FEMISE RESEARCH PROGRAMME

2008-2009

Financial Systems in Mediterranean Partners and the EURO-Mediterranean Partnership

Research n°FEM33-20
Directed By
Simon Neaime, Institute of Financial Economics, American University of Beirut, Beirut, Lebanon

In collaboration with:

Nidal Sabri, Birzeit University, Palestine

December 2009

Ce rapport a été réalisé avec le soutien financier de l'Union Européenne au travers du Femise. Le contenu du rapport relève de la seule responsabilité des auteurs et ne peut en aucun cas être considéré comme reflétant l'opinion de l'Union Européenne.

This document has been produced with the financial assistance of the European Union within the context of the FEMISE program. The contents of this document are the sole responsibility of the authors and can under no circumstances be regarded as reflecting the position of the European Union.

Financial Systems in Mediterranean Partners and the EURO-Mediterranean Partnership

RÉSUMÉ EXCECUTIF

Cette étude représente une analyse détaillée des systèmes financiers des partenaires méditerranéens. Dans une première partie l'étude décrira les fonctions majeures et les traits des systèmes financiers des partenaires méditerranéens, puis elle fera le point sur une analyse des liens quantitatifs et qualitatifs entre systèmes financiers et croissance économique des partenaires méditerranéens. Les profiles des pays seront présentés pour exposer les grandes lignes des caractéristiques clés des systèmes financiers actuels dans 7 des économies des partenaires méditerranéens. Par ailleurs les règlementations et pratiques du secteur financier des partenaires méditerranéens comparées aux normes internationales seront évaluées pour mettre en exergue le décalage qui existe entre les normes appliquées par les systèmes financiers des partenaires méditerranéens relativement aux normes de l'UE et aux normes internationales de même. De plus l'étude surlignera les règlementations prudentielles (Bale II par exemple) ainsi que les mécanismes de contrôle et d'efficacité informationnelle, de même que la profitabilité des banques des pays-Med et la contribution du système bancaire en termes d'offre de crédits au secteur privé et en termes de mobilisation des capitaux pour de nouveaux projets d'investissements. En plus l'étude mettra en évidence une évaluation des risques de crédits ainsi que les pratiques de gestion des risques de crédits. En outre des recommandations pour le développement du cadre règlementaire pour les marchés financier des partenaires méditerranéens en question seront présentées dans le but de servir les objectifs interconnectés de croissance économique et d'intégration et libéralisation financière. Le problème d'efficience des marchés boursiers des Pays-Med sera exploré pour voir si les fonds sont entrain d'être alloué efficacement envers des investissements productifs. Quant au problème de l'intégration des marchés boursiers dans la région méditerranéenne il sera étudié dans le but de conclure si ces marchés sont intégrés dans la région. Par ailleurs une analyse économétrique plus formelle sera conduite pour mieux comprendre les principaux déterminants de croissance économique et développements financiers dans la région MED tout en surlignant le rôle des instruments financiers dans le développement économique des partenaires méditerranéens.

Les principaux résultats et recommandations auxquels a abouti cette étude sont les suivants :

1. Bien que les systèmes bancaires des pays-Med jouent toujours un rôle important et majeur dans la canalisation des fonds vers les différents secteurs économiques, ces systèmes n'offrent toujours pas les services et produits financiers qui sont cruciaux pour garantir la durabilité de la croissance économique.

2. Les banques des pays-Med ont besoin d'introduire de nouveaux produits financiers pour développer leurs marchés de crédit

3. L'efficience informationnelle des marchés des crédits dans la région-Med est inférieure à la moyenne des autres économies émergentes dans le monde. Ceci est un facteur qui limite et empêche l'expansion des marchés de crédits dans cette région.

4. Le système bancaire des pays-Med souffre de l'insuffisance des moyens d'évaluation des projets d'investissements ainsi que pour l'évaluation des directeurs des banques. Dans la plupart des cas les fonds ne sont pas canalisés vers les projets d'investissements les plus productifs alors que les coûts de financement de ces projets sont souvent plus élevés que ceux qui existent dans des économies plus développées.

5. Il est exigé de la part des banques des pays-Med d'établir de nombreuses préparations pour qu'elles puissent bénéficier de l'accord de Bale II. Il est requis de ses banques de remettre en question leurs procédures de crédits actuelles, elles devraient de même varier la gamme de leurs fonctions de gestion de crédits, tout en développant l'importance de ces fonctions, et de rénover leurs systèmes d'information et de technologie (IT)

6. Les marchés financiers des pays-Med devraient être plus transparents. La divulgation proactive des informations financières est toujours faible et parfois même absente. C'est une raison parmi d'autre qui fait que les marchés boursiers des pays-Med ne sont toujours pas capables de canaliser efficacement les fonds vers des investissements productifs. Le système bancaire de ses pays est toujours la source majeure des fonds qui vont vers la majorité des projets entrepris dans ses pays.

7. Les pays-Med sont entrain de dévouer de véritables efforts pour développer leurs systèmes de comptabilité pour aboutir à plus de transparence et pour une meilleure divulgation d'informations. A l'exception de l'Egypte et du Maroc, les engagements extérieurs nets du secteur financier des pays-Med sont relativement bas, ceci est dû au niveau élevé des restrictions imposées par les pays-Med sur les flux de capitaux dans cette région.

8. A l'exception de l'Egypte, du Maroc et de la Tunisie, les systèmes de taux de changes dans la région-Med sont soit fixés au dollar Américain soit à un panier de devises. Ceci constituera un problème au cas où le compte de capital est libéralisé rapidement. Si c'est effectivement le cas alors le flux de capital à court-terme entrant et sortant de la région se fera à un rythme très rapide qui causera une dépréciation de la monnaie ainsi qu'une perturbation du système financier et une perte des réserves en devises étrangères.

9. Les marchés de capitaux des pays-Med montrent récemment signe de performance positive en termes de croissance, liquidité et transparence. De plus en plus d'investissements sont attirés vers la région et les marchés ont tendance à devenir plus ouverts. Malgré cela il reste encore beaucoup d'efforts à faire afin de parvenir à une libéralisation totale des capitaux.

10. Les marchés boursiers des pays-Med ont une forme d'efficience informationnelle faible. Une efficience forte aurait aidé à réduire les coûts d'information et aurait permis de surmonter les problèmes d'asymétrie de l'information et d'améliorer l'allocation des ressources ainsi que de développer la croissance tout en garantissant que les capitaux sont alloués à des projets qui ont le potentiel d'avoir un taux de rendement élevé. Les marchés financiers des pays-Med ont encore besoin d'être plus transparents. La divulgation des informations financières est toujours faible et parfois même totalement absente. C'est une raison parmi d'autre qui fait que les marchés boursiers des pays-Med ne sont toujours pas capables de canaliser efficacement les fonds vers des investissements productifs

11. Le système bancaire des pays-Med est toujours la source majeure des fonds de plusieurs projets entrepris par ces pays. De plus nous étions capables de prouver que la région MED est en procès de maturation et qu'elle est sur le point de devenir la prochaine « région émergente ». Nos résultats ont également mis en doute jusqu'à quel point les marchés des pays-Med sont régionalement intégrés. Bien que cela entrave le flux de capitaux intra-régional ainsi que la croissance dans la région-Med, mais au cas où une crise éclate dans un des marchés financiers de la région ses effets seront rapidement diminués et les pertes financières seront minimisées.

12. Nous avons montré de même que l'Egypte, la Jordanie, la Grèce et la Turquie ont un développement modéré de leurs marchés de capitaux avec un taux de liquidité faible ainsi qu'un faible taux de roulement d'une part, et d'autre part une propriété concentrée des marchés avec une limitation des genres d'instruments financiers échangés. Cependant notre échantillon représentatif a témoigné une amélioration significative dans le secteur financier durant les deux dernières décennies. Cette amélioration comprend l'augmentation du nombre des titres cotés en bourse, le capital échangé, la capitalisation boursière des actions et obligations ainsi que l'introduction de nouveaux produits tels que les fonds communs de placements, les instruments dérivés pour la partie Nord de notre échantillon.

13. Les modèles de régression Panel de notre base de données, dans lesquels la variable dépendante était la croissance économique, ont montré que la profondeur financière contribue amplement à la croissance du PIB dans la région-Med. Ce résultat est conforme avec les résultats de King et Levine (1993) qui avaient trouvé qu'il existait une relation positive entre développement des marchés financiers et croissance économique dans un contexte intra-pays. Les résultats ont montré de même que l'épargne nationale avait un coefficient positif et que ce dernier était significatif et robuste. Ceci représente clairement une évidence que malgré le fait que 7 des pays-Med génèrent suffisamment d'épargne au point qu'elle permette une contribution

positive a la croissance, mais ces pays n'ont pas réussi à utiliser ces épargnes a travers un marché financier efficace qui puisse stimuler encore plus d'investissement et conséquemment stimuler la croissance économique.

14. D'autres résultats empiriques montrent que les coefficients des variables d'investissement et d'inflation sont négatifs ce qui n'est pas conforme avec nos expectations ni avec notre partie conceptuelle. L'estimateur du coefficient de la part de la dette externe dans le PIB est révélé être négatif et statistiquement insignifiant, ce qui signifie que le poids de la dette externe pourrait avoir contribué négativement au ralentissement observé de la croissance économique dans les pays de la région MENA. Les obligations de la dette absorbent une fraction importante des ressources qui auraient pu être mobilisées pour des investissements. Quant aux résultats observés pour les autres variables, ils doivent être interprétés avec une prudence extrême à cause de l'hétérogénéité qui puisse exister entre les types de croissance des sept pays étudiés.

15. Des réformes des marchés financiers sont entrain d'être implémentées à un rythme lent dans la région-Med. Néanmoins, à cause des comptes de capitaux qui sont relativement protégés, les réformes financières peuvent prendre place sans une crise financière imminente de l'horizon. La levée des barrières existantes sur les flux de capitaux doit se faire petit à petit afin d'être en parallèle et sur le même rythme avec les reformes financières.

16. Il est prévu que la région-Med aille vite sur les réformes financières, ce qui lui permettra d'être ouverte pour les capitaux étrangers, ce qui est un élément essentiel pour une intégration plus approfondie avec l'UE ainsi que pour une croissance soutenable. Ceci se fera au moment où l'émergente région-Med prendra la tète en ce qui concerne l'attraction du capital International Européen, un capital qui avait déjà reçu plusieurs coups a la veille de la crise dans l'Est de l'Asie, le Japon, la Russie et l'Amérique Latine, ainsi qu'après les événements du 11 Septembre aux EU et suite à la dernière crise financière qui a récemment déclenché aux EU.

.

Institute of Financial Economics

PROJECT FEM 33-20

Title of Project

Financial Systems in Mediterranean Partners and the EURO-Mediterranean Partnership*

Research Director

Simon Neaime
(sn01@aub.edu.lb)

*This document had been produced with the financial assistance of the European Union within the context of the FEMISE program. The contents of this document are the sole responsibility of the authors and can under no circumstances be regarded as reflecting the official opinion of the European Union. Participant in this research project is Nidal Sabri as senior researcher (Birzeit University).

Do not cite without the final approval from FEMISE

December 2009

Institute of Financial Economics, American University of Beirut-Beirut, Lebanon.
P.O.Box: 11-0236. Fax (9611) 744484-Tel (9611)744485

Financial Systems in Mediterranean Partners and the EURO-Mediterranean Partnership

TABLE OF CONTENTS

Contents

ABBREVIATIONS 1
EXECUTIVE SUMMARY 3
I. Introduction 6
II. Links Between Financial Systems and Economic Growth 9
II.1. Pooling of Risks 9
II.2. Moral Hazard 10
II.3. Efficiency and Risk Control 10
II.4. Links Between Finance and Growth 11
III. Measures of MPs Banking Developments 12
III.1 Overview 12
III.2 Egypt 14
III.3 Lebanon 15
III.4 Morocco 15
III.5 Tunisia 16
III.6 Algeria 16
III.7 Jordan 17
III.8 Turkey 18
III.9. Basel II 19
IV. Recent Stock Market Trends in MPs Countries 20
IV.1. Egypt 21
IV.2. Lebanon 22
IV.3. Morocco 22
IV.4. Tunisia 23
IV.5. Algeria 24
IV.6. Jordan 24
IV.7. Turkey 24
IV.8. Financial Market Efficiency of MPs Stock Markets 25
IV.9. Regional Financial Integration of MED Stock Markets 27
V. Systemic Risks of MPs 28
V.1.Egypt 32
V.2. Lebanon 32
V.3. Morocco 33
V.4. Tunisia 34
V.5. Algeria 36
V.6. Jordan 37
V.7. Turkey 38

VI. Empirical Analysis 39
VII. The Role of Financial Instruments in Economic Development of MED Partners 42
VII.1. Overview 42
VII.2. Review of Literature 43
VII.3. Methodology 44
VII.4. Empirical Results 45
VII.4.1. Turkey 45
VII.4.2. Greece 46
VII.4.3. Jordan 47
VII.4.4. Egypt 48
VII.4.5. The Collective Sample 49
VII.4.6. Comparison between regions and economic measures 49
VII.4.7. Concluding Remarks 50
VIII. Conclusions and Policy Implications 50
References 54

LIST OF TABLES

III.1 Overview ……………………………………………………………… 12

Table 1. Measures of MED Banking Developments: 1990-2008 ……… 13

IV. Recent Stock Market Trends in MPs Countries…………………. 20

Table 2. Measures of MED Stock Market Developments: 1989-2008….. 21

IV.8. Financial Market Efficiency of MPs Stock Markets……………. 25

Table 3. Market Efficiency Tests... 27
Table 4. Summary of Pair wise Granger Causality Patterns……………… 28
Table 5. Summary of Country Profiles of MED Countries……………….. 31

VII.4.1. Turkey…………………………………………………………….45

Table 6. Correlation Between Financial Instruments and Economic Development Indicators in the Turkish Economy…………………………………………45

VII.4.2. Greece………………………………………………………………. 46

Table 7. Correlation Between Financial Instruments and Economic Development Indicators in the Greek Economy…………………………………………. 47

VII.4.3. Jordan…………………………………………………………….. 49

Table 8. Correlation Between Financial Instruments and Economic Development Indicators in the Jordanian Economy……………………………………… 48

VII.4.4. Egypt…………………………………………………………….. 48

Table 9. Correlation Between Financial Indicators and Economic Development Indicators in the Egyptian Economy……………………………………… 48

VII.4.5. The Collective Sample………………………………………… 49

Table 10. Ranking the Association of Financial Instruments to the Economic Growth Based on the Average Correlation Value for all Selected Economies…….. 49

VII.4.6. Comparison between regions and economic measures……….. 50

Table 11. Average Correlation of Financial Instruments to Economic Growth Based on North- South Mediterranean and GDP vs. GFCF………………………50

ABBREVIATIONS

ADF	Augmented Dickey-Fuller
ADR	American Depositary Receipt
AFM	Amman Financial Market
AIC	Akaike Information Criterion
AMOC	Alexandria Mineral Oil Company
ASE	Amman Stock Exchange
BIS	Bank for International Settlements
BRSA	Banking Regulatory and Supervisory Authority
BSE	Beirut Stock Exchange
CLGDP	Claims on non-financial private sector relative to GDP
CBE	Central Bank of Egypt
CBJ	Central Bank of Jordan
CBRT	Central Bank of the Republic of Turkey
CDs	Certificate of Deposit
CSE	Casablanca Stock Exchange
DOMCR	Claims on non-financial private sector relative to Domestic Credit
DZD	Djazaïr Dinar (Algerian national currency)
EBRD	European Bank for Reconstruction and Development
ECB	European Central Bank
EDGDP	External Debt to Gross Domestic Product
EFTs	Exchange Traded Funds
EGX	Egyptian Exchange
EIB	European Investment Bank
EP	Egyptian Pounds
ERSAP	Economic Reform and Structural Adjustment Program
EU	European Union
FD	Financial Depth
FD	First Difference
FDI	Foreign Direct Investment
FEMIP	Facility for Euro-Mediterranean Investment and Partnership
FS	Financial Stability
G10	The Group of Ten
GDF	Global Development Finance
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GOV	Government expenditures
IBM	International Business Machines
IFC	International Finance Corporation
IMF	International Monetary Fund
IMF-IFS	International Financial Statistics of the International Monetary Fund
IPOs	Initial Public Offering
ISE	Istanbul Stock Exchange
IT	Information and Technology
ITA	Information Technology Agreement
JD	Jordanian Dinar
LAS	League of MED States
MED	Mediterranean

MEDA Political MED partnership relations with regard to Barcelona Declaration (French abbreviation for: «mesures d' accompagnement»)

MPs	Mediterranean Partner Countries
SDC	Securities Depository Centre
SEC	Securities and Exchange Commission
SME	Small and Medium Enterprise
TSE	Tunis Stock Exchange
TurkDEX	Turkish Derivatives Exchange
$	United States Dollar
WDI	World Development Indicators
WFE	World Federation of Exchanges
YTL	Yeni Türk Lirasi, Turkish Lira

EXECUTIVE SUMMARY

This study presents an in-depth analysis of the MPs financial systems. It first describes the main functions and features of the MPs financial systems, and then analyzes the quantitative and qualitative linkages between MPs financial systems and economic growth. Country profiles are presented to outline the key characteristics of the current financial systems in 7 MPs economies. Financial sector regulation and practices in the MPs compared to international standards/norms are also evaluated, emphasizing the gap between the applied standards of MPs' financial system relative to EU/international standards. In particular, considerations of prudential regulation (for example, Basel II), the mechanisms of informational efficiency and control, MED banks profitability, the contribution of the banking systems in providing credits to the private sector and in raising capital for new investment projects, and an evaluation of credit risk and credit risk management practices, are carefully highlighted. Recommendations for the development of the regulatory framework of the respective MPs financial markets with the purpose of serving the inter-connected objectives of economic growth and financial integration and liberalization are also highlighted. The issue of MED stock markets efficiency is explored to see whether funds are being efficiently allocated to productive investments. The issue of stock market integration in the MED region is also studied for the purpose of establishing whether these markets are regionally integrated. A more formal econometric analysis is conducted to understand the main determinants of growth and financial developments in the MED region highlighting the role of financial instruments in economic development of MPs.

The main results and policy recommendations of the study are as follows:

(1) Although the MED banking system is still playing an important and major role in channeling funds to various sectors of the economy, it is still not providing the kind of services and financial products that are needed to further sustain growth.

(2) MED banks still need to introduce new financial products to better develop its credit markets.

(3) Informational efficiencies of credit markets in the MED region are much lower than averages in other emerging economies worldwide. This factor is also hindering the expansion of credit markets in the region.

(4) The MED banking system is suffering from the lack of proper evaluation of investment projects and bank managers. In most instances funds are not channeled to the most productive projects and the costs of financing these projects are often higher than those present in more developed economies.

(5) A lot of preparation is still required on the part of MED banks before they can fully enjoy the benefits of the New Basel II Accord. Banks will have to still review their current credit processes, expand the range and significance of their risk

management functions, and upgrade their Information Technology (IT) systems.

(6) MED financial markets still need to be more transparent. The disclosure of financial information is still weak and sometime totally absent. This is one of the reasons why until now MED stock markets have not yet been able to properly and efficiently channel funds to productive investments. The MED banking system is still the major source of funds for many of MED projects undertaken.

(7) MED countries are devoting genuine efforts to develop their accounting systems for better transparency and information disclosure. With the exception of Egypt and Morocco, it was shown that net external liabilities of the financial sector are relatively low for all the MED economies. This is due to high restrictions on capital flows to the MED region.

(8) With the exception of Egypt, Morocco, and Tunisia, all exchange rate systems in the MED region are either fixed to the dollar or to a basket of currencies. This would constitute a problem if the capital account were liberalized at a fast pace. If that were the case, then short-term capital would flow in and out very quickly causing currency depreciations a disruption of the financial system and a loss of foreign currency reserves.

