Contents lists available at Science-Gate



International Journal of Advanced and Applied Sciences

Journal homepage: <u>http://www.science-gate.com/IJAAS.html</u>



On the importance of equity market in developing countries

Jack Schools, Christian Parker*

UCD School of Business, University College Dublin, Carysfort Avenue, Blackrock, Dublin, Ireland

ARTICLE INFO

Article history: Received 20 June 2015 Received in revised form 25 July 2015 Accepted 2 August 2015

Keywords:

Equity Market Investments Capital Distribution

1. Introduction

Dynamic economic development of developing countries can exist in the conditions of completely functioning financial market and its important constituent – stock market. Recently the development of world stock markets showed that they directly effect on the economic activity, direct foreign investments, GDP growth level and business activity, and also on the reduction of misbalance and asset price discrepancy. Therefore, the studies in this area are topical and necessary both for practice, and theory.

Developing countries stock market and its role in the economy of country is dynamically changed under effect on the external and internal factors, so the aim of this article is the analysis of modern state of developing countries stock market, determination of its effect on the investment-economic processes in this country and provision of offers in relation to stimulation by means of stock market activation, accumulation of investment resources for the real sector demand of developing countries economy, accounting its specificity.

Stock market is the complex hierarchical system, in which content the arranged aggregate of interrelated and functionally interrelated subsystems. Each of the subsystems in dependence on the aim of study can serve as the separate system of lowest hierarchical subordination in relation to the securities market. At that the stock market is the most important mechanism, providing the effective functioning of whole economy, on which the securities are circulated, which have no any value by themselves, however, backed by the real assets,

ABSTRACT

Modern equity market efficiency is obvious in the increase of direct foreign investments, general investment attraction, transition on the new technological level of production, and substantial increase of social living standards of population. However, as developing countries experience evidences, neither society, nor business still have obtained the considerable positive effects from developing countries stock market introduction. Being a constituent part of the financial state system, the stock market substantially effects on the whole economy, due to its main function of capital redistribution between different sectors and economic subjects.

© 2015 IASE Publisher All rights reserved.

which generally determine the value of concrete securities.

Presently, the development of securities market must become one of the priority macroeconomic tasks, as they are the most real and effective channels for investment attractions by enterprises for the purposes of production development and reduction of financial investment risks.

2. Theoretical background and hypothesis

The study of stock market was done by the scientists, beginning from XVIII-XIX century. Thus, it possible to separate the following founders in this study as R. Gilferding, K. Marx, G. Keynes, M. I. Tugan-Baranovskiy. On the modern stage the stock market is studied by S. Bode, R. Merton, N. Roubini, G. Soros, V. Sharp and etc. The studies of these authors have system character, and are directed basically on the analysis of world stock markets, their role in modern world financial economic system. Also, recently the substantial attention is paid to determination of the role of effective stock market management in prevention of financial economic crises, including global ones.

The majority of modern scientists, which study the financial market in all its peculiarities, reflect their vision in the scientific works, not only disclosing complex issues of functioning and perspective development, but also offering models of formation of effective markets. It is possible to separate such scientists as K. Ohmae, S. Gofman, M. Pagano, D. Lucas and others.

Thus, the American scientists (Lucas, 1990) developed the model with asymmetric / incomplete information, in order to know in what period of time,

^{*} Corresponding Author.

Email Address: <u>C.Parker@gmx.com</u>

the enterprises usually execute primary public assets allocation.

It is acceptable that managers of enterprise have information about the cost of an enterprise presently; however, this information will be unknown on the market to the following period. The enterprise is "underestimated", if the disclosure of this information leads to asset cost increase and "overestimated" in the case, if it causes cost reduction.

H. Chou, R. Maulis, V. Nanda developed the dynamic model of assets issuance, which also takes into account the danger of contract conclusion with the worst investor (adverse selection effect). However, the difference of this model from model by (Lucas, 1990) lies in the fact of taking into account that the enterprise can finance its projects by borrowing credit too. The other difference is that H. Chou, R. Maulis, V. Nanda also takes into account the connection between price level on the stock market, business-cycle and asset price reaction in case of information about asset emission.

Baker (2000) analysed the hypothesis about "window of possibilities". They used annual data about the total asset issuance by the enterprises, taking into account their indebtedness during 1928-1997 and clarified that in case, when, for example, in this period a lot of assets are issued, then in the further period the stock market profits will be lower.

