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Acronyms

AfDB	African Development Bank
AIG	American International Group
B&C	Building and Construction
BS	Business Services
CAR	Capital Adequacy Ratio
CBK	Central Bank of Kenya
CD	Consumer Durables
cif	Cost, Insurance and Freight
COMESA	Common Market for Eastern and Southern Africa
DAC	Development Assistance Committee
EAC	East African Community
EU	European Union
F&I	Finance and Insurance
FAO	Food and Agriculture Organization
FDI	Foreign Direct Investment
fob	Free on Board
GCF	Gross Capital Formation
GDI	Gross Domestic Income
GDP	Gross Domestic Product
GNI	Gross National Income
IMF	International Monetary Fund
IPO	Initial Public Offering
KRA	Kenya Revenue Authority
M&Q	Mining and Quarrying
NEER	Nominal Effective Exchange Rate
NGO	Non-government Organisation
NPL	Non-performing Loan
NSE	Nairobi Stock Exchange
OA	Other Activities
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
OVC	Orphans and Vulnerable Children
PH	Private Household
RE	Real Estate
REER	Real Effective Exchange Rate
SPV	Special Purpose Vehicle
T&C	Transport and Communications
TRWA	Total Risk-weighted Assets
UK	United Kingdom
UN	United Nations
UNCTAD	UN Conference on Trade and Development
UNDP	UN Development Program
US	United States

Abstract

This paper examines the effects (so far) of the global financial crisis, possible impacts and the scope and limitations of current policy responses in Kenya. It focuses on shocks at the national level; effects on investments, growth and poverty; and policy implications.

While Kenya's banking system seems poised to withstand the crisis, the Nairobi Stock Exchange has been adversely affected and foreign direct investment and remittances seem likely to be affected in the future. Tourism has suffered a blow and export prices have declined. The crisis has aggravated the current account deficit, depreciating the national currency, and also the budget deficit. Among third-party effects, the decline in the price of oil owing to plummeting demand has brought some relief to the country.

There is substantial uncertainty regarding the future impacts of the crisis, which is a major deterrent to investment, in turn a major driver of economic growth. A decomposition analysis for Kenya estimated that the impact of reduced growth would be to increase the headcount poverty ratio, affecting other human indicators.

Kenya has not articulated a strong view on how to handle the crisis, although the central bank has taken some actions.

1. Introduction

The objective of this paper is to examine the effects (so far) of the global financial crisis, possible impacts (economic, financial and social) and the scope and limitations of current policy responses. The paper focuses on the following issues. First, elements of the global financial and economic shocks, including their types and magnitudes. Second, shocks at the national level, identifying the effects so far on international capital flows, remittances, foreign aid and trade, based on before and after comparisons as well as existing or new models. Third, effects on investments, growth and poverty. Fourth, policy implications, distinguishing among actual (what the country has already done), possible (what there is capacity to do) and optimal policy responses, such as economic and social policies to manage shocks and accelerate normal development policies, such as investment climate reform and diversification.

There is a now a relatively large literature on the global financial crisis (e.g. Kilonzo, 2008; Krugman, 2008; Senbet, 2008). Senbet and others attribute the US financial crisis to several factors. First, the housing boom and sub-prime lending, with insufficient collateral or proof of financial condition required by lending institutions. The housing boom created strong incentives for investment in homes, leading to overbuilding. Home ownership increased to about 70% of the population, from about 60% historically. The large amount of home ownership was financed mostly by borrowed money. Banks and other financial institutions bet big on home prices, with about 56% of outstanding mortgage loans in August 2008 being sub-prime.

Second, excessive risk taking by banks and other financial institutions. Banks and other financial institutions were highly leveraged, creating incentives for excessive risk taking by equity holders. Added to this 'moral hazard' was explicit deposit insurance available to these institutions, as well as implicit guarantees of bailout for institutions deemed too large or too important to fail in the context of weak corporate governance and ill-advised executive compensation contracts, leading to distorted incentives.

Third, easy money and hubris (overconfidence) affected participants in the financial sector. Alan Greenspan followed an 'easy money' policy, so there was too much investment money chasing too few investment opportunities, causing asset market inflation. In January 2001, for example, the US Federal benchmark interest rate fell from 6.5% to 1% over a two-year period. Hubris from the housing boom led individuals and lenders to extrapolate continuing rises in house prices, overestimating ability to pay based on continuing inflated prices. Lax lending and underwriting standards led to leveraged loans with minimal down payment.

Fourth, inflated ratings and grades, perhaps because rating agencies wanted to earn commission, or did not know how to rate mortgage-based securities. The rating of money funds and securities did not have much content, e.g. an 'AAA' rating did not have a normal relationship with the probability of default of mortgage securities. These inflated ratings led debt investors to buy mortgage securities at inflated prices.

Fifth and last, complex and opaque securitisation. Banks put individual mortgages into pools, which were then sold to special purpose vehicles (SPVs), which held them passively. SPVs in turn financed themselves through complex securities involving multiple tranches. With few disclosure requirements, many types of tranche instruments and a large number of SPVs with varied investors, SPVs served as black holes where banks could keep dumping their mortgages.

The burst of the housing bubble as a result of the above factors led to a shutdown of the credit markets and failure of venerated financial institutions such as Lehman Brothers, Merrill Lynch, AIG and so on. This created a crisis of confidence: global panic and 'flight to quality' from even traditionally safe

assets, such as money market funds and commercial paper. Private capital dried up as it was not known what the value was of the assets held by institutions or which institutions might fail.

This US-originating financial crisis has spread throughout the world. Since countries in sub-Saharan Africa are barely integrated into the global financial system, an interesting discussion arose on whether they would be spared the effects of the global financial crisis. However, the crisis is already anticipated to derail the high growth that sub-Saharan Africa has been experiencing in the past decade (of about 6.5%). Available estimates, for example by the International Monetary Fund (IMF), are already pointing to economic slowdown in Africa, to about 3.5%. This paper investigates the case of Kenya.

2. Shocks at the national level

2.1 The crisis and Kenya's banking system

It is argued that African banking sectors are insulated from foreign finance. The sectors rely on domestic deposits and lending and do not have derivatives or asset-based securities among their portfolios. According to Shanta Devarajan, Chief Economist of the Africa Region at the World Bank, 'African banks retain loans they originate on their balance sheets, the inter-bank market is small, and the market for securitised or derivative instruments is either small or nonexistent'. [2] Even though some banks have significant foreign ownership, parent banks are typically not in the US and the foreign ownership share is less than 5%, compared with an average of 40% in other developing countries.

According to Massa (2009), financial contagion to developing countries may be classified into two categories: i) spillovers through financial market linkages; and ii) pure contagion. Under spillovers through financial market linkages, the banking system (and stock markets) may be affected in various ways. First, foreign investors facing margin calls or redemption orders may be forced to liquidate their equity positions in developing countries. Second, foreign banks experiencing huge losses in their home country may cut their credit lines in developing countries in order to restore their capital adequacy ratios. Finally, foreign banks facing an increase in the number of non-performing loans (NPLs) at home or facing losses on their securities portfolios may sell off assets in developing countries in order to rebalance their portfolios, thus reducing their overall value at risk. The impact of these channels will depend on the extent to which a country's financial system is integrated into the global system.

Pure contagion, on the other hand, may be caused by heightened risk perception and declining investor confidence as well as by increased risk aversion, rather than by changes in market fundamentals. These phenomena may lead foreign investors to sell off assets that are perceived to be riskier than high-quality assets in their home countries ('flight to quality').

Massa (2009) therefore proposes a number of indicators to identify the different strengths and weaknesses of the domestic financial system in the context of the current global financial crisis, and to assess the potential magnitude of the impact of the turmoil on the domestic financial sector. The following are some of the suggested financial vulnerability indicators applied to the Kenyan case.

2.1.1 Capital adequacy ratios

Adequate capital requirements help lessen the chance that banks will become insolvent if sudden shocks occur. Therefore, the higher the risk-weighted capital adequacy ratios (CARs), the lower is the probability that banks will be exposed to the risk of insolvency. In Kenya, capital adequacy is catered for under Section 7(1) of the Banking Act 2000 (Kamau, 2009). The capital adequacy requirements are:

- Minimum core capital. The current minimum core capital requirements are KSh250 million for banks and mortgage finance companies and 225 million for non-bank financial institutions;[3]
- Gearing ratio, given by core capital/total deposit liabilities (minimum 8%);
- Core capital/total risk-weighted assets (TRWA) (minimum 8%);
- Total capital/total risk weighted assets (minimum 12%).

These capital adequacy requirements are continuously monitored and reviewed from time to time by the Central Bank of Kenya (CBK). A financial institution that fails to meet the minimum requirements is urged to merge with other banks, loses its licence or is put under liquidation.

2 Cited in the local Business Daily of 20 October 2008.

3 The recent passage of the Finance Act 2008 increased the minimum core capital for banks to KSh1 billion by 2012.

Table 1 shows the amounts of capital and the capital ratios held by banks in Kenya in 2006-2007. The data show that all the banks meet the four minimum capital requirements, even though the excess amounts and ratios vary from one bank to another. In 2007, for example, the average core capital was KSh2.6 billion, against a minimum requirement of 250 million; the average gearing ratio stood at 15.6%, above the statutory requirement of 8%; the average core capital/TRWA ratio stood at 18.1%, against 8%; and the average total capital/TRWA ratio stood at 19.1% (18.9% in 2008) against 12%.

