Macroeconomic impacts of commodity price volatility: G20 Report

Aldo Caliari

A Commentary

G20 Leaders at their Los Cabos Summit (June 18-19 2012) stated that "excessive commodity price volatility has significant implications for all countries, increasing uncertainty for actors in the economy and potentially hampering stability of the budgets, and predictability for economic planning."

The statement follows a process begun last year. Then, taking up a long-stated demand by the International Working Group on Trade-Finance Linkages, the G20 charged one of its working groups with preparing a study on macroeconomic impacts of excessive commodity price volatility on growth and the identification of policy options that countries could consider, taking account of national circumstance to mitigate any such effects (hereinafter "the Report").[1] A distinctive feature of this study is that it was drafted by two G20 members (UK and Indonesia), rather than being commissioned to staff seconded by intergovernmental agencies. The report was prepared compiling the inputs by other members as well as the World Bank, UNCTAD and the IMF. The report builds on the Commodity study group that, chaired by the Central Bank of Japan, issued a report last year.[2]

The Report recognizes that "Excessive volatility creates uncertainty over future price levels, and complicates long-term planning and investment which leads to producers and consumers of commodities underinvesting in physical assets that support growth."

The assertion backs a claim made by the International Working Group on Trade-Finance Linkages which, in a submission to the G20 Cannes Summit, stated that "the price swings and distortions resulting from deregulation in commodity markets …negatively affect the capacity of developing countries to prosper, due to their exposure to boom and bust cycles that inhibit investment and productive upgrading strategies." [3]

The Report elaborates on some of the channels by which commodity price volatility affects growth. One of these is, for some countries, the increase in import prices: "Commodity price shocks can have negative effects on commodity importers' growth, a key mechanism being the impact of price increases on inflation leading to reductions in real incomes."

In commodity exporting countries, the Report says that the macroeconomic performance "tends to move with commodity price cycles. This behaviour is generally more prominent for energy and metal exporters than for exporters of food and raw materials."

The deterioration of the macroeconomic indicators in downswings compared with upswings receives attention in the Report, which verifies this deterioration for aggregate credit growth, the current account balance, and the fiscal position.

The Report finds that exchange rate flexibility can help mitigate the procyclicality of capital flows. "During a commodity price boom, an exporter's exchange rate appreciates, and assets tend to become more expensive. Eventually this reduces the rate of return on those assets and hence reduces the incentives for capital to flow." But it balances this assertion recognizing that "procyclicality of capital flows can pose challenges for the level and volatility of exchange rates with implications for non-commodity exporting sectors of the economy," adding that these effects might be magnified by "international carry trade leading to large and volatile capital flows." The effects of this, the Report says, are "distorted exchange rates and frustrated efforts of countries trying to diversify their industry and diversify domestic productions and exports."

Indeed, this latter statement would be more in line with the findings by the IMF staff that "Large fluctuations in exchange rates, due to sharp shifts in capital flows (as we saw during this crisis) or other factors, can create large disruptions in activity. A large appreciation may squeeze the tradable sector and make it difficult for it to grow back if and when the exchange rate decreases." [4] Similarly, researchers who have studied the history of Latin American countries' exchange rates observe that "even a transitory appreciation in the real exchange rate can have lasting effects on a country's manufacturing capacity, and lead to a dismantling of physical, organizational and human capital for it." [5]

Unfortunately, while the Report mentions capital controls as a remedy some countries are using to prevent this procyclicality of capital flows (more on this in section on "Monetary policy") it remains neutral about their use. Further, it fails to draw the connection that countries exposed to commodity price volatility may experience a higher need to resort to such tool. This is a more noticeable vacuum given that the Report also recommends diversification and industrialization as the most important remedies to exposure to commodity price volatility. In other words, less flexibility in the exchange rate (and concomitantly resort to controls on capital flows) would be more warranted in developing countries as they generally need to overcome a less industrialized or diversified structure. But this is not something that the report seems to endorse, even if a direct consequence of its finding.

According to the Report, the variance in the growth performance of developing countries can be explained, largely, by external shocks, where instability in the terms of trade plays an important role.

Shocks caused by the volatility of commodity prices have a negative impact on economic growth through discouraging investment and reducing accumulation of physical capital, and can disrupt government budgets, the Report states. These effects are particularly important in low income countries which as a group, and given their dependence on commodity exports, “have faced much higher terms-of-trade volatility relative to other countries.”

