

THE IMPACT OF GLOBAL FINANCIAL AND ECONOMIC CRISIS ON AFRICA: TRANSMISSION CHANNELS AND POLICY IMPLICATIONS

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POLICIES TO FOSTER AND SUSTAIN SOCIOECONOMIC STABILITY
IN TIMES OF CRISIS**

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THE ISSUE

- ✘ How serious is the impact of the crisis on African economies?
- ✘ When is it going to recover?
- ✘ What are the policy implications?
- ✘ And how best could African countries respond to the crisis.

THE OBJECTIVE

- ✘ Identifying the transmission channels of the economic and financial crisis to African economies
- ✘ Analyzing the policy implications
- ✘ Understanding how best could African countries respond to the crisis

THREE KEY CONSIDERATIONS

Possible transmission channels

- ✘ Two main channels of financial crises: financial flows and trade shocks.
 - + Transmission is stronger in emerging economies with well-developed financial markets and strong linkages to advanced economies. Financial flows and other External Shocks

Buffer

- ✘ Macro stability and the level of Financial Market Development
 - + While macroeconomic stability provides some protection against financial stress, it also helps speedy recovery once the crisis recedes.

Policy options

- ✘ Domestic Demand
 - + While countries with low fiscal deficits have used fiscal stimulus as a counter-cyclical measure, policy rates have been employed in those with limited fiscal space to stimulate their economies.

THE APPROACH

- ✘ In this paper we use a Vector Auto Regression (VAR) model
- ✘ The beauty of a VAR is that we don't have to use economic theory to construct the model as it provides an alternative system to traditional structural models in capturing the multidimensional objectives of the paper more effectively. Structural models **have limitations** in providing dynamic specifications that identifies all the relevant relationships.
- ✘ The VAR approach also allows us to sidestep the need for a theoretical structural model by **treating all endogenous variables in the system as a function of the lagged values** of all the endogenous variables in the system.

THE MODEL

$$Y_{it} = + \sum_{s=1}^p \alpha_{is} Y_{i,t-s} + U_{it}$$

$$i = 1, 2, 3 \dots N \quad t = 1, 2, 3 \dots T$$

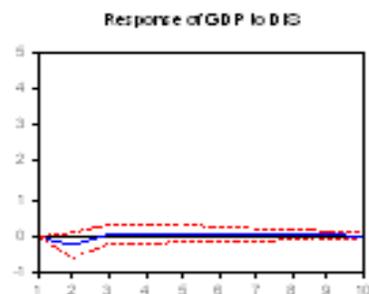
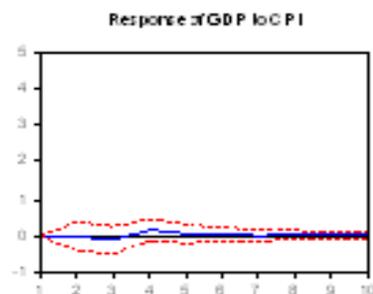
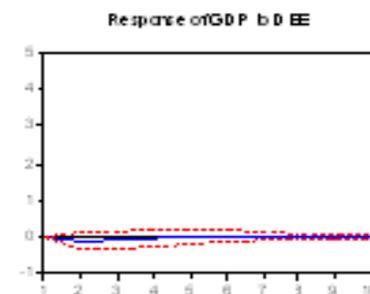
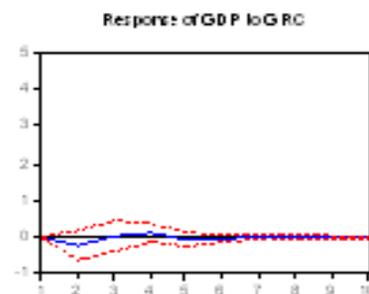
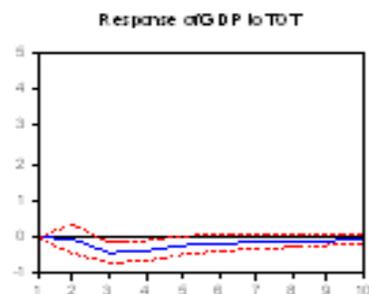
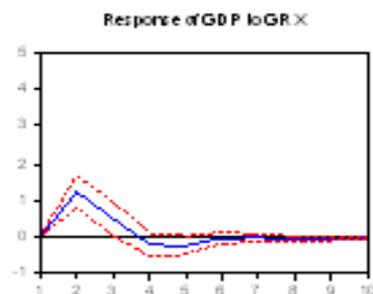
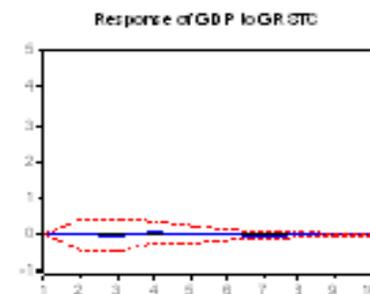
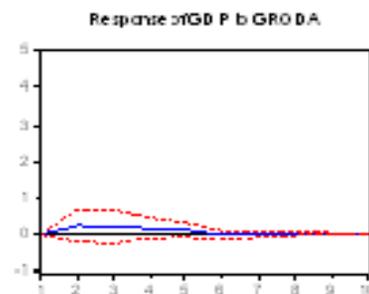
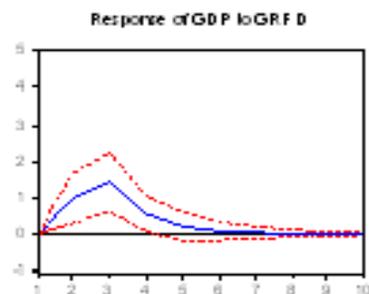
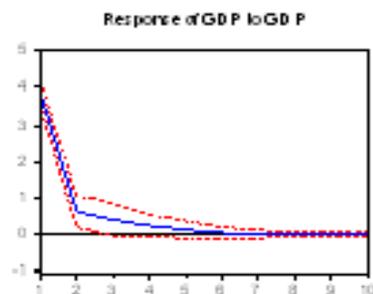
Where the vector of interest for cross section i in period t is given by:

$$Y_{it} = [GDP_{it}, GRFDI_{it}, GRODA_{it}, GRSTC_{it}, GRX_{it}, TOT_{it}, GRC_{it}, DEE_{it}, CPI_{it}, DIS_{it}]$$

- ✘ Real Output: Gross Domestic Product (GDP)
- ✘ Financial flows: FDI, ODA and Short-term Capital Flows (STC)
- ✘ Macroeconomic Stability: Consumer Price Inflation (CPI)
- ✘ External Shocks: Terms of Trade (TOT) and Exports (X)
- ✘ Financial Market Development: Financial Deepening (DEE)
- ✘ Domestic Demand: Government Consumption (C) and Central Bank Policy Rate (DIS)

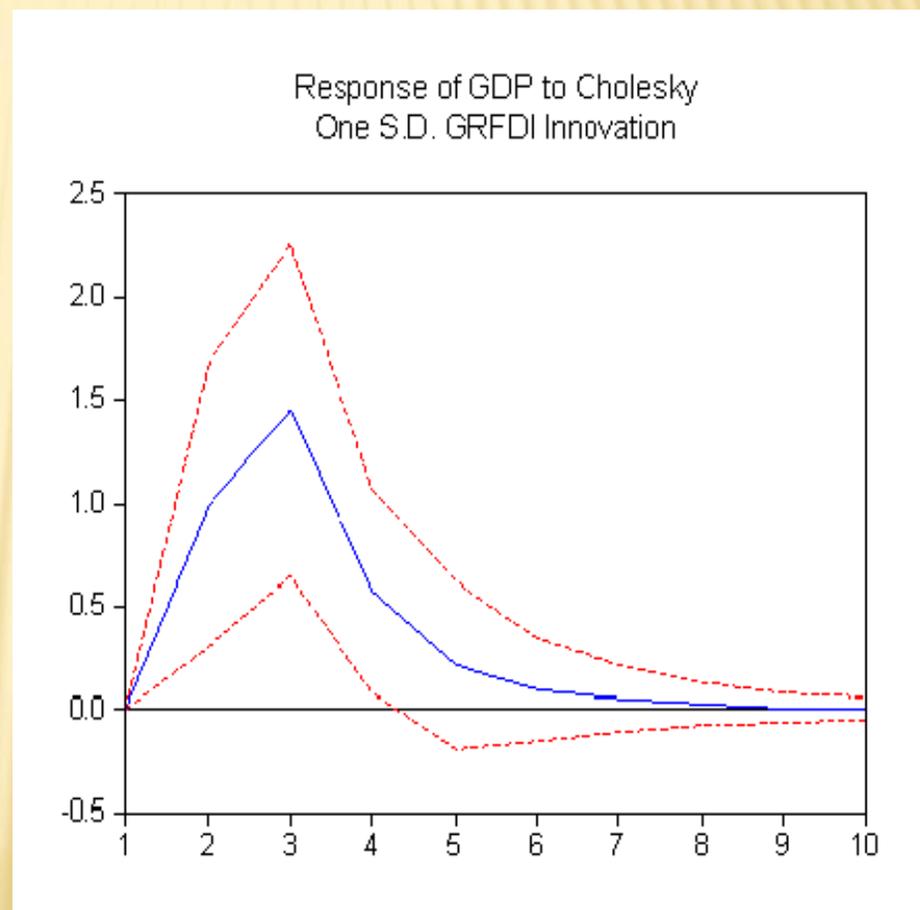
RESULTS: IMPULSE RESPONSE FUNCTIONS

Response to Cholesky One S.D. Innovations ± 2 S.E.