(9) MED's capital markets are showing positive performances in recent years particularly in terms of growth, liquidity and transparency. More investment is being attracted to the region and markets are heading towards more openness. However, much more can still be done to reach full liberalization.

(10) MED stock prices are weak form efficient. A strong form efficient financial market helps reduce information costs, overcome problems of asymmetric information, improve resource allocation and enhance growth by ensuring that capital is allocated to projects with the potentially highest returns. MED financial markets still need to be more transparent. The disclosure of financial information is still weak and sometime totally absent. This is one of the reasons why until now MED stock markets have not yet been able to properly and fully channel funds to productive investments.

(11) The MED banking system is still the major source of funds for many of MED projects undertaken. We were also able to confirm that that the MED region is maturing and on the verge of becoming the next 'emerging region'. Our results have also cast doubt about the extent to which the MED markets are regionally integrated. Although, this is hindering the intra-regional flow of capital and growth in the MED region, however, in the case of a crisis erupting in one of the region's financial market, its effects might be dampened quickly and financial losses minimized.

(12) It was also shown that Egypt, Jordan, Greece and Turkey have moderate financial markets developments with low liquidity and turnover, highly concentrated ownership, and limited types of traded financial instruments. However, the selected sample witnessed a significant improvement in the financial sector during the last two decades. This includes an increasing number of listed securities, trading value, market capitalization for shares and bonds, as well a the introduction of new products such as mutual funds and derivates instruments in the Northern part of the sample.

(13) Panel data regression models with growth as the dependent variable have shown that financial depth contributes significantly to GDP growth in the MED region. This result is in line with those of King and Levine (1993), who found a positive association between financial system development and economic growth in a cross-country context. It was also shown that national savings has a positive, significant and robust coefficient. This presents clear evidence that while the 7 MED countries are generating enough savings to contribute to growth, they did not succeed in using those savings through an efficient financial market to further stimulate investment and growth.

(14) Other empirical results show that the coefficients on investment and inflation are negative and insignificant which is not consistent with our expectations and related literature. The coefficient estimate of external debt as a share of GDP was negative and statistically not significant, which indicates that the burden of external debt may have contributed negatively to the observed slow growth in MENA countries. Debt obligations absorb an important fraction of resources that could be mobilized for investment purposes. The results on the other variables need to be interpreted with extreme cautious due to the potential heterogeneity in growth patterns among the seven countries.

(15) Financial reforms are indeed taking place although at a slow pace in the MED region. However, because of its relatively protected capital account, financial reform can take place without a financial crisis looming in the horizon. Removing barriers to capital flows should be slow and move in conjunction with financial reforms.

(16) The MED region is now expected to move fast on those financial reforms, which will enable it to open up for foreign capital, an essential element for deeper integration with the EU and for sustained growth. This at a time when the emerging MED region is expected to take the lead in attracting European international capital which took various hits after the crisis in East Asia, Japan, Russia and Latin America, the events of September 11th in the US, and the very recent US financial crisis.

Financial Systems in Mediterranean Partners and the EURO-Mediterranean Partnership

I. Introduction

The recent financial crisis that has erupted in the United States (US) has led to sharp declines in the currencies, stock markets, and other asset prices of many countries worldwide threatening these countries' financial systems. In addition to its severe effects in North America, the crisis has put pressure on emerging markets outside the region contributing to fast declines in their stock markets and GDP growth rates. One of the reasons the crisis escalated so quickly stems from credit derivatives and related derivative product risks, as well as the mortgage market bubble. Weaknesses in the financial sectors of some Mediterranean Partners[1] (MPs) made the fast transmission of the financial crisis in the region a source of concern, and have undermined the recent integration efforts of those countries with the European Union (EU). In addition, some MPs still suffer from a combination of inadequate financial sector supervision, poor assessment and management of financial risk, and the maintenance of fixed exchange rates. These factors among others had accentuated the effects of the crisis in the region. Although globalization issues and the financial integration of the MPs financial systems with the more mature financial markets of the EU where among the main reasons why the crisis affected the region, it was accentuated by governance issues, notably government involvement in the private sector and lack of transparency in corporate and fiscal accounting.

While economists recognize the influence of financial liberalization on corporate investment decisions and economic growth, this relationship is not at all straightforward or well understood in the MED region. For example, countries like Syria and Jordan, have managed to achieve high growth rates while maintaining, until relatively recently, substantial government controls on their financial systems. Other countries like Lebanon and Egypt for example, achieved higher growth rates with significantly liberalized financial systems. In the light of the US financial crisis, one can argue that with a well-developed institutional infrastructure, i.e. adequate prudential regulation in banking, bankruptcy laws, accounting systems and laws and regulations ensuring transparency of the financial and non-financial sectors, direct controls of the financial markets are unwise. Otherwise, in the absence of such measures government controlled financial systems might be considered a second best alternative to avoid disruptions to economic growth.

On the other hand, and despite recent progress in the financial market liberalization and modernization of MPs, the stylized facts point to their still insufficient capacity to channel financial resources efficiently towards productive investments, and as a consequence, sustain the high rates of economic growth needed in the region to face the challenge of enhanced economic integration with the EU and the rapidly expanding populations. By and large, the EU has long been involved in cooperation initiatives in favor of MPs economies within the framework of the Euro

---

[1] Eleven countries in the Southern Mediterranean region and the Palestinian Authority implemented or are continuing to negotiate bilateral trade agreements with the EU. These southern Mediterranean partner countries are Algeria, Cyprus, Egypt, Israel, Jordan, Lebanon, Malta, Morocco, Syria, Tunisia, and Turkey. Cyprus and Malta became full members of the EU. Turkey had planned to join the EU in 2004, however no date is set for Turkey to formally join the EU as of yet. In this study, we focus on the Arab MPs with similar economics and financial characteristics: Algeria, Egypt, Jordan, Lebanon, Morocco, Tunisia, and Turkey. Syria is excluded due to lack of financial data.

Mediterranean Partnership Agreements launched in 1995, and different instruments have been put in place to support modernization and financial market reforms (recent examples are: MEDA, Neighborhood Policy Instrument, FEMIP, and the 2008 transition conference held in Brussels). However, the limited results obtained so far in bridging the gap between the shores of the Mediterranean have stimulated a reflection on the interventions necessary to make the EU's action more effective.

In recent years, MPs have intensified reforms aimed at addressing the priority challenges for their economies: modernizing and liberalizing their financial markets to respond to the new challenges of regional and international financial integration, and enhance growth rates to the level needed to absorb the pressure exerted on the job market by a rapidly growing labor force. Significant achievements have indeed been reached in the opening up of those economies to international competition and, to a more limited extent, in improving their business climate. For instance, according to a recent report of the World Bank[2], growth stimulating liberalization measures introduced in Egypt ranked this country as the top reformer worldwide in 2006 and 2007. Particular attention should be paid in this field to financial intermediation, given its essential role in promoting an efficient resource allocation in support of economic development.

The EU has long been involved in cooperation initiatives in favor of MPs economies. In the framework of the Euro-Mediterranean Partnership, the main financial instruments have been the EU Commission managed aid program – initially funded through the MEDA budget line, now included in the new Neighborhood Policy instrument – and the activities of the European Investment Bank (EIB): overall, the EU is the main provider of financial assistance in the area, with nearly 3 billion euros a year in grants and loans.

Between 1995 and 2006, the European Commission allocated euros 9 billion to support modernization and economic reforms in MPs. New capital of about euros 3.2 billion has been allocated to the region for 2007-2010. The sizeable credit interventions of the EIB (channeled, since 2002, through a specific facility called FEMIP) have recently registered a further increase, with euros 10.7 billion allocated for the period 2007-2013, against euros 6 billion invested between 2002 and 2006 in the nine countries of the South-Eastern shore of the Mediterranean.

The EU governments have been especially active in supporting a greater European commitment towards the Southern shore, to be reached through an adjustment of the financial cooperation instruments. Recently, Italy and Spain have built on the past proposal of creating a Euro-Mediterranean Bank, adapting it to the evolved context and devising a project for the creation of an agency in support of the private sector in the Mediterranean (*Mediterranean Business Development Agency*). On a wider front, the French diplomacy is particularly active in support of the idea of upgrading the Euro-MED partnership into a deeper Mediterranean Union. Alongside European initiatives are the requests of the Mediterranean partner countries for a greater ownership and a more significant participation in the relevant decision processes. However, the limited results reached so far through the Euro-MED Partnership in closing the development gap between the shores of the Mediterranean have stimulated a reflection on the interventions necessary to make the EU's action more effective. Moreover, it is believed that weaknesses in the MED financial sector are also behind the poor results achieved so far. Among future priorities, the need is particularly felt to better coordinate the use of funds allocated by different EU

---

[2] World Bank's *Doing Business 2008*.

sources, and strengthen the relationship among various international institutions operating in the region (e.g., European Commission, EIB, EBRD).

With the above in mind, we argue that while financial development has been conducive to economic growth in the MED region, the development of systems to oversee and regulate financial systems has lagged behind policies promoting domestic and external liberalization. This lag – which adds to an economy's "systemic risk"[3]– can make some MED economies very vulnerable to external sources of risk, such as international financial crisis as well as large inflows of capital, and undermine their ability to sustain growth. We argue that assessing an economy's underlying systemic risks is particularly important for all potential investors. For this purpose, this study examines the financial systems in the MED Economies (i.e., their banks, stock markets, money and capital markets, insurance and securities firms, prudential oversight and legal and regulatory frameworks), and the role of these systems in the region's economic growth and economic integration experiences. This examination, it is hoped, will not only contribute to a better understanding of the functioning of the MED financial markets, but also of the regulatory framework which needs to be developed to achieve higher growth rates than in the past. This study also presents policy makers in the MED region with the essential policy recommendations to better cope with the recent integration efforts with the EU, as well as with the introduction of the Basel II Accord and its implications on the banking system.

The aim of this study is to first present an in-depth analysis of the MPs financial systems. The study, and for the first time, presents a comprehensive analysis of the financial and regulatory structures of 7 MPs. It first describes the main functions and features of the MPs financial systems, and then analyzes the quantitative and qualitative linkages between MPs financial systems and economic growth. To understand these linkages in detail, we present country profiles that outline the key characteristics of the current financial systems in 7 MPs economies. The main differences, as well as common features, among these systems are thoroughly discussed. Financial sector regulation and practices in the MPs compared to international standards/norms will also be evaluated, emphasizing the gap between the applied standards of MPs' financial system relative to EU/international standards. In particular, considerations of prudential regulation (for example, Basel II), the mechanisms of informational efficiency and control, the efficiency of Mediterranean banks' portfolios, MED banks profitability, the contribution of the banking systems in providing credits to the private sector and in raising capital for new investment projects, and an evaluation of credit risk and credit risk management practices, are carefully highlighted. This project then includes recommendations for the development of the regulatory framework of the respective MPs financial markets with the purpose of serving the inter-connected objectives of economic growth and financial integration and liberalization. We identify those areas where the MPs practices and standards may be deficient or inefficient with regard to best international practice, and which may lead in turn to rents/excess profits, in comparison to those aspects which reflect the specificity of their respective economies. It will also be useful to stress those areas where reforms and actions are most urgently needed given the need for financing and investment in the region.

[3] We use the term "Systemic Risk" to describe a disturbance in financial markets involving unanticipated changes in prices and quantities, which can cause financial firms to fail and which threatens to spread and disrupt the payments mechanism and the capacity of the financial system to allocate capital (Davis 1992:117).

This research project also investigates the connection between finance and development in the MED region. It considers what should be done in order to improve enterprise financing, examining the respective roles of regional policy makers and market players, as well as the potential contribution of major international partners, with particular attention to Euro-Mediterranean financial cooperation initiatives and instruments. Finally, this project analyzes the impact of such financial sector reform on savings, growth and employment.

The rest of the study is divided as follows. The next section first pertains to a brief discussion of the inter-relationship between economic growth and financial liberalization. The third section takes a closer look at the latest banking developments in the MED region. The Basel II Accord and its implications on the MED banking system are highlighted also in section III. Section IV looks at MED stock markets and their recent trends, as well as stock market integration and efficiency. Section V analyses systemic risks and evaluates the risks of a financial crisis. It also includes recommendations for the development of the regulatory framework of the respective MED financial markets with a view to serving the inter-connected objectives of economic growth and financial liberalization. Section VI provides a more formal econometric analysis to understand the main determinants of growth and financial development in the MED region. Section VII highlights the role of financial instruments in economic development of the MED Partners. The last section concludes the study with some policy implications.

II. Links Between Financial Systems and Economic Growth

Financial systems include institutions that bring together surplus (savers) and deficit units (investors) in an economy. Savers are usually households while firms and governments are the deficit units. Financial systems pool the funds of savers, and match them up with borrowers', evaluate investment projects and monitor and enforce contracts. An efficient undertaking of these functions depends in part on their ability to evaluate and manage risk. Financial intermediaries usually have better access to information about the state of the economy and are therefore able to give a better combination of risks and returns to savers.

Most enterprises in the economy cannot operate through self-financing alone. The financial system sustains production and growth by facilitating the flow of resources from surplus units to investors. Savings ultimately determine the rate of growth of the productive capacity of an economy. There are several problems underlying the interactions between financial and real decisions. These include incentive problems resulting from asymmetric information (where one party in a financial transaction has less information than the other party), bankruptcy problems and broader information problems engendered by systemic risks. And in a world with informational asymmetries corporations may pass up some valuable and productive investment opportunities.

II.1. Pooling of Risks

Financial intermediaries reduce the risk lenders assume by providing liquidity services to investors. This decreases the precautionary demand for assets and increases investment in an economy. Large investment projects usually require more funds than what is available from one or few lenders. To finance these large investments financial systems pool the savings of many savers and make them available for lending. One way of diversifying risk is by pooling many investment projects rather than undertaking one large project, and reduce the substantial transaction costs that are usually associated with this function. This risk pooling makes it more attractive for investors to undertake projects. Moreover, by providing liquidity services to investors, financial systems are able to decrease the demand for liquid assets and increase investment in the economy. In this framework investment projects are not liquidated prematurely should the need for liquidity arise.

The demand for loanable funds is usually higher than available resources. Financial systems evaluate potential investment projects and through appropriate screening mechanisms select the investors most likely to be successful in their investments. Screening mechanisms range from banks simply gathering information about potential borrowers to assess their risk, and lenders using credit-rating agencies to gather information about potential borrowers, to more complex schemes. These mechanisms help reduce information costs, overcome problems of asymmetric information, improve resource allocation and enhance growth by ensuring that capital is allocated to projects with the potentially highest returns.

II.2. Moral Hazard

The need for monitoring of contracts is essential because of discrepancies in the incentives of borrowers and lenders–the moral hazard problem. Financial systems monitor projects and enforce contracts to ensure that borrowed funds are used for the purposes specified in the original agreement, and lenders are not assuming higher risks than envisaged. It is important for the financial system to foster the trust of investors.[2] In the absence of a well-functioning legal infrastructure that provides for proper enforcement of agreements, or sound accounting, regulatory and governance systems providing for transparency and disclosure in the financial system, financial markets would be unstable and open to fraud. Economic growth would be severely impeded.

An efficient financial system based on institutions of trust allows for a smooth flow of resources from lenders to borrowers through a viable system of contracting, monitoring, and enforcement. The recent financial crisis in East Asia illustrates the importance of the institutions of transparency and trust. With under-developed legal and regulatory infrastructures, financial transactions tend to involve financial instruments that are simpler to enforce, such as secured debt issued usually by commercial banks. Given the high costs of monitoring bank portfolios by depositors, banking can generate well-known moral hazard problems of its own, along with systemic risks.

II.3. Efficiency and Risk Control

The efficiency with which the financial system performs its functions depends on its ability to reduce costs of gathering information about monitoring borrowers, of enforcing contracts, and of diversifying, trading and pooling risks.

The financial system depends on institutions like the legal mechanism to enforce contracts and resolve disputes (bankruptcy laws)–the regulations governing financial transactions and reducing fraud (disclosure rules), and the accounting system.[3] All serve as important institutional solutions to incentive, informational and systemic risk problems in the financial sector. While allowance should obviously be made for differences across countries, these institutional factors are important for fostering the operation of financial markets, capturing and ensuing efficiency gains and encouraging economic growth (see Levine (1997)).

II.4. Links Between Finance and Growth

Finance and growth are strongly correlated. The finance literature shows that financial intermediation is essential for technological innovation and economic growth, and that there is a positive association between financial development and economic growth and that financial repression, such as government controls on interest rates or credit allocation, tends to slow down financial development and economic growth. Saudi Arabia, Syria and to a lesser extent Kuwait serve as good examples with similar characteristics in terms of interest rate ceilings and controls on credit allocation.

Most enterprises in the economy cannot operate through self-financing alone. The financial system sustains production and growth by facilitating the flow of resources from surplus units to investors. Savings ultimately determine the rate of growth of the productive capacity of an economy.

There are several problems underlying the interactions between financial and real decisions. These include incentive problems resulting from asymmetric information (where one party in a financial transaction has less information than the other party), bankruptcy problems and broader information problems engendered by systemic risks. And in a world with informational asymmetries corporations may pass up some valuable and productive investment opportunities.

In a decentralized economy, at any point in time, a household or a firm may be in deficit or surplus. Deficit occurs when the desire to consume is larger than income; surplus is when the desire to consume is less than income. The financial system transfers command over present resources from surplus to deficit units, serving as a conduit of capital, mobilizing savings and enabling productive investments to be undertaken. In performing this function, the financial system allows the economy to respond to the problems raised by time and uncertainty. Financial markets provide for the coordination of inter-temporal choices of households and firms as well as risk sharing and risk diversification. A distinguished feature of financial transactions is that the ultimate object of choice is not perfectly synchronized in time, i.e., current goods are exchanged for promises and claims of future goods. Uncertainty attaches not only to the occurrence of future states of nature, but also to whether promises will be kept. Therefore, the design of contract terms to induce performance of agreements and their enforcement is highly important for the operation of the financial system.

There exists a great deal of empirical support for the link between financial developments and economic growth. One important empirical paper is by King and Levine (1993). Using data for some 80 countries over the period 1960-1989, they test the hypothesis that financial development induces economic growth. It is shown that financial development is strongly correlated with growth in investment, standards of living, and the efficiency with which economies employ physical capital. It is also shown that financial development is a good predictor of future rates of economic growth, investment, and economic efficiency improvements. Their paper, however, does not consider the effects of stock and bond markets developments as well as accounting, regulatory, and legal systems on economic growth and development. In this paper, we argue that these additional institutional factors can have a substantial bearing on the relationship between financial development and growth and we explore their effects through the quantitative and qualitative measures below.

III. Measures of MPs Banking Developments

III.1 Overview

The role of financial intermediation in MPs had often been limited, up to recently, to the mere implementation of credit allocation choices made in the framework of central planning economic development models. However, according to the International Monetary Fund (IMF), the recent modernization of these countries' financial systems has shown visible results, helping most of them reach a medium level of development, typically in line with that of the respective economic systems.[4] This would seem to suggest that financial systems in the region will now be able to channel adequate resources towards productive investments. Yet, some evidence seems to question the effectiveness of the MPs financial systems in accomplishing this task. This section therefore assesses in detail why this task has not been accomplished.

