



UNIVERSITI PUTRA MALAYSIA

**FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH BASED ON
PANEL EVIDENCE FROM DEVELOPED AND DEVELOPING COUNTRIES**

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FEP 2012 5

DEDICATION

This work is dedicated to my FAMILY



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of
the requirement for the degree of Master of Science

**FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH BASED ON
PANEL EVIDENCE FROM DEVELOPED AND DEVELOPING COUNTRIES**

By

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January 2012

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Faculty: **Faculty of Economics and Management**

The importance of finance on economic growth cannot be underscored and has long been highlighted by existing studies. However, most previous studies are restrictive either to the analysis of banking sector or stock market development on economic growth. By so doing, these studies have failed to capture the full effect of financial development on economic growth. Again, the study of finance-growth nexus is being confronted with the problem of choice of most suitable measure of financial development as each indicator of financial sector development has its merits and demerits. Again, the effect of finance on growth may not apply uniformly across all countries. Also, the debate on the effect of openness on financial sector development is mixed. It is argued that certain pre-conditions are necessary and should precede financial liberalization. One of such argument is the simultaneous opening of trade and capital account as proposed by Rajan and Zingales (2003).

This study has two objectives. First is to investigate the role financial development on economic growth and second, to examine the role of trade and capital account openness on financial sector development. In this study, financial development is denoted by the principal components of banking and stock market development. The reason for using principal component is to address multicollinearity problem and also to solve problem of choosing the best measure.

The importance of this study to the finance-growth literatures cannot be over-emphasized. Firstly, it provides rather a more comprehensive approach to the analysis of finance and growth as it examined the effect of both banking sector and stock market developments on economic growth. Secondly, it addresses the problem of the choice of suitable measure of financial development by constructing the principal components of banking and stock market development. Finally, it probes Rajan and Zingales (2003) postulation by investigating the concurrent liberalization of both trade and capital account.

This study utilizes dynamic panel system GMM estimator on data of 53 countries, using annual data from 1990-2009 averaged over five (5) for the first objective and from 1996-2009 averaged over (4) years. GMM is said to be asymptotically efficient under large cross sectional unit and small time series, as in our case. Furthermore, the choice of this estimator owes to its superiority over other dynamic panel estimators in addressing the problems of simultaneity, endogeneity, country-specific effect, etc.

The results of first objective suggest that banking sector and stock market development have positive relationship with economic growth. Also, trade openness and investment are found to be statistically significant determinants of growth. Furthermore, the result shows that stock market development is important to growth in developed countries

while banking sector development does not matter to growth in developed countries. This confirms financial structure hypothesis. On the other hand, we find banking and stock market development to affect growth in developing countries.

For the second objective, the results show that banking sector development, trade openness, and the interaction between trade and capital account openness may affect stock market development positively. The empirical result further reveals that capital account openness may be said to affect stock market development negatively, but the effect of capital account openness may be said to depend on the stage of development. Capital account openness promotes stock market development in developed countries but leads to stock market volatility in developing countries. Finally, we find evidence of negative effect of institutional quality on stock market development. Following our result, we established mixed evidences to the well-known hypothesis of Rajan and Zingales (2003) who stipulate that both trade and capital account openness are necessary for financial sector development to take place.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

**PEMBANGUNAN KEWANGAN DAN PERTUMBUHAN EKONOMI
BERDASARKAN BUKIT PANEL DI NEGARA MAJU DAN MEMBANGUN**

Oleh

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Kepentingan kewangan ke atas pertumbuhan ekonomi tidak boleh diabaikan dan telah lama diketengahkan oleh kajian yang sedia ada. Bagaimanapun, kajian-kajian yang sebelumnya adalah terhad sama ada kepada analisis sektor perbankan atau pembangunan pasaran saham kepada pertumbuhan ekonomi. Dengan berbuat demikian, kajian ini telah gagal untuk mengkaji kesan kewangam sepenuhnya ke atas pertumbuhan ekonomi. Malahan, kesan kuwangan terhadap pertumbuhan ekonomi tidak salari di semua negara. Kajian, pembangunan kewangan menghapi masalah pilihan petunjuk yang paling sesuai kerana setiap petunjuk pembangunan sektor kewangan mempunyai kebaikan dan keburukan. Juga, perbahasan kesan liberalisasi kepada pembangunan sektor kewangan adalah menimbulkan perdebatan. Salah satu perdebatan ialah pra-syarat tertentu perlu dan harus mendahului liberalisasi kewangan, dan pembukaan serentak akaun perdagangan dan modal seperti yang dicadangkan oleh Rajan dan Zingales (2003). Kajian ini mempunyai dua objektif iaitu pertama, menyiasat perkembangan peranan pembangunan kewangan ke atas pertumbuhan ekonomi dan kedua, mengkaji peranan

