

# Journal of INTERNATIONAL ECONOMICS

Volume 3, Issue 1, January-June 2012

ISSN 0976-0792

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#### **Journal of International Economics**

#### **Aims and Scope**

Journal of International Economics is devoted to the publication of professional and academic research in all the areas of international economics. It is published in the months of January and July. The journal broadly covers areas such as cross country growth models, population and migration patterns, international trade, trade policy and relations, trade organizations and bodies, foreign investment flows, balance of payments and exchange rate mechanism, multinational corporations and cross border manufacturing, etc.

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# Economic Growth, Employment and Poverty Reduction Nexus: Evidence from Bangladesh

Md Saiful Islam, Md Monirul Islam and Howlader Abubakar







This study is a macro-level analysis of interconnectivity among economic growth, employment and poverty reduction based on the World Bank and Bangladesh Bureau of Statistics data. It employs GDP per capita, employment elasticity, poverty headcount and GINI coefficient values that mostly affect economic growth. The study employed unit root test, cointegration test, error correction mechanism and ARIMA model for examining the relationship of the factors that affects economic growth. It found that employment elasticity and poverty headcount have positive impact and GINI coefficient has negative impact on the economic growth. The value of R square is very high and it seems the result is spurious.

However, with the unit root test and error correction mechanism the stationarity of the model is achieved. Employment ensured increased per capita income and decline in the incidence of poverty. In spite of this, due to the inequality in income distribution, the regional intensity of poverty is widening and varies between urban and rural areas. Thus, efforts are needed on the sustained structural transformation and collaborative expansion of both public and private sectors of the economy that expand more employment opportunities, which will integrate the working poor with the newly expanding economic activities and form long run stable economic growth and ensuring the reduction of poverty.

Keywords: Economic Growth, Employment Elasticity, Poverty Reduction and Bangladesh.

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#### Introduction

The interconnectivity among economic growth, employment and poverty reduction is a concurrent macroeconomic phenomenon and economic growth is intimately tied to employment generation and poverty reduction. Imbalances in macroeconomic policies and poor implementation could result in unemployment thereby exacerbating inequality and poverty. Economic growth is necessary but not sufficient for poverty reduction (Chadha, 2006). Employment plays a vital role in linking economic growth and poverty reduction. The countries which have attained high rates of employment growth alongside high rates of economic growth are the ones that have been successful in reducing poverty.

Growth that reduces poverty faster, produces less inequality and absorbs surplus labor to a desirable degree could be framed as good growth. Bangladesh is believed to have performed well over the years as far as the indicators are concerned. Economic growth rate crossed the 6% mark in recent years from a feeble 5% plus in the second half of the

1990s. Here growth is considered from three angles: the rate of poverty reduction, income distribution and employment generation. However, in addition to economic growth and for poverty reduction purposes one needs to look at the impacts of growth on employment and real wage. The benefit of economic growth in Bangladesh has bypassed the major portion of the population because of the non-equalizing distribution of income.

Though the relationship analysis among growth, employment and poverty reduction has gone through various phases in the development literature, an important premise of the very early theories of development was that the benefits of economic growth would trickle down to the poor (Rahman and Islam, 2003). Likewise, industrial growth cannot reduce poverty unless growth is employment intensive and inequality reducing in nature. Also, Osmani (2003) examines that in the decade of the 1980s, questions have been raised on the linkage between growth and poverty reduction, and attempts have been made to understand the mechanisms through which the benefits of growth may be transmitted to the poor. However, none of these studies plainly examine the employment nexus with economic growth and poverty. Adelman and Morris (1973) noted that economic growth studies had doubt on the part that poor growth may be associated with increased poverty and citing that growth almost always reduced poverty, the process of economic growth will tend to tilt income distribution in favor of the rich leaving little benefit for the poor.

Osmani (2003) identified that attempts have been made to explore the two channels that links economic growth and poverty together: the social provisioning channel and the personal income channel. For the former channel, economic growth enhances the poor to improve their capabilities to escape from poverty. For the latter channel, economic growth translates into a higher income for the poor. Katy (2009) even though gave the intuitive notion that employment matters for poverty reduction; while there is a broad consensus that not all growth spells have the same impact on poverty. There have been relatively few attempts to systematically unpack the relationship between growth, employment and poverty reduction.

Therefore, employment is expected to serve as the principal channel through which the link between economic growth and poverty can be established. To examine the link between employment and economic growth, it will be important to estimate employment elasticity of economic growth (Mulat et al., 2003). Sundaram & Tendulkar (2002) emphasizes that one of the most important links between GDP growth and poverty is employment and the employment elasticity of GDP growth is one way to visualize the strength and direction of such a link. The value of elasticity depends on the level of development of a country and greater the value of elasticity indicates, the higher the capacity of the economy to generate employment.

