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African Stock Markets

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I. Introduction

Africa, particularly Sub-Saharan Africa, has seen rapid growth in the number of stock exchanges and a stock market capitalization boom over the last fifteen years. There are now around 20 stock exchanges operating in Africa. Two decades ago, there were only 5 in sub-Saharan countries and 3 in North Africa. The phenomenal growth was registered particularly in Sub-Saharan Africa, excluding the older markets in South Africa (Johannesburg Stock Exchange) and Egypt. Actually the latter were established in 1880s. Table 1 provides the current profile of African stock markets in terms of market capitalization and listing size.

The rapid increase in the number of stock exchanges is produced by the extensive financial sector reforms undertaken by African countries. The reform package included a variety of measures, such as interest rate liberalizations, removal of credit ceilings, restructuring and privatization of state-owned banks, along with supervisory and regulatory schemes, promotion and development of capital markets, including money and stock markets. This is accompanied and stimulated by rapid improvements in global conditions and global technology connecting Africa with the rest of the world. In fact, this rapid development in the equity market sector points to Africa's new commitment to financial sector policy reform, and the region's economic awakening. It appears that most African governments have embraced stock markets.

A particularly important feature of stock market development has been an emergence of a regional stock market domiciled in Abidjan - Bourse Regional des Valeurs Mobiliéres (BVRM). This happens to be the only regional stock exchange of its kind in the world. The BVRM regional market serves as an anchor for the CFA countries - Benin, Burkina Faso, Cote d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal and Togo., and it links the eight Francophone countries in West Africa. However, except for South Africa, sub-Saharan African markets remain the smallest of any region in terms of capitalization, they display considerable illiquidity.

The emergence of stock markets provides an important opportunity for integrating Africa into the global financial market place and attracting global capital. It is actually encouraging that Africa has been receiving a growing attention from international investors, although still at a very low level. The Africa-oriented investment funds, which are now trading in New York and Europe, approach eighteen in total. In this context, regionalization is a vital mechanism for consolidating African stock markets and promoting financial globalization of Africa. The Abidjan-based market is bound to serve as a positive role model for other regions of Africa. It is encouraging that already the Anglophone countries of West Africa are contemplating forming a regional stock exchange under the umbrella of the ECOWAS. Similarly Kenya, Tanzania and Uganda can be natural partners in forming a regional stock exchange in East Africa. Moreover, the Southern African Development Community (SADEC) stock exchanges have proposed the idea of a regional stock exchange.

Table 1: Listing and market capitalizations

This table shows the market capitalization and number of firms listed on African stock exchanges and Malaysia and Mexico, selected comparative countries from South East Asia and Latin America. Panel A shows the market capitalization for firms listed on the stock exchange as a percentage of Gross Domestic Products, and Panel B shows the number of firms listed on the stock exchanges.

Panel A: Market capitalization of listed companies (% of GDP)

Country	1991	1995	2000	2001	2002	2003	2004	2005	2006	Mean (2000-2006)	Median	Annualized % growth 2000-2006
Botswana	6.62	8.34	15.83	21.03	29.04	25.73	25.94	23.33	38.22	25.59	25.73	13.42
Cote d'Ivoire	5.16	7.87	11.37	11.04	11.57	12.01	13.46	14.5	23.7	13.95	12.01	11.06
Egypt, Arab Rep.	7.17	13.44	28.79	24.93	29.7	32.65	48.85	88.83	86.97	48.67	32.65	17.11
Ghana	1.15	25.54	10.1	9.93	12.02	18.7	29.8	12.82	13.4	15.25	12.82	4.12
Kenya	5.56	20.85	10.1	8.09	11.02	28.54	24.1	33.26	53.71	24.12	24.10	26.96
Mauritius	11.05	34.84	29.79	23.42	29.19	37.26	39.23	41.61	55.8	36.61	37.26	9.38
Morocco	5.5	18.04	32.7	26.8	23.8	30.02	50.1	52.73	86.13	43.18	32.70	14.84
Namibia	-	5.4	9.12	4.68	5.47	6.88	7.74	6.7	8.5	7.01	6.88	-1.00
Nigeria	6.88	7.23	9.21	11.26	12.29	16.29	20.01	19.95	28.62	16.80	16.29	17.58
South Africa	139.74	185.64	154.24	117.95	166.5	160.66	210.46	233.58	280.41	189.11	166.50	8.91
Swaziland	2.97	24.85	5.26	10.12	12.05	9.02	9.43	7.53	-	8.90	9.23	6.16
Tanzania	-	-	2.57	4.22	7.25	6.41	5.9	4.67	-	5.17	5.29	10.47
Tunisia	5.44	21.78	14.54	11.52	10.13	9.86	9.39	10.03	14.68	11.45	10.13	0.14
Uganda	-	-	-	0.62	0.83	0.76	1.4	1.19	-	0.96	0.83	13.93
Zambia	-	0.55	7.28	6.97	6.31	6.63	7.93	13.6	-	8.12	7.13	10.98
Zimbabwe	16.09	28.66	32.87	77.73	71.39	67.26	41.2	70.26	530.02	127.25	70.26	48.76
Africa - mean	17.78	28.79	24.92	23.14	27.41	29.29	34.06	39.66	101.68	40.02	29.29	22.25
Africa - ex S. Africa	6.69	16.72	15.68	16.82	18.14	20.53	22.30	26.73	85.43	29.38	20.53	27.40
Africa -median	6.09	19.45	11.37	11.15	12.04	17.50	22.06	17.23	45.97	19.61	17.23	22.09
Malaysia				136	130	162	160	139	158	147.50	148.50	2.53
Mexico				20	16	19	25	31	42	25.50	22.50	13.16

Panel B: Listed domestic companies

Country	1991	1995	2000	2001	2002	2003	2004	2005	2006	Mean (2000-2006)	Median	Annualized % growth 2000-2006
Botswana	9	12	16	16	18	19	18	18	18	18	18	1.70
Cote d'Ivoire*	25	31	41	38	38	38	39	39	40	39	39	-0.35
Egypt, Arab Rep.	627	746	1076	1110	1148	967	792	744	603	920	967	-7.94
Ghana	13	19	22	22	24	25	29	30	32	26	25	5.50
Kenya	53	56	57	57	57	51	47	47	51	52	51	-1.58
Mauritius	20	28	40	40	40	40	41	42	41	41	40	0.35
Morocco	67	44	53	55	55	53	52	56	65	56	55	2.96
Namibia	-	10	13	13	13	13	13	13	9	12	13	-5.12
Nigeria	142	181	195	194	195	200	207	241	202	205	200	0.51
South Africa	688	640	616	542	450	426	403	388	401	461	426	-5.95
Swaziland	2	4	6	5	5	5	6	6	-	6	5.5	0.00
Tanzania	-	-	4	5	5	6	6	6	-	5	5.5	6.99
Tunisia	15	26	44	46	47	46	44	46	48	46	46	1.25
Uganda	-	-	-	2	3	3	5	5	-	4	3	20.11
Zambia	-	2	9	9	11	11	11	12	-	11	11	4.91
Zimbabwe	60	64	69	72	76	81	79	79	80	77	79	2.14
Africa -mean	143	133	151	139	137	124	112	111	133	129	133	-1.82
Africa -ex S. Africa	94	94	118	112	116	104	93	92	108	106	108	-1.19
Africa -median	39	30	41	39	39	39	40	41	50	41	40	2.73
Malaysia	321	529	795	809	865	897	962	1020	1027	911	897	3.73
Mexico	209	185	179	168	166	159	152	151	131	158	159	-4.36

* The stock exchange in Cote d'Ivoire, the Bourse Regionale des Valeurs Mobilieres SA or BRVM, is a regional stock exchange that serves the French speaking West African countries of Benin, Burkina Faso, Guinea Bissau, Cote d'Ivoire, Mali, Niger, Senegal and Togo.

Despite the rapid development, stock markets in Africa remain thin and illiquid, with the exception of the established markets in South Africa and North Africa. The mean market capitalization (as a percentage of GDP) of 29.29% (20.53%, excluding South Africa) pales in comparison to that of Malaysia of 148.5%, but comparable to that of Mexico of 22.50%. The size of the markets has, however, been growing, with the mean for Africa growing from 17.78% of GDP in 1991 to 101.68% in 2006, an annualized growth rate of 22.28%. Unfortunately, the 2006 figure is heavily influenced by the extraordinary run-up of the Zimbabwe capitalization ratio. On the listing front, the number of firms listed on African stock exchanges is also small compared to the markets in Malaysia and Mexico. As of 2006, the mean (median) number of firms listed on the African stock markets is 129 (41) as compared to 911 in Malaysia and 158 in Mexico. The number of firms listed has declined over 2000-2006 (growth rate of -2%), with the well established markets of South Africa and Egypt recording significant drops in the number of firms listed. Moreover, in most of the African stock markets, trading occurs in only a few stocks, and these stocks typically represent a considerable portion of the total market capitalization. The non-active stocks face serious informational and disclosure deficiencies. Moreover, supervision by regulatory authorities is often inadequate.

The stock market development in Africa raises a number of policy questions. Are there gains to those countries introducing the stock markets? Does the functioning of African stock markets conform to best global practices? What is their role in financial globalization of Africa? What concrete measures should be put into place to build capacity and efficiency of these markets? These are the questions that this policy-oriented paper wishes to address.

