

THE IMPACT OF STOCK MARKET PERFORMANCE UPON ECONOMIC GROWTH

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ABSTRACT

The main purpose of this study was to explore the causal link between stock market performance and economic growth in terms of a simple theoretical and empirical literature framework. Researchers hold diverse opinions regarding the importance of stock markets playing a significant role in economic growth processes by performing the following functions: improving liquidity, aggregating and observing managers and exerting corporate control, providing risk-pooling and sharing services including investment levels. The growing theoretical literature argues that stock markets are crucially linked to economic growth. The findings suggest a positive relationship between efficient stock markets and economic growth, both in short run and long run and there is evidence of an indirect transmission mechanism through the effect of stock market development on investment. They are seen as providing a service that boosts economic growth. The results are consistent with the theoretical and empirical predictions.

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1. INTRODUCTION

Recent theoretical studies have already commenced the first step to link the financial market and the rate of economic growth; it is proposed that higher per capita income may affect many aspects of the economy and stock market performance (Sarwar et al., 2021). Gurley and Shaw (1955, 1960; 1967) argued that financial development is a positive function of real income and wealth. This study supports the quantitative work of Goldsmith (1969) who discovered that, in most of the 35 countries investigated, both developed and developing, the ratio of the financial institution to GDP tends to increase with higher real income and wealth. This relationship between growth and financial system size is further supported by more recent evidence from the World Bank (1989). Much of the research within

empirical studies concurs that finance is strongly associated with economic growth rate.

Financial markets are today classified as bank-based or market-based systems (Knafo, 2022). This division can be further exemplified by the Anglo-Saxon market-based models which are capitalist economies and allow for private investment and private ownership and the other, largely exemplified by Germany, which is the bank-based model that has been practiced more widely by Eastern European countries. These latter are centrally-planned or, to be politically correct, communist economies (Hall & Soskice, 2001). The UK and US are market-based as these countries have similar long-term growth rates. Throughout the world, the type of financial model practiced by sovereign countries reflects the type of government as a regime in power (Wullweber, 2020). Many, Eastern European, Middle Eastern and African

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countries, including Libya, have practised socialism for a long time. However in the light of recent trends, and under the direction of the IMF and World Banks, many countries are now reforming their economies and gradually adopting capitalism, largely as a result of the failure of socialism and particularly in order to rescue their economies (Guttmann, 2023). In this context, the World Bank (1994, 1989) has argued for the establishment and promotion of stock markets in developing countries in line with those existing in developed countries.

2. REVIEW OF RELATED LITERATURE

2.1 Definition of a Stock Market

A stock market can be a very sophisticated market place, where stocks and shares are the traded commodity. At the same time, it is central to the creation and development of a strong and competitive economy (Petry et al., 2023). It is a key to structural transformations in any economy; from traditional, rigid, insecure bank-based to a more flexible, more secure economy that is immune to shocks, fluctuations and lack of investors' confidence (Stapley, 1986). According to Arnold (2004), stock markets are where government and industry can raise long-term capital and investors can purchase and sell securities. Typically, markets, whether they be shares, bonds, cattle or fruit and vegetables, are simply mechanisms to allow the possibility of trade between individuals or organisations (Milone & Ventura, 2024). Whilst some markets (e.g. for livestock) are physical where buyers and vendors meet to trade, others (e.g. for foreign currency) are a national network, based on communication using telephone lines and computer links, with no physical meeting place. Additionally, very few stock exchanges around the world still possess a physical location where buyers and sellers meet to trade.