Gutierrez et al. (2008) analyzed the pattern of growth and its relation to productivity and poverty reduction. Their results suggest that, in the short term, both the employment intensity of growth and the output intensity of growth are equally important for poverty alleviation. Furthermore, higher real income growth relative to employment growth means that the major source of poverty reduction came from substantial improvement in real income. Indeed, overall decline in poverty is associated with declining poverty rates within each sector, rather than from shifts in employment from low-wage sectors to high-wage ones. Bales et al. (2001) suggested that over 90% of the reduction in poverty occurred because earnings rose within each sector, with the largest gains (55-60%) of the poverty reduction accounted by improvement in income within the agricultural sector.

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# Does Bilateral Indian Rupee-US\$ Exchange Rate Follow a Random Walk?

#### **Biswajit Patra**

This paper seeks to examine whether the bilateral Indian Rupee-US\$ exchange rate follow a random walk or not. In other words, this study investigates whether the Indian foreign exchange market is informationally efficient or not. For this study daily data on Indian rupee-US\$ exchange rate have been taken for the period of 1 January 2003 to 31 December 2010. A set of random walk unit root and variance ratio tests are employed to examine the Random Walk Hypothesis (RWH). The results, by and large, confirms absence of random walk. The implication of this finding is that India's foreign exchange market is no longer informationally efficient.

**Keywords**: Market Efficiency, Random Walk Hypothesis, Unit Root Tests, Variance Ratio Tests, Exchange Rate

#### Introduction

The concept of Efficient Market Hypothesis (EMH) has been a debatable issue since the 1970s. According to EMH, weak-form efficiency is referred to the situation where future prices cannot be predicted by analyzing prices from the past. Excess returns cannot be earned because by available information the prices adjust immediately to new information. The theory of random walk Hypothesis is considered to be a sufficient condition for market efficiency. However the rejection of random walk necessarily shows the inefficiency of market. The Random walk hypothesis states that past stock prices are of no value in forecasting future prices because past, current, and future prices merely reflect market responses to information that comes into the market at random. In short, price movements are no more predictable. This hypothesis implies that technical analysis is not helpful to predict future price movements in the market. The stronger the market efficiency, less the chance of predicting the future price is less which is supported by random walk.

The exchange rate series  $\{E_t\}$  is a random walk if it satisfies

$$E_t = E_{t-1} + \alpha_t,$$

Where  $E_0$  is a real number denoting the starting value of the process and  $\{a_t\}$  is a white noise series.

If  $E_t$  is the exchange rate of a particular country to another country at date t, then  $E_0$  could be the exchange rate for the same at its initial period. If the coefficient of  $E_{t-1}$  is unity then the random-walk series is not weakly stationary, and we call it a unit root non-stationary time series. There have been extensive empirical studies on testing Random Walk Hypothesis (RWH) (Liu and He (1991), Choi (1999) Bhanu and Bishnoi (2002), Humpery and Lont,

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The author wishes to convey his greatest regards to Prof Bandi Kamaiah, Department of Economics, University of Hyderabad, for his kind advice and guidance at every phase of his study.



# Role of IMF and World Bank in Global Macroeconomic Stability

#### **Unmana Sarangi**

The paper under review analyzes the role of IMF and World Bank, the major multilateral lending institutions in global macroeconomic stability. Though, global crisis has taken a serious toll of the world economy in terms of global output, international capital flows, unemployment, inflation, exchange rates etc., still the roles of these multilateral institutions in global financial and economic recoveries cannot be undermined. If these institutions would have been non-existent, then the world economy may collapse. Another aspect which needs urgent attention and mention is the increase in voting rights of the developing countries in the multilateral trading system. This has resulted in increase in the bargaining power of these economies vis-à-vis the developed economies.

The paper also highlights the importance of World Bank assistance in economic recovery of South Asia. A mention has also been made on the macroeconomic costs of adopting global regulatory measures which has resulted in adverse impact of higher capital or liquidity requirements which could be offset by easing monetary policy measures. The paper also discusses the role of international capital flows in global macroeconomic stability. Certain statistical tools like slope, covariance and F-Tests have been used to analyze the relationship between the various global economic parameters like international capital flows, government debt, external funding etc.

**Keywords:** External Funding, International Capital Flows, Government Debt, Macroeconomic Costs and Regulatory Measures, Voting Rights, Special Drawing Rights

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#### Introduction

The world economy is recovering from the worst ever recession in over 60 years. The economic recovery was uneven with wide variations in economic growth and recovery process among countries across the globe. In this regard, appropriate and strategic macroeconomic policies need to be addressed adequately globally in order to attain and sustain positive macroeconomic growth paths among these economies. This is only possible with the emerging role of International Monetary Fund (IMF) which has become the international centre for sustained global economic recovery. With a view to making the role and functions of the fund more pronounced, efforts need to be put on strengthening the fund with a focus on redefining and reviewing the fund's mandate and objectives, modernizing its surveillance work, ensuring adequate financial resources and reformation of its governance structure.