Table 1: Capital held by commercial banks in Kenya, 2006 and 2007

Bank	Core capital (KSh millions)		Core capital/total deposit liabilities (%)		Core capital/ TRWA (%)		Total capital/ TRWA (%)	
	2006	2007	2006	2007	2006	2007	2006	2007
ABC Bank	670	808	16.41	15.89	17.34	17.08	17.52	17.16
Bank of Africa	746	800	15.12	14.49	16.05	13.59	16.90	14.41
Bank of Baroda	1263	1466	12.48	11.57	27.53	18.94	27.53	18.94
Bank of India	941	1168	13.16	13.56	25.14	28.48	25.14	28.48
Barclays Bank of Kenya	12,375	17,019	13.19	15.60	12.12	13.03	12.12	13.03
CFC Bank	2765	3107	15.42	15.46	14.28	15.56	18.29	19.13
Chase Bank	622	665	19.24	15.56	23.18	15.67	23.18	16.24
City Bank	5651	7112	22.31	24.02	26.00	26.54	26.60	27.14
City Finance Bank	354	325	280.99	140.52	75.71	77.73	75.71	77.93
Commercial Bank of Africa	3030	3459	9.32	9.93	14.84	13.47	15.29	14.10
Consolidated Bank	516	543	20.96	19.03	19.23	16.87	21.47	18.87
Co-operative Bank of Kenya	4361	5882	9.05	10.74	13.29	14.22	14.56	14.51
Credit Bank	458	521	23.35	19.62	22.56	28.92	23.23	30.02
Development Bank of Kenya	1033	1109	78.42	69.69	53.21	39.58	53.21	39.58
Diamond Trust	2531	4279	15.13	14.70	17.29	19.10	20.65	19.14
Dubai Bank	397	403	49.63	40.35	35.54	30.15	35.54	30.15
EABS Bank (now Ecobank)	1300	1171	18.54	15.51	20.11	16.98	20.55	18.23
Equatorial Commercial Bank	617	670	18.80	16.28	21.02	20.29	21.02	20.29
Equity Bank	2201	13,666	13.47	43.34	13.85	45.68	13.85	58.92
Family Bank		1146		19.03		22.05		22.23
Fidelity Commercial Bank	274	290	13.84	10.55	16.21	13.22	16.21	14.15
Fina Bank	779	852	9.80	9.25	16.97	13.80	17.75	14.52
Giro Commercial Bank	446	484	9.92	9.85	15.95	15.83	17.20	17.08
Guardian Bank	788	805	19.73	17.72	22.61	23.75	22.61	23.75
Habib A.G. Zurich	648	741	14.90	14.79	38.82	35.73	38.82	35.73
Habib Bank Ltd	446	522	18.35	19.11	57.58	46.29	57.58	46.29
HFCK	706	740	9.27	8.43	13.10	13.12	16.19	16.12
I&M	2424	3750	13.30	15.87	12.82	14.40	12.86	14.44
Imperial Bank	1249	1455	17.66	16.95	19.78	17.90	19.78	18.90
Kenya Commercial Bank	9169	10,046	11.88	10.64	15.75	13.61	15.75	13.61
K-Rep Bank	849	977	25.66	21.79	18.95	17.38	19.82	18.10
Middle East Bank	809	841	34.62	44.16	30.93	38.61	31.33	39.43
National Bank of Kenya	3368	4442	11.41	12.79	11.47	37.22	11.88	38.67
NIC Bank	2700	4058	12.28	16.36	13.30	15.78	14.16	16.66
Oriental Commercial Bank	673	819	91.81	99.54	59.80	60.34	59.80	60.34
Paramount Universal Bank	415	449	23.78	23.94	32.46	40.84	32.46	40.84
Prime Bank	800	1089	9.66	10.51	13.00	14.94	13.00	14.94
Prime Capital & Credit	856	861	38.73	40.54	28.89	26.44	28.89	26.44
Southern Credit Bank	526	534	14.05	12.35	20.93	16.08	21.94	16.86
Stanbic Bank	2658	3164	13.45	13.94	17.01	13.37	17.73	14.11
Standard Chartered Bank	8367	8967	12.90	12.14	18.32	16.29	18.88	16.71
Trans-National Bank	1104	1062	87.36	59.01	65.43	59.61	66.49	60.80
Victoria Commercial Bank	567	629	15.52	18.33	22.52	23.48	23.09	24.53
Total/average	82,452	112,896	13.83	15.62	16.35	18.06	16.96	19.13

Source: Oloo (2007; 2008).

2.1.2 Rate of return on assets

ROA is an important financial soundness indicator, and it is in particular a measure of bank efficiency and profitability. The ROA in Kenya generally declined in the late 1990s but has shown an upward trend since 2002.

Table 2: Rate of ROA, 1998-2007 (%)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ROA (%)	16.37	7.54	-22.1	14.52	9.6	10.63	11	14.5	17.9	20.4

Source: Oloo (2007; 2008).

2.1.3 Non-performing loans

The ratio of NPLs to assets is an indicator of a bank's asset quality and financial soundness. In the case of the current financial turmoil, a high ratio may indicate that banks are not healthy since they have significant exposure to the origins of the problem. In Kenya, the NPL/assets ratio decreased from a high of 22.6% in 2001 to a low of 4.3% in 2007, an indication that the banking system's asset quality has improved. This may be attributed to the requirements for bad loans provisions and increased core capital mandated by CBK. According to CBK, net NPL as a share of total loans has declined further, from 2.9% in March to 2.2% in November 2008.

Table 3: NPL/total assets, 1999-2007 (%)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
NPL/total assets (%)	15.7	20.4	22.6	19.0	14.7	11.8	10.8	8.9	4.3

Source: Oloo (2007; 2008).

2.1.4 Banks' ownership structure

Foreign banks are an important source of financial vulnerability, as they might start to withdraw funds in order to offset losses in the home country, increasing the chances of collapse of their domestic-based subsidiaries, although there is no evidence of this in Kenya.[4] On the other hand, cross-country comparisons show that foreign banks may have better capitalisation, while bringing with them improved know-how and technical capacity, which then spills over to the rest of the banking system (Claessens and Jansen, 2000).

Financial reforms in Kenya have encouraged foreign banks to enter and expand banking operations in the country. Kamau (2009) finds them more efficient than local banks. She attributes this to the fact that foreign banks concentrate mainly in major towns and target corporate customers, whereas large local banks spread their activities more widely across the country. Foreign banks therefore refrain from retail banking to specialise in corporate products, while large domestic banks are less discriminatory in their business strategy. These different operational modalities affect efficiency and profitability.

According to CBK, foreign banks comprise about a quarter of all banks in the country, with 11 foreign banks out of 43 commercial banks in 2007. They account for about 40% of commercial banks' core capital. There are five foreign banks that are fully foreign incorporated.[5] These accounted for 9.2% of the core capital of the banking system in 2007 (10.2% in 2006). These banks had a higher gearing ratio (17.2% in 2007 compared with 15.6% for the banking system as a whole); a higher core capital/TRWA ratio, of 30.1% compared with 18.1%; and a higher total capital/TRWA ratio, of 30.1% compared with 19.1%.

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4 According to the Saturday Nation, 28 March 2009, for example, the British Financial Services Authority was reported to have conducted a 'severe stress test' on Barclays Plc and was satisfied that the bank did not need any fresh capital to withstand rising bad debts.

5 Bank of Africa (K) Ltd; Bank of India; Citibank N.A. Kenya (US); Habib Bank A.G. Zurich (Switzerland); and Habib Bank Ltd (Pakistan).

In addition, there are six foreign but locally incorporated banks (partially owned by the locals).[6] These accounted for 31.7% of the core capital of the banking system in 2007 (34.0% in 2006). These banks had a lower gearing ratio (14.7% in 2007 compared with 15.6% for the banking system as a whole); a lower core capital/TRWA ratio, of 16.4% compared with 18.1%; and a lower total capital/TRWA ratio, of 16.7% compared with 19.1%. It is therefore this group of foreign banks that policymakers should be concerned about in the context of the global financial crisis.

2.1.5 Growth and composition of bank credit to private sector

The global financial crisis may affect the ability of borrowers to repay their loans, hence increasing non-performing assets, leading to solvency problems for many banks. In Kenya, credit to the private sector dominates the asset portfolio of the commercial banks in Kenya. As seen in the data below, private sector credit in nominal terms increased in 2000-2007, except for a small decline in 2001, attributable to uncertainty surrounding the 2002 elections. The private sector in real terms also decreased in 2003.

Table 4: Growth in private sector credit, 2001-2007 (%)

	2001	2002	2003	2004	2005	2006	2007*
Nominal growth in private sector credit (%)	-3.9	4.7	5.9	25.7	10.3	16.3	21.4
Average inflation (%)	5.9	2.0	9.8	11.6	10.3	14.5	9.8
Real growth in private sector credit (%)	-9.8	2.7	-3.9	14.1	0.0	1.9	11.6

Note: * Provisional.
Source: IMF International Financial Statistics CD-ROM.

After the election of a new government in 2002, the growth of the economy picked up, as did credit to the private sector as well as investments in Treasury bills. The reduction of the cash ratio from 10% to 6% in 2003 increased the liquidity of the banking system, inducing a reduction in lending interest rates. Low lending rates undoubtedly led to increased economic activity, with economic growth accelerating from 2.9% in 2003 to 5.1% in 2004, to 5.8% in 2005 and then to 6.1% and 7.0% in 2006 and 2007, respectively.

In order to increase their profitability, some banks have moved into housing and consumer lending, thus exposing themselves to the burst of the bubble in real estate markets or to the risk of a potential increase in the level of household indebtedness as a consequence of the current turmoil. In Kenya, however, only about 5% of the banking system's credit went to real estate (RE) over 1997-2008 with a declining trend, about 6% to private households (PH) with an increasing trend and 2% to consumer durables (CD) with an increasing trend (Table 5). Building and construction (B&C) took an average 5%; transport and communications (T&C) 4%; finance and insurance (F&I) 4%; mining and quarrying (M&Q) 1%; business services (BS) 6%; and other activities (OA) 10%. Overall, the private sector took about three-quarters and the public sector about a quarter of the banking system's credit.