Indeed, recent surveys carried out by the World Bank (*Investment Climate Assessments*) among the corporations of the region show that significant difficulties remain in their accessing credit. According to these surveys, the quota of investments financed through bank loans is among the lowest at a global level: in Algeria and Morocco it reaches 20 per cent; in Egypt less than 10 per cent. The problems of access to credit afflict in particular Small and Medium Enterprises (SMEs). The quota of small enterprises having access to bank loans is 23 per cent in Algeria, against 69 per cent for larger enterprises; in Egypt the ratio is 36 per cent. The same results are conveyed by World Economic Forum surveys, which assign MED countries low rankings with respect to access to credit, availability of venture capital instruments, and access to stock market financing. The insufficient bank financing of the corporations cannot be adequately explained, at least in the current phase, by scarce liquidity in banking systems: in fact, while the ratio between bank activities and GDP has grown in recent years, the proportion of loans over the total amount of bank activities has shrunk in the MED region. In short, banks tend to hold liquid assets, deposits in financial institutions and central banks and public debt instruments, instead of financing corporations and subsequently fostering growth and development. A case in point is Lebanon where about one third of the banking system's financial assets is invested in government treasury bills.

These critical factors are generally traced to several causes: the supply side shortcomings (for example, the banks' inadequate governance and operational inefficiency, also due to the still relevant role of public property; their limited branch networks) may be compounded by a not completely favorable context (limited development in the capital markets, institutional and regulatory obstacles, high government financing requirements). On the demand side, it must be taken into account that many enterprises, particularly SMEs, face difficulties in proposing fundable projects because of their poor management skills.

Looking ahead, the functionality of the region's banking systems could, however, substantially benefit from the reform interventions initiated by the credit authorities of the area (privatizations, improvements of prudential regulation and supervision frameworks, strengthening of financial infrastructures). The significant FDI flows, particularly from the EU, which are being directed towards the banking

[4] The level of financial intermediation in North-African countries (M2/GDP) is fairly high (68 per cent), as is the ratio between bank deposits and GDP (54 per cent). The private sector credit/GDP ratio is at average levels (40 per cent) in the global rankings.

sectors of MPs, could also generate positive spillover effects on these sectors' efficiency levels.

On the other hand, it is well known that the financial systems in the emerging MED economies are in general dominated by the banking system. Stock markets are in most cases new or being developed to serve as a conduit to capital from savers to productive projects. It is therefore important to consider first major developments in the banking systems of MED countries and see whether they have been able to channel capital to productive investments stimulating economic growth. Table 1 presents measures of banking developments for the period 1990-2008. These include first FD, which is a measure of liquid liabilities to GDP. This is a measure of financial depth, and the larger the financial depth, the larger the provision of financial services, and hence the larger the growth. King and Levine (1993) argue that the size of the financial system as measured by financial depth may not be closely related to services such as risk management and information processing. To address this, a measure of the importance of specific financial institutions is constructed. This variable called FS is constructed as the ratio of deposit money bank deposits relative to the sum of deposit money bank deposits and central bank deposits. King and Levine argue that the larger the FS variable is, the larger will be the provision of services such as risk management and information processing. Finally, they argue that if the financial system is simply channeling credit on behalf of the government, it is unlikely to be providing financial services in the same way as if the banking system were more independent, even if the financial depth of an economy is larger and a majority of that liquidity passes through deposit money banks. Therefore, DOMCR is constructed as the ratio of claims on the non-financial private sector relative to total domestic credit. A similar measure is CLGDP, which King and Levine construct as the ratio of total claims on the non-financial private sector relative to GDP. They argue that the larger DOMCR and CLGDP are, the more likely the financial system is to provide certain services, such as evaluation of managers, investment project selection, the provision of financial services, and the pooling of risks. In what follows we look in detail at the major banking developments in each MP over the period 1990-2008.

Table 1. Measures of MED Banking Developments: 1990-2008

		FD (1)	CLGDP (2)	DOMCR (3)	FS (4)	Averages
Egypt	**1990**	0.88	0.25	0.26	0.81	0.55
	2008	1.02	0.43	0.67	0.9	0.75
Lebanon	**1990**	0.22	0.09	0.6	0.82	0.43
	2008	1.39	0.44	0.44	0.61	0.72
Morocco	**1990**	0.54	0.19	0.46	0.99	0.54
	2008	1.07	0.8	0.81	0.99	0.91
Tunisia	**1992**	0.49	0.66	0.93	0.96	0.76
	2008	1.34	1.34	0.91	0.95	1.13
Algeria	**1998**	0.51	0.05	0.11	0.83	0.37
	2007	0.41	0.13	0.45	0.9	0.47
Jordan	**1998**	0.96	0.69	0.87	0.43	0.73
	2007	1.48	1.07	0.73	0.77	1.01
Turkey	**1998**	0.25	0.07	0.01	0.94	0.31
	2007	0.1	0.08	0.05	0.99	0.30

Source: IMF, IFS various issues. ECB 2009, ECB (2009) Statistical Data Warehouse Greece - Gross fixed capital formation (European Central Bank). Available on line:

http://sdw.ecb.europa.eu/quickview.do?SERIES. www.economywatch.com "Tunisia GDP Per Capita (Constant Prices,National Currency)Statistics", www.index.mundi.com "Lebanon GDP(Purchasing Power Parity)"

Notes: 1-FD: Liquid liabilities relative to GDP. 2-FS: Deposit money bank deposits relative to the sum of deposit money bank and central bank deposits. 3-DOMCR: Claims on non-financial private sector relative to domestic credit. 4-CLGDP: Claims on non-financial private sector relative to GDP. 5-Average: is the simple average of FD, FS, DOMCR, and CLGDP. 6- *Syria has been discarded from the sample due to the lack of data.

III.2 Egypt

Table 1 shows that the banking industry has always played a vital role in the economy of Egypt, and this can be seen by the ratio of financial depth which was at 0.88 per cent in 1990 to significantly increase to 1.02 percent in 2008. This clearly indicates that the banking reforms and regulations as well as privatization attempts had helped to stimulate growth in financial services. Overall, this ratio is considered to be relatively high when compared to other emerging markets, and is a clear indication of the positive effects the banking reforms and banking sector developments have had on the Egyptian economy.

The ratio of claims on non financial private sector to GDP went up from 25.4 per cent in 1990 to 42.75 per cent in 2008 (Table 1). This figure went up along with financial depth. Also, throughout the 1990s, the banking sector was dominated by the public sector. In 2004, the Central Bank of Egypt (CBE) launched a banking sector reform consisting of privatization, liberalization and better regulations and supervisions for the sector. In 1992, with the Economic Reform and Structural Adjustment Program (ERSAP), credit ceilings on lending to private businesses were abolished, which accelerated lending to the private sector. Lending to the private sector continued to rise during the East Asian Crisis, when private businesses had to borrow in order to cover rising import prices. At the end of 1999, there was a slowdown in bank lending due to restrictions and government borrowing from the private sector. Between 2000 and 2006, banks were more attracted by government securities with high yields, than lending to the private sector. With the reform program of 2004, and lower yields on government securities, bank lending started picking back up. The overall sharp growth in the ratio indicates a noticeable rise in the claims on the private sector, as GDP rose throughout the period, peaking in 2008. This implies that banks are increasingly financing the private sector, providing more financial services and contributing to stimulate economic activity. However, and despite the introduction of the above reforms, this ratio remains low compared to other emerging markets.

Egypt's domestic credit increased significantly in between 1990 and 2008. Also, the ratio of claims on non financial private sector to total domestic credit rose from 25.49 per cent in 1990, to 67.13 per cent in 2008. This indicates a sharp rise in credit allocated to the private sector, which has an important role in stimulating economic activity. The increase in the last two ratios points to a significant growth in financial services, the improvement of management and supervision of commercial banks especially with the adoption of "risk-based supervision" and hiring of a more qualified senior management staff along with the signing of a protocol with the European Central Bank for technical assistance. Egypt also aims to comply fully with the Basel II requirements. For this purpose, the Egyptian Banking Institute has initiated a series of seminars and conferences, specialized certificates and senior management programs.

In 1990, the financial stability ratio (FS) was 80.9 per cent and had increased to 90.05 per cent in 2008. This increase reflects the rapid growth of the money bank deposits throughout the period under consideration. In fact, money bank deposits grew substantially; from Egyptian Pounds (EP) 86,897 million in 1990 to EP 747,199 million in 2008, adding up to a massive 759 per cent increase. In fact, this growth is extremely correlated with that of GDP pointing to the rising ability of the banking sector to give out loans and stimulate investments in the economy. However, even though deposits have increased substantially over the past 2 decades, the banking sector is still way off its full potential, given the fact that only a mere 10 per cent of Egyptians have a bank account. This shows how sociological factors within the country are putting a damper on the banking sector and economic growth as a whole. Central Bank deposits, on the other hand, also went up during this period, but their growth was much slower than money bank deposits. Overall, the growth in this ratio is a clear indicator of the evolution of financial services. It appears that Egypt has been able to attract more deposits into banks other than the CBE through improvements in credit risk management, information processing and overall banking activities.

III.3 Lebanon

Table 1 shows that the liquid liabilities ratio to GDP in Lebanon is relatively the highest in the region pointing to the active role banks are having in the Lebanese economy and as intermediaries in contributing to growth. Hence, the larger this ratio the larger the provision of financial services and the larger is economic growth. The FD ratio increased from 22 per cent in 1990 to reach 139 per cent in 2008, putting Lebanon in the forefronts of countries with the highest liquid liabilities ratio. It is therefore clear that the banking developments have had a significant impact on the Lebanese economy.

The claims to GDP ratio is also high, increasing from 9 percent in 1990, to 44 percent in 2008. The increase could be attributed to the increase in investment, mainly in the construction sector, after the Israeli war on Lebanon in July 2006, because of massive investments towards rebuilding the devastated infrastructure. Domestic credit decreased from 60 percent in 1990, to 44 percent in 2008. Despite the 17 per cent decline, it remains relatively high. The ratio being large indicates that the financial system, mainly banks, have been providing loans for investment projects, mainly to the private sector, which will, in return, promote economic growth.

Finally, the FS ratio slightly declined from 82 percent to 61 percent in between 1990 to 2008. This decline implies that the central bank deposits account for a small percentage of the deposit money bank deposits, and the larger the ratio, the larger the provision of credit risk and information processing. The last two ratios clearly indicate that the financial system in Lebanon is very active in providing different financial services. These financial services protect investors and promote economic growth.

III.4 Morocco

The FD ratio in Morocco has been increasing over the 1990-2008 period from 54 to 107 percent (Table 1). In fact Morocco's banking sector, which is the main component of Morocco's financial system (nearly 60 per cent of financial assets), has a diversified structure with a high level of financial development compared to other emerging countries. It is clear that credit is expanding swiftly and that financial assets are being effectively directed into productive investments. However, private savings and investments have declined leading to a decrease in the financial depth ratio.

The FS ratio has been constant over the 1990-2008 period, which means that the provision of services has not effectively improved in Morocco. The stability of the financial stability ratio reveals the slow improvement of banks in becoming more transparent and in meeting all the accounting standards and the transparency levels to meet investors' and depositors' expectations and confidence. The DOMCR ratio was 46 percent in 1990, compared to 81 percent in 2008, which constitutes an increase of about 35 percent. This indicates that the financial sector in Morocco is providing a variety of crucial and advanced financial services. Finally, the CLGDP ratio has effectively and significantly increased from 19 to 80 percent during the 1990-2008 period. Indeed, both claims on the non-financial private sector as well as GDP have both increased over that same period of time. This is a good indicator of economic prosperity and growth.

III.5 Tunisia

The banking sector in Tunisia is continuously expanding, with several banking reforms introduced recently, as well as, several mergers and acquisitions between local banks and international financial institutions. The financial depth ratio has increased in between 1990 to 2008 from 49 percent to 134 percent, which means that in 2008, financial institutions appear to be playing a more vital role in contributing to GDP growth. In fact, the banking sector in Tunisia has undergone major reforms aimed at consolidating its financial foundations, restructuring the sector, improving its intervention and adapting it to transformations and developments on a worldwide scale since 1987. The FS ratio has decreased in between 1990 and 2008 by only 1 percent which means that banks are providing a wider range of products and services, especially services related to credit risk management and information processing.

The DOMCR ratio has decreased by 2 percentage points from 93 percent in 1990 to 91 percent in 2008, which implies that the non financial sector has become more familiar with domestic credit. This in turn implies that the banking sector is developing, and with the diversification of its financial products is becoming more accessible to the non financial sector. Thus, there was an increase in the number of banks products, increasing banks' deposits from \$ 2.76 billion in 1986, to approximately \$ 25.27 billion in 2007, contributing to the expansion of domestic credit.

The CLGDP has increased by 15 per cent from 0.55 in 1990, to 0.70 per cent in 2008, meaning that the operations between banks and non financial agents are becoming more developed. In 2008, the claims of the private sector are contributing to about 70 per cent of GDP. This also shows that the banking sector in Tunisia has gained credibility, which encouraged the private sector to deal with financial institutions.

III.6 Algeria

The liquid liabilities to GDP ratio indicates that Algeria's financial depth has been decreasing constantly over the period 1998 to 2007, from 5.12 per cent to 0.41 per cent. This is primarily due to the fact that even though public debt is being reduced significantly, Algeria's private assets are also decreasing. This parallel decrease has had a negative effect on the country's liquidity, resulting in a lower financial depth level. On the other hand, Algeria's government hasn't been responding well to its fiscal obligations, which has had negative consequences on the valuation of its assets, contributing therefore to the reduction in financial depth. All these negative effects on financial depth are the main source behind the decrease in the provision of financial services, thus directly decreasing Algeria's economic growth. Money bank deposits have been steadily growing from DZD 334.52 billion in 1998, to DZD 2410.03 billion in 2007. This increase in deposits shows clearly the increase in confidence in Algeria's banking system. It also shows how banks are becoming more transparent and are trying to meet all the accounting standards and the transparency levels to meet the investors' and the depositors' expectations and confidence. Furthermore, the central bank's deposits have also been growing from DZD 69.43 billion in 1998, to DZD 264.9 billion in 2007. The growth of the FS ratio is translated into an increase in the provision of financial services such as credit risk management and information processing, thus contributing positively to Algeria's economic growth. The claims on the non-financial private sector to total domestic credit, has increased significantly from 11 per cent in 1998, to 330.7 per cent in 2007.

Algeria's private sector growth due to its recent privatization policies has translated into a steady increase in the claims on the non-financial private sector since 1998. It is clear that the change in the claims on the private sector is much larger than the change in GDP in almost every year from 1998 to 2007. This is directly translated into an increasing ratio of claims on the private sector to GDP, which points to the growth of the Algerian financial system, allowing it to provide more financial services such as the revaluation of managers, the provision of financial services and the pooling of risk. The increase in this ratio is a definite cause for the clear Algerian economic growth.

III.7 Jordan

The financial depth ratio has slightly increased in Jordan over the period 1990-2008. The larger the FS ratio is the larger would be the provision of services such as credit risk management and information processing. As is clear from Table 1, this ratio has effectively increased from 43.3 per cent in 1998, to 76.61 per cent in 2007, which reveals a more important provision of services over time and thus greater financial stability.

The domestic credit indicator illustrates the ability of the financial system to provide certain financial services. This ratio has considerably increased from 58.47 per cent in 1990, to 87 per cent in 1998, but then slightly decreased to 72.78 per cent in 2007. The first increase clearly implies a respective increase in claims. The larger this ratio the better it is since it means that the financial system in Jordan is providing better financial services such as investment project selection and pooling of risks.

The total claims to GDP ratio have effectively and significantly increased from 68.9 per cent in 1998, to 107.4 per cent in 2007. These results are very positive since the larger this ratio the more likely it is that the financial system is providing certain financial services such as investment project selection.

In short, the Jordanian Banking sector is considered to be developed, profitable and efficient. Moreover Jordan has strengthened its banking sector supervision, establishing strict regulations with up-to-date procedures and constant bank auditing to insure that the necessary and correct information is being collected and channelled effectively. These prudential supervision and regulation have been reenforced lately; the Central Bank of Jordan (CBJ) is in fact imposing some strict measures when it comes to prohibiting banks from taking risky positions on the Foreign Exchange Market. Furthermore, banks in Jordan are bound by some international standards in order to remain on a low risk path. They therefore cannot give loans to any company that does not adhere to policies that are stated in these international standards. Jordan has been effective in order to be in line with the Basel standards by reducing on the one hand the share of non-performing loans in the banks' total loans, and by increasing on the other hand the capital adequacy ratios. Jordan's banking sectors is somewhat considered as highly concentrated, the three largest banks hold approximately 90 per cent of the total bank assets, with the Arab Bank (as the number one bank) accounting , by itself, for about 60 per cent of the banking system's total assets.

III.8 Turkey

Table 1 indicates that the financial depth ratio has decreased in Turkey over the period under consideration. In 1998, the ratio was 25 per cent and was higher than in 2007, where it dropped down to 10 per cent. The total claims to GDP ratio have effectively remained unchanged over the period under consideration. The last two ratios, the domestic credits to GDP and the claims to domestic credit ratio, indicate that the financial system is barely able to provide certain financial services such as evaluating managers, investment project selection, terms of financial services and the pooling of risk. The claims of non financial private sector to GDP ratio and the claims of non financial private sector to total domestic credit in 2007 were almost equal to those in 1998. In fact the CLGDP was 7 per cent in 1998, and it only increased by one percentage point in 2008. Moreover the DOMCR only varied from 1 to 5 per cent during that period of time. All of which show that the financial system in 2007 was facing some problems and was not able to provide investors and clients with financial services such as those listed above.

In short, it is clear from the above country analysis that the banking systems of MED countries are relatively large and account on average for about half of the financial market capitalization. However, the levels of banking developments in the MED region are significantly lower than averages in other emerging. It is clear from Table 1 column 4, that Tunisia has the highest level of banking developments followed by Jordan, Morocco, Egypt, and Lebanon respectively. Although the banking system plays an important and vital role in channeling funds to various sectors of the economy, it is still not providing the kind of services and financial products that are needed to further sustain growth. The banking system still needs to introduce new financial products to better develop its credit markets. Risk management and information processing is still relatively poor in the MED region. An important aspect of credit expansion is the development of risk management tools capable of reducing credit and default risks. These risks have constituted important impediments to the expansion of credit markets. Also, informational efficiencies of credit markets in the MED region are much lower than averages in other emerging markets. This factor is also hindering the expansion of credit markets in the region. The MED banking system is also suffering from the lack of proper evaluation of investment projects and bank managers. In most instances funds are not channeled to the most productive projects, and the costs of financing these projects are often higher than those present in more developed economies.

III.9. Basel II

Introduced in January 2001, the Basel II Capital Accord has set a new capital adequacy framework to replace the existing 1988 Basel Accord. There are three Pillars to the New Basel Capital Accords: (1) Minimum capital requirements; (2) Supervisory review process; (3) Market discipline (disclosure rules). The goal of the Basel II accord is to give banks a new risk sensitive framework to measure credit and operational risk designed to better address the financial innovation that has occurred in recent years. Member countries have implemented the new accord in 2007.

The Basel II accord promises many improvements from which many banks and the financial system as a whole would benefit. These include but are not limited to better correlation between regulatory capital and the risk profile of the banking book, better internal capital management, better recognition of risk mitigation through collateral and reduced capital charges for credit portfolios with prime quality loans and high diversification.

The first concern from the MED region would be that these changes to the existing 1988 accord were put forward by large banks from developed countries. To what extent do these key assumptions and standards in the proposed framework apply to banking procedures and methodologies already in place in the MED region. There is also concern amongst analysts that the adoption of ratings based approaches might change the lending pattern of major banks leading to a reduction in loans to the developing world or a significant increase in pricing for borrowers from emerging markets.

The BIS (Bank for International Settlements) itself has recognized that greater risk sensitivity resulting from the new accord contains pro-cyclical elements. That is, during prosperous times, ratings will improve encouraging banks to lend more, whereas, during a downturn, ratings will be lowered potentially leading to a sharp withdrawal in funds or a credit crunch. This amplifying effect will be especially harsh on developing countries increasing their vulnerability to currency crises.

