



## Tenability of decoupling hypothesis in India

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### ABSTRACT

The world economy collapsed into steep recession in the final quarter of 2008 with global real GDP dropping at a 6 percent annual rate. This was undoubtedly the sharpest decline in world output and especially in world industrial production and world trade of the postwar era, with virtually all countries participating in the downturn and many registering record quarterly declines in real GDP. The global economic contraction continued through the first quarter of 2009, although perhaps at a somewhat slower pace than the preceding quarter. This recession in world economy has also initiated a discussion among economist regarding synchronization of various economies of the world and recession in one country bringing effects in other. In economics Decoupling Hypothesis rejects linkage between world economy and economy of a particular country. The present paper aims to find tenability of decoupling Hypothesis in India and finds correlation between recession in world economies and Indian Economy

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### Introduction

Decoupling of an economy entails significant decline in its business cycle synchronization with that of other countries, meaning that its business cycle moves independent of the business cycle of another economy/group. During the recent global crisis, policymakers and researchers across the globe were debating in the initial phase whether emerging markets economies including India have decoupled from advanced economies. However, as the global financial crisis accentuated and graduated into a full-scale economic slowdown encompassing almost all countries including EMEs, this debate seems to have settled against the decoupling of emerging market economies

It has been argued that the decoupling hypothesis runs against the idea that globalization enhances trade linkages and international financial integration, allowing for a stronger transmission of country-specific shocks across countries and hence, stronger business cycle co-movements (Walti, 2009). Kose, Otrok and Prasad (2008) also mention that greater openness to trade and financial flows should make economies more sensitive to external shocks and increase co movements in response to global shocks by widening the channels for these shocks to spill over across countries

In contrast, the proponents of the decoupling hypothesis hold that emerging market economies have become increasingly less vulnerable to developments in advanced economies on account of strengthening domestic policy frameworks and achieving stronger domestic demand growth, leading to lower business cycle co-movements with advanced economies. Walti (2009) investigated empirically the degree of business cycle synchronisation between emerging market economies and four aggregate groups – all advanced economies, the G7, the United States and the European Union – with annual data from 1980 to 2007.

It was concluded that decoupling is largely a myth as business cycle synchronisation has generally not declined over time and certainly not during recent years and, thus, emerging markets have not decoupled from advanced economies. Similarly,

Rose (2009) investigated the degree of cross-country synchronisation of business cycles in 64 countries taking annual data from 1974 through 2007 and found that countries across the world seem to be moving more closely over time and not less. It was also argued that the evidence presented as indicative of a divergence in economic performance, referred to as decoupling, is not definitive (Kohn, 2008).

### Tenability of Decoupling Hypothesis in India

The increased global integration has rendered the Indian economy's growth movements more correlated with growth movements in the world economy particularly during 2001-2008 compared to the 1980s and 1990s (Table 1)

It is noteworthy that a large part of increased association between growth in India and world has emanated from emerging and developing economies as reflected by the substantial increase in the correlation compared with advanced economies. The increased synchronisation of the Indian economy with the rest of the world was also discernible during the recent global economic slowdown wherein India's growth also decelerated following the global trend despite having unimpaired banking and financial systems unlike some advanced and emerging market economies be tenable in the case of India and other emerging market economies

Chart 1: Trend in GDP Growth

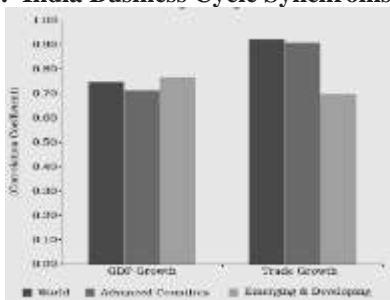


The decoupling hypothesis in the case of India has been investigated by estimating synchronisation of its growth in GDP and trade with other countries.

It has been found that India was not decoupled from the unfolding financial crisis and recession/ slowdown in the USA and other advanced economies as is evident from its very high degree of business cycle synchronisation in income growth with

the world economy, advanced economies and emerging & developing economies during recent periods, ranging from the first quarter of 2005 to the second quarter of 2009 (Chart 2).

**Chart 2: India Business Cycle Synchronisation(2005-2009)**



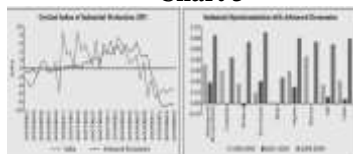
The findings of Walti (2009) also reveal that India has not decoupled with respect to any of the four aggregate groups of advanced economies, viz., all advanced economies, the G-7, the United States and the European Union.

