

Global Financial Crisis Discussion Series

Paper 23: Methodological note: update for phase 2 studies

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Paper 23: Methodological Note: Update for Phase 2 Studies¹

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Acknowledgements

A team of 40 researchers from ODI and 10 developing countries embarked on a unique monitoring study on the effects of the global financial crisis over the period January-March 2009. They found that some effects had already become visible when the G-20 leaders met in London on 2 April 2009, but worse conditions were thought to be underway. The monitoring work is now being updated and new countries are being included, to total 11. This paper provides a methodology to enable country authors to update their country case studies.

We are grateful to the UK Department for International Development (DFID) and the Swedish International Development Cooperation Agency (Sida) for their support for Phase 2 of the monitoring work.

Acronyms

ADB	Asian Development Bank
AGOA	African Growth and Opportunity Act
ASEA	African Securities Exchanges Association
BIS	Bank for International Settlements
BoP	Balance of Payments
CAR	Capital Adequacy Ratio
CGE	Computable General Equilibrium
DFID	UK Department for International Development
DRC	Democratic Republic of Congo
EAP	East Asia and Pacific
EIU	Economist Intelligence Unit
EU	European Union
FDI	Foreign Direct Investment
GDF	Global Development Finance (World Bank)
GDP	Gross Domestic Product
GNI	Gross National Income
IDA	International Development Association
IFC	International Finance Corporation
IFI	International Financial Institution
IFS	International Financial Statistics (IMF)
ILO	International Labour Organization
IMF	International Monetary Fund
IPO	Initial Public Offering
NPL	Non-Performing Loan
ODA	Official Development Assistance
ODI	Overseas Development Institute
P/E	Price to Earnings
R&D	Research and Development
RDB	Regional Development Bank
ROA	Return on Assets
ROE	Return on Equity
SAS	South Asia
SDR	Special Drawing Rights
Sida	Swedish International Development Agency
SSA	Sub-Saharan Africa
TPR	Trade Policy Review (WTO)
UK	United Kingdom
UN	United Nations
UNCTAD	UN Conference on Trade and Development
US	United States
USITC	US International Trade Commission
VAT	Value Added Tax
WDI	World Development Indicators (World Bank)
WEO	World Economic Outlook (IMF)
WTO	World Trade Organization

Abstract

This paper provides an update of the methodology that country case studies can use when undertaking their research.

The methodology discusses how to report on:

- The national or regional components of the shock, to determine which countries are linked most closely to centres of the shock;
- What the effects on growth, investment, sectors, poverty and inequality are;
- What the policy responses have been.

Transmission mechanisms include:

- Private capital flows;
- Trade;
- Remittances;
- Aid;
- Summary: balance of payments and exchange rate effects.

Growth and development effects cover:

- National-level growth effects;
- Fiscal effects;
- Sector effects;
- Poverty and inequality.

Policy responses can be divided into:

- Macroeconomic policies;
- Social policies;
- Economy-wide and structural policies;
- Donor responses.

Finally, we need to look ahead and see whether the country is well placed to gain from a recovery and to respond effectively to crises in the future.

1. Introduction

There is now broad agreement that the global financial crisis will have major impacts on developing countries, but that these will vary markedly. Phase 1 research, coordinated by the Overseas Development Institute (ODI) and involving developing country teams in 10 countries, showed that, while the transmission mechanisms are similar (trade, private capital flows, remittances, aid), the effects vary by country and therefore country-specific monitoring is required. Most findings suggest that, as a result of time lags, the worst of the effects is yet to come.

Phase 2 case studies will aim to:

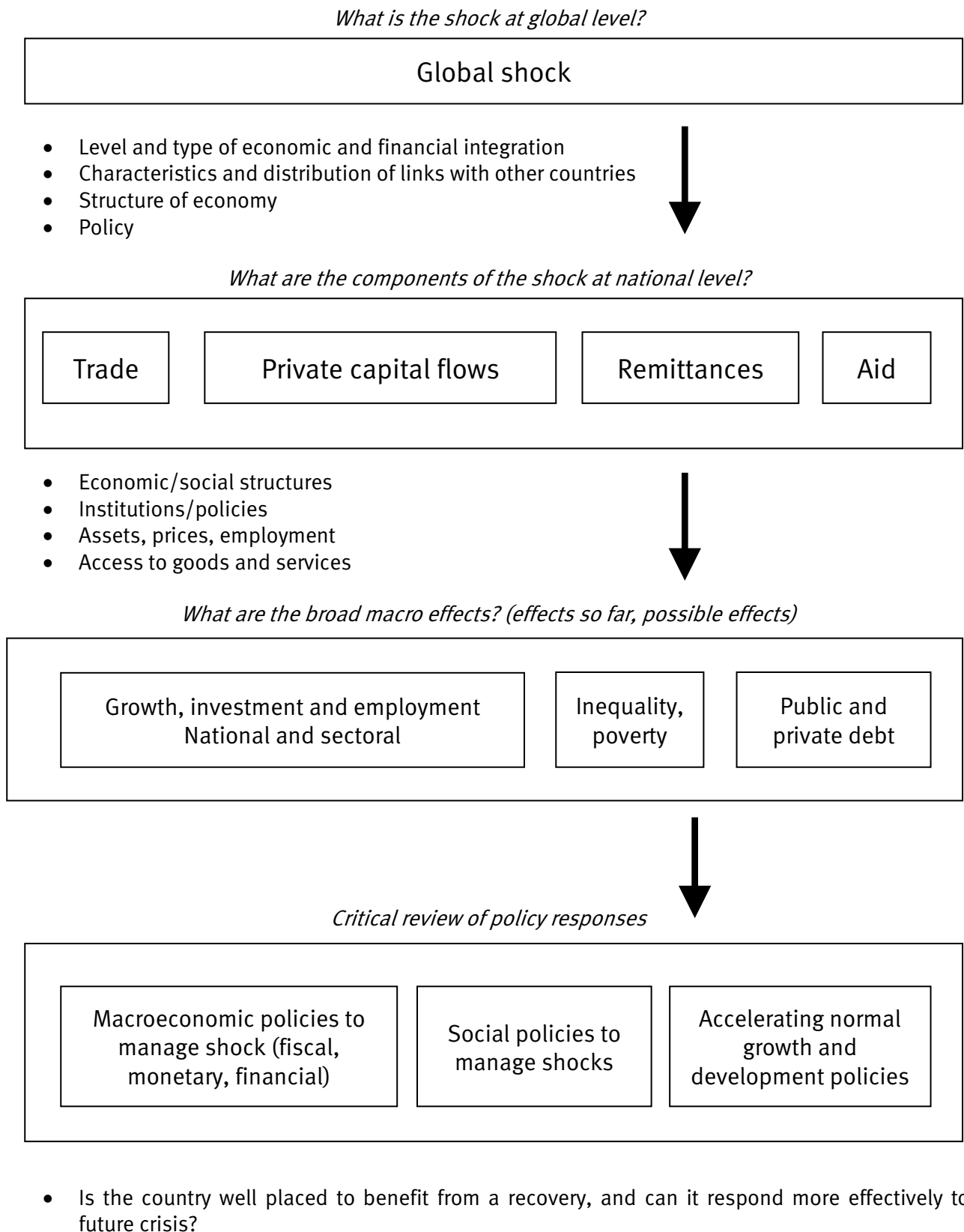
- Update information on the effects of the global financial crisis, based on the methodology developed in Phase 1, by examining the following transmission belts:
 - Private financial flows (splitting out portfolio flows, foreign direct investment (FDI) and international bank lending);
 - Trade (imports and exports);
 - Remittances; and
 - Aid.
- Update information on economic (growth) and social (employment and poverty) effects.
- Monitor policy responses.
- Deepen the existing analysis where feasible, e.g. on effects on special groups or industries.
- Discuss country-specific issues.

