Foreword

Over the last one year, a series of events – ranging from the Arab Spring to the European debt crisis and growing food insecurity, particularly in the Horn of Africa – have focused attention on the fragility of the global economic system. An awareness of risk, and risk management, is increasingly viewed as a prerequisite for sustainable and inclusive growth. Indeed, inaction on these and other long-term risks such as climate change could not only derail the long-term sustainability of global economies but also weaken their capacity to meet future challenges.

This maiden edition of the Emerging Issues Series contains three articles: “Africa’s Performance and Mid-term Prospects”; “The Impact of the US Credit Rating Downgrade and European Debt Crisis on Africa”; and “Managing Food Price Volatility for Improved Food Security in Africa.” The first article notes that while Africa is expected to continue on its recovery path, there are a number of internal and external factors which could adversely affect its performance. A key internal factor is the risk of disruption from social unrest. External risks include possible contagion from the uncertain global economic environment, as well as high fuel and food prices. On the other hand, increased engagement by African countries with China and India could help to cushion adverse effects from a downturn in OECD countries.

The second article emphasizes that trade is the main transmission channel through which Africa is likely to be affected by the current global economic uncertainty. Recession in OECD countries would lower Africa’s exports and trade revenues. Other factors include higher costs of finance, shrinking fiscal space which can compromise fiscal, social and political stability and lower financial flows.

The third article notes that over the past five years we have entered into a new era of persistent food price volatility, especially for rice, wheat, maize and soybeans. The current famine in the Horn of Africa demonstrates Africa’s acute vulnerability to this development. Food price volatility threatens not just the long-term welfare of African households, but also macroeconomic instability and increased political and social unrest. African countries have applied a variety of strategies to tackling food price volatility, but with limited success. The more promising strategies include developing and using new risk management instruments; developing early warning mechanisms and contingency plans; supporting the provision of timely and accurate information on stock holdings and market prices, to guide market interventions; and improving local supply by addressing barriers across the entire value chain.
Africa’s Performance & Mid-term Prospects
1 Introduction

1.1 While the continent is expected to continue on its path of recovery from 3.7% of real GDP growth in 2011 to 5.8% in 2012, there are a number of internal and external factors which could adversely affect its performance. Prominent among the internal factor is the risk of disruption arising from social unrests as seen in North Africa and in other parts of the continent. External challenges include the uncertain developments in OECD countries because of high sovereign debt which could lead to a global slowdown. Moreover, high fuel and food prices would damage the external accounts of most African countries, in particular non-resource rich ones.

1.2 In the face of such internal and external risks, African countries will face the difficult task of maintaining or restoring political, economic, and social stability, promoting inclusive development, with in all likelihood fewer resources. One opportunity is the increased engagement of African countries with China and India whose growth can help cushion adverse effects arising from a downturn in OECD countries.

1.3 This brief provides Africa’s recent economic performance and mid-term outlook and is organized as follows: Section 2 presents macroeconomic prospects, Section 3 highlights the major risks that have the potential to derail growth in the mid-term and the last section provides the key messages.

![Figure 1 Africa’s Growth: The Big Picture (%)](source: AfDB, OECD Development Center, UNDP and UNECA (2011) African Economic Outlook, www.africaneconomicoutlook.org.)
2 Macroeconomic Prospects in 2011 and 2012

2.1 Real GDP Growth: Prospects remain favourable and in most parts of Africa growth is expected to accelerate further in 2011 (Figure 1). However, as a result of the political events in Tunisia and Egypt, and civil war in Libya, North Africa and Sub-Saharan Africa (SSA) are performing quite differently (see Figure 2). In 2011, while SSA growth would reach 5.5%, Africa’s growth is only 3.7% due to the near stagnation (0.7%) in North Africa.

Figure 2 Growth rate in Africa: the Côte d’Ivoire and the Libya Effects


2.2 Countries in North Africa continue to undergo the political transition brought about by the Arab Spring. However, reform remains limited and a number of challenges, both political and economic, stand in the way of re-establishing North Africa’s stability. In Tunisia, public disillusionment with the handling of political reform is reflected in renewed demonstrations and the low rate of registration for constitutional polls due on October 23. Tourism has been hit hard by the unrest earlier in the year, but there are signs that visitors may now be returning to the country in greater numbers. Former President Mubarak’s trial in Egypt has begun and not without controversy as protestors reject the judge’s decision to end the broadcasting of the
proceedings. The resignation of Egypt’s Finance Minister is the latest in a series of events ensuring economic policy there remains unsettled. His replacement is expected to adopt a tougher policy on deficit reduction and Egypt may slow down the pace of its privatisation programme. In Libya, the chief of former rebels arrived in Tripoli on September 10, 2011 and took charge of the interim government replacing the ousted regime of Col Gaddafi. Libya’s transitional leaders battling to take Muammar Gaddafi’s home town of Sirte fear regime loyalists have taken more than 300 people prisoner to use as human shields.

2.3. The political situation has stabilized in Côte d’Ivoire and economic recovery is expected in 2012 with a real GDP growth rate around 6%. The new justice minister has counselled that all parties are responsible for failing to resolve the political impasse peacefully and for the subsequent loss of life. The country is currently on the path of stability following the establishment of a Truth and Reconciliation Commission to heal the wounds inflicted by more than four months of continuous fighting.

2.4 Under the assumption that the situation in the troubled countries would stabilize, Africa’s growth is expected to pick up to the order of 5.8% in 2012, regaining the growth path attained prior to the global crisis.

2.5 High commodity and agricultural export prices are expected to be main growth drivers in 2011. In addition, strong domestic consumer demand as well as good macroeconomic policies and management are expected to boost real growth.