Further, the decoupling of the Indian economy from advanced economies and emerging market economies has been explored estimating the evolving bilateral business cycle synchronisation over the periods with quarterly GDP and consumption data from the second quarter of 1996 to the first quarter of 2009. It is found that business cycle synchronisation (in terms of GDP) of the Indian economy with most of the advanced and emerging market economies has increased over time, in particular during recent periods (2006Q1-2009Q2) (Table 2). On the contrary, the movement in business cycle synchronisation of India in terms of consumption with advanced and emerging economies remained mixed as it has increased over time with some countries, particularly the advanced economies, while declined with others (Table 3).

The degree of co-movements of business cycles of different sectors of an economy with other countries may vary primarily depending on their extent of external openness and exposure through various indirect channels. India's industrial sector has been increasingly exposed to the world economy with rising merchandise trade and capital from international financial markets. Therefore, an attempt has been made to analyse the co-movement of industrial cycles with advanced economies in the wake of contagion emanating from the recent global financial crisis and consequent economic slowdown. The results show that industrial cyclical synchronisation of India with advanced countries, which had fallen sharply from 1995-2000 to 2001-2005 except for Germany, improved substantially in recent periods (2006-2009)4.

During recent periods, India's industrial cycle synchronisation was the highest with Germany, followed by Italy and the US. Another noteworthy feature is the significant increase in industrial synchronisation in recent periods (2006-2009) with major advanced countries (Chart 3).

**Chart 3**



**Source: Report on Currency and Finance 2008-09**

Thus, the strengthening of synchronisation with advanced countries made it difficult for India's industrial sector to remain unaffected from the spillover effects of the global financial crisis and economic slowdown.

#### Spread of the Crisis to India

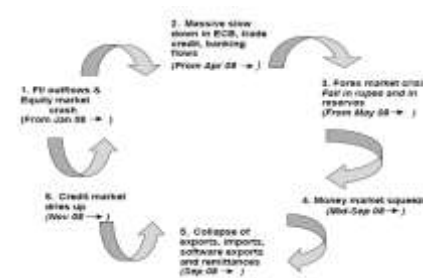
The beginning of the global crisis, triggered by the US sub-prime crisis, can be said to be in August 2007. The run on the

Northern Rock, the UK mortgage bank, in mid-September 2007, the Wall Street crash in November 2007 and the merger of Bear Stearns with JP Morgan in mid-March 2008 and, finally, the collapse of the Lehman Brothers in mid-September 2008 are some of the important milestones in the building up of the crisis. The global crisis got transmitted to India in January 2008 with the beginning of a massive withdrawal of FII investments from India and the consequent crash of the equity market.

However, policy makers in India and abroad could not respond to the crisis early as they were concerned about rising inflation triggered by the hike in global commodity prices. In India, while monetary tightening continued till the end of August 2008, fiscal expansion took place in the beginning of 2008-09, motivated more by populist considerations than for combating the impact of the global crisis.

#### “Sudden Stop” Episode in India

The US financial meltdown led to a sudden withdrawal of capital flows from emerging markets. India too was buffeted by the “sudden stop” of capital flows. The chart below depicts the channels through which the global financial crisis spread to India.



**Source: “The State of the Indian Economy” 2009-10, Working Paper No. 241, Indian council for research on international economic relations**

The reversal of capital flows started in January 2008 through a massive disinvestment by foreign institutional investors (FII) from India's equity markets which led to a crash in stock markets (Stage 1).

There had been a net FII disinvestment of US\$13.3 billion from January 2008 to February 2009 (14 months) in contrast to a net investment of US\$17.7 billion during 2007 (12 months).

This was followed by a massive slowdown in external commercial borrowing by India's companies, trade credit and banking inflows (Stage 2) from April 2008. Short-term trade finance and bank borrowings from abroad swung to outflows of US\$9.5 billion and US\$11.4 billion respectively in the second half of 2008-09.

The crisis struck the foreign exchange markets by May 2008 and the rupee fell by about 20 per cent from May to November 2008 (Stage 3).

The Reserve Bank of India intervened heavily to support the rupee by selling dollars, leading to some depletion of the stock of reserves. By mid-September 2008, the crisis gripped India's money market (Stage 4).

The drying up of funds in the foreign credit markets led to a virtual cessation of external commercial borrowing for India, including the access to short-term trade finance.

The collapse of the stock market ruled out the possibility of companies raising funds from the domestic stock market. Indian banks also lost access to funds from abroad, as inter-bank borrowing seized up in the US and Europe and banks had to send funds to their branches abroad in those countries.

All these put heavy pressure on domestic banks, leading to a liquidity crisis from mid-September to end-October 2008. This

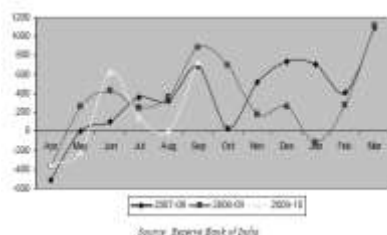
was reflected in the inter-bank call money markets where the call money rates rose to 20 per cent or so.