The paper is organized as follows. The following section provides the economic rationale for stock market development in Africa. This is anchored by the potential impact of the stock market development on economic performance based on the available evidence from other regions of world. This is then followed by evidence from Africa itself. Section III examines the current state of African stock markets. In particular, we look at gaps in the functional and operational efficiencies of the stock markets. The functional efficiency is examined on the basis of recent history of these markets in terms of their liquidity and depth. The operational efficiency pertains to the workings of the stock exchanges and gaps relative to the best practices in terms of settlement and clearance. We also take note of trends in demutualization of the stock exchanges around the world and its implication for African stock markets. The section closes with a discussion of the risk factors that are potential challenges in the functioning of the African stock markets. Section IV takes a closer look at the role of African stock markets in integrating the region into a global financial economy. The prospects for financial globalization of Africa are discussed by way of providing the recent performance of the African stock markets on a risk-adjusted basis. Moreover, we provide a discussion of regionalization of these markets as a conduit for promotion of globalization. Section V examines the role of African stock markets in privatization of state-owned enterprises. It also examines issues in corporate governance that are pertinent to the development of African stock markets. Section VI concludes with a catalogue of policy prescriptions.[1] At the core of

[1] This paper has benefited from prior work: Senbet (1998) "Globalization of African Financial Markets", UNU/AERC conference (Tokyo) [also in Asia and Africa in the Global Economy, UNU Press,2003], Senbet (1998) "Global Financial Crisis: Implications for Africa", AERC plenary conference (Nairobi) [also in Journal of African Economies, 2001], and Aryeetey and Senbet (1999) "Essential Financial Market Reforms," World

which are measures for promotion of public confidence, provision of informational efficiency, provision of liquidity, cultivating synergy among regional stock markets, and global integration. The guides include measures for banking sector development, which also foster competition in the banking system and facilitate the development of African stock markets.

II. Why Stock Markets for Africa

Stock exchanges are mainly mechanisms for exchange and trading of stocks. A stock market fails if the stock exchange is not conducive to exchange of stocks. Thus, the mere establishment of *stock exchanges* is of no value in itself. Liquidity and information production are central to the functioning and development of the stock market. By the same token, the mere existence of banks is of little value, if their primary activity is to merely purchase government securities and shun provision of private credit. Unfortunately, this dysfunctional banking system that avoids business lending is prevalent in Africa. This is dysfunctional from the standpoint of financial intermediation, because banks no longer serve as informed agents or intermediaries on behalf of the society and build vital information capital that is crucial for efficient allocation of resources.

The value of stock markets to Africa can be appreciated by understanding the multiple functions that the stock markets perform. In particular, in an environment characterized by uncertainty, stock markets provide functions beyond capital/savings mobilization. They also facilitate other functions such as risk allocation and risk sharing among market participants. Risk sharing in turn allows high risk, yet high return, projects to be undertaken; otherwise, such projects would be rationed out of the economy, leading to a destruction of value for the economy. Value destruction eventually aggregates into poor aggregate performance. Moreover, stock markets can serve a vital governance function in disciplining management in an environment with imperfect information and incentive problems. These problems are likely to prevail among various stakeholders to an organized enterprise: management, shareholders, creditors, employees, suppliers, customers, government, etc.

The bottom line is that the benefits of the stock markets to Africa are linked to economic performance. The available empirical evidence is that well-functioning stock markets, along with well-designed institutions and regulatory systems, foster economic growth. The evidence is particularly encouraging to African countries which have already established the stock markets or to those which are contemplating to do so, since it supports a vital link between stock market development and poverty alleviation, as well as employment creation. Below we provide the evidence for the linkage for stock market development and economic development based on other regions and then follow up with a corresponding evidence in the context of Africa.

Bank 21st Century project conference (Abidjan), Senbet and Otchere "Financial Sector Reforms: Issues and Policies" (ABCDE, 2006). The current paper provides an extensive update (data) on African stock markets , as well as new analytics and tests.

A. Stock market development and economic development

There is now an abundance of scholarly literature documenting the link between the level of the stock market development and economic growth of countries. This linkage is explained by the role of a well-functioning stock market system in lowering the costs of mobilizing financial resources and in ensuring that these resources are allocated efficiently in the sense of being channeled to their highly valued use. In broad terms, the available evidence is consistent with countries with better developed and deeper financial systems experiencing faster economic growth. More specifically, for instance, e, most East Asian countries experienced high economic growth in the seventies and eighties while most Latin American countries saw low growth. During that same period it was observed that stock market capitalizations were higher in East Asia than in Latin America.

The principal channel for the linkage between stock market development and economic performance is liquidity provision of the market. A liquid stock market, which is characterized by active trading among a large number of investors and firms, provides an exit strategy both for investors and issuing firms. Thus, liquidity is a crucial feature of stock market development. It also provides a channel for more efficient corporate governance and resource allocation, whereby resources are allocated to the most productive and innovative firms. The existing empirical evidence supports a positive linkage between stock liquidity and economic growth; countries with more liquid markets experience faster rates of capital accumulation and subsequently greater productivity (e.g. Levine 1997, Levine and Zervos, 1998). The stylized facts in Table 2, which are adapted from Tadesse (2004) and Senbet and Otchere (2006), arre consistent with the linkage between stock market liquidity and economic performance.

Thus, part of the answer to the question posed in the topic of this section "why stock markets for Africa" pertains to the role of the stock market in promoting economic growth. It turns out that the channels for the stock market – growth nexus are the multiple functions that the stock markets perform, and not just the mere establishment of the stock exchanges. The functional features of the stock markets, that serve as a channel for the growth nexus, include market liquidity, turnover, and efficiency of pricing of risk. This then allows us to catalogue the specifics of what the stock markets can do in answering the question "why stock markets for Africa".

First, stock markets promote savings through a provision of an alternative financial vehicle for individuals to better meet their risk preferences and liquidity needs, potentially increasing the savings rate in the economy. *Second*, stock markets promote growth at a listed firm level, since the firm is now able to mobilize capital at a lower cost of capital as risk is shared widely in the market place. This leads to value creation, as positive net present value projects are now adopted which might have been rationed out in the absence of a well-functioning stock market. As many firms face this opportunity, the aggregate economy also benefits. *Third,* through liquidity provision, stock markets help promote adoption of illiquid long-term projects, since investors in the firm may liquidate their stock positions through the market. Investors need not wait until the long-term project pays off to smooth out their consumption plan (Hauswald, Haque, and Senbet, 1997).

Fourth, stock markets promote efficient governance and control of a listed company by exerting external pressure and discipline on its management. This governance of the stock market is particularly important in an environment of uncertainty characterized by incentive conflicts between corporate decision-makers and suppliers of capital. This is done through the price discovery function of the stock market, whereby the market provides a signal for managerial performance. This can be illustrated through what is known as markets for corporate control. The market price information uncovers target firms for takeover and leads to active trading for actual transfer of control. In the event that the firm is taken over by outside raiders, inefficient management may be removed and replaced by an alternative management team that responds to the interests of the suppliers of capital. Actually in most cases the takeover itself need not occur, since the very threat of such a control transfer serves as a disciplining mechanism for management.

Table 2

Stock Market Development and Economic Performance

Stock Market Liquidity Measures: Selected Countries by Income Categories
Annual Averages 1980-1995

	(TURNOVER)	*Log (Per Capita GDP*
Low Income Countries		
Bangladesh	0.0327	5.234
India	0.4261	5.78
Indonesia	0.1855	6.315
Pakistan	0.1413	5.794
Zimbabwe	0.0653	7.876
Average	**0.17018**	**6.1998**
Middle Income Countries		
Chile	0.0661	6.086
Colombia	0.0863	7.711
Egypt	0.0636	10.085
Jordan	0.1571	7.008
Malaysia	0.2392	7.73
Mexico	0.5394	7.975
Peru	0.163	7.524
Philippines	0.2161	6.566
Sri Lanka	0.0694	9.344
Turkey	0.5041	7.88
Venezuela	0.1275	9.949
Average	**0.2029**	**7.9871**
High Income Countries		
Australia	0.2923	9.704
Austria	0.4422	9.856
Belgium	0.1202	9.791
Canada	0.3084	9.899
Denmark	0.2086	7.096
Finland	0.2019	10.081
Germany	1.0394	9.963
Greece	0.1218	8.968
Israel	0.6492	9.287
Italy	0.2986	9.757
Japan	0.4329	9.966
Korea	0.8502	8.527
Kuwait	0.2363	9.632
Netherlands	0.3656	9.786
New Zealand	0.1854	9.444
Norway	0.3265	10.179
Portugal	0.1537	8.69
Singapore	0.3254	9.422
Spain	0.2695	6.496
Sweden	0.2984	10.123
U. K.	0.3783	6.984
U.S.	0.5379	9.654
Average	**0.3656**	**9.2411**

Source of Data: International financial statistics (IMF), Emerging Market Database (IFC); Table adapted from Tadesse (2004) and Senbet and Otchere (2006).

B. Stock markets and economic growth: Evidence from Africa

The foregoing discussion provides strong economic rationales for "why stock markets for Africa" based on the particular functions the stock markets perform and their role in economic development. The latter is primarily based on evidence from other regions. It would be useful to look at the extent to which the evidence holds up in the context of Africa. The very few studies on Africa (e.g., Yartey and Adjasi, 2007) provide evidence consistent with what we have learned from the experience of other regions. Here we wish to provide our own evidence.

