United Nations
Department of Economic and Social Affairs

Report on the Project LINK Meeting

12-14 November, 2007
United Nations Economic Commission for Africa
Addis Ababa, Ethiopia

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1. Introduction and Opening of the Meeting

The Fall 2007 Project LINK Meeting was held from November 12-14 in Addis Ababa, Ethiopia,, co-hosted by the United Nations Department of Economic and Social Affairs (DESA) and the United Nations Commission for Africa (ECA). Almost 80 participants from over thirty countries attended the meeting. The agenda of the meeting comprised three main sessions: the global and regional economic outlook; a special focus on African economies; and macroeconomic modelling experiences in developing countries. This document summarizes the content of the presentations and discussions.

The LINK Global Economic Outlook prepared by the Global Economic Monitoring Unit, DESA for this meeting, the LINK Country Reports prepared by country participants, and most of the documents presented at the meeting are available on the United Nations website (http://www.un.org/esa/policy/index.html) and the Project LINK Research Centre website at the Institute for Policy Analysis at the University of Toronto (http://www.chass.utoronto.ca/link/).

Mr. Hakim Ben Hammouda (ECA) opened the session on behalf of Mr. Abdoulie Janneh, Under-Secretary-General and Executive Secretary of ECA. He welcomed the participants and highlighted the current positive developments in Africa and the challenges that need to be addressed if such achievements are to be sustained. He viewed the organization of the LINK meeting in Africa as a window of opportunity to promote economic research on issues of foremost importance to the continent.

Mr. Rob Vos (DESA) thanked ECA for hosting the meeting and said he considered this gathering part of ECA's efforts to strengthen ties with other UN entities in preparing jointly the World Economic Situation and Prospects (WESP). He then briefly highlighted the strong growth performance in Africa and expressed a keen interest in attending the two special sessions on Africa. He concluded by underlining the risks posed by the recent global financial turmoil to the global economic outlook.

Mr. Peter Pauly (University of Toronto) recalled that it was the first time the LINK meeting was convened in a part of Africa outside of South Africa. He noted the critical timing of the meeting, given the uncertainties in global financial markets and the risks those uncertainties pose to the global economic outlook. He also noted the timing in regards to the renewed focus on the development of Africa, with the proliferation of international initiatives in favour of the region.

Mr. Abdoulie Janneh (Under-Secretary-General and Executive Secretary of ECA), addressed LINK participants latter in the meeting. He expressed his sentiment that the deliberations of the meeting would contribute to the debate of how the UN could better support Africa. He underscored areas where significant progress would help place the region on the path of strong and sustainable economic growth. On the one hand, continued progress in political and economic reforms is crucial, and the establishment of the African Peer Review Mechanism constitutes an important step toward improving political and economic governance in Africa. On the other hand, he felt that such domestic and regional efforts should be complemented by increasing support from the international community in terms of aid and market access.

2. Global Economic Outlook and Regional Outlook

2.1 Global Economic Outlook

Mr. Rob Vos (DESA) summarized the forecasts and downside risks highlighted in DESA's *Global Economic Outlook*. He observed that world growth is expected to be somewhat robust in 2008, but declining to 3.4 per cent or 4.9 per cent (PPP). Yet, there are serious downside risks to ponder: a more severe slowdown in the U.S. and sharper and disorderly dollar depreciation. Were such risks to materialize, he warned that the implications for the rest of the world would be significant.

Against this backdrop, developing countries' economic growth is sustaining the pace of global growth, with total contributions to global growth rising to above 45 per cent of the total, measured at market exchange rates, and above 60 per cent of the world total measured in PPP terms. Yet, it seems doubtful that a the greater share of growth in developing economies can be taken to signify a potential decoupling from the US, as growth patterns seem to be strongly determined by trade and financial linkages.

From the perspective of trade, there is increasing evidence that the demand arising from the U.S and from the other industrialized countries remains the main driver of export performance in the developing regions. From the perspective of financial linkages, it could be argued that the recent financial turmoil that originated in a small segment of the mortgage market in the U.S. has indeed spread with significant damage to other financial centres around the industrialized world. This has the potential to severely disrupt global financial stability and impact on the real global economy.

Moving to region-specific growth patterns, the expected slowdown of the U.S. economy, instigated by the recession in the housing sector and weaker consumer demand, will spillover to other industrialized economies. Yet, growth in the Commonwealth of Independent States and countries of South Eastern Europe will remain relatively robust, though decline moderately. Among the developing regions, the slowdown will be most felt in Latin America and the Caribbean and in developing Asia, but less in Africa where exports of primary products and energy are expected to help maintain a healthy rate of growth.

Turning to trade and financial patterns, world trade growth is still twice as fast as output growth, both in volume and value terms. Regarding value, the striking fact is the rapid rise of oil prices, while most commodity prices have risen markedly as well. These price trends have played to the benefit of the developing regions, where yield spreads have also been narrowing in the last quarters, despite a perceptible widening during the mid-year global financial turmoil. As a result of favourable trade and financial performance in developing regions, net financial transfers from the developing countries to the main financial centres continue to increase, leading to a huge accumulation of external reserves in these countries, far above what is considered necessary for precautionary reasons.

Mr. Vos concluded the presentation by noting the uncertainties in the market, which could impact on the forecasts, all of which are on the downside. The risks in the market are related to a more severe crash of the housing markets, in the United States and other developed regions, a hard landing of the dollar and record-high oil prices. Against this background, the policy challenges are to: i) prevent a hard-landing of the dollar, even if this is not a sufficient condition to avoid a global slowdown, ii) help to achieve a gradual adjustment of both deficit and surplus countries by internationally coordinated global demand management, and iii) obtain a more decisive commitment from multilateral organizations to achieve such a greater international coordination, since little progress has been achieved in recent Breton Woods meetings.

Mr. Hans Timmer (World Bank) presented World Bank's global outlook, noting that the future of Africa is promising. The continent has achieved 5 per cent growth in the last 5 years, with more than 50 per cent of the countries growing at or above this rate. Per capita GDP has increased as well. He expressed that the continent's prospects were bright, and predicted that 10 years from now Africa would be a major player in the global economy. Such a reversal in fortune would occur in part because other developing regions are expected to be hit by production capacity and environmental constraints and because of improved policy environment in Africa.

Regarding the global economy, the slowing of US import demand is a major issue, which has been offset to some extent by the continued strength of imports from the developing world. Thus, the process of global imbalance unwinding has already started, and a globally coordinated policy action may not be needed. The recent significant global financial turmoil, with central banks intervening to calm the markets, the further depreciation of the US dollar, and rising commodity prices are all part of the correction process, which can be painful. The decline of the US dollar has in part instigated a rotation of growth away from the US to other parts of the world, and has led to US imports growing by only 3 per cent while US exports have grown by 20 per cent.

The biggest risks to growth are not those associated with asset backed securities, but rather with exchange rate volatility. There are many financial problems, with financial companies going bankrupt, but for developing countries exchange rate volatility is the major danger. The Baltic countries and Bulgaria, for instance, have had problems with their peg to the US dollar, and there are similar problems in some of the developing countries.

There are some developments that point to the rotation of growth. First, US imports are closely related to US investment, and it is the latter rather than the exchange rate that is a key to the rebalancing. Housing investment has slowed, as has overall investment, and then imports started to decline, and this started as early as 2006. Yet it is too early to conclude whether there was decoupling. Second, it is clear that as High-Income Countries (HIC) imports have declined, so have Low-and- Middle-Income Countries (LMIC) exports. That implies that decoupling is at the GDP level not at the trade level. Third, LMIC imports have risen in tandem with HIC exports since 2006, so there has been a strong Asian dynamic. This suggests that developing countries are constrained by domestic issues, not by the external situation.

The financial turmoil has so far had limited impact. The US has slowed sharply, Europe has slowed moderately, but there has been limited impact on emerging economies. Similarly, the impact on sovereign bonds has been limited as opposed to the impact of previous similar crises. The US current account balance has turned around and started to narrow, due to the slowdown of US domestic demand and the increase in exports.

The presentation concluded by noting the major downside risks for the global economy. The depreciation of the US dollar could become a free-fall. The appreciation of the Euro is well known, but Brazil's currency has appreciated by 20 per cent, Turkey's by 20 per cent and India's by 12 per cent. These developments have been driven by a search for yield, and capital flows driven by such dynamics could be dangerous. Another risk is increased bank exposure to foreign debt, which poses potential systemic risks. Equity markets posted large gains in emerging markets due to the easing of monetary policy in the US, and this was unsustainable. Commodity markets have been boosted by the fall of the US dollar, but this has also been leading to uncertainty in financial markets. Fundamentals are against commodity prices at such a high level, but financial investors are important for short-term price developments in oil and metals. Finally, inflation is strong but is expected to slow down in the outlook.

Discussants

Mr. Leonce Ndikumana (ECA) discussed the implications of the risks underscored in the global economic outlook for Africa. He noted that growth recovery has been substantial in the region, but falls short of what is required to achieve the MDGs. These impressive growth rates have been driven in large by commodity sectors. That alone does not ensure a sustainable kick-off of these economies.

He also pointed out that a hard-landing of the dollar has major implications for developing regions. There may be important opportunity costs associated with a steep depreciation of the US dollar, particularly given that reserves have doubled over the last years compared with the average during the 1990s.

Further, there is a risk for a significant drop in commodity prices. Despite the rise of African exports in recent years, the region accounts for a mere 3 per cent of global trade volume. Since the growth recovery is dependent on commodity exports, whose prices are very volatile, any rapid decline in commodity prices could hamper economic growth on the continent.

To have sustainable trade-driven growth, export diversification is required. Thus, looking into the future, the challenge is to take from the current commodity export boom towards a meaningful increase of capacity and productivity, especially in infrastructure, energy supply and the development of a solid manufacture basis. Translating this challenge into macroeconomic policies for growth requires the adoption of flexible macroeconomic frameworks, where the targets are measured in ‘real’ outcomes such as economic growth, employment creation, and the creation of sustainable fiscal policy spaces so that revenues are structural and expenditures are shifted to address the pending social and infrastructural needs.

Mr. Peter Pauly (University Toronto) noted the fairly robust growth outlook, with developing countries remaining strong and developed countries slowing. He wondered, however, whether the fan chart expressing the confidence interval around the outlook should be asymmetric, as he felt that the more serious concerns are to the downside. He added that if the adjustment process noted by Hans Timmer seems correct, then something new is starting to happen over the last two years already which may hint into a global slowdown. One channel is investment demand in the U.S., which has underscored the growth of global output. Another trigger may be the lack of attractiveness of dollar assets for non-U.S. investors, as the U.S. may be losing the safe-heaven character of the last years.

The risks are already there. There is, for instance, about twice the volume of sub-prime loans about to call next year than what has triggered the financial turmoil this summer. The exchange rate volatility is also an indicator of the uncertainty. International investors will, in the coming two or three months, face a higher risk-premium. Also, currency composition of the reserves held by surplus countries will start to change.

Although pointing into the direction of an unwinding of global imbalances, these prognoses also carry the implication of perhaps serious disruptions to the global economy: a rise of volatility, a fast speed (hard-landing) of the adjustment, and a likely overshooting. The current developments could also instigate greater pressures towards protectionism in the U.S. It is important to consider that part of the recipe in domestic rebalancing in major developing countries and more transfers between developing regions. FDI inflows from China to Africa are an encouraging story, but additional development in the domestic side of African economies is required to overcome institutional and infrastructural constraints. Besides, the mere $1 billion of FDI Chinese investment in Africa is still a very low number, in absolute terms and in relative terms compared with Chinese investment elsewhere.

2.2 World Commodity Markets

Mr Robert Kaufman (Boston University) via video presented the situation in world oil markets and analyzed the performance of the LINK oil model. He began by noting that oil prices have risen over the last three or four years, except for the temporary decline in prices that occurred at the end of 2006. Oil prices currently stand at unexpected and unprecedented high levels, heading towards 100 dollars per barrel. Although falling short of forecasting such a rise, he noted that the LINK oil model anticipated a slow but steady rise in prices, with some seasonal spikes and those prices are expected to stand around 70-85 dollars in nominal terms or 65-70 dollars in real terms by December 2007.