Macroeconomic policy responses to volatility

In terms of macroeconomic policy responses to the impacts of commodity price volatility, it may be good that the Report refrains from dogmatic, one-size-fits-all recommendations, by saying that “the appropriate responses are inherently country specific and need to be tailored reflecting countries’ position as exporters or importers along with level of income and other related factors.”

The Report puts an emphasis, however, on diversification and industrialization within the policy response required. “Commodity exporters need to seek an adequate share of the rents from extractive industries and to consider how to use these revenues efficiently, including, where feasible, pursuing strategies to diversify commodity dependent economies,” says the report. It adds that in the long run, diversification and industrialization remain “some of the best means for developing commodity exporting countries to reduce their vulnerability to the adverse growth effects of excessive commodity price volatility.”

On this point, the report concurs with an important lesson from the crisis identified in consultations with more than fifty five developing country governments that Center of Concern carried out in 2009-2010. One of the messages emerging consistently from such consultations was that “after the crisis [diversification] emerges as an undisputable priority objective for countries that want to ensure that trade contributes to financial resilience.” [6]

The Report also does offer some thoughts on fiscal and monetary policy in particular.

- **Monetary policy**

The Report acknowledges that “countries pursue a range of monetary policy approaches.” It alludes to inflation-targeting combined with a floating exchange rate, and to managed exchange rates coupled with capital controls and accumulation of foreign currency reserves. “They bring different policy challenges and benefits” says the Report, agreeing that “managed exchange rates combined with capital controls could avoid potential procyclicality from capital inflows, while a number of countries have developed successful inflation-targeting frameworks where the floating exchange rate seeks to insulate the economy from impacts of excessive volatility and terms of trade shocks.”

In a recommendation on how countries targeting inflation can manage the impacts of excessive commodity price volatility, it says that “a key factor … is developing and maintaining credible monetary policy framework to anchor inflation expectations. Many countries target headline inflation, using core inflation as a guide. In practice, this means looking through transitory shocks to headline inflation that are not expected to persist beyond the usual target horizon. This can mitigate the potential impacts on output and employment from targeting headline inflation." It is not clear why symmetric advice is not offered for countries not implementing inflation-targeting.

An important distinction that the Report establishes is on the different impacts of commodity price volatility on inflation in advanced countries compared with developing and emerging countries, because the commodity price shocks tend to have larger effects on headline inflation in the latter compared to the former. It identifies three main reasons for this. Firstly, the pass-through from international food commodity prices is higher in emerging and developing economies on average. Second, food consumption shares tend to be higher at a median of 31 percent in emerging and developing economies, versus 17 percent in advanced countries (it provides the example that in 2008 food prices contributed about 5 percentage points to headline inflation in emerging and developing economies on average, but only 1 percentage point in advanced economies). Finally, medium-term inflation expectations may be less well anchored in emerging and developing economies, when compared to advanced economies.

The recognition of the stronger impact that external shocks have on inflation in developing countries should lend credence to the need to implement alternatives to inflation-targeting approaches. For it puts into evidence that countries targeting inflation may be sacrificing demand and output for a lower dividend in terms of effectiveness in maintaining price stability. This is, of course, assuming that inflation-targeting is effective at doing so, a proposition that several studies have called into question.[7]

A further conflict that emerges between inflation-targeting and the impacts of commodity-driven shocks is identified when the Report says "raising interest rates to counter inflation can risk incurring further capital inflows, exacerbating overheating pressures." The Report clarifies that "This task may be easier for those economies with flexible exchange rates, where currency appreciation can take some of the adjustment burden, with corresponding impacts on export competitiveness of other sectors of the economy." Given the Report's recommendation that countries should try to industrialize and diversify, and its recognition that a flexible exchange rate environment makes this harder to achieve, one could conclude that applications (especially rigid ones) of inflation-targeting should be further discouraged.

Strangely, the Report's –admittedly ambiguous-- reference to inflation-targeting seems to encourage such approach. It says that the role of central bank credibility in anchoring inflation expectations is "an important factor in the implementation of monetary policy against commodity price fluctuations. Imperfect credibility of central bank policies may substantially amplify the trade-off between stabilising inflation and stabilising the output gap." Granted, the expression "central bank credibility" may be interpreted as referring to any targets, not just inflation-related ones, but the expression has baggage as inflation-targeting approaches are typically justified on the basis of the need to ensure "central bank credibility." [8]

Reinforcing the ambiguity, this view seems tempered in the Concluding section, where it is said that "Macro level responses need to be country specific, and **could** be aimed at supporting growth and bolstering monetary policy credibility and macroeconomic stability. Building and maintaining central bank credibility **can be** a key feature of approaches to managing expectations and control inflation." (emphasis added)

Summing up, however positive the Report's non-prescriptive stance is, it is rather regrettable that it did not choose to dwell more (at least at a non-recommendatory level) on the potential consequences of its findings for inflation-targeting approaches in developing countries exposed to commodity-driven shocks and the pragmatic alternatives that could be available to them.