T. Hemmanur, P. Fulgieri developed the model in order to study, on which stage of life cycle, it would be better for enterprise to go on the stock exchange market. According to the model, the enterprise has two possibilities: locate their assets in the private order with assistance of venture capital fund, which doesn't aspire to risk or sell them to numerous small investors through the primacy assets allocation.

(Maksimovic, 2001) developed the model for analysis of the enterprise financing type choice in the branch, where technological changes exist. The investments in this branch took place in two stages: on the primary one the enterprise sells the technology and checks, whether it works; on the second – an enterprise must be financed by production. The model takes into account that existing enterprises require capital only on the second stage. There exist big quantities of potential participants, which on the first stage can invest into the same technology, which already existing at the enterprise, or in better one.

There are also many works, devoted to determination of connection between stock market and real economy in the developed countries, and comparably small quantity in the developed ones, partially because of the insufficient market development.

In many developed countries the substantial positive connection between economic growth and stock market development was detected.

One of the works, devoted to the analysis of stock market interrelation and economic growth in the developed countries is the work by P. Foresti. The basic results lie in detection of the stock market effect on GDP. Pasquale (2007) supposes that there are two diametrically opposite points of view in relation to stock market effect on GDP. At that argumentation of supporters of this theory is extensionally based on the fact that stock market contains information about the further economic state through the basic determination of asset price formation as an amount of discounted future dividends.

The other argument is "wealth effect" (wealth effect). The basic idea lies in that with the asset price growth, the shareholders becomes wealthier and are ready to spend more than before that, in its turn, stimulate the economic growth. The critics of this theory say that these arguments are based only on suggestions and expectation, accordingly, the possibility of error exists.

Stock market effect on the economic growth was also studied by the group of scientists as R.K. Filler, Ya. Hanousek and N.F. Campos based upon using Granger's method. As a result of conducted studies 69 countries with different economic conditions and levels of stock market activity, they detected evidences of those stock markets, especially in more developed countries, effect on the economic growth that is agreed with the hypothesis of effective market.

Moreover, at consideration of the developed countries with lower profits, the authors detected that active stock market is an important drive of economic growth in the developed countries. At the condition of state policy conduction and international assistance obtainment, directed on implementation and development of stock markets of these countries, at the same time with synchronous establishment of the institutional basis, free from corruption and extraordinary state control, the big effect of stock market on the increase of growth and economic welfare long-term rates is expected.

There exist a lot of works, devoted to the determination of connections between stock market and real economy in the developed countries, and comparatively small quantity in the developing ones, in particular, because of the insufficiency of the market development capacity.

In many developed countries the considerable positive connection between the economic growth and stock market development was determined.

The effect of stock market on the economic growth was also studied by the group of scientists – R.K. Filler, J. Hanousek and N.F. Campos with the usage of Granger method. As a result of conducted studies 69 countries with different economic conditions and levels of activity of the stock market, they detected evidences of that the stock markets, especially in more developed countries, effect on the economic growth that is coordinated with the hypothesis of effective market.

Moreover, at consideration of the developing countries with lower profits the authors detected that the market of active shares was the important engine of the economic growth in the developing countries. Upon conditions of the state policy conduction and international assistance obtainment, directed on implementation and development of the stock markets of these countries, and at the same time with simultaneous creation of the institutional basis, free from the corruption and extreme state control, the bigger effect of stock market on the increase of long-term rates of growth and economic welfare is expected.

3. Empirical tests

As it was said before, the stock market, serving the basic part of the financial system of state, makes considerable effect on the whole economy, owing to his main function of capital redistribution between the different sectors and economic entities.

The stock market is the most important mechanism that provides effective functioning of the whole economy, on which the securities are turned, which individually have no any value, however, the real assets stand behind them, which basically determine the cost of concrete securities.

Today in the conditions of market economy it is possible to mark the basic factors, which determine the role and meaning of stock market. This, first of all, includes involvement of free funds in the form of investments for the development and expansion of the industrial production, trade and area of services. Secondly, the provision of capital overflow from the extinguishing branches into quickly progressing branches takes place that as a result leads to the economic growth of the country. At that the possibility to conduct estimation of economic growth in the country on the stock market indicators for the economy of a country is created.