The LINK oil model has underperformed recently perhaps because the model focuses on medium-term trends and does not capture short-term price dynamics. That is to say that the recent large increases in prices may be related to growing speculation and political instability in the Middle East and political unrest in other major oil producing countries. Also, fundamental structural changes in the price equation might have happened, although the magnitude of such changes is still unknown. All these factors might have led to systematically underestimating oil prices. The Link Model's one-step ahead forecasts, however, compare favourably to alternative methodologies, such as future market prices and random walk models. Indeed, the Link model performs better than those approaches until the third quarter of 2007. Also neither of these models nor the average opinion of 17 market experts had predicted the price hike in the last quarter of 2007.

As for the futures market, stock movements display conflicting signals. On the one hand, there has been a rise of the length of forward options in OECD countries since 2004, which should mitigate price increases. On the other hand, stocks have changed inside the OECD in a way that may support price increases. US gasoline stocks, for instance, are currently way below their 2006 levels. Analyzing the difference between far-month and near-month futures contracts gives an interesting picture of the market. A positive value implies that the market is in contango, meaning that future prices are higher than near month prices, and negative values indicate backwardation, implying that future prices are below the near month price. There has been a dramatic shift from contango to backwardation over the last two months. That would imply lower prices in the Link Model and may also explain why stocks are very low. Incentives to hold stocks fade away, when far-month prices are lower than near-month prices. These developments open avenues for further research, and the next LINK meeting will provide an opportunity to report on the progress made on those interesting areas of research and on an Open Access Oil Model.

2.3 Recent trends of trade for developing countries

Mr Alfredo Calcagno (UNCTAD) presented the recent trends in terms of trade for developing countries. He stated that crude petroleum, minerals, ores and metals have been leading the recent steep increases in commodity prices, while the rising demand for biofuels has fostered important increases in vegetables oilseed and oil prices. Although strong demand from fastest growing economies such as China and India has sustained increases of food and agricultural raw materials prices, he suggested that the pace is modest as opposed to other commodities.

Although the manufacturing sector has been generating deflationary pressures on the world economy, opposite trends in commodity and manufacturing price dynamics have dramatically changed the trends of the terms of trade of many developing countries. Oil and mining exporters have been the main winners, while manufacturing exporters have seen their terms of trade deteriorate. The effects of these developments on agricultural exporters are mixed and determined by these economies' dependence on oil imports. Terms-of-trade changes have benefited mostly oil and metal producers in West Asia, Africa and Latin America. On the contrary, terms of trade have shown a small deterioration for other countries in sub-Saharan Africa and East and South-East Asia.

The impact of changes in terms of trade on domestic and national income depends on several factors, including the openness of the economy, and the distribution and the use of windfall revenues. There are large differences in the distribution of rents from extractive activities across countries and sectors, which are explained largely by differences in the role of state-owned enterprises and fiscal regimes. The ability of the State to capture a significant share of the rent has been insignificant in countries that privatized their national companies and relied on income taxes. However, governments of countries with large oil and mineral deposits have begun to review the regimes governing the distribution of rents in these sectors. New conditions should find a balance between promoting long-term investment and generating public revenue. Next to this concern, countries should avoid engaging in a race-to- the-bottom strategy when setting fiscal and environmental rules.

Mr. Hans Timmer (World Bank) commented on the presentation by Mr Kaufman. He agreed that short term volatility dominates oil and commodity price trends. Backwardation in oil markets implies a disincentive to hold stocks. As a result inventories are low, which makes the market extremely sensitive to shocks, as there is no buffer mechanism to absorb potential shocks. However, he opined that fundamentals in the market will call for a reduction in prices in the future.

Moving to the presentation by Mr. Calcagano, he wondered whether the terms-of-trade figures corresponded to a particular year. In such a case, this would be disturbing, as China has been a net oil-importer for the last five years. In addition, it is worth exploring second round effects of terms-of-trade changes, especially on GDP. Finally, any balanced approach in analyzing revenue-sharing agreements should take on board the risks taken by transnational corporations when investing in developing countries. In particular, the current arrangements allow developing countries to share some of the negative effects associated with weaker commodity prices. Such effects would affect developing countries even stronger if public-owned enterprises controlled the production.

In the general discussion, Mr. Rob Vos (DESA) suggested a decomposition of the effects of terms-of-trade changes between those driven by import prices and those caused by export prices.

In response to some of the questions raised during the discussion, Mr. Calcagno (UNCTAD) highlighted that changes in prices generate changes in the balance of power between the resource owners and the technology owners. So far, contracts have been biased towards the risk of low prices. Consequently, the recent gains associated with higher prices have been mostly reaped by transnational corporations. A compromise could be reached by using joint-ventures in which both countries and transnational corporations mutually gain or loose. Another policy suggestion is for countries to adopt variable taxation rates according to price ranges.

2.4 Regional Outlook

United States

Mr. Pingfan Hong (DESA) presented the outlook for the United States, which is based on the materials from the University Pennsylvania Quarterly model of the US economy and the Global Insight US forecast. He started with some highlights of the outlook for 2008: the housing slump is expected to continue, to drag the overall growth, which is forecast to be 2 per cent in the baseline; Both the household spending and business investment are expected to moderate; While inflation is expected to be below 2 per cent, the unemployment rate is expected to edge up slightly; The dollar will continue to depreciate vis-à-vis other currencies, by about 5 per cent, and current account deficit is expected to narrow measurably, as import demand will weaken; On the policy front, the Fed is expected to keep the federal funds rate at the current level of4.5 per cent, and the fiscal policy will be in a slightly expansionary stance, although there is policy space for more stimulus monetary and fiscal policy when situation get worse on expected;
The key risks for the US economy are associated with the degree of the housing downturn, the extent by which the dollar will fall, as well as how further oil prices would go up.

He elaborated on the downturn in the housing sector and the associated financial crisis. The latest data on housing starts to the lowest level since 1993. The burst of the housing bubble triggered a full-blown credit crisis during the summer of 2007. The subprime adjustable-rate mortgages (ARMs) represented the major risk. Financial innovations fueled the mortgage lending by securitizing mortgage loans and bundling them with other securities, such as traditional bonds and commercial paper, to form a new investment instrument, called collateralized debt obligations (CDOs), to sell to a broader array of investors. In parallel with a rapid expansion of the subprime mortgage debt, bank loans for leveraged buyouts in corporate sector also accelerated in 2006. Similar to the CDOs for mortgage lenders, collataralized loan obligations (CLOs) were invented for many private equity firms to finance their leveraged buyouts. CLOs package the loans and divide them into risk levels, then to sell to investors.

Hedge funds added another layer of risk and uncertainty to the already highly leveraged debt markets.

During the summer of 2007, when the rate of delinquencies for subprime mortgages reached all time high, investors and lenders found the value of the CDOs and CLOS they were laden was falling. Leveraged investors, such as hedge funds, were forced to liquidate their positions. The downgrades of subprime-related debt by the rating agencies also triggered selling by those institutions that were required to hold only higher-grade debt; and concerns that lenders and investors did not have accurate information about what in their portfolio also exacerbated the market situation. As a result, liquidity dried up, or a lender's strike.

The turmoil was also spread to markets in which securitization plays a much smaller role, such as corporate bond markets and equity markets. Many of the largest banks also became concerned about the possibility that they might face large draws on their liquidity. Inter-bank lending rates rose notably, and the liquidity in inter-bank funding markets diminished.

Central banks in major developed economies took a number of steps. The functioning of financial markets has since improved to some degree. However, conditions in mortgage markets remain difficult, with little activity for securitized subprime loans.

In the outlook, many subprime mortgages originated in late 2005 and 2006 will experience their first interest-rate resets in late 2007 and 2008 to much higher interest rates. Delinquencies on these mortgages are expected to increase further, boding for more stress in the financial markets at large.

The housing downturn is expected to increasingly spill over to household spending. Should house prices plunge, the impact on household spending and on financial market would be devastating, and as indicated by an alternative scenario, the US economy would fall into a recession.

Japan

The Japanese outlook prepared by **Mr. Kanemi Ban (Osaka University, Japan)** who could not attend the meeting, was presented by **Mr. Pingfan Hong (DESA)**. Mr Hong stated that GDP growth is expected to slow to 1.7 per cent in 2008 in Japan. Housing investment is expected to drop sharply, while business investment is forecast to pick up. Household consumption will remain stable, whereas net exports will be flat. Inflation is expected to continue to hover at 0 per cent, while unemployment will rise slightly. There is a question of how long the Bank of Japan will hold its policy rate at the current low level. The major risk to the outlook remains a potential US recession.

Growth in the 2nd quarter was slow, with business investment weakening. The question remains whether there will be a recovery in the 3rd quarter. The anticipated growth of 1.7 per cent in 2008 is very close to potential. There is considerable public sector drag due to a policy of debt consolidation. Private consumption is the main driver in the outlook, while investment spending is weak. Investment by large companies is increasing, but it is decreasing for medium and small companies. The housing sector will continue to be weak, although the decline in housing may be purely technical reflecting changes in regulations. Consumer confidence is declining but is higher than its 2001-03 level. The labour market has improved, but there are some recent weaknesses and wages are down. Inflation has yet to pick up convincingly, registering -1 per cent, so the decade of deflation continues. Land prices have fallen for 16 years, and are down 80 per cent from their peak. Export growth is slowing, declining to the US but remaining strong to China. The US dollar has fallen significantly against the euro but not against the Yen, so the Yen is at record lows against the Euro, and may test further lows.

Western Europe

Mr. Ray Barrell(NIESR) presented the outlook for Western Europe. He indicated that the recent financial turbulence would be short-lived, and that world growth would slow from 5.2 per cent to 4.7 per cent in 2008. The US will pick up a little, the EU will slow and Japan will remain at 2 per cent. Consequently, there is no expectation of a recession. Major risks include a further increase in risk premia, which could lead to a banking crisis.

The medium-term growth profile is determined by the supply side, with the growth of potential output generated by the evolution of labour productivity per man-hour and labour input, the average number of hours worked times total employment. In the US, labour productivity remains stable, but the labour input has been slowing significantly. In the UK productivity growth remains strong due to catching up, but the labour input is slowing slightly. In contrast, productivity has slowed in Germany, with some improvement in labour input. Similarly, productivity is expected to slow slightly in France, partly reflecting its already high level, while the labour input is expected to pick up slightly. In Italy productivity has been very weak but is expected to improve somewhat, while the labour input has improved but will slow somewhat in the outlook. The labour input depends on demographics, hours, participation, migration and flexibility. Labour productivity depends in part on the capital stock. The user cost of capital has been falling over the decade in the US, the UK, and Germany, which, if permanent, should raise the equilibrium level of the capital stock and thus potential output, but there are significant lags, and so far there has been little effect on business investment. In sum, the supply side explains much of the growth performance across countries.

Looking at the forecast, growth in the Euro area is expected to slow in 2008 to about 2 per cent, after a good performance in 2007. This is explained by the high oil price, the strength of the Euro and the housing market. At the country level, France is steady, Germany is slowing but only after a robust 2006, Italy will see some slowing, Spain will be slowing primarily due to the housing market, while the UK will be slowing due to the external sector. Inflation is higher than central bank targets in most countries, so that interest rate pressures remain upwards, but is lower than the target in the UK.

In the UK the 3rd quarter saw a downturn, but this has little to do with the recent financial market turmoil. Consumer spending has been remarkably strong, with the savings ratio falling to its lowest level ever. The household debt to GDP ratio has risen significantly, and is currently the highest in the G7. But consumption is expected to slow in the outlook.

Germany has seen a major turnaround, boosted by the strength of domestic demand, but net exports have also been crucial. Exports have been strong due to gains in market share. Unemployment has declined sharply, and the government budget has achieved balance. Labour market reforms led to a period of lower growth due to increased uncertainty, but growth has subsequently picked up.