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# On Scaling and Multifractal Behaviour in the Indian Foreign Exchange Market

**Anoop S Kumar** 

This work attempts to analyze the presence of scaling behaviour and self similar patterns in the Indian foreign exchange market using various methods. Nominal Effective Exchange Rate (NEER), from April 1993-June 2010 was used for the analysis. This study has employed the estimation of scaling exponents using the classical Hurst exponent, detrended fluctuation analysis and Robinson's semi-parametric estimator. Fractal dimensions were calculated using the box-counting method and Higuchi's fractal dimension algorithm.

A Continuous Wavelet Transform (CWT) was employed to visualize the patterns present in the given series as well. Multifractal spectra were also estimated for the series, and the strength of the multifractal process as well as the strength of various contributing factors towards generation of the mulifractal process was calculated. All results conclusively points towards the presence of statistical self similarity and multifractal behaviour in the Indian foreign exchange market.

**Keywords:** Scaling Behaviour, Indian Foreign Exchange Market, Nominal Effective Exchange Rate, Continuous Wavelet Transform, Statistical Self Similarity

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#### Introduction

The concept of self similarity is all around in nature. It could be of geometrical or statistical type. Mandelbrot (1963), was the first one to find this property in the financial time series. While he carried out his seminal work about the cotton prices, he found them to follow a pattern, while analyzed at various time scales. Mandelbrot coined the term "fractal" to explain the phenomenon. The term fractal implies that a figure or time series data can be seen as similar at various scales i.e. fractals are scale invariant.

There are many definitions of fractals; Addison (1997) defines fractals as "object which appears self-similar under varying degrees of magnification. In effect, possessing symmetry across scale, with each small part of the object replicating the structure of the whole."

Fractals could be of homogenous nature, or otherwise. If the fractal properties of a time series could be explained through a single measure, the series is having mono fractal properties. In the other hand, if the series is having localized fractal structures, then a single measurement will be inadequate to explain the underlying dynamics and the time series is said to be of multifractal nature.

Hurst (1951) was the first to propose a method to measure the self similarity. The statistic

coined by him is named Hurst exponent, which is used to verify the presence of long memory in a give time series. Later Mandelbrot provided many insights into this area, and developed the branch of fractal geometry, which finds many applications in fields ranging from computer graphics to financial analysis.

Traditional finance theory, pioneered by L Bachelier (1914) uses the concept of geometrical Brownian motion to characterize the change of security prices through time, and thus ignores the idea of repeated patterns or scale-invariant self-similar structures. Fama (1965) put forward the Efficient Market Hypothesis (EMH). According to the EMH, in an efficient financial market, security prices adjust rapidly to the arrival of new information, and therefore, the current prices of securities reflect all information about the security.

The implication of the above statement is that sometimes the market will deviate from the equilibrium, but an investor will not be able to profit from the same. If the prices follow a geometrical Brownian motion, there is no memory. It further implies that, with all participants having same cognitive capacity, and access to same information, any one cannot outwit the market. In simple words, the best forecast of tomorrow's price is today's price. Financial assets' price changes can therefore be only explained by the arrival of new information, which, by definition cannot be forecasted.

If there is persistent fractal structures present in the financial market the conventional models, based on geometric Brownian motion and martingales become inadequate to explain the market behaviour. If there are identifiable patterns in the markets, it will be of use to investors, as the patterns will help them to decide their future strategies.

The present study seeks to analyze the presence of self similar patterns in the Indian foreign exchange market. The methodology employed includes calculation of the scaling exponents, fractal dimension as well as a CWT of the given series to have a visual representation of the self-similar structure, and calculating the mulifractal spectra. The study is organized in the following manner. First, a brief review of literature is attempted. Then, the description about data and the methodology employed are given. It is followed by the analysis of the test results, and as the last step, a brief conclusion is written, summarizing the results.

#### **Previous Literature Review**

Golaknath and Reddy (2002) employed Hurst(R/S) statistics and Variance ratio test to analyze the effect of long memory in Indian foreign exchange market. While the VR test did not give any conclusive evidence about presence of long memory, the R/S statistic indicated the presence of long memory with noise.

Soofi et al (2008) employed plug-in and whittle methods based on spectral regression analysis to test for long memory in 12 Asian bilateral daily exchange rates against US\$. The results showed that except for Chinese Renminbi, all the other 11 exhibits long memory characteristics.