Patrick and Wai (1973) argued that stock markets are those markets that deal with capital, both in the short and long-term, where companies sell stocks in order to generate long-term capital that can be channeled into their profitable options. This is because people would rather invest in winners than losers; buyers hold on to their stocks for future dividend payouts. The activities of buying and selling stocks and shares on the stock market are extremely significant for the allocation of capital within economies (Pratten, 1993). In addition, transaction prices and quotations provide investors with an indication of the market value of their wealth which may influence their decisions about consumption expenditure (Pratten, 1993). Although, when prices are at historically high levels and/ or rising, this indicates confidence among investors and may affect the confidence of businessmen and, hence, their investment. Furthermore, the stock market is a crucial factor in business investment decisions because the price of shares affects the amount of funds that can be raised by selling newly issued stock to finance investment spending. Johnson (1983, p. 32) suggested that:

"The stock markets are a complex of institutions and mechanisms through which funds for purposes longer than one year are pooled and made available to business, government, and individuals and through which instruments already outstanding are transferred. The stock markets are well organised and are local, regional, national, and world-wide in scope."

According to Tweles and Bradly (1987), the word *stock* in North American tradition, means ownership or equity. In corporations these stocks are traded in a market called the "stock exchange". Curry and Winfield (1994, p. 25) offered a brief definition of the stock exchange as: "... an institution where quoted investments (stocks and shares) may be exchanged between buyers and sellers." Fabozzi et al. (2002) classified three types of stock market role: first, the interactions of buyers and sellers in a stock market determine the price of the traded asset; second, stock markets provide a mechanism for investors to sell a stock asset; finally, the third economic function of a stock market is that it reduces the cost of transacting. Mishkin and Eakins (2003) provided that a *stock* is a security that represents a share of ownership on the earnings and assets of the corporation. The stock market, in which claims of the earnings of corporations (shares of stock) are traded, is the most widely followed market in the American economy. Stock markets can be classified as debt and equity markets, short-term debt instruments (money market) and longer-maturity financial assets (capital markets), including cash or spot market and futures markets, as displayed in Figure 1.

2.1.1 Money Market

Since the early history the money market has been a highly active locus where many buyers and sellers enter the market with offers each day. It is based on a 365-day year in the UK and on a 360-day year in the US (Mishkin & Eakins, 2003). Since 1970 it has become more important as interest rates increased dramatically. These rates tend to be very liquid. In the late 1970s and early 1980s the rates rose in the short-term which, coupled with a regulated ceiling on the rate that banks could pay for deposits, resulted in a rapid outflow of funds from financial institutions. This outflow, in turn, caused many banks, savings and loans to fail.

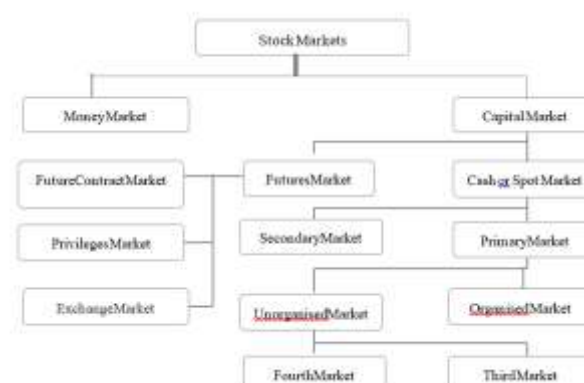


Figure 1. Classification of Stock Markets

Source: Handay (1997).

However, the term “money market” actually refers to the markets for financial tools where short- term investment securities of less than one year are traded. It provides an opportunity for borrowers to obtain short-term loans. It also provides an opportunity for investors to obtain a high level of security by investing their money in financial assets with high liquidity, as the commercial banks play a critical role in this market’s activity. Money market security has three basic characteristics:

- It has usually sold in large denominations
- It has low default risk
- It matures in one year- instruments mature in less than 120 days.

The money market includes a market for short-term treasury securities, particularly treasury bills, having 91-day, 182-day, or 12-month maturities which widely hold liquid, commercial papers, federal- funds, and repurchase agreements. Furthermore, this market includes the bank’s 6-month certificates of deposit and the banker’s acceptances. Finally, from the previous discussion, the most significant advantages of the money market, that is, high flexibility, low risk in terms of money and credit risk, also reduce the cost of transactions to developed secondary markets which have a place for firms or financial institutions to warehouse surplus funds for short periods of time until they are required.