France has shown little sign of improvement, growth is stable but low and in contrast to Germany, France has a declining global trade share. Demand is strong due to the public sector. Unemployment is the highest in the Euro area. The large public deficit is not expected to improve, which is a problem as there has been no consolidation at the top of cycle.

Italy is experiencing weak growth largely because of the external sector, and growth is expected to continue to be below 2 per cent in 2008. The problem is that the product mix is heavily weighted towards clothing, and the textile agreement has led to a major increase in foreign competition. However, there are many uncertainties over the export price numbers, so export volumes may be higher than reported. Budget measures should improve the outlook, but there is no major change in stance, and considerable uncertainty, regardless the debt to GDP ratio is expected to fall below 100 per cent.

Spain is most at risk from the financial turbulence. Its housing investment to GDP ratio, at 10 per cent, is the highest in the EU, and higher than the US's (6 per cent) and the UK's (3 per cent). Much of this has been driven by speculative activity. House prices have increased by 100 per cent since 1999, also the largest in the EU. In the outlook, house prices are expected to decline, housing investment to deteriorate, and consumer spending to slow. Growth is expected to be 2.4 per cent in 2008 after many years of very high growth.

The banking crisis may have serious implications, especially when risks are underpriced and borrowers cannot meet payments, especially as interest rates rise. Some countries are more vulnerable than others. Based on the ratio of household liabilities to household income, Ireland, Spain, Denmark and the UK seem to be more exposed to interest rate movements, while Germany and France are relatively sheltered. Shocks would be much bigger in the event of a banking crisis. A simulation of a global banking crisis was conducted, and this entailed a rise in a large number of risk premia globally - on $US assets, on investment, on corporate bonds, equities, deposit/lending spreads - coupled with a fall in housing investment and a decline in US house prices. Such a simulation indicates marginal trade effects, but significant financial contagion effects.

Economic in Transition and new EU members

M. Koparanova (DESA) presented the outlook for the economies in transition and the new EU member states. She started her presentation by highlighting the changes in the geopolitical environment that affected these economies in the past few years. She then briefly gave an overview of the economic performance of the transition economies, which included 27 countries at the onset of the transition from plan to market, and presented the outlook for the three sub-regions, constituting this group of countries, namely the new EU members, the economies in South-eastern Europe and the Commonwealth of Independent States (CIS).

The transition economies, as a group, have grown strongly in 2007, outpacing the world economy by a substantial margin. An important feature of the economic growth for this group as a whole is its demand-driven pattern. In the new EU members, growth remained strong in 2007, exceeding 6 per cent for a second consecutive year and even accelerated in some of the countries. This vibrant activity has been accompanied by weakening macroeconomic stability. Growth in the region is expected to slow to about 5.1 per cent in 2008, as the economies are facing capacity constraints and the aggregate demand is expected to cool down in line with slowing credit growth and consumer belt-tightening. Inflationary pressures continue to rise in this sub-group, as labour shortages drive wages up. The situation in the labour markets continues to improve, with unemployment rates declining further partially reflecting ongoing outward migration and also domestic job creation. The major downside risks to the outlook for the new EU member states include the possibility of a moderate growth in developed economies – in particular in the EU 15 – which will eventually lower exports from the new member states. Also, prolonged tightening of external finance is likely to adversely affect the countries in this sub-region, which have the largest current account deficits, such as the Baltic States, Bulgaria and Romania.

In the second sub-group of the economies in transition, those from South-eastern Europe, growth is expected to lose momentum in 2008 following measures to curb domestic credit growth in many of these economies. Improved consumer confidence in addition to rising real incomes continues to support growth, along with a strong rebound in investment activity and solid flows of inward FDI. Strong growth in output in 2007 has been accompanied by further disinflation, with the rate of consumer price inflation in the low single digits in most countries, except Serbia, and there are no signs of a possible reversal in the process of disinflation in 2008. The backside of these positive developments is the continuing widening of the external imbalances in most South-eastern European economies.

In CIS countries, economic activity has grown at the fastest pace since the beginning of transition, reaching a record-high of 8.2 per cent for the group as a whole. This expansion will continue in 2008, although its pace is set to moderate by about 1 percentage point. Next to this, there have been some changes in growth patterns in many of those economies, from export-led to investment-led growth. Robust domestic demand will persist as the main factor for growth, while remittances will continue to be an important source of financing for countries such as Armenia, Moldova and Tajikistan. While some improvements in the labour markets have been observed in several countries, inflation seems to be on the rise in most of those economies. Despite the overall optimistic outlook for this sub-region, there are some downside risks to those economies. Among those are steeper and more prolonged than expected slowdown of the world economy and the tightening of financial conditions.

During the general discussion, **Mr. W. Welfe (University of Lodz, Poland)** raised several issues. First, he pointed out the strong recovery of gross capital formation in Central and Eastern Europe and in particular in Poland in the past few years. This process has been supported by growing demand, which has been met by increased capacity utilisation and growing transfers from the EU Structural Funds. In addition, FDI has also underpinned robust investment growth. This process may continue, but a moderate slowdown of investment and GDP is expected in Poland in 2008. There have been increased pressures in the labour markets owing largely to the increase in nominal wages. Inflation is under control and monetary policy will remain neutral. The recent change in government is not likely to cause any major effect on economic development. In general, the economic outlook for Poland remains optimistic in 2008, although it is not as optimistic as in 2007.

Mr. Vladimir Salnikov (Centre for Macroeconomic Analysis and Short-term Forecasting, Moscow, the Russian Federation) mentioned that GDP growth in the Russian Federation accelerated recently at an unexpectedly stronger rate after several years of robust growth. This expansion has largely been driven by rising domestic demand. There has also been a shift in the growth patterns, from largely export-based growth to an investment-dominated pattern, despite high prices for oil and natural gas. In addition, there has been a shift in the focus of macroeconomic policies, from a macroeconomic stabilisation to a policy aimed at the development of specific sectors of the Russian economy. This approach has been supported by increased government expenditures, in particular investment programmes, and the setting up of development institutions, such as the Investment Fund, Bank of Development and Special Economic Zones.

Africa

Mr. Adam Elhirakia (ECA) presented the economic outlook for Africa. He noted that Africa has sustained an impressive economic performance in recent years. This has been instigated by continued commodity boom, improved economic and political governance, rising private capital flows and debt relief, strong export earnings, fewer occurrences of civil conflicts, especially in West and Central Africa, and auspicious weather conditions.

Although strong, growth has been unevenly spread across countries and sub-regions. Oil exporters have recorded much higher growth rates than oil-importers, and the fastest growing economies have mostly been oil or mineral-rich countries or/and countries emerging from conflicts. That is to say that economic activity continues to depend by and large on developments in commodity markets and political and security situations.

Africa’s fiscal balance has been positive in 2007, although that reflects mainly the situation of the thirteen oil-exporting countries. Fiscal sustainability remains a major concern for oil-importing countries, however. In particular those with the largest deficits are more exposed to recurrent internal and external shocks, which might force them to adopt deflationary policies. Such policies might lower growth and reverse the progress in achieving the Millennium Development Goals (MDGs).

Although inflation has been kept at historically-low levels, thanks to tight fiscal and monetary policies, consumer prices have increased more strongly in Africa than in most other developing regions. That is due in part to continued high oil prices. Also, in spite of posting surpluses, Africa's current account balance has decreased as a result of higher oil import bill. Current account balances widened in most oil importing and landlocked countries, thus posing risks to macroeconomic stability and growth prospects.

Many countries have experienced a real appreciation, impelled by rising domestic spending associated with increased aid, remittances and capital inflows. Continued currency appreciation can harm export growth and therefore constitutes a major challenge for these countries.

Despite debt relief initiatives, Africa's external debt remains high and unchanged at about US$ 255 billion in 2006 and 2007. While official debt declined considerably with the debt relief initiative, the debt owed to banks and other private creditors increased in 2007. There is a need for more debt relief and increased ODA. Next to these efforts, African countries should mobilize additional resources and private capital inflows and use external assistance to build up productive capacity and deliver public services. The short-term growth prospects are favourable, in the absence of major internal and external risks.

Mr. Clitus Dordunoo (ClayDord Consult, Ghana) outlined Ghana's economic performance in 2007 and prospects for 2008, both described as being consistent with the positive developments across the continent. Economic activity is forecast to expand by more than 6 per cent in 2007-2008, largely propelled by an expected strong expansion in the agricultural and services sectors. Annual average inflation rates continue to slow down, although they are still at low-double-digit levels. As a result, monetary policies have turned relatively expansionary, with credit increasing significantly. Despite this rather favourable economic outlook, Ghana continues to face a number of challenges. Among those are supply-side constraints, particularly in energy and infrastructure sectors, which limit any further growth acceleration. Also, continued improvement in governance is important if the country is to reach its growth potential.

Mr. Kodjo Evlo (University of Lome, Togo) indicated that the Togolese economy is recovering slowly from an almost two-decade-long sluggishness. Continued appreciation of the CFA Franc, the country's domestic currency, might hamper export growth, thus posing a serious risk to the current economic revival.

During the general discussion, Albert Musisi (Uganda) underscored the competing views between Ministries of finance and central banks on the macroeconomic impact of rising public spending, especially on real exchange rates. While Ministries of finance favour significant increases in public expenditure to relieve infrastructure bottlenecks and social needs, central banks tend to be more cautious. Following up on this comment, Adam Elhirakia, ECA, sided with the Ministries of finance and argued that poor and insufficient public service delivery and decayed and overstretched infrastructure clearly indicated that there is room for more increases in government spending.

East and South Asia

M. Shamika Sirimanne (UNESCAP) presented the economic outlook for the Asia-Pacific region, stating that this region is becoming the engine of global economy. She noted that the developing Asia-Pacific economies are set to grow at an impressive rate of 8.1 per cent in 2007 and that forecasts have been revised upwards from 7.7 to 8.1 per cent in 2007. China's investment-led growth is expected to reach 11.5 in 2007. The region accounts for over 30 per cent of global GDP and 58 per cent of global growth. That exerts strong influence on global trade, monetary policy and inflation.

In 2007 growth was been widespread and not only limited to the two biggest economies in the region, China and India. These two economies continued to grow at a blistering pace, despite efforts to avoid overheating. The services sector continues to be the engine in India, but industry is gaining strength as investment increases in the sector. Despite relatively high interest rates and appreciation of the currencies, domestic demand has been strong. Consumption is growing at healthy pace, and investment rates increased in several cases. Investment in South East Asia was hit in the crisis in 1997 and never recovered. After the 1997 crisis, the emphasis has been put on exports as a growth driver. Trading power tripled from 8 per cent in 1980 to 24 per cent in 2004. Exports have weakened somewhat since the second quarter of 2007, but domestic demand has picked up. Exports grew 17 per cent in 2007, compared to 22 per cent in 2006.A deceleration of the US economy could drag down growth in the region, especially in the more open economies. Yet, South Asia may not be affected as much as East and South East Asia, as the sub-region is much less dependent on exports.

Macroeconomic fundamentals are in good shape in the region. Inflation is still contained, despite rising food and oil prices. Tight monetary policy has been maintained in the region, except in South Asia, amid decreasing inflationary expectations. Currency appreciation has helped to relieve the impact of high oil prices. Inflation is a major concern in China, where excess liquidity associated with capital inflows has been contributing to inflationary pressures. Underlying inflationary drivers still worry policy makers in India. Dynamic economic growth and interest rates differentials have fostered capital inflows, generating important liquidity in the economy. Authorities have taken measures to control appreciation of the currency. Energy efficiency has increased. According to a simulation exercise, a 10 per cent increase in oil prices implied a 0.3 per cent decrease in GDP in 2005, and only a 0.16 per cent decrease in 2007.

Major economies in the region are set to record robust growth in 2008. The Asia-Pacific region is projected to grow at 7.6 per cent in 2008. Macroeconomic fundamentals have been sound. Fiscal deficits and inflation are under control in the majority of the countries, and net payments have decreased. That puts the region in a position to withstand a major external shock in the short-run. Nonetheless, there are some risks to the outlook. As larger economies increasingly rely on exports as a driver of economic growth, the risk of a global slowdown is a major concern. Domestic demand has not yet recovered to pre-Asian crisis level and surpluses in current accounts are still large in the region.