This paper is a methodological note which can be used for Phase 2 studies.

Figure 1 illustrates the main building blocks of the Phase 1 and 2 methodology:

- What is the global shock (while effects are still getting worse, some agreement on type and order of magnitude of shocks)?
- The national or regional components of the shock, to determine which countries are most closely linked to centres of the shock.
- What are the effects on growth, investment, sectors, poverty and inequality?
- What have been the policy responses?

Figure 1: Mapping out the effects of the global crisis and policy responses



2. Effects of the global financial crisis: Key transmission mechanisms

Before we move on to the specifics of the transmission mechanisms, we need to acknowledge the difficulty in isolating the effect of the global financial crisis when there are other shocks happening. Here we suggest possible tools that might be used to understand and describe what is going on (note that the emphasis of the study lies on monitoring and not on detailed modelling):

- Before/after comparisons: For instance, what were the trends before July 2008 and what happened afterwards? Although this is crude, it could be a first guide, especially if no formal models are readily available. For instance, have tourist bookings, exports or FDI approvals suddenly declined, without any other country-specific shock or event occurring, such that the changes can, at a first analysis, be attributed to the global financial crisis?
- Partial equilibrium models, used implicitly or explicitly: These take into account other factors (i.e. construct a counterfactual on what would have happened had there been no crisis).
 - On FDI, one could use existing partial equilibrium models, such as $\text{Inward FDI} = f(\text{GDP}_{\text{home}}, \text{GDP}_{\text{host}}, \text{GDP}_{\text{growth}_{\text{host}}}, \text{risk}, \text{etc})$. Various existing bilateral FDI models exist which e.g. suggest that a 1% decline in home (and host) country gross domestic product (GDP) reduces the stock of FDI to developing countries by around 0.2% (and 0.5%). Such models may also exist for specific countries. Has this happened?
 - There will be studies on export supply/demand by country with published price and income elasticities, which can be employed to examine possible effects, because we can use estimates of possible drops in export markets and recent decreases in commodity prices. It may also be possible to use existing computable general equilibrium (CGE) models.
 - On remittances, there are models such as $\text{REMIT} = f(\text{GDP}_{\text{home}}, \text{GDP}_{\text{host}}, \text{emigration rate})$, which some studies have estimated.
 - On aid, there is no need for a model because aid is largely a policy not a behavioural variable, such as private sector exports.

For all these, studies then need to identify what part of any change in international variables owes to the shock and what part owes to other influences.

- CGE models: While these may not be the best tools to identify shocks, they are useful to simulate effects of shocks on the rest of the economy.
- Interviews with public and private sectors about perceived impact. For example, it can be very helpful to discuss impacts with banks because they have a cross-sector overview of the latest impacts.

2.1 Private capital flows

In order to assess the vulnerability of a specific country to a shock in private capital inflows, the analysis could focus on a number of factors. It is important to understand the country's dependence on FDI, portfolio flows and international bank lending. It would also be helpful to identify sectors and investor countries. With respect to international bank lending, it could be worth investigating degree of exposure of banks to foreign ownership as well as the countries of origin of foreign banks.

Table 1 provides a series of key questions for examining developing countries' financial systems and determining whether developing countries are at risk of financial contagion.

Table 1: Key questions to understand financial vulnerability and financial contagion in the developing world

Questions	Indicators	Data source suggestions
<i>How sound is the domestic banking system?</i>	<ul style="list-style-type: none"> • Risk-weighted capital adequacy ratio (CAR) • Return on assets and equity (ROA and ROE) • Non-performing loans (NPLs) 	International Monetary Fund (IMF) Global Financial Stability Report, national sources
<i>How vulnerable is the domestic banking system to the financial crisis?</i>	<ul style="list-style-type: none"> • Banks' ownership structure • Growth of bank credit to private sector • Composition of bank lending • Securities investment to total bank assets • Exposure to new financial instruments 	World Bank Global Development Finance (GDF), IMF International Financial Statistics (IFS), national sources
<i>How strong are the links among stock markets internationally?</i>	<ul style="list-style-type: none"> • Total foreign holdings of equity 	IMF World Economic Outlook (WEO) and IFS
<i>Is there stock market financial contagion between developing and developed countries?</i>	<ul style="list-style-type: none"> • Share prices correlation • Equity prices trend • Price-to-earnings (P/E) trend 	Bloomberg, Datastream, national stock exchanges
<i>Are investors losing confidence in developing countries?</i>	<ul style="list-style-type: none"> • Equity portfolio flows • Number of initial public offerings (IPOs) withdrawn or postponed • Equity issuance 	National sources, World Bank World Development Indicators (WDI)
<i>Has investor risk aversion towards developing countries increased?</i>	<ul style="list-style-type: none"> • Bond issuance 	World Bank GDF, IMF WEO, national sources
<i>Has the financial turmoil tightened credit conditions to developing countries?</i>	<ul style="list-style-type: none"> • Sovereign and/or corporate bond spread • Growth of bank lending rate • New loans issuance 	Bloomberg, IMF IFS, Reuters' DealScan database (for large banks' loans), national sources

At this stage of the monitoring work, it is important to report the magnitude of the country-specific shock on the basis of what is already visible or published with respect to the three different types of private capital flows:

- **FDI inflows:** Report on developments using balance of payments (BoP) data from central banks and planned investment data from investment promotion agencies; as background information, the United Nations Conference on Trade and Development (UNCTAD) FDI On-line Database, the IMF IFS and the World Bank WDI can be useful.
- **Portfolio investment flows** (portfolio equity flows and bond flows): Report on withdrawals from stock markets, trends in main share price indexes, stock market capitalisation, stocks' traded value, turnover ratio, equity issuance, IPO activities and bond issuance, using data from national stock exchanges, regional stock exchange associations (e.g. the African Securities Exchanges Association – ASEA) and other national sources;
- **International bank lending:** Report on developments using the Bank for International Settlements (BIS) Consolidated Banking Statistics, the World Bank's GDF and national sources. Table 5 shows there have been large declines in bank lending to African countries up to 2009Q1, but what has happened since?