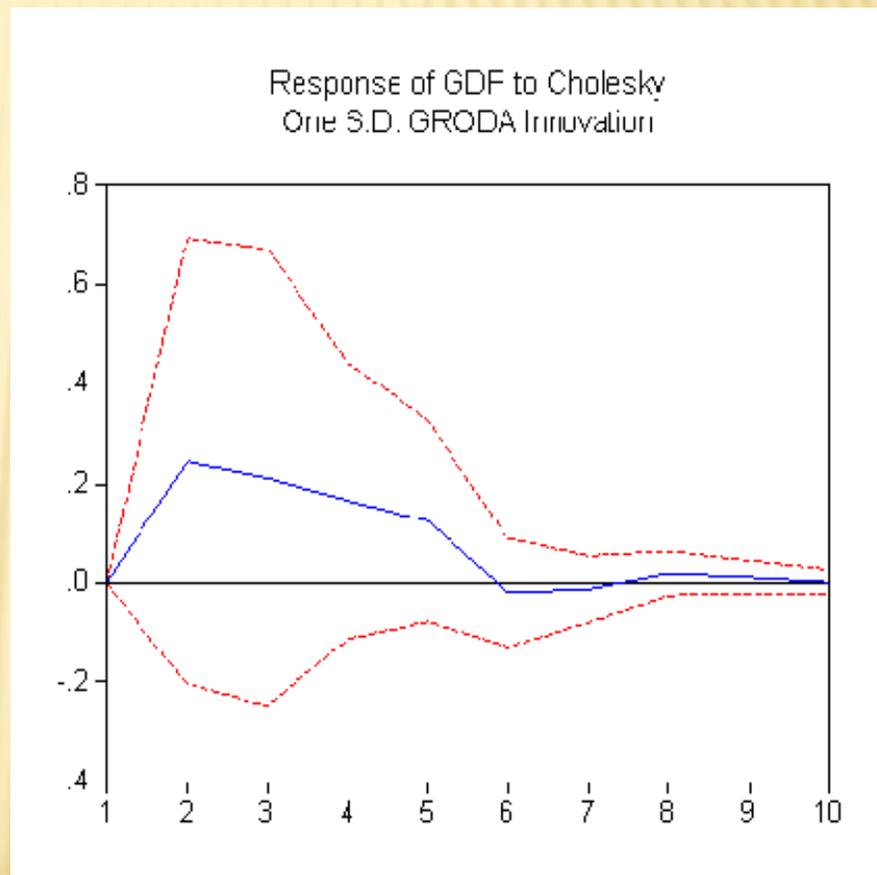
IMPULSE RESPONSE OF GDP TO INNOVATIONS IN FDI

- ✘ A positive shock to FDI growth in Africa has a positive effect on GDP growth from the second year onwards with the maximum impact occurring in the third year. By that time almost three quarters of its impact is already felt.
- ✘ A similar impact of FDI is seen in SSA and non-resource rich SSA countries with the impact lasting a little longer.



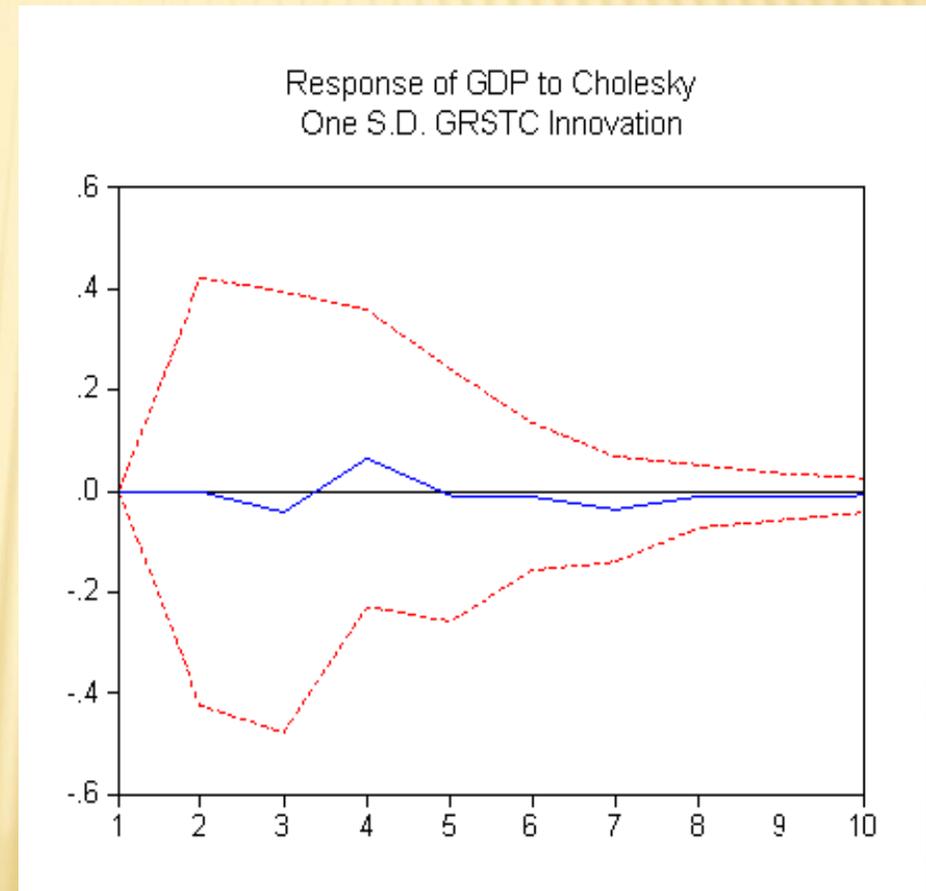
IMPULSE RESPONSE OF GDP TO INNOVATIONS IN ODA