Short-term capital flows are now at historic highs and volatility has increased. There were already two corrections in 2007, in January and August. Good economic fundamentals have been driving inflows in many countries. But recent flows have been driven by less desirable factors. Short-term inflows have surpassed pre-Asian crisis levels. “Other investments” flows (mainly short term debt), which are mostly volatile and dangerous, are on the rise again. Speculative capital flows have increased driven by an excessive appetite for risk by global investors. Yen “carry trade” has boomed, reaching around $331 billion in 2007. This implies several challenges to economic policy.

Currencies in the region have suffered a relentless appreciation. Potential social costs cannot be ignored. Currency appreciation is taking a toll on the poor. Hardest hit sectors are the labour intensive, low end manufacturing, including, textiles and furniture, and high domestic-content primary sectors, such as agriculture. Foreign reserves have continued increasing. Initially, they were accumulated as a buffer against crises. Recently, central banks have been forced to accumulate further because of capital inflows. The problem is that those resources have important opportunity costs. Asset prices, including stocks and real estate, have increased in the last years, igniting fears that the bubble could burst anytime. Financial markets are not deep enough, and they never really took off, consequently investors have little choice if they wanted to diversify away from stocks or real estate. There are signs of tighter credit markets, associated with the fallout from the US subprime mortgage crisis and a credit crunch will hit the “sub-prime” borrowers hard in the region, mainly SMEs and less well-off households.

M. Cheng Weili (China) presented the economic outlook for China. Chinese growth has been robust, despite an expected slow down of the US economy. Investment, exports and domestic consumption are the driving forces behind such impressive growth. Export tariffs have increased and export incentives have been reduced. Regional integration is expected to play an increasingly important role in coming years. Intraregional trade currently accounts for 40-50 per cent of total trade, while the EU and the US each represent 15 per cent of the total. There is a difference in terms of the type of products exported. Intermediate products represent a significant share of the exports to developed economies, while final products account for much of exports to developing countries. Consumption is increasing, boosted by a growing middle class in Bangladesh, Sri Lanka and Pakistan. These dynamics will contribute to lessening the reliance on the US as the major market for Chinese exports.

During the discussion, **Mr Pingfan Hong (DESA)** argued that the negative investment growth was not necessary a bad development because excessive investment was to some degree responsible of the 1997 crisis. That is to say that the current relatively low investment rates in the region should not be set against their pre-997 crisis levels.

West Asia

Mr. Tarik Alami (ESCWA) presented the economic outlook for West Asia. Before discussing the outlook he explained that ESCWA’s West Asian country classification is slightly different than the one used for the LINK, which includes Turkey and Israel, but excludes Egypt. However, to be consistent with LINK's format, he excluded Egypt from the analysis. He also noted that instead of using Brent oil prices, ESCWA's estimates are based on OPEC basket prices, which could lend some explanation to why the ESCWA's regional estimates are slightly lower than UN/DESA figures.

Mr Alami showed that the outlook for West Asia is in its 5th consecutive year of growth above 5 per cent, a trend that will continue into 2008 as growth is expected to be 5.5 per cent. This is still below the average for developing regions and is explained by the performance in countries in conflict. In terms of per capita income, there are still wide gaps between the subregions, i.e. the GCC economies and the more diversified economies in the region. Growth in the GCC region has averaged 5.7 per cent in 2007 compared to 4.0 per cent in the more diversified and conflict affected economies.

In the GCC economies there is strong performance in both oil and non-oil sectors. The development of non-oil sectors has been contributing to the stabilization of performance in the oil rich economies. Consequently, there is a broad-based economic expansion. In 2008, high oil prices are expected to continue, along with an increase in government spending. The business climate has improved substantially and this subregion has been attracting increasingly more FDI. Current account and fiscal account surpluses are expected to remain high, in spite of high fiscal expenditures. In the more diversified economies, growth has been below potential in all economies with the exception of Jordan. The regional outlook for 2008 remains positive, but growth is expected to moderate slightly in the GCC from 5.7 per cent in 2007 to 5.6 per cent in 2008. In the more diversified economies growth is increase to pick up to 4.8 per cent.

The short-term challenges faced by the region relate to inflation and monetary/exchange rate policies. Inflationary pressures have been rising but are the result of varying factors throughout the region, both internal and external. In the United Arab Emirates, inflation has risen by 9.3 per cent in 2007, driven mainly by rents and food prices. Although high inflation results mainly from domestic factors, the weakness of the dollar is also leading to imported inflation in many countries, and the rise in commodity prices is reinforcing pressure on domestic prices.

This has created a dilemma for monetary policy. The money supply is also growing rapidly in some economies, which when accompanied by high growth and increasing inflationary pressures would demand monetary tightening measures. Yet, because of the fixed exchange rate with the dollar, many economies in the region are obliged to follow US monetary easing policies. This has led to some speculation about the possibilities of a currency revaluation in the region. However, when the Fed cut rates in October, all countries followed suite.

The medium-term challenges for the GCC economies are to promote economic diversification and improve human capital capacities. There is a need to reduce dependency on oil and gas as income sources mainly due to the volatility in prices. Also, the region depends heavily on imported labour for high skilled and technical jobs;

therefore improvements in quality of education are needed to bring more qualified nationals into the labour force.

In the more diversified economies, there are limited spillover effects from the oil boom in the GCC economies, particularly in Syria and Yemen. Consequently, in the medium term these economies need higher and more sustainable growth; and due to their large and growing youth populations, they need to create more opportunities for employment generation.

In the conflict affected countries, economic activity has expanded. Growth has improved in Iraq due to international welfare assistance and high oil prices, while in Palestine GDP has declined over the past two years and the dependency on external financing has been increasing. The outlook for 2008 is for improved growth in this sub-region.

Latin America and the Caribbean

Mr. Andre Hofman (ECLAC) presented the economic outlook for Latin America and the Caribbean. The region's GDP has grown on average 5 per cent since 2003/4, and ECLAC expects a fifth consecutive year of relatively strong growth (4.8 per cent) in 2008 with less dispersion among the countries. GDP per capita is increasing at 3 per cent annually, which is comparable only to the performance of the 1960s and 1970s. Within the region, South America is leading in growth rates at 6 per cent in 2007 and slowing down to 5.3 per cent. Mexico grew at 3 per cent in 2007 and may accelerate to 3.5 per cent, but this will depend on the performance of the United States. Panama, the Dominican Republic and Argentina will have the highest growth rates, while the Caribbean will grow at 5.5 per cent.

Among the salient characteristics of the recent period is that growth has been accompanied by current account surpluses, unprecedented in the last 30 years. It seems that this pattern may continue into the future. There has been an improvement in the terms of trade in a few countries in South America, especially exporters of metals and minerals. Remittance flows continue to increase especially to Central America and the Caribbean, amounting to 7 to 11 per cent of GDP. The fiscal situation has improved, but it is mostly based on export revenues. The improvement in fiscal accounts has helped reduce public debt levels. Investment has increased but remains at relatively low levels at around 20 per cent of GDP, still below the levels seen in the 1970s. Along with investment, but to a lesser extent, exports have driven growth. Inflation increased in 2007 to 5.7 per cent from 5 per cent, and is expected to be 5.5 per cent in 2008. Inflation will be a problem in the future, especially in Venezuela, Nicaragua and Bolivia, which have double-digit figures. Unemployment levels have declined close to where they were in the first half of the nineties, while employment and productivity have increased. In general, macroeconomic vulnerability has declined in the region.

Despite the positive features of the recent growth, some concerns exist. Among these are the appreciation of real exchange rates, the sustainability of fiscal balances in some countries with high debt levels, relatively low investment rates, the acceleration of inflation in some countries, the heightened volatility of international financial markets, the region's inferior growth performance compared to other developing areas, and the need to define a long-term growth strategy for Latin America and the Caribbean.

In the general discussion, **Juan Rafael Vargas (University of Costa Rica)** pointed out that Costa Rica has increased its competitiveness. Poverty levels have decreased to 16.7 per cent, while extreme poverty has been reduced to 3.4 per cent from 5.5 per cent through market mechanisms and targeted government policies. Unemployment has also been reduced to 4.6 per cent. **Camila Nunez (Fedesarrollo, Colombia)** pointed out the negative effects that a deceleration of the Venezuelan economy could have on the demand for Colombian exports. **Keiji Inoue (DESA)** commented that although the external and domestic conditions are still relatively positive, these are deteriorating as the trade surplus decreases, inflationary pressures increase, as mentioned, and fiscal revenues are expected to decrease with a slowdown in economic activity and lower export commodity prices. Therefore, the view of the prospects should be more cautious.

3. Special Sessions on African economies

3.1 Trade, Regional Integration and South-South Cooperation

Openness and Trade Liberalization in Africa

Mr. Alemayehu Geda (Addis Ababa University) presented a paper entitled *Openness and Trade Liberalization in Africa,* in which he underscored the implications of these developments for the region. The perspective on Africa is determined by institutional history and its insertion in the world economy. African trade represents 50 per cent of its GDP, even if it is 2 per cent of world trade. There is a growing influence of China: for some countries exports of commodities and oil is shifting massively to China, rising at paces of about 80 per cent.

Problems faced by the continent include the adding-up risk of supply (fallacy of composition) and the significant rise of capital outflows coupled with rising external debt. These trade and financial developments might have affected both poverty and inequality. Nowadays many observers believe that openness is beneficial through domestic consumption, the level and composition of investment and the competitiveness of local firms. But consumption is subject to the known disparities of income distribution, thus the rise is not directly beneficial to the majority of the population. Investment has increased in the aggregate but the composition has changed, reducing the return of investment. The impact on increasing trade volumes leads to an increase of volatility risks.

However, openness has a positive impact on welfare is open to discussion. Most of the studies stating that the consequences are positive are based on questionable methodologies about the structure of African economies. More in particular, trade-based growth is biased towards rural activities, not always favouring households and small producers, and against households in the urban sectors who face a rise of commodity prices during the export boom. Only from an aggregate perspective, have econometric studies shown that trade has a positive (but nearly negligible) impact on growth. Efficiency gains are relatively small, but there are relatively significant distributional effects. Producers lose proportionally, relative to consumers in areas where trade liberalization allows indiscriminate increases of competing imports. Much more meaningful seems to be the potential for accumulation and, assuming that improvements in income distribution can be achieved by complementary income and employment policies, then there could be a potential for a sustained and increased economic activity.

In conclusion, trade is the most important channel for Africa to gain access to markets and assure sustained rates of growth. But the fact that the continent is broadly marginalized makes it difficult for African producers and consumers to establish rules of the game that are consistent with long term development goals. Moreover, the experience in the past is that it was trade shocks, with implied financial disruptions, which were at the root of severe crises in Africa. Africa remains vulnerable through shifting prices of commodities and world interest rates. Commodity price stabilization and longer term financing conditions are a pre-requisite for true development in Africa. In this context, there is a place for FDI.

Economic Partnership Agreements (EPA) Negotiations: Issues and Concerns for Africa

Mr. Mustapha Sadni Jallab (ECA) presented the issues and concerns related to the Economic Partnership Agreements (EPA). He started by recalling the purpose of the EPA negotiations between the EU and the African, Caribbean and the Pacific region (ACP), which is to improve aid mechanisms and foster liberalization in the ACP through economic reforms and the reinforcement of policy credibility. The Cotonou Agreement provides the legal basis for the negotiations, and they are based on the principles of reciprocity, deeper regional integration, differentiation, and trade and aid coordination. Empirical studies indicate that the effects of the EPA negotiations are likely to be costly for ACP countries. Among these costs is that the tariff dismantlement may favour the EU. Although a reduction in domestic prices may boost consumer welfare, market shares of local producers and non-EU exporters may be reduced. This would not only harm the ACP industries, but would also hurt the regional integration processes. The EPA may also incur fiscal costs.