2.6 External Position: Trade and current accounts have improved in resource-rich countries due to high commodity prices and rising export volumes. At the same time, high oil and food import bills are contributing to a worsening of external balances in resource-poor countries and threatening food security. On average, while oil exporting countries are expected to run current account surplus to the tune of 2.2% of GDP in 2011, oil importing countries are expected to run into a deficit of 4.2% of GDP. In addition, the soaring gold price benefits Africa’s main gold producers such as South Africa, Ghana, Zimbabwe, Tanzania, Guinea and Mali. Africa accounts for around 30% of global gold production. On a year-to-year basis, the price of gold has increased by 45% in August 2011 as compared to the level in August 2010. The price of gold has continued its steep rise during 2011 partly driven by global demand to hedge against financial market and exchange rate risks (see Figure 3).
2.7 Fiscal Deficit: Due to the economic recovery and prudent fiscal policies, African countries recorded a moderate fiscal deficit of 1.8% of GDP in 2010 which is expected to increase to below 4% in 2011 but decline again to slightly above 3% in 2012. The 2011 increase is mainly due to the deterioration of fiscal balances in North Africa in the wake of political upheavals. However, fiscal consolidation may be uneven across the continent if governments respond to higher food and oil prices by increasing subsidies or if disbursements of ODA fall short.

2.8 Inflation: The median inflation rate was 4.4% in 2010 and is projected to accelerate to 5.3% in 2011 (see Figure 4) due mainly to expected increase in energy and food prices. Sustained increases in food prices have driven inflation in some East African countries to historic highs. In Uganda, headline inflation in August 2011 climbed to 21.4%, the highest since February 1993. Inflation in Ethiopia, Tanzania and Rwanda shot up by 39.2%, 10.9% and 7.14%, on a year-to-year basis, respectively. Food items have relatively higher weights in the basket of goods and services of these countries. Although the trend in food prices depends mainly on regional outlooks of agricultural production, forecasts of global food indices indicate that the upward pressure on food prices will remain throughout 2012 (see figure below). The rise in food prices following severe droughts, and spikes in fertilizer price (58.7% as compared to August 2010) and energy prices (31.5%) have resulted in inflation levels that are much higher than the April 2011 forecasts (see Table 1).

Table 1 Inflation in Selected African Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>April 2011 Forecasts</th>
<th>August 2011 Observed Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethiopia</td>
<td>17.6%</td>
<td>39.2%</td>
</tr>
<tr>
<td>Kenya</td>
<td>9.8%</td>
<td>16.7%</td>
</tr>
<tr>
<td>Rwanda</td>
<td>5.2%</td>
<td>7.1%</td>
</tr>
<tr>
<td>Sudan</td>
<td>14.3%</td>
<td>17.6%</td>
</tr>
<tr>
<td>Tanzania</td>
<td>6.9%</td>
<td>10.9%</td>
</tr>
<tr>
<td>Uganda</td>
<td>4.1%</td>
<td>21.4%</td>
</tr>
</tbody>
</table>

Source: Authors based on World Bank data, 2011.

Economic expansion is expected to be stronger in resource-rich countries that could benefit from the revival in demand for primary commodities. Angola, Nigeria, Botswana, Zambia and Ghana are expected to enjoy a robust economic expansion with GDP growth of above 7% in 2011. Partly driven by new oil production, Ghana is a star performer.
performer on the continent with an expected real GDP growth of 12% in 2011. The fiscal and current account balances reflect these differences in natural resource endowments (see Figures 6 and 7).

**Figure 6 Oil Importing countries: twin deficits**

![Graph showing twin deficits for oil importing countries](source: AfDB, OECD Development Center, UNDP and UNECA (2011) African Economic Outlook, www.africaneconomicoutlook.org)

**Figure 7 Oil exporting countries: Surplus current accounts and small budget deficits**

![Graph showing surplus current accounts and small budget deficits for oil exporting countries](source: AfDB, OECD Development Center, UNDP and UNECA (2011) African Economic Outlook, www.africaneconomicoutlook.org)
2.10 External Financial Flows: The long-drawn global economic recovery pose serious threats to the flow of foreign direct investment to Africa (Figure 8). The economic currents in developed and emerging market economies seem to be against growth in foreign direct investment. With regard to ODA, donors may not meet their Gleneagles commitments; ODA is expected at an estimated USD 42 billion in 2010, USD 13 billion (or 24%) short of the target. The weak performance in Europe and the US would not turn the balance in favor of an ODA expansion.

![Figure 8 Foreign Direct Investment Flows to African Countries](image)

Source: Computations based on UNCTAD, UNCTADstat.

3 Major Risks

3.1 The sovereign debt crisis in Europe and the fiscal problems in the US have geared up market sentiment against a rapid recovery. A full-fledged Euro debt crisis could have serious consequences on African trade and financial flows. Estimates show that a 1% decline in OECD GDP growth is associated with a 9% fall in Africa’s export earnings. The impact could be worse on Africa’s oil and mineral producers, and exporters of agricultural products such as cotton and cocoa.
3.2 International Food and commodity prices: World Bank’s food price index increased by 23% between August and December 2010, and in August 2011, food prices were 26% higher than those of August 2010 (Figure 9). East African countries which are net food importers are experiencing increasing import bill, deepening inflation and worsening of external positions. About eleven million people are now at risk of severe food insecurity and in need for emergency assistance. Holding strategic food reserves would help to mitigate the effects of food price volatility.

![Figure 9 Evolution of export prices of key African agricultural products (Base = January 2000)](source: Authors based on World Bank data, 2011.