Table 2: FDI inflows in study countries, 2004-2007 (US\$ millions)

	2004	2005	2006	2007
Ethiopia	545.1	265.1	545.3	254.1
Kenya	46.1	21.3	50.7	728.0
Mozambique	244.7	107.9	153.7	427.4
Uganda	295.4	379.8	400.2	367.9
Tanzania	330.6	567.9	521.7	599.5
Zambia	364.0	356.9	615.8	983.9
Democratic Republic of Congo (DRC)	9.9	-76.0	-116.0	720.0
Sudan	1511.1	2304.6	3541.4	2436.3
Bolivia	85.5	-287.8	280.8	204.2
Bangladesh	460.4	845.3	792.5	666.4
Cambodia	131.4	381.2	483.2	867.3

Source: UNCTAD FDI On-line database.

Table 3: FDI inflows in selected study countries, 2007 (% of GDP)

	2007
Ethiopia	1.5
Kenya	2.4
Mozambique	5.1
Uganda	3.0
Tanzania	4.0
Zambia	8.7
Sudan	5.4
Bolivia	1.7
Bangladesh	0.9
Cambodia	11.1

Source: UNCTAD FDI On-line database.

Table 4: Selected sub-Saharan African countries – share of banking assets held by foreign banks with majority ownership, 2006 (%)

	2006
Togo	0
Malawi	22
Burundi	36
Congo	47
Senegal	48
Angola	53
Mali	57
Niger	59
Burkina Faso	65
Tanzania	66
Rwanda	70
Zambia	77
Uganda	80
Mozambique	100
Madagascar	100

Source: World Bank GDF 2008.

Table 5: Total international banks' claims in study countries, Mar 2007-Mar 2009

	Mar 2007 (US\$m)	Mar 2008 (US\$m)	Mar 2009 (US\$m)	% change Mar 2008-Mar 2009
Bangladesh	1567	1843	2073	12.5
Bolivia	379	430	339	-21.2
Cambodia	69	123	225	82.9
DRC	440	495	532	7.5
Ethiopia	62	56	28	-50.0
Kenya	1347	1651	1656	0.3
Mozambique	688	1324	1138	-14.0
Sudan	1032	1294	404	-68.8
Tanzania	660	775	972	25.4
Uganda	287	712	467	-34.4
Zambia	374	1385	1127	-18.6

Source: BIS Consolidated Banking Statistics 2009.

2.2 Trade

Table 6 provides a checklist of issues important for examining the effects of the crisis on trade, trade patterns and trade prices. Key questions include:

- What have been the recent developments in trade values, exports and imports of goods and services, by country and key products, for the latest month or quarter?
- What is the experience on import and export prices? Use IMF data, which are more common and recent than World Bank data (reported in the Annex). Assess impact of trade prices on declines in values of exports.
- What are the country's main export products? How concentrated/diversified are the main export products and markets?
- What are the main products that it imports? How concentrated are these, and from which countries do they come?
- Have recent fluctuations been experienced previously, and have similar shocks been experienced?

Table 6: Trade – issues, indicators and data sources

Issue	Indicators	Data source
Sectoral composition of economy	<ul style="list-style-type: none"> • Contribution of agriculture, mining, manufacturing, services to GDP • Main manufacturing/service activities' contribution to GDP 	<ul style="list-style-type: none"> • ODI: WDI, World Trade Organization (WTO) Trade Policy Review (TPR)
Dependence on trade; openness to trade; trade performance	<ul style="list-style-type: none"> • Exports as % of GDP, imports as % of gross national income (GNI) • Current account balance (in current US\$/national currency and as % of GDP) 	<ul style="list-style-type: none"> • ODI: WDI, WTO TPR
Recent developments in main export products and main destination markets	<ul style="list-style-type: none"> • 10 major exports (per export value), on a HS-6 digit level, 2003-2008 (in volumes and value) and/or indices of concentration • Same for imports • 2008 and 2009 monthly values and volumes 	<ul style="list-style-type: none"> • ODI: Comtrade; Eurostat; United States International Trade Commission (USITC) Interactive Tariff and Trade DataWeb; other bilateral trade statistics (as far as available) • Country experts: national trade statistics
Main import products and main import markets	<ul style="list-style-type: none"> • 10 major imports (per import value), on a HS-6 digit level, 2003-2008 (values only) • 2008 monthly values and volumes for 10 major imports (in national currency) 	<ul style="list-style-type: none"> • ODI: Comtrade; Eurostat; USITC Interactive Tariff and Trade DataWeb; other bilateral trade statistics (as far as available) • Country experts: National trade statistics

Terms of trade	<ul style="list-style-type: none"> • Indices of nominal and price deflated exchange rates (national currency vs. currencies of main export markets); 2000-2007; 2007-2008 monthly basis • Exchange rate developments of national currency compared with currencies of main import markets; 2000-2007; 2007-2008 monthly basis 	<ul style="list-style-type: none"> • ODI: IMF IFS
Assessing options and constraints of market diversification	<ul style="list-style-type: none"> • Market access regimes in main export markets (e.g. duty-free quota-free in US/EU (European Union); rules of origin for Cambodia's apparels). Actual and prospective changes in these (proposed reforms in coverage of US African Growth and Opportunity Act (AGOA) for example; new schemes by India, China, etc) • Unit price received for 10 main exports compared with world market prices 	<ul style="list-style-type: none"> • ODI: WTO TPR; Ministry of Trade and Industry; Comtrade • Country experts: firm interviews – what are constraints of market diversification for major exports?
Projections for major commodities	<ul style="list-style-type: none"> • Predictions of global demand and price developments for copper (Zambia team); oil (Nigeria team); flowers in the EU (Kenya team); cocoa in the EU market (Ghana team); garments in the US (Cambodia team); tourism (all) 	<ul style="list-style-type: none"> • ODI: World Bank and other international sources on commodity projections • Country teams: firm interviews; export associations
Is the lack of liquidity affecting exports?	<ul style="list-style-type: none"> • Access to trade finance 	<ul style="list-style-type: none"> • ODI: e.g. banks' SWIFT payment systems • Country experts: company interviews – how have the costs of trade financing increased (e.g. letters of credit)?
Trade in services: tourism	<ul style="list-style-type: none"> • Tourist arrivals/registrations • Bookings/cancellations • Expenditure per tourist 	<ul style="list-style-type: none"> • ODI: WDI; World Travel and Tourism Council • Country experts: central banks; Ministry of Interior (Cambodia); tourism board; hotel associations