Table 3 provides regression results using measures of economic performance and measures of stock market development. The latter are measured by stock market capitalization relative to GDP, value of shares traded relative to GDP, and value of shares traded relative to market capitalization. The latter two indicators measure the trading activity, relative to the size of the economy and the size of the stock market, respectively. The results show that the market capitalization and the value of shares traded relative to the size of the economy are the channels through which African stock markets influence economic growth. The African evidence is reassuringly consistent with the available evidence in other global contexts, albeit the relations appears to be weak, since once we control for other factors, the relation weakens. The policy implication here is that appropriate measures should be in place to gain improvements in trading of shares and achieve greater liquidity of the stock markets. We will revisit this in the following section.

The foregoing evidence is also consistent with an interesting finding by Yartey and Adjasi (2007) that stock market contribute to financing of corporate investments and hence growth of listed firms in Africa. This implies that corporate financing channel is another mechanism for the stock markets to impact aggregate economic performance. For instance, listed companies in Ghana obtained about 12 percent of their financing and growth through the stock market between 1995 and 2002. Similarly the stock market contributed to a substantial component of external finance in several other countries. In fact, for listed companies the reliance on this particular form of external finance seems higher in Africa than in the more advanced countries. However, external finance through the stock markets in Africa has a similar pattern as other emerging countries.

Table 3: Stock market development and economic growth (Africa)

This table shows the role of stock market development in economic growth. The stock market variables used in this analysis are turnover, value traded as a percentage of GDP and market capitalization. The control variables are investment in human capital, foreign direct investment, government consumption as a percentage of GDP (GovCons/GDP), exchange rate and inflation.

Panel A: Dependent variable is Growth in GDP

	1	2	3	4	5	6	7
Intercept	4.15	3.77	4.11	3.27	2.95	3.02	3.59
	(6.55)***	(8.04)***	(8.53)***	(4.13)**	(3.92)***	(4.31)***	(3.12)**
Turnover Ratio (%)	-0.05			-0.07			-0.16
	-1.03			(-1.94)*			(-1.92)*
Value Traded / GDP		-0.04			-0.03		0.15
		-0.97			(-1.11)		(0.67)
Market Cap			-0.02			-0.01	-0.03
			-1.64			(-1.15)	(-0.35)
Inv in human capital				0.15	0.09	0.09	0.18
				(2.47)**	(1.49)	(1.78)	(2.36)
GovCons / GDP				-0.04	-0.09	-0.08	-0.04
				(-2.04)*	(-3.45)***	(-3.57)***	(-1.27)
FDI				0.001	-0.0003	-0.003	0.001
				0.66	(-0.42)	(-0.54)	(0.62)
Exchange Rate				-0.0002	-0.002	-0.002	-0.004
				-0.31	(-2.35)**	(-2.56)**	(0.51)
Inflation				-0.02	0.06	(0.06)	-0.01
				-0.51	(1.48)	1.6	(-0.18)
F-stat	1.06	0.95	2.68	(4.65)**	(5.55)*	(6.44)***	(3.17)*
Adj R^2	0.004	-0.01	0.10	0.58	0.68	0.70	0.45

Panel B: Dependent variable is GDP/Capita

	1	2	3	4	5	6	7
Intercept	935.90	1081.16	891.96	1633.12	1241.87	1112.00	-7.75
	(2.18)**	(3.69)***	(2.87)**	(1.93)	(1.43)	(1.44)	(0.01)
Turnover Ratio (%)	33.88			39.24			-29.43
	1.04			(1.05)			(-0.45)
Value Traded / GDP		52.29			52.11		-341.87
		(1.95)*			(1.80)		(-1.98)
Market Cap			14.39			16.37	114.86
			(2.13)**			(2.28)	(2.51)
Inv in human capital				4.67	50.42	41.45	54.97
				(0.07)	(0.75)	(0.75)	(0.94)
GovCons / GDP				3.67	2.32	-5.13	-40.95
				(0.16)	(0.11)	(0.25)	(-1.66)
FDI				-0.61	-0.25	-0.42	-0.03
				(-0.77)	(-0.32)	(-0.68)	(-0.04)
Exchange Rate				-0.25	-0.24	-0.16	0.25
				(0.36)	(-0.37)	(-0.28)	(0.44)
Inflation				-33.42	31.51	-28.81	-26.67
				(-0.98)	(-0.96)	(-0.98)	(-0.98)
F-stat	1.07	(3.80)*	(4.54)**	(0.86)	(1.32)	(1.80)	(2.31)
Adj R^2	0.01	0.16	0.18	-0.05	0.11	0.23	0.41

III. The State of African stock markets

How do current stock markets in Africa hold up in terms of their functional and operational efficiencies? We will take a look at liquidity and market depth in terms of assessing functional efficiency and look at the trading mechanisms in assessing operational efficiency. We find important gaps in both functional and operational efficiencies. Apart from the functional and operational dimensions, we need to identify various risk factors as potential challenges to stock market development in Africa, which we will also take up in this section.

A. Gaps in functional efficiency

Beyond mere capitalization, it is the functional efficiency of the stock markets that contributes significantly to economic growth as discussed in the earlier section. African stock markets, thus, should be judged on the basis of their efficiency in carrying out these functions. Although the growth in the number of stock exchanges has been impressive, their existence alone is not consequential to economic growth. Judged on the basis of functionality as a guiding principle, these markets have been malfunctional. Except for the South African stock market, pre-emerging stock markets in Africa are by far the smallest of any region, both in terms of number of listed companies and market capitalization. Moreover, the trading activity is minimal . In most African stock markets, trading is concentrated in only a few stocks. These stocks themselves account for a considerable part of the total capitalization of the entire market.

We use two standard approaches in measuring indicators of liquidity of African stock markets: (1) the ratio of total value of shares traded on the exchange to GDP. This indicator measures the market's trading activity relative to the size of the economy; (2) the ratio of total value of shares traded to the total capitalization of the market. This indicator is known as "turnover ratio", and it measures the market's overall trading activity relative to the size of the market itself. These indicators do not directly measure the stock market liquidity in the sense of the ease at which investors can buy and sell securities at posted prices, but they are rough measures of the overall trading activity relative of the size of the both the economy and the stock market.

Table 4 shows that indicators of stock market development via trading activity measures are small, and the markets are characterized by low market capitalization with few listed companies (see also Table 1). Most stock markets are, therefore, characterized by low provision of liquidity and exit strategies. While liquidity on the African markets has gradually been improving at a very slow pace over the last decade, the mean value traded ratio of 7.84% is comparable to that of Mexico of 6.18% but woefully lower than that of Malaysia of 39.61%. The low liquidity (rather illiquidity), more than market capitalization, should be of great concern to Africa in light of the earlier evidence which suggests market liquidity as a vital channel for linking stock market development with economic performance.

Table 4: Liquidity of African Stock Markets

This table presents data on the liquidity of stock markets in Africa. Panel A shows the trend in the value of stock traded as a percentage of Gross Domestic Product, and Panel B presents information on turnover ratio. Turnover is measured as the ratio of value traded to market capitalization. The value traded/GDP ratio measures trading relative to economic activity, whereas turnover ratio measures trading activity relative to size.

Panel A: Stocks traded, total value (% of GDP)

Country	1991	1995	2000	2001	2002	2003	2004	2005	2006	Mean (2000-2006)	Median ('00-'06)
Botswana	0.2	0.8	0.77	1.08	0.93	1.05	0.51	0.43	0.71	0.78	0.77
Cote d'Ivoire	0.07	0.13	0.32	0.08	0.14	0.18	0.3	0.19	0.64	0.26	0.19
Egypt	0.38	1.13	11.14	3.99	2.91	3.95	7.11	28.31	44.16	14.51	7.11
Ghana	-	0.34	0.2	0.25	0.18	0.6	0.74	0.42	0.41	0.40	0.41
Kenya	0.13	0.72	0.37	0.31	0.28	1.43	2.13	2.63	6.4	1.94	1.43
Mauritius	0.18	1.83	1.69	2.46	1.25	1.89	1.57	2.4	2.64	1.99	1.89
Morocco	0.18	7.35	3.28	2.87	1.63	1.58	3.35	8.03	23.56	6.33	3.28
Namibia	-	0.09	0.65	0.24	0.05	0.04	0.31	0.1	0.33	0.25	0.24
Nigeria	0.03	0.05	0.57	1.03	1.02	1.47	2.31	3	3.1	1.79	1.47
South Africa	6.7	11.28	58.32	58.51	71.09	61.69	75.23	82.92	122.53	75.76	71.09
Swaziland	-	0.03	0.02	0.79	0.02	0	0	0	-	0.14	0.01
Tanzania	-	-	0.44	0.08	0.19	0.19	0.15	0.11	-	0.19	0.17
Tunisia	0.23	3.68	3.22	1.58	1.05	0.66	0.8	1.59	1.81	1.53	1.58
Uganda	-	-	-	0	0.01	0	0	0.04	-	0.01	0.00
Zambia	-	-	0.25	1.46	0.05	0.25	0.12	0.19	-	0.39	0.22
Zimbabwe	0.89	2.11	3.77	14.91	11.35	18.18	2.88	9.7	17.9	11.24	11.35
Africa -mean	0.90	2.27	5.80	4.98	5.39	5.00	6.31	8.69	18.68	7.84	5.80
Africa -mean ex S. Africa	0.25	1.52	1.91	2.08	1.40	2.10	1.49	3.81	9.24	3.15	2.08
Africa -median	0.19	0.80	0.61	1.03	0.28	0.66	0.74	0.43	2.87	0.95	0.66
Malaysia				23.60	29.03	48.21	50.55	41.38	44.92	39.61	43.15
Mexico				6.44	4.27	3.68	6.27	6.87	9.54	6.18	6.35