- ✘ Growth in ODA has little impact on GDP growth. Even the smaller impact it generates gradually dies out after the fifth year.
- ✘ The impact of ODA on economic growth, although small, is higher in non-resource rich countries than in Africa and SSA.
- ✘ On the other hand, it has a larger impact on SSA countries than Africa



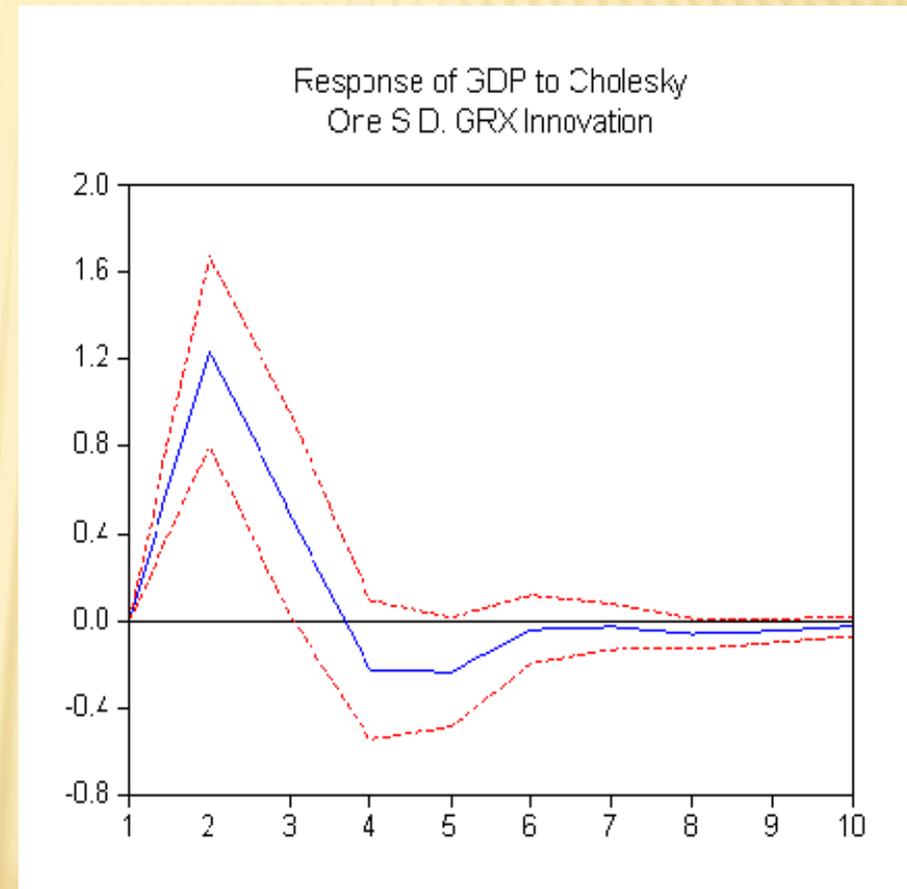
IMPULSE RESPONSE OF GDP TO INNOVATIONS IN STC

- ✘ A positive shock to short term capital has a negligible but negative impact on economic growth from the second year onwards.
- ✘ The effect is larger in SSA and non-resource rich economies.