6 Bank of Baroda (K) Ltd (India); Barclays Bank of Kenya Ltd (UK); Diamond Trust Bank of Kenya Ltd (Kenya); K-Rep Bank (Kenya); Stanbic Bank of Kenya Ltd (South Africa); and Standard Chartered Bank (K) Ltd (UK).

Table 5: Distribution of credit by Kenya's banking system, 1997-2008 (%)

	B&C (%)	T&C (%)	F&I (%)	RE (%)	M&Q (%)	PH (%)	CD (%)	BS (%)	OA (%)	Total private sector (%)	Public sector (%)	Total (%)
1997	5	4	3	5	1	2	2	5	13	72	28	100
1998	6	3	3	6	1	2	1	6	9	71	29	100
1999	6	3	3	6	1	2	1	6	10	75	25	100
2000	5	3	4	6	1	3	1	7	9	76	24	100
2001	5	3	4	5	1	3	1	7	11	71	29	100
2002	5	4	5	5	0	4	1	6	10	70	30	100
2003	4	4	6	4	0	6	1	5	9	68	32	100
2004	4	4	6	4	0	8	1	5	14	74	26	100
2005	5	5	6	5	0	9	2	7	9	76	24	100
2006	6	7	4	4	1	8	2	8	9	74	26	100
2007	5	7	4	4	1	13	3	7	10	77	23	100
2008*	5	6	4	4	1	15	4	8	11	79	21	100

Note: * June.
Source: wwww.centralbank.go.ke.

2.1.6 Securities investment and exposure to new financial instruments

In a similar way, banks may also have moved into new lines of business like securities investment, and by doing this increased their exposure to new types of market risk such as a potential sudden fall in share prices. As well, a growing exposure of banks to new financial instruments for risk transfer, like securitisation and credit derivatives, may represent an additional structural weakness of the domestic banking system.

As Table 6 shows, however, assets of the banking system in Kenya are dominated by loans and advances, government securities and cash reserves at CBK. Kenyan commercial banks hold minimal derivatives or asset-based securities in their portfolios. They hold mainly risk-free government securities.

Table 6: Composition of commercial banks assets, 1999-2007 (%)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
Loans and advances (net)/total assets (%)	59.8	52.5	48.9	48.5	48.5	51.6	50.9	50.9	50.9
Government securities/total assets (%)	17.1	17.1	21.7	22.8	27.8	21.0	19.9	20.5	19.6
Cash and balances with CBK/total assets (%)	32.5	42.8	29.7	31.9	18.7	31.7	37.9	33.2	36.8
Other* (%)	-9.4	-10.2	-0.3	-3.1	5.0	-4.3	-8.7	-4.6	-7.3
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: * Provisions for bad debts.
Source: Compiled from Oloo (2008).

Overall, Kenya's banking sector has improved tremendously in the past decade, in terms of product offerings and service quality, stability and profitability. During this period, only two banks have been put under CBK statutory management (Prudential Bank and Charterhouse Bank), in comparison with the 1980s and early 1990s, when a large number of banks collapsed.[7] The banking system therefore seems poised to withstand the global financial and economic crisis, unless it is overcome by pure contagion, as the fundamentals seem quite sound.[8]

7 By 1998, 37 banks had collapsed following the banking crises of 1986-1989, 1993-1994 and 1998, which led to a tightening of the regulatory framework.
8 Another view states that financial links among the world capital centres would bring the global financial crisis to Kenya. Since cities are closely connected through the international system, Nairobi, which reportedly accounts for 60% of Kenya's output, would impact negatively on the rest of the country if its economy was not financially well.

2.2 The crisis and the capital market

Over the past decade, foreign investors have increased their investments in the Nairobi Stock Exchange (NSE), attracted by high returns (see Table 7). As a consequence, the crisis has adversely affected the stock market, with foreign sales exceeding foreign buys in many counters, as foreign investors diversify away from the market (Kibaara, 2008). Tables 7 and 8 show a decline in net portfolio flows in 2005-2006, from a peak of US$15 million in 2005, and substantial outflows since June 2008. The NSE 20-share index has therefore taken a hit since mid-2008 on the back of the post-election violence and the crisis.[9] This has significantly reduced market capitalisation.

Table 7: Net portfolio equity flows, 2000-2007 (US$m)

	2000	2001	2002	2003	2004	2005	2006	2007
Net flow (US$m)	4	5	5	1	5	15	3	1

Source: CBK (2008a).

Table 8: NSE trends, Jan-Oct 2008 (US$m)

2008	Net portfolio capital flow (US$m)	Market capitalisation (US$m)
Jan	2.0	10.9
Feb	11.3	12.0
Mar	9.9	12.4
Apr	0.7	14.6
May	9.2	14.8
Jun	-47.5	19.0
Jul	-1.8	16.8
Aug	0.0	16.3
Sep	-3.9	13.6
Oct	-11.5	10.0

Source: Kilonzo (2008).

The NSE 20-share index slumped by 35% in 2008, by 25% from July 2008.[10] The index declined by 7.3% in January 2009. As seen in Table 9, by end-February 2009, the index had declined by 23.2% in the previous one month, by 26.8% in the previous three months and by 46% in the previous one year, offsetting the gains made in the previous three years (one of the largest offsets in sub-Saharan Africa). The table therefore shows Kenya's bourse to be one of the worst hit in sub-Saharan Africa in the past one year, after Nigeria and Mauritius, countries that have long liberalised their capital markets. The table also shows a high correlation in the movements of equity prices across African countries. Kenya has the fifth-largest bourse by market capitalisation in Africa after South Africa, Egypt, Nigeria and Morocco.[11]

But according to some operators in the NSE, the worst is over: 'most foreign portfolio investments on the NSE have been liquidated by the fast moving and unpredictable hedge funds invested on the NSE'.[12] Hence, 'the exit of foreign investors has already happened and the only way is for them to come back'.[13]

9 It is difficult to document the share of foreign holdings of equity because a large number of shares are bought indirectly through nominee companies and accounts.
10 The index declined from 4696.22 on 31 July to 3521.18 on 31 December 2008.
11 Among other indicators of vulnerability, the price-to-earnings ratio declined from 19.8 at the beginning of 2008 to 15.6 in September 2008, and averaged 9.3 on 3 March 2009.
12 See www.chinaview.cn, 19 December 2008.
13 Joe Konzolo, Chairman, Kenya Association of Stock Brokers and Investment, in the Daily Nation, 20 February 2009.

Table 9: Stock market index movement in selected sub-Saharan African countries

Date	Index level	% change in previous 1 day	% change in previous 1 month	% change in previous 3 months	% change in previous 1 year	% change in previous 3 years
Kenya 20-share index						
26/02/2009	2511.46	-2.533	-23.174	-26.764	-45.997	-35.986
Ghana all share index						
26/02/2009	9923.28	-0.0291	-3.2241	-6.1488	42.0954	109.885
Malawi domestic index						
26/02/2009	4061.91	0	-11.311	-17.805	3.7487	497.615
Mauritius all share index						
26/02/2009	929.07	-0.8568	-19.568	-19.68	-53.999	14.5627
Nigeria all share index						
26/02/2009	23,594.06	1.197	1.2322	-31.092	-64.437	-4.2573
Tanzania all share index						
20/02/2009	1233.73	-0.0158	0.9683	15.3423	18.2037	
Uganda all share index						
26/02/2009	597.3	2.0681	-12.806	-23.951	-31.828	-7.748
Zambia all share index						
26/02/2009	2378.20	0.7788	-1.7414	-21.149	-44.677	78.0859

Source: http://www.africanfinancialmarkets.com/.

The decline in the stock market has made it more difficult to borrow from the capital market. The public listing of Co-operative Bank of Kenya in 2008 managed only an 81% subscription, even after scaling down the target amount from KShs10 billion to 6.7 billion, the first under-subscription on the NSE in recent times. Several initial public offerings (IPOs) have also been postponed because of the crisis.[14] However, an 18.5 billion infrastructure bond was oversubscribed (by 45%) in February 2009, indicating a lack of confidence in the bourse owing to poor governance. In 2007-2008, three brokerage firms collapsed, going down with substantial amounts of investor funds.[15]

2.3 Foreign direct investment

FDI includes equity capital, reinvested earnings and intra-company loans, with the first two dominating net FDI to Kenya. FDI brings investable financial resources to host countries, provides new technologies and may enhance the efficiency of existing technologies. FDI may facilitate access into export markets, thereby playing an important role in strengthening the export capabilities of domestic economies. It may enhance skills and management techniques and may provide cleaner technologies and modern environment management systems.

FDI has also the potential of enhancing growth of domestic firms through complementarity in production and productivity spillovers. Phillips et al. (2001) found that FDI stimulates domestic investment. A 1% increase in the FDI/GDP (gross domestic product) ratio is followed by as much as a 0.80% increase in future domestic investment/GDP in Africa. The authors conclude that FDI provides positive externalities and spillovers, particularly to developing countries, which make private domestic investment more profitable. In a survey, they found that nearly all business leaders in Kenya interviewed favoured foreign investment and recognised that it offered them economic opportunities. The anticipated decline in FDI as a result of the financial crisis would therefore adversely affect the country's performance.

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14 Plans by the bread maker DPL to raise funds through a public offer by March 2009 have not taken off, reportedly because the IPO has not been approved by the Capital Market Authority. Similarly, plans to privatise a number of parastatals through IPOs in 2009 and beyond have not yet taken off. These include the National Bank of Kenya, Kenya Pipeline Company, Kenya Wine Agencies, Chemilil Sugar Company, Nzoia Sugar Company, Muhoroni Sugar Company, South Nyanza Sugar Company and several state-owned hotels. See investing.businessweek.com.

15 Francis Thuo and Partners, Nyaga Stock Brokers and Discount Securities.

However, FDI has played a small (though increasingly important) role in the economy. Net FDI flows to Kenya not only have been highly volatile but also generally declined in the 1980s and 1990s, despite economic reforms and the progress made in improving the business environment (Mwega and Ngugi, 2004). The investment wave of the 1980s dwindled in the 1990s as the institutions that had protected both the economy and the body politic from arbitrary interventions were eroded (Phillips et al., 2001).