Presently the development of the securities market must become one of the priority macroeconomic tasks, as they are the most real and effective channels for attraction of the investments by the enterprise for purposes of production development and financial investment risk reduction.

3.1. Sample selection

On Fig. 1 the interrelation of the stock market development with the national production growth rate is represented in the conditions of market economy of the modern type. In the conditions of stock market development at transformation of its basic function - redistributing into dominant one, the investment activity of enterprise of the real economic sector is increased. At increasing the volume of investments and expansion of the types of investment activity directions, the expansion of industrial production, trade, and area of services in the conditions of market economy takes place. At that it is naturally that the new perspectives are opened – the possibilities for improving the investment activity structure and infrastructure that, in its turn, lead to that the stock market developments are expanded, and the process of national production growth rate increase is being continued.



Fig. 1: Model of interrelation of the stock market with macroeconomic processes

The securities market can and must considerably expand for mobilization and rational usage of the investors' free funds with the purpose of their redistribution between branches, concentration on the most important directions of the economic rise of the country. In case of developing countries economy, the investment activity is directed on expansion and reorientation on the processing industry development, about which the list of project, planned to implementation in the regions of Republic within the frameworks of the second fiveyear plan of the State programme on the forced industrial-innovation development of developing countries testifies.

The financial investments into securities and other financial instruments don't give real capital growth, and don't provide growth of the basic and operating capital as capital-forming investments. However, the funds, which would be gained in future from the securities implementation, can be invested in the production, construction, and other branches of the national economy, were used for acquisition of the new funds and supplement to the floating assets. In this case the financial assets become the real investments. The issue about relating these or other financial deals and flows to the real or financial sector is reduced to what monetary resources are used namely in the economy, but not what is their primary form.

3.2. Measurement of variables

Complementarity of the real sector and stock market lies in their mutual supplement of each other in the economy in situation, when for the full-fledged economic development, the presence and participation of both elements simultaneously is necessary. Interrelation of the real sector and stock market is conditioned by the commonness of interests and purposes of their participants, to which the profit and market share maximization, capitalization growth, and competitive ability increase are related. Realization of these purposes for one entity is possible only at interaction with other participant. For expansion of the share market, and real sector competitive ability increase, the additional financial resources are required, which can be provided by the financial market entities by means of real sector crediting and other active transition execution.

Substitution takes place, when the investors contribute their free resources into one or other assets - real or financial ones - on the assumption of profitability and risk correlation, and changes in the sectors lead to the corresponding change in asset structure in economy. In this case there exists the choice between investments of free funds only into real assets, or only in the financial assets, or in the certain combination of one or other assets on the assumption of certain criteria. In dependence on the degree of criteria conformity (profitability and risk, for example), one of the assets can completely substitute the other. In this situation investment of the resources in one or other sector has alternative character, and sectors are independent on each other.

The stock market, operating effectively, as a constituent part of the financial market serves the investment resource supplier in the real economic sector and key role in this belongs to the primary securities market.

The primary stock market covers the deals, at which financial means, intended for investments, are submitted directly to the investor, who fundraises capital in such a way; namely it reflects the volumes and ways of investment directions. The secondary market in many times exceeds the primary market by the volume of translation conducted, but doesn't affect directly on the size of savings and investments in the country, being responsible only for the constant redistribution of the monetary resources, already mobilized through the primary market.

The primary market serves the source of investments, if the emitters are the organizations of a real sector. The secondary securities market executes informative function in the economy, as it can reflect events and processes, which take place in the real economic sector, including those, which allow foreseeing the possibility of "overheating" of the economy, on the dynamics of securities quotation. The advantage of stock emission usage as the source of resource fundraising into production, as opposed to the bonds lies in that the character of price changes on them on the market makes bigger effect on the volume of raised funds. The company, whose shares on the secondary market raised in the price, receives emission profit and can use it on the different aims, directing it into the statutory or reserve funds.

Securities market allows governments and enterprise expanding the circle of financial sources, not restricting it by self-financing and bank credits.

Potential investors, in their turn, with the assistance of securities market received possibility to invest their savings into wider financial instruments, receiving bigger possibilities for the choice.

4. Results

At the existence of securities market, the investor can receive the direct access to the enterprise, and similarly the enterprise can appeal to the investor directly as the source of financing. These interrelations are called the primary market.