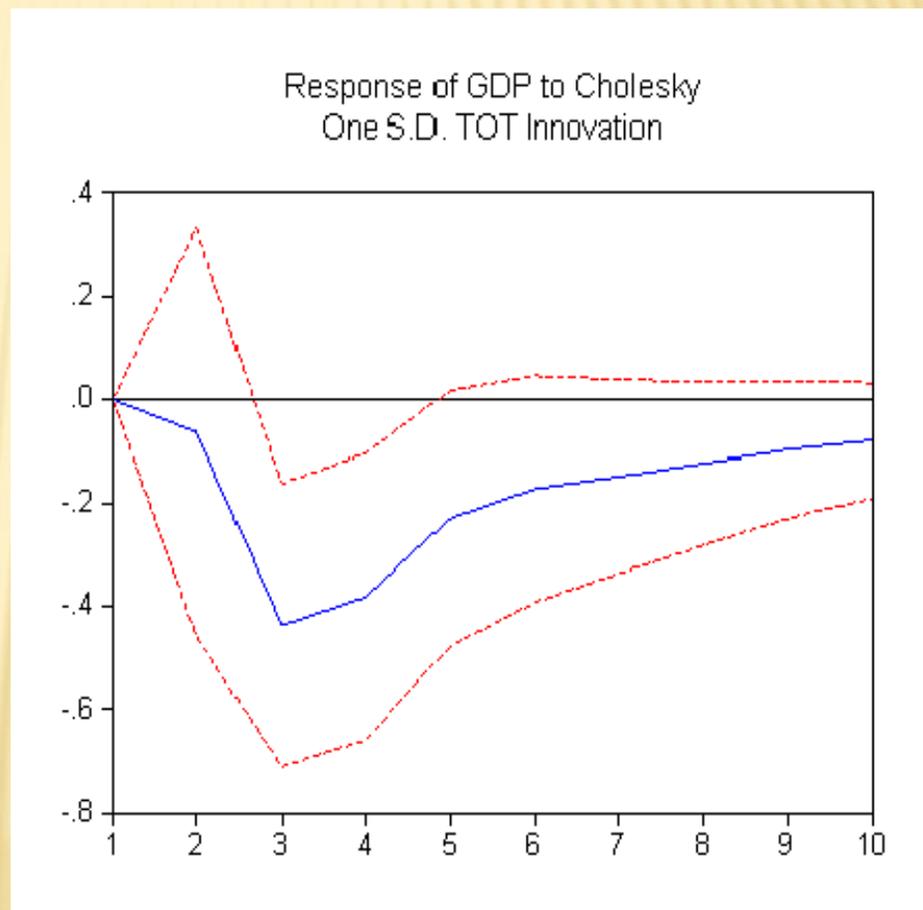
IMPULSE RESPONSE OF GDP TO INNOVATIONS IN EXPORTS

- ✘ A shock to exports impacts GDP at its highest on the second year in African countries, continues to gain in the third year as well before impacting negatively from the third year onwards and dies out after the fifth year.
- ✘ A shock on exports will have a larger impact on economic growth in SSA countries.
- ✘ Non-resource rich countries having the smallest.



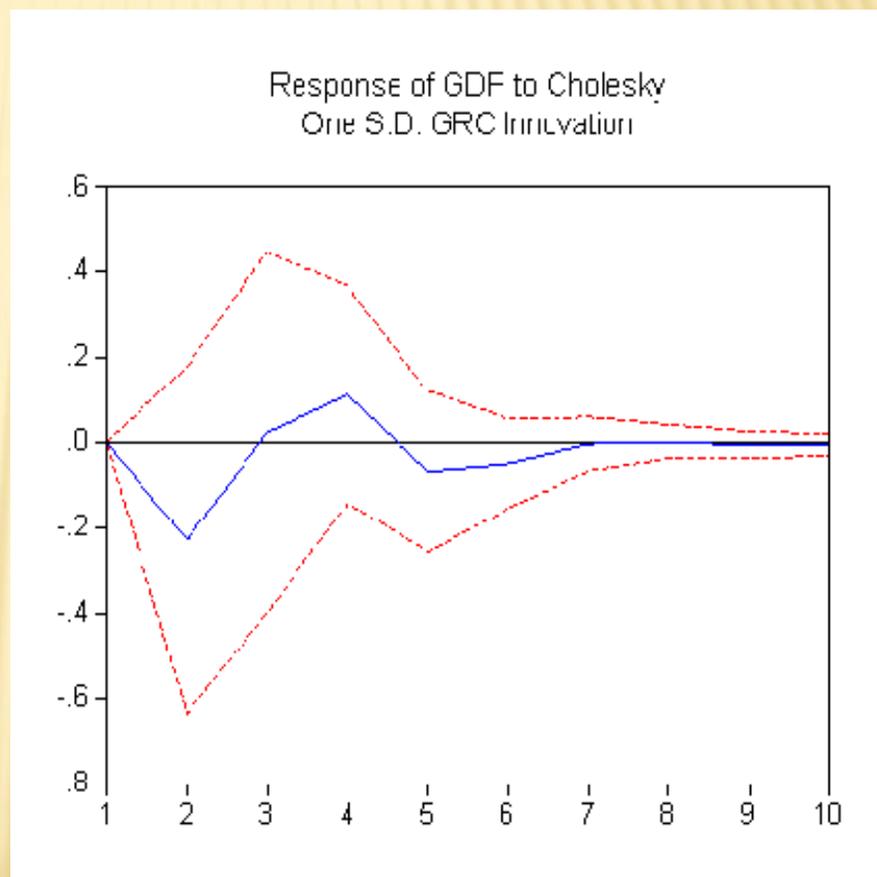
IMPULSE RESPONSE OF GDP TO INNOVATIONS IN TOT