2.3 Remittances

Remittances to developing countries have been growing, but it is likely that they will fall in 2009 in many case study countries. Relevant data could include:

- How much are **remittances** affected, by country of origin – check with central bank on BoP data.
- How much have **migration flows and migration stocks** been affected – visitor and migration statistics (this includes return migration).
- How dependent are countries on remittances and how has this dependence evolved over the past few years? Based on World Bank data.
- What do the money transfer institutions report? What is the accuracy of official estimates, and what share of remittances is unrecorded?

Table 7 provides suggestions on how country case studies can examine the effects of the crisis on remittances and migration flows. Box 1 discusses how remittances are normally measured. An analysis of the composition of the migrant population by country of destination and by socio-demographic characteristics would be useful to make inferences on the extent to which migration and remittances might be affected in the future.

Table 7: Measuring the effects of the crisis on migration and remittances

Question	Source	Possible indicator
What impact on migration?	Professional associations	1. No. of departures of professionals per month 2. No. of returnees per month (to be compared with same period in 2007 and 2006)
	Recruitment agencies	3. No. recruited per 100 candidates (monthly data to be compared with same period in 2007 and 2006)
	Docquier et al. (2007) (analysis by ODI)	4. Composition of migrant population by skills and gender
What impact on remittances?	BoP	1. Worker remittances + compensation of employees + migrant transfers (monthly data to be compared with same period in 2007 and 2006)
	Parsons et al. (analysis by ODI, Cali and D'Erba, 2009)	2. Composition of migrants population by country of destination

Box 1: Measuring remittances

- 1) 'Workers' remittances' recorded under the heading 'current transfers' in the current account (item code 2391 in the IMF's BoP Yearbook)
- 2) 'Compensation of employees', which includes wages, salaries and other benefits of border, seasonal and other non-resident workers (such as local staff of embassies) and which are recorded under the 'income' subcategory of the current account (item code 2310)
- 3) 'Migrants' transfers', which are reported under 'capital transfers' in the capital account (item code 2431)

Table 8: Remittances in study countries, 2004-2008

	Region	2004 (US\$m)	2005 (US\$m)	2006 (US\$m)	2007 (US\$m)	2008 ^e (US\$m)	2007 share in GDP (%)
Bangladesh	SAS	3584	4314	5428	6562	8893	9.5
Cambodia	EAP	177	200	297	353	353	4.2
Ghana	SSA	82	99	105	117	128	0.8
Kenya	SSA	620	805	1128	1588	1673	5.4
Nigeria	SSA	2273	3329	5435	9221	9979	6.7
Zambia	SSA	48	53	58	59	59	0.5

Notes: e. Estimates based on data until October 2008. SAS = South Asia; EAP = East Asia and Pacific; SSA = Sub-Saharan Africa.

Source: World Bank based on IMF BoP statistics.

2.4 Aid

Here it will important to report:

- Volume of aid (in US\$);
- Development in aid dependence (% of GDP), filling out table below;
- Proposals for changes in aid by each country's major donors (this could be mentioned in Section 3 instead).

This is based on annual data, although there might be more recent evidence for shifts in aid flows. More discussion on aid can be found in the policy response section.

Table 9: Official development assistance (ODA), 2008 (% of GDP)

Country	IMF (2009)	WDI 2005	Phase 1 country report
Bangladesh	1.2	2.1	
Bolivia	1.2	6.5	1.6% of GDP (2007)
Cambodia	6.4	9.1	9% of GDP in 2007
Kenya	0.8	4.1	4 % of GDP (2006)
Uganda	4.9	14.0	
Zambia	4.5	13.9	13.2% of GDP in 2006

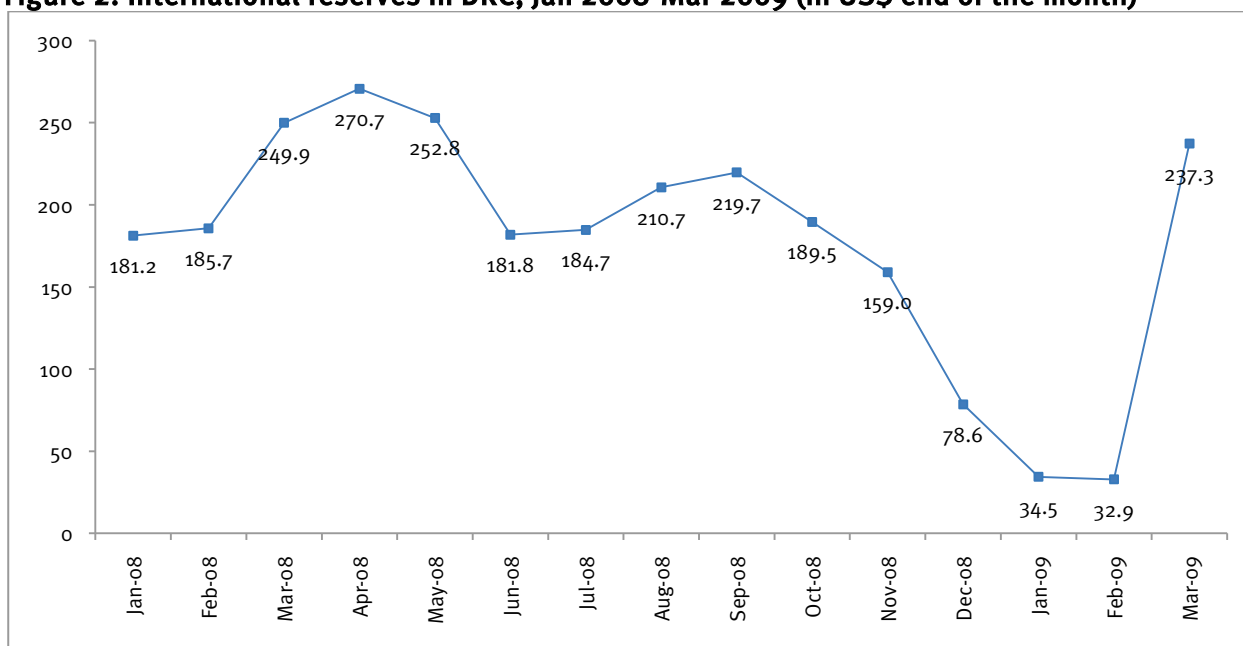
Source: IMF (2009), WDI and Phase 1 country reports