2.1.2 Capital Market

The term “capital” refers to markets for financial instruments of long-term investment tools with maturities of one year or more and where equity instruments are traded. Capital market securities, such as stock and long-term bonds, are often held by financial intermediaries, insurance companies and pension funds, which have little uncertainty about the amount of funds which they will have available to deal with in the future. The most significant chrematistic tools of this market’s shares and bonds in long-term debt are:

- A capital market linked within long-term securities.
- An effective role in financing long-term productive projects.
- A capital market more structured than other markets because dealers are agent specialists.
- Investment in the capital market is far more risky and bears less liquidity than the money market.
- The returns are high on capital compared with investment in other markets. The capital market is divided according to whether the financial tools contain a promised output of cash flow over time, or offer participation in the future profitability of the company’s chrematistics.

They are usually defined as:

Cash or Spot Market

A cash or spot market is a one which deals immediately between buyers and sellers and is divided twofold: primary market; secondary market. These two issues are discussed next.

Primary Market

The primary market, referred to as “*issue market*”, issues security stocks, bonds, shares outstanding, and is in businesses that are allowed to issue securities. Jones (1994) suggested that primary markets are completely vital to capitalist economies source from the owners of these sources to those who utilize them to finance productive activities, since they serve to channel funds from savers to borrowers. While businesses could challenge an initial public offering on their own, many rely on the assistance of investment banks. In fact, the latter represent institutions that specialize in marketing initial ownership shares offered by new business activity which provide shares in the primary market at a slightly higher price.

Secondary Market

The secondary market is where the sale of previously issued securities occurs, because most investors plan to sell long-term bonds before they reach maturity and, eventually, to sell their holdings of stock as well by brokers and intermediaries. Indeed, brokers specialize in secondary markets where they have developed a superior knowledge of the factors that influence risk, costs and returns relating to financial instruments exchanged in these markets.

As already indicated, secondary markets are very significant contributors to the efficient performance of primary markets, because the former have the ability to buy or sell previously issued financial instruments, which render these much more liquid than other markets for their investments, enabling them to move quickly, and without substantial loss in market value, from security to cash and from one security to another (Haugen, 2001). There are two types of market in the secondary market for capital securities:

- **Organised Market.** The organised market has a building which is a site for buying and selling securities (including stocks, bonds, options, and futures) and trading with a specific procedure for instruments of securities to be recorded in accordance with the rules and regulations to ensure that they result in competitive trading. Haugen (2001) argued that there are major organized stock markets globally. For instance, the Nikkei in Tokyo is one of the leading active markets internationally. Another of the largest major markets is the New York Stock Exchange (NYSE), in which the shares of approximately 1,600 companies are traded. The second largest stock exchange within the American Stock Exchange (AME) includes the London Stock Exchange (LSE) in the UK, the DAX in Germany and the Toronto Stock Exchange (TSE) in Canada.
- **Unorganised Market.** This is also known as the *Over-The-Counter* (OTC) market which is not organised in the sense of having a site where unlisted stock is traded. In this market trading operates by using a nationwide network of phone lines and computer links where the price is determined by financial paper negotiations. Haugen (2001) argues

that there are two levels of prices i.e. *wholesale* and *retail*. *Retail prices* are offered to individual investors who are usually executing orders via brokers. *Wholesale prices* are offered to other dealers who wish to alter their inventory positions. Henry (2000) and Elton et al. (2003) have noted the existence of third and fourth markets in the US.

Third Market

The third market involves the trading of listed securities in the OTC market. This market is unregulated and consists of brokerage firms which are not members of the organization, even though they have the right to deal in securities registered in those markets. Furthermore, these brokerages are willing to buy and sell securities at a greater or lesser amount.

Fourth Market

The fourth market refers to direct trade between institutions without the use of an exchange. This market is intended for major institutions and rich individuals who deal with them in buying and selling securities in large orders, as a strategy to reduce commission paid to brokers and in a strong network of telephones and computers, so that the conclusion of four transactions in the market can happen quickly and at a lower cost.