In absolute terms, net FDI inflows declined from an average US$30.67 million in the 1980s to $17.7 million in the 1990s. The net FDI/GDP ratio declined from an average of 0.42% in the 1980s to 0.20% in the 1990s. The share of net FDI in gross capital formation (GCF) declined from 2.02% in the 1980s to 1.13% in the 1990s. FDI was therefore minuscule when compared with domestic investment (which is generally true across regions, both underdeveloped and developed). Consequently, there was much concern among Kenyan policymakers over the falling off of FDI, which they attributed to low investor confidence, resulting from insecurity, corruption, poor infrastructure, high utility costs and patch service, high real interest rates and limited legal recourse (Government of Kenya, 2003).

The performance of FDI has improved recently and averaged US$123.6 million in 2000-2007. Net FDI increased to an average of 0.70% of GDP and to an average of 3.2% of gross investment in 2000-2007 (Table 10). The data show, however, that this good performance was driven by a big jump of net FDI flows to the country in 2000 and 2007. The 2000 jump owed to new investments by mobile phone companies (involving mergers and acquisition of $3 million) and accelerated offshore borrowing by private companies to finance electricity generation activities, which became necessary as a result of the drought that prevailed that year. The 2007 upsurge in FDI owed to the coming in of a new mobile telephone operator and the privatisation of Telkom Kenya. Figure 10 shows that the January 2007 upsurge in FDI dominated the flows in 2007 and 2008.

Table 10: Net FDI flows to Kenya, 2000-2007

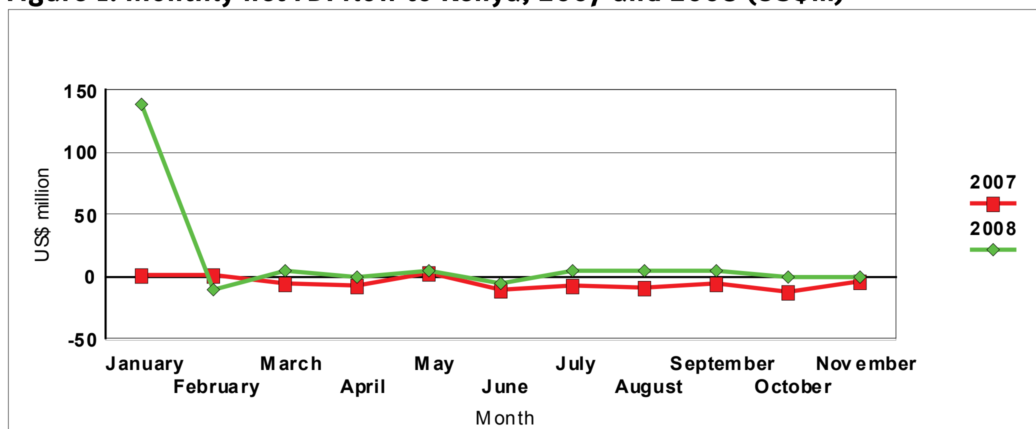
	Net FDI (US$m)	FDI stock (US$m)	Net FDI/GDP (%)	Net FDI/gross investment (%)	FDI stock/GDP (%)
2000	111	931	1.05	6.84	8.82
2001	5	937	0.04	0.31	8.34
2002	21	964	0.17	1.03	7.66
2003	80	1046	0.58	3.27	7.54
2004	42	1092	0.29	1.50	7.61
2005	11	1113	0.07	0.33	6.86
2006	27	1164	0.15	0.64	6.47
2007	692	1892	3.25	11.85	8.87
Average	123.6	1142.4	0.70	3.23	7.77

Source: UNCTAD FDI database.

According to the UN Conference on Trade and Development (UNCTAD), Kenya has about 114 foreign-affiliated firms located in the economy. Many of the big multinational firms are in the tertiary sector (composed mainly of trade, transport and telecommunications). Most of these are from developed countries, with a majority from the UK and US, and hence are likely to be affected by the global financial crisis.

In a cross-country empirical study (the Kenyan dummy was insignificant, suggesting that Kenya is on the regression line), Mwega and Ngugi (2004) found the following variables to significantly influence the FDI/GDP ratio. First, the trading partners' economic growth rate increases the ratio. Second, the terms-of-trade shocks reduce the ratio. Third, the external debt income ratio increases the ratio. However, its squared counterpart reduces the ratio, hence the current debt stock stimulates FDI but at a decreasing rate. The optimal debt level above which the FDI ratio declines is 250-280%, outside Kenya’s range. Lastly, the quality of institutions improves the ratio.

Figure 1: Monthly net FDI flow to Kenya, 2007 and 2008 (US$m)



Source: CBK unpublished data.

The crisis is therefore likely to adversely affect the Kenyan FDI ratio by reducing the growth of the country's main trading partners (a 1% reduction in growth reduces the FDI ratio by 0.45%) as well as through a worsening of Kenya's terms of trade (a 1% worsening of the country's terms of trade reduces the ratio by 0.057%). However, given the miniscule FDI ratio (except in 2000 and 2007), these effects are likely to be small. They would also be offset by the availability of loans and grants to finance the crisis and governance improvements, which would require actions such as reducing corruption, rebuilding institutions and enhancing the rule of law and order, with clear and transparent regulations, uniformly enforced (Phillips et al., 2001).

Table 10, however, shows that the stock of net FDI inflows increased from US$931 million (or 8.8% of GDP) in 2000 to $1892 million (or 7.8% of GDP) in 2007, so a major divestment as a result of the crisis would adversely affect the economy. Such a major divestment seems unlikely, however, given the irreversible nature of fixed investment, even though a few companies such as the pay-TV firm GTV have suddenly quit the country, citing the credit crunch.

2.4 Remittances

Migration is an important issue in Kenya, with the country both a significant destination and source of migration. It is a major destination, particularly for refugees running away from civil conflicts in the region (about 234,000 in the early 2000s). It is also a major source of migrants going both within and outside the region. According to one estimate, there are more than 47,000 Kenyans in the US, 21,000 in Canada, 15,000 in the UK, 7000 in Australia, 5000 in Germany and 1300 in Sweden (Okoth, 2003). Overall, there are about 200,000 Kenyan migrants in Organisation for Economic Co-operation and Development (OECD) countries (Lucas, 2005).[16]

One way to gauge the importance of migration is to look at the revealed desire to migrate to the US through its Diversity Programme. There are only 50,000 slots available but thousands of Kenyans participate in this so-called Green Card lottery every year. About 3000 won in a typical recent year.

One benefit of migration is remittances. According to CBK, Kenya received US$611.2 million in 2008, from $573.6 million in 2007, about 2.7% of GDP. Remittances have increased systematically over time, with the number of Kenyan migrants having increased over time (Lucas, 2005).

Remittances are therefore an important source of domestic household incomes, hence reducing poverty. The World Bank (2006) estimates that remittances reduce the number of people living in absolute poverty in Kenya by 8.5%, even though the poorest do not often have relatives abroad, so do not benefit from remittances directly. Remittances also alleviate credit constraints and therefore

16 Harsch (2009) notes that 'between 750,000 and 1 million Kenyans working in the US and another 200,000 in the UK'.

improve economic growth.[17] Remittances also improve the country's creditworthiness, and therefore facilitate access to trade finance.[18]

On the other hand, remittances may have adverse macro effects, which include the possibility of Dutch disease arising from an appreciation of the real exchange rate, hence undermining the production of cost-sensitive tradables such as cash crops and manufactures. This could be counteracted by increasing government investment in infrastructure and adoption of more liberal trade policies that increase productivity and competitiveness.

The reduction of incomes and the loss of jobs by Kenyans in the diaspora is expected to reduce remittances. Table 11 shows that remittances have increased significantly over time and actually increased in 2008, by 6.6% compared with 2007. As seen in the table, while remittances were quite volatile in 2008, there was a general downward decline from May 2008, even though they increased in September and October. In the second part of 2008, monthly remittances declined relative to 2007, except in October. Remittances declined by 27% in January 2009 when compared with January 2008.

On the other hand, remittances to developed countries (college fees and upkeep expenses, etc.) may also reduce as parents now look inward, with local education institutions benefiting. High remittances also induce countries to delay the reforms necessary for enhancing growth, hence a reduction of remittances may be good for the recipients, although there is no empirical evidence to support this hypothesis.

Table 11: Remittances to Kenya, 2004-2009 (US$'000s)

	2004	2005	2006	2007	2008	2009
Jan	25,154	28,564	31,506	40,930	53,925	39,535
Feb	27,676	26,056	30,283	39,533	50,382	
Mar	29,944	31,219	36,354	48,562	59,344	
Apr	27,773	29,216	35,369	38,251	67,872	
May	26,931	32,358	42,427	41,163	48,538	
Jun	30,047	34,360	35,667	48,643	49,490	
Jul	33,187	29,133	41,065	53,350	44,137	
Aug	28,894	31,759	30,587	58,803	43,388	
Sep	28,894	31,616	28,841	60,575	48,953	
Oct	25,223	33,037	29,633	46,848	61,113	
Nov	25,473	34,282	31,403	55,564	43,970	
Dec	29,130	40,557	34,459	41,421	40,129	
Annual total	338,326	382,153	407,593	573,643	611,241	39,535

Source: www.centralbank.go.ke.

Migration also relieves labour market pressures by reducing unemployment and increasing domestic wages, although this effect might be minor in Kenya since only a small share of the labour force (about 15%) is in formal employment, with many employed in the public sector. Migration also improves access to capital, technology, information, foreign exchange and business contacts, which are important in the promotion of non-traditional exports. Hence, a forced return of migrants to the country (e.g. from Dubai) or reduced out-migration would adversely affect the economy. It is, however, possible that the country may benefit from return migration in terms of better know-how, capital brought back by migrants and so on.