2.5 Summary: BoP effects

This section could summarise the BoP of the shocks: how do all the transmission belts come together? It could report on:

- Summary BoP (from central bank statistics), quarterly where feasible.
- Developments in international reserves (expressed in terms of months of imports, e.g. from IMF). See Figure 2 for an example.
- Exchange rate developments Has the change in capital and current account flows put pressure on the exchange rate? Use central bank statistics for nominal and IMF for real effective exchange rates.

Figure 2: International reserves in DRC, Jan 2008-Mar 2009 (in US\$ end of the month)



Source: Kabuya and Cassimon (2009), presentation on 7 September 2009. See also te Velde (2009)

3. Growth and development effects

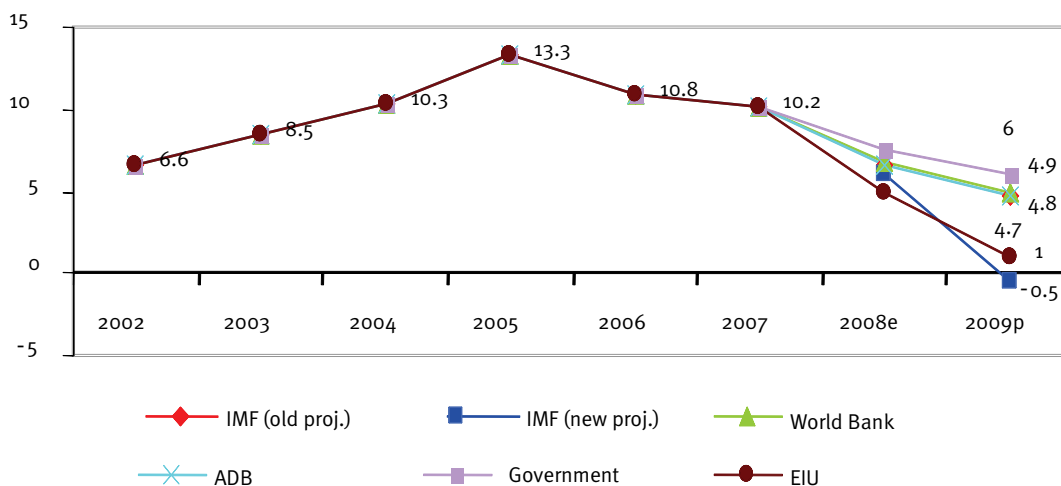
3.1 National-level growth, investment and employment

The following points are important:

- It is key to highlight current and past real GDP growth rates and, where possible, changes in growth rates of these components of GDP (including investment, consumption and employment).
- Some countries will be able to report quarterly GDP statistics – be clear if you are using quarter-on-quarter growth rates (annualised) or whether it is, say, 2009Q2 over 2008Q2 annual growth rates.
- Use calendar years, converting as necessary from any fiscal years.
- Use growth forecasts by national and international (IMF) sources and, where feasible, compare. The example below is quite helpful.

Beyond this, we think it is possible to have a growth narrative. Why did growth fall (e.g. Cambodia) or remain fast (Zambia, Uganda)? Which transmission channel contributed most?

Figure 3: Cambodian real GDP growth, actual and forecasts, 2002-2009 (%)



Notes: ADB = Asian Development Bank; EIU = Economist Intelligence Unit.
 Source: Cambodia case study (Phase 1).

3.2 Fiscal effects

The effects of the global financial crisis work through a number of mechanisms, one of which is government budgets. From a static point of view, GDP (Y) is determined by consumption (C) and investment (I), from government sources (G) and private sources (P) plus net exports, exports (X) - imports (M):

$$Y = PC + PI + GC + GI + X - M$$

Thus, growth is affected directly by total spending by government $GS=GC+GI$.

The government balance (GB) depends on spending (GS) and revenues (GR)

$$GB = GS - GR - INTPAY$$

where INTPAY is interest payments on government debt. If government/fiscal balance is negative it adds to government debt (GD), via $(INTPAY=r*GD)$.

$$GD = GD (-1) + GB$$

If GB is negative for too long, the continuing increase in GD will raise doubts about government debt sustainability.

Government revenues depend on tax revenues (corporate tax, income tax, trade taxes, other taxes and royalties), fees for government services, capital income and grants.

GR is likely to decline in the global financial crisis because:

- Corporate taxes decline with lower private activity;
- Royalties and mining taxes decline as commodity exports in volumes and values decline;
- Import taxes decline because import values decline with lower commodity prices and lower import volumes because of lower total final expenditure ($TFE=Y+M$);
- Capital income (profits) is lower;
- Grants (e.g. aid) are lower.

Authors of studies are asked to examine whether the above decline has occurred, with the result being a higher fiscal deficit or lower surplus. The IMF suggests that many African countries have increased their fiscal deficit by taking in fewer import taxes.

Authors can also look for positive developments. For instance, GS could be lower, e.g. for oil importers when oil prices are lower.

There can also be reallocations in the government budget, from investment to consumption, or shifts within these categories.

It may also be important to think about the funding part of government debt: have international bond markets eased up, and are countries able to raise finance in this way and what are the spreads (e.g. compared to US Treasury Bills).

Government taxes and spending can also have other static effects on growth. If the government reduces its tax receipts owing to the above effects, this should affect PC (through real disposable income) and PI (through the user cost of capital, which depends on taxes and interest rates).

Government taxes and spending can also have dynamic effects on growth. Tax incentives can be linked to behaviour of investors (e.g. rewarding research and development (R&D) investment or skills training) and spending can have externalities/multiplier effects on growth.

3.2.1 Data availability

Budget plans and outturn: these tend to be annual data, although in some cases monthly and quarterly data are available.