The depositor – now investor – desires to have possibility to realize quickly his investments. In this connection the securities market, using the middleman and forming the financial institutions, creates the secondary market, which promotes to the solution of such tasks.

4.1. Univar ate tests

Baker (2000) suggested that correlation between the total share market capitalization and gross domestic production size (GDP) is one of the most important indicators of the stock market development degree in the whole world (Table 1).

The list of countries, which entered into the first twenty countries, which have the biggest capitalization, is represented in accordance with the platform of data Quandl.

The rating of the countries by the capitalization size and GDP amount accordingly are represented in Table 1 and 2 (Karlov, 2012). It is evident that those countries, which have bigger volumes of capitalization of the securities markets almost all enter into the first twenty countries by the size of GDP.

At the same time economic growth leads to the demand increase on the financial services and

stimulates the financial sector development. At the same time the area of financial services, developed bigger, allows effective distribution of the resources, thus promoting the further economic development of the country.

Table 1: Rating of the countries according to capitalization size as of the date on January 1, 2014

Place	Country	Capitalization (\$ mln.)
1	United State of America	18 668 000
2	China	3 697 000
3	Japan	3 681 000
4	Great Britain	3 019 000
5	Canada	2 016 000
6	France	1 823 000
7	Germany	1 486 000
8	Australia	1 286 000
9	India	1 263 000
10	Brazil	1 230 000
11	South Korea	1 180 000
12	Hong Kong	1 108 000
13	Switzerland	1 079 000
14	Spain	995 000
15	Russia	875 000
16	Netherlands	651 000
17	South Africa	612 000
18	Mexico	525 000
19	Italy	480 000
20	Malaysia	476 000

Table 2: Rating of the countries according to gross domestic product amount as of the date on January 1, 2014

Place	Country	GDP amount (\$ mln.)
1	the United States of America	16 244 600
2	China	8 227 103
3	Japan	5 959 718
4	Germany	3 428 131
5	France	2 612 878
6	Great Britain	2 471 784
7	Brazil	2 252 664
8	Russia	2 014 775
9	Italy	2 014 670
10	India	1 841 717
11	Canada	1 821 424
12	Australia	1 532 408
13	Spain	1 322 965
14	Mexico	1 178 126
15	South Korea	1 129 598
16	Indonesia	878 043
17	Turkey	789 257
18	Netherlands	772 227
19	Switzerland	632 194
20	Saudi Arabia	576 824

Today the most developed securities markets on the CIS territory are the stock markets in Russia and Kazakhstan in comparison with the securities market of the other countries.

The activity of the stock market parties is regulated by the legislative bases of Kazakhstan Republic (Law "On Securities Market", Law "On Investment Funds", Law "On Joint-Stock Companies", Law "On Amendments into Some Legislative Acts of Kazakhstan Republic on the Issue of Stock Market Development in Kazakhstan Republic", Law "On Securitization" and Law "On Investments").

In Kazakhstan the banking model of stock market formed, where the secondary role is assigned to the stock market. As a result, banking sector has dominating effect in provision of the real economic sector of the country in financial resources. At that beginning since 2000 Kazakhstan economy grew by substantially high rates (averagely for 8.5% a year). Kazakhstan economic growth on the background of favourable price conjuncture on the commodity and financial markets stipulated the rapid development of the banking sector, but only insufficiently activated and actualized the stock market as the source of investment arrivals. Financing of the real sector through the stock market couldn't receive adequate development until presently. On the assumption of available peculiarities, Kazakhstan stock market has considerable perspectives of development and "delayed demand" potential on the stock market instruments, however, would have the form distinguished from the foreign markets. First of all, they will include:

- Bond market;
- Market, mostly primary allocated securities, oriented on Kazakhstan institutional investors (Pension assets management company (PAMC) and banks),
- The market, which volume will be determined by the volumes of free resources of Kazakhstan institutional investors;
- Light speculative market. Possible deviations from this prognosis depend on the general development of Kazakhstan economy (i.e. the state of securities emitters and institutional investors) and on the degree of presence on Kazakhstan stock market of foreign portfolio investors.