17 However, relaxation of credit constraints may reduce savings and hence investment.

18 We do not have information on who or which quintiles get the international remittances, and the importance of the various transmission mechanisms.

2.5 Foreign aid

Since the 1980s, the country has experienced relatively unpredictable flows of international aid. According to OECD Development Assistance Committee (DAC) statistics, while Kenya experienced a dramatic build-up in nominal aid flows in the 1980s, there was a slackening of donor support in the 1990s. Nominal aid flows increased from US$393.4 million in 1980 to an average peak of $1120.5 million in 1989-1990, before declining to a low of $308.85 million in 1999 and $391 in 2002, with some recovery thereafter with the coming of a new government in December 2002 (Mwega, 2007).

Table 12: Evolution and pattern of total disbursed aid to Kenya

	ODA* at current prices (US$m)	ODA as share of GNI** (%)	Bilateral as share of total ODA (%)
2000	509.94	4.16	57.8
2001	461.55	3.59	58.6
2002	391.04	2.94	75.3
2003	521.45	3.51	62.2
2004	654.42	3.97	71.6
2005	767.08	3.86	68.1
2006	943.40	4.00	82.4
2007	1084.1		82.2

Note: * ODA = official development assistance; ** GMI = gross national income.
Source: OECD-DAC database; IMF International Financial Statistics CD-ROM.

2.5.1 Emerging players in aid

Not reflected in the above analysis is aid from countries that do not belong to the OECD-DAC. Of these, China is probably the most significant, especially in the area of infrastructure assistance (McCormick et al., 2007). In the past two decades, China has moved to increase its assistance to African countries 'to the best of its ability'. Since the mid-1990s, China has increasingly used foreign aid to achieve broader strategic objectives, including strengthening links with resource-rich African economies.

In Kenya, loans and grants from China became significant in size after 2002 when the new government was elected, when China's share in total aid exceeded 1%. Since then, China has appeared in Kenya national statistics among bilateral donors; before then, it was classified in the category of 'other donors' (Onjala, 2008). As a ratio of total loans and grants to Kenya, China accounted for 1.23% of the total in 2003 and 1.15% in 2004, with the share increasing to 8.25% by 2005 (UNDP, 2006). Hence, China has risen from among the lowest contributors of development assistance in Kenya to become one of the largest by 2005, second only to the European Union (EU). This should, however, not be taken as a trend. Aid disbursed to Kenya by different donors varies greatly from year to year, depending on the country's institutional capacity to absorb funds and delays in project preparation and tendering (Chege, 2008). With the exception of 2004, the grant component of China's loans and grants is relatively high.

2.5.2 Private sector aid

Information on private sector aid to the country is quite limited. Non-government organisation (NGO) foreign aid accounted for average of 2.95% in the 1990s, increasing to 3.90% over 2000-2005. Over the more recent period (2003-2005), NGO foreign aid was distributed as in Table 13, indicating high volatility.

Table 13: NGO foreign aid, 2003-2005 (US$'000s)

NGOs from	2003	2004	2005
Austria	2084	2000	1900
Denmark			994
Finland	1083	3037	966
Italy			2238
Netherlands			3510
Total	3167	5654	9608

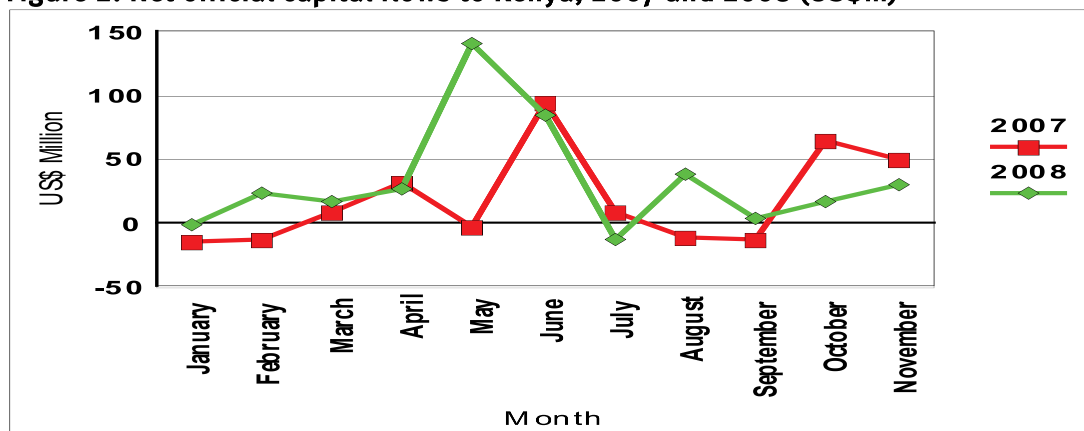
Source: UNDP (2006).

Overall, therefore, Kenya is not considered a highly aid-dependent economy. At its peak in 1989-1990, net ODA inflows averaged 14.6% of GNI, declining to 2.52% in 1999, and were 2.94% in 2002, before increasing to 4% in 2006. This indicates a decreasing importance of ODA to the economy, especially in the past decade. At 3-4% of GNI (Table 12), Kenyan dependence on foreign assistance is low compared with neighbouring countries.

Aid flows may reduce as a result of the global financial crisis, owing to the massive bailouts at home in OECD countries as well as in China. Support from Northern NGOs may also decline.[19] However, the impact is likely to be limited as a result of the reduced aid dependence in the country. Kenya receives approximately 70% of its total aid from bilateral donors, the source of aid most likely to be affected by the crisis. Bilateral aid has been mainly in the form of grants (72% of the total), whereas multilateral aid has been mainly in the form of loans (86%). The principal source of multilateral loans has been the World Bank Group, which has pledged to fund a number of projects in the country in 2009.[20]

Figure 2 shows that net official flows to Kenya in September-November 2008 were below those of the corresponding period in 2007, reversing the pattern earlier in the year, although it is not clear on the extent to which this may be attributed to the crisis.

Figure 2: Net official capital flows to Kenya, 2007 and 2008 (US$m)



Source: CBK unpublished data.

2.6 Trade effects

2.6.1 Tourism

The tourism sector maintained an upward trend in 2007, realising 13.6% growth in 2007 in tourist arrivals compared with 8.2% in 2006. Earnings increased as well, by 28.9% in 2007 compared with

19 We have not seen any evidence so far of NGOs reducing their activities or closing as a result of the crisis.
20 North Corridor; putting a request to the EU to provide US$25 million for quick relief to help with the food crisis; pushing for $80 million to support Kenya's agriculture sector; another $80 million to support of orphans and vulnerable children (OVC) in Kenya; and another $80 million for the energy sector. The Bank's portfolio in Kenya comprises 15 projects with a total commitment of almost $1 billion in all key development areas, including infrastructure, water, agriculture, natural resource management, health and education. See www.chinaview.cn, 17 December 2008.

19.9% in 2006. However, in 2008, the sector suffered a major blow as a result of the post-election violence, increased oil prices and, more recently, the global financial crisis. As a result, there was an average decline of tourist arrivals by 15.9% in 2007-2008. In the first 10 months of 2008, tourist arrivals declined by 35% (CBK, 2008b). In 2004-2007, net tourism earnings (foreign travel in Kenya's balance of payments) accounted for about 9% of Kenya's exports of goods and services, from 5-6% in 2000-2003.

About 75% of Kenya's tourists come from North America and Europe, although the US accounts for only 5.9% of the number of tourist arrivals. According to some estimates, if the number of tourists from North America and Europe were to be halved, the loss would be in the range of US$316 million, about 5.2% of Kenyan exports of goods and services (in 2007).

Table 14: Tourist arrivals and earnings in the country, 2000-2007

	Arrivals ('000s)	Earnings (US$m)
2000	1036	216.2
2001	994	262.8
2002	1001	282.0
2003	1146	346.5
2004	1361	497.2
2005	1479	675.4
2006	1601	809.8
2007	1819	1044.3

Source: CBK (2007).

2.6.2 Commodity exports

Commentators have focused mainly on a few products: tea; horticulture, especially cut flowers; and, to a lesser extent, coffee. These are Kenya's main individual commodity exports.

Tea[21]

Table 15 reports the recent performance of Kenyan tea exports, which show an upward trend in the quantity of exports over 2000-2007, offset by a decline in the price of tea in 2007, which continued in 2008. Auction tea prices declined substantially (by 60%) between September and November 2008, with major players staying away from the market.[22] This was caused by increased supplies of tea on the global market enticed by unsustainably high prices (US$2.15 per kg compared with a realistic price of under $2 per kg, according to the Food and Agriculture Organization – FAO) and by political problems in Pakistan, which is a major buyer of Kenyan tea (taking 28% of tea exports). Pakistan also entered into a free trade arrangement with Sri Lanka, hence buying more tea from that country. Other major buyers are Egypt and the UK, which may be severely affected by the crisis and hence lessen its demand for tea.

Tea output declined by 12.5% in the June 2007-April 2008 period. This was attributed to dry weather conditions and displacement of labour following the post-election crisis in tea-growing areas. In 2008, the country was expected to produce a lower output (335 million kg) owing to the drought in the country. In the first 10 months of 2008, tea output declined by 11% (AIG). The decline in tea prices and output has major implications for poverty, with much of the product grown by small-scale farmers.

21 Daily Nation on the Web, 23 November 2008.

22 Information in this paragraph is based on BBC Monitoring, 23 November 2008.

Table 15: Performance of Kenya's main export commodities, 2000-2007: Tea

	'000 tonnes	KSh per kg	Value (KSh billions)
2000	217	162	35
2001	270	127	34
2002	273	126	34
2003	262	126	33
2004	275	131	36
2005	341	124	42
2006	319	148	47
2007	370	126	47

Source: CBK (2007).