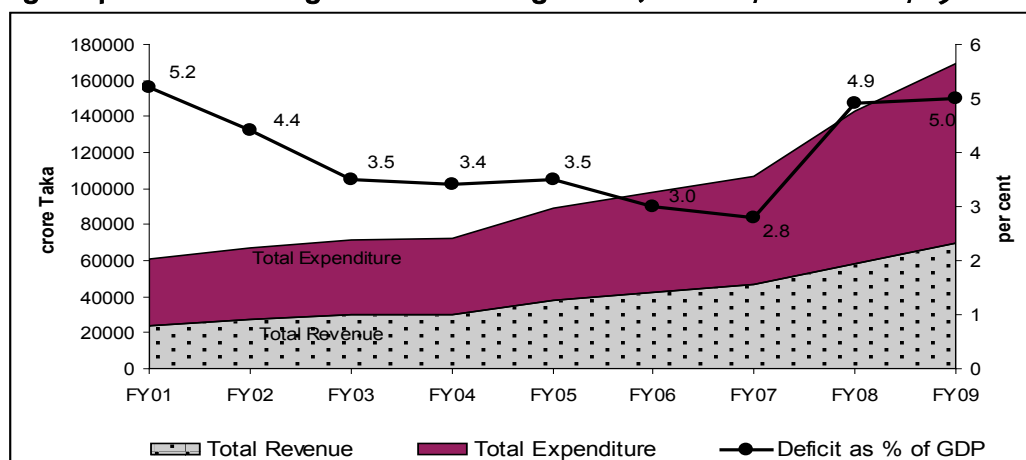
3.2.2 Examples from Phase 1 country case studies

Uganda uses quarterly data suggesting that tax revenues were lower in 2008/09Q3. This owed especially to lower domestic tax revenues, as value added tax (VAT) revenues were lower because of lower domestic consumption.

Bangladesh records savings on budgetary allocations for fuel subsidies. Monthly data show that collection of import duties experienced a sharp fall in the months at the end of 2008, with only marginal improvement in the month of January 2009. Import duty and other import-related duties

together constitute around 42% of total National Board of Revenue collection in Bangladesh. Thus, it is likely that revenue collection will fall short of the target.

Figure 4: Trends in budget deficit in Bangladesh, FY2000/01-FY2008/09



Source: Ministry of Finance (Bangladesh case study Phase 1).

Net budgetary gains (e.g. lower fertiliser expenditure owing to lower import prices) could create some fiscal space, allowing the government to go for higher expenditure without overshooting the projected deficit of 5% of GDP.

In Zambia, the global financial crisis has come at a time when the mines are already contributing less to government revenue than they were several years ago, although over the past few years there has been some pickup and the forecast (before the crisis) was that the sector would contribute significantly to tax receipts. The sector contributes 10% of total tax revenue and 1.8% of GDP. A loss of potential revenue from the mines as a result of the crisis reduces the government's fiscal space to finance social sector expenditure programmes such as education, health and infrastructure for poverty reduction. Table 10 shows tax revenues for 2008. Countries could report using quarterly data, particularly when comparisons can be made over more than one year.

Table 10: Distribution of mining sector tax revenues in Zambia, 2008 (kwacha billions)

	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	2008
Total tax revenue	2113.6	2402	2667.3	2495.2	9678.1
Mining company tax	116.1	154.6	146.8	24.2	441.7 (4.6)*
Windfall tax	-	-	118.3	7.7	126.0
Mineral royalty	18.2	85.7	95.8	59.3	259.1 (2.7)
Export duty on copper concentrates	19.1	23.1	70.8	64.9	178.1 (1.8)
Total mines contribution	153.4 (7.3)*	263.4 (11.0)	431.7 (16.2)	156.1 (6.3)	1004.9 (10.4)

Note: * as a percentage of total revenue.

Source: Zambia Revenue Authority.

Box 2: Commodity dependence and budgeting (Sudan, Bolivia and Zambia)

The global financial crisis meeting on 7 September at ODI suggested that it could be important to compare budgeting practices across countries whose budgets rely on commodity prices (e.g. Sudan, Bolivia and perhaps Zambia, which is also looking into mining, as is DRC), with respect to the impact of the global financial crisis. Countries can use a common framework to understand the challenges.

What is the share of commodity taxes in total government revenues? Report quarterly or monthly data. How has the fiscal position changed recently?

Was the budget based on high oil and commodity prices? What values? And was the country prepared for commodity price shocks?

What was the result in terms of budget cuts and stimuli?

3.3 Sectoral-level effects

Here, we are interested in statistics on sectors, e.g. how have garments exports, tourism, construction, commodities, etc, in terms of GDP, investment, employment, been affected?

In some countries, the effects are localised in areas or sectors, e.g. commodity exporters such as Zambia. In others, it is a range of sectors (Cambodia).

Different countries could examine different sectors, and compare countries with similar shocks to explain differences and commonalities.

3.3.1 Garments in Bangladesh and Cambodia

It will be useful to further compare the impact of the crisis on the garment sector in Cambodia and Bangladesh. Countries could work with a common framework to understand the challenges.

- What have been the effects so far on the garment sector, using relevant statistics? Output, employment and foreign earning losses, etc. Report quarterly data or monthly, or anecdotal evidence.
- What are the main value chains in which garment companies operate (and does nationality matter?) Where do they export to?
- How competitive is the sector? What is the underlying cost structure (transport costs, cost of capital, etc)?
- How well is the sector positioned to bounce back (and what are key factors behind this – infrastructure, business environment, ability to introduce new polices)?

3.3.2 Flowers in East Africa (a similar study could be done for coffee)

It may be possible to compare the impact of the crisis on the flower sector across East Africa (e.g. Uganda, Ethiopia, Kenya). Countries could work with a common framework to understand the challenges.

- What have been the effects so far on the flower sector, using relevant statistics? Output, employment and foreign earning losses, etc. Report quarterly data or monthly, or anecdotal evidence.
- What are the main flower companies (and does nationality matter?) Where do they export to?
- How competitive is the sector? What is the underlying cost structure (transport costs, cost of capital, etc)?
- How well is the sector positioned to bounce back (and what are key factors behind this – infrastructure, business environment, ability to introduce new polices)?

3.4 Poverty and distributional effects

The financial crisis affects four key types of resource flow to developing countries, including trade, international capital flows, remittances and aid. These in turn will affect firms and households through a number of key transmission channels, including:

- **Taxes and transfers:** Public and private transfers and taxation, including targeted transfers, subsidies, taxes, levies, remittances, etc. What are the effects of the downturn on government budgets and debt (e.g. via fewer mining royalties, corporation tax, VAT, etc)? Are stresses already occurring?
- **Prices:** Changes in consumption and production prices, wages, salaries and interest rates.
- **Assets:** Value of and access to and/or control of assets, including physical, natural, human, social and financial assets.
- **Employment:** Formal and informal employment, including self-employment and employment in household enterprises. Other aspects include security, status, workloads and gender issues.
- **Investment:** Changed capital flows, imports and export opportunities will affect fixed capital investment. For example, lower copper prices will reduce investment in copper exploration.
- **Access to goods and services:** People's access to public and private goods and services may involve removal of barriers or improving the quality of goods and services available.