- ✘ A positive shock to TOT has a negative but small impact on GDP growth.
- ✘ While the cumulative impact appears to be more or less the same in all regions/groups in Africa, the impact is felt quicker in non-resource rich SSA countries.



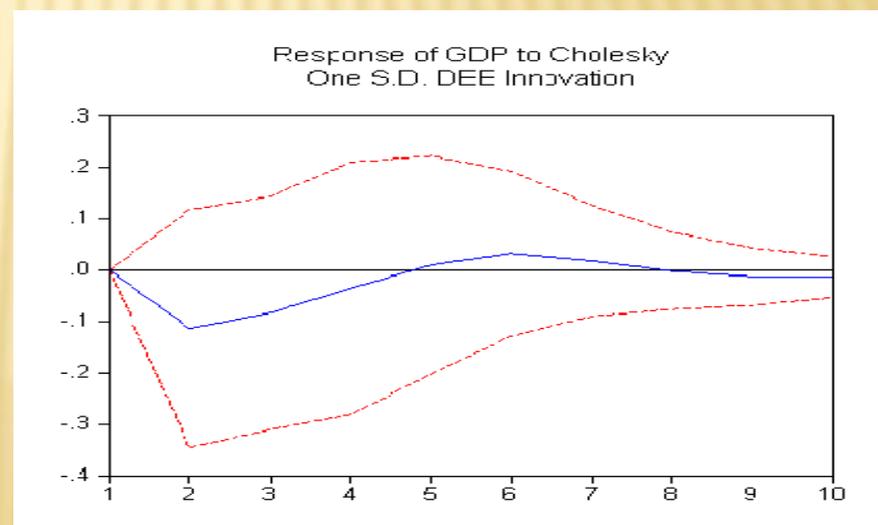
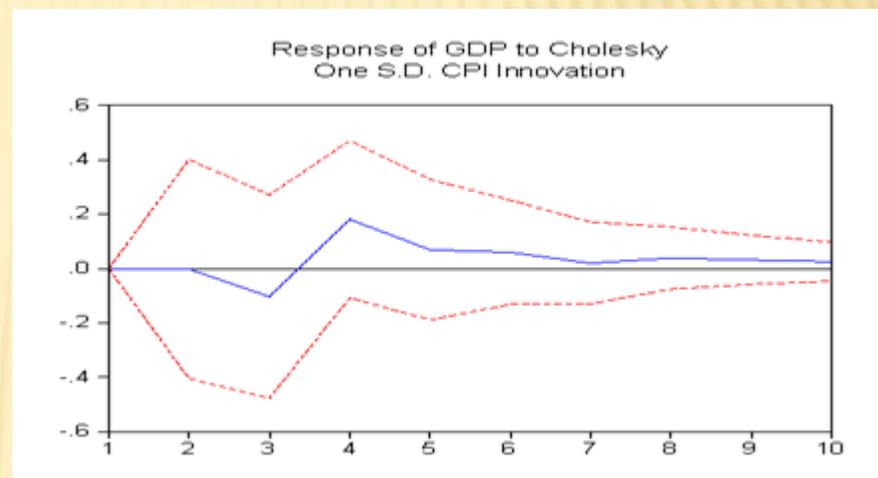
IMPULSE RESPONSE OF GDP TO INNOVATIONS IN GOVERNMENT CONSUMPTION

- ✘ Government consumption expenditure shock initially has a small but negative impact on economic growth. The impact turns positive from the third year onwards but the cumulative effect remains negative throughout for both Africa and SSA.
- ✘ For non-resource rich countries, the initial small negative impact of a shock on government expenditure becomes positive while the cumulative impact remains positive.