As opposed from the tendencies on non-system economic growth and "specific" limited investing and reinvesting, directed mostly in the trade area, and also on the extensive restoration of production processes and construction; the big volumes of world investments are directed on the projects, connected with alternative sources of energy. 2006-2012 became record ones according to the volumes of investing into the restored energy production projects (winds, solar one, biomass usage and etc.). The reasons included the cost growth for oil, gas, atomic energy; global warming; active social movement in relation to the ecological standards increase in the life of mankind.

The substantial growth rates of investing connected with concentration and distribution of resources in above-mentioned directions can be executed in the Western countries only through the system of stock market. Even the powerful state support can be equalled with self-regulating, effective, market-oriented stock market. Only competitive, open and potentially investment interesting enterprise of innovation area can attract investment capital for their development or directly (through the sales of their shares on stock exchange or through the network of venture funds (by share, corporate participation of the fund in projects of innovation area enterprise).

In the IPO developed countries of the world are one of effective instruments of stock market. Taking into account the current state of Kazakhstan stock market, evidently that conduction of "People's IPO" Programme (hereinafter referred to as the Programme) can be one of the most effective methods on the increase of stock market liquidation.

The Head of state Nursultan Nazarbaev was the first one, who announced about the Programme, which allowed citizens becoming joint owners of the largest national companies.

The basic aim of "People's IPO" is the increase of transparency of state enterprises and intensification of the public control over their activity.

The process of business ideas' competition, when analysts of stock exchange market carefully study the future project or newly established enterprise, its material-technical provision, information provision, strategic business development, and analyse the future products (services) consumption and its potential growth, and also profit distribution system and tax loading in future, takes place.

4.2. Multivariate tests

For improvement of the stock exchange market functional state of the Republic of Kazakhstan and its attraction as the powerful element of economic real sector development of this country, in our view, it is necessary to execute the range of measures (Table 3).

All above-mentioned constituents are analysed by the participants and analysts of the securities market, which after conduction of studies, select the most effective and competitive enterprises of innovation sphere for investing. Innovatively oriented organizations provide the new impulse for the growth of Kazakhstan economy, because the growth effect in this area is distributed on other areas of activity and generally leads to GDP level increase, unemployment reduction, improvement (optimization) of resource consumption and etc.

5. Summary and conclusions

Today the stock market of the Republic of Kazakhstan still hasn't become the effective means of investment attraction in the real sector of economy, capitals distribution in favour of the effective branches and entrepreneurial structures. This requires accelerated confirmation and expansion of the stock market, increase of its role in investment attraction and capital distribution in the national economy, provision of advanced development of the secondary market, and securities corporate market, acquisition of average- and long-term securities emission of the target purpose.

Above-mentioned actions will promote to the increase of investment volumes by the banks, population, corporate sectors, institutional investors and funds into securities, including in those, which are attracted on the conditions of modern investing. In our opinion, investing of these funds, attracted in long-term corporate securities, which are emitted under the concrete investment projects of the real economic sector, will be the most optimal and effective for the development of country economy. At that it is also necessary to provide effective mechanisms of insurance of such investments.

The experience of economically developed foreign countries in the area of structured investment products must be compulsorily taken into account in the course of financial legislation development of Kazakhstan and in practice of investment activity. The mechanical copying of this experience can't be topical one in the domestic conditions, however, study of the world experience gives possibility to separate the corresponding forms and methods, which can be tested and implemented in the stock market activity of Kazakhstan.

Table 3: Measures offered on stock market development of Kazakhstan and expected on their implementation