Horticulture/cut flowers

Table 16 shows the recent performance of Kenyan horticulture exports, which show an upward trend in the quantity of exports in 2000-2007, partially offset by a decline in the price of horticulture in 2007. The horticultural sub-sector realised a remarkable growth of 23.1% in June 2007-April 2008 period. Most of the growth was in fruits and vegetables, whose export volumes grew by 20.0% and 43.9%, respectively. Output of flowers also increased by 8.2% in this period compared with 6.9% in the June 2006-April 2007 period.

Some expect horticulture exports to decline owing to the crisis because cut flowers are a luxury (Kibaara, 2008). Others expect these exports to be fairly stable because of changes in people's lifestyles, from not eating out to cooking at home, which may increase the uptake of fruits and vegetables, while flowers could remain popular because of their sentimental and emotive feel-good factor.[23] With a depressed economy, people may tend to buy more flowers to brighten their homes, where they spend much of their time. According to the Kenya Flower Council, Kenya exported 93,000 tonnes in 2008, a slight increase over the 91,000 tonnes exported in 2007. Cut flower exports are likely to be boosted further by the planned introduction of direct flights between Kenya and the US in 2009. Kenya provides more than one-third of the EU's cut flower demand.

Table 16: Performance of Kenya's main export commodities, 2000-2007: Horticulture

	'000 tonnes	KSh per kg	Value (KSh billions)
2000	194	109	21
2001	193	103	20
2002	263	108	28
2003	294	105	31
2004	274	144	39
2005	298	140	42
2006	301	155	47
2007	389	137	53

Source: CBK (2007).

Coffee

Table 17 shows the recent performance of Kenyan coffee exports, which demonstrate a downward trend in the quantity of exports (with some recovery in 2007), partially offset by a decline in the price of coffee in 2007, even though it increased in 2003-2006.

According to observers, coffee may not be affected adversely by the crisis, with coffee exports showing signs of recovery. However, coffee output declined in the June 2007-April 2008 period, by 21.7%, owing to drought in the country. In the first 10 months of 2008, coffee production was down by 29%.

23 Daily Nation, 27 December 2008 and 17 February 2009.

Table 17: Performance of Kenya's main export commodities, 2000-2007: Coffee

	'000 tonnes	KSh per kg	Value (KSh billions)
2000	87	135	12
2001	64	117	7
2002	49	132	7
2003	59	107	6
2004	50	139	7
2005	47	193	9
2006	46	200	9
2007	55	189	10

Source: CBK (2007).

Aggregate exports

At the aggregate level, a large proportion of Kenya's exports are sold in Africa. COMESA (the Common Market for Eastern and Southern Africa) accounted for 31.4% of Kenya's total exports in 2007 (with 70% of these going to the EAC (East African Community) countries of Uganda, Tanzania, Rwanda and Burundi). While these are mainly essential manufactured products, the high reliance on regional markets makes the country vulnerable to an economic slowdown in the region, which may come from reduced aid flows to these regional trading partners. The EU accounts for another 26.4%, which comprises mainly agricultural products like tea, cut flowers, vegetables, fruits and coffee. The US accounts for less than 5% of the exports share. A depreciating currency has helped cushion export earnings.[24] Table 18 shows that the quantity index increased up to 2005 and then declined, with some recovery in 2007. Aggregate export prices generally increased, although the country experienced declining terms of trade, with import prices increasing faster than export prices.

Table 18: Performance of Kenya's aggregate exports, 2000-2007

	Quantity index	Price index	Terms of trade
2000	191	620	84
2001	204	637	79
2002	226	652	78
2003	260	620	81
2004	296	636	77
2005	318	676	72
2006	256	869	72
2007	279	866	70

Source: CBK (2007).

2.7 The macro effects

According to the IMF (2008), the current account deficit was marginally sustainable before the crisis, despite an appreciating exchange rate in the period before it because of productivity growth that reduced labour costs and enhanced the competitiveness of the economy in exporting to the region and outside, with capital flows more than covering the rising import bill, especially of oil. The study concludes that further improvements in Kenya's export performance would require reducing further non-factor (infrastructure) costs as well as continuing to raise factor productivity.

With the crisis accompanied by reduced exports and a large imports bill (e.g. of food and oil), the current account deficit has widened, continuing an earlier trend. The current account deficit, for example, rose from US$1.10 billion in 2007 to $2.12 billion in 2008, attributed mainly to the huge increase in the value of oil imports of $1.12 billion. The oil bill increased from $739 million in the second quarter to $1081 million in the third quarter, but declined significantly to $540 million in the third quarter as a result of the fall in international oil prices (see Table 19). This increased imbalance in

24 The real appreciation of the exchange rate before the crisis was driven mainly by the strong prices of coffee and tea as well as a strengthening of the net foreign asset position, both accounting for about 90% of its variation (IMF, 2008). The crisis has reversed this situation.

the context of reduced capital inflows has caused a depreciation of the Kenyan shilling (as seen in Figure 3) as well as a running down of foreign exchange reserves.

Table 19: Evolution of Kenyan current account balance in 2008 (US$m)

	Export of goods (fob)*	Import of goods (cif)**	Balance on goods	Non-factor services (net)	Factor services income (net)	Current transfers (net)	Current account balance
Jan	348.90	945.06	-596.16	148.37	11.35	197.15	-239.29
Feb	458.56	823.47	-364.90	143.85	44.48	163.29	-13.29
Mar	417.65	819.43	-401.78	100.68	-1.79	196.85	-106.05
Apr	468.81	880.01	-411.19	159.98	7.99	203.94	-39.28
May	415.83	918.87	-503.04	131.17	5.11	194.36	-172.39
Jun	396.81	783.24	-386.43	99.95	4.88	210.59	-71.01
Jul	454.83	1053.91	-599.08	207.48	34.92	137.65	-219.03
Aug	439.63	1073.37	-633.75	97.97	-25.74	145.28	-416.23
Sep	398.94	1047.12	-648.18	158.75	2.17	163.44	-323.82
Oct	424.49	976.50	-552.01	126.57	4.22	128.98	-292.23
Nov	371.71	874.80	-503.09	154.95	5.90	162.01	-180.23

Note: * fob = free on board; ** Cost, insurance and freight.
Source: CBK unpublished data.

In 2008, the Kenyan shilling depreciated by 22.6% against the US dollar, by 15.6% since July 2008.[25] Reserves declined from 4.94 months of import cover as of 15 January 2008 to 3.26 months of import cover as of 15 January 2009, below the statutory minimum of four months of import cover. CBK argues that the decline is accounted for mainly by revaluation losses, which are mainly book value in nature, while the net outflow has been minimal, the two effects accounting for 76% and 24%, respectively, of the reserves loss between July 2008 and March 2009.[26]

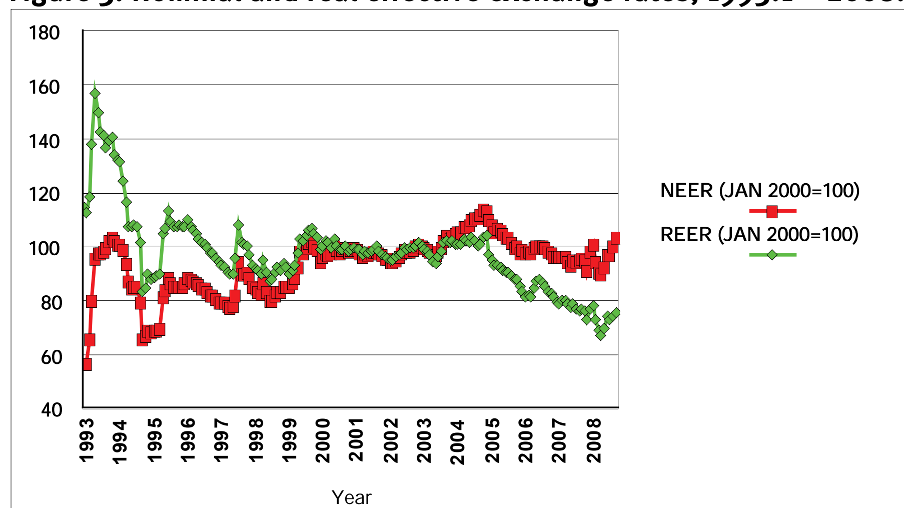
Table 20: Kenyan imports, 2007 and 2008 (US$m)

Imports (cif)	Year to Dec 2007	Q1 2008	Q2 2008	Q3 2008	Q4 2008	Year to Dec 2008	% annual change
Oil	1919	692	739	1081	540	3051	59.0
Chemicals	1156	359	363	384	339	1446	25.1
Manufactured goods	1435	357	379	409	445	1589	10.7
Machinery and transport equipment	2800	709	666	862	825	3063	9.4
Other	1752	471	434	439	582	1925	9.9
Total	9062	2588	2582	3174	2730	11074	22.2

Source: CBK (2009).

25 On 2 March 2009, the Kenyan shilling fell to a four-year low against the dollar, hitting KSh80.30 per US$, a level not seen since December 2004 (Daily Nation, 3 March 2009). CBK attributes the depreciation of the Kenyan shilling mainly to the appreciation of the US dollar.
26 CBK Monetary Policy Committee Statement after its meeting on 20 March 2009.

Figure 3: Nominal and real effective exchange rates, 1993:1 – 2008:9



Source: CBK unpublished data.

The crisis has also aggravated the budget deficit. The overall budget deficit (including grants) in 2008-2009 was projected at KSh127.0 billion (5.3% of GDP). The deficit was to be financed through net external borrowing of 25.2 billion (1.1% of GDP); net domestic borrowing of 54.5 billion (2.3% of GDP), including 18.8 billion in long-term domestic infrastructure bonds; privatisation receipts totalling 8 billion (0.3% of GDP); 33.6 billion from issuance of a sovereign bond to finance infrastructure development; and 5.7 billion additional financing from Telkom Kenya and Kenya Petroleum Refineries. These projections have been adversely affected by the global crisis. For example, the government has not been able to sell off parastatals such as the National Bank of Kenya and Kenya Wine Agencies, while the US$500 million sovereign bond was suspended and the Kenya Revenue Authority (KRA) was not able to achieve its target for the first quarter of the financial year (by KSh10 billion), although it was able to do so in the second quarter.[27] It is anticipated that the KRA will not meet its 2008/09 fiscal year targets because of the reduced economic activity in the country.