Another of the concerns expressed by MED's financial sector is whether banks in the region can handle the level of regulatory complexity set forth in the New Basel Accord. Implementing the new accord requires banks to provide supervisors with excessive amounts of information which raises fears that there may be leaks in sensitive data or that analysts studying the market may get confused with the excessive amounts of information they are being provided. This questions whether the high costs of preparing these extensive reports leave any economic benefit. That is why some believe that these requirements appear more appropriate for highly sophisticated financial markets in the G10 countries.

The smaller size banks operating in the MED region found it much more difficult to implement the strict requirements of the new accord for this will require them to mobilize intellectual capital, IT and financial resources to implement the necessary systems in risk management practices and capital allocation. This may lead to trends towards industry consolidation through mergers and acquisitions or an increase in the proportion of foreign banks' control of the banking industry. This has also been shown to be problematic for developed countries since in the United States as stated earlier, only about 20 of the largest banks are expected to implement the more sophisticated approaches to the new Basel accord.

In the MED region there is a problem with the sufficiency of reliable data since banks have only recently started to build their databases and thus few statistics are available on ratings and loss experiences that would meet the strict requirements of the new accord. Industry observers also claim that regulators in MED countries do not have the know-how and resources to implement and enforce the new proposals.

IV. Recent Stock Market Trends in MPs Countries

As stated earlier, capital markets in the MED region have traditionally been less important in channeling financial funds. A fairly developed commercial banking system has taken the lead in attracting and distributing funds. With the possible exception of Turkey (Istanbul), and Jordan (Amman), MED equity markets have only come to the fore in the 1990s. Despite their small market capitalization, during the past five years, the MPs equity markets have exhibited performance characteristics parallel to other emerging markets in similar stages of development (Papaioannou and Tsesekos 1997, Akdogan and Edgar 1995). Stock markets have two general functions. First, they allow corporations to raise capital externally. Corporations must meet certain criteria set by the market, to successfully raise capital. By going to the external market to raise funds a process of certification is initiated and the corporation's project is evaluated. The issuance of securities therefore, requires some investigation about the corporation's existing financial situation, profitability and management policies. The performance of the firm, and especially of its managers, is therefore monitored to ensure that resources within the firm are allocated and used efficiently. Even after the capital is raised, the scrutiny continues with approval or disapproval reflected in stock prices. Stock markets thus impose a discipline on firms and their managers.

The second major function of stock markets is their liquidity. Few transactions on the stock market directly involve the corporation that issued the shares. Transactions take place between two anonymous investors. One attractive feature of investing in stocks in well-developed markets is their liquidity: investors can easily buy and sell their shares in a corporation. In Table 2, we use both volume traded and turnover ratios as indicators of liquidity in the MED stock market. We argue that as liquidity increases, the cost of entering and exiting the stock market (transaction costs) falls, thus stimulating further investments. We also use in Table 2 stock market capitalization and the number of companies listed on stock markets to capture these effects. The number of companies listed provides a measure of the number of firms that have met the standards of the market, but does not indicate the amount of capital raised. We later on also discuss the impacts of intangible and qualitative factors in some MED economies, especially relating to the financial sector. By taking into account both quantitative and qualitative factors we can better understand the process and sustainability of long–term economic growth. Thus, Table 2 includes five quantitative measures of stock market development: the number of companies listed on domestic stock markets, stock market capitalization, the number of shares traded and the turnover ratio. We hypothesize that as stock market development increases, so does economic growth.

Table 2 indicates that MED's capital markets are showing positive performances in recent years particularly in terms of growth, liquidity and transparency. More investment is being attracted to the region and markets are heading towards more openness. However, much more can still be done to reach full liberalization. In what follows we analyze each MP's performance separately.

Table 2. Measures of MED Stock Market Developments: 1989-2008

	Date of Operation	Number of Listed Companies		Stock Market Capitalization (Billion $)		Growth of Stock Market Cap (in %)	Volume Traded (millions of shares)		Turnover Ratio (%)	
Egypt	1950	**1992**	**2008**	**1992**	**2008**		**1992**	**2008**	**1992**	**2008**
		656	373	3.28	86.18	25.27	29.6	25.56	--	70.3
Lebanon	1920	**2002**	**2008**	**2002**	**2008**		**2002**	**2008**	**2002**	**2008**
		9	13	2.22	10.38	367.19	4.5	41.1	--	--
Tunisia	1969	**1990**	**2008**	**1998**	**2008**		**2002**	**2008**	**1990**	**2006**
		17	51	0.14	7.69	54.72	3.55	98.67	3.3	15.24
Morocco	1929	**1989**	**2008**	**1989**	**2008**		**1989**	**2008**	**1989**	**2008**
		71	77	0.62	65.85	10521	16	26886	38	16.55
Algeria	1999	**1999**	**2008**	**1999**	**2008**		**1999**	**2008**	**1999**	**2008**
		2	2	0.26	0.09	-65.4	0.04	0.18	12	10
Jordan	1978	**2001**	**2008**	**2001**	**2008**		**2001**	**2008**	**2001**	**2008**
		161	272	6.32	35.87	5.67	340.6	5442.3	20.3	91.5
Turkey	1986	**1994**	**2008**	**1994**	**2008**		**1994**	**2008**	**1994**	**2008**
		117	320	21.6	118.328	447.69	276.61	619.99	16.42	217.5

Sources: WDI 2008; IFS Statistics; Istanbul Stock Exchange: http:// www.ise.org; Amman Stock Exchange: http://www.ase.com.jo; Morocco Stock Exchange Market: http://www.casablanca-bourse.com; Beirut Stock Exchange: http://www.bse.com.lb; Allied Business Bank; Egyptian Stock exchange: http://www.egyptse.com. WFE, (2009) World Federation of Exchanges Database http://www.world-exchanges.org. http://www.tcm.gov.tr/veni/evds/teblig/95/9508.pdf
Syria has been discarded from the sample due to the lack of data
Notes: *: 1996. 1-Number of companies listed: Year-end totals, excluding listed investment funds where possible.2-Stock market capitalization: Year-end total value traded of listed domestic company shares. 3-Volume traded: Year-end total market values of listed domestic companies.

IV.1. Egypt

The number of companies listed in Egypt was 656 in 1992 according to the Capital Market Authority; while the number of companies which were actually traded was 239. However, in 2008, there were only 373 listed companies on the Cairo and Alexandria Stock Exchanges, with 322 traded. The highest number of listed companies was in 1992, but most of these companies were not traded. In 1997, listed companies decreased but traded ones rose, due to liberalization and reforms of the stock market. In 2008, this number drops sharply because of the D-listing of companies that did not meet the new requirements of the reformed Stock Exchange or had very little turnover. Also, during this period we had a significant number of mergers and acquisitions which contributed to the decline in the number of companies. In fact, the Capital Market Authority's Board of Directors approved new listing rules for the Egyptian Stock Exchange, which came into effect in 2002. Any company that wishes to be listed has to be thoroughly investigated by the EGX listing department and approved by the Listing Committee of EGX.

The market capitalization in 1992 was $3.28 billion. In 1997, with the second round of reforms, it moved to a considerable $20.76 billion, after which it grew to $86.18 billion in 2008 (see Table 2). These figures indicate a vast growth in market capitalization. The fast rise in market capitalization since 2000 was mainly due to a massive growth in investor confidence, the acceleration of the privatization program and the initiation of many high-profile initial public offerings. Also, the participation of foreign investors in the stock market improved substantially, especially with the designation of EGX by the US Securities and Exchange Commission (SEC) as a "Designated Offshore Securities Market" in April 2003, and the launching of the EGX 30 Price Index, a new free floated market capitalization index. The increase in market capitalization indicates the entrance of larger firms into the market, especially with the privatization and floatation of several state-owned companies like AMOC, Sidi-Krir and Telecom Egypt. One last thing worth noting is that there was a plunge in market capitalization, from $139.9 billion in 2007, to $85.9 billion in 2008, and this can be attributed to the effects of the global financial crisis which had its toll on the Egyptian stock market in 2008.

The volume of trading in 1992 was 29.6 million, with 20.7 million listed and 8.9 million unlisted securities. These figures climbed in 1997, where the volume of trading reaches 372.5 million, with 286.7 million listed and 85.8 million unlisted securities. For 2008, the volume traded reached 25.56 million securities. This vast growth in the trading volume, which is the number of securities traded during a given period, reflects the massive development of the activity of the Egyptian stock market, which is also reflected by the high turnover ratio in 2008 that reached 70.3 per cent. Even with the D-listing of a number of companies, the number of shares, bonds and contracts in the stock market grew considerably since 1998, with drastic reforms, modernization, liberalization and openness.

IV.2. Lebanon

The number of companies listed in Lebanon was 9 in 1992 according to Table 2. This number increases to reach 13 in 2008, indicating a small increase and thus showing an insufficient development and progress in the Stock Market. One should be cautious while interpreting such numbers, because Lebanon is a small country and most of the firms are sole proprietorship or partnership. Only few firms went public during that period. The market capitalization in 2002 was $2.22 billion (Table 2). In 2008 it grew to reach $10.38 billion. These figures indicate a vast growth in market capitalization. This 367 per cent increase can be attributed either to the increase in the number of common shares or to the increase in the shares prices or a combination of both. Moreover, this can also be due to the inflow of capital from foreign countries in general and the Arab region in particular because Lebanon was barely affected by the overall recent financial and economic crisis.

The volume of trading in 2002 was 4.5 million shares. For 2008, the volume traded reached 41.2 million securities. This vast growth in the number of securities traded during the 2002- 2008 period reflects the development of the Lebanese stock market. Indeed, the ten fold increase in the volume traded implies that investors are really interested in the Lebanese stock market.

IV.3. Morocco

The Casablanca Stock Exchange (CSE) in Morocco is a relatively small but dynamic stock exchange in Africa. It is one of the oldest stock market in the continent (third oldest). Founded in 1929, it has currently 16 brokerage firms and 77 listed securities. It is the second biggest bourse after Johannesburg’s stock exchange. Reforms regarding the exchange have been introduced in 1993, transforming it into a modern and well developed stock exchange. From 1989 to 2008, the number of companies listed on the market increased from 71 to 77 which is not a considerable increase relative to the period under consideration, and relative to the changes and reforms that have been introduced in the stock market. Moreover, the Moroccan financial market has witnessed a considerable evolution during the last few years, mainly due to privatization. The market capitalization has increased from $ 0.62 billion to $ 65.85 billion within a 19 years period (Table 2). The evolution of the real estate stock market index has dramatically increased over the last couple of years, reflecting the high performance of real estate companies, and investors' strong demand for their shares, representing 16 percent of the total stock market capitalization at the end of 2007. Moreover, the corporate sector's performance has considerably improved.

The volume traded increased from $ 16 million in 1989, to $ 26.886 billion in 2008, which means that the number of transactions is increasing over the years. The average daily volume of shares traded in 2008 is around $ 75.2 million, and the average daily volume traded of bonds for the same year is around $ 1.2 million. The turnover ratio decreased from 38 per cent in 1989, to 16.55 per cent in 2008. This shows that the secondary market is not very active. The drastic improvement of these indicators was even more consolidated since privatization was made through the stock market. Under the law adopted in 1993, the Casablanca stock market status changed from a public institution to a private one whose capital is equally shared by the stock market firms. In parallel, the creation of the Deontologic Council of Stocks and Bonds, helped in the smooth running of the market and ensured the protection of savers.

IV.4. Tunisia

In 1969, Tunis Stock Exchange was inaugurated; and currently more than 50 companies are listed on this exchange. Even though this exchange was initially formed in 1969, it became in 1995 an integral component of the Tunisian financial market. In 1990, 17 companies were listed on the Tunisian stock exchange compared to 51 companies listed in 2008. The number of companies listed has increased over the above period by three folds, essentially due to the increase in accessibility to foreign investors, the technical developments in the capital market sector, improved tourism, gains in trade with the EU and a strong banking sector.

Market capitalization in 2008 has increased significantly over the year 1998 from $0.14 billion to $ 7.69 billion (Table 2). The volume traded has increased exponentially from around 3.55 million in 2002 to 98.67 million in 2008. These significant increases are indicators of the growing openness and accessibility of the market to foreign investors. Following the growth of the economy, the total market capitalization of Tunisia's stock exchange also grew. It is obvious that the market capitalization has witnessed a significant increase that has started in 2000 due to the arrival of new multinational companies. The influx of companies that followed due to the liberalization of the legal constraints imposed on foreign companies wanting to have a quotation on the Tunisian stock exchange has also raised the volume traded to unprecedented heights. The traded volume has effectively increased by 30 folds thus increasing the liquidity of the stock market and attracting other big sized institutions. The huge uplift in these numbers has been due to a larger foreign participation. Now, it is estimated that foreign investors account for about 75 per cent of the total active investors on the TSE. The Turnover ratio has also increased from 3.3 per cent in 1990 to 15.24 per cent in 2006, which implies that not only the stock market is increasing in size but it is also improving in terms of liquidity and efficiency.

IV.5. Algeria

Table 2 above, indicates that the number of listed companies has remained the same over the 1999-2008 period at only 2 companies. Algeria's stock market capitalization has been steadily decreasing over the period 1999 to 2008, from $ 0.26 billion to $ 0.09 billion, registering thus a 65.4 per cent decrease. This is mainly due to the decrease over the years of the stock prices of the listed companies, and due to other factors such as accountability, transparency and investors' confidence. Table 2 also indicates that the volume traded in millions of shares was 0.04 in 1999, and increased to 0.18 million in 2008. The Algerian Stock Exchange still plays a very limited role in the country's growth and the economy's financing. There are only 2 companies listed and traded on the exchange, one is a hotel management firm (EHG El Aurassi) and the other one is a pharmaceutical firm (Saidal). The turnover ratio, which is another measure of the liquidity depth of the Algerian Stock Market, decreased from 12 to 10 per cent over the same period.

IV.6. Jordan

The Amman Stock Exchange (ASE) is one of the more open stock markets in the MED region. The exchange currently has 836,326 shareholders, 44.8 per cent of the shares are held by Jordanian corporate and individual investors, foreign investors account for 49.1 per cent of share ownership, and the government through the Jordan Investment Corporation holds 6.1 per cent. In 2008, the number of listed companies was 272 composed mostly of insurance companies, and banks.

According to Table 2, the market capitalization, in Jordan, has augmented persistently in between 2001 and 2005 increasing from $ 6.32 billion to $ 35.87 billion, which is an increase of 567 per cent, reaching an all time high in 2008. We notice that the volume traded is constantly increasing over time reaching a value of 5.44 billion which is a good indicator of the financial growth and development in Jordan. Table 2 also indicates that the turnover ratio in Jordan is constantly increasing over time except for the year 2007 where it decreased after a major increase in between 2005 and 2006 from 94.1 to 101.1. Overall, in between 2001 to 2008 it increased from 20.3 to 91.5 percent.

IV.7. Turkey

The Istanbul Stock Exchange (ISE) was established in 1985. Since then it contributed to the development of the Turkish capital market and Turkish economy. It effectively became operational in 1986. The daily value traded of the Stock Market decreased by 13.91 per cent from YTL 1.54 billion in 2007, to YTL 1.32 billion in 2008. Moreover, the daily average number of contracts fell from 192,000 in 2007 to 183,000 in 2008.

Stock market capitalization increased from $ 21.6 billion in 1994, to $ 118.328 billion in 2008. The Istanbul Stock Exchange (ISE) has become an attractive market for foreign investors. The ISE is a large stock market highly liquid. Since the Lira became fully convertible, we have no more Exchange rate risk and we don't have capital control. The companies listed on the Istanbul stock exchange market increased over the 1994-2008 period to reach 320 companies. The liquidity of the Turkish stock market grew by 124 per cent from 1994 to 2008. The volume traded has significantly increased from 276.61 millions shares in 1994, to 619.99 million in 2008, pointing to a three fold increase in 14 years, standing as an indicator of the developments undergone in Turkey's stock market. Last but not least, the turnover ratio has also risen over the same period, from 16.42 to 217.5 per cent, standing as a proof of the major evolution of the ISE.

The major developments of the ISE, after the global financial crisis, weren't as dramatic as expected. The adverse effects of the international financial crisis remained limited due to the fact that the Turkish economy was well prepared for this type of exogenous shocks.

IV.8. Financial Market Efficiency of MPs Stock Markets

The finance literature includes many recent studies on the extent to which movements in one stock market can be transmitted to other stock markets. Stock market integration is essential for attracting EU's foreign capital and stimulating MED growth. Traditionally, the literature has focused on the global integration of the world's major stock markets. Recently, there has been a shift in attention to the emerging markets of developing countries (DeSantis and Imrohoroglu 1997). The new focus stems from the belief that these markets present portfolio and fund managers a new possibility to enhance and optimize their portfolios. To a large extent, these advantages hinge on the elimination of barriers to entry and the free flow of capital in the MED emerging markets. Substantial transaction costs, price controls, and market illiquidities can all mitigate any attraction these markets may potentially offer to foreign investors and reduce therefore growth. Moreover, the expected benefits from investments in the MED emerging markets are also negated by the extent to which their stocks move in concert with the EU markets. For example, it was shown that stock market returns in emerging markets were high and predictable but lacked strong correlation with major markets. As emerging markets mature, they are likely to become increasingly sensitive to the volatility of stock markets elsewhere. Their increasing degree of integration with world markets will diminish their ability to enhance and diversify international portfolios and will make them more vulnerable to world financial disturbances. A case in point is again the US financial crisis. While many emerging markets suffered backlashes from the US, the MED countries were among the few where the repercussion effects were minimal.

To a large extent, the growth of the MED stock markets depends on their ability to attract capital flows into the region, a process which so far has been disappointing. After years of stagnation, several stock markets in the MED region have shown promising results over the past few years. Returns in Jordan and Egypt, have begun to strengthen a necessary development because the region's governments can no longer mobilize enough public capital to meet investment and growth needs. However, as MED countries liberalize their financial markets, their returns are likely to become increasingly more correlated with the world markets. This would raise the question of whether this will have adverse effects on their individual volatility. Recent findings by DeSantis and Imrohoroglu (1997) reveal that this effect will not materialize. Yet the theory suggests that as markets become integrated, the impact of world events on their markets is bound to raise their volatility. One explanation may be that the expected increase in volatility concomitant with integration may be attributed to a lack of market liberalization. Indeed, the opening of emerging markets may induce the participation of foreign investors whose entry makes markets more competitive and reduce the noise associated with the transmission of information about company earnings and market fundamentals. At the same time, increased foreign participation may increase the volume of traded shares and the number of listed companies. All these factors will enhance market liquidity and help reduce, not raise, market volatility.

In this section and the next one we use weekly closing stock price indices for the stock markets of a selected sample consisting of Algeria, Egypt, Jordan, Lebanon, Morocco, Tunisia, and Turkey to study whether MED stock markets are efficient in allocating funds to productive investments–stock market efficiency implies higher growth rates. In section IV.9, we look at stock market integration of the MED stock markets and explore whether these markets are regionally integrated. Compounded week-to-week returns are calculated as the natural log differences in prices: ln (P_t/P_{t-1}). Older stock markets in the MED region, as for example Egypt is tracked since 1998, while more recent additions like Jordan, Tunisia and Morocco are analyzed since 2000 respectively, while Turkey is tracked since 2004 due to lack of data and Lebanon since 2006.