The model used to assess the implications of the negotiations is a general equilibrium model GTAP 6.0 with standard closure. Six scenarios were run: a genuine FTA with complete elimination of the tariffs on ACP-EU trade, ACP countries align their tariffs at the current level of the European tariffs, a deepened regional integration of the ACP countries, a genuine FTA between the EU and the ACP with compensation of custom revenues losses through a consumption tax increase, and an asymmetrical EPA, whereby the ACP countries reciprocate tariff elimination on only 80 per cent and 60 per cent of their European imports.

The empirical analysis shows that the asymmetries in the initial protection and supply-side capacities may induce asymmetrical results. For example, scenario 2 would result in greater welfare losses than in scenario 1, showing that if at first, integration is deeper, then the EPA would have real benefits but not fully compensate for the costs. Also, it was found that the higher the level of reciprocity, the greater the welfare losses, while bilateral trade agreements may have less negative effects. However, these estimations do not take into account the dynamic effects of the EPA and their effect on FDI. Also, the results must be interpreted with caution considering the limitations of the GTAP database for the African economies. Despite these limitations, it can be concluded that given the initial asymmetries among the EU/ACP partners, the gains induced by the EPA are also likely to be asymmetrical to the detriment of the ACP countries. Similarly, the fiscal and regional trade implications will be largely unfavourable to the African economies. Negotiations have failed to fully address the challenges raised by the empirical studies, and remaining differences will make meeting the deadline of December 2007 difficult. Some of these issues are market access and agriculture, disruption and diversion of trade, services negotiations, regional integration, and migration. Therefore, it would be important to set priority areas for Africa, especially on market access and development issues by the deadline. The EU seems determined to adhere to the Cotonou Agreement timelines and the institutional framework with respect to development assistance seems likely to remain. In addition, the Aid for Trade initiative is an opportunity to press for more resources outside of the EDF 10.

Lessons from Europe for plans for African Monetary Union(s)

Mr. Ray Barrell (NIESR, UK) presented a paper entitled *Lessons from Europe for plans for African Monetary Union(s).* He noted that the process leading to a monetary union in the EU was to a very large extent a political process that took a couple of decades, and it was part of the process of European integration and expansion.

From an economic point of view, a critical condition was that the real exchange rate between partners had to be sustainable, which implies that for given nominal rates either prices or wages would have to adjust accordingly. It was clear that the costs of joining in an overvalued position would be considerable. Since it is difficult to know a true measure of underlying real exchange rates, countries could only work towards removing trade and capital controls and let the nominal rates adjust slowly. An implicit anchor facilitates the adjustment, and as a matter of fact in the European experience all countries had to converge towards Germany, the main economy and main exporter.

The process of forming a monetary union (MU, henceforth) in Europe was sketched: a “soft” Exchange Rate Mechanism (ERM), a ‘hard’ ERM and a further readjustment. Throughout this process, the single market programme was deepened, capital controls were removed and finally monetary and fiscal convergence was agreed under conditions set out in Maastricht in 1991. But interest rate convergence was slow and not linear; while inflation convergence was apparently aided by the global process of disinflation. The MU should raise output to the extent that it increases competition and thus trade, but the EU has increased output only marginally. There were gains for other reasons, like reducing volatility via the reduction of the risk premium.

In Africa, some attempts at forming a monetary union are undergoing already. From that experience some conclusions can already be drawn. Increases of trade within Africa seem to be very small. Likewise, there is not unambiguous interest rate convergence, which moreover varies between the zones. Inflation is converging but not very much and yet is due to the fact that inflation divergence was very large. Exchange rate convergence is not clear, although it depends on the grouping (the best performing is the East African group). The fiscal balance is a problem, starting from data availability and differences of methodology for the public sector accounts. In conclusion, it all points to the direction that convergence in Africa is some years before the African Monetary Union.

From a theoretical point of view, Ray Barrell questioned the validity of the “Optimal Currency Union” model. Shocks may not necessarily affect all parties in the union in the same way provided that labour and product markets are flexible. In this respect, the main concern of countries should be to increase flexibility (in labour, product and capital markets) and allow competition to increase. Granted this, monetary union may be a successful step forward because it takes control away from politicians and also removes seignorage exploitation by the state. A most significant gain for Africa will be to rely on a reduction of inflation volatility, which will, from econometric studies, have a significant contribution to economic growth. That may be the most important reason for African countries to persist towards a monetary union, because other reasons, like trade gains may be very small. But it is important to underline that it would not be advisable for African countries to rush because conditions are not yet there. That leads Ray Barrell to conclude that perhaps a more workable plan will be to push for a regional union rather than an African monetary union.

Discussants

Mr. Dordunoo (ClayDord Consult, Ghana) discussed the paper on openness and trade liberalization. He pointed out that besides the increase in trade and financial flows, it would also be important to include the movement of people, since the effects of changes in human capital could be relevant. With regards the declining terms of trade, he mentioned that the share of primary products in world trade had decreased from 20 to 7 per cent, while manufactured goods had increased their share to 82 per cent. Hence, he saw the need to increase the production of agro-industrial products in Africa in order to stop this decline in the terms of trade. An analysis of the quality of the services would also be important. Lastly, he mentioned that in the case of Ghana, it has been shown that trade liberalization has had no effect on the reduction of poverty. In the general discussion, it was questioned whether the terms of trade have been declining in Africa given that in other developing regions, such as Latin America, the increase in the price of commodities has actually helped improve the terms of trade. Mr. Geda replied that in the long run, the price of commodities has declined. Also, the rise in primary products does not seem to be sustainable since production in this sector is not subject to economies of scale.

Mr. Jean Louis Brillet (INSEE, France) began his comments on the paper on EPA by arguing that the issue of the effects of the EPA is complex. It is technically simple to consider, e.g. the analysis of tariffs and competitiveness, quotas and shares, and the reduction of subsidies. However, the analysis of secondary effects and related policy implications are much more complex and questionable. There are two methods available: computable general equilibrium, GTAP, which takes into account detailed interactions, such as intermediate consumption, investment, import and export but has limited capacity to analyze the dynamic aspects, and structural modelling, which is less detailed but allows for short and long term solutions. These two methods could be combined.

Trade agreements have both direct and indirect consequences. Trade decisions on quotas and tariffs are limited if there is a high degree of symmetry, but the main change will be on trade through substitution and/or specialization. Also, the government budget will be affected through the reduction of tax revenues, but subsidies are not affected. In the case of Colombia, it was found that GDP would initially dip after a decrease in tariff rates as imports sharply increase. The indirect consequences are more difficult to measure. Exogenous factors are generally easy to come up with, as are the assumptions, but it is difficult to choose the right ones. It is also difficult to establish the mechanisms through which endogenous factors unfold. In order to model FDI, one would need to look at the determinants, i.e. present and expected comparative costs, local demand, etc. However, it would be more difficult to include variables such as the legal system. The effects of FDI include changes in productivity of labour, capital and total, depreciation, changes in export potential and substitution of local investment.

Mr. Jean-Louis Brillet's comments were followed by a general discussion. It was clarified that the presentation was based on the static effects, and dynamic effects were not presented. The closure of the model was in the labour market, which was difficult to show. It was also pointed out that the issues are very country specific requiring further disaggregating. However, this would be difficult to do with the data available.

On the presentation on monetary union, **Mr. Alex Izurieta (UN/DESA)** stressed several points. One of the reasons argued in the paper to strive for a monetary union was the implied commitment to regional solidarity. But the experience in Europe is not that of solidarity, in the monetary union per se, but rather a set of rigid rules that each participant has to follow, otherwise facing penalties. Alternatively, a union such as a federal state is more like an agreement based on solidarity because there are mechanisms in place to compensate for failures.

On other presumed gains from monetary union, the evidence seems ambiguous. Eventual trade-augmenting gains are generally not significant, while the presently too low levels of intra-regional trade do not support the argument of a common currency. If moreover the impact on openness is presumably small, so will be the effect through factor efficiency (Verdoorn's Law). Other developments like freer trade, cheaper capital and greater competition do not require a monetary union to be achieved. Perhaps the most questionable reason of all for engaging in a monetary union has to do with macroeconomic discipline. On the one hand, whether a monetary union leads to macro discipline consistent with long term growth is questionable. On the other hand, one must also question whether the presumption of lack of discipline is a valid starting point.

On macroeconomic discipline perhaps the most critical issue is the underlying model on which basis this can be judged. The dominant model in this regard is the "Optimal Currency Area" model. But the most significant aspect of such model *vis à vis* the reality in Africa is the one underlying the equally dominant New Keynesian model underpinning monetary policy in most industrialized countries. All such models are based on a notion of an output gap generally derived from a *deux ex machina* long run rate of growth. Moreover in practice, the dominant literature assumes a macroeconomic supply-driven path generated by a production function of the Solow type. This does not seem to be a very encouraging prospect for African economies. A 'back of the envelope' calculation of the long-run growth for Africa with an underlying Solow model shows a path which, in 30 years from now (the period argued by Barrell as necessary to consolidate gains from a monetary union) would yield half of the income per capita that Europe had 30 years ago. That, according to Mr. Alex Izurieta is not good enough, and his conclusion is that a monetary union in Africa, and in particular the aim of achieving the sort of macroeconomic convergence that worked for Europe, may not be advisable.

3.2 Resource Flows

Development Financing in Africa, commitments and actions: assessment from an African perspective

Mr. Kavazeua Katjomuise (ECA) presented a study entitled *Perspectives of African countries on the Monterrey Consensus: Key Issues from ECA's Survey*. The presentation highlighted the context under which the survey was conducted, underscored the chapters of the Monterrey Consensus and the key issues derived from the survey, and underlined the challenges, constraints and the way forward.

Mr. Katjomuise expressed that there is a general feeling that little progress has been made in implementing the commitments of the Monterrey Consensus. G8 leaders acknowledged this, and set up the Africa Progress Panel, which was entrusted to monitor the progress on G8 aid commitments. The same feeling also pushed African countries to take initiatives geared towards monitoring the implementation of development finance commitments. The ECA survey was designed and administered against this backdrop.

The survey covered the six core areas highlighted in the Monterrey Consensus, namely mobilizing domestic financial resources, mobilizing international resources, promoting international trade, increasing international financial and technical cooperation, providing external debt relief and ensuring debt sustainability, and addressing systemic issues.

On domestic resource mobilization, the survey suggests that African countries are making efforts in this respect, but more needs to be done given the still-low share of domestic savings relative to investment needs across the region. With respect to international resource mobilization, most of those surveyed indicated that that the response from international investors has been limited, despite the measures put in place to attract private capital flows. Although increasing, FDI flows relative to GDP remain marginal and are not evenly distributed across countries and sectors. The survey indicates therefore that there is a need for support from donors, regional and international institutions in attracting more private capital to Africa.

In terms of promoting international trade, most responders felt that donors have again made little progress in supporting African countries. Seventy seven per cent of respondents rated progress in the area as fair or weak. As for increasing international financial and technical cooperation, there is wide perception that, despite the increases in ODA flows, donors are not on track to meet their commitments on aid volumes. A key concern for African countries is that the recent increases in aid have been driven by debt and humanitarian assistance and therefore do not reflect additional resources available to finance development programmes. Further, there is a concern that aid flows are concentrated in a few countries and sectors. On external debt and sustainability, most of those surveyed have mixed feeling about the progress in reducing external debt of African countries. Also, most respondents are concerned that debt ratios are beginning to deteriorate. On systemic issues, the survey points to the concern that governance structures of global financial institutions do not allow for effective participation of African countries in the global economy.

Survey respondents identified the challenges and constraints hampering the implementation of the Monterrey Consensus. At the national level, they felt countries needed to design effective strategies to increase savings by exploiting the potential of micro-finance institutions, the regional integration of capital markets, and aligning trade reforms with fiscal policy responses. They also felt that countries should strive to improve the investment environment and financial structures to attract foreign private capital, reduce transaction costs of remitting money from abroad and be selective in their choice of FDI flows with preference to high-value added sectors.