2.8 Third-party effects

The past decade has seen a substantial increase in oil prices. From an average crude oil price of US$17.98 in 1999, the price increased systematically to $71.13 per barrel by December 2007. The increase has been attributed to many factors, including loss of production owing to the Iraq War; increased instability in the Middle East; political tensions in other major producers such as Nigeria and Algeria; increased demand by China and India; expectations of continued high prices; and the depreciation of the US dollar. In the first half of 2008, oil prices increased further, rising to a peak of $147 per barrel in July. Since then, the price has declined, to less than $40 per barrel in December 2008, as a result of plummeting demand owing to the global financial crisis. The recent upsurge and plunge can have dramatic consequences for oil-importing countries such as Kenya.

Kenya does not produce oil and it imports all its oil requirements. Oil products comprise a large proportion of the country's imports, making its price a major element in the cost of production as well as the prices of fuels and lubricants. Oil typically accounts for 20-25% of the national import bill. The country, however, re-exports some of the petroleum products after their processing at Kenya Petroleum Refineries – a 50-50 joint venture between the government and major oil companies.

27 In a move to preserve macroeconomic stability, the Ministry of Finance has announced plans to cut government expenditure to the tune of KSh25 billion to accommodate the decision not to float the international sovereign bond in the 2008/09 fiscal year as the market conditions were unfavourable and because of delayed privatisation (Press Statement by the CBK Monetary Committee after its meeting on 20 March 2009).

An obvious impact of oil prices is on inflation. An increase in the price of oil increases the costs of production, which are translated into higher prices for goods and services. In addition, the oil price enters directly into the consumer price index and therefore the country's cost of living. Nearly all studies on Kenya's inflationary process find oil prices (and import prices in general) to be significant influences on the country's inflation rate. Ryan and Milne (1994), for example, found the oil price to account for 5.2%, 16.4% and 23.4% of the changes in the prices faced by upper-, middle- and low-income households, respectively, so that the inflationary effects of oil prices are highly regressive. A recent paper by the African Development Bank (AfDB, 2007), based on a dynamic stochastic general equilibrium model, suggests that a doubling of oil prices as happened during the first half of 2008 under complete pass-through would raise the rate of inflation by about 10%. Kenya experienced high (double-digit) annual inflation for most of 2008, driven mainly by food and fuel prices. Table 21 shows the monthly food and overall inflation rates in Kenya in 2008. The benefits of imported maize have yet to be felt in the domestic economy, and food and overall inflation have been driven by increased maize prices, given the high weight of food (0.505) in the consumer price index basket.

With respect to output, the AfDB study finds that such an increase in oil prices would lead to a 12% contraction of output in Kenya, with a cumulative loss of around 49% during the five years following the shock. An earlier study by Semboja (1997), which simulated the effects of a 50% increase in oil prices based on a computable general equilibrium model, found a 5.6% decrease of gross domestic income (GDI) when measured at current prices and a 3.6% decrease in GDI when measured at constant prices. Other effects found by Semboja included a decrease in the volume of imports of 7.5% and a small increase in the volume of exports of 0.7%, so that the total trade effect was reflected a deterioration in both the terms of trade and the balance of payments.

Table 21: Monthly food and overall inflation in 2008 (%)

	Food and drinks	Overall inflation
Jan	12.41	8.81
Feb	2.37	2.08
Mar	4.32	3.05
Apr	4.00	2.69
May	4.64	3.52
Jun	-1.16	-0.36
Jul	-2.87	-1.42
Aug	0.14	0.50
Sep	1.97	1.57
Oct	1.42	0.96
Nov	3.11	2.17
Dec	2.65	1.49

Source: CBK unpublished data.

An increase in oil prices is likely to worsen poverty both directly and indirectly. According to estimates by the Kenya National Bureau of Statistics (for 1999) published on its website, 55.5% of the urban population and 86.2% of the rural population use kerosene for lighting, with 56.6% and 4.2%, respectively, using kerosene and liquefied petroleum gas for cooking. They are therefore directly affected by changes in oil prices. An increase in oil prices encourages the utilisation of other types of energy, such as firewood and charcoal, which degrade the environment. More generally, oil-price induced inflation is higher on the poor, hence worsening income distribution and poverty.

The subsequent tumbling of oil prices since July 2008 has brought some relief and can be expected to reverse the above effects. It is hoped that this will be extended to other raw imported materials, such as fertilisers, reducing the cost of production and increasing food production.

3. Effects on investment, growth and poverty

The effects of the global crisis on growth and development depend on the structure of the economy and the level and extent to which it is integrated into the global economy. These factors influence the extent to which macro prices (stock prices, interest rates and exchange rates) are affected and how these in turn affect the real economy.

Table 22 shows the structure and quarterly performance of the Kenyan economy in 2008 versus 2007. Agriculture is the dominant sector, accounting for 25-27% of GDP, followed by transport and communications (13%); wholesale and retail trade (11-13%); and manufacturing (11-12%). Other important sectors (accounting for more than 5% of GDP) are education (6-7%); real estate, renting and business services (6-7%); construction (4-5%); and other services (7-8%).

Focusing on the third quarter, which coincides with the crisis (data for the fourth quarter were not available at the time of writing), real GDP grew by 2%, compared with 3% in Q2 2008 and -1% in Q1 2008. The worst performance compared with Q3 2007 was in hotels and restaurants, because of the poor performance of the tourism sector, followed by agriculture (which is rain fed) and manufacturing, which registered negative growth. The best performers were construction; mining and quarrying; wholesale and retail trade; and financial intermediation, which registered a growth of at least 5% compared with Q3 2007.

Table 22: Quarterly GDP and growth by activity in 2008

	Constant 2001 prices (KSh millions)			% share of GDP			Growth from the corresponding quarter in 2007		
	Q1 2008	Q2 2008	Q3 2008	Q1 2008	Q2 2008	Q3 2008	Q1 2008	Q2 2008	Q3 2008
Agriculture and forestry	72,564	70,975	81,606	27	25	27	-4	3	-5
Fishing	1651	1201	1596	1	0	1	-1	3	3
Mining and quarrying	1681	2123	2037	1	1	1	23	37	26
Manufacturing	31,491	33,342	33,123	12	12	11	0	3	-1
Electricity and water	7854	7979	7802	3	3	3	10	5	3
Construction	9957	13,430	14,838	4	5	5	14	35	33
Wholesale and retail trade	30,497	34,720	38,827	11	12	13	0	6	9
Hotels and restaurants	2314	3292	3558	1	1	1	-59	-32	-35
Transport and communications	36,087	37,771	40,348	13	13	13	-2	-2	0
Financial intermediation	9677	10,032	9791	4	4	3	7	9	5
Real estate, renting, business services	16,645	18,659	18,350	6	7	6	-4	4	0
Public administration	11,216	11,542	11,570	4	4	4	0	2	3
Education	19,428	19,428	19,472	7	7	6	2	3	4
Other services	21,230	21,415	21,600	8	7	7	3	3	4
All industries at basic prices	272,292	285,909	304,518	100	100	100	-2	4	1
All industries excluding agriculture	199,728	214,934	222,912	73	75	73	-1	4	4
Taxes on products	44,815	45,401	51,122	-16	-16	-17	3	2	8
GDP at market prices	317,107	331,310	355,640	100	100	100	-1	3	2

Source: CBK unpublished data.

There is undoubtedly substantial uncertainty regarding the future. While some private sector actors have not been so far affected, they expect things to get worse in the future. Hence, while players in the construction industry have not seen a slowdown, the fear of a recession is palpable, as much of the housing construction is financed by remittances, which could dry up as migrants are laid off or have their pay cut. Similarly, banks say they have not yet seen the negative effects of the crisis, but acknowledge that they could be hit hard in the future. They have therefore tightened the risk assessment of their customers seeking loans, with a number of banks increasing their lending rates and/or restricting lending to some particular sectors as a result of the perceived risks emanating from the crisis.[28] Uncertainty is a major deterrent to investment, as investors exercise their option value of waiting. Investment in turn is a major driver of economic growth in Kenya and other countries.

All the transmission mechanisms discussed above affect growth in one way or another. In 2007, the country experienced a growth rate of 7%, the highest growth in over two decades. In 2008, growth was expected to be 4% (IMF) owing to the post-election violence in the first quarter of the year, drought in the country and the global financial crisis. In 2009, growth is expected to be about 3% (AIG). Hence, Kenya's growth rate is expected to decline by 3-4% points.

Growth decelerations in developing countries are associated with increases in poverty, with a high correlation between growth, poverty and social tension indicators. A decomposition analysis of changes in poverty by Ali and Elbadawi (1999) for Kenya (among other countries), based on a poverty line that was permitted to change with mean consumption, found high responsiveness of poverty to growth. The elasticity of the head count index to mean income was -0.74. The impact of reduced growth is therefore to increase the headcount poverty ratio, which had reduced from 56% in 2000 to 46% in 2006, by 2-3% points, to 48-49%, this in turn affecting other human indicators.

The structure of the population suggests who can be expected to be afflicted by increased poverty. According to CBK, there are 7 million Kenyan adults engaged in pastoral, non-commercial agricultural pursuits. A further 9.5 million are employed or in self-employment. Of these 9.5 million, 1.9 million are engaged in the informal sector and about 0.5 million are employed by the public sector (in teaching, civil service and parastatals). The crisis is therefore likely to affect those employed outside the informal and public sectors in commercial agriculture, manufacturing and tourism, who interact directly with the global financial system.