To address the question of market efficiency, we analyze the stochastic nature of MED's stock market prices by testing for unit roots. This approach is useful to test for departures from the random walk hypothesis, and whether stock market returns distribution in the MED region deviate from normality. These findings contribute to a more comprehensive understanding of the nature of the return generating process in the MED countries. To that end, we model each series according to the following process

$$y_t = \beta_0 + \beta_1 t + \alpha y_{t-1} + u_t , \tag{1}$$

where λ_0 is a drift parameter and $\lambda_1 t$ is a time trend. We test for unit roots using Phillips and Perron (1988). The test is essentially one of the hypothesis $\gamma = 1$ in the following equation:

$$\Delta P_t = \lambda_0 + \lambda_1 t + \gamma P_{t-1} + \zeta_t . \tag{2}$$

We use Newey and West (1987) procedure to adjust the standard errors for a possible serial correlation in the disturbances. The results of the unit root tests are provided in Table 3. The Phillips-Perron test results indicate that the MED markets are non-stationary in the levels. However, unit roots in the first differences of the stock prices are rejected at the 1 per cent significance level, suggesting that returns (or stock price changes) are stationary. We conclude that weekly stock prices in the MED region are I(1) and therefore can be modeled as random walk processes. This finding also substantiates that the MED stock prices are weak form efficient. A strong form efficient financial market helps reduce information costs, overcome problems of asymmetric information, improve resource allocation and enhance growth by ensuring that capital is allocated to projects with the potentially highest returns. MED financial market still needs to be more transparent. The disclosure of financial information is still weak and sometime totally absent. This is one of the reasons why until now MED stock markets have not yet been able to properly and fully channel funds to productive investments. The MED banking system is still the major source of funds for many of MED projects undertaken.

Table 3. Market Efficiency Tests

	Algeria	Egypt	Jordan	Lebanon	Morocco	Tunisia	Turkey
PP Prices in Levels	-0.99	-0.56	-1.03	0.7	-2.23	-1.29	-0.54
PP First Differences	-7.89	-5.63	-8.03	-5.68	-6.30	-5.41	-3.52

Notes: 1-PP is the Philips and Perron Unit Root test. 2-Critical Values: -3.64 (1 per cent); -2.89 (5 per cent); -2.62 (10 per cent).

IV.9. Regional Financial Integration of MED Stock Markets

This section performs Granger Causality tests to examine the relationship between MED's stock market returns. Weekly data of stock returns are used to investigate the effects of unidirectional and bi-directional causality.

The causality tests are conducted for 2 lags. Formally, let Y and X represent two series, Granger causality addresses the question whether X is linearly informative about a future Y. This would hold true only when the event X precedes the event Y. Stated differently, this presumes that the current and past observations of X help in the forecast of Y. To conduct the test, each series is represented as a vector autoregression and regressed on its lag and those of other variables. To examine the endogeneity of an individual market, we run least squares on the following models for each pair of MED markets:

$$\begin{aligned} Y_t &= \sum_{i=0}^{2} \alpha_i X_{t-i} + \sum_{j=1}^{2} \alpha_j Y_{t-j} + \nu_t \\ X_t &= \sum_{i=0}^{2} \alpha_i Y_{t-i} + \sum_{j=1}^{2} \alpha_j X_{t-j} + \upsilon_t \end{aligned} \qquad (3)$$

where X and Y represent the returns for each pair of MED markets. The empirical results are presented in Table 4. With respect to inter-MED linkages, we find Cairo playing a somewhat dominant role. This is surprising since the size and liquidity of the Turkish market dwarfs the characteristics of Cairo's. Specifically, Egypt seems to impact Jordan, Lebanon, Morocco, Tunisia and Turkey. Turkey plays a somehow less dominant role but appears to impact the remaining MED markets. We fail to discern any link between Jordan on the one hand and Cairo, Lebanon and Morocco on the other. Overall, the inter-MED linkages are relatively weak, indicating little regional financial integration and significant differences exist among these markets.

In summary, our results confirm a belief that the MED region is maturing and on the verge of becoming the next 'emerging region'. Our results also cast doubt about the extent to which the MED markets are regionally integrated. Although, this is hindering the intra-regional flow of capital and growth in the MED region, however, in the case of a crisis erupting in one of the region's financial market, its effects might be dampened quickly and financial losses minimized.

Table 4. Summary of Pair Wise Granger Causality Patterns

Null Hypothesis: Y has no impact on X / X has no impact on Y	F-Stat.	Prob.
E does not cause J	2.18	0.12
J does not cause E	0.44	0.64
E does not cause L	3.22	0.05
L does not cause E	0.05	0.94
E does not cause M	5.94	0.006
M does not cause E	1.30	0.28
E does not cause TU	5.42	0.009
TU does not cause E	0.71	0.49
TU does not cause M	4.56	0.018
M does not cause TU	0.01	0.99
TU does not cause T	3.26	0.051
T does not cause TU	0.10	0.90
TU does not cause L	0.05	0.94
L does not cause TU	0.44	0.64
J does not cause M	0.05	0.94
M does not cause J	0.23	0.79
L does not cause M	0.25	0.81
M does not cause L	0.26	0.82

Notes: Pairwise Granger Causality tests are conducted for 2 lags. E: Egypt; J: Jordan; L: Lebanon; M: Morocco; T: Tunisia; TU: Turkey.

V. Systemic Risks of MPs

In this section we discuss the impacts of intangible and qualitative factors in some MED economies, especially relating to the financial sector. By taking into account both quantitative and qualitative factors we can better understand the process and sustainability of long–term economic growth. We analyze 16 variables that rate economic and financial features of the MPs economies. Note that those rankings are relative to the EU. We will provide indices relating to the transparency of the financial sector, the adequacy of disclosure rules and the development of the accounting system. These variables indicate how efficiently information about the financial sector is being transmitted to the public. We also provide qualitative measures of the pace of financial liberalization of the domestic financial and of the external sectors–the current and capital accounts. We also include a qualitative measure of how strongly each government pursues industrial policies, of the closeness of the government and the private sector, and also of the relationship between banks and private corporations.

Domestic credit expansion and domestic deposit growth are important for understanding the vulnerability of the financial sector to outflows of short term capital. These qualitative variables refer to the period 1990–2007. The difference between these two variables is a good indicator of the shortfall of domestic savings relative to domestic credit expansion. That difference is usually largely financed by inflows of foreign capital, which could be reverted as a result of any external shock. Several MPs are not very effective in channeling capital flows into productive investments. This failure can be attributed to several factors. First, since the early

1990s and although financial systems were being liberalized, many of these countries maintained a high degree of government control over the banking sector. In recent years, government-directed credit policies to certain targeted industries had been conducive to growth in these countries. One reason for this may have been the close relationships among government officials, bankers and corporations which meant that credit decisions were not necessarily based on credit worthiness. Such links may have led to over-investment and encouraged borrowers to believe that governments would bail them out if they experienced financial problems.

The second set of factors that may contribute to the failure to channel capital inflows into productive investments may be due to financial authorities not having the capacity to regulate the financial sector, inadequate prudential regulation of banking, lack of transparency, and weak disclosure and accounting rules. Inadequate accounting lead to poor credit analysis and investments in real estate and equity markets may produce asset inflation in those markets. Lack of transparency and an underdeveloped accounting infrastructure may not have mattered as much in a financial market structure characterized by a high level of bank concentration. A highly concentrated market results in high profitability, and this serves as a deterrent to excessive risk taking by banks, i.e., it overcomes the bank moral hazard problem although at the expense of market efficiency. This type of market structure still prevail in some MPs. Liberalizing the financial system in the face of underdeveloped prudential regulation to control bank risk taking, however, may contribute to systemic hazards.

The increase in the level of net external liabilities may partially reflect external borrowing by non-financial corporations resulting in high corporate leverage (or debt to equity ratios). High leverage usually increases bankruptcy risk of the corporate sector, making corporations vulnerable to any economic downturn. Lack of regulation and accountability reinforces these systemic risks, leading to a more severe crisis due to the potential herding behavior of foreign investors. The liberalization of some capital markets in some MPs in the late 1990s may have been premature as the domestic financial market may not have adequate prudential regulations to effectively allocate capital flows.

In Table 5, we list 16 variables that rate economic and financial features of the MED economies. Note that all of the rankings in the table are relative to the EU. We argue that the question of sustainability of growth depends critically on the vulnerability of the financial system to external shocks and systemic risks. The table highlights the role of various institutional features of these countries in accentuating or attenuating those risks. The table provides also indices relating to the transparency of the financial sector, the adequacy of disclosure rules and the development of the accounting system. These variables indicate how efficiently information about the financial sector is being transmitted to the public. MED countries are devoting genuine efforts to develop their accounting systems for better transparency and information disclosure. We provide qualitative measures of the pace of financial liberalization of the domestic financial and of the external sectors–the current and capital accounts. It is clear from Table 5 that with the exception of Morocco and Algeria, most countries in our sample have already liberalized their capital account for the purpose of attaining higher growth. This is however not the case when it comes to the current account where most MED countries have import-oriented economies. We have also included a qualitative measure of how strongly each government pursues industrial policies, of the closeness of the government and the private sector, and also of the relationship between banks and private corporations.

Table 5 indicates that there is still a lot to be done to disentangle the close relationship that still exists between most MED governments and their respective private sectors.

Domestic deposit growth is important for understanding the vulnerability of the financial sector to outflows of short-term capital. This qualitative variables refer to the period 1990–2007. The variable is a good indicator of the shortfall of domestic savings in stimulating growth. For all the MED economies net external liabilities of financial sector is indicated as medium or low. This is due to high restrictions on capital flows to the MED region. With the exception of Egypt, Tunisia, Morocco and Turkey (having a managed float), all exchange rate systems in the MED region are either fixed to the dollar or to a basket of currencies. This would constitute a problem if the capital account were liberalized at a fast pace. If that were the case, then short-term capital would flow in and out very quickly causing currency depreciations a disruption of the financial system and a loss of foreign currency reserves.

Financial reforms are indeed taking place in the MED region, although at a slow pace. However, because of its relatively protected capital account financial reform can take place without a financial crisis looming in the horizon. Removing barriers to capital flows should be slow and move in conjunction with financial reforms. The MED region is now expected to move fast on those financial reforms, which will enable it to open up for foreign capital, an essential element for sustained growth. This at a time when the emerging MED region is expected to take the lead in attracting foreign international capital which took various hits after the crisis in East Asia, Japan, Russia, Latin America and very recently in the US.

Lack of transparency and an underdeveloped accounting infrastructure may not have mattered as much in a financial market structure characterized by a high level of bank concentration. A highly concentrated market results in high profitability and this serves as a deterrent to excessive risk taking by banks, i.e., it overcomes the bank moral hazard problem although at the expense of market efficiency. This type of market structure prevails in Lebanon, Jordan, and Turkey. Liberalizing the financial system in the face of underdeveloped prudential regulation to control bank risk taking, however, contributed to systemic hazards.

The level of net external liabilities in the MED countries is deemed either medium or low, partially reflecting a low external borrowing by non-financial corporations resulting in low corporate leverage (or debt to equity ratios). Low leverage usually decreases bankruptcy risk of the corporate sector making corporations not very vulnerable to any economic downturn. However, the lack of regulation and accountability may reinforce these systemic risks, leading to a more severe crisis due to the herding behavior of foreign investors. In what follows we present a more detailed country case studies to complement the various components of Table 5.

Table 5. Summary of Country Profiles of MED Countries

Item/Country	Egypt	Lebanon	Morocco	Tunisia	Jordan	Algeria	Turkey
Exchange Rate Regime	Manage d float	Pegged to the Dollar	Managed Float (flexible)	Flexible Exchange System	Fixed	Semi Floating (managed float)	Floating
Openness relative to France	Low	High	High	High	Medium	High	High
Trade orientation	Import oriented	Import oriented	Import oriented	Import oriented	Import oriented	Import oriented	Import oriented
Degree of capital account liberalization	High	High	Low	Medium	High	Low	Medium
Degree of domestic financial system liberalization	High	Medium	Low	High	Medium	Medium	High
Level of bank share in financial sector	Low	High	Medium	Medium	High	High	High
Market concentration in banking	Low	High	Medium	Medium	High	High	Medium
Rate of domestic deposit growth (1998-2007)	High	2002 - 2008 12.5 %	Low	Medium	High	Low	Low
Net external liabilities of financial sector	Medium	Low	Medium	Low	Low	Low	Low
Level of government-directed lending	Medium	Low	Medium	Medium	High	High	Medium
Closeness of government-business relationship	Medium	Low	Low	High	High	High	High
Closeness of bank-private corporation relationship	Medium	High	High	High	Medium	Medium	Medium
Quality of prudential regulations	Medium	Medium	Medium	Medium	Medium	Low	Medium
Level of financial sector's transparency	Medium	Medium	Medium	Medium	Medium	Low	Low
Adequate of financial sector's disclosure rules	Medium	Medium	Medium	Medium	Medium	Low	Medium
Level of development of accounting system	High	Medium	Low	Medium	Medium	Low	Low

V.1.Egypt

In the early 1990s, the Egyptian pound was pegged to the US dollar, and the Central Bank was successful in fixing it at a rate of 3.4 pounds per dollar. In August 2001, a crawling peg was adopted, and the pound experienced 14 per cent depreciation to about 4.5 pounds per dollar. The pound continued to depreciate until in 2003, a flexible exchange rate was adopted, but the currency depreciated even further to hit 6.2 pounds per dollar in 2004. Since then, the exchange rate stabilized. Coinciding with the Egyptian currency depreciation in 2001 was a sudden rise in Egypt's exports mainly natural gas and oil exports, and the current account moved into a surplus over several years. Nevertheless Egypt has maintained a trade deficit for the last 60 years. Egypt's capital and financial accounts liberalization led to a surge in FDI, trade and portfolio flows. However, the external exposure of the financial sector is still minimal as the level of its net external liabilities remains average which makes the banking sector contagion risk to the global financial crisis limited. The period 1996-2001 was the period of trade and capital accounts liberalization. In 2007, Egypt was voted the top reformer for doing business by the World Bank. All of these reforms led to capital inflows and an increase in trade with mainly the EU, but the degree of openness relative to France remains low.

During the 1990s, the banking sector introduced major reforms in order to move towards a more liberal economic system. Nevertheless state-owned banks continue to dominate the banking sector with about 80 per cent of deposits and 50 per cent of loans. Even though there have been vast improvements in this sector, there are still issues among many investors due to Egypt's shaky past pertaining to issues of corruption and lack of transparency, which constituted a main hindrance of banking sector development, however the accounting system is deemed adequate. Throughout the 1990s, banks have dominated the financial system, with about 25 per cent of domestic credit directed towards government lending-in line with the medium closeness in the government-business relationship- and the rest for the domestic business sector and the household and public enterprise sectors. More recently, banks helped stimulate economic activity, by increasing their lending to the private sector, especially in the manufacturing, trading and tourism sectors, and in parallel to the increase in loans their has been a high rate of domestic deposit growth. The government is still, however, undertaking more efforts, such as increasing bank supervision, training high executives, to improve the financial sector medium levels of prudential regulations as well as its disclosure rules. In short, Egypt has moved to a more free market oriented economy since the beginning of the 1990s.

V.2. Lebanon

Since the mid 1990s Lebanon has adopted a fixed exchange rate regime and the Lebanese Pound has been pegged to the US dollar. This regime is adopted by the Central Bank in order to preserve a certain level of monetary stability, control the inflationary pressure of the early 1990s, and to regain a certain minimum level of trust in the Lebanese government.

A sign of the openness of economy is the openness of its capital account. In fact, the openness ratio is very high for the Lebanese economy which indicates that the country relies on capital inflows to account for the recurrent deficits in its current account. The Lebanese economy is considered to be a small economy; however, it is very active on the international trade scene, especially with France which is one of the major trade partners. The ratio of imports over exports was very high in the mid nineties and reached a level where imports were 11 times higher than exports, indicating the country's trade orientation towards imports. However, in the last few years this ratio is varying between 4 and 5.

The degree of capital account liberalization is high because virtually no restrictions exist on foreign direct investments, portfolio investments and bank borrowing. The degree of domestic financial system liberalization is Medium since banks are the major players in financing all investment projects in Lebanon; which implies that the level of bank share in the financial sector is high and there is a close relationship among corporations and banks. The banking sector is mainly dominated by few large banks having the biggest share in the banking sector. The rate of domestic deposit growth between 2002 and 2008 is 12.5 per cent implying that it is a Medium level of growth. The net external liabilities of the financial sector are low because household and firms, in general, deposit their money in local banks. Banks, in Lebanon, are more involved with businesses, and there is a close relationship among banks and firms compared to firms-government relationships. Finally, the accounting system in Lebanon is developed but it is not working as it should be, nevertheless further efforts are to be devoted to improve the medium levels of prudential regulations, transparency and disclosure rules in the financial sector so that it becomes an efficient contributor to the country's economic growth. Some tax payers deliberately misrepresent or conceal the true state of their affairs to the tax authorities to reduce their tax liabilities.

V.3. Morocco

Morocco has adopted a managed float exchange rate regime after opening up its markets to international trade and capital flows. Consequently, more flexibility in the exchange rate was introduced. Throughout the period under consideration, the exchange rate in Morocco has been volatile. However, since Morocco started to open its markets to international trade and capital flows to strengthen investment and growth, this involved significant modification in the exchange rate regime. Consequently, Morocco opted for greater exchange rate flexibility as its markets are getting progressively more liberalized. Morocco is mainly an import oriented economy with a level of imports of goods and services exceeding $ 28 billion. Furthermore the degree of openness relative to France is somehow high since France is Morocco's biggest trade partner. The capital account is not completely liberalized due to the significant restrictions for current account convertibility and on capital movements.

The degree of domestic financial system liberalization is relatively low and consequently further strengthening of macroeconomic stability and domestic financial sectors are crucial prerequisites to help minimize the potentially destabilizing effect of short-term capital flows, and enhance the capacity of the domestic financial sector to face foreign competition. There are currently 17 commercial banks operating in Morocco, together with three specialized institutions which are not deposit gathering. Together, they constitute a significant portion of a financial sector which also includes leasing, insurance, consumer credit, fund management and investment companies. Thus taken alone, the level of bank share in the financial market is medium and so is the market concentration in banking. The share of state ownership in the banking sector was 38 per cent by the end of 2007, which could be an indicator of the low closeness in the relationship between the government and the financial sector. Morocco has made significant progress over the last decade in establishing a sound and efficient bank intermediation, in deepening its financial markets, and in mobilizing domestic financing. As expected, the reforms implemented have had a positive impact on financial intermediation and the structure of the financial sector and credit to the non government sector rose subsequently, indicating an improved allocation of financial resources. Following the recent privatization of financial institutions, the private sector's share in the banking sector's assets is now close to 60 per cent, which is an indicator of the good relationship between the banking sector and the private sector, specifically private corporations. Other reforms to improve the settlement systems are already in place, which should facilitate the use of open market operations by the central bank.

In order to fully integrate the financial systems of the Maghreb countries into world financial markets, it is imperative to establish full convertibility by liberalizing outward investment by residents. The sequencing of changes in the financial sector with other macroeconomic reforms, however, has not always been smooth. The financial reforms that Morocco has undertaken over the past 20 years were somehow unsuccessful in reinforcing economic development. Prior to the introduction of the financial reforms, the budget's domestic financing was rather high, but one of the key objectives of the reforms was to decrease government-direct lending. Banks were still required to hold a certain percentage of their liabilities in government bonds, but these requirements decreased over the period under consideration, reducing government directed lending on the one hand, and increasing loans to the non-government sector. Moreover, another result of the financial liberalization was a bigger exposure of the financial sector in Morocco to international markets, which facilitated foreign borrowing along with the establishment of full convertibility for foreign investors. Nevertheless the financial sector's net external liabilities remained at an average level. As expected, upon implementation of the reforms, the financial sector's resource allocation became more efficient. In fact the ratio of reserve money to deposits has decreased over the years indicating a shy growth in domestic deposits and a gain of efficiency in the intermediation of the financial sector.

Morocco has well-established systems of bank supervision and prudential standards, a pre-requisite for financial sector liberalization. Morocco's banks are, on average, adequately, though unevenly, capitalized, and their loan-loss provisions are sufficient to offset a high ratio of nonperforming loans. As for the level of the financial sector's transparency, Morocco's financial system is fairly well developed for the region. In fact, there is an ongoing campaign to increase modernization of the accounting system and transparency in the financial sector. Morocco's Casablanca Stock Exchange is one of the few regional exchanges that impose no restrictions on foreign participation with adequate rules for financial sector's disclosure.