- **Fiscal policy**

The Report does recognize also the challenges for fiscal stability. "The excessive volatility of commodity prices complicates fiscal policy in both commodity-exporting and -importing countries because adjusting fiscal expenditures to changes in external environment usually faces significant time lags... This applies in particular for countries in which the size of fiscal revenues is highly dependent on the level of commodity prices."

The Report advocates countercyclical fiscal policies, while referring to "resource exhaustibility, intergenerational equity, and Dutch disease challenges associated with resource discoveries" as other considerations governments should keep in mind in implementing such policies.

The support for countercyclical policies comes, however, with a statement that quotes IMF research for stating that countercyclical policies are more effective under an inflation-targeting regime.

In addition, developing countries, especially LICs, the Report says, could look to take actions to reduce their exposure or create space for more robust responses. "This includes looking to make their budgets more structurally robust, by strengthening domestic revenues and improving systems for managing public spending and debt, ensuring adequate foreign exchange reserves when needed and able and putting in place more flexible and targeted social safety nets."

The use of market-based mechanisms for managing price risks is also advocated in the Report. But it should be commended for recognizing the limitations of such mechanisms in developing countries regarding their availability and affordability, a refreshing dose of realism that is often absent from the prescriptions on these mechanisms by institutions such as the World Bank.

An illustrative paragraph reads "A key question is whether producers have the ability and tools to manage price risk. This may be more difficult for smaller producers, in particular farmers. In developed countries, large-scale, commercially orientated and well equipped farmers are more able to manage price risks through market-based instruments. Smaller farmers may lack access to the knowledge, assets, technologies, market instruments and governance structures to adequately manage their risks. In developing countries, smallholders with little capital, and limited access to markets, often have no possibility to protect themselves against a variety of risks which characterize less developed agricultural sectors."

Another important contribution of the Report is to single out challenges to managing the fiscal impacts of commodity price volatility that are unique to developing countries, such as:

--many governments are not focused on ex ante management of commodity price shocks and are not carefully quantifying and assessing the risks and impacts. Developing countries, and low income countries in particular, may lack the capacity to measure and manage risk;

--governments often lack the necessary legal and institutional frameworks to support hedging transactions;

--in developing or low income countries, governments may not have funds to invest in risk management solutions (such as insurance or hedging transactions)

--If funds are available, governments are often reluctant to make the investment in hedging since such decisions are vulnerable to *ex post* criticism (and associated political risk)

--there is a lack of technical capacity to manage hedging programs in many developing countries

--it may be difficult to establish whether an observed price change is transitory or permanent.

On the sources of price volatility

A minus of the report is that, in spite of the increasing evidence to the contrary,[9] it is reluctant to consider financial investors a source of the volatility.

In a section on spillovers, interactions and inefficiencies in commodity markets affecting price volatility it says that "Assessments of the impact of financial investors on commodity prices remain inconclusive. Large changes in physical supply and demand provide plausible explanations for commodity price trends over the past several years and existing literature finds limited signs of investors causing sustained deviations from fundamentals," though it concedes that there are views that greater investor participation has at times affected commodity price volatility and correlations between commodity and stock markets.[10]

The Report also attaches some role in price increases to monetary policy: "accommodative global monetary condition could also have contributed to the rise in commodity prices especially during the period since 2009." It is emphatic in saying that "monetary policy has affected aggregate demand for all goods, including commodities." But, curiously, it fails to acknowledge the role of deregulated commodity derivatives markets in affecting such aggregate demand. In fact, if not accompanied by rules that allow traders to multiply their bets on commodity derivatives markets without adequate margining and capitalization, and the ability of large traders (especially banks) to take advantage of explicit guarantees on deposit funding and implicit “too big to fail” funding, one wonders whether accommodative monetary policy would led to such level of liquidity.

