruments to fulfill their needs. Financial intermediaries' primarily financial institutions, bridge this gap between deficits and surplus of funds (Arrow & Debreu, 1954).

Financial institutions are recognized as driving factors for economic growth because the efficient allocation of resources and mobilization of funds between savers and investors is possible when financial institutions play an influential role. Seminal work on financial intermediaries in economic development can be traced by Goldsmith (1969), who proposed a sound financial system that would experience better growth in national wealth. Goldsmith suggested that the detachment of saving and investment units in any economy can determine the relative size of financial intermediaries and their positive effects on an economy. This early proposition is supported by various theoretical and empirical underpinnings in the last decade of the previous century advocating using a developed financial system for an economy (Goldsmith, 1969).

Levine (1997) supported this concept through the maximum allocation of resources, specifically capital being a significant factor of production that can lead to economic growth. Likewise, Pagano (1993) also supported this idea, suggesting that innovative financial institutions and financial systems can increase saving rates and ultimately contribute to positive economic growth. A similar statement was presented by Diamond (1984), who proposed that financial intermediation in its risk absorption capacity plays an important role where financial intermediaries work like a monitoring agent.

Surplus funds are kept in financial institutions e.g. households units park their excess funds in financial institutions, which are used to extend loans to deficit units. Once funds are raised towards deficit units, the role of financial institutions is converted to a monitoring unit that starts to investigate borrowers’ activities as if the funds are rightly utilized for business growth and management. This monitoring aspect also contributes to

economic growth as banks oversee the progress of loans given in various sectors of the economy (Easterly & Levine, 1997) (Pagano & Jappelli, 1993) (Diamond, 1984).

Some other authors presented a robust positive relationship between financial market development and economic growth. For example, a book titled "Financial Structure and Economic Growth" concluded in Chapter No1 published in 2001,

"In particular, researchers have provided additional findings on the financial growth nexus and have offered a bolder appraisal of the causal relationship; firm-level, industry-level, and cross-country studies all suggest that the level of financial development exerts a large, positive impact on economic growth". Editors Demirgüç-Kunt and Levine

The scope of financial structure and macroeconomic performance by Lopez and Spiegel 2002 (Economists at the Federal Reserve Bank of San Francisco) revealed a long-run relationship between financial systems and aggregate demand which concluded as:

"We examine the relationship between financial development indicators and economic performance for a cross-country panel over long and short periods. Our long-term results are consistent with much of the literature in that we find a positive relationship between financial development and economic growth" (Lopez & Spiegel, 2002).

However, some economists contradict the association between financial growth and economic development. For instance, Robert Lucas emphasized that economists badly over-stress the role of financial factors in economic growth (Lucas Jr & Prescott, 1971). Moreover, Joan Robinson declared that:

"*Where enterprise leads, finance follows". (Robinson, 1979):*

According to this view, economic development creates demands for particular financial arrangements, and the financial system responds automatically to these demands.