Taken together, these transmission mechanisms determine first-round effects on the poor and more generally on the distribution of effects across incomes but also across space. To compute the final effects, country studies need to report on how government policy has responded to changes in income.

Several Phase 1 countries reported actual employment and possible poverty implications. Table 10 shows the expected increase in the number of poor in 2009 as a result of the crisis, by taking changes in GDP forecasts and multiplying these by number of poor people and poverty elasticity with respect to growth. Countries may want to update this.

Table 11: Expected poverty effects of global financial crisis in 2009

Country	Mar 2009 forecast for 2009 – IMF Spring 2008 GDP projections for 2009	Poverty elasticity with respect to growth (case studies or literature)	Household poverty count, % (latest year, WDI)	Population, millions in 2007 (WDI)	Poverty increase, '000s: change in growth rates,* elasticity,* household poverty count
Bangladesh	-1.2	0.38	40	158.6	289.3
Bolivia	-1	0.2	65.20	9.5	12.4
Cambodia	-2.2	1	35	14.4	110.9
Ghana	-3.4	1	28.50	23.5	227.7
Kenya	-0.4	0.74	52	37.5	57.7
Uganda	-1	2	37.70	30.9	233.0
Zambia	-2.4	0.2	68	11.9	38.8

Source: Phase 1 country case studies and te Velde et al (2009)

Loss of employment² is one feature of the global financial crisis in the case studies. Loss of employment and income has important poverty and human development implications. The Phase 1 case studies suggested the following:

- A recorded 15,000 construction workers in Cambodia were laid off in mid-2008. This has led to some de-urbanisation. The garment industry has been hardest hit, with approximately 51,000 people laid off (many of these women) in the six months between September 2008 and March 2009.

² It is possible to use the same framework as for poverty. The International Labour Organization (ILO) has estimated employment elasticities with respect to growth and we have taken the average over 1991-2003: Nigeria, 1.11; Ghana, 0.77; Zambia, 0.20; Cambodia, 0.37; Benin, 0.87; Bangladesh, 0.31; Bolivia, 1.26; Uganda, 0.34; Kenya, 1.96; Indonesia, 0.24.

- In Zambia, 8100 workers in the mining sector lost their jobs in 2008.
- A simulation exercise in Bolivia predicted rising unemployment as a result of lower remittances (3.0%) and mining exports (1.6%).
- Following an ILO methodology, incremental job opportunities in Bangladesh may be squeezed by 500,000 compared with the expected level, if GDP growth slows down to the World Bank's projected level of 4.8%.
- In Kenya, the labour-intensive horticultural industry, which employs an estimated 3 million people, had to cut around 1200 jobs this year and suffered a 35% drop in exports of flowers.

The country case studies may want to update information on employment.

It was more difficult to report on price and asset effects of the crisis – is this now possible?

4. Policy responses: A critical review

The crisis has affected countries since the end of 2008, and most countries have now seen the effects. There were fears initially that countries would not respond, but it should now be possible to review policy responses critically.

4.1 Macroeconomic policies to manage the impact of the crisis

Macro policies include:

- Monetary and banking policies;
- Fiscal policies.

By March 2009, Phase 1 countries had already put in place macroeconomic and financial policies to manage the crisis:

- The Central Bank of Kenya recently lowered the cash reserve ratio from 6% to 5% and the central bank rate from 9% to 8.25% in order to lower interest rates and enhance credit supply in the economy.
- In Bolivia, the 2009 national budget included a 20.6% increase in public investment and a 12% rise in public servants' wages and salaries, accounting for an increase in government consumption.
- Cambodia has produced an expansionary budget, but there is discussion on the contents.
- Central Bank of Bangladesh reserves were safeguarded through withdrawal from risky investments and transfer to reliable central bank accounts, and private sector financial institutions were advised to protect their respective deposits.

Country case studies are expected to provide an update on whether monetary and fiscal policies have responded further, and review critically whether this has been appropriate. There is a need to distinguish crisis responses from changes in policy for other reasons, e.g. the food price crisis, which left monetary policy tighter than would otherwise have been the case.

4.2 Social policies to respond to the impact of the crisis

While the crisis has not yet resulted in major social protection policy revisions, or a large-scale expansion of social protection provision in most countries, a number of pre-existing programmes have been extended and new programmes introduced, albeit on a modest scale:

- Putting in place or using safety nets and cash transfers for households affected by the global financial crisis (or other recent crises);
- Putting in place safety nets for households affected by the global financial crisis (or other recent crises);
- Changing allocations for social sectors, such as education and health.

The major types of interventions selected to date are food subsidies and rationing (Indonesia and Bangladesh); food distributions for vulnerable groups and school feeding programmes (Cambodia, Indonesia, Bangladesh, Ghana, Kenya and Nigeria); in-kind transfers offering fertiliser (Kenya); cash transfers (Ghana); education scholarships and subsidies (Cambodia and Ghana); and public works programmes (Cambodia, Indonesia, Bangladesh).

It is crucial to review social responses critically: were they put in place in a timely and well-targeted manner, without sacrificing growth in the longer term?

4.3 Economy-wide and sectoral structural policies for getting the country out of the crisis

There are limits to what can be done through short-term economic and social management, which is unlikely to deal with structural challenges. Growth-enhancing policies are one way to get a country out of the crisis. For example, a fiscal stimulus may bring spending and hence growth forward, but a change in business conditions would lead to faster investment, which may raise growth now and in the future.

It will be important to describe whether the crisis has led to changes in any policies that discriminate among different types of sectors or groups in the economy, as well as looking at the changes in aggregate fiscal stance. Structural policies could include:

- Trade policies (tariffs, subsidies);
- Tax policies (e.g. corporate taxes, investment incentives);
- Competition policies;
- Industrial policies (e.g. export processing zones, technology and R&D);
- Business policies;
- Investment climate and administrative procedures;
- Human resource policies.

Such policies could have been implemented economy-wide (e.g. competition policy) or at sector level (e.g. a new skills centre for garments). The aim of this sub-section is to monitor the policy responses through structural growth approaches.

4.4 Institutional context and constraints of policymaking

Some countries have better state–business relations and institutional setups to respond to crisis. This financial crisis has led to the setup of crisis task forces in some countries.