3.3 Political Stability and Governance: National elections (28) in 20 African countries in 2011 are accompanied by the risks of (i) large government spending that undermined fiscal discipline and (ii) political instability. Concerning economic governance, according to Doing Business 2011, among the top thirty reformers, a third of them are in SSA (Rwanda, Cape Verde and Zambia are in the top ten) which is a far better achievement than political governance where most African countries showed a deterioration in a number of indicators.
3.4 Other important challenges: Africa continues to face important challenges such as infrastructure deficit, private sector promotion, domestic resource mobilization, economic diversification and adaptation to climate change. However, the recent unrest that swept many countries has highlighted the dangers of chronic unemployment, poverty and high inequality. Despite good economic performance and prudent macroeconomic policies, Tunisia’s Revolution has been triggered by high regional disparities, high level of youth graduate unemployment and conspicuous and predatory corruption. It proved that economic growth should be inclusive to sustain social and political stability. Given Africa’s rapidly growing population, the demographic pressure on labor markets will continue to generate more unrest and social instability. Improvements are needed both on the supply and demand side of labor markets. Relatively high inequality in Africa reflects that growth benefits a small part of the population and the benefits of the poor are limited.
The impact of the US credit rating downgrade and European debt crisis on Africa

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1 Introduction

The world economy once again is in turmoil due to sovereign debt crisis in the United States (US) and Europe. The US credit downgrade came at a critical time for the world as it may have the effect of gearing up market sentiment against a rapid recovery. Stock markets plunged on news of the downgrade, but recovered shortly afterwards and remain highly volatile. Furthermore, European banks remain highly exposed to the European sovereign debt. For example, if Spain fails to meet its debt payments and needs to restructure its debt, European banks’ losses would sky-rocket to €1.1 trillion, or 62% of their total bank capital. Some American banks face the same level of exposure. For instance, JP Morgan holds close to USD 15 billion of total exposure to Greece, Ireland, Italy, Portugal and Spain. In this context, analysts reviewed downward both the Eurozone and US 2011 gross domestic production (GDP) growth forecasts. The International Monetary Fund’s latest World Economic Outlook (released on September 20) slashed a whole point off the US GDP growth forecast for 2011 relative to its June projections. The US economy is now expected to end the year with an anemic 1.5% growth. The euro area, with a forecast growth of 1.6% for the year (down from the June forecast of 2%), will not do any better, and prospects will only marginally improve in 2012. Similarly, the Economist Intelligence Unit (EIU) lowered its euro zone growth forecast from 2% to 1.7% in August 2011.

We estimate that a 1% drop in GDP growth in the Organization for Economic Cooperation and Development (OECD) countries will translate into close to half a percentage point change in Africa’s growth. If the 2008/09 global crisis is any guide, the most important dimension of the impact on Africa will be through significant reductions in Africa’s trade with OECD countries. Our estimates show that a 1% drop in growth in GDP of OECD countries results in a 10% reduction in Africa’s export earnings and 2.5% reduction in its imports.

The adverse effect of the 2008/2009 crisis would have been bigger had it not been for the increased resilience of African economies. This is due to better economic governance, and the rise of emerging economies, which helped the continent reduce its dependency on its traditional partners. However, unlike the 2008/2009 financial crises, the current sovereign debt crisis may also affect the pace of growth in emerging economies such as China, which could in turn have adverse effects on Africa’s growth.

On the other hand, for African countries there is a silver lining to the current crisis. Investor’s appetite for bonds issued by triple-A rated
agencies from Africa has increased considerably recently. Even sovereign bond issues by African countries like Ghana, Nigeria, Gabon and Senegal have enjoyed success. For example, spreads on a new issue of 10-year bonds by the Government of Senegal in May 2011 narrowed by over 100bp in the secondary market within two weeks of the launch, confirming strong investor interest in such bonds.

The rest of this brief analyzes the potential impacts of the debt crisis in US and Europe on Africa’s growth prospects and identifies the different possible channels.

## 2 Channels of transmission of a debt crisis in US and Europe on Africa

Slower growth in OECD countries will affect African economies mainly through five channels: trade, liquidity, sovereign risk, foreign direct investment (FDI) and remittances, and volatility of portfolio flows, stock markets and exchange rates.

### 2.1 Trade

Slower economic growth in OECD countries will result in lower demand for Africa’s exports. This constitutes the most important transmission channel through which African economies will be impacted. Indeed, Africa’s trade contracted by 20.6% in the midst of the 2009 financial crisis. The decline was larger for exports (-29%) than for imports (-11.7%), and varied across countries and regions according to (i) the level of export concentration (market access) and (ii) the degree of export market diversification. The least diversified regions were most severely hit by the crisis.

Africa remains the least diversified region in terms of market access. Fifteen African countries send half or more of their exports to Europe (Figure A1). These include the small and vulnerable island economies of Sao Tome and Principe, Cape Verde, Mauritius, Seychelles and Comoros, which, additionally, are highly dependent on European tourists, as well as oil exporters like Libya, and more diversified economies like Tunisia. These countries are therefore most exposed to the trade risks that a deepening crisis in Europe might entail. In addition, the US is the main market for oil exports from Chad, Gabon, Angola and Nigeria, and for Lesotho’s garments, which makes these countries particularly vulnerable to a fall in US demand. Regionally, North Africa is the most dependent on European export markets, with the European Union (EU) taking in 58% of the region’s exports in 2008 (Table 1). The CFA Franc zone countries, with 36.4% of
their exports destined for Europe, come next on the vulnerability scale, followed by the wider West Africa region.

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Many African countries export a few primary products that are vulnerable to price volatility often in a pro-cyclical manner. The debt crises and slower recovery in the world economy triggered a decline in the prices of some key export commodities. The price of Brent crude, which has been on a downward path since mid-July 2011, continued to fall in the two weeks following the US credit downgrade and, subsequently, poor second-quarter growth results from Germany (Figure 1). The prices of copper and of silver are also falling, and need to be closely watched. On the other hand, the price of gold is on the rise as market agents turn to a safer haven at a time of great uncertainty.