V.4. Tunisia

The Central Bank of Tunisia has adopted a flexible exchange regime. The monetary crises of the Nineties which shook the capital market of several countries highlighted the incompatibility of the intermediary exchange rate regimes with the high volatility of international capital account mobility induced by the financial globalization. The adoption by Tunisia of structural reforms in a context of gradual opening since 1986 had allowed in 1993 the instauration of the convertibility of its current account and the total convertibility of the Tunisian dinar. In fact, economic openness in Tunisia increased to an average of 99.5 per cent over the 2000-2008 period, against 89.3 per cent during the 1990s, making Tunisia one of the most open economies in the MED region, particularly open towards France. The European Union is considered as the major trade partner of Tunisia. Among the EU countries, France stands out whereby Tunisia and France have strong and solid trade agreements making it the single most important trade partner with a share of 23% of Tunisia's exports and 26% of its imports. Imports in Tunisia account for more than 60 percent of the GDP. During the 1980's, Tunisia has undertaken a vast program of economic reforms that aimed at decreasing public interventionism in economic activity. Subsequently, the degree of capital account liberalization is somehow advanced and is compatible with the flexible exchange rate regime.

Tunisia's decision to deregulate its domestic financial sector and open it up to international capital flows was not a policy choice, but a consequence of its broader shift in developmental strategy. The beneficial impact of liberalization measures is positively correlated with the development and efficiency of the domestic financial systems and the efficiency of Tunisia's domestic financial system.

The financial sector in Tunisia has gone through some major reforms during the 1986-1996 period, rendering it more liberalized, deregulated, and market oriented. All of this encouraged the development of the banking sector in Tunisia whereby the banking system is composed of 14 Deposit Banks, 9 Leasing companies, 8 Offshore Banks, 8 Development Banks, 4 foreign banks representative offices, 2 Merchant Banks and 2 factoring companies. Thus one can say that the market concentration in banking is more or less average and the banking sector share in financial sector is also medium. The banking- private corporation relationship looks solid and close where the domestic banking sector remains the first-resort lender of the private sector and local enterprises, though the latter are turning more and more recently towards the capital market.

Tunisia has made significant progress in establishing a sound and efficient bank intermediation, in deepening its financial markets, and in mobilizing domestic financing which have had a positive impact on financial intermediation and the structure of the financial sector and credit to the non government sector rose subsequently, indicating an improved allocation of financial resources. However, the financial sector reveal still incapable of achieving the efficiency and depth of developed market-based financial systems in industrial countries or in the most advanced developing countries.

In between 1986 and 1997, Tunisia went through some major reforms that were dictated by the IMF. A consequence of these reforms was a decrease in the government control over the banking sector and its credit allocation. Prior to this wave of reforms, commercial banks didn't have free control over their loans, the government had the final word and the government-directed lending was high, but upon establishment of these reforms commercial banks were free to decide how to allocate their credits and the government lending decreased as the amount of treasury bills that they were required to hold decreased. Other efforts were devoted in order to relieve the country's reliance on internal financing sources by achieving integration with international financial markets; this subsequently increased the low level of the financial sector's net external liabilities.

The government business relationship is rather high as the Tunisian government has control over a number of public banks which CEOs are usually designated as "state officials." The Tunisian government is considered as highly influential on economic affairs. The banking sector has in 2008 registered an increase of 11.3% in its deposits during the period 1998-2007; recording a medium growth rate in its domestic deposits. Further strengthening of macroeconomic stability and the domestic financial sectors are important to help minimize the destabilizing effect of short-term capital flows and improve the performance of the domestic financial sector in order to face foreign competition. Tunisia has a well-established system of bank supervision and prudential standards. The Tunisian financial sector is more or less transparent especially that Tunisia has devoted considerable efforts to introduce more transparency and to improve its medium levels of disclosure rules, prudential regulations and accounting techniques. Finally, Tunisia has a modern and effective accounting system that follows the French system.

V.5. Algeria

Algeria has been experiencing an upward surge in economic performance during the past decade, due to both a strong banking and financial sectors, allowing the country to be immune against exogenous shocks. Despite the recent international financial crisis and skyrocketing commodity prices, Algeria's economic performance remained stable with relatively low inflation rates (4.4 per cent in 2008). Furthermore the Dinar's real exchange rate remained close to its equilibrium level as aimed by the adopted managed float exchange rate regime. The limited impact of the international financial crisis on the financial sector is not surprising given the small openness of the Algerian market, and given its low degree of capital account liberalization and Medium degree of domestic financial system liberalization. The country adopted a policy of avoiding external borrowing in order to limit the crisis contagion. Therefore, the external liabilities of the financial sector are kept low and instead economic policy is focusing on domestic liquidity to finance the country's investments. Trade openness has been improving since 2001, due to the association agreement signed with the EU, and France being one of the major trade partners.

Given the small increase in deposits and credits, banks are to increase their financing to SMEs, not to forget that they need to improve their risk management, accountability and transparency and disclosure rules and regulation. Nevertheless in 2007 banking deposits recorded a robust increase of 25 per cent from the previous year. As dictated by the Basel II agreement, banking supervision is to be strengthened, the reporting system is to be modernized and the operational framework of the banking sector is to be strengthened. There are 20 banks in Algeria with 6 public-sector banks and 14 private sector banks, all of which are auxiliaries to international banking groups. The banking system is dominated by the 6 state owned banks that alone represent 95 per cent of the market share. On an asset basis and taken together the public and private banks account for more than 91 per cent of the total assets in the Algerian financial system. The banking concentration ratio of Algeria is rather high, measuring the amount of assets held by the 3 largest banks, this ratio reached 60 per cent in 2001, but since then the banking sector became less concentrated. However Algeria still has the highest 3-bank total asset concentration ratio in the MED region.

The closeness of the government-business relationship is seen in the fact that the banking sector remains dominated by the public sector which controls over 90 per cent of the banks' overall deposits and assets. On the one hand, he level of the government directed lending is rather high. For instance, in 2007, the bank credits to the public sector amounted to $ 14.4 billion, constituting more than 43 per cent of the total banks claims. With respect to the closeness of the relationship between the banking sector and the private sector (private corporations more specifically) one should consider the bank credit share to this sector which amounted to 55 per cent in

2007, mainly given out to private corporations, SMEs and foreign international companies operating in Algeria.

V.6. Jordan

In 1995, the Central Bank of Jordan implemented a strategic decision to peg the Jordanian Dinar (JD) to the dollar at the fixed exchange rate of $1.41 per Dinar. This has served the Jordanian economy quite well, reducing inflationary pressures and maintaining the purchasing power of consumers. For the past 10 years, exchange-rate stability prevailed and no major speculative attacks on the Dinar were recorded. The fixed JD/dollar peg has provided a credible anchor for non-inflationary monetary policy and made it possible for the Central Bank to lower interest rates on the Jordanian Dinar. This fixed exchange rate strategy has been very successful and advantageous, and has reflected the successive surpluses recorded by the country's balance of payments. Furthermore, Jordan has a liberalized capital account regime with no restrictions on capital inflows and outflows. Since the JD/dollar exchange rate is fixed, investors’ confidence in the currency is maintained and the exchange rate risk is reduced. This encourages further domestic saving and investments in the JD and discourages capital outflows.

Openness ratios in 2007 ranked Jordan among the most open economies in the region. Liberal trade policy and structural reforms have enabled the country to deal with a number of major external shocks. Jordan is committed to contribute towards the strengthening of a free, open and stable multilateral trading system. Besides its demonstrated commitment to multilateral system, Jordan has pursued a strategy of regional and bilateral trade liberalisation to gain additional preferential market access in exchange for opening up its own import market and further exposing its businesses to the benefits and challenges of international competition. Nevertheless its degree of openness towards France remains more or less low, and Jordan is still considered to be an import-oriented economy.

The Jordanian banking sector is highly concentrated - the concentration rate is used as an indicator of the relative size of firms in relation to the industry as a whole. Most recently, banks lowered interest rates on deposits and in many cases increased them on credit facilities, thus increasing their own profit margins, and contributing to a high rate of growth in domestic deposits. Jordan's banking sector is set to expand in the future. In fact, it is very active constituting one of the main pillars of the national wealth and enhancing the whole economy. This industry is constantly growing and retail banking, commercial banking; corporate banking activities have now been introduced by most banks which was not the case only few years ago. All of these factors have contributed to the high level of bank share in the financial sector and the high market concentration in banking.

The government presence in the financial sector was amplified by several specialized institutions that filled voids in commercial lending activity such as: the Agricultural Credit Corporation, the Housing Bank (which provided mortgages), and the Industrial Development Bank (which channelled capital to small start-up manufacturing businesses). The government also channelled equity capital to the private sector through large government pension and social security funds. The government encouraged the expansion of banking services to favour its economic development policy. Furthermore, when it comes to government borrowing, banks are required to invest 8 percent of their deposits in government bills and bonds. Investment of at least 15 percent of capital in public and mixed sector corporate equity also was mandated, and the minimum capital requirement was increased to JD 5 million, and net external liabilities are considered to be low. Total deposits at the banking system grew at a rate of 11.3 per cent per year during the 2002-2007 period. As for the nature of the depositors, private sector is the main one, revealing thus the closeness between banks and private corporations, residents come in second place, and both their deposits had the highest share of the total deposits at the banking system, amounting to 78.2 per cent of the total deposits in 2007.

Even though Jordan's financial sector has witnessed quite an improvement, further deepening is needed especially when it comes to SMEs. In fact the National Fund for Enterprise Support and the IMF found that Jordanian banks are not at par with the financing needs of the private sector. Therefore, they are not effective lenders at all, making the bank-private corporation relationship not very strong. The SMEs' sources are insufficient, implying thus their need to access formal financing institutions due to the problem of asymmetric information that arises. The asymmetry is felt on two levels, on the one hand, these small enterprises have a limited knowledge about the financial market and all what underlies it, and on the other hand banks do not have the adequate information about these companies because of their small size and the fact that they do not publish reliable financial statements. The financial sector as a whole needs to improve the quality of prudential regulations and its disclosure rules as well transparency issues.

V.7. Turkey

Although recent efforts have been initiated to ease up some of the restrictions that existed on the capital movements and payments, nevertheless restrictions still exist. The Financial sector is mainly dominated by the banking sector-with a medium market concentration in banking- which had historically experienced several crises. Due to a severe balance of payment crisis, Turkey was pushed to liberalize its domestic financial system and to abandon its traditional inward-development orientation policies. Turkey has recently adopted a very liberal exchange rate regime. With the Turkish Lira being fully convertible, the Central Bank of the Republic of Turkey (CBRT) moved from a managed-floating regime, to a crawling peg in 1999. This move has initially given positive results, but subsequently and with the resurgence of huge capital outflows and banking sector crisis, the crawling regime was ditched after the huge depreciation of the nominal exchange rate. Subsequently a free-float exchange rate regime was adopted.

Prudential regulations and standards have improved and regulations have been implemented in the banking sector in particular with the help of the Banking Regulatory and Supervisory Authority (BRSA). Thus many efforts are being initiated in order to ameliorate the regulatory framework, by ameliorating external and internal audit, obliging institutions to publish detailed annual reports and improving risk management procedures. Turkey is revising its banking system and its framework to be more in line with the EU standards in order to join the EU. The low level of external liabilities of the financial sector has limited the effect of the global financial crisis on the banking system. Only 33 per cent of the total liabilities were in foreign currency in July 2009. Measures were taken by the Central Bank to help in keeping the banking sector sound, among those measures are risk management, low liquidity risks as well as low currency risks. One important pillar of the banking sector in Turkey is the development of its deposits base; the structure of the banks' balance sheets is not very complicated and is mainly composed of deposits with no derivative products. The deposit growth rate registered at the end of 2008 a 20 per cent increase.

The financial sector in Turkey is still not very developed when compared to other MED countries, and the banking sector has a major share in it. The financial deepening that the country witnessed and the expansion of its banking sector were mainly financing the Turkish Treasury and subsequently the government, but still the government- directed lending can still be considered as Medium. With respect to the government-business relationship, the Turkish government owns numerous enterprises. There are a total of 39 state enterprises owned by the government not to mention its shareholdings in various other corporations. There is also what is called the Government Business Enterprises or GBEs that have a function comparable to private sector enterprises. On another note and regarding the relationship between the banking sector and the corporate sector, there are some efforts devoted to improve the medium closeness between those two entities. The major problem is the settlement of the disputes between banks and their corporate customers. One positive initiative taken in that regard was the establishment of an arbitrary agency set to improve the legislative framework by solving disputes occurring between private banks and their customers. Recent and up-to-date accounting standards are being adopted, and more modern financial instruments measurements are being introduced. Moreover the financial sector's disclosure rules have been improved and modernized. Several new measures have been introduced with regard to the accounting standards as well as auditing standards and market disclosure requirements, in order to improve corporate governance performance and consequently improve the business environment.

VI. Empirical Analysis

In the past, empirical studies could not prove how significant of a role does the financial sector play in promoting growth. Recently, however, this role is well established and emphasized. The key indicators of the wellness of the financial market, and thus its contribution to a country's growth, are mainly the presence of a competitive banking sector, highly liquid and active equity market, along with an efficient financial market channelling savings towards productive investment activities.

The MED region's growth has been falling far behind the developing countries average due to the fact that the various governments are still intervening and putting obstacles to economic development. Furthermore the weak institutional framework in this region has also accounted for the region's weak performance; we mention the underdeveloped financial sector as well as the existence of inefficient investment and non productive loan orientation. As shown above and in many MED countries, the state owns a large proportion of banks' assets, and is also putting down restrictions which discourage any competitors from entering the market. Financial deepening is required in the MED region as a form of financial reform in order to promote growth. In this context, capital markets are to be reformed allowing credit to be channelled to the private sector which would potentially increase the growth rate by an additional 0.5 per cent per year.

One of the main obstacles to achieve an optimal capital market structure in the MED region is the high level of capital market concentration in banking. For instance, in 2004, the MED capital market structure was as follows: 85 per cent bank assets; 12 per cent stock market capitalization; and 3 per cent debt securities. Thus one way of getting on the right track is to find a balanced distribution, i.e. a more adequate division of the capital market between stocks, bonds and bank products.

MED governments need to introduce the required reforms in order to: (1) Allocate funds to more productive projects; (2) Allow more access to finance (especially for SME's); (3) Ameliorate transparency and corporate governance; (4) Reform the regulatory, legal and jurisdictional framework; (5) Modernise the management of the financial sector; and (6) Incorporate more elaborated accounting standards to be at par with international standards.

In this section, we analyze the impact of such financial sector reform on savings, growth and employment. While economists recognize the influence of financial factors on corporate investment decisions and economic growth, this relationship is not at all straightforward or well understood. One can argue that with a well-developed institutional infrastructure, i.e. adequate prudential regulation in banking, bankruptcy laws, accounting systems and laws and regulations ensuring transparency of the financial and non-financial sectors, direct controls of the financial markets are unwise. Otherwise, in the absence of such measures government controlled financial systems might be considered a second best alternative to avoid disruptions to economic growth. This matter will be thoroughly assessed.

There exits a great deal of empirical support for the link between financial developments and economic growth. One important empirical paper is by King and Levine (1993). Using data for some 80 countries over the period 1960-1989, they test the hypothesis that financial development induces economic growth. It is shown that financial development is strongly correlated with growth in investment, standards of living, and the efficiency with which economies employ physical capital. It is also shown that financial development is a good predictor of future rates of economic growth, investment, and economic efficiency improvements. Their paper, however, does not consider the effects of stock and bond markets developments as well as accounting, regulatory, and legal systems on economic growth and development. In this research project, we will argue that these additional institutional factors can have a substantial bearing on the relationship between financial development and growth.

We provide a more formal econometric analysis to understand the main determinants of growth and financial development in the MED region. Our sample comprises 7 MED countries (Algeria, Egypt, Jordan, Lebanon, Morocco, Tunisia and Turkey). The data set spans the period 1990-2008, collected from World Bank's 2008 World Development Indicators (WDI) and Global Development Finance (GDF), and the International Monetary Fund's International Financial Statistics and Direction of Trade Statistics, plus various domestic sources (Central Banks and Ministries of Finance). Since we have 19 observations, we use a 1-year sample rather than the 5 years average as it is frequently suggested in the literature (see for e.g. Barro and Lee, 1994; and Caselli et al., 1996).

A panel data econometric model is used to highlight the main determinants of growth in the MED region. The estimated growth equation relates real GDP growth to a set of measures of financial depth, real interest rate and a set of control variables consisting of foreign direct investment, the real interest rate, national savings, trade openness, inflation rate, external debt as a share of GDP, and government expenditure.

Since the aim of this section is to evaluate the effect of the financial sector developments on economic growth rates of the MED countries, we consider the following explanatory variables of growth in the MED region: the degree of financial development (M2/GDP), real interest rate (i), net savings (NS), the degree of trade openness (EI), inflation (Inf) and external debt to GDP (EDGDP). The other covariates considered are: foreign direct investment (FDI) and government expenditures (GOV). In our analysis, the dependent variable is represented by real economic growth rate.

The general version of the model takes the form:

$$\sigma_{i,t} = \alpha_i + \beta\, M_2/GDP_{i,t} + \theta\, i_{i,t} + \delta\, NS_{i,t} + \phi\, EI_{i,t} + \varphi\, Inf_{i,t} \\ + \mu\, EDGDP_{i,t} + \mu_1\, FDI_{i,t} + \eta\, GOV_{i,t} + u_{i,t}. \tag{4}$$

Where i = 1,2,…N cross sections, and periods t =1,2,…T, with N=7 MENA countries and T=19 years, spanning the sample period 1990-2008. And where $M2/GDP_{i,t}$ is the degree of financial depth for country i at time t; $i_{i,t}$ is the real interest rate for country i at time t; $NS_{i,t}$ is net savings for country i in period t; $EI_{i,t}$ is international commerce to reflect economic openness for country i at time t; $Inf_{i,t}$ is the inflation rate for country i at time t; $EDGDP_{i,t}$ is the external debt to GDP for country i at time t; $FDI_{i,t}$ is the foreign direct investment for country i at time t; and $GOV_{i,t}$ is government expenditures for country i at time t. The intercept α_i is a country random effect that controls for country specific factors that vary over time. White heteroskedasticity−consistent standard errors and covariances will be computed. The independent variables have been selected on the basis of their potential relevance to this model, and because of their importance in depicting their impact on economic growth. The residual covariance matrix for this set of equations is given by

$$\Omega = E(uu') = \sigma^2 I_N \otimes I_T .$$

The estimated panel data econometric model is given by:

$$\sigma_{i,t} = 6.217 + 0.046\, M2/GDP_{i,t} - 0.062\, i_{i,t} + 0.029 NS_{i,t} + 0.032\, EI_{i,t}$$

(11.11) (-5.98) (-1.75) (-2.54) (0.422)

$$-0.02\, Inf_{i,t} - 0.000000645\, EDGDP_{i,t} \tag{5}$$

(-0.70) (-0.70)

The above model is obtained using country-fixed effect estimation over the period 1990-2008. The dependent variable is real GDP growth rate. All explanatory variables are in logarithm, except for real interest rate. The estimates are corrected for auto-correlation and heteroskedasticity (GLS estimation). The t-statistics are given in parentheses. The first striking feature of our results is the positive and significant coefficients on financial depth indicator. This result is in line with those of King and Levine (1993), who found a positive association between financial system development and economic growth in a cross-country context. Our results provide evidence that once fundamental variables such as net savings and policy related variables such as trade openness, inflation rate and the burden of external debt are controlled for, financial depth indicators continue to explain the growth experience in the seven MED countries under investigation. One channel of interaction presented earlier is through the effect of financial depth on private investment. The second striking feature is the positive, significant and robust coefficient of national savings. This present clear evidence that while the 7 MED countries are generating enough savings to contribute to growth, they did not succeed in using those savings through an efficient financial market to further stimulate investment and growth.