Measures	Expected results and prognoses as a result of concrete
	actions
1 1. On the state level to create transparent mechanism with distinct rules in relation to the property rules on any assets. The property must be realized in accordance with the market methods of price formation, but not with the secret methods: rejection, withdrawal, assets exchange, artificial bankruptcy and etc. The system of open auctions is the most effective means of measurement of property rights.	2 Will make impossible or maximally reduce the effect of corrupted state official on the processes of legal relation formation with property
2. The conduction of reforms of legislative-regulatory basis, which regulate the relation of shareholders, associations, properties, alienation ad obtainment of assets	The creation of the legislative-legal basis modern and corresponding to the best world standard in relation to functioning of stock exchanges will provide stability, transparency and accuracy of the relations to internal and internal investors and reduce non-market risks, provide additional instruments, and improvement of the investment climate
3. Decrease of the effect of controlling authorities and doubling check-ups by the state tax, law-enforcement and regulatory organizations. Implementation of unified electronic accounting systems before tax and regulatory bodies.	Elimination of unnecessary bans and limitations, which impede the development of professional participants to the stock market of Kazakhstan.
4. Improvement of the securities market infrastructure and technical, technological and information provision	Will promote to the growth of turnover means and quantity of securities instruments for the corresponding period of time.
7. Change of the relation to minority shareholders through implementation of the renovated system of legislative acts on their protection and provision of complete rights to them	Elimination of limitations for the development of investing for portfolio investments, and investments within the institutes of joint investing
9. Conduction of active policy of informatization and marketing policy of stock market specialists, professional participants of the securities market in relation to attraction of the next domestic enterprises to the active trades on the stock market of the country	Bring stability, transparency and accuracy of relation and provide additional instruments, improve investment climate in the country generally and flows of investments into the real sector of economy
10. Implementation of compulsory monthly report for enterprises, which shares are actively sold and bought on the stock market of Kazakhstan	Will promote to transparency of investment decision taking, and also change the enterprise corporate management system, for example, at the negative change of indicators of enterprise activity, the shareholders can quickly call extra meeting and / or change the management or accept the plan of measures in relation to the way out this situation
11. Promotion to the stock market development on the state level and increase of services and products quantity, which will be offered on it. Implementation, development and support of state and non-state pension and investment funds, which will invest into the domestic stock market on the long-term and system basis. Encouragement of bank institutions to the activity on the stock exchange market of the country	Will effect on the liquidity increase of the domestic stock market, and indirectly effect on the increase of quantity of professional market participants that, in its turn, improve the level of competition, transparency, capitalization and etc.

As a result of study the basic aim of securities functioning market, lying in formation of the mechanism for investment attraction into economy by the way of building interrelations between those, who feel the demand in funds, and those, who wants to invest the redundant profit, was determined. Therefore, it is possible to speak that stock market effects on the economic growth indirectly through the dynamics of investments.

In concern to the concrete consequences of stock market effect on the economic growth in developed countries, then it is possible to separate "real" effect (growth of investments, labour productivity and etc.).

Together with it, it is necessary to remember about that stock markets can be the sources as scaled financial instability, and macroeconomic risks and social shocks.

The studies of stock market formation and development in Kazakhstan showed that this process took place difficultly and was insufficiently successful. Complete stock market of the Republic of Kazakhstan doesn't execute the function of attraction of investment resources in the real economic sector and their redistribution in the most effective branches and areas of activity. It is evidenced by the relative low capitalization of stock markets in Kazakhstan, limited circle of professional participants and absence of interest in the investors (legal entities) and population.

Taking into account the necessity of economic reformation, we must understand that without

effectively acting stock market, it is impossible to execute the substantial positive shifts in the economy of Kazakhstan Republic. Therefore, the state authorities, organizations, associations and professional participants of stock market of the country must pay maximum efforts to the reforms in this area. The main task on this stage for this securities market in Kazakhstan generally is reformation and creation of the conditions for provision of more complete and quick overflow of savings in investment on price, which would satisfy both parties – members of stock market and entrepreneurs of the investment area of activity.

Thus, as a results of studies, the basic aim of securities functioning was determined that lies in the formation of a mechanism for fundraising the investments in the economy by means of building interrelations between those who feel the need in funds, and those, who want to invest the excess profit.

Therefore, it is possible to speak that the stock market effects on the economic growth directly through the dynamics of investments.

In concern to the concrete effect of influence on the stock market on the economic growth in the developed countries, then it is possible to separate "the real" effect (investment growth, and labour productivity and etc.).

Together with it, it is necessary to remember that stock markets can be the sources of scaled financial instability, and macroeconomic risks and social shocks.

References

- Baker MP (2000). The equity share in new issues and aggregate stock returns. Journal of Finance, 55: 2219–2257.
- Karlov AM (2012). Institutional structure of the securities market. Baltic econ. Journ, 2(8): 17-24.
- Lucas D (1990). Equity issues and stock price dynamics. Journal of Finance, 45: 1019–1043.
- Maksimovic V (2001). Technological innovation and initial public offerings. Review of Financial Studies, 14: 459–494.
- Pasquale F (2007). Testing for Granger Causality Between Stock Prices and Economic Growth. Munich Personal RePEc Archive, MPRA Paper, 2962, posted 26 April 2007.