Other issues

Under “Strengthening the functioning of commodity markets” the Report says “Countries might also assess the potential impact on investment in production when considering taxation and/or regulatory policy decisions. Resource exploitation may be maximized by a fiscal regime which recognises the evolution in investment requirements, and balance between risks and rewards, for new, established and mature or declining resources. The need for governments to receive a fair share of resource rents needs to be taken into account alongside these issues.”

The statement is a key contribution to the debate and a useful complement to the Report’s support for diversification and industrialization as best means to address commodity price volatility. The imperative to industrialize and diversify often neglects the enabling conditions whose critical relevance the Report underscores here: macroeconomic (and also regulatory) policies coordinated to achieve those goals. But the statement also lends support to the claim that full use of techniques for the management of relative profitability across sectors, including the provision of cross-sectoral subsidies, is required to ensure the structure of investment supports a diversified economy. This claim has been made by several developing country governments.[11]

In terms of global responses, it deserves highlighting the Report restated commitment of the G20 to “enhance the transparency and functioning of energy markets, work to improve the Joint Organisations Data Initiative for oil (JODI-Oil) database and work on applying the same principles to JODI-Gas. JODI seeks to improve transparency in energy markets, while the Agricultural Markets Information System will provide a similar function in agricultural commodities.” It foresees that the IEF, IEA and OPEC will present recommendations to the G20 in the second half of 2012.

Also, on export subsidies, the Report notes the differing views of members: “Some members believe that the G20 could commit to the elimination of all forms of agricultural export subsidies and measures with equivalent effect by the end of next year even in the absence of the conclusion of the Doha Round. Others believe that this elimination could only take place in the context of the conclusion of the Doha Round.”

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[1] G20 Commodity Markets subgroup summary report on the impacts of excessive commodity price volatility on growth (available at http://www.g20.org/images/stories/canalfinan/deliverables/energy_markets/Policy_Report_to_Mitigate_Commodity_Price_Volatility.pdf)

[2] For an analysis of that report see Caliari, Aldo 2011. Come with a bang, Gone with a Whimper: G20 Cannes Summit. RBW Occasional Paper (available at www.coc.org/rbw/come-bang-gone-whimper-g20-cannes-summit-november-2011)

[3] International Working Group on Trade-Finance Linkages 2011. Trade-Finance Linkages –An Assessment of Selected Issues on G20 Summit Agenda. November.

[4] See, for instance, IMF 2010a. Central Banking Lessons from the Crisis. Prepared by the Monetary and Capital Markets Department. Approved by José Viñals. May 2;for an analysis of this paper see Caliari, Aldo 2010. IMF love for exchange rate management: A passing fade? (available at https://www.coc.org/node/6588)

[5] Frenkel, Roberto 2011. Presentation at the joint Brazilian Ministry of Finance and International Monetary Fund High Level Conference on "Managing Capital Flows in Emerging Markets." Rio de Janeiro, Brazil. May 26-27.

[6] Caliari, Aldo (Ed.) 2011. The Global Financial Crisis and Trade: Lessons Learned for an Integrated Response. Report from regional consultations with developing country governments. ("Financial Crisis and Trade")

[7] For a review of the relative effectiveness of inflation-targeting at achieving price stability compared with alternative approaches see Epstein, Gerald and Erinc Yeldan 2007. Inflation Targeting, Employment Creation and Economic Development: Assessing the Impacts and Policy Alternatives.

[8] See Chang, Ha-Joon and Ilene Grabel 2004. Reclaiming Development, Chapter 11, for a survey of the literature showing the dubious link between central bank independence and inflationary performance.

[9] See Evidence on the Negative Impact of Commodity Speculation by Academics, Analysts and Public Institutions 2012. Updated July 2. Compiled by Markus Henn at WEED (Germany). (available at http://www2.weed-online.org/uploads/evidence_on_impact_of_commodity_speculation.pdf)

[10] Its views more or less in line with the similarly timid concession made by the G20 Study Group on Commodities last year (admitting that "a growing body of research supports the view that financial investors have affected price dynamics over short time horizons").

[11] See Consultation on Financial Crisis and Trade: Towards an Integrated Approach in Latin America and the Caribbean. Outcome Document (2009) (SP/RCCFC:HRIAL/IF-09), in Caliari, Aldo (Ed.) 2011. Financial Crisis and Trade ("At the domestic level, developing countries should diversify into production activities with increasing returns and productivity. For this they could rely on a strategy of "getting the prices wrong", that is, manipulating the prices of commodities relative to other products through, for instance, monetary, exchange rate and taxation tools.")