**Table 1 Regional Indicators of Trade Risk**

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<thead>
<tr>
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<tbody>
<tr>
<td>North Africa</td>
<td>58.1</td>
<td>36.1</td>
<td>45.0</td>
</tr>
<tr>
<td>CFA Franc Zone*</td>
<td>36.4</td>
<td>36.4</td>
<td>23.4</td>
</tr>
<tr>
<td>West Africa</td>
<td>28.5</td>
<td>39.0</td>
<td>58.6</td>
</tr>
<tr>
<td>Southern Africa</td>
<td>27.1</td>
<td>48.9</td>
<td>14.1</td>
</tr>
<tr>
<td>Central Africa</td>
<td>26.9</td>
<td>56.0</td>
<td>83.4</td>
</tr>
<tr>
<td>East Africa</td>
<td>17.3</td>
<td>39.4</td>
<td>13.6</td>
</tr>
<tr>
<td>Africa</td>
<td>40.1</td>
<td>42.2</td>
<td>42.1</td>
</tr>
</tbody>
</table>

Source: Authors’ calculation based on UN COMTRADE and UNCTADStat. Notes: A higher value for the concentration indices means a higher degree of concentration. *The export destination concentration index for the CFA Franc Zone refers to the year 2008 since more recent data is not available.

Figure 1 Trends in commodity prices (Base=January 2000)

Source: Authors’ calculation based on World Bank (2011).
The downward pressure on some commodity prices, if it persists, will entail mixed fortunes for African economies. Major oil-exporting countries are likely to see a significant contraction of domestic economic activity as a result of these price shocks; mineral and metal exporters like Zambia, Zimbabwe, Mauritania and Guinea would be the next most affected group. On the other hand, Africa’s gold exporters (Ghana and South Africa) may gain from the rising price of the precious metal but this gain is likely to be offset – at least partly – by declining prices of iron ore (for South Africa) and oil (for Ghana).

The price of cotton has been falling since March 2011 (Figure 2) and, more recently the price of cocoa too has started falling on the back of bumper harvests in the West African producers of this commodity. This region is one of the least diversified of Africa (see Table 1), which exposes it to high trade risk. If the euro zone debt crisis accentuates the decline in these agricultural commodity prices, most of the West Africa region will experience significant loss of export revenue, and slower growth.

2.2 Tight liquidity

The contagion effect of the European debt crisis on the African banking sector depends on the extent to which African banks are integrated into the European banking system. The presence of European banks is strong in some African countries, such as, Mozambique, Madagascar, Botswana, Ghana, Cameroon, Rwanda, Zambia and Tanzania, where these banks represent over half of total bank assets (Figure A2, in annex). Angola, Uganda and several other countries also exhibit high levels of foreign banks’ dominance. All these countries are particularly vulnerable to a tightening of credit markets that could follow on the European debt crisis.

Even if the current debt crisis did not degenerate into an economic crisis of much bigger proportions, the cumulative effects of yet another financial turmoil – this time caused by banks’ losses on assets (government bonds) that they had long perceived as a safe haven – will surely increase risk aversion and raise the cost of trade finance, just as in the 2008-09 financial crisis. Box 1 provides an illustration of the experience of Cocobod in Ghana during the 2008/09 crises.

2.3 Sovereign risk

Sovereign risks to African countries could arise from three potential sources: (i) contraction in official development assistance (ODA) flows

Box 1 The impact of the 2008-2009 financial crisis on trade finance: the case of Cocobod

Cocobod is a state-run Ghanaian marketing board which oversees the cultivation, evaluation, transportation, and export of cocoa. Each year the export of Ghana’s cocoa production is financed using a receivables-backed, short term trade finance facility. In fact, ahead of every crop year in Ghana, Cocobod, a first-class borrower, raises syndicated loans through international financers in Europe for cocoa purchases. Although it successful raised funds from the international market throughout the years, this was seriously constrained during the financial crisis 2008-2009. Five commercial banks declined to participate in the syndication. Its borrowing cost shot up by Libor plus 250 basis points, compared to Libor plus 45 basis points in the previous year. Although the borrowing cost has declined since then, the latest transaction closed at Libor plus 90 basis points.
from Europe, (ii) decline in trade-related tax revenues for African governments, and (iii) higher cost of borrowing on the global credit market.

ODA flows to Africa from OECD countries are expected to face serious setback due to the looming debt crises. Net ODA flows to Africa did not decline during the 2008-09 financial crises (Figure 3). This arose because Development Assistance Committee (DAC) aid disbursements were buttressed by timely intervention of development finance institutions, including the African Development Bank.

However, the context in which the current crisis is unfolding is different. Fiscal austerity in much of Europe, is likely to translate into cuts in development assistance by the EU as a whole. The US may also cut aid as it tackles its growing budget deficit and national debt, and as attention turns to more pressing domestic issues with elections next year. African countries that rely heavily on aid from the OECD may face significant cut in the flow of aid.

Figure 2 Export prices of key African agricultural products

Source: Authors’ calculation based on World Bank (2011).

28 countries (over half of Africa) drew 50% or more of their ODA flows from the EU and US in 2009. Poor countries that depend to a lesser extent on aid from EU and US but for which aid represents a significant share of their GDP – for example, Liberia (over 100% of GDP), Burundi (44.5%), Sierra Leone (25%), Mozambique (21%), Malawi (20.2%), and Rwanda (19%) – also run significant risks.
Trade taxes and resource-related taxes are expected to decline as African trade flows subside. This deterioration is forecast to continue for the next two years. The European debt crisis could make it even worse.

Declining demand for commodities can wipe off a large chunk of government revenue, thus compromising fiscal – and social – stability in these countries. Resource-related taxes are a significant source of revenue among Africa’s oil and mineral exporters, notably in Libya and Angola where such taxes represent 66% and 39% of GDP, respectively.