Panel B: Stocks traded, turnover ratio (%)

Country	1991	1995	2000	2001	2002	2003	2004	2005	2006	Mean (2000-2006)	Median (‘00-‘06)
Botswana	-	-	4.78	5.6	5.04	4.36	2.3	1.81	2.39	3.75	4.36
Cote d'Ivoire	-	2.2	2.59	0.7	0.72	1.61	2.66	1.41	3.68	1.91	1.61
Egypt	-	10.9	34.74	14.2	16.13	13.73	17.31	42.97	55.23	27.76	17.31
Ghana	-	1.3	1.48	2.6	2.47	4.12	3.24	2.24	3.42	2.80	2.60
Kenya	-	-	3.58	3.4	3.79	7.41	8.15	9.83	15.76	7.42	7.41
Mauritius	1.9	-	5.01	9.3	11.51	6.22	4.45	6.05	5.99	6.93	6.05
Morocco	-	45.9	9.22	10	10.65	6.45	9.1	15.86	32.85	13.45	10.00
Namibia	-	1.6	4.51	3	5.18	0.74	4.82	1.5	4.56	3.47	4.51
Nigeria	0.6	0.84	7.29	10.2	10.65	10.99	13.73	11.46	13.84	11.17	10.99
South Africa	-	6.51	33.9	37.4	78.86	44.8	47.37	39.32	49.52	47.31	44.80
Swaziland	-	0.1	-	9.8	6.68	0.03	-	0.01	-	4.13	3.36
Tanzania	-	-	-	2.4	1.85		-	2.29	-	2.18	2.29
Tunisia			23.29	12.6	13.73	7.16	9.16	16.5	15.24	13.95	13.73
Uganda	-	-	-	-	-	-	-	-	-	-	-
Zambia	-	-	-	20.8	22.47	-	-	1.99	-	15.09	20.80
Zimbabwe	4.2	7.58	10.77	29.4	19.19	26.14	9.22	15.27	7.86	16.84	15.27
Africa -mean	2.23	8.55	11.76	11.43	13.93	10.29	10.96	11.23	17.53	12.45	11.43
Africa -mean ex S. Africa	2.23	8.80	9.75	9.57	9.29	7.41	7.65	9.23	14.62	9.65	9.29
Africa -median	1.90	2.20	6.15	9.80	10.65	6.45	8.63	6.05	10.85	8.37	8.63

There are a number of factors that are potential impediments to liquidity of African stock markets. Institutional investors, as well as governments which maintain minority stockholdings, are not active traders in the secondary market. Moreover, markets tend to be dominated by a few large companies. For instance, five companies account for 75% of transactions in Abidjan and Ashanti Goldfields accounts for 90% of the total capitalization of the Ghana stock market. Fortunately, though, these dismal stories on liquidity do not quite capture important new developments under way in the African stock market scene. For sure, African stock markets are still small and have low trading activity (see Table 4), but they are experiencing rapid improvement both in capitalization (size) and liquidity. These improvements have been in response to improvements in regulatory and economic environments that the region has experienced over the recent past. Simultaneously, foreign participation is also growing, and Africa is marching to an emerging markets club. In the next section, we will explore the role of these markets in the integration of Africa into a global financial economy.

B. Gaps in Operational Efficiency

African stock markets face challenges not only in their functional efficiency as discussed earlier, but in their operational efficiency. Brokerage services are poor, and settlement and operational procedures are slow. In some countries, it takes months to execute a single transaction. This is mainly due to lack of automation and weak stock market operational infrastructure, in addition to lack of quality personnel.

1. Manual systems are prevalent in Africa, but Automation is the global norm

Sub-Saharan African stock exchanges are gradually adapting to electronic systems, but most of them still use manual trading systems, as well manual clearing and settlement systems. Table 5 shows indicators of the African stock market infrastructure, showing the prevalence of slow manual systems. So far the following African stock exchanges have adopted automated systems: Johannesburg Securities Exchange (JSE), Algerian Stock Exchange, Bourse Regionale des Valeurs Mobilieres (BRVM), the Cairo and Alexandria Stock exchange (CASE), Stock Exchange Mauritius, Namibia Stock Exchange, Tunis Stock Exchange, and Nigeria. On the other hand, the manual systems pose bottlenecks in terms of slowing down trading and information production of the stock market. The exorbitantly low turnover indicators that we saw earlier should be partly attributable to these manual systems.

Table 5 Infrastructural Indicators of African Stock Exchanges

Country	Clearing & Settlement	Foreign participation	Trading system	Trading days
Algeria	Electronic	Yes	Electronic	1[1]
Botswana	Manual	Yes	Manual	5
Cote d'Ivoire	Electronic	Yes	Electronic	5
Egypt	Electronic	Yes	Electronic	5
Ghana	Manual	Yes	Manual	5
Kenya	Manual	Yes	Electronic	5
Malawi	Manual	Yes	Manual	5
Mauritius	Electronic	Yes	Electronic	5
Morocco	Manual	Yes	Electronic	5
Namibia	Manual	Yes	Electronic	5
Nigeria	Electronic	Yes	Electronic	5
South Africa	Electronic	Yes	Electronic	5
Swaziland	Manual	Yes	Manual	5
Tanzania	Electronic	Yes	Electronic	5
Tunisia	Electronic	Yes	Electronic	5
Uganda	Manual	Yes	Manual	5
Zambia	Electronic	Yes	Manual	5
Zimbabwe	Manual	Yes	Manual	5

[1]Trading occurs for a half morning each week. No recent records are available, which is an indication of the stock market's stagnancy; Source: http://www.undp-pogar.org/countries/finances.asp

Thus, it is important that sub-Saharan African stock exchanges adapt fast to automation and electronic systems. This adaptation reduces the costs and inefficiencies associated with manual systems and increases trading activity and liquidity in the stock markets by speeding up operations. Of course, automation is an expensive undertaking with considerable resource implications for governments sponsoring stock exchanges. However, Africa has to be fully in this venture of stock market development and adopt best practices in operational efficiency. This is particularly important as African stock exchanges contemplate regional consolidation of markets, which would be difficult without automation. In fact, without such moves, the benefits of regional integration, as well as financial globalization of Africa, will vanish.

2. Mutual exchanges the norm in Africa, but demutualization the global trend

African stock exchanges are organized as mutual entities, but demutualization has gained popularity. Table 6 shows trends in demutualizations around the world. The main reason is that mutualization breeds poor corporate governance. In a mutual exchange, stock market participants, such as traders and brokers, have monopoly power through exclusive access to trading systems. With demutualization, there are gains from competition among exchanges and improved governance due to market discipline on the insiders. These gains are being leveraged by opening up ownership of exchanges to public investors. Recently a number of stock exchanges, including the NYSE, have gone public and self-listed on the exchanges that they operate.

Table 6: Demutualizations around the World

Demutualized Exchanges	Demutualization Date	Listing (IPO) date	Region
Stockholm Stock Exchange	1993	1998	Europe
Deutsche Bourse	2000	2001	Europe
Oslo Stock Exchange	2001	2001	Europe
BME Spanish Exchanges	2001	-	Europe
Borsa Italiana SpA	1997	-	Europe
London Stock Exchange	2000	2001	Europe
Euronext*	2000	2001	Europe
Athens Stock Exchange	1999	2000	Europe
Budapest Stock Exchange	2005	-	Europe
Copehagen Stock Exchange	1997	-	Europe
Swiss Exchange	2002	-	Europe
Hong Kong Stock Exchange	2000	2000	Asia
Singapore Stock Exchange	1999	2000	Asia
Philippines Stock Exchange	2001	-	Asia
National Stock Exchange of India	1993	-	Asia
Osaka Securities Exchange	2001	-	Asia
Bursa Malaysia	2004	2005	Asia
Tokyo Stock Exchange	2001	-	Asia
Australian Stock Exchange	1998	1998	Australia/New Zealand
Sydney Futures Exchange[a]	2000	2002	Australia/New Zealand
New Zealand Stock Exchange	2003	2003	Australia/New Zealand
American Stock Exchange	2001	-	North America
Nasdaq	2001	2002	North America
Toronto Stock Exchange	2000	2002	North America
Chicago Mercantile Exchange (CME)[a]	2002	2002	North America
Chicago Board of Trade (CBOT)[a,b]	2005	2005	North America
New York Stock Exchange*	2006	2006	North America
New York Mercantile Exchange[a]	2000	2006	North America
Inter Continental Exchange[a]	2005	2005	North America
International Securities Exchange[a]	2002	2005	North America
Johannesburg Stock Exchange	2005	-	Africa

Pane B: Geographical distribution of demutualized Exchanges

Region	No. of demutualized exchanges	Percent
North America	9	29%
Europe	11	35%
Asia	7	23%
Australia/New Zealand	3	10%
Africa	1	3%
South America*	None	-
Total	31	100%

*The Mexican Stock Exchange (BMV) has already started its demutualization process.
[a] These are derivative exchanges.
[b] CBOT has been taken over by CME in 2007.