From September 2008, the trade sector collapsed (Stage 5). In the second half of 2008-09, merchandise exports declined by 18 per cent against a growth of 35 per cent in the first half and imports fell by 11 per cent against a growth of 45 per cent in the first half. The growth in software exports dropped to less than 4 per cent in the second half of 2008-09 (38 per cent growth in the first half) and remittances declined in absolute terms by about 20 per cent in the second half (growth of 41 per cent in the first half of 2008-09).

Domestic banks responded to the sudden loss of different avenues of funds for the Indian commercial sector and increased their lending during the period of "credit crunch".

In September and October 2008, bank finance (non-food credit and investments in shares, bonds, debentures, commercial paper, etc.) expanded more than the previous year, partly compensating for the drying up of funds from other sources (Chart4).

**Chart 4: Expansion of Bank Finance to Commercial Sector (Rs. Billion)**



In the next stage (Stage 6), the crisis spread to the domestic credit market.

The real economy deteriorated from September 2008, shown first by the sharp fall in export growth to 10 per cent in that month from about 35 per cent during April-August 2008, and negative growth thereafter; virtually negligible or negative growth in industrial output from October 2008; and negative growth in central tax revenue collection, also from October 2008. Business and consumer confidence began to ebb leading to a decline in overall demand.

By November 2008, the situation had fundamentally transformed. Expansion of bank finance to the commercial sector slumped to Rs.609 billion during the four-month period, November 2008 to February 2009, just about a quarter in comparison with the expansion of Rs.2,362 billion during the same period a year ago (Chart 2).

This was primarily due to a sharp fall in demand for funds as investment and consumption dropped.

It was also partly due to banks becoming extremely risk averse with the perception of default rising considerably

#### Conclusion:

The recent global crisis was unique in terms of its intensity and synchronisation of slowdown across countries.

The transmission of global shocks to the real sector in India has worked through various channels, notably, trade, finance, expectations and commodity price channels.

In the Indian context, while traditionally the trade channel was the primary conduit of transmission of shocks to the real sector, financial channels have emerged stronger over time.

Even the trade channel has become relatively prominent over time with a rising trade-to-GDP ratio for goods and services

India's business cycle synchronisation has been strengthened by financial openness during the past few years. After the onset of the sub-prime crisis, it was debated whether India, along with other EMEs, had remained unscathed and

decoupled from advanced economies, which were witnessing a severe slowdown.

However, the growth of the Indian economy also slowed down from the third quarter of 2008-09, reflecting the increased business cycle synchronisation of India with advanced countries and EMEs, which invalidated the decoupling hypothesis

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**Table 1:Corelation between Growth of India and the world Economy**

Period	World Economy	Advanced Economies	Emerging and Developing Economies
1980s	0.43(1.4)	0.52(1.7)	-0.02(-0.1)
1990s	0.59(2.1)	0.60(2.1)	0.51(1.7)
2001-2008	0.92(5.8)	0.71(2.5)	0.96(8.4)

Note;Figures in parentheses indicates t-statistics

Source: World Economic Outlook, IMF

**Table 2:India's Business Cycle Synchronisation (GDP Growth) with Advanced and EmergingMarket Economies (EMEs)**

Country	1996-2009	1996-2000	2001-2005	2006-09
Argentina	0.6	0.4	0.4	0.8
Canada	0.4	0.1	0.0	0.8
France	0.4	0.0	0.2	0.9
Germany	0.5	-0.1	0.2	0.7
Indonesia	-0.2	-0.6	0.2	0.1
Italy	0.3	-0.5	0.2	0.9
Japan	0.3	-0.5	0.0	0.8
Korea	0.0	-0.4	-0.4	0.6
Malaysia	0.0	-0.4	-0.4	0.7
Russia	0.0	-0.4	0.2	0.8
United Kingdom	0.6	0.2	0.3	0.9
USA	0.4	0.4	0.2	0.3

Source: Report on Currency and Finance 2008-09

**Table 3:India's Business Cycle Synchronisation (Household Consumption) with Advanced and Emerging Market Economies (EMEs )**

Country	1996-2009	1996-2000	2001-2005	2006-09
Argentina	0.0	-1.0	0.4	-0.8
Canada	-0.2	0.0	0.0	0.1
France	-0.6	0.7	-0.3	-0.8
Germany	-0.2	0.4	-0.2	-0.4
Indonesia	-0.3	0.3	-0.4	-0.4
Italy	0.1	-0.2	0.3	0.4
Japan	0.0	-0.3	0.0	-0.7
Korea	-0.1	0.2	0.0	0.6
Malaysia	-0.3	0.0	-0.1	-0.5
Russia	-0.4	0.5	0.3	-0.8
United Kingdom	-0.2	-0.1	-0.2	0.1
USA	-0.1	-0.3	0.2	0.5

Source: Report on Currency and Finance 2008-09