A negative externality of the debt crisis and of the US credit downgrade is that borrowing costs may increase as international credit markets demand higher risk premiums to buy government debt. Evidence indicates that the 2008-09 financial crisis raised the spread on sovereign bonds issued by several African governments. For example, Morocco’s issue of a 10-year bond in September 2010 (shortly after the crisis) was done at a spread of 200bp compared to only 58bp for the June 2007 issue (before the crisis), all other things equal. While it is still early to assess the impact of the current crises on credit risk, available data suggests that the credit default swap increased 49.5% on Tunisian

Fifteen African countries derive 25% or more of their current revenue from international trade taxes. Swaziland and Lesotho, with more than 60% of their current budget financed by trade taxes, and Uganda (47%) are particularly vulnerable to the erosion of the tax base as trade contracts. These countries experienced a sharp deterioration in their budget position in 2010, partly as a result of the lagged effects of the financial crisis.
bonds, 35.9% on Egyptian bonds and 22.8% on South African bonds over the month ending August 30, 2011 (Figure 4). Similarly, spreads increased on sovereign bonds issued by frontier markets such as Egypt (3.05%), Ghana (2.23%), Morocco (3.99%), Nigeria (2.7%), Tunisia (4.96%) and Senegal (1.2%) in the week ending September 2, 2011 (Bloomberg, 2011). Thus, a deepening of the crises could make it costlier for African governments to raise finance on international credit markets.

Higher interest rates will also raise debt service charges on existing loans. This will most severely impact the highly indebted countries (Zimbabwe, Cote d’Ivoire, Guinea, Cape Verde, and Sudan) and those for which debt service charges weigh significantly in public finances. These include Liberia, where external debt servicing consumes 280% of the government’s current revenue, Uganda (85.3%), Zimbabwe (67.6%) and Sudan (60%).
2.4 FDI and Remittances

FDI flows, which peaked at USD 73.4 billion in 2008, have declined two years in a row to USD 55 billion in 2010 (Figure 3) due largely to sluggish economic growth in developed economies. The uncertainty and loss of confidence generated by the downgrade of the US credit rating, growing doubts about economic recovery in the US, and deterioration of the debt crisis in the euro zone will surely sustain the downward trend in FDI flows to Africa this year – and possibly the next – as it happened following the 2008-09 financial crisis. The downturn expected might be dampened by the emerging trend among investors being bullish about bonds issued by agencies based in Africa.

Africa’s biggest recipients of FDI are likely also to be the biggest losers. North Africa took away 35% of FDI to Africa during 2005-2009 while Angola, Congo, Nigeria and South Africa – all rich in natural resources – together accounted for another 45%. These countries – and especially North African countries like Tunisia, Egypt and Libya that are yet to recover from political crisis – are naturally the most exposed to any decline in FDI flows. China and Africa’s other emerging partners could help cushion the shortfall in FDI from Europe. However, the evidence from the 2008-09 financial crises is not very encouraging. FDI flows to Africa in the aggregate declined 37% in 2009.

Remittances have progressively increased since 2000, reaching USD 40 billion (2.6% of GDP) in 2010, and they proved resilient to the 2008-09 financial crisis, but this may not continue. Significantly, France, US, UK, Spain and Italy (in that order) figure among the top 10 destinations for African emigrants. A deepening of the debt crisis could therefore lead to a reduction in remittance flows to Africa, the magnitude of which is hard to predict. As usual, the countries that depend most on remittances will be most severely affected. These include Senegal, Sudan, Kenya, Nigeria, Morocco, and Tunisia, for which remittances represented over 5% of GDP in 2009.

2.5 Portfolio flows, stock market and exchange rate volatility

The US credit downgrade and the debt crisis have caused a significant degree of stock market volatility across Europe and beyond, the effects of which are difficult to separate. African stock markets have not been spared. Due to their higher level of integration with the global economy, South Africa, Nigeria and Egypt saw their stock market plunging by 6.9%, 5.5% and 10.6%, respectively in the first three days of trading following
The horticulture sector in Kenya, whose growth estimates for earnings during this year were reviewed downward to 8% from an initial 15%. This has put further pressure on Kenya's weakening currency (Reuters, 2011). Similar pressure on African national currencies has been observed elsewhere.

Uncertain market conditions are generating unstable movements in currency market that would increase risk premium for investors. The risk premium on South Africa’s four-year bonds have increased to 6.13 percentage points from 5.11 percentage points on Jan. 5, 2011.

3  Conclusion

The debt crisis unfolding in the US and Europe has a significant and far reaching consequence on the economies of most countries in Africa through more than one channel. On the whole trade risk appears to be the single most important determinant of the magnitude of the economic impact on African countries. Hence, countries that export primarily to Europe and are specialized in a few products whose prices are subject to pro-cyclical fluctuations are most vulnerable to the European debt crisis. Among these countries are Africa’s oil and minerals producers, and exporters of agricultural products like cotton and cocoa.

If the 2008-09 financial crises served any lesson, however, we expect African economies to be better prepared to face the current crisis. Expansionary demand management policies could help cushion the adverse impacts on jobs and growth. Unfortunately, most African governments will have little room for maneuver if sources of public finance such as ODA and trade taxes dry up. Development finance institutions will therefore have an important role to play in supporting government budgets during the crisis. On the other hand, Africa’s emerging partners, by helping to sustain commodity export volumes, can actually help minimize the impact of the crisis on the most vulnerable economies.

The African Development Bank is closely monitoring the unfolding events as it did in the past to help alleviate adverse impacts on regional
member countries. During the 2008/09 crises the Bank put in place a successful Trade Finance Initiative, with an initial endowment of USD 500 million, and contributed a similar amount to the Global Trade Liquidity Program (GTLP). The African Development Bank is currently developing an African Trade Finance Risk Sharing Facility (ATFRSF), which involves a risk sharing arrangement between the Bank and a confirming bank to facilitate trade flows in Africa. The Bank will assume a higher share of risk to promote trade in strategic areas such as fragile states, longer tenors and intra-African trade. The Bank will also continue to deploy quick disbursement instruments in order to meet the urgent financing demands of its regional member countries during any future crisis.
References

Bloomberg, 1 September 2011. “BRICs No Cure for Global Economic Growth”.