It appears that the pressure for change is felt everywhere in the stock exchange industry, with at least one exchange in almost all the continents demutualizing. The exception is Latin America. Even so, Mexico has initiated the demutualization process. However, demutualization and self-listing is more popular in Europe as over 40% of the listed exchanges are European. Perhaps the launching of the European Monetary Union may have triggered this wave of corporate governance change as a response to the increasing competition among the exchanges brought about by the integration. As a result of the adoption of a common currency, a major factor that created national monopoly for the European stock exchanges (i.e., currency difference) is now eliminated in the EU countries except the UK, so are regulatory barriers that created the national exchanges. The demutualization movement has spread to North America, with 30% of demutualized exchanges and Australia, with 33% of the demutualized exchanges located in that geographic region. In Africa, only the South African exchange has demutualized.

One of the catalysts for the demutualization has been improvements in technology which have created both opportunities and threats for the exchange industry. On one hand, technological advancement has facilitated trading of shares on several stock exchanges. Technology has also helped exchanges to overcome national boundaries. Investors do not necessarily have to execute their trades on the local stock exchange. They can place their orders wherever and whenever they wish to do so without being limited to specific trading times. Thus, technology has expanded trading opportunities. On the other hand, the migration of order flow to other markets has affected the local franchise that the exchanges had in their respective countries. The competitive environment is also changing. Hitherto, stock exchanges used to enjoy a monopoly in their domestic markets. The increasing internationalization of financial markets has reduced barriers to access and has set national exchanges in direct competition with each other. Exchanges are also facing severe competition from electronic communications networks (ECNs).

Demutualization transforms an exchange from a non-profit entity into a profit entity through a change in the legal status and governance structure of the exchange. Thus, demutualization involves a change in ownership structure and a change in legal organization form. The process of demutualization assigns value per member seat by monetizing the seats. In short, members are assigned valuable shares which can be traded privately or in the public market if the exchange goes public. There are restrictions on ownership structure to mitigate concentrated ownership that would potentially destroy the benefits of good governance. Controlling shareholders and management may not act in the best interests of the minority shareholders unless such ownership restrictions are in placed. Good governance in demutualization is sustained by genuine separation of ownership and control. In the context of Africa, demutualization can also help deter undue government influence that could have occurred under mutual exchanges[2]. Mendiola and O'Hara (2003) and Otchere

[2] The issue of corporate governance is crucial in the context of stock market development, and we will take up the subject more fully in a later section.

(2006) document evidence of improvement in performance and governance of demutualized exchanges. In addition, Otchere 2007 observed evidence of increased trading activity by foreign investors after Australian Stock Exchange's demutualization and self-listing and provides preliminary evidence that find that liquidity on the stock exchange improved after the change of governance structure and the attendant conversion of the exchange to a publicly traded company

C. Risk Factors to Worry About

Stock markets function in a volatile territory (see Figure 1 for the regular return volatility). It is important to have a good appreciation of the risk factors that potentially affecting stock markets in Africa. As discussed earlier, one of the functions of the stock market is to provide opportunities for risk diversification and allocation and help channel risky assets to the best valued use. However, there are risk factors that are beyond the control of these markets, which largely stem from instabilities in the economic systems as well as political systems. We will catalogue below such risk factors.

1. Macro-economic and Political Instability:

The stability of a macroeconomic environment is central to the development of the stock market. High macro-economic and political instabilities lead to high volatility in the financial markets. There prevailing evidence is that stability, such as low and predictable rates of inflation, contributes to stock market development. Garcia and Liu (1999) find that sound macreconomic environments and sufficiently high income levels – GDP per capita, domestic savings, and domestic investments – contribute to stock market development in emerging markets.

Other research has also shown that country risk, by implication, macro-economic risk, is the predominant source of variation in stock returns across countries (as opposed to industry-specific shocks). Political risk is often associated with lack of quality institutions, such as law and order and democratic accountability, and engenders in increased risk premium in the stock market. Further, investors would be concerned about a source of political risk stemming from the odds of adverse changes in government policies. As is often said, the best policy is no change in policy. Unfortunately, Africa is abundantly endowed with abrupt changes in government policies and political climate. These abrupt changes have adverse consequences on the development of stock markets[3].

[3] A case in point is the dramatic price swing in the Zimbabwe stock market. The Zimbabwe market, which rose phenomenally in 1996 (89.5%), moved down by more than 50% during the final quarter of 1997 in the wake of those dramatic government farm and pension policies ((D. Gopinath, 1998).The two policy changes are: (a) land reform to take over 1500 commercial farms - mostly white, and (b) a decision to pay $240 million in pensions to disgruntled veterans of the Zimbabwe independence war.

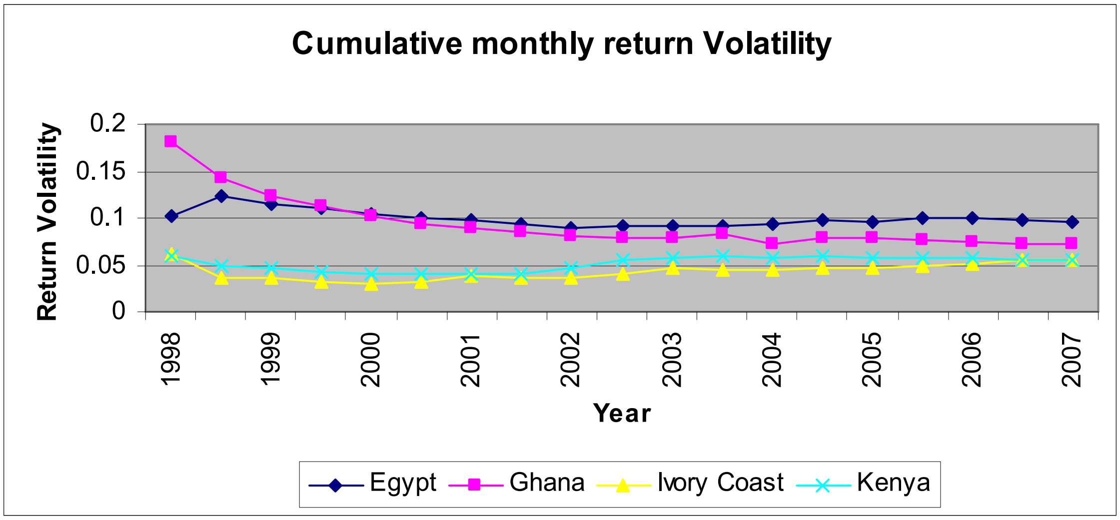
Finally, high economic and political instability is likely to exacerbate information asymmetries in the stock market, inducing excess volatility that attracts noisy traders as well as gamblers. Converting a stock exchange into a gambling casino is destabilizing not only to the stock market but the economy at large. If that happens, African stock markets do not accurately reflect the underlying fundamentals, leading to an emergence of speculative bubble and irrational behavior. This irrationality affects adversely the functioning of the stock market and the performance of the real sector of the economy.

2. African Currency Fluctuations: Depreciation and wide fluctuations in the values of African currencies can induce an important risk factor in the African stock market scene. High currency exchange volatility is endemic to African economies, creating an impediment to foreign investments. There is evidence that currency depreciation has an adverse impact on the performance of African stock markets (Senbet and Otchere, 2006). Unlike hard currencies, African currencies are readily hedged. In view of the dearth of hedging mechanisms through derivative markets (forward, futures, and options), an indirect approach would be to increase the number of export-oriented companies on the stock exchanges. In particular, those with exposure to hard currency exports should be targeted, so as to provide substantial hedging against local currency devaluation.

3. Crisis of International Confidence: Sub-Sahara Africa still conjectures up images of war, famine, massive corruption, failed projects, grossly undisciplined governance, and gross violations of human rights in international news headlines. This is despite the extensive political, economic and financial sector reforms that have taken place in the region. This information gap has serious consequences for African stock markets and the financial systems in large. This may be conjecturing up a phenomenon called *"Afro-pessimism"*, which lead to high, and even untenable, political and investment risks as perceived by potential investors in Africa. This is, in part, captured by low ratings for creditworthiness of Sub-Sahara African countries as shown, relative to other regions (see Table 7) , although they have displayed considerable improvement in the 1990s.. However, these ratings are still very low suggesting high country risk. Country risk is bad for the African stock markets as shown elsewhere (Senbet and Otchere, 2006).

This perception, although it does not reflect the fundamentals, may lead to crisis of international confidence. The information gap that penalizes an entire region is not good for those countries which are genuinely reforming. The average quality of the Africa "pool" may mask the high quality of the reforming countries due to the monolithic view of Africa as a single, troubled "country" (i.e., p*ooling equilibrium).* This information gap can be minimized through the provision of timely and reliable data required for making estimates of investment risks in Africa. Consequently, there is a need for more extensive, detailed and reliable economic and capital market data that captures the *diversity* of Africa.