It can be remarked that Libya solely possesses an organised stock market. There is no definition of the fixed commissions for the transactions dealt in the Libyan stock market, where there is no requirement to create a third or fourth stock market as in the US. According to the Libyan Stock Market Authority (LSMA) regulations, it is not permitted for any brokerage firm to operate in the stock market without registration, which requires a license from the LSMA to operate as a financial intermediary. At the same time, it is not allowed for any deal, either among individual investors, or between institutions to occur without financial intermediaries. This explains why the Libyan stock market does not use the terms of third or fourth markets. From previous discussion, it can be seen that the capital market has three main instruments: *bonds*, *stocks*, and *mortgages*. *Bonds* represent borrowing by the issuing firm. *Stock* represents ownership in the same entity. *Mortgages* are long-term loans secured by real property. Only corporations and governments can issue bonds, which obtain more funds raised by bonds rather than through stock.

Futures Markets

Cuthbertson and Nitzsche (2001) argue that forward and future(s) can be treated in a similar fashion, as Table 1 displays. Usually, forward contracts involve no *up front* payment and *cash* only changes hands at the expiry of a contract, which is negotiated between two parties and is not significant. A future(s) contract is traded in the market and involves a *down payment* known as the *initial margin*. This is primarily a deposit to ensure both parties to the contract do not default, which usually earns a competitive interest rate without cost. Typically, a

futures contract is a forward agreement that is *market to market* daily.

Table 1. Forward and Future(s) Contracts

Forward	Future(s)
Private (non-marketable) contract between two parties	Traded on an exchange
Large trades are not communicated to other market participants	Trades are immediately known by other market participants
Delivery or cash settlement at expiry	Contract is usually closed out prior to maturity
No cash paid until expiry	Range of delivery dates
Usually one delivery date	Cash payments into (out of) margin account daily
Negotiable choice of delivery dates, size of contract	Standardised contract

Source: Cuthbertson and Nitzsche (2001).

Cuthbertson and Nitzsche (2001) explained that, for this privilege, an investor should pay an up- front, non-returnable fee in order to purchase an option contract. This is an option price or premium because a future(s) contract does not confer the privilege of *walking away* from the agreement; it would cost nothing to purchase this type of contract.

The Libyan stock market, upon which this research focuses, can be considered as an auction market, not a negotiated market, where the arena in Libya is concerned with trading stocks of companies listed on the stock exchange, and where all transaction takes place through financial intermediaries called brokerage firms and brokers collect commission for their efforts, and where no type of transaction can occur in the national stock market which involves the dealers directly.

Indeed, the banking sector plays a key role in the stock market in Libya in both the primary and secondary market. In the former, as can be observed, most of the initial public offerings are conducted via the banking sector. They suggest appropriate details to the relevant companies, and all phases of subscription are conducted by banks. For instance, the system in the US differs; commercial, not investment banks are responsible for such transactions. In fact, these banks, not their investment counterparts, are responsible for such transactions and they offer the individual investors financial assistance to purchase securities. They participate in increasing activity by providing more liquidity to investors in the secondary market.

3. THE ROLE AND FUNCTION OF A STOCK MARKET

Stock markets and economic functions may not be distinct to many people but, in fact, they represent a relationship between the disparate sectors in social society between savers and producers as the saving sector needs to employ their savings in more beneficial and ambitious projects. Additionally, the productive sectors always require financial sources to assist them to continue to perform more in function of economy, in which stock market performance and functions of basic economy transfer funds from people who have amassed

surplus to those who have a paucity of funds (Henry, 2000).