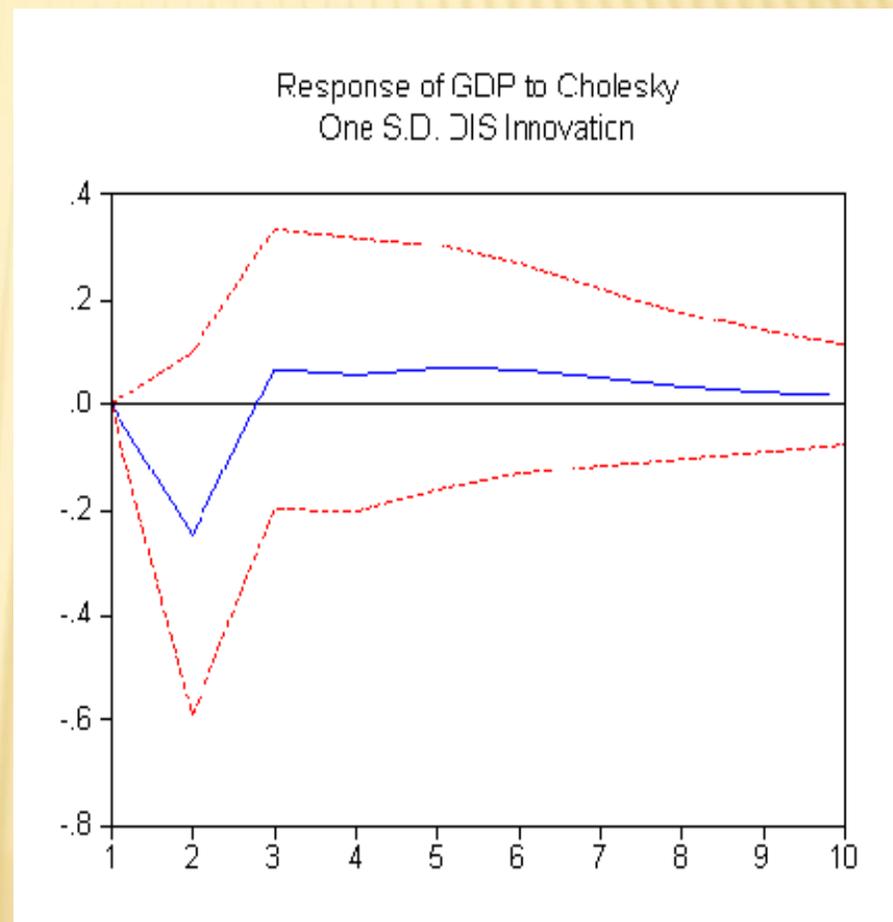
IMPULSE RESPONSES OF GDP TO INNOVATIONS IN INFLATION AND FINANCIAL DEEPENING

- ✘ Shocks to inflation rate and financial deepening do not seem to have any significant impact on economic growth.
- ✘ However, a positive shock to inflation appears to have a negative effect on short-term capital flows while growth in FDI and ODA to Africa seem to be non responsive to such shocks.
- ✘ Non-resource rich countries, followed by SSA and Africa, will feel the highest impact of an inflation shock on short-term capital flows.



IMPULSE RESPONSE OF GDP TO INNOVATIONS IN POLICY RATE

- ✘ A positive shock on the policy rate has a small negative impact on the GDP growth rate in the second year but turns positive from the following year onwards. The long run cumulative impact of the shock is positive.
- ✘ Although small, non-resource rich countries will feel the highest impact of a policy rate shock on GDP growth.



RESULTS: VARIANCE DECOMPOSITION OF GDP

Period	S.E.	GDP	GRFDI	GRODA	GRSTC	GRX	TOT	GRC	DEE	CPI	DIS
1	3.919640	100.0000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
2	4.295829	85.37815	5.244863	0.324629	1.47E-05	8.349512	0.021625	0.282014	0.069792	2.32E-05	0.329374
3	4.606852	75.01420	14.46658	0.493427	0.008216	8.394462	0.923134	0.247814	0.093225	0.050467	0.308475
4	4.678704	72.99432	15.53549	0.604405	0.026804	8.368930	1.563004	0.298460	0.096044	0.198170	0.314371
5	4.700127	72.40772	15.60163	0.668938	0.026945	8.542262	1.788747	0.316298	0.095646	0.217835	0.333975
6	4.705996	72.23931	15.60289	0.669059	0.027442	8.527670	1.919781	0.326460	0.100151	0.233340	0.353896
7	4.709261	72.13942	15.59347	0.668842	0.033415	8.518767	2.017795	0.326044	0.101524	0.234752	0.365972
8	4.711697	72.06626	15.58048	0.669669	0.033892	8.525382	2.084305	0.325742	0.101426	0.241219	0.371621
9	4.713173	72.02149	15.57084	0.669820	0.034521	8.529614	2.126035	0.325720	0.102036	0.245549	0.374369
10	4.714039	71.99504	15.56535	0.669581	0.034849	8.529184	2.153321	0.325712	0.102862	0.248230	0.375878