Figure 1: Monthly Return Volatility for Selected African Stock Markets



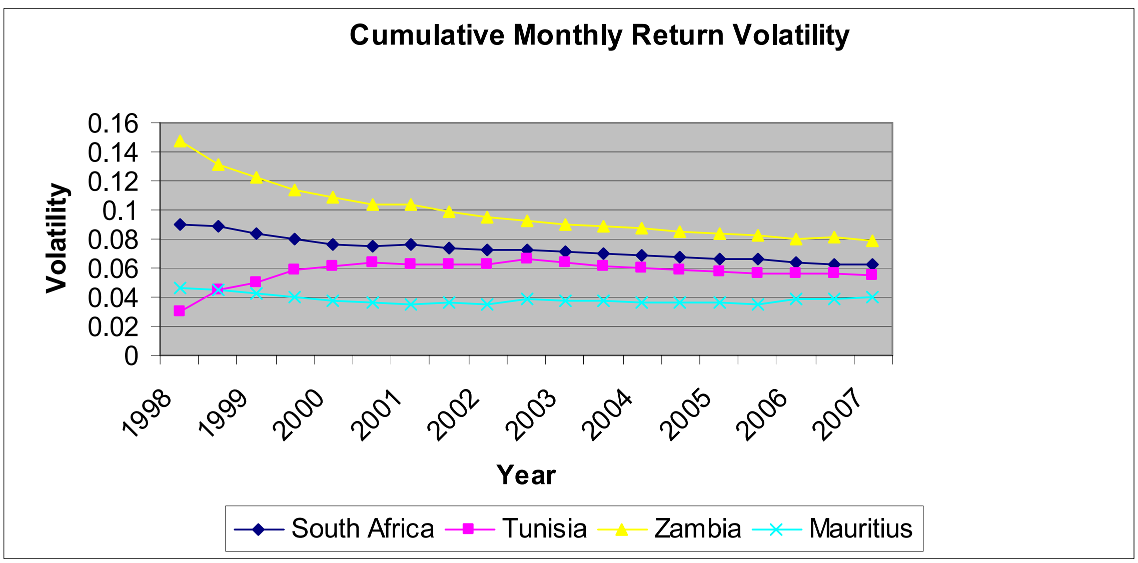


Table 7: Institutional Investor Credit Ratings of African Countries

Country	1996	1999	2003	2007
Algeria	22.8	26.5	41.6	53.9
Botswana	49.8	36.5	62.2	66.4
Cote d'Ivoire	18.5	25.5	15.7	20.1
Egypt	35.1	45.4	41.1	54.1
Ghana	29.6	30.7	25.8	37.6
Kenya	27.9	24.8	24.6	30.6
Malawi	19.7	19.5	18.8	21.5
Mauritius	50.8	53.9	53.9	56.2
Morocco	39.3	44.3	49.4	54.2
Namibia		38	39.8	50.2
Nigeria	15.2	17.9	20.2	40
South Africa	46.3	45.6	54.6	66.7
Swaziland			30.7	32.6
Tanzania		19.5	21.8	30.1
Tunisia	45.5	50.3	52.6	60.7
Uganda	16.1	21.7	20.1	29.9
Zambia	16.5	14.9	15.3	25.4
Zimbabwe	32.5	25.1	11	8
Sub-Saharan Africa	21.1	22.2	20.2	25.9
Europe and Central Asia	27.2	32.1	36.1	46.7
Middle East and North Africa	31	31.1	34.5	42.8
East Asia and Pacific	44.0	38.2	33.5	40.3
Latin America and the Caribbean	30.9	34.5	34.1	44.6
World Average	28.5	29.7	29.1	36.8

Source: Institutional Investors Credit Ratings

IV. Stock Markets as a Conduit for Financial Globalization of Africa

As Africa moves toward integration into the global economy, the development of stock market institutions and banking sectors is crucial for accessing the benefits of globalization, while controlling globalization risks (and the attendant financial crisis). Indeed, the surge in the stock markets in Africa is also part of the global trend in financial liberalization and deregulation of financial markets around the world. ***Well-functioning stock markets can be an important signal for Africa's commitment to private sector development and a conduit for the region's financial globalization.***

A. Africa's march into an emerging markets club

There are encouraging forces in place for the prospects for Africa's integration into the global financial economy. There is growing integration of world capital markets, including those in emerging economies, with increasing capital mobility. Moreover, there are rapid advances in information technology connecting Africa with the rest of the world, with the potential to facilitate capital flows. Thus, investors seeking the benefits of global diversification are now better able to access markets.

African stock markets are actually joining the wave of global integration and the evidence is reported by Lamba and Otchere (2001). This evidence is indicative of African markets being increasingly integrated with the other world capital markets. Financial sector reforms have contributed to this development. As these markets become increasingly accessed and march into an emerging markets club, they should provide significant diversification benefits as well as favorable risk-adjusted performance as we document below. .

B. Africa's positioning in the global risk-reward tradeoffs

African stock markets continue to perform remarkably well in terms of return on investment, despite the challenges they have faced in terms of low capitalization and liquidity. The performance looks attractive even after adjusting for standard risk measures. Table 8 shows performance of African stock markets in absolute as well as risk-adjusted (Sharpe ratio). The average annual return for the last fifteen years was 38.35% and the Sharpe ratio of 0.54%. These are performance measures in terms of local currency. These returns compare favorably to those realized in similar market in Latin America and Asia. The mean return on Malaysia and Mexico stock exchanges are 9.32% and 31.51%, respectively. However, international investors would be concerned about earning returns in weak currencies. What is impressive is that, even when the results are converted into the dollar, the performance measures remain very impressive – average annual return of 21.8% and the Sharpe ratio of 0.10. When adjusted for currency effects, the US dollar denominated returns from the African stock markets are comparable 22.97% obtained from the Malaysia, but slightly less than the 24.85% realized by Mexico. Thus, the recent performance of African stock markets suggests that these markets represent largely unexploited opportunities for international investors.

Table 8: Risk-Adjusted Performance of African Stock Markets

This table shows the Sharpe measure for the African countries. The measure is based on mean stock return and mean risk free (Treasury bill) rates of return from 1990-2006. The measure is calculated for the countries for which data are available)

Panel A: Performance based on local currency (1990-2006)

Country	Mean Return	Sharp Measure	P/E ratio (mean)	P/BV (mean)
Botswana	25.93	0.50	13.50	6.73
Cote d'Ivoire	9.88	0.10	7.39	1.71
Egypt	103.07	0.39	15.02	4.02
Ghana	44.72	0.28	7.40	4.47
Kenya	18.87	0.06	17.19	2.24
Malawi	15.18	-0.64	n/a	n/a
Mauritius	15.85	0.41	8.69	1.20
Morocco	25.64	0.60	18.62	2.55
Namibia	16.69	0.08	7.11	1.74
Nigeria	33.77	0.53	15.51	3.21
South Africa	16.78	0.24	12.80	3.32
Swaziland	8.02	-0.06	n/a	n/a
Tunisia	22.00	0.45	13.16	1.33
Zambia	13.16	-0.94	n/a	n/a
Zimbabwe	164.48	0.24	10.73	3.58
Pre-1999	31.53			
Post-1999	322.05			
Africa	38.35	0.54	12.26	3.01
Malaysia	9.32		21.72	2.08
Mexico	31.51		18.63	3.84

Panel B: Performance based on S&P-EMDB-USD (1997-2006)

	Mean Return	Sharp Ratio	P/R ratio (mean)	P/BV (mean)
Botswana	31.92	0.69	13.50	6.73
Cote d'Ivoire	9.20	0.19	7.39	1.71
Egypt	30.04	0.29	15.02	4.02
Ghana	0.64	-0.72	7.40	4.47
Kenya	27.82	0.25	17.19	2.24
Mauritius	9.80	0.22	8.69	1.20
Morocco	13.94	0.31	18.62	2.55
Namibia	5.57	-0.19	7.11	1.74
Nigeria	13.42	-0.03	15.51	3.21
South Africa	11.63	0.03	12.80	3.32
Tunisia	1.91	-0.14	13.16	1.33
Zimbabwe	105.67	0.05	10.73	3.58
Pre-1999	11.09		21.72	2.08
Post-1999	30.20		18.63	3.84
Africa	21.80	0.10	12.26	3.01
Malaysia	22.97		21.72	2.08
Mexico	24.85		18.63	3.84

In the last twenty years global investors have become enamored of emerging stock markets, but by comparison Africa has received a scant portion of capital flows to emerging markets as global equity funds have maintained a low exposure to Africa. However, as noted earlier this is changing and growing, and the growth can be accelerated through putting appropriate measures to build capacity of African stock markets.

C. Regional cooperation and integration of Africa into the global financial economy

The thinness and illiquidity of African stock markets pose a serious hindrance against financial globalization of Africa. Regional cooperation and integration of the disparate and thin markets would be an important mechanism to overcome the barrier to global integration. Thus, regionalization of African stock markets should enhance mobilization of both domestic and global financial resources to fund regional companies, while injecting more liquidity into the markets (Senbet, 1998).

There are now growing initiatives along these dimensions. Regional stock exchanges are being contemplated along linguistic lines. The Francophone countries of West Africa formed the first regional stock exchange, the Abidjan-based Bourse régionale des valeurs mobiliéres (BVRM) in 1998. The BVRM comprises the stock markets in Benin, Burkina Faso, Cote d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal and Togo. We currently have on the drawing board the Anglophone countries of West Africa, which are contemplating forming a regional stock exchange under the umbrella of the ECOWAS. Similarly Kenya, Tanzania and Uganda are natural partners for organizing a regional stock exchange. Moreover, the Southern African Development Community (SADEC) stock exchanges are taking initiatives for the formation of a regional stock exchange.

There are certain preconditions for successful regional integration of stock exchanges. They include harmonization of legislations, such as bankruptcy and accounting laws, establishment of regional self-regulatory agencies and regulatory exchange commissions, coordinated monetary arrangements (e.g., via currency zones). In particular, the tax treatment of investments must be harmonized, since tax policy is an important incentive or disincentive both for issuers and investors. Ultimately, the regulations, accounting reporting systems, along with clearance, settlement and depository systems, should conform to international standards. Moreover, African stock markets contemplating regional integration should quickly adapt to electronic trading systems and move out of the prevailing manual systems.