Increased poverty in turn is likely to adversely affect other human development indicators. Indeed, according to Deverajan (2009), the impact of growth decelerations on these indicators of human development are often asymmetric. Child mortality, primary school enrolments and life expectancy, for instance, rise during decelerations, but barely fall during accelerations, although there is no evidence yet that this has happened in Kenya.[29]

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28 Daily Nation, 17 February 2009.
29 See a series of articles at Shanta Deverajan's blog, africacan.worldbank.org.

4. Policy implications

There has been a big debate on the likely impacts of the global financial crisis on Kenya. Different views have been expressed. According to the Prime Minister, the Kenyan economy will be badly affected. On the other hand, Ministry of Finance and CBK officials postulate that the impacts will be indirect and most likely small.[30] According to the latter, the potential impacts on Kenya are not so much from the financial crisis but more from the recession in the global economy, with the contagion felt through a decline in commodity prices, contraction of markets for export products and decline in ODA and other capital flows, including remittances. According to a CBK press release of 30 January 2009 (on its website):

> Kenya is primarily a rural agro-based economy with only a small minority of the population directly interfacing with the developed world. The main sectors likely to feel any significant impact [are] tourism and commercially-oriented agriculture such as horticulture, tea and coffee. Other effects might be felt through foreign exchange volatility, inputs (cost and availability) and also the credit and trade restrictions. Strategies by the world economies affecting relative interest rates will affect the flow of short-term capital (hot money) internationally.

Given the above policy differences, Kenya has not articulated a strong view on how to handle the crisis, although a task force has been set up to look into ways of cushioning Kenya's economy from the adverse effects, comprising officials of the ministries of finance and planning as well as CBK.

Among the actions taken, CBK recently lowered the cash ratio from 6-5% and the central bank rate from 9-8.25% in order to lower interest rates and enhance credit supply in the economy, although some observers contend that these actions are not enough to achieve these objectives. According to CBK, the main areas of focus for the monetary authorities in dealing with the crisis are to: i) continuously strengthen regulation and supervision of the financial sector, including enhancing capital requirements and the role of credit-rating agencies; ii) undertake reforms in the capital market to restore investor trust and confidence; and iii) strengthen coordination of the various regulatory authorities through creation of a financial services authority.[31]

Besides actions by CBK, the government has initiated a number of programmes, which may not be directly linked to the crisis. Some have been initiated to mitigate the effects of the post-election violence, the escalation of oil prices in the first half of 2008 and the continuing food crisis. The food crisis in particular has made food considerations dominate domestic economic debate and has moved them into the forefront of policymaking, by severely affecting the balance of payments and the budget.[32] For example, the government initiated the Kazi Kwa Vijana programme in March 2009 to mitigate rampant youth unemployment in the country. This is expected to generate employment opportunities for over 300,000 youth at a cost of KSh15 billion. Besides providing employment, such a programme is vital in boosting the private consumption necessary to stimulate economic growth in the country.

Analysts have also called for the initiation of other expenditure programmes, e.g. acquisition of shares by the government or its agencies to boost the stock market, although this has not been acted on. There have also been calls at seminars for a regional response in the context of the EAC.[33] Others suggest that African countries should exploit the vulnerability funds planned by the IMF, World Bank and other multilaterals.

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30 See Kenya News Agency, 2 November 2008.
31 Speech by CBK Deputy Governor to the Kenya Institute of Bankers, Eldoret, on 19 January 2009. See Kilonzo (2008) for a discussion of the reforms required in the capital market.
32 See the CBK Monetary Policy Committee press statement after its meeting on 20 March 2009.
33 A regional meeting of senior policymakers and other stakeholders was held in Dar es Salaam in the week of 9 March 2009 to deliberate on the crisis.

On optimal response, the IMF, for example, advises developed countries to: i) stabilise financial markets through continued liquidity support and further capital injections; ii) provide global fiscal stimulus, on the order of magnitude of 2% of world GDP, which would raise growth by two percentage points, with the onus on countries with space to expand without jeopardising medium-term sustainability; iii) ease monetary policy; and iv) avoid 'beggar-my-neighbour' policies (see Bredenkamp, 2008).

For poor countries like Kenya, the IMF advises that: i) they should leave the stimulus task to larger, more developed countries; ii) those with scope to undertake countercyclical policies should do so depending on their debt situation and availability of financing; iii) they should continue strengthening social safety nets; iv) they should restore inflation control; and iv) they should allow exchange rates to adjust. With a serious budget constraint arising from financing the various crises that the country has experienced in 2008 and 2009, and hence limited ability either to provide stimulus packages or to enhance social safety nets, the government seems to be following IMF advice. It has left it to CBK to undertake a countercyclical monetary policy.

References

African Development Bank (2007) *The Impact of High Oil Prices on African Economies*. Economic Research Working Paper 93. Tunis-Belvedère, Tunisia: AfDB.

Ali, A.A. and I.E. Elbadawi (1999) 'Inequality and the Dynamics of Poverty and Growth'. Paper presented at the AERC Collaborative Project on Explaining African Economic Growth Performance.

Bredencamp, H. (2008) 'The Impact of Global Financial Crisis on LICs: Preliminary Assessment'. Paper presented at Delivering Aid Effectiveness: Improving Complementarity and Division of Labour. OECD Development Center, Paris, France. 8 December.

Central Bank of Kenya (2007) 'Statistical Bulletin'. Nairobi, Kenya: CBK.

Central Bank of Kenya (2008a) 'Annual Report 2007/8'. Nairobi, Kenya: CBK.

Central Bank of Kenya (2008b) 'Monthly Economic Review'. November. Nairobi, Kenya: CBK.

Central Bank of Kenya (2009) 'Monthly Economic Review'. January. Nairobi, Kenya: CBK.

Chege, M. (2008) *Economic Relations between Kenya and China, 1963-2007*. Washington, DC: CSIS.

Claessens C. and M. Jansen (2000) *The Internationalization of Financial Services: Issues and Lessons for Developing Countries*. Dordrecht, Holland: Kluwer.

Government of Kenya (2003) *Public Expenditure Review*. Nairobi: Government of Kenya.

Harsch, E. (2009) 'Africa Braces for Global Shockwaves'. *Africa Renewal* 22(4): 4-19

Hoekman, B. and K. Saggi (1999) *Multilateral Disciplines for Investment-Related Policies?* Policy Research Working Paper 2138. Washington, DC: World Bank.

International Monetary Fund (2008) *Kenya: Selected Issues*. Country Report No. 08/337. Washington, DC: IMF.

Kamau, A. (2009) 'Efficiency and Productivity of the Banking Sector in Kenya: An Empirical Investigation'. PhD dissertation, University of Nairobi (forthcoming).

Kibaara, B. (2008) 'The Impact of the Financial Crisis on Developing Countries: Kenya'. http://www.ids.ac.uk/go/news/southern-voices-on-the-impact-of-the-financial-crisis.

Kilonzo, S. (2008) 'The Global Financial Crisis: Its Impact on Kenya and Possible Strategies to Mitigate the Effects'. Presentation. 14 November.

Krugman, P. (2008) *The Return of Depression Economics and the Crisis of 2008*. New York: Penguin Books.

Lucas, R.E.R. (2005) 'Migration and Economic Development in Africa: A Review of Evidence'. Paper presented at the AERC Biannual Research Workshop. Nairobi, 28 May to 2 June.

Massa, I. (2009) 'Methodology Background Paper 3: Financial Contagion'. London, UK: ODI.

McCormick D., W. Mitullah and E. Manga (2007) *Extent and Forms of Donor Proliferation and Coordination in Kenya*. Working Paper. Nairobi, Kenya: University of Nairobi.

Mule, H., D. Ndii and C. Opon (2002) 'Strategy for Economic Recovery'. Discussion Paper prepared for the Ministry of Planning, Kenya.

Mwega F. M. (2007) 'Volatility and Fragmentation of Foreign Aid: A Case Study on Aid Effectiveness in Kenya, with a Focus on Health'. Paper for the WCD.

Mwega, F.M. and R.W. Ngugi (2004) 'Foreign Direct Investment In Kenya'. Paper presented at the AERC Special Workshop on FDI in Sub-Saharan Africa, February 2005.

Mwega, F.M. (2008) 'Volatility and Fragmentation of Foreign Aid: A Case Study on Aid Effectiveness in Kenya'. Paper prepared for Brookings Institution.

Okoth, K. (2003) *Kenya: What Role for Diaspora in Kenya?* Washington, DC: Migration Policy Institute.

Oloo, M. (2007) *Banking Survey Kenya*. Nairobi: Think Business Limited.

Oloo, M. (2008) *Banking Survey Kenya*. Nairobi: Think Business Limited.

Onjala, J. (2008) 'A Scoping Study on China-Africa Economic Relations: The Case of Kenya'. Paper presented to the AERC.

Phillips, L.C., M. Obwona, M. McMillan and A.B. Ayako (2001) 'Foreign and Local Investment in East Africa, Interactions and Policy Implications: Case Studies on Mauritius, Uganda and Kenya'. Eager Project Paper.

Ryan T.C.I. and W.J. Milne (1994) 'Analyzing Inflation in Developing Countries: Kenya.' *Journal of Development Studies* 31(1): 134-156.

Semboja H.H.H. (1997) 'Contributions of Computable General Equilibrium Model in Analyzing Energy and Development Issues in Kenya', in F.M. Mwega and V. Seshamani (1997) *Economic Management in Africa: Lessons from the 1970s and 1980s and Prospects for the 1990s and Beyond*. Nairobi, Kenya: EAEP.

Senbet, L.W. (2008) 'The 2008 Financial Crisis: Diagnostic and Policy Responses'. Presentation to the AERC workshop. December.

UN Development Program (2006) *Kenya Development Cooperation 2005*. New York: UNDP.

World Bank (2006) *Global Economic Prospects: Economic Implications of Remittances and Migration*. Washington, DC: World Bank.