Figure 2 shows that lender-savers must borrow funds from borrower-spenders to finance their spending in two ways. The first is an indirect transfer by financial intermediary institutions, such as banks and other commercial organisations, and the second is a direct transfer where borrowers obtain funds directly from lenders in the sale of financial instruments (security). As the financial intermediary holds the largest part of the investment to reduce the risk to the economy, and low interest rates would lead to increased investment, financial intermediary institutions work on the transfer of funds from lenders to borrowers more efficiently compared with the absence of these institutions. In other words, intermediary institutions have a better incentive to assume the risks resulting from the possession of investment instruments because they have huge financial possibilities allowing them to diversify their portfolios and reduce investment risk rate, which is assisted by the availability of its financial experts. Their specialists take advantage of a rising surplus from the management of purchasing and selling these investment tools.

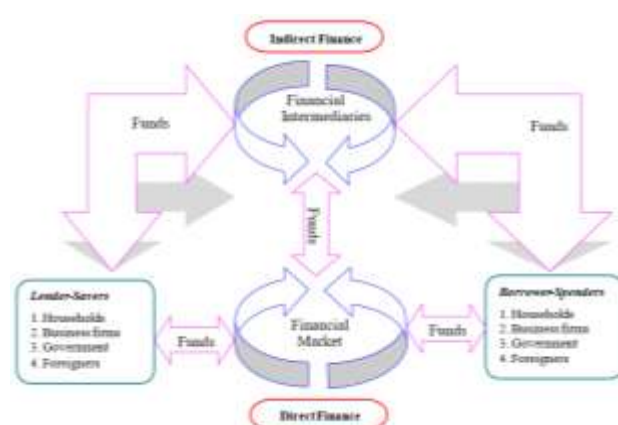


Figure 2. Flows of Funds through the Financial System
Source: Mishkin and Eakins (2003).

In addition to the previous discussion, the economic function of these markets can be identified thus:

1. To provide or increase the amount of financial resource available, as the stock market offers many opportunities for both creditors and civilians via the provision of multiple investment channels
2. To provide financial information and projects relating to various financial assets available in the stock market, regarding information of the financial situation of companies, thus reducing the cost of access to such information in terms of effort, time and risk .
3. To provide liquidity for owners of various financial assets
4. To assist in the development of diverse methods of financing (short, medium and long term) for the projects.

In point of fact, it can be observed how important a stock market is for the economy, since it allows movement of funds from persons who possess them and have no investment opportunities to those who enjoy these

opportunities, by using the stock market function to increase production and to achieve economic efficiency and improve the level of prosperity in society. Financial intermediaries are determined as being: commercial banks, savings banks, investment banks and specialised lending institutions, insurance companies, pension funds...etc. These institutions play the crucial role of mediator to transfer funds from lenders to borrowers; the common factor between these intermediaries is the possibility of accessing funds through the creation of the debt on the same (in deposits coffers), then borrowing from the public to invest these funds via the purchase of investment instruments “stocks, bonds”.

4. ESTIMATION PROCEDURE

In order to estimate the stock markets perform a central role in economic development worldwide. Theorists and researchers present diverse opinions whilst for arguing the importance of stock markets in increasing economic development in recent years by attracting and consolidating savings and other forms of capital, which is so critical for the development and growth of both the private sector and trade in general. This has increased the stock market’s role in commerce, information technology, communication and management. Patrick and Wai (1973) explained that markets were established to finance firms that were has been used in short-term of finance due to technological change and to finance government expenditures in the developed world economy. Singh (1999, p. 347) suggests three critical elements of a stock market which can improve economic growth:

- Increasing savings and investments,
- Improving the productivity of investments and • Raising the profitability of existing capital stock.

Greenwood and Smith (1997) stated that large stock markets are creating facilities in investments in the very productive technological areas. They further advocated that the facility providers are offering these services at lower rates. As large stock market companies have many customers, their returns remain the same or even higher than those holding small capital in the stock markets. It is also a fact that the money investors need their control somehow, but to maintain them in the stock market businesses, various stock markets are providing investors with liquid equity markets. Here, their investments become much safer and less vulnerable, but also more attractive. Put simply, investors can sell their shares as quickly as they wish. Cottle et al. (1962) argued that stock markets are so crucial as they can provide means for a continuous and liquid market for the exchange of outstanding and security issued. Tobin (1969) emphasized stock retuning as a significant link between the real and financial aspects of economic growth. Romer (1993), Boyle and Peterson (1995), Malliaropulos (1996) and Chami et al. (2006) have argued that the stock market is a vital conduit for monetary policy transmission which affects economic activity. They demonstrate that stock