D. The Potential hazards of financial globalization of Africa

So far we have emphasized the benefits of financial globalization and the role of African stock markets in promoting integration of Africa into the global financial economy. It is appropriate to close this section with some perspectives on the potential costs of financial globalization.

The other side of financial globalization is that it exposes globalizing countries and regions to volatility of the global financial markets, the large unfavorable international exchange rate fluctuations, and large unfavorable international interest rate movements. The global risk exposure manifests itself in large unfavorable swings in international capital flows. Actually it was witnessed that countries, that experienced large capital flows, suffered commensurately large and sudden outflows. The sudden and large collapse of capital inflows can be enormously costly. There could be sudden withdrawals of deposits, leading to credit crunch in the economy. Moreover, there will be unwillingness on the part of creditors to supply short-term credit even for liquidity crisis, and default and contagion of the type experienced in East Asia (and earlier in Mexico). The damage associated with the financial crisis is evident in the dramatic declines in the asset and currency values.[4] The currency values for Thailand, Korea, Indonesia, and Malaysia declined by, at least, 50%. So did the stock market and property values. The dramatic financial instability is accompanied by poor or declining economic performance. There has been a shrinkage in GDP for the first quarter of 1998 for Indonesia, Thailand, Korea, Malaysia, Hong Kong, and even Japan.

The spillover effect of the Asian crisis was worldwide, including the US where the Asia-dependent companies experienced declining profits. In fact, the East Asian countries have been back in recovery and those who genuinely reformed their financial systems in responding to financial crisis are particularly performing well (The *Economist*, July 2002). There is a lesson here for Africa. The risk dimensions of financial globalization should not deter African stock markets from exposing to global factors. To do so would prevent Africa from participation in the genuine benefits of globalization that we discussed earlier. The strategy should be one of putting into place appropriate risk control mechanisms while integrating into the global financial economy so that the potential benefits are maximized on a risk-adjusted basis.

V. Share Issue Privatizations in Africa and Corporate Governance

There has been a wide spread privatization of state-owned banks in Sub-Sharan Africa in the wake of the extensive economic forms that have taken place in the region. This is particularly welcome, given the available evidence that privatized firms generally outperform state owned enterprises. Consequently, the conventional wisdom for state ownership of business enterprises, particularly, banks is being challenged. A list of the top 5% privatizations ranked by size (amount raised from the sale is presented in Appendix A.

[4] See Gande, John, and Senbet (2008) for the role of distorted incentives in making emerging economies more vulnerable to financial crisis and the proposed mechanisms to prevent financial crisis. See the AERC plenary synthesis by Senbet (1998) for more detailed analsis of global financial crisis and its implications for Africa.

A. Benefits of privatization through stock markets

African stock markets can be used as a mechanism for privatization of state-owned enterprises. There is now a growing number of African state-owned enterprises which are using the stock markets as vehicle for privatization. See Table 9 which catalogues privatizations in Africa, including share issue privatizations. Share issue privatization programs contribute directly to the depth of the stock markets through increased supply of listed companies. This should be a welcome development in view of the observed thinness and illiquidity of African stock markets, that we discussed earlier.

Moreover, there are less obvious benefits of privatization of state-owned enterprises through the stock market. *First,* share issue privatizations bring the privatized enterprises to the discipline of stock markets. Given the fact that the heavily subsidized state-owned enterprises in Africa generally lack effective governance mechanisms, and face little competition, bringing these firms to the discipline of the stock markets improves efficiency and performance. *Second,* the stock market is an arena for price discovery and it makes it possible for large-scale privatization programs to take place at fair pricing of assets to be sold (Senbet 1997). This in turn depoliticizes the privatization process. *Third*, African stock markets can provide a vehicle for diversity of ownership in an economy, since they allow an opportunity for local investor participation through purchases of privatization shares. This also dispels concerns about privatization assets being grabbed by foreigners. Thus, the stock market is not just for the elite, but it actually provides an opportunity for diversity of ownership, if privatization programs are conducted through the market. *Fourth,* share issue privatizations increase public awareness about the market through a creation of first time buyers of market instruments[5].

B. Banking privatization and stock market development

There is an accumulating evidence that countries with well-developed banks tend to have well-developed stock markets, and hence suggesting complementarity between stock market development and banking development. In particular, it is found that there is a significant relationship between indicators of stock market development and those of bank sector development (Levine and Zervos, 1998). Part of the reason is that support services from well-functioning banking systems can contribute to the development of the stock market. This implies the prevailing weak and malfunctioning banking systems (see Senbet and Otchere, 2006) are a deterrent to the growth of African stock markets. Moreover, the African banks which are state-woned or state-owned controlled lack sufficient oversight of the governance of business creditors. The African banking system also faces challenges in terms of lack of well-trained manpower that is capable of performing modern risk management and implementing an efficient credit risk policy towards enterprises.

[5] Privatization should also include financial institutions so that they can perform their proper function of delegated monitoring and help achieve efficient allocation of resources.

It is encouraging that there have been extensive privatizations of state-owned banks. This is welcome, since genuine privatization of banks should lead to a well-functioning banking system that can now help foster the development of African stock markets. The traditional thinking is that state owned banks serve underserved markets, particularly rural areas and small enterprises. However, the emerging evidence tends to contradict this conventional view. The available evidence is that state ownership is associated with less financial development, less growth, and less bank performance, and less financial stability (Barth, Caprio and Levine 2001).

In recent years there has been sharp decline in the state ownership of banks in Africa, although some countries (e.g., Ethiopia) continue to resist bank privatization altogether. However the performance effects of bank privatization is mixed (Senbet and Otchere, 2006). There has been a deterioration in the asset quality of the privatized banks. Indicators of performance, such as credit quality and profitability, worsened for the privatized banks. Privatized banks also experienced worse performance based on stock market data, although they were not statistically significant. This is troubling and suggestive of the possibility that there have not been gains from bank privatizations in Africa.

The evidence on the performance effects of bank privatization in Africa appears inconsistent with the overall evidence presented for other regions (Clarke, Cull, and Shirley, 2004). However, there are a couple of factors at work in the context of Africa. The first issue may be due to data generated from undeveloped and malfunctioning African stock markets. The second issue is even more likely in that poor post privatization performance of banks may be due to the prevalence of partial privatizations of banks in Africa. Partial bank privatization leaves the banks still vulnerable to government intervention. In fact, the available evidence is that privatization performance improves with less government retention of shares (D'Souza, Megginson and Nash, 2001). This was corroborated by more recent evidence suggesting very limited privatization gains even when the government held a minority stake (Clarke, Cull, Shirley, 2004). Thus, given the evidence, there should be a ban on continuing government intervention and partial ownership of the privatized banks, which would then allow for the development of a well-functioning banking system as well as the development of African stock markets.

C. African stock markets and corporate governance

The quality of corporate governance is central to the development of African stock markets. While share issue privatizations bring the privatized companies to a disciplinary force of the stock market system, it is still the case that corporate insiders may engage in activities which are harmful to capital contributors. This problem is magnified when a few insiders have controlling shareholdings and expropriate resources away from minority shareholders. It is important that as stock markets develop in Africa, the corporate sector moves to best practices in corporate governance.

1. Why good governance? The quality of corporate governance determines whether investors are willing to put their money into a listed company. Also, it affects the price that investors are willing to pay for the shares that they buy. Empirical studies have found that investors are willing to pay a premium for the stock of a well governed company over a poorly governed company which is otherwise equivalent in terms of financial performance (Gompers, Ishii, and Metrick, 2003). If investors lack confidence in corporate governance, they are likely to discount the shares that they hold, and that goes in the face of the company's ability to raise funds and grow. Good corporate governance, thus, allows a company to perform efficiently and create value for the shareholders and benefit the economy at large. Good corporate governance is also an important factor in building confidence of global investors who are potentially attracted to African stock markets. Thus, accessing the benefits of financial globalization requires that corporate governance mechanism in place are credible and transparent.

A recent Russian case illustrates the consequences of bad governance (see The Hermitage Fund case, HBS No. N2-703-010). Voucher privatizations in Russia allowed managers or the oligarchs to assemble controlling stakes through a loans-for-shares scheme. The Hermitage Fund case suggests these parties took advantage of their powerful position to enrich themselves. Controlling shareholders ignore established procedures for convening meetings of shareholders and took decisions without the knowledge of minority shareholders, and often minority shareholders' stakes were diluted without their knowledge and consent. In fact, controlling shareholders often had the votes to dominate the corporate boards and even change the corporate charters. The corporate governance crisis in Russia was in part attributable to the lack of well-functioning corporate governance institutions, such as company laws, accounting rules and regulations, securities regulators, and auditing firms and equity analysts. These institutions were slow to develop and did not function as intended in Russia.

2. Best corporate governance practices and the role of African Policy-makers: The internal and external monitoring mechanisms that accompany stock market development, such as structure of corporate boards and system of disclosure rules, improve transparency and boost investor confidence. The principal function of the corporate board is to maximize shareholder interests through an oversight of the risk profile of a corporation, monitoring the integrity of the company, and putting into place quality and competent management.