Respondents also felt that African countries should design mechanisms to ensure that loans from new creditors do not lead to a new cycle of indebtedness and that they should move into exports of new and dynamic products in world trade. They also identified a need to achieve policy coherence at the national level to achieve coordination among different institutions involved in policy making and implementation. Next to these domestic efforts, Africa’s development partners must step up efforts to meet their pledges on aid quantity and quality while making their assistance more predictable. Donors should also extend eligibility for current debt relief programmes to non-HIPC African countries. Finally, there is a need to increase the voice of African countries in decision making bodies of international institutions.

Capital Flight from African countries: linkages with external borrowing and policy options

Mr. Leonce Ndikumana (ECA) presented a paper entitled *New Estimates of Capital Flight from Sub-Saharan African Countries: Linkages with External Borrowing and Policy Options*, which he co-authored with James Boyce. In the paper they first estimated the magnitude of capital flight, using a sample of forty African countries over the period of 1970-2004. Second, they compared the importance of capital flight relative to other flows to the region. Third, they identified the causes of capital flight as a way of determining factors that may be reversed by appropriate policy responses. Fourth, they explored empirically the linkages between external borrowing and capital flight, and finally, they discussed strategies to prevent and reverse capital flight.

Capital flight data are computed based on data on the stock of external debt, net foreign direct investment, the current account deficit, the change in the stock of international reserves and net trade misinvoicing. Based on this methodology, the accumulated stock of capital flight stood at around $476 billion as of end-2004. In relative terms, that means that the region's external assets are more than twice the stock of debts owed to the world.

As for the possible causal relationships between capital and external debt, there is a view that capital outflows respond to economic conditions related to the external debt itself. Conversely, foreign borrowing can also provide resources as well as a motive for capital flight in the sense that funds borrowed abroad are re-exported as private assets. Next to that, capital flight can deplete national foreign exchange resources, thus forcing countries to borrow abroad. Along the same lines, capital flight can directly provide the resources to finance the borrowing of the same residents who export capital.

Based on some of the above arguments, capital flight is believed to be a function of the following explanatory variables: lagged capital flight, debt, GDP growth rate and a vector of control variables. A country-specific intercept is added to the econometric model to account for unobservable individual country characteristics.

The empirical results support the argument whereby debt fuels capital flight, as about 0.60 cents of each 1$ borrowed goes back out as capital flight. They also show that a 1$ increase in the stock of debt leads to 0.02-0.03 cents of capital flight, thus confirming the importance of debt overhand effect. The findings indicate that other factors also play an important role in explaining capital flight from sub-Saharan countries. Capital flight turns out to be a persistent phenomenon. Growth reduces incentives for capital flight, while inflation tends to induce capital flight.

The empirical findings provide some guidance as to the incentives put in place to reverse capital flight. Since private assets held abroad include both illicit and legally acquired assets, different strategies are needed to repatriate these two types of assets. The improvement of the domestic investment climate might be the most sensible strategy to address the flight of legally acquired assets. By contrast, coercive approaches might be the most appropriate way of recovering and repatriating illegally acquired assets. These approaches, however, may be difficult to implement, as they place the burden of proof on African countries and countries have to locate and reclaim the embezzled assets. One alternative route would be for countries to repudiate the debts that finance these assets on the basis that these debts are odious. There are two approaches to this: debtor countries can repudiate these debts unilaterally (ex-post approach) or odious debts are defined as loans issued to a government that has been designated as "odious" by an international institution (ex-ante approach). Both approaches have their limits, however.

Understanding the Quest for Africa's Diversification

Mr. Sudip Ranjan Basu (UNCTAD) gave a presentation on the diversification of Africa's export sector. The background of the presentation complements a recently developed framework from ECA's 2007 Economic Report for Africa, entitled "Accelerating Africa's Development through Diversification." It is also rooted in the context of Prebisch-Singer's (1950) hypothesis linking trade concentration to deteriorating terms of trade, income volatility, and shrinking production structures. Both of these background analyses support the notion that export diversification is important for developing economies, as it is positively associated with improved productive capacity and the expansion of infrastructure as well as economic growth and employment creation.

Mr. Basu presented stylised facts showing that Africa is integrating with the rest of the world with respect to its trade performance. Africa's overall trade with the world is rising, as is trade with the countries in the South. Intra-regional African trade is stagnant, however, and has not been rising rapidly enough.

A further look at the composition of Africa's trade shows the dynamism in products and new markets that Africa is entering into trade with the North and South. Africa's top 25 merchandise exports going to the South show a significant amount of product variation, with 10 of the 25 in the area of primary products. In exports going to the North, however, more products are in high-tech manufacturing and skill intensive areas. Further examination of the types of new products being traded found that of the top 25 new products, i.e those currently traded products that had no share in the value of trade in 1995, 9 are in the area of high-tech manufacturing. This suggests that production structure is diversifying into new dynamic sectors.

Two new aspects were then introduced into the discussion. Firstly, the utilization of a new database for the analysis of export diversification. The new trade database, UNCTAD South-South Trade Information System (SSTIS) expands the number of countries analysed to 30 African countries, up from the 18 used in the ECA report. Since the database uses the HD-4 digit level of the harmonized system of trade classification, this also allows diversification of exports to be measured at a more disaggregate level. Also data is available for a longer time period, which allowed him to introduce some dynamics into the model by estimating over three distinct time periods

Mr Basu also introduced new variables, as determinants of export diversification, in the regression analysis that were not included in previous studies: an institutional index that captured the quality of institutions, economic policies and geography. The institutional quality index (IQI) was based on an aggregation of measures of political, social and economic institutions.

He found positive correlations between diversification and IQI, level of development and trade openness and then presented estimates from two equations (a dynamic and a panel) using OLS with diversification as dependent variable and institutions, economic policies and geography as independent variables. In the dynamic equation, the results show a positive relationship between the IQI index and economic policies (regarding trade) and the diversification index with Africa trade to both the World and the South. There was a negative relationship between geography (i.e. distance from the equator) and diversification in both instances. In the equation using panel data, a human capital variable (measured as years of schooling) was included and found to have a positive relationship with diversification.

These results showed the importance of national institutions and trade policies for diversification in African economies. They also showed that there are locational advantages and geographic linkages that play a role in export diversification. The results call attention to the need to re-emphasize the hand-in-hand approach in making institutional quality and supply-side factors work together to raise policy coherence and help develop inclusive trade and development strategies for African economies.

Commodity Price Trends and Prospects and FDI in extractive industries

Mr. Olle Ostensson (UNCTAD) gave a presentation on the outlook for prices in the commodity market, set against the background of the current commodity boom that has been ongoing since 2003. He ascribed the main factors behind this boom to the rapid growth in Asia, the US dollar depreciation, as well as some investor speculation.

In general, he found that there have been different developments in the commodity markets for food and raw materials. Food prices peaked in the 1970's and 80's and are currently approaching those peak levels again; while industrial raw material prices are currently at levels that are unprecedented. Additionally, there has been an interaction with freight trade, as the continued growth in China's iron, ore and coal imports and the re-routing of grains trade have led to port congestion and higher transport costs.

Changes in commodity markets have been driven by agricultural products. The opening up of export markets in Asia, the change in food consumption due to rising incomes in developing economies, and the rise in biofuel production have all had significant impacts on agricultural export and price dynamics. In particular the increasing demand for biofuels affects the markets for traditional agriculture, such as corn, driving up prices. There is the expectation that fuel prices will remain high over the medium term, therefore the demand for alternative sources of energy such as biofuel will continue. Other factors such as competition for land and inputs to produce biofuels may also have price effects.

Additionally rising incomes will continue to increase demand for meat, dairy products, fruits and vegetables at medium to high rates. Evidence from energy (calorie) and protein consumption across a diverse group of economies shows that both have been increasing between the periods 989-1991 and 2002-2004. In Ghana, for example, each category increased by more than 30 per cent.

The outlook for metals and minerals calls for continued strong demand linked to the rapid growth in Asia. Capacity is expected to barely keep pace with demand in the medium to long term outlook period. The outlook is governed by uncertainties on the supply and demand sides, particularly the conditions for FDI in extractive industries, which tend to have a higher profitability than other industries, as well as conservation initiatives for energy and raw materials. He presented a graph that showed that although exploration expenditures have been increasing since 2002, this has not produced significant discoveries. Although globally the share of extractive industries only represents 9 per cent of inward FDI its share at the country level is particularly high in some cases, such as Syria and Papau New Guinea, where it represents between 75 to 90 per cent, respectively of inward investment in 2005.

Mr. Ostensson then discussed the key development challenges for the commodity outlook. The economic challenge is to create value from mineral deposits and to transform that value at the local level; while also managing and using revenues efficiently and equitably. The political challenge is one of avoiding corruption and the apparition of “rentier states”, unaccountable to their citizens. There is also the environmental challenge and the social challenge, i.e. how to protect human rights and compensate for resettlement and loss of traditional livelihoods; as well as addressing health concerns and workers’ safety. Many international initiatives exist to address these issues, such as the extractive industry transparency initiative and the voluntary principles on security and human rights. But for greater impact, more firms and more countries need to be involved.

The presentation concluded with policy recommendations for addressing some of these challenges. These broad recommendations were the strengthening of host-country governance and their capacity to design and implement appropriate policies; and improving the ability of countries to negotiate with TNCs. One other noted area of importance included promoting the use of high corporate and behavioural standards.

Discussants

In the presentation on Development Financing in Africa, **Mr. Oumar Diallo (DESA)** recalled the purpose of the survey, which was to hear from countries. This means that analyzing the results requires a positive rather than a normative approach, and ECA has done that very successfully. He then questioned the content of the survey, the way it was conducted, and some of the interpretations of the survey’s results.

As for the content, he found it surprising that the part of the survey on mobilizing domestic resources solely concentrates on private sources, therefore overlooking some key features of many African economies and new dynamics in the region. Domestic revenue-to-GDP ratios are extremely low in many African countries, even in those that are considered "success stories". For instance, this ratio is far below 15 per cent in Uganda, Rwanda and Tanzania. The views of countries on this and other issues, such as tax administration reform, tax policy measures, including exemption regimes to multinationals, would have been useful.

A similar remark applies to the section related to international resource mobilization. The survey should have obtained the views of countries on new private financing mechanisms, for instance Ghana and Kenya's plans to use their new fiscal space to tap into international capital markets to finance investment programs for which aid financing has not materialized.

On the part that deals with challenges, constraints and lessons learned, the survey does not touch upon issues of absorptive capacity constraints, which may limit the effectiveness of additional external aid. These issues may be legitimate or not, and it would be interesting to hear from countries on those.

Concerning the way the survey was administered, questionnaires were sent to central banks and ministries of finance, planning and economic development. The purpose was to increase the likelihood of getting a least a response per country. Although such a purpose is agreeable, the responses from these two entities should not be treated as homogenous on two counts. First, central banks and ministries of finance may often have different preferences and views, which are materialized by a lack of coordination between those two entities in many countries. Second, in many African strategies on development, finance is predominantly designed and implemented by ministries of finance, planning and economic development. The central banks' role is often confined to collecting and managing the flows of resources, and the views of central banks are interesting only with respect to grasping challenges and constraints of the increased flows.

Further, the survey was conducted on the basis that countries should not identify themselves. That contradicts the very essence of the Monterrey process, which is supposed to be open and frank. Next to this, the questionnaire only gave the latitude to countries to indicate whether they are LDCs, petroleum exporters, and island economies. The approach may blur the results of the survey, as countries might classify themselves in a category that reflects their views on their situations, which might differ significantly from the established international classification.

On the interpretation of the results, there is a risk that the results are subject to a self-selection bias, with countries responding to the questionnaires being essentially those that have a relatively effective and running administration and have not been cut off from aid in recent years or countries emerging painfully from conflicts. In such circumstances, the results of the survey may not account for the views of those countries most in need of external assistance. Also, there is a need for a further emphasis on the diversity of experiences and challenges across the continent.