markets can be a channel for this mechanism via the effect of inflation rates upon household equity holding. The most significant contribution to the theoretical literature of stock market development and economic growth has been used by Levine (1991), Bencivenga and Smith (1991), Diamond (1996) and Fulghieri and Rovelli (1998) which supported the stock market for economic growth and further held that stock market liquidity is necessary for economic growth. A little differently, Levine (1996) conducted an empirical study on 38 cases from developed and developing countries and inferred that stock markets might affect economic activity via the increase of liquidity. At this point an addition of increased liquidity could be the reason for a poor or slower growth rate in economic growth. However, this needs to be further investigated to establish what level of liquidity could guarantee economic growth. It has more to do with the secondary market, where stocks are traded, than the primary market, where stocks are issued, which can assist the new firms listed in increasing their capital. To alleviate their worries, liquid equity markets make investment less risky-and more attractive-because they allow savers to acquire an asset equity-and to sell it rapidly and inexpensively to facilitate the savers' access to their savings or in case they wish to alter their portfolios.

5. OUTCOMES

Stock markets are largely focused on data from developed countries; also, there are other studies that provide evidence from emerging markets. The majority of empirical studies of stock markets employ data from developed countries in order to support or disprove the theory by using extant empirical studies.

The capitalization of emerging stock markets rose from 1,083 \$bn in 1996 to 1,201 \$bn at the end of 2001, which represents approximately 12 per cent during the six-year period. The growth of capitalisation in emerging markets over 1996-2001 has been more volatile than growth in developed countries. In Thailand, for instance, the market

decreased 71 per cent, which suggests that both risk and reward in this part of the globe may be substantial. This compares with an increase in developed market capitalization for all world exchanges, showing total capitalization of corporate equity of 25,7 trillion US\$ in 2001, where the North American stock exchange comprised 13,2 trillion US\$, as weight in the world equity portfolio increased from 37 per cent in 1996 to 49 per cent in 2001. Indeed, world capitalization in 2001 was less than it was 2 years earlier and, in the entire Pacific Basin, it was less than it was in 1999. (Bodie et al., 2005).

Unlike the late 1980s and early 1990s, the period 1996-2001 witnessed a decline in the value of equities of the Pacific Basin growth of -4 per cent, but a rebirth in North America witnessed growth of 136 per cent and in European markets of 104 per cent (Bodie et al., 2005). These numbers demonstrate that the economic position of countries is just as variable as the stock prices that capitalize the future value of the particular corporate sectors of these economies.

In order to support or refute the theoretical underpinnings of observed correlations found, studies have been conducted by Fabozzi et al. (2002) which provided empirical evidence regarding the correlation coefficient for the stock market indexes of eight developed countries' markets during the 1970 to 2000 period, and Standard and Poor's (2007) between 2001 to 2006 as depicted in Table 2.

The correlation coefficient has a maximum value of 1.00, which occurs if two variables, such as rates of return on groups of stocks from two different countries, persistently move in the same direction; a minimum value of -1.00 occurs if two variables always move in the exact opposite way. Thus, any variable has a correlation of 1.00 with itself, which means that it moves in precisely the same way. In the US, for instance, the index moves just as the US index does, and so the correlation of the US index with itself is 1.00. Germany's stock market, for instance, has correlation coefficient of 0.61 with France's market during 1970 to 2000 and 0.96 from 2001 to 2006, which implies that these two markets do not move in parallel but rather move identically for much of the time.