Figure A1 Shares of EU and EU+US in African countries’ exports (2008)
Figure A2 Foreign banks’ dominance in Africa in 2005

Note: A South bank is a foreign bank incorporated in a developing or emerging country. Non-South Banks are all other banks. Source: Authors’ calculation based on Claessens et al. (2008).
Managing Food Price Volatility for Improved Food Security in Africa

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1 Background

The last five years has ushered in a new era of food price volatility. Not only have fluctuations in food prices increased, but they also affect a broader range of products (Figure 1 and 2). For example, the price volatility of rice has increased by around 70% over the previous five years, while that of wheat has more than doubled. Since 2010, food prices have been on the rise, and by mid-2011 the price of some food products exceeded those in the 2007/08 crisis. While a repeat of the global food crisis is unlikely, Africa remains extremely vulnerable – as illustrated by the recent crisis in the Horn of Africa (Box 1).

Figure 1 FAO food indices 2000-2011

Over the medium term, this volatility is persistent. A whole series of factors are combining to generate persistent volatility, including supply shocks, high oil prices, bio-fuel production, exchange rate fluctuations, a shift to just-in time inventory management, and of course speculative behavior. Between 2006 and 2008, speculators, often structured as commodity index funds, held 65% of long maize contracts and 80% of wheat contracts.

In Africa, these factors are exacerbated by inadequate infrastructure, incomplete and inefficient markets, recurrent conflicts, the small scale and low productivity of most agricultural ventures, and the high
vulnerability to climate change. The continent’s modest 2% annual growth in food output, compared to population growth of 2.4%, and shift in consumption habits also compound the issue.

This brief analyses Africa’s vulnerability to food price volatility and discusses strategies available for improving food security on the continent.

**Figure 2 Implied volatility of selected food commodities**

Source: FAO Food outlook (November 2010). Implied volatility measures deviations in the price of futures contracts from their underlying expected value. It provides an indication about market’s expectation of future movements in commodity prices.

### 2 Why should Africa care about increased food price volatility?

Rising food prices can have devastating effects on the food security and the long-term welfare of African households. Across the continent, on average, 45% of the population is still living on less than USD 1 a day. Buying food consumes between 50% and 80% of the typical household budget while income elasticity of demand for food in Africa is about 50%. In 2010, 30% of the world’s undernourished people lived in sub-Saharan Africa (Figure 3). Other factors are compounding the pressure. The recent debt crisis in Europe is likely to translate into lower remittance flows, reduced demand for African products and decline in official aid flows. This further reduces the capacity of households to cope with rising food prices. It is estimated that USD 44 billion is needed each year to achieve food security on the continent.

**Box 1 Famine in the Horn of Africa**

Somalia, Kenya, Djibouti and Ethiopia are acutely vulnerable to persistent drought. In July 2011, over 12 million people in the Horn of Africa are in need of emergency assistance, of which 3.7 million are in Somalia. Unfavorable weather conditions have combined with worsening conflict to produce a sharp decline in food production. The fall in cereals production has driven prices to levels higher than those of 2008 – in the case of red sorghum and white maize prices increased up to 240% and 154% respectively, across regions. According to the situation report published by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) on August 18th, the situation is likely to worsen in Kenya.

The OCHA has appealed for an emergency fund of at least USD 2.5 billion, of which 53% had been funded so far. Several governments, with the support of over 100 aid organizations, have launched numerous initiatives to alleviate the worst impact of the crisis. The African Development Bank (AfDB) approved in January 2011, a USD 655,000 emergency relief assistance grant for Somalia and recently announced a USD 300 million commitment in the Intergovernmental Authority on Development (IGAD) region between 2011-2013 to support long-term programs aimed at enhancing resilience in the region through water and agriculture operations.
Increased volatility has undermined Africa’s prospects of meeting the Millennium Development Goal of halving the rate of undernourishment by 2015. At present, only a few sub-Saharan African countries such as Ghana, Senegal, in addition to North Africa, are on track to meet the target. Central Africa has even experienced increasing levels of undernourishment, mainly as a result of the deteriorating situation in DRC.

Rising volatility also has implications for macroeconomic stability, as Africa imports a quarter of its food. Africa remains a net importer of cereals and oil seeds, with the main staples wheat and rice generating the largest deficits (Table 1). For instance, as of 2010, North Africa produced only half of its consumption needs (see Table 2 in the annex). The 2008 food crisis contributed to a USD 8 billion increase in Africa’s import bill for grain and oilseeds. This is equivalent to nearly 20% of the total ODA received by Africa in 2008. The impact of these price swings on national budgets is exacerbated through widespread use of food subsidies. The cost of these subsidies in Egypt and Tunisia stood at 1.8% and 2.1% of their respective GDP in 2008. Poor macroeconomic performance, especially inflation and lack of fiscal space, compound this vulnerability.

Food price volatility is not just an economic problem – it is also a serious political challenge. As rising food prices push people further into poverty and hunger, desperation could trigger widespread political unrest, threatening the stability and even the viability of political systems across Africa. There is already evidence that high food prices have let to rioting by people with little to lose. African countries without strong traditions of democracy are likely to find it very difficult to manage these tensions.

Table 1 Africa’s simplified commodity current account for selected food commodities (2008-2010)

<table>
<thead>
<tr>
<th>Grains and oilseeds</th>
<th>Year 2008</th>
<th>Year 2009</th>
<th>Year 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Import</td>
<td>Export</td>
<td>Import</td>
</tr>
<tr>
<td>Corn</td>
<td>2.65</td>
<td>0.41</td>
<td>2.27</td>
</tr>
<tr>
<td>Wheat</td>
<td>10.6</td>
<td>0.11</td>
<td>7.05</td>
</tr>
<tr>
<td>Soybean oil/byproducts</td>
<td>3.06</td>
<td>0.13</td>
<td>2.22</td>
</tr>
<tr>
<td>Sorghum</td>
<td>0.12</td>
<td>0.03</td>
<td>0.08</td>
</tr>
<tr>
<td>Palm oil</td>
<td>2.83</td>
<td>0.22</td>
<td>2.13</td>
</tr>
<tr>
<td>Rice</td>
<td>13.3</td>
<td>0.86</td>
<td>10.58</td>
</tr>
<tr>
<td>Total grains and oilseeds</td>
<td>32.56</td>
<td>1.76</td>
<td>24.33</td>
</tr>
</tbody>
</table>

Source: Authors’ calculation using data from AfDB Statistics Department and COMTRADE database.