Mr. Kodjo Evlo (University of Lome) found the presentation on capital flight interesting but also stunning, given the sheer magnitude of capital flight in Africa. While agreeing on many issues raised in the presentation, he cautioned against overly emphasizing embezzlement as the primary source for capital drain. Both illegally and legally acquired assets are transferred abroad partially because of inauspicious domestic macroeconomic and political situations. That is to say that improved domestic environment could, to some extent, contribute to reversing capital flight.

Also, the empirical analysis could further improve if endogeneity and potential variable omission issues are addressed. In particular, the causality between debt and capital flight may run in both directions, from debt to capital flight and the other way around. The regressions should have also accounted for the potential impact of macroeconomic instability on capital drain by adding to the regressions variables such as the inflation rate.

Mr. Alfredo Calcagno (UNCTAD) questioned the measurement of trade misinvoicing, while **Mr. Alex Izurieta (DESA)** insisted on the need to use ECA as a platform to develop strategies aimed at improving business environment on Africa and reassuring international investors. **Peter Pauly (University of Toronto)** described the findings as interesting and disquieting, and raised comments on the data, the econometrics and the conclusions. First, the way trade misinvoicing is estimated is questionable. Then, potential endogeneity problems are not all addressed in the empirical analysis, and the authors do not estimate long-term coefficients. Finally, the need for a better business environment does not come up strongly in the recommendations. **Mr. Rob Vos (DESA)** underscored two important dimensions of capital flight that were not considered in the paper. Policies, in particular trade restrictions and current account or capital account liberalization measures, might explain many of the trends in capital flight. Also, portfolio choices and consumption behaviours might indicate why assets are moved abroad, and different strategies may be required if such motives are the driving forces behind capital drain.

Ms. Marva Corley (DESA) commented on Sudip Basu's presentation. She noted that the presentation addressed some of her initial reservations over the ECA analysis. She insisted that this comment was not to disparage the ECA report, but simply to point out that the presentation was able to benefit from the foundation developed in the report and improve upon it. Mr. Basus's analysis increases the sample size from 18 to 30 countries, includes additional variables for institutions, geography and education and obtains more robust results. The analysis also introduces an element of dynamism that is missing from ECA's initial analysis.

Despite these improvements, there were still two major issues that she felt needed to be addressed, in addition to changing the title of the presentation from "Understanding Africa's Quest for Diversification to simply, "Africa's Quest for Diversification."

The first issue had to do with the diversification index used in the analysis. The index provided only a snapshot of export portfolio composition, thus there may be some reservations over the usefulness of this indicator on its own. Also, the index does not take into consideration the 'strength of diversification,' i.e. the growth performance of the export sectors and their impact on the real economy. This is particularly important since, in many of these African economies, diversification is a way of managing risks in the commodity markets in order to bring about broad-based economic growth. All industries are not created equal, and it is not diversification itself that leads to sustainable development, but rather diversification into dynamic industries utilizing countries' abundant resources. Therefore, in order to get a better reflection of diversification in Africa it may be more useful to measure the index at a more aggregate level rather than looking at diversification of different products across specific industries.

The second issue is related to the first and concerns the effectiveness of diversification or rather 'diversification into what?" Diversification into sectors that impact directly or indirectly on both growth and employment impacts is preferred. This dimension is something that is missing from the analysis, and even ECA's initial analysis, but that is a crucial link between diversification and sustainable development. Although ECA discussed this in the 2006 report on Africa, it was not brought up in the current report. One way of including this element into the analysis would be to weight the diversification index in such a way that it takes into consideration the employment structure of industrial diversification. A country can have a large degree of diversification across industries, e.g. energy and mining industry, but because these industries do not employ a large majority of the workforce it will not have the same effectiveness on long term growth as broader diversification into more labour-intensive industries.

Susanna Wolf (ECA) prefaced her comments on the presentation on *Commodity price trends and prospects and FDI in extractive industries* by mentioning that high oil prices did not only increase demand for biofuels but also for hydro- solar and wind energy. Although it takes time to make the production of these energy sources more efficient, there are opportunities for developing countries with the right climatic conditions to export electricity in the long-run. An interesting question would therefore be how to attract TNCs in financing renewable energy sources.

With respect to biofuels, there is an increasing recognition in industrial countries that the production of these energy sources has little net environmental benefits, and thus subsidies might be reduced. There are some trends towards second generation biofuels made from waste or plants that grow on marginal lands, like jatropha. As these become more efficient, demand for first generation biofuels such as maize and sugar might go down.

The statement that land is abundant in Africa needs to be qualified, as population growth is also still very high in many countries, leading to conflicts over fertile land. Also, the substitution effects for agricultural products other than biofuels could be discussed more extensively. With oil prices rising, textile synthetic fibers might be replaced by cotton or new products such as bamboo.

Further, the discussion about higher freight prices driven by higher fuel prices and some bottlenecks in capacity could be differentiated by product category and route. It may be the case that ships transporting raw materials from Africa to Asia offer low rates on their way back, as they otherwise would be empty, making some Asian products even more competitive.

The implications of rising FDI from new partners should be further discussed. FDI from countries such as China and Russia often involves state-owned firms, thus this might affect international relations as well domestic policies of host countries. More specifically, rising FDI from these countries might undermine the participation in transparency initiatives in extractive industries.

Finally, the policy recommendations are very important, but the challenge for most African countries is to build the capacity required to negotiate fair deals and regulate with minimum distortions.

4. Macroeconomic modelling experiences in developing countries

DIVA, A CGE Model for the study of African Diversification and MDGs Assessment

Mr. Mohamed Hedi Bchir and Mr. Mohamed Chemingui (ECA) presented DIVA, which is a CGE Model for the study of African Diversification, and its application to Kenya. The model is a dynamic-recursive computable general equilibrium (CGE) model.

In the model it is assumed that there are three modes of production, namely the agricultural, the formal and informal modes of productions, as well as N sectors in the economy. The production blocks features Leontief production functions that combine value added and intermediate consumption. Each value-added function has its specific production factors. The key feature of the model is to consider economic diversification a major source of economic productivity and positive externalities.

Only agricultural and formal production modes are assumed to benefit from these positive effects. The demand block displays four types of demands: final consumption, intermediate consumption, government final demand, and capital goods demand. All are determined through optimization processes and present similar features. Consistent with new developments in CGE modelling, DIVA considers three segmented labour markets: the unskilled agricultural labour market, the unskilled urban labour market, and skilled urban labour market. The model considers in each sector two types of investments: public investment and private investment. While public investment is set as an exogenous variable, private investment is assumed to be a function of the level of public investment in the sector, the interest rate, the inflation rate, the level of diversification, and the rate of return of capital.

The model sets the conditions of good and services market clearances in the informal, the agricultural and the formal markets. It also set revenue sources against expenditure needs, thus determining the financing needs of the various economic agents. Finally, the model has a financial sector block, which features three institutions: the central bank, private banks and foreign banks.

One major contribution of DIVA is to introduce an MDG block in the analysis. Building on existing works, notably those from the World Bank, DIVA accounts for five objectives among those underscored in the Millennium Declaration. Those are: poverty reduction, access to primary education, the fight against infant mortality, sustainable development viewed through two components, access to drinking water and access to adequate sanitary systems.

DIVA is then applied to Kenya. The purpose of the analysis is to assess the impact of trade liberalization on the Kenyan economy and households, thus drawing policy implications. Kenya is an interesting case to study for many reasons. Economic activity has expanded slowly and has not diversified much from the agricultural sector in recent decades. Against this background, employment and poverty rates have been stunningly high.

Trade liberalization is expected to impact economic agents through various transmission channels, including employment, prices (production, consumption and wages), assets and prices. Consistent with arguments developed in the literature, the effects of trade liberalization on poverty depend on: i) households' shares in the income accruing to productive factors such as labour and land, ii) the structure of households' expenditures, and iii) the changes in net transfers to households.

As a first step, DIVA is scaled down to focus primarily on agriculture activities, and an aggregate version of the Kenyan SAM is used to calibrate this simplified version of DIVA. The model is still dynamic and is resolved recursively each year from 2003 to 2015. Further, the representative household approach as opposed to the micro-simulation approach is used to assess the impact of trade liberalisation on poverty and inequality. The simplified version of DIVA simulates only changes in world prices of agricultural products and accounts for only one category of fully employed labour.

A combination of closure rules that reflect the Kenyan context is used in the baseline scenario. A balanced investment-driven savings configuration is considered. As for the rest of the world closure, foreign saving is fixed and exchange rates are flexible. Under government closure, government saving is flexible and tax rates are constant. Next to these closures, the consumer price index (CPI) is considered a *numeraire*, and domestic producer price (DPI) is flexible. Two alternative scenarios are considered. They differ only with respect to the nature of the closure rule for the rest of the world. While the first scenario assumes the same closure rule as the baseline scenario, the second scenario assumes a fixed exchange rate and flexible foreign savings. The changes in world agricultural prices imposed to the revised version of DIVA are derived from the most optimistic scenario of the MIRAGE model.

Increases in world agricultural prices would lead a decline in aggregate exports under scenario 1 and an increase under scenario 2. Imports would increase slightly and remain constant under scenario 1 and 2, respectively. Ultimately, the net effects of these price changes depend on the exchange rate policy adopted by the country. Also, using equivalent variation as an indicator of welfare, the simulations under scenarios 1 and 2 indicate a positive welfare change and a negative welfare change, respectively.

The authors indicate that the above findings are just indicative. Many refinements are needed to bring DIVA in tune with the recent developments in CGE modelling and to reflect the context of countries under study. There is a need to define more realistic assumptions as to the trends of exogenous variables for the period 2008-2015. The model should also choose plausible assumptions regarding compensatory fiscal measures resulting from the loss of revenues instigated by tariff cuts. The analysis would gain from calibrating the model to a full disaggregate SAM 2003 and from conducting simulations of world prices changes for both agricultural and non-agricultural market access (NAMA) products. A more realistic modelling of the labour market is needed so as to account for labour segmentation, wage formation by skills, and unemployment by segments. Other improvements are needed as to the identification of the poverty line, the conception of the micro-module, and the estimations of poverty indicators for each simulation.

A Macroeconomic Model for Malawi

Mr. Chipo Msowoya and M. Elsi Katsonga-Phiri (Malawi) presented a small macroeconomic model for Malawi. The presentation included a short description of the modelling project, which was started in 2004, involving experts from the Ministry of Economic Planning and Development, Ministry of Finance, Reserve Bank of Malawi and the National Statistical Office.

The model was introduced by firstly presenting the different sectors (government, private and external) and secondly, the assumptions, including world market prices, external demand for Malawi exports, and assumptions for fiscal policy variables, such as government employment and purchases, government wage rate, direct and indirect taxes. The model was based on a Keynesian framework, with a detailed part for fiscal policy variables, as well as a government sector. Concerning households, the model differentiates between small scale households and private (business) sector to account for different behaviour.

The interaction of the Malawi economy with the rest of the world is presented in the models by export equation of an Armington type and import functions. The dynamics of some of the variables, such as prices and consumption, account both for short-term and long-run relationships. The model is estimated using TROLL. It could be used to analyse fiscal policy as well as other issues in macroeconomic policy analysis. Also, it was noted that this model is the foundation for further strengthening of the modelling capacity in Malawi.

Presentation of the Consumption Block of the Quaterly Model for Turkey

Mr. Mesut Saygili and Mr. Zahid Samancioglu (The Central Bank of the Republic of Turkey) gave a presentation of "Quarterly Macroeconometric Model for the Turkish Economy". He recalled the reasons why the model was built, which included producing consistent macroeconomic forecasts, understanding the structure and the functioning of the Turkish economy, creating a monetary policy-oriented model, developing a model for policy discussions and alternative scenario analysis. The authors noted that the model displays many interesting properties. Demand determines output in the short-run, while long-run output is assumed to be at potential level. The model has both long-run and short-run equations, and uses error correction model (ECM) approaches. Further, it has both stochastic and deterministic equations and reverts to quarterly data covering the period 1987-2006. Real variables are based on the 1987 prices.