The remaining results presented above show that the coefficients on investment and inflation are negative and insignificant which is not consistent with our expectations and related literature. The coefficient estimates of external debt as a share of GDP is negative and statistically not significantly which indicates that the burden of external debt may have contributed negatively to the observed slow growth in MENA countries. Debt obligations absorb an important fraction of resources that could be mobilized for investment purposes. The results on the other variables need to be interpreted with extreme cautious due to the potential heterogeneity in growth patterns among the seven countries.

VII. The Role of Financial Instruments in Economic Development of MPs

VII.1. Overview

The financial instruments including new issued shares know as IPOs, the trading of secondary market shares, corporate and government bonds, and treasury bills are considered as major factors in enhancing as well as monopolizing economies in both developed and emerging countries. In addition, such financial instruments improve local savings and redirect them to investment and financing economic projects through systematic ways and means. They lead to better management of cash flow including foreign direct investments. As a matter of fact, the role of financial markets in enhancing national economies is receiving much more attention lately in the economic literature as well as at the policy decision levels in the majority of the world national governments and global world institutions (Sabri, 2007). However, the role of financial markets varies from developing economies to emerging economies from one side, and varies within each group from one individual country to another. In general, the role is increasing in the majority of the world economy as expressed by stock market capitalization to GDP ratio, which was more than 100 per cent in the majority of the world stock markets in 2007. Moreover, some countries have a ratio over 300 per cent such as in Singapore, Luxembourg, and Hong Kong (WFE, 2009).

Accordingly, this section aims to discuss the relevance of this issue within the Mediterranean context. In order to present similarities as well as differences among the selected sample of MED countries, this section covers both sides of the Mediterranean including north (European) economy, and South (MED) economy. The selected sample includes two MED countries: Jordan and Egypt, while the Northern countries include Turkey and Greece. The GDP for the selected sample ranges from $ 659 billion for Turkey, $ 314 billion for Greece, $ 128 billion for Egypt, and $ 16 billion for Jordan in 2007. The significance of the financial markets to GDP in the selected sample varied; it ranged from 261 per cent for Jordan, 109 per cent for Egypt, to 84 per cent for Greece, to 44 per cent for Turkey (WFE, 2009).

Specifically, this section aims to accomplish the following tasks: (1) To what extent the trading of corporate shares in secondary markets is associated with the MED GDP for the selected four countries; (2) To what extent the new issued shares are associated with the development of MED GDP for the selected sample; (3) To quantify the impact of bonds and other debt instruments on economic development of Mediterranean GDP; (4) To what extent the trading of corporate shares in secondary markets is associated with the fixed capital formation improvement as shown in some of the selected MED countries.

VII.2. Review of Literature

Various earlier studies reported a significant correlation between development financial market developments and economic growth (Levine, 2003; Levine 1991, Levine and Zervos, 1996; Demirguc- Kunt, and Levine, 1996, Levine and Sara, 1998a and 1998b). Moreover, Alam, and Hasan (2003) indicated that there exist stable long-run equilibrium relationships between stock market developments and economic growth in the US. Beck and Levine (2004) reported that stock markets and banks positively influence economic growth, and this is not due to potential biases. Rousseau and Sylla, (2003) reported that countries with more sophisticated financial systems engage in more trade and appear to be better integrated with other economies. However, other studies showed contradicting conclusions such as Shan, Morris & Sun (2001) who reported that there is little support for the hypothesis that finance leads to growth, and caution must be exercised in making general conclusions about this relationship. Arestis Demetriades and Luintel (2001) accepted the view that both banks and stock markets may be able to promote economic growth, but they believe the contribution of stock markets to economic growth may have been exaggerated by studies that utilize cross-country growth regressions. Papaioannou (2007) found that financial development fosters aggregate growth mainly by lowering the cost of capital in emerging countries, while in advanced economies by raising total-factor-productivity. Finally, various different conclusions were reported regarding this issue and other related issues for individual countries of the selected sample as well as for the related regions including Greece, Turkey and MED economies. Summary of such studies may be presented into two groups as follows:

-Review of literature related to the Northern MED sample: Few studies discussed this issue and other related topics in the selected sample. For example, Hondroyiannis, Lolos and Papapetrou (2005) have shown that both bank and stock market financing in Greece can promote economic growth, in the long run, although their effect is small. Kurun and Yilmaz (2007) reported that Turkish derivatives exchange (TurkDEX) is limited and traders are reluctant to use them because of the lack of knowledge and expertise, besides high transaction costs and volatile market conditions. Basci et al., (1996) concluded that stock price levels and trading volume in Turkish stock markets are co-integrated. Sabri (2004) found that stock trading volume, deposit interest rate, exchange rate, and the London stock price index are found to be the most predictable variables, and presented the highest positive correlation to changes in Turkish stock price index. Isik, Anandarajan, and Isik, E (2002) indicates that, overall, earnings and inflation-adjusted book values combined virtually explain almost 75 per cent of the variation in equity prices in the Istanbul stock exchange.

-Review of literature related to South Mediterranean sample: El- Erian and Kumar, (1995) reported that the role of equity market in developing the Arab region may be accomplished if reform polices are implemented to reduce country risk and implement privatization programs. Neaime (2002) found that the financial integration and liberalization in the Arab stock markets would increase benefits to investors and enhance growth and liquidity in these markets. BenNaceur, Ghazouani, and Omran (2007) found that savings rate, financial intermediary, stock market liquidity and the stabilization variables are the most important determinants of stock market development. Girard, Omran and Zaher (2003) concluded that the Arab stock markets were highly segmented and provide diversification benefits to the global investor. Omran and Pointon (2001) indicated that the inflation rate had an impact on the Egyptian stock market performance.

Guermat, Hadri, and Kucukozmen (2003) examined whether the economic and political instability in most Arab countries led the stock markets to become riskier than other stock markets in developed countries, and found that Arab stock markets including Egypt, Jordan, and Morocco are less risky**.** Hassan, and Jung-Suk Yu**,** (2007) stated that in spite of the recent extreme fluctuations in the MENA stock markets, there was no strong evidence of rational speculative bubbles of investors. Bennaceur, Boughrara and Ghazouani (2009) found that Jordanian monetary authorities respond significantly to an increase in stock market returns. Creane, et al., (2004) found that there is variation in the degree of financial development; within the Middle East and North Africa region in which there were only some countries which are fairly well advanced. Grais and Vittas (2005) concluded that contractual savings and institutional investors are neither necessary nor sufficient for the development of equity and bond markets in Egypt and Jordan. Sabri (2008) found that there is an increase in both trading volume and stock price volatility, which may be considered as a recent phenomenon in the majority of the Arab stock markets including those of Amman and Egypt.

VII.3. Methodology

This section is intended to examine the role of financial instruments in MED economic development. Four Mediterranean countries are studied: Turkey, Greece, Egypt, and Jordan**.** Economic development for national or regional economies can be detected and measured by various indicators; including GDP, employment rate, fixed capital formation, capital investments, balance of trade, balance of payment, GDP per capita, government expenditures, private consumption, external debt to GDP, export to import ratio, and human development indicators. However, for the purpose of this section two major economic indicators were selected to present the degree of national economic development for the selected economies. They include: (1) Gross Domestic Product (GDP) and (2) Gross Fixed Capital Formation (GFCF). Such indicators are considered as the most common measures of economic development. For example, GDP tracks economic growth over a period of time, while fixed capital formation describes the new added investments and assets to the national economy.

The financial instruments in the world economy include primary shares in cash markets stocks, corporate bonds, warrants, government bonds, convertible bonds, stock markets, mutual funds, exchange traded funds (ETFs), CDs, instruments of less than a year maturity, commercial papers, futures, options, index futures, and index options, Euro- equity issues, ADR, Eurocurrency, repurchase agreements, and other money market instruments, treasury bills, corporate bonds, and municipal bonds (Sabri, 2007). However, for the purposes of this section three financial instruments are selected including: (1) New issued primary stocks including IPO and shares issued by listed corporations; (2) Government and corporate bonds and treasury bills (newly issued or the value of listed securities); and (3) Stock market capitalization.

This selection include the major traditional financial instruments due to the fact that the economies of the four selected countries do not include new innovative or option instruments, and if there are some new introduced instruments, they are still negligible compared to the selected indicators. The selected period of study ranges from 1980 to 2008, however for some indicators and economies, this period is shorter.

The sources of the data used include the database of the World Federation of Exchanges (WFE, 2009), the International Financial Statistics (IMF, 2009), Emerging stock markets Fact book (IFC, 1989-1999) International Monetary Fund, World Economic Outlook Database (IMF, 2008) and individual national stock exchanges and central banks data including (ECB, 2009) for Greece gross fixed capital formation, ASE (2009) Amman primary market data and (Egypt, 2009) for bonds data of Egypt. This section uses the Pearson correlation test between indicators of financial development and economic growth variables including GDP and GFCF and three financial instruments, covering a twenty five years period. Comparisons between various findings were conducted regarding the association between single financial indicators and economic growth crossing the four selected countries, as well as, between south and north Mediterranean countries and for the whole sample.

VII.4. Empirical Results

The findings of the section will be presented in various sections below; the first four sections will show the findings for each of the selected sample individually, while the following sections will be devoted to present the findings as a collective sample, and to compare between regions and economic measures.

VII.4.1. Turkey

Over the past two years, the Turkish stock market, has been growing, considering the following facts; the domestic market capitalization increased from $ 6.8 billion in 1989 to $ 118.328 billion in 2008, the number of listed firms increased from 50 firms in 1989 to 320 firms in 2008, and the total value of share traded increased from less than one billion dollars to 248 in 2008 (IFC, 1999, and WFE, 2009). The stock market witnessed remarkable improvements after 2002 up to October, 2007, which was the peaking point before being influenced by the contagious reversal thereafter and up to 2009 (Frank and Hesse 2009). Thus, Turkey's capital market advancement is considered as the second source of funding after banks. In addition, it is one of the most volatile stock market as expressed by the monthly changes of the stock price index (Sabri, 2004). To accomplish the stated purposes of this section, the Pearson correlation test is calculated and presented in Table 6.

Table 6. Correlation Between Financial Instruments and Economic Development Indicators in the Turkish Economy

Financial Indicators to Economy indicators	Pearson Correlation	Correlation is significant at	Rank based on correlation
GDP – to Stock market capitalization	0.866	0.01	2
GDP to value of listed Bonds	0.912	0.01	1
GDP to newly issued shares	0.761	0.01	5
GFCF to Stock market capitalization	0.813	0.01	3
GFCF to value of listed bonds	0.784	0.01	4
GFCF to newly issued shares	0.083	No	6

It shows that the value of the listed bonds in Turkey's financial market is the most associated financial indicators with correlation of 0.912 for the period under consideration. The average value of the listed bonds was about $ 87 billion compared to Turkey’s average GDP during the period under consideration which was about $ 326 billion. The second most associated instrument with the GDP growth rate is the stock market capitalization in the Turkish secondary financial market, with correlation of 0.866, ranking number 2 among the used instruments. The average value of stock market capitalization during the period of analysis (1984-2005) was about $ 57 billion. The third next associated instrument with the GDP growth rate is the newly issued shares with a correlation of 0.761. However, the three financial instruments showed a significant correlation with GDP at a significance level of 1 per cent (see Table 6). The average value of the annual newly issued shares during the period of the analysis was about $ 2.4 billion.

On the other hand, we find that stock market capitalization is the most associated factor to the gross fixed capital formation with a value of 0.813, followed by the value of listed bonds in the Turkish financial market, which showed an association value of about 0.784, with a significance level of 1 per cent. Finally, it may be stated that the financial instruments were more associated with GDP as economic indicator to economic growth compared to the GFCF as shown in Table 6. As a matter of fact there was no association whatsoever between GFCF and the annual value of newly issued shares which reported no correlation with a value of 0.083, and it is the least financial instrument associated to Turkey’s economic growth.

VII.4.2. Greece

Similar to Turkey’s capital market, the Greek market is also a moderate emerging market with a domestic market capitalization of $ 91 billion and about a total value of shares traded of $ 103 billion, which is less than half that of Turkey (WFE, 2009). In addition, the level of turnover is low and stock trading is highly concentrated in four listed firms (47 per cent) out of 360 listed firms. Moreover, it has limited products with small bonds share and mutual fund industry, and about 70 per cent of Greek companies are not listed on the ASE (IMF, Greece 2006). We find that the value of the listed bonds associated with the GFCF ranked as number one with a correlation value of 0.982, which is the second highest correlation value reported in this section. The stock market capitalization to the GFCF was the second associated instrument with a value of correlation of 0.859. Stock market capitalization was the next associated instrument with the Greek GDP, at about 0.771, and the correlation between the indicator of the financial instrument and the indicator of economic growth as expressed by GDP was significant at 0.01 and ranked third based on the correlation value as shown in Table 7. The average value of the stock market capitalization for the period 1984-2008 was about $65 billion.

The value of newly issued shares was the next important financial indictor as associated to GDP with a value of 0.639, and is significant at a significance level of 1 per cent. While, the values of the listed bonds associated with GDP ranked as number five based on a correlation value of 0.603, and was significant at 5 per cent. Finally, the value of newly issued shares was the least associated indicator to economic growth as expressed by GFCF, reported at 0.257, with a significance correlation of 0.376. However, in general the correlation between financial instruments including trading in secondary market as expressed by stock market capitalization, and the value of listed bonds in the Greek financial market, were much less correlated to GDP compared to GFCF.

Table 7. Correlation Between Financial Instruments and Economic Development Indicators in the Greek Economy

Financial Indicators to Economy indicators	Pearson Correlation	Correlation is significant at	Rank based on correlation
GDP – to Stock market capitalization	0.771	0.01	3
GDP to value of listed Bonds	0.603	0.05	5
GDP to newly issued shares	0.639	0.01	4
GFCF to Stock market capitalization	0.859	0.000	2
GFCF to value of listed bonds	0.928	0.000	1
GFCF to newly issued shares	0.257	0.376	6

VII.4.3. Jordan

Jordan too is a small emerging economy, but has had a well advanced capital market. The domestic market capitalization increased from \$ 2 billion in 1989 to \$ 36 billion in 2008, and with a traded value of \$ 29 billion in 2008. However, the Amman Stock Exchange is integrated with MED markets, but still has not integrated to other emerging and developed stock markets (Saadi-Sedik and Petri, 2006). In addition the Jordanian financial capital market is also limited in number of product with mainly regular shares in secondary and primary markets, and limited government and corporate bonds, with no options, futures or derivatives instruments. We find that the correlation between the stock market capitalizations is the most associated financial instrument to economic growth as proxied by GDP, with a correlation value of 0.914 at the 1 per cent significance level, ranking number one among other financial instruments–economic growth indictors. The average annual stock market capitalization was about \$10 billion in between 1984-2008. The second financial indicator is the newly issued bonds including corporate, development and treasury bonds to GDP, which reported a correlation of 0.859 at the 1 per cent significance level. The third associated indicator is the stock market capitalization to the GFCF with a correlation value of 0.779 and is significant at 1 per cent level. The association between the newly issued shares to GDP is ranked fourth among the six examined indicators, while it ranked fifth when associated to the Jordanian GFCF value. Finally, the least associated measure is related to the association between the newly issued bonds including government and corporate bonds to the Jordanian GFCF, which reported a value of 0.430 and is significant at the 5 per cent significance level.

Table 8. Correlation Between Financial Instruments and Economic Development Indicators in the Jordanian Economy

Financial Indicators to Economy indicators	Pearson Correlation	Correlation Significant at	Rank based on correlation
GDP – to Stock market capitalization	0.914	0.01	1
GFCF to Stock market capitalization	0.779	0.01	3
GDP to newly issued shares	0.664	0.01	4
GDP to bonds	0.859	0.01	2
GFCF to newly issued shares	0.609	0.01	5
GFCF to bonds	0.430	0.05	6

VII.4.4. Egypt

The Egyptian capital market is also an emerging market with about 372 listed firms, with limited types of financial instruments such as government and corporate bonds, and only about three mutual funds. Local market capitalization increased from $1.7 billion in 1989, to about $ 85 billion in 2008, and the value traded increased from $ 91 million in 1989, to $ 93 billion in 2008 (IFC, 2000 and WFE, 2009). It is clear from Table 9 that the highest reported correlation coefficient among the selected measures for Egypt was the association between the value of bonds and the Egyptian GDP, with a correlation value of 0.945, followed by the association between the stock market capitalization and the GFCF as the second in rank based on a correlation value of 0.917. Moreover, the association between stock market capitalization and GDP is less than that which reported a value of 0.713, ranking fifth among the selected six measures. Finally, the association between the value of treasury bonds and the was the lowest among the selected six financial measures. Nevertheless, all selected financial indicators to both GDP and GFCF showed significant correlations at the one per cent significance level.

Table 9. Correlation Between Financial Indicators and Economic Development Indicators in the Egyptian Economy

Financial Indicators to Economy indicators	Pearson Correlation	Correlation Significant at	Rank based on correlation
GDP – to Stock market capitalization	0.713	0.01	5
GFCF to Stock market capitalization	0.917	0.01	2
GDP to value of Bonds	0.945	0.01	1
GFCF to Value of Bonds	0.780	0.01	4
GFCF to value of Treasury bonds	0.786	0.01	3
GDP – to value of Treasury bonds	0.675	0.01	6

VII.4.5. The Collective Sample

To consider the four selected economies, Table 10 presents the rank of association for each selected financial indicator and the average correlation for all four selected economies together. It shows that the association between the stock market capitalizations and the GFCF for all selected economies ranked number one with an average correlation of 0.842. On the other hand, the average association between the newly issued shares with the GFCF for the four selected economies has the least correlated value of about 0.390. In addition, the association between the value of bonds and GDP of the four selected economies ranked number two among the six used measures, while the association between stock market capitalization and the GDP ranked third with an average correlation of 0.816, followed by the association between the value of bond and the GFCF measurement. Finally, the association between the newly issued shares and the GDP for all selected economies together ranked fifth out of six measures.

Table 10. Ranking the Association of Financial Instruments to the Economic Growth Based on the Average Correlation Value for all Selected Economies

	Average Pearson Correlation	**Rank**
GDP – to Stock market capitalization	0.816	3
GDP to Bonds	0.830	2
GDP to newly issued shares	0.682	5
GFCF to Stock market capitalization	0.842	1
GFCF to newly issued shares	0.390	6
GFCF to bonds	0.731	4

VII.4.6. Comparison between regions and economic measures

If we consider this issue based on South versus North economies, we find that the correlation coefficients between financial instruments and both GDP and GFCF are relatively higher in the South sample compared to the economies of the North sample (Table 11). The Table also indicates the average correlation of financial instruments to economic growth based on Northern versus Southern Mediterranean economies, as well as based on GDP compared to GFCF as measurements to economic growth. Finally, it may be concluded that the examined financial instruments have relatively more association with GDP than with GFCF, except for the stock market capitalization instrument which is more close to the latter.

Table 11. Average Correlation of Financial Instruments to Economic Growth Based on North- South Mediterranean and GDP vs. GFCF

Economic growth indicators	North	South	Both Regions
GDP	0.759	0.793	0.776
GFCF	0.621	0.687	0.687
Both indicators	0.690	0.740	

VII.4.7. Concluding Remarks

This section selected two measures for economic growth including GDP, and GFCF as proxy for new investments. On the other hand, three financial instruments were used including stock market capitalization to represent the secondary financial markets, the newly raised shares, the value of listed bonds in financial market or the new issued bonds including government and corporate bonds. The section used the Pearson correlation test and was calculated between all stated variables.