Food price volatility is not just an economic problem – it is also a serious political challenge. As rising food prices push people further into poverty and hunger, desperation could trigger widespread political unrest, threatening the stability and even the viability of political systems across Africa. There is already evidence that high food prices have let to rioting by people with little to lose. African countries without strong traditions of democracy are likely to find it very difficult to manage these tensions.

Figure 4 Food prices and social unrest in Africa

Source: Adapted from Lagi et al. (2011). Vertical lines correspond to beginning dates for food riots, while overall death toll are in parentheses.
3 Strategies for managing food price volatility

African countries have applied different strategies to address the problem of commodity price volatility. Experience suggests that a combination of policies is likely to be most effective, and that solutions need to be adapted to the local context. For instance countries that have the potential to grow crops locally, and those growing very specific food products (e.g. the Ethiopian Teff) should seek to address structural inefficiencies in their agricultural policies in order to reduce both domestic volatility and exposure to international volatility. Conversely, countries that have no potential to grow locally-needed staples should seek to reduce exposure to international price volatility since there is less scope for addressing volatility through local production. Success also requires measures across all links in the value chain. This section discusses the range of policy options and strategies available to limit the impact of food price volatility on food security. Some of these policies have been recently supported by the G-20 agriculture ministers during their last meeting in Paris (Box 2).

3.1 Improving domestic food supply

The development of Africa’s agriculture has been plagued by limited access to finance, low productivity, lack of capacity and vulnerability to climate change. The most basic strategy for reducing food insecurity is to address bottlenecks across the entire value chain, to unlock Africa’s agricultural potential. There is an urgent need for innovative solutions. For instance, finance could be provided through value chain lending, private equity funds, and guarantee schemes. Several African countries, including Zambia, Malawi, Kenya and Tanzania, have introduced input subsidy programs to support small producers. While Malawi’s experience is often cited as a success story, Zambia’s program had only limited effects on food security because of poor targeting and inefficient use of fertilizers. Similarly, advances in biotechnology could be leveraged to enhance productivity. Guinea and Mali, for example, have been successful in improving their staple food crop by introducing new seed varieties. Achieving food self sufficiency also requires investment in storage, processing and distribution infrastructure, as well as close attention to the issue of waste management.

3.2 Enhanced market information

Timely and reliable market information on current and projected demand, stocks and crop supply could reduce uncertainty and prevent panic-driven market movements. The Famine Early Warning System

Box 2 Outcome of the G-20 agriculture ministers meeting in Paris

The last meeting of the G-20 agriculture ministers held last June in Paris stressed the need for (i) improved agriculture production and productivity, (ii) Enhanced market information and transparency, (iii) More efficient international policy coordination, (iv) New and enhanced risk management tools and (v) Closer monitoring of agricultural commodities derivatives markets. The ministerial declaration provided support to several existing initiatives and announced the official launch of new initiatives including, the International Research Initiative for Wheat Improvement (IRIWI) to coordinate research efforts on wheat, the Agricultural Market Information System (AMIS) to ensure improved market data on key crops, the Global Agricultural Geo-Monitoring Initiative to provide AMIS with weather and crop forecasts data, the High level Panel of Experts of the Committee on World Food Security (CFS) and the Rapid Response Forum to improve policy coordination and coherence, and the Agriculture and Food Security Risk Management tool-box to help stakeholders in the food industry assess risks and manage them. The action plan also called for a feasibility study for a targeted emergency humanitarian food reserves system, more efforts to ensure enhanced regulation and supervision of agricultural financial markets and close monitoring of the action plan commitments.

Source: Ministerial declaration, action plan on food price volatility and agriculture.
Network, which currently provides food vulnerability data for 24 African countries, is an example of this kind of measure. Other proposals along these lines include the AMIS, an International Food Agency to report on international stock levels, and an Early Warning System to detect price abnormalities and shortfalls in demand. While these initiatives are still at early or concept stage, they hold considerable promise for countering food price volatility. However, the multiplicity of stakeholders involved in the food industries and the shortage of information on stock holdings make their implementation very challenging.

3.3 Risk management instruments

African producers and buyers use commodity derivatives to hedge against adverse market movements. International markets such as the Chicago Board of Trade and a small number of African markets (e.g., the South African SAFEX and the African Mercantile Exchange in Kenya) offer derivatives on food commodities. The credit exposure to these derivatives could be managed through risk-sharing facilities such as the Global Agricultural Price Risk Management Facility recently launched by the IFC. This is likely to extend the outreach of hedging products to market participants in Africa.

At present, African buyers and producers make very limited use of derivatives to manage food price volatility. This reflects the small scale of agricultural businesses, lack of capacity, inappropriate market infrastructure and inefficient regulatory frameworks. An integrated risk management strategy is therefore needed to address these barriers. The existence of a well functioning spot market is also necessary for the success of an African derivatives exchange.

This calls for the establishment of more organized commodities markets such as the Ethiopia Commodity Exchange (Box 3). Exposure to food price volatility could also be managed through innovative financial instruments such as commodity swaps linked to a loan, weather derivatives and catastrophe bonds. Similarly, innovative solutions could be used to improve operators’ access to risk management tools (Box 4).