Cholesky Ordering: GDP GRFDI GRODA GRSTC GRX TOT GRC DEE CPI DIS

VARIANCE DECOMPOSITION

- ✘ The majority of the variation in GDP growth is caused by itself. For the Africa region, 85 per cent of the variation of GDP due to innovations is caused by itself in the short run.
- ✘ Growth in exports contributes to 8 per cent of the variation in GDP growth, while FDI accounts for 5 per cent.
- ✘ The contribution of the growth in FDI to GDP growth increases over time, the share rising to 15 per cent as its own contribution drops to 72 per cent.
- ✘ While the impact of exports remains stable at 8 per cent, the variation caused by improvements in terms trade increases from almost zero to 2 per cent in the long run.
- ✘ The VAR system for SSA countries provides similar results.

VARIANCE DECOMPOSITION CONT:

- ✘ However, the results for non-resource rich countries differ quite substantially from Africa and SSA. While its own effects explain 77 per cent of the variation of GDP due to innovations in the short run, FDI growth accounts for 12 per cent.
- ✘ The variation caused by exports is only 7 per cent. The long run contribution of the growth of FDI to GDP growth increases to 25 per cent as GDP growth's own account reduces to 61 per cent.
- ✘ ODA, short-term capital flows, Government consumption, financial deepening, inflation and bank rates do not appear to contribute much to the variation in GDP growth.

TRANSMISSION CHANNELS AND IMPACT

- ✘ Two main channels of transmission of external shocks to African countries: FDI and exports.
- ✘ A negative shock to FDI flows to Africa can have a significant impact on economic growth during the second year and more so in the third year.
- ✘ The negative impact will continue to affect the rate of GDP growth into the long run (about five years) albeit at a milder force.
- ✘ The most vulnerable would be non-resource rich SSA countries as the response of economic growth to a shock in FDI growth is larger.

TRANSMISSION CHANNELS AND IMPACT

- ✘ Export growth being a major transmission channel of the crisis to African economies, a reduction in external demand is likely to reduce GDP growth of African countries from the second and third years after the crisis.
- ✘ Mostly Africa and SSA countries would feel the initial impact.
- ✘ Although the initial impact on non-resource rich countries is somewhat lower than other regions/countries, the recovery will also be slower in these countries.

TRANSMISSION CHANNELS AND IMPACT

- ✘ A drop in ODA is unlikely to seriously impact on economic growth in African countries, as the impact of ODA on economic growth is marginal.
- ✘ This could be due to many reasons, which need to be well researched. Among the possible reasons are:
 - + lack of prioritization and therefore ODA becoming ineffective in promoting growth,
 - + misuse of ODA by recipient countries for purposes not intended (leakages),
 - + weak linkages between the sectors that receive the bulk of ODA and economic growth, and
 - + limited space in retaining ODA in the recipient developing countries as it flows back to donor countries through various channels
 - + Conditionalities

HOW EFFECTIVE IS THE FISCAL POLICY IN MITIGATING THE IMPACT?

- ✘ The results indicate that expansionary fiscal policies may be ineffective in stimulating African economies.
- ✘ Increases in government expenditure would only reduce GDP growth initially as it might lead to crowded out private investment.
- ✘ This may also be due to lack of focus in government development expenditure, corruption and misclassification of expenditure

HOW EFFECTIVE IS THE POLICY RATE IN MITIGATING THE IMPACT?

- ✘ The central bank policy rate is also an ineffective policy instrument in African countries in stimulating domestic demand and growth.
 - + financial markets are underdeveloped and a culture of credit is yet to be developed. Many still have a large cash economy.
 - + It is the informal market that plays a critical role in the economy and its response to marginal changes in the policy rate is limited.

POLICY RECOMMENDATIONS

- ✘ Reconsider policies towards economic development, particularly in areas such as trade, investment, finance and macroeconomic management.
 - + Promoting regional trade, trade diversification and value addition.
 - + Providing a conducive environment for investment, both local and foreign.
 - + Develop financial markets, in particular the banking systems and a credit culture
 - + Maintaining macroeconomic stability with a lower inflation rate may provide some room for attracting and sustaining short-term capital flows.

- ✘ Effective use of ODA for economic development in African countries.
 - + Prioritization of ODA use: focus on areas with the highest development impact
 - + Maximization of ODA for intended purposes through improved governance and
 - + Improve aid coordination.

THANK YOU