perdagangan dan keterbukaan akaun modal kepada pembangunan sektor kewangan. Dalam kajian ini, pembangunan kewangan ditandakan oleh komponen utama perbankan dan pembangunan pasaran saham. Ini kerana menggunakan komponen kewangan sektor untuk menangani masalah *multicollinearity* dan juga untuk menyelesaikan masalah pemilihan petunjuk yang terbaik.

Kepentingan kajian ini kepada pertumbuhan kewangan tidak perlu ditekankan. Ini adalah karana pertama, ia memberi pendekatan yang lebih menyeluruh kepada analisis kewangan dan pertumbuhan kerana ia mengkaji kesan kedua-dua sektor perbankan dan perkembangan pasaran saham ke atas pertumbuhan ekonomi. Kedua, ia juga menyentuh tentang masalah pilihan petunjuk yang sesuai pembangunan kewangan dengan memilih komponen utama perbankan dan perbangunan pasaran saham. Akhirnya, ia mengkaji pandangan Rajan dan Zingales (2003) dengan menyiasat liberalisasi serentak perdagangan dan akaun modal.

Kajian ini menggunakan sistem panel dinamik *GMM* penganggar pada data 53 negara, dengan menggunakan data tahunan dari 1990-2009 purata lebih lima (5) untuk objektif pertama dan dari 1996-2009 dipuratakan (4) tahun. Penggunaan *GMM* adalah sesuai apabilah data siri masah kacil dan bilangan sampel yang besar, seperti dalam kes kami. Tambahan pula, pilihan penganggar ini adalah lebih berfaedah berbanding penganggar panel dinamik yang lain dalam menangani masalah keserentakan, endogeneity, khusus negara yang berkuat kuasa.

Keputusan objektif yang pertama mencadangkan bahawa sektor perbankan dan pembangunan pasaran saham mempunyai hubungan positif dengan pertumbuhan ekonomi. Juga, keterbukaan perdagangan dan pelaburan didapati menjadi penentu statistik yang signifikan kepada pertumbuhan. Tambahan pula, hasil kajian ini

menunjukkan bahawa pembangunan pasaran saham adalah penting kepada pertumbuhan di negara-negara maju manakala pembangunan sektor perbankana tidak kira kepada pertumbuhan di negara-negara maju. Ini mengesahkan hipotesis struktur kewangan. Sebaliknya, didapati pembangunan perbankan dan pasaran saham untuk memberi kesan kepada pertumbuhan di negara-negara membangun.

Bagi objektif yang kedua, keputusan menunjukkan bahawa pembangunan sektor perbankan, keterbukaan perdagangan, dan interaksi antara keterbukaan akaun perdagangan dan modal boleh menjelaskan pembangunan pasaran saham secara positif. Keputusan empirik mendedahkan seterusnya bahawa keterbukaan akaun model dikatakan memberi kesan negatif kepada pembangunan pasaran saham tetapi kesan keterbukaan akaun modal boleh dikatakan bergantung kepada peringkat pembangunan. Keterbukaan akaun modal menggalakkan pembangunan pasaran saham di negara-negara maju tetapi membawa kepada ketidaktentuan pasaran saham di negara-negara membangun. Akhir sekali. Kami mendapati bukti kesan negatif kualiti institusi kepada pembangunan pasaran saham. Berikutan keputusan ini, kami telah mengukuhkan bukti gabungan hipotesis terkenal Rajan dan Zingales (2003) yang mengatakan bahawa kedua-dua akaun perdagangan dan modal keterbukaan adalah perlu bagi pembangunan sektor.

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APPROVAL

I certify that a Thesis Examination Committee has met on 13th January 2012 to conduct the final examination of **Abubakar Abdullahi** on his thesis entitled "**Financial Development and Economic Growth Based on Panel Evidence from Developed and Developing Countries**" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U. (A) 106] 15 March 1998. The Committee recommends that the student be awarded the Master of Science.

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DECLARATION

I declare that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or other institution.

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Date: 13 January 2012



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