3.4 Limiting speculation through regulatory reforms

Reduced volatility could be achieved through stricter regulation on speculation activities. This includes larger margin requirements, enhanced disclosure for Over the Counter operations and higher delivery rates on forward contracts. However, stricter regulation should not

Box 3 Ethiopia Commodity Exchange (ECX)

Ethiopia Commodity Exchange (ECX) was launched in 2008 to link all market actors in the food industry. Coffee, sesame, maize, wheat and pea beans are listed commodities on ECX. Currently, ECX contracts involve largely spot trading. Planning is at advanced stage to offer future and forward contracts trading. ECX provides a safe and reliable End-to-End system for handling, grading, and storing commodities, matching offers and bids for commodity transactions. ECX offers also warehouse and receipt services; central depositary trading, clearing and settlement and market data. Remarkably, ECX is using warehouse proceeds as collateral for loans, an innovative way of increasing farmer’s access to credit. To address the effect of financial speculation, prices are kept within 5% corridor over a ten-day period. As of July 2011 ECX has covered over 2.4 million smallholder farmers and facilitated USD 1.4 billion in trade value.

Source: Alemu and Meijerin (2010) and ECX website.
jeopardize the important price discovery function offered by futures contracts. Addressing the problem of speculation also requires international harmonisation in order to avoid regulatory arbitrage.

3.5 Trade facilitation

Lower price volatility could be achieved by more efficient trade links, so that shortfalls in some countries could be offset by excess production in others. This could be accomplished by limiting the use of import and export restrictions. In Africa, most countries already apply low tariffs on basic foodstuffs. Hence, a global response should rather seek to reduce the use of export restrictions. Indeed, while export restrictions can help address short-term volatility, over the longer term they are likely to translate into higher volatility, since they reduce the incentive to invest in agriculture and destroy trade links. Trade flows could also be strengthened by establishing efficient market facilitators. For example, a Grain Clearing House Arrangement to guarantee contract delivery or a Food Import Facility to soften the financing constraint might prove viable options for Africa. However, such facilities are mainly for responding to emergency situations, rather than managing on-going price volatility.

3.6 Market stabilisation schemes

Stabilisation schemes have been implemented at various levels (national, regional and international) and in various forms, including buffer stocks. International Commodity Agreements (ICAs), for example, were established to stabilise the international price of selected commodities, including wheat and cocoa. Most ICAs failed because of the difficulties with accurately assessing required stock levels and the reference price for interventions, as well as lack of funding. Experience shows that such schemes are more suitable for stabilising short-term price variations than long-term volatility.

4 Policy recommendations

Use and facilitate management of food prices volatility through risk management instruments. This would require measures to develop African derivatives markets, and improve access to international markets where this is not a viable option. Given the small scale of most African economies, a regional or continent-wide initiative might be more suitable. The African Development Bank could take the lead in creating an African fund for food stability to support interventions on...
derivatives markets during periods of high volatility, and to build virtual food reserves aimed at reducing disruptions in supply and price spikes. The fund could also offer advisory services to help countries mainstream risk management into their agriculture development policies and build capacity in this area. Access to insurance products should also be fostered. This could be achieved by allowing low-income countries to tap into concessional funds to buy weather insurance, or by offering risk-sharing facilities to manage the underlying credit risk.

Develop early warning mechanisms and contingency plans for Africa. A recent report jointly published by leading institutions involved in food issues concluded that “policy responses were mainly ad hoc in nature, that some decisions were taken hastily, and that measures were somewhat inconsistent and largely uncoordinated at international level”. Development Finance Institutions and African countries should develop a contingency plan for Africa, identifying early warning mechanisms, defining the roles and responsibilities of different institutions, and setting out actions to be taken under different scenarios. Coordination should be through a single unit to ensure policy coherence.

Support provision of timely and accurate information on stock holdings and market prices, to guide market interventions. This includes additional support for the Agricultural Market Information System initiative, including capacity building programs and development of public-private partnerships. Improve local supply by addressing barriers across the entire value chain. This calls for innovative sources of finance, capacity building programs, risk management tools, enhancing resilience to climate change and leveraging advances in agricultural biotechnology to improve productivity and yield. Where domestic markets are too small, regional initiatives may offer the best option.
References


Torero, M., 2011, Alternative mechanisms to reduce food price volatility and price spikes, Science review #21, Foresight project on global food and farming futures.


### Table 2 Cereal balance (values in Thousand Tons) 2010/2011

<table>
<thead>
<tr>
<th>Regions</th>
<th>Thousand tons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cereal Production</td>
</tr>
<tr>
<td>East Africa</td>
<td>36,672</td>
</tr>
<tr>
<td>Central Africa</td>
<td>6,571</td>
</tr>
<tr>
<td>North Africa</td>
<td>37,444</td>
</tr>
<tr>
<td>Southern Africa</td>
<td>31,520</td>
</tr>
<tr>
<td>West Africa</td>
<td>51,829</td>
</tr>
<tr>
<td>Africa</td>
<td>164,036</td>
</tr>
</tbody>
</table>

Source: Authors’ calculation using data FAO GIEWS 2011. Cereal balance is defined as domestic production minus domestic food and non-food consumption.

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1. FAO (2010).
3. UNDP (2010).
5. Lagi, Bertrand and Yarn (2011).
7. Commodity Swap linked to a Loan is a loan structured such that repayments (increase) decrease when the market price moves up (down). Weather Derivative is a financial contract that offers protection against poor harvests triggered by adverse weather conditions. The contract is triggered by predefined levels of rainfall, snow, or temperature. Weather index insurance provides similar coverage against natural hazards. Catastrophe bonds are fixed income instruments where principal is forgiven if a set of adverse pre-defined events such as natural disasters are observed. The issuer will use the foregone principal to fund emergency relief.
8. (Torrero, 2011).
Rapid change and increasing uncertainty have become features of the global economy. They have important bearing for the development and management of African economies. It is against this background that the Development Research Development of the African Development Bank is issuing the Africa Emerging Issues Series. The target audience includes Senior Management, staff of the Bank, policymakers in RMCs, and the entire development community. The series are not only meant to be at the frontiers of knowledge but also to guide policy and stimulate further policy debate. Contributions (in electronic Word format) to the series are invited and should be addressed to:

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