- What is the composition of the task force?
- What has it advocated?
- What have been the effects?

Apart from the institutional setting, it may also be useful to discuss the economic constraints to policymaking, e.g.

- Exchange rate developments condition monetary policy responses.
- Government debt conditions fiscal responses.

4.5 Multilateral and bilateral donor responses in-country

While Phase 1 results indicated no major pullout of aid, it is likely that there is some impact still to come. More positively, the international system (e.g. IMF, regional development banks – RDBs) has responded quickly. It is possible to distinguish between bilateral aid responses and responses in relation to the international system, including the international financial institutions (IFIs). One can consider a number of issues when examining donor responses, such as scope of donor responses, including changes to aid volumes, new aid instruments and reprogramming of aid programmes.

Multilaterals have been very active in responding to the crisis, but countries should respond on what has happened in their country. The IMF has increased its lending to low-income countries from \$1.2 billion in 2008 to an expected \$4 billion this and next year. Conditionality has tended to decrease and the content of conditionality has changed. However, responses (e.g. special drawing right – SDR – allocations) may have varied across countries. The World Bank's International Development

Association (IDA) and International Finance Corporation (IFC) have also increased their activity, at differing speeds.

There are four ways to describe bilateral responses:

- **Aid volumes:** Some countries have cut their aid spending, e.g. Italy by 56% and Ireland by 24%, leading to cuts in their ODA/GNI ratios. Other countries are sticking by their (high) ODA/GNI levels (Denmark, the Netherlands), which implies cuts to planned ODA, e.g. by €600 million (or 11%) in the case of the Netherlands. There are also countries where aid is increasing, such as the UK, with both volumes and ODA/GNI ratios increasing.
- **Aid programming:** Some countries are changing the allocation of aid across countries owing to the crisis (e.g. the Netherlands). It is not clear whether countries are changing their within-country programmes. Others report that they have not made major changes (Germany). Some are increasing their relative spending through multilateral channels (the Netherlands and probably Norway).
- **New initiatives:** Bilateral support to new, often multilateral, initiatives for the IMF or the World Bank's vulnerability fund (the Netherlands, Germany), and increased spending on social protection (Australia) and infrastructure. There does not appear to be an overall bias and donor interest in certain areas may prevail.

Countries should report what bilateral donors have done (including any changes planned for the future).

5. Conclusions and looking ahead

5.1 The impact of the crisis: An update

This section concludes by asking what new insights have been gained from the new monitoring.

5.2 Looking ahead: How well is the country positioned to gain from a future recovery and to grow sustainably?

The paper could conclude by looking into the future, asking whether the country is well positioned to gain from a future recovery:

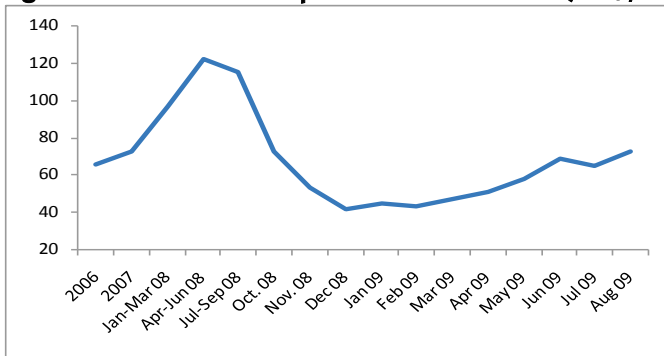
- Is it competitive?
- Has it introduced the right policies for future growth?
- Has it the right institutional framework and capacity?
- Will it be able to withstand future crises more effectively?

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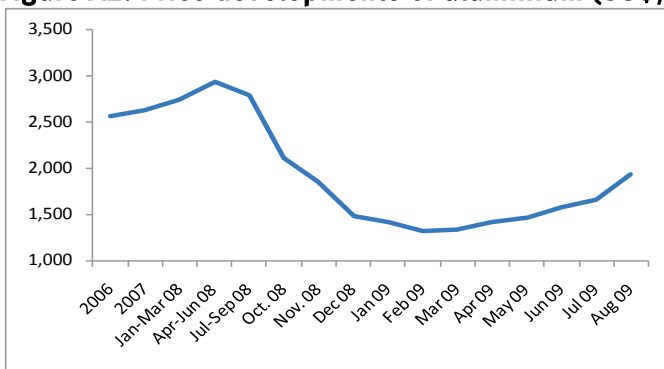
Annex 1: Commodity prices

Figure A1: Price developments of crude oil (US\$/bbl)



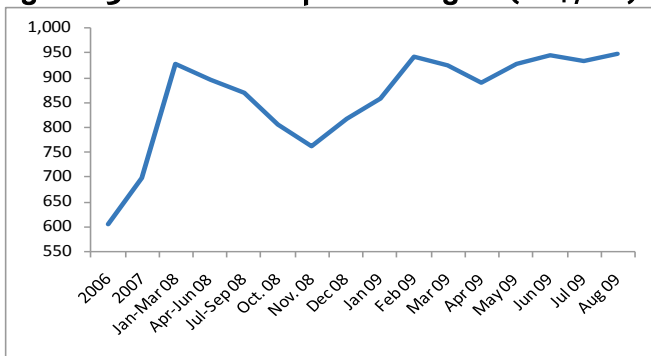
Source: World Bank Pink Sheets. Periods change from years, to quarters and months.

Figure A2: Price developments of aluminium (US\$/mt)



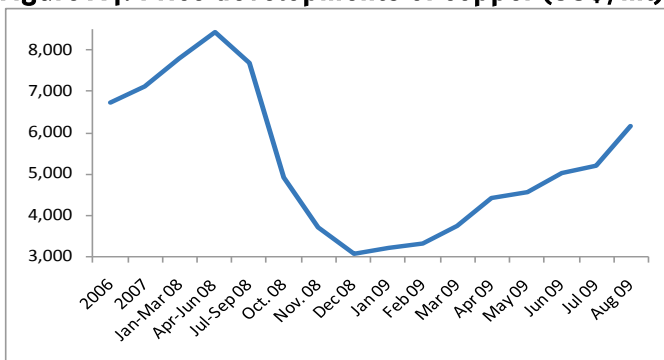
Source: World Bank Pink Sheets. Periods change from years, to quarters and months.

Figure A3: Price developments of gold (US\$/toz)



Source: World Bank Pink Sheets. Periods change from years, to quarters and months.

Figure A4: Price developments of copper (US\$/mt)



Source: World Bank Pink Sheets. Periods change from years, to quarters and months.



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