Table 2. Correlation Coefficients of Selected Developed Market Stock Indexes during 1970-2000

COUNTRY	US	FRANCE	UK	JAPAN	GERMANY	SWITZERLAND	CANADA	AUSTRALIA
US	1.00	0.44	0.51	0.29	0.38	0.49	0.71	0.47
France		1.00	0.54	0.39	0.61	0.60	0.44	0.37
UK			1.00	0.36	0.43	0.56	0.50	0.47
Japan				1.00	0.36	0.41	0.30	0.30
Germany					1.00	0.67	0.34	0.30
Switzerland						1.00	0.44	0.39
Canada							1.00	0.59
Australia								1.00

Source: Fabozzi et al. (2002).

Table 2. Continued: Correlation Coefficients of Selected Developed Market Stock Indexes during 2001-2006

COUNTRY	US	FRANCE	UK	JAPAN	GERMANY	SWITZERLAND	CANADA	AUSTRALIA
US	1.00	0.88	0.82	0.32	0.89	0.75	0.72	0.69
France		1.00	0.91	0.33	0.96	0.86	0.73	0.72
UK			1.00	0.35	0.88	0.84	0.71	0.76
Japan				1.00	0.31	0.45	0.50	0.44
Germany					1.00	0.84	0.70	0.70
Switzerland						1.00	0.64	0.67
Canada							1.00	0.81
Australia								1.00

Source: Standard & Poor (2007).

Although there are some points which can be observed from the correlation statistic, as Table 2 illustrates, the highest coefficient is (0.71) between the US and Canada during 1970 to 2000, with many values less than 0.50. Furthermore, geographical and political alliances influence the correlations where stock prices in Germany and Japan move less similarly (0.36) than do prices in Germany and France (0.61) or prices in the US and Canada (0.71). During 2001 to 2006 the highest coefficient is (0.96) between France and Germany, with many values less than 0.31. Investors looking for diversification must select carefully from among the various markets. In addition, all the correlations are positive and greater than zero because the world's stock prices are similar to their economies, i.e. somewhat integrated.

To this end, the numerous developing countries lessened the roles of their stock markets in economic development in contrast to their counterparts in the developed world. Foreign dominance over many businesses and family-owned enterprises trivialised the requirement for stock markets since capital was concentrated in the hands of a few families and foreign companies who were financed from abroad. Mullin (1993) argues that the annualised equity returns for many developing countries during the 1976-1992 period exceeded 20 *per cent* (e.g. Argentina, Chile, South Korea). Additionally, during the same period annualised equity returns for the US were 16 *per cent* and for Japan 17 *per cent*. A more dramatic instance is that of Chile and Mexico where, between 1990 and 1992, equity returns soared to almost 60 *per cent* per annum.

6. SUMMARY AND CONCLUSION

The findings of this paper contribute towards a better understanding of stock market development related to

economic growth. There are many factors which have helped financial markets to gain prominence during the 1990s in many countries of the world, such as increasing the private sector's role in various economic activities, cutting edge technological advances and the phenomenal speed of access to financial information. In addition there have been advances in modes of communication and the emergence of new and effective financial tools besides new legislation that guarantees freedom of trade and movement of capital. All of these indicate the significance of stock markets, providing further opportunities for growth. Fortunately, the last few years have witnessed an increase in the importance of developing and establishing stock markets across the Arab world, whatever the reason underlying the establishment of a particular stock market, which bears many advantages such as reducing the costs of financing and vital contributions to a nation's capital market. As a result, stock markets were established in Bahrain, Egypt, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Saudi Arabia, Tunisia etc...besides various other nations worldwide.

As is evident from theoretical and empirical studies, the stock market has played a significant role within both the advanced economy and the emerging market. More specifically, this study found that the links between economic variables with growth are extremely significant. These indicators are either quantitative or qualitative. The active-features are stock market size in terms of market capitalisation ratio, having positive significance correlated with real per capita GDP, market liquidity and activity in terms of value traded, turnover, and further having a positive significant with growth, namely that market volatility has negatively and insignificantly correlated with real per capita GDP growth. The qualitative indicators feature such elements as lack of institutional development, limits on openness to foreign portfolios and financial disclosure.

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