Mr. Mesut Saygili and Mr. Zahid Samancioglu reported on the data problems they faced while building the model. Those problems occurred when collecting consolidated budget series, quarterly consumer credit series by sector basis and series on construction activity. They mentioned that the model was still under development, and only private consumption and investment blocks have been estimated so far.

The current specification of the consumption function is based on the life-cycle hypothesis, but other alternatives theories are considered as well, including the absolute income hypothesis, the permanent income hypothesis and the random-walk. The long-run equation for private consumption includes disposable income and wealth as explanatory variables. The formulation of the short-run equation is consistent with the error correction model framework.

The investment function is based on the neo-classical approach, which has the marginal productivity of capital and the relative price of capital as determinants. The function also accounts for aggregate demand. Investment is further divided into two types: “machinery and equipment” and “construction (residential plus building)”. In the long-run, the demand for machinery and equipment is assumed to be a function of business capital stock (adjusted with capacity utilization), the ratio of investment goods to GDP deflator and aggregate demand. An alternative equation is also considered, with the real effective exchange rate (REER) being added in the equation. The empirical results indicate that the equation with the REER variable has better prediction power but does not outperform the baseline formulation on the basis of both out-of-sample and within-sample tests.

It was impossible to have different equations for resident building and business building because of data availability constraints. In the first specification, long-term construction investment is assumed to depend on changes in GDP and in REER. The alternative specification adds changes in private sector credit and drops changes in GDP. The alternative equation performs better on the basis of within-sample forecast error tests.

Mr. Mesut Saygili and Mr. Zahid Samancioglu concluded by highlighting the next steps in the model-building agenda. These include building a trade block for the model, and accounting for macro prices (CPI, PPI, exchange rate and wages) and the determinants of policy and market interest rates.

Discussants

Mr. Rob Vos (DESA) briefly summarized the key features of DIVA and suggested ideas on how to improve this new tool designed for MDG analysis. DIVA belongs to the new family of models that tries to link growth and structural changes to poverty and MDGs. It builds strongly on Maquette for MDG Simulations (MAMS) models, which are dynamic-recursive CGE models.

Although taking stock of the recent developments in CGE models, the discussion on DIVA refers little to the history of these models, thus missing features that could have further strengthened DIVA. Analyzing the effects of diversification through a CGE framework generally proves to be arduous because of the assumptions underpinning these types of models. DIVA overcomes this by considering an export diversification index, which is assumed to be a function of public investment. This formulation raised two issues. First, the measure of diversification only reflects exports and not necessary the density of the production structure. Second, the way the relationship between public investment (infrastructure) and diversification is formulated implies the absence of marginal effects. Evidence from Uganda, for instance, supports the view that there is a minimum threshold above which the benefits of infrastructure really start kicking off, and this threshold can be sector-specific. There is therefore a need to account for this in modelling the effects of diversification.

Further, DIVA assumes that labour is segmented. This assumption turns out to be too rigid, and could be substituted by more flexible assumptions that emphasize bargaining power. The labour market block could also benefit from taking on board the impact of HIV/AID on both the demand and supply of labour. On the closure, DIVA favours an investment-driven savings format whereby the share of investment is fixed, and savings adjusts equally to ensure the identity between savings and investment. Nonetheless, the stocks-flows consistency and the linkages between the real and the financial sector and the rest of the world are not as yet completely modelled. As a result it is difficult to infer how the adjustment through saving unfolds and how credit rationing works.
Finally the way changes in distribution are modelled and computed may be subject to criticisms. One suggestion would be to assess the changes in real distribution through labour markets rather than though representative households.

To conclude, there are many challenges ahead, among others satisfying the enormous demand for data and finding the adequate parameters for the model. That implies reverting occasionally to some shortcuts.

Mr. Pingfan HONG (DESA) commented on the Quarterly Macroeconomic Model for the Turkish Economy. The modelling project had clearly defined objectives and had a dual goal, namely generating forecasts and simulating policy scenarios. That dual goal is, however, challenging, as those two targets may require different focuses. Therefore, a compromise is needed.

The model combines both Keynesian and Neo-classical features. Also, given that the model is still an on-going project, only the consumption and investment blocks have been developed so far. Although a wide range of consumption and investment assumptions exist, the Euler-equation approach turns to have been at the heart of the research on the consumption and investment behaviours over the past 20 or30 years.

The empirical results are interesting, but are not always consistent with the widely accepted findings. The coefficient on the wealth effect in the long-run equation is much higher than what is usually found in the literature. The choice of the wealth variable and the inclusion of the real effective exchange rate (REER) in the long-run equation of consumption are questionable. Similarly, in the short-run equation, the signs on some of the variables change over different lags, which is puzzling. The inclusion of the real effective exchange rate (REER) in the long-term equation for investment can be challenged, also.

In sum, the model builders need to pay more attention to: i) the selection of the long-run equations, and ii) channels through which policies affect consumption and investment behaviours.

M. Koparanova (DESA) summarized the main blocks of the Malawian model and the techniques applied to estimation of the system of equations and then made some general and more specific comments.

She pointed out that identifying the economic issues/problem for an economy is a crucial first step in model building as long as it sets up the whole framework and helps identify what sort of a model to use and what needs to be modified. The nature of economic problems and the available remedies (policies instruments) should guide the development of a model. The second step includes specifying the set of equations, followed by estimations and last is the question as to how reliable is the model, based on the data quality and/or other weaknesses of the model. In the case of the macroeconomic model of Malawi, a more detailed description of the economic set up (as a first step) could provide a solid framework of a model, which reflects the specificities of this economy and the policy strategies. For instance, it is not clear how this economy functions and what are the major problems, such as high inflation and/or unemployment. Further work on a well-defined supply side of the model could be a major improvement in that respect.

On the econometric side, M. Koparanova commented on two issues: estimation technique for a system of equations and the need for more diagnostic checking of the behavioural equations. In particular, OLS may not be the appropriate approach to estimate an equation embedded in a system. In particular the coefficient estimates may be inconsistent if one or more explanatory variables are correlated with the disturbance term. The recommended approach would be a two-staged 2-SLS or instrumental variables technique. Also, additional tests for simultaneity could be useful to assess how consistent are the estimators. Results from some Error-correction models (ECM) need to be checked. While it is relevant to incorporate both the long-run and short-run dynamics in modelling specific relationships, one needs to pay more attention to estimation procedures and results. Modelling an economy with structural breaks in the time-series of many variables raises another concern about the estimators, which could be further improved by applying other techniques, say the Kalman filter. Improving the estimation technique is the second direction where the model of Malawi could be further developed.

In the general discussion, it was clarified that the presented model was the first attempt to construct a model for the purposes of analysing the budget in Malawi, and many other economic issues were not embedded in it. Also, the software TROLL is not flexible and cannot be easily managed for the purposes of the analysis. Another problem is data availability for a long period of time, which in many cases is missing for a number of important economic variables, such as unemployment.

Annexes

Annex-1

Project LINK Fall Meeting 2007
Hosted by UN Economic Commission for Africa
Addis Ababa
November 12-14, 2007

AGENDA

Monday, November 12, 2007

9:30 – 9:45 **Opening and welcome**
(ECA Executive Secretary)
(Rob Vos, DESA)
(Peter Pauly, University of Toronto)

9:45–11:15 **World Economic Outlook**
Chair: Hakim Ben Hammouda, ECA

LINK/UN DESA forecast (Rob Vos)
World Bank (Hans Timmer)

11:15–11:30 ***Coffee/tea break***

11:30–13:00 **World Economic Outlook (continued)**
Lead discussants:
Peter Pauly, University of Toronto
Leonce Ndikumana, ECA and University of Massachusetts, Amherst

General Discussion

13:00 – 14:00 ***Lunch***

14:30 – 16:00 **World Economic Outlook (continued)**
Chair: Adolfo Castilla[1], Universidad Antonio de Nebrija
World Commodity Markets: Prospects and Risks
Robert Kaufmann, Boston University [Video]

Recent trends in terms of trade for developing countries
(Alfredo Calcagno, UNCTAD)

Lead discussant: Hans Timmer, World Bank
General discussion

[1] To be confirmed.

16:00–16:15 ***Coffee/tea break***

16:15- 17:45 **Regional outlook: developed economies**
Chair: Stephen Hall, University of Leicester
United States (Pingfan Hong, UN-DESA)
Japan (Pingfan Hong, UN-DESA)
Western Europe (Ray Barrell, NIESR, UK)

Tuesday, November 13, 2007

9:30- 12:30 **Regional outlook: economies in transition, new EU members, and developing countries/regions**
Chair: Tarik Alami, ESCWA
Economies in Transition and new EU members (Malinka Kaparanova, UN-DESA)
Africa (Adam Elhiraika, ECA)
East and South Asia (Shamika Sirimane, ESCAP)
West Asia (Tarik Alami, ESCWA)
Latin America and the Caribbean (Andre Hoffman, ECLAC)

Each lead presentation is followed by comments from LINK country experts

10:30–10:45 ***Coffee/tea break***

12:30–13:30 ***Lunch***

13:30–16:30 **Special session on African economies (I): Trade, Regional Integration, and South-South Cooperation**
Chair: Jan van Heerden

Openness and Trade Liberalization in Africa
(Alemayehu Geda, ECA and Addis Ababa University)

EPAs and African Countries: Issues and Concerns
(Mustapha Sadni-Jallab, ECA)

Lessons from Europe for plans for African Monetary Union(s)
(Ray Barrell, NIESR, UK)

Discussants:
Cletus Dordunoo, ClayDord Consult
Jean-Louis Brillet, INSEE
Alex Izurieta, UN-DESA

15:00–15:15 ***Coffee/tea break***

Wednesday, November 14, 2007

9:30 – 12:30 **Special session on African economies (II): Resource Flows**
Chair: Ken Ruffing, OECD
Development Financing in Africa, commitments and actions: assessment from an African perspective
(Kavazeua Katjomuise, ECA)

Capital Flight from African countries: linkages with external borrowing and policy options
(Léonce Ndikumana, ECA and University of Massachusetts, Amherst)

Understanding Africa's Quest for Diversification
(Sudip Basu, UNCTAD)

Commodity price trends and prospects and FDI in extractive industries
(Olle Ostensson, UNCTAD)

Discussants:
Oumar Diallo, UN-DESA
Kodjo Evlo, Université de Lomé
Marva Corley, UN-DESA
Susanna Wolf, ECA

11:15–11:30 ***Coffee/tea break***

12:30–13:30 **Lunch**

13:30–16:30 **Macroeconomic modelling experiences in developing countries**
Chair: Mette Rolland[2]

DIVA, A CGE Model for the study of African Diversification and MDGs Assessment.
(Bchir Mohamed-Hedi, ECA)

A Macroeconomic Model for Malawi
(Elsie Katsonga-Phiri, Abel Nyoni and Chipo Msowoya, Ministry of Economic Planning and Development, Malawi)

Presentation of the Consumption Block of the Quaterly Model for Turkey
(Mesut Saygili and Zahid Samancioglu)

[2] To be confirmed.

Discussants:
Rob Vos, UN-DESA
Malinka Koparanova, UN-DESA
Pingfan Hong UN-DESA

16:30–16:45	***Coffee/tea break***
16:45-17:15	**Business meeting and closing session** (Peter Pauly, University of Toronto) (Rob Vos, UN-DESA) (Hakim Ben Hammouda, UN-ECA)

Annex-2

Economic Outlook Reports Provided by Participants:

1. Angola
2. Australia
3. Austria
4. Bangladesh
5. Brazil
6. Bulgaria
7. Canada
8. China
9. Colombia
10. Costa Rica
11. Croatia
12. Denmark
13. Finland
14. Germany
15. Ghana
16. Hong Kong
17. Hungary
18. Ireland
19. Italy
20. Japan
21. Korea
22. Mexico
23. Norway
24. Philippines
25. Poland
26. Slovak Republic
27. Slovenia
28. South Africa
29. Switzerland
30. Ukraine

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