It was shown that the associations between financial instruments in the Greek market were less correlated to the economic growth indicators compared to the other three economies. In addition, association of the majority of selected financial indicators to both GDP and GFCF showed significant correlation at 1 per cent significance level with the exception of few indicators which showed low correlation or no significant correlation between financial instruments and both GDP and GFCF. For example, the case of the GFCF newly issued bonds association for the Jordanian economy, the GFCF - newly issued shares association in Turkey and Greece. The association between financial instruments and economic growth is relatively higher in the South portion of the sample compared to the economy of the Northern portion. In addition, there was more association between the financial instruments and GDP rather than with the GFCF, with the exception of the stock market capitalization. Finally, the the major merits of associations between financial instruments and economic growth as expressed by GDP and GFCF in both regions of Mediterranean are almost close with few exceptions.

VIII. Conclusions and Policy Implications

This study has highlighted the main financial trends in both the banking systems and stock markets of some selected MED partner countries, as well as, the New Basel II Accord and its implications on the MED banking system. It has studied first the major recent developments in the banking system. It then analysed whether MED stock markets are efficient in allocating funds to productive investments, and has also explored stock market integration of the MED stock markets for the purpose of establishing whether these markets are regionally integrated. The study also provided a more formal econometric analysis to understand the main determinants of growth and financial development in the MED region highlighting the role of financial instruments in economic development of MPs.

It was shown that although the MED banking system is still playing an important and major role in channeling funds to various sectors of the economy, it is still not providing the kind of services and financial products that are needed to further sustain growth. The MED banking system still needs to introduce new financial products to better develop its credit markets. Risk management and information processing is still relatively poor in the region. An important aspect of credit expansion is the development of risk management tools capable of reducing credit and default risks. These risks have constituted important impediments to the expansion of credit markets. Also, informational efficiencies of credit markets in the MED region are much lower than averages in other emerging economies worldwide. This factor is also hindering the expansion of credit markets in the region. The MED banking system is also suffering from the lack of proper evaluation of investment projects and bank managers. In most instances funds are not channeled to the most productive projects and the costs of financing these projects are often higher than those present in more developed economies.

This study has shown that a lot of preparation is still required on the part of MED banks before they can fully enjoy the benefits of the New Basel II Accord. Banks will have to still review their current credit processes, expand the range and significance of their risk management functions, and upgrade their Information Technology systems. These may prove to be rather costly and some analysts worry whether the cost of imposing this new capital regime will outweigh any potential benefit. Another concern was expressed by MED's financial sector emphasizing whether banks in the region can handle the level of regulatory complexity set forth in the New Basel Accord. Implementing the new accord requires banks to provide supervisors with excessive amounts of information, which raises fears that there may be leaks in sensitive data or that analysts studying the market may get confused with the excessive amounts of information they are being provided. That is why some believe that these requirements appear more appropriate for highly sophisticated financial markets in the G10 countries. The smaller size banks operating in the MED region are finding it much more difficult to implement the strict requirements of the new accord for this requires them to mobilize intellectual capital, IT and financial resources to implement the necessary systems in risk management and capital allocation. This has led to trends towards industry consolidation through mergers and acquisitions or an increase in the proportion of foreign banks' control of the banking industry.

It was also argued that MED financial markets still need to be more transparent. The disclosure of financial information is still weak and sometime totally absent. This is one of the reasons why until now MED stock markets have not yet been able to properly and fully channel funds to productive investments. The MED banking system is still the major source of funds for many of MED projects undertaken. The EU should step with the needed expertise and know how to help the MPs further develop their financial systems. Fund allocation alone is perhaps not the right remedy for the above stated problems and obstacles.

MED countries are devoting genuine efforts to develop their accounting systems for better transparency and information disclosure. With the exception of Egypt and Morocco, it was shown that net external liabilities of the financial sector are relatively low for all the MED economies. This is due to high restrictions on capital flows to the MED region. This contrasts with the economies of East Asia where the net external liabilities of the financial sector were medium or high before the crisis. The relaxation of restrictions on capital flows in most of these economies was among the factors contributing to the large and rising capital flows in the 1990s. Those countries with relatively fixed exchange rates and large capital inflows also experienced significant credit expansion during the 1990s. With the exception of Egypt (having a managed float), Morocco, and Tunisia, all exchange rate systems in the MED region are either fixed to the dollar or to a basket of currencies. This would constitute a problem if the capital account were liberalized at a fast pace. If that were the case, then short-term capital would flow in and out very quickly causing currency depreciations a disruption of the financial system and a loss of foreign currency reserves.

It was also shown that MED's capital markets are showing positive performances in recent years particularly in terms of growth, liquidity and transparency. More investment is being attracted to the region and markets are heading towards more openness. However, much more can still be done to reach full liberalization. Other empirical results have indicated that the MED stock prices are weak form efficient. A strong form efficient financial market helps reduce information costs, overcome problems of asymmetric information, improve resource allocation and enhance growth by ensuring that capital is allocated to projects with the potentially highest returns. MED financial markets still need to be more transparent. The disclosure of financial information is still weak and sometime totally absent. This is one of the reasons why until now MED stock markets have not yet been able to properly and fully channel funds to productive investments. The MED banking system is still the major source of funds for many of MED projects undertaken. We were also able to confirm that that the MED region is maturing and on the verge of becoming the next 'emerging region'. Our results have also cast doubt about the extent to which the MED markets are regionally integrated. Although, this is hindering the intra-regional flow of capital and growth in the MED region, however, in the case of a crisis erupting in one of the region's financial market, its effects might be dampened quickly and financial losses minimized.

On the other hand, the role of capital markets in enhancing economic growth is considered one of the most debatable issues in both developing as well as emerging economies. Thus, this study has investigated this issue in the Mediterranean context considering a sample from both parts of South and North Mediterranean region, with close financial merits. It was shown that the four selected countries in the sample have moderate financial markets with low liquidity and turnover, highly concentrated ownership, and limited types of traded financial instruments. However, the selected sample witnessed a significant improvement in the financial sector during the last two decades. This includes an increasing number of listed securities, trading value, market capitalization for shares and bonds as well a the introduction of new products such as mutual funds and derivates instruments in the Northern part of the sample.

Our panel data regression model has shown that financial depth contributes significantly to growth in the MED region. This result is in line with those of King and Levine (1993), who found a positive association between financial system development and economic growth in a cross-country context. It was also shown that national savings has a positive, significant and robust coefficient. This presented clear evidence that while the 7 MED countries are generating enough savings to contribute to growth, they did not succeed in using those savings though an efficient financial market to further stimulate investment and growth. The remaining results presented above show that the coefficients on investment and inflation are negative and insignificant which is not consistent with our expectations and related literature. The coefficient estimate of external debt as a share of GDP was negative and statistically not significant which indicates that the burden of external debt may have contributed negatively to the observed slow growth in MENA countries. Debt obligations absorb an important fraction of resources that could be mobilized for investment purposes. The results on the other variables need to be interpreted with extreme cautious due to the potential heterogeneity in growth patterns among the seven countries.

Financial reforms are indeed taking place although at a slow pace in the MED region. However, because of its relatively protected capital account financial reform can take place without a financial crisis looming in the horizon. Removing barriers to capital flows should be slow and move in conjunction with financial reforms. MED governments need to introduce the required financial reforms swiftly in order to: (1) Allocate funds to more productive projects; (2) Allow more access to finance (especially for SME's); (3) Ameliorate transparency and corporate governance; (4) Reform the regulatory, legal and jurisdictional framework; (5) Modernise the management of the financial sector; and (6) Incorporate more elaborated accounting standards to be at par with international standards.

The MED region is now expected to move fast on those financial reforms, which will enable it to open up for foreign capital, an essential element for deeper integration with the EU and for sustained growth. This at a time when the emerging MED region is expected to take the lead in attracting European international capital which took various hits after the crisis in East Asia, Japan, Russia and Latin America, the events of September 11th in the US, and the very recent US financial crisis.

References

Abromovitz, James C. (1956). “Resources and Output Trends in the United States since 1870”, *American Economic Review*. 46: 5-23.

Alam, M. Imam and Tanweer Hasan (2003). "The Causality between Stock Market Development and Economic Growth: Evidence From the United States”, *Studies in Economics and Finance* 21 (1); 93-104.

Arestis P., P. Demetriades and K.B. Luintel. (2001). “Financial development and economic growth: The role of stock markets”, *Journal of Money, Credit and Banking* 33: 16-41.

Barro Robert J., Lee Jong-Wha, (1993). "Losers and Winners in Economic Growth," *NBER Working Papers* 4341, National Bureau of Economic Research, Inc

Basci, Erdem, Suheyla Ozyildinm and Kursat Aydogan (1996). "A note on price-volume dynamics in an emerging stock market" *Journal of Banking & Finance* 20; 389-400.

Beck, Thorsten, and Ross Levine, (2004) “Stock Markets, Banks, and Growth: Panel Evidence,” *Journal of Banking and Finance,* Vol. 28, No 3; 423–442.

Bencivenga, V. and B. Smith (1991), “Financial InterMEDiation and Endogenous Growth,” *Review of Economic Studies*, 195-210.

Bennaceur, Samy Adel Boughrara and Samir Ghazouani. (2009). “On the Linkage between Monetary Policy and MENA Stock Markets", *ERF Working Paper* 455, Egypt.

Bennaceur, Samy Adel Boughrar, Samir Ghazouani, MohaMED Omran, “The determinants of stock market development in the Middle-Eastern and North African Region” *Managerial Finance* 33 (7) 477-489, 2007

Bernstein, J. (1996). “International R&D Spillovers Between Industries in Canada and The US, Social Rates of Return and Productivity Growth”. *Canadian Journal of Economics*. 15: 463-7.

Caselli F., Esquivel G., Lefort F., (September 1996), " Reopening the Convergence Debate: A New Look at Cross-Country Growth Empirics," *Journal of Economic Growth*, Springer, vol. 1(3), pages 363-89.

Coe, David, Elhanan Helpman. (1995). International R&D Spillovers”.*European Economic Review.* 39: 859-87.

Commission Staff Writing Document,(2007). “Turkey 2007 Progress Report”, *Commission of the European Communities*.

Corm Georges, Hansan-Cooper Sharon, Rupinder Sinigh,(March- April 2007). “European Union, Jordan: Financial Management Reform. Performance Report”

Cox J., Ingersoll J., and Ross S. (1985). “A Theory of the Term Structure of Interest Rates”, *Econometrica*, 53: 385-407.

Creane, Susane, Rishi Goyal, A. Mushfiq Mubarak, and Randa Saab, (2004). “Measuring Financial Development in the Middle East and North-Africa: A New Database”, *IMF Staff Papers, Vol. 53, No. 3.*

Creane, Susane, Rishi Goyal, A. Mushfiq Mubarak, and Randa Saab. (July 2009). "Financial Development in the Middle East and North Africa." *International Monetary Fund* 2003

Demirguc- Kunt, Asli and Ross Levine,(January 1996). “Stock Market Corporate Finance and Economic Growth: An Overview”, *The World Bank Economic Review* 223-240.

De Santis G., Gerard B.(1997). “International Asset Pricing and Portfolio Diversification with Time Varying Risk”, *Journal of Finance* 52: 1881-1897.

De Santis G., Imrohoroglu Selahattin, (August 1997). "Stock returns and volatility in emerging financial markets," *Journal of International Money and Finance,* Elsevier, vol. 16(4), pages 561-579

Dias-Alejandro, C. (1985). “Good-Bye Financial Repression, Hello Financial Crash”, Journal of Development Economics, 19: 1-24.

El-Erian, MohaMED A. and Manmohan S. Kumar, (1995).”Emerging Equity Markets in Middle Eastern Countries”, *International Monetary Fund Staff Papers*. 42(2),313-343.

Frank, Nathaniel and Heiko Hesse (2009), “Financial Spillovers to Emerging Markets During the Global Financial Crisis”, *International Monetary Fund Working Paper* 09/104.

George T. Abed, Mazen M. Soueid,(March 7-8, 2005). “Capital Markets in the Middle East and North Africa (MENA)”, European Investment Bank, FEMIP Experts Committee Meeting Supporting the Modernization of the Mediterranean Banking and Financial Markets.

Girard, Eric, MohaMED Omran and Tarek Zaher (2003). “On Risk and Return in MENA Capital Markets”, *International Journal of Business*, 8(3); 286- 314.

Greenwood, J., and B. Jovanovic (1990): “Financial Development, Growth, and the Distrubution of Income.” *Journal of Political Economy*, 1076-1107.

Griliches, Z. (1988). “Productivity puzzles and R&D: another non-explanation”. *Journal of Economic Perspectives*. 2: 9-21.

Granger, C. W. (1969). “Investigating Causal Relationships by Econometric Models and Cross-Spectral Methods.” *Econometrica* 37, pp. 424-38.

Grais, Wafik and Dimitri Vittas (2005). “Institutional Investors, Contractual Savings and Capital Market Development in Egypt, Jordan, Morocco, and Tunisia” in Book Series: Research in Middle East Economics Volume: 6 Page: 43 – 65.

Guermat, Cherif. K. Hadri, C. and C. Kucukozmen (2003) "Forecasting Value at Risk in Emerging Arab Stock Markets", *Discussion Papers in Economics*, 03/02, University of Exeter.

Hassan, Kabir and Jung-Suk Yu, (2007) "Rational Speculative Bubbles: An Empirical Investigation of the Middle East and North African (MENA) Stock Markets", Economic Research Forum, 14th Annual Conference, December, Cairo.

Hondroyiannis, George, Sarantis Lolos and Evangelia Papapetrou (2005), "Financial markets and economic growth in Greece, 1986-1999", *Journal of International Financial Markets, Institutions & Money*, 15 (2):173-88

Ibrahim, Ayman. (2004). "The growth effects of Financial liberalization program in Egypt." Cairo University

IFC (1989-1999). “Emerging Stock Markets Factbook”, *International Finance Corporation*, Washington DC. USA.

IMF (2006). “Greece: Financial System Stability Assessment”, *IMF Country Report* 06/6.

IMF (2007). “Turkey: Financial System Stability Assessment”, *IMF Country Report* 07/361.

IMF (2008). “The International Financial Statistics service of the International Monetary Fund”. *International Monetary Fund*, Washington D. C.

IMF (2009) “International Monetary Fund, World Economic Outlook Database” *International Monetary Fund*, Washington D. C.

Isik, Ihsan, Asokan Anandarajan, and Ebru Isik (2002). “The Role Of Adaptation And Recursion Values In Pricing Stocks: Evidence From Istanbul Stock Exchange”, Conference of the Economic Research Forum, Egypt, ERF.

Jong-Kun Lee, (May 2002). "Financial Liberalization and Foreign Bank Entry in MENA", *Financial Sector Strategy and Policy, World Bank.*

King, Robert G. & Levine, Ross, (1993), ""Finance and growth: Schumpeter might be right," *Policy Research Working Paper Series 1083,* The World Bank.

Korajczyk, Robert (1996). "A measure of stock market integration for developed and emerging markets", *The World Bank Economic Review* Vol. 10 (2).

Kurun, Engin and Yilmaz, Mustafa Kemal, (2007). "The Impact of Derivatives on Financial Stability in Turkish Economy Evidence from the Istanbul Stock Exchange and TurkDEX", *International Research Journal of Finance and Economics*, No. 9.

La Porta.R. et al., (1997). "Legal Determinants of External Finance". *The Journal of Finance*, Vol. LII, no 3:1131-1150.

Levine, Ross (1991). "Stock Markets, Growth and Tax Policy", *Journal of Finance* 46; 1445-1465.

Levine, Ross and Sara Zervos (1996). "Stock Market Development and Long-Run Growth" ,*The World Bank Economic Review* 10 (2); 323-340.

Levine, R. (1997). "Financial Development and Economic Growth: Views and Agenda". *Journal of Economic Literature*. Vol.35. No. 2.

Levine, Ross and Sara Zervos (1998a). "Capital Control Liberalization and Stock Market Development", *World Development* 26; 1169-1183

Levine, Ross & Sara, Zervos, (1998b). "Stock Markets, Banks, and Economic Growth", *American Economic Review*, 88(3); 537-58.

Levine, R. (2003). "More on Finance and Growth: More Finance, More Growth?", *Federal Reserve Bank of St. Louis Review*, 85; 31 – 46.

Lucas, Robert E. Jr. (1988). "On the Mechanics of Economic Development", *Journal of Monetary Economics*, July, 88 (1), pp. 3-42.

Lutz, Mina Baliamouna.(August 2009). "Financial development and income in North Africa.", *Bnet.*

Modigliani, Franco and Merton H. Miller. (1958). "The Cost of Capital, Corporation Finance, and the Theory of Investment". *American Economic Review*. 261-97.

MohamMED Laksaci,(January 2009). "Financial system developments in Algeria –resilience and risks in the face of the international financial crisis and its spill over effects".

Neaime, N. (2002). "Liberalization and Financial Integration of MENA Stock Markets", *Economic Research Forum*, Egypt

Nizar Bustani and Shireen Akkawi,(2009). "Jordanian Banking Sector Report 2009, Banking Consolidated Findings", Tuhama Consultants.

Omran, MohamMED Omran and John Pointon (2001). "Does the inflation rate affect the performance of the stock market? The case of Egypt" *Emerging Markets Review* 2 (3); 263-279

Papaioannou, Elias, (2007) "Finance and Growth: A Macroeconomic Assessment of the Evidence from a European Angle", *ECB Working Paper* No. 787.

Rina Bhattacharya,(June 2003). "Exchange Rate Regime Considerations for Jordan and Lebanon", *IMF Working Paper.*

Romer, P. (1986)."Increasing Returns and Long-Run Growth". *Journal of Political Economy*.

Rousseau Peter L. and Richard Sylla, (2003). "Financial Systems, Economic Growth, and Globalization," NBER Chapters, in: Globalization in Historical Perspective, pages 373-416 National Bureau of Economic Research, Inc

Saadi-Sedik, Tahsin and Martin Petri; (2006) "Jordanian Stock Market—Should You Invest in It for Risk Diversification or Performance?", *IMF Working Paper* 06/187; August 1, Washington, D. C.

Sabri, Nidal Rashid Stock (2004) "Volatility and market crisis in emerging economies", *Review of Accounting and Finance* 3 (3); 59-83.

Sabri, Nidal Rashid (2007). "Stability of the International Stock Markets",*Nova Science Publishers*, NY.

Sabri, Nidal Rashid (2008). "Impact of Trading Volume on Stock Price Volatility in the Arab Economy" , *Journal of Derivatives & Hedge Funds* 14 (3-4) 285-298.

Sabri, Nidal Rashid (2008). "Financial markets and institutions in the Arab Economy", *Nova Science Publishers*, NY.

Shan, Jordan Z., Alan G. Morris & Fiona Sun (2001) "Financial Development and Economic Growth: An Egg-and-Chicken Problem?" *Review of International Economics*, 9, 443- 454

Short, John. (July 2009). "Banking reform in Egypt leads to a higher rate of growth." *Global Arab Network.*

Sübidey Togan, Hakan Berument,(Spring 2007). "The Turkish Current Account, Real exchange Rate and Sustainability: A Methodological Framework", *The Journal of International Trade and Diplomacy 1* (1),155-192.

Suleiman Abu-Bader, Aamer S.Abu-Quarn,(March 27, 2007). "Financial Development and Economic Growth: The Egyptian Experience", Ben Guiron University of the Negev.

USAID, "Modernizing Jordan's Capital Markets: Sustained initiatives transform Jordan's capital market and generate record growth", www.usaid.gov

Vasicek, O.(1977). "An Equilibrium Characterization of the Term Structure", *Journal of Financial Economics* 5, 177-188.

World Bank, (June 2008), "Doing Business Report 2008", Washington, D.C., United States

World Bank (2008), "Investment Climate Assessment (ICA)", Washington, D.C., United States