Best practices in corporate governance allow for a separation of the role of the government as a regulator and business operator, the appointment of independent non-executive directors. The growing consensus is that the board has to be independent of the chief executive officer, through appointments of directors who are outsiders with no serious business interests with the firm.

[This subsection to be completed]

VI. Policies for Building Capacity of African Stock Markets.

This policy-oriented paper has already attempted to answer the basic question "why stock markets for Africa" (see Section I) by cataloguing the various functions these markets perform and their role in promoting economic development. We have also looked at their role in integrating Africa into a global financial economy by way of providing the recent performance of the African stock markets. The prospects for financial globalization are real, and the ongoing regional initiatives to consolidate these markets and to use them for large scale privatization programs are good in this regard.

Of course, our examination of the current state of African stock markets indicates the many challenges that these markets face. It is then tempting for African countries to forego the challenge of developing home-grown stock markets, hoping that global stock markets can be accessed directly. While it is now increasingly possible for large African companies to cross- list in the foreign stock exchanges and /or issue depositary right securities traded on those exchanges, the view of avoiding the development of the local stock markets is misguided. While financial globalization can be an important complement, it cannot be an absolute substitute for domestic stock market development.

In fact, a vital source of integrating Africa into the global financial economy is the existence of deep and well-functioning domestic stock markets. Well-functioning domestic stock markets are vital for domestic resource mobilization, since they provide incentives and profitable options for domestic capital to be retained. Retention of domestic capital is important in the light of massive financial capital flight that Africa witnessed over the years. The development of the local stock market is important both in terms of buffering the volatility of external capital flows and helping achieve the political success of privatization, as we discussed earlier. Moreover, if Africans themselves are reluctant to invest in their own local stock markets, it can be hardly interpreted abroad as vote of confidence. Consequently, domestic participation is important in building international credibility.

Thus, in cataloguing policy measures for stock market development, we should go beyond those which help attract foreign capital. Policy measures should also target mobilization of domestic resources through the cultivation of attractive investment opportunities and fostering deep and well-functioning domestic stock markets. Moreover, as in other countries, investor participation is possible directly or indirectly through such vehicles as pension plans, insurance policies, mutual funds, etc. Domestic investors are also more likely be better informed about economic opportunities in the country than those in the other countries, and domestic stock market development is a one mechanism of empowering domestic investors.

Below we list some policy measures, which are already implicit in the earlier discussions in the paper, that we regard are vital for developing and building capacity of African stock markets. The thinness and illiquidity of the current African stock markets, shortage of domestic resource mobilization, the region's marginalization in the global markets for financial capital, coupled with shrinking official aid flows, are at the heart of the challenges that these prescriptions are intended to address.

Details to be completed; the following constitutes a detailed outline

1. Develop incentives for listing on stock exchanges (e.g., tax incentives for listed companies) as a means to achieve greater market depth and trading activity.

2. Foster public confidence and improve informational efficiency with disclosure rules, accounting standards, and enforceability of contracts, consistent with best practices for stock market development.

3. Develop a well-functioning stock market regulatory scheme, including a strong securities and exchange commission capable of enforcing securities laws and developing appropriate rules, consistent with best international practices.

4. Privatize the state-owned enterprises through African stock markets as a mechanism for achieving market depth, diversity of ownership, fairing pricing, public awareness of the stock market, and achieving better corporate governance.

5. Strengthen institutions for corporate governance and adopt best international practices in terms of measures for the effectiveness of the corporate board of directors and increased protection of shareholder rights against controlling shareholders/management.

6. Consolidate the African stock markets and harmonize laws, regulations, capital market institutions, as monetary systems, across the integrating regions.

7. Develop a talented financial manpower capable of managing risk both for the banking and equity market sector toward the enhancement of risk control mechanisms as markets become more sophisticated, and possibly venturing even into the derivatives arena. Support the state-of-the art finance curricula at higher education institutions.

8. Strengthen and build a well-functioning banking regulatory scheme with strong supervisory and monitoring role for regulators, making sure also that the regulators are not captured by the banking industry; again conform to best banking regulatory practices ala the Basle standards.

9. Conduct privatization programs with transparency and ban government intervention in the privatized enterprises, including privatized banks; and engage in full privatization rather than partial privatization to avoid continuing government interference.

10. Foster the development of institutions that support and sustain African stock markets, such as pension funds, credit ratings agencies, etc.

11. Develop a comprehensive capital market database to foster both practioner/investment analyst research and academic research – making it possible for African stock markets to be subject to best research practices

12. Quickly transform from manual into automated/electronic manual systems; the latter are now the norm in the more advanced stock markets.

13. Consider demutualizing the stock exchanges as a mechanism for improved governance stemming from separation and ownership of the exchanges and promoting investor confidence in the system. Demutualization is now a global trend, while mutualization is the norm in Africa. .

14. Introduce measures that help foster linkage between formal and informal financial systems, with eventual graduation into the stock markets.

References (To be Inserted)

Appendix A: **List of Privatized Firms (Top 5% ranked by size (transaction value)**

Country	Year	Company Name	Sector	Transaction Value ($m)
Egypt	1995	Eastern Tobacco*	Agriculture	163.70
South Africa	1999	South African Airways	Air Transport	235.00
Egypt	2006	CIB	Banking	2224.70
Egypt	2006	Bank of Alexandria	Banking	1610.00
Morocco	1995	BMCE*	Banking	208.62
Egypt	2006	Egyptian American Bank*	Banking	169.80
Egypt	2005	Alexandria Mineral Oils*	Energy	156.00
Egypt	2005	Sidi Kreir Petrochemicals	Energy	153.00
Morocco	1994	Societe Nationale d'Investissement*	Insurance	226.56
Morocco	2003	Regie des Tabacs	Manufacturing	1550.80
Morocco	2006	Altadis Maroc/Régie des Tabacs	Manufacturing	466.00
Nigeria	2006	Sunti Sugar Company limited	Manufacturing	427.00
Egypt	1999	Assiout Cement Company	Manufacturing	414.50
Egypt	2005	National Fertlizer Company	Manufacturing	341.00
Egypt	2005	Suez Cement*	Manufacturing	339.00
Tunisia	2000	Ciments de Jbel	Manufacturing	229.90
Tunisia	1998	Societe Les Ciments Jebel Ouest	Manufacturing	216.00
Egypt	1999	Alexandria Portland Cement	Manufacturing	178.00
Algeria	2005	Asmidal Fertilizer Company	Manufacturing	158.00
Nigeria	2005	National Fertlizer Company	Manufacturing	151.00
Egypt	1999	Beni Suef Cement	Manufacturing	150.00
Morocco	2005	Sunabel/Suta/Sura/Sucrafor	Manufacturing	146.60
Nigeria	2005	Eleme Petrochemicals Company, Ltd.	Manufacturing	145.70
Tunisia	1998	Societe Les Ciments d'Enfidha	Manufacturing	145.00
Egypt	1996	Helwan Portland Cement*	Manufacturing	144.48
Ghana	1994	Ashanti Goldfields Company(AGC)*	Mining	454.00
Zambia	1998	ZCCM - Luanshya copper and cobalt mining complex	Mining	245.00
Zambia	1997	Nkana and Nchanga (part of the Zambia Consolidated Copper mines)	Mining	220.00

Nigeria	2004	West African Refinery Company, Ltd. Sierra Leone	Oil	353.00
South Africa	1984	Sasol Two	Petrochemicals	1821.95
South Africa	1991	Sasol Three	Petrochemicals	1052.12
South Africa	1980	Sasol One	Petrochemicals	514.16
Nigeria	1993	NNPC oil field	Petrochemicals	500.00
Morocco	1997	Societe Anonyme Marocaine de l'Industrie de Raffinage (Samir)	Petrochemicals	416.00
Morocco	1996	SAMIR*	Petrochemicals	172.65
Egypt	2006	Sidi Abdel Rahman Hotel and Land	Services	173.10
South Africa	1989	Iscor	Steel	1146.60
Egypt	2006	Etisalat Misr (third GSM license)*	Telecommunications	2900.00
Morocco	2004	Maroc Telecom*	Telecommunications	2530.00
Tunisia	2006	Tunisie Telecom	Telecommunications	2250.00
South Africa	1997	Telkom*	Telecommunications	1261.00
Egypt	2005	Telecom Egypt	Telecommunications	892.00
Nigeria	2006	Nigerian Telecommunications Ltd (Nitel)	Telecommunications	750.00
South Africa	2003	Telkom SA Ltd*	Telecommunications	484.80
Algeria	2004	Wataniya Telecom Algerie	Telecommunications	421.00
Algeria	2003	Djezzy GSM	Telecommunications	360.00
Nigeria	2001	MTN Nigeria	Telecommunications	285.00
Nigeria	2001	Vmobile	Telecommunications	285.00
Mauritius	2000	Mauritius Telecom	Telecommunications	261.00
Tunisia	2004	Tunisiana	Telecommunications	247.00
Tunisia	2002	Tunisiana	Telecommunications	227.00
Nigeria	2002	Globacom	Telecommunications	200.00
Côte d'Ivoire	1997	CI-Telcom (CI Telcom)	Telecommunications	193.00
Egypt	1996	Cairo Sheraton	Tourism	146.69
Nigeria	2005	APAPA Port Terminal	Transportation	1061.00
South Africa	1998	Airports Company of South Africa (ACSA)	Transportation	245.70

Source: World Bank Privatization database
** denotes "Share-issue", "public offer", "IPO" privatized firm*