Hseih and Shyu (2009) investigated the long-term dependency behavior of Asian foreign exchange markets by using rescaled range analysis. While emerging markets in Korea, Taiwan, India, and Thailand, showed evidences of long memory in the exchange rate return series, persistent behaviour were not found in the markets of Japan, Australia, Hong Kong, and Singapore. Their results imply that the return-generating processes and presence of

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The author would like to mention his sincere gratitude to Dr Bandi Kamaiah (Professor, Department of Economics, University of Hyderabad) for offering valuable suggestions during all phases of the study.



## Indo-German Trade and Investment: A Fresh Look

#### Ratna Vadra

Countries like Germany, UK, France, Belgium, Netherlands, Italy and Spain have been excellent market places for developing countries including India. However, of late, Germany, particularly after the unification with East German territories, has become an unparalleled economic powerhouse in the whole of Europe. India's trade relations with Germany have always been based upon mutual trust and understanding.

However, India's share in Germany's foreign trade has throughout been minuscule while Germany continues to be India's largest trading partner in the EU. Fifty years after signing the Indo-German Development Cooperation, ties between the two countries are set to enter a new era. German investments in India are growing, even as bilateral trade is surging in recent years. The present paper attempts to analyze Indo-German trade.

The objectives of this study are to take a critical look at the current state of economic relations between India and Germany and suggest ways to improve trade and investment flows between the two countries.

Keywords: India Germany, Bilateral Trade Globalization, FDI, Emerging Economies.

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#### Introduction

Fifty years after signing the Indo-German Development Cooperation, ties between the two countries are set to enter a new era. German investments in India are growing, even as bilateral trade is surging in recent years. Germany is the most populous country in Europe and contributes to 23% of the EU budget. It is India's biggest trading partner in Europe and the 5<sup>th</sup> biggest trading partner in the world. Germany is also India's second largest technology partner. India was amongst the first countries to recognize Federal Republic of Germany (FRG) after the Second World War.

During the last three years, important milestones have been crossed in the two-way trade between India and Germany. Among the 236 countries and regions that Germany trades with, India was 28<sup>th</sup> on the list of sourcing countries for Germany and 27th most important destination for German exports in 2008. India's annual bilateral trade with Germany is slated to touch € 20 billion (\$27 billion) by 2012.

In 2011, we are celebrating 60 years of establishment of diplomatic relations between India and the FRG. Our relationship, based on common values of democracy, peace and rule of law, intensified after the German Re-unification in 1990. There has been a rapid growth

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# The State of Microfinance in India: Emergence, Delivery Models and Issues

#### Vikas Batra and Sumanjeet

In the recent times microfinance has received increased attention among the researchers and financial service providers, as a good alternative in the rural credit market. Various studies revealed that microfinance is a powerful instrument for poverty alleviation, enabling the poor to accumulate the assets, boost their incomes, and reduce their economic vulnerability. There are various opinions about the micro credit demand in India. M-CRIL, a leading microcredit rating agency provides a conservative estimate for the annual demand at Rs. 480 billion based on 60-70 million poor families with an average household credit demand of Rs 8,000 (less than \$160).

In the growing market, to meet this huge demand we require the systems and approaches with comprehensive financial inclusiveness. Within this context, the Self-Help Groups (SHGs) movement in India and particularly the SGSY, SHG-Bank Linkage Program (SBLP) of the National Bank of Rural and Agriculture Development (NABARD), various MFIs and community based organizations present the rich experience. The present paper explores the role of and performance of various delivery models of microfinance in India. Further the paper explores some issues like outreach, impact, efficiency, sustainability and financial inclusions.

Keywords: Microfinance, MFIs, Credit Models, Financial Inclusion

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#### Introduction

Finance is one of the most crucial inputs for economic activity, growth and development. Provision of services to the poor and underprivileged sections of the society has always been the focus of various programs initiated by the Governments since independence (Dasgupta, 2001). Despite encouraging policies and having a wide network of rural bank branches in India which implemented specific poverty alleviation programs that sought creation of self-employment opportunities through bank credit, a very large number of poorest of the poor continued to remain outside from the field of formal banking system.

A World Bank-NCAER Survey (2003) on 'Rural Access to Finance' indicates that 70% of the rural poor do not have a bank account and 87% have no access to credit from a formal source. Informal sector lenders remain a strong presence in rural India, delivering finance to the poor on frequently extortionary terms. Access to other financial services such as savings accounts, life, health and crop insurance also remains limited for the rural poor. The failure of India's rural banks to deliver finance to the poor may be attributed to a combination of factors.

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The authors would like to thank Prof Kavita Chakarborthy (MD University, Rohtak) and Sudhanshu Kumar (IGIDR, Mumbai, India) for the enlightening conversations and suggestions on the draft version of paper.



## Trade and Child Labour: A Review of Theoretical Literature



Runa Ray and Biswajit Chatterjee

The term 'Child Labour' is often used as a synonym for 'employed child' or 'working child'. The working conditions of the child labourers are often found to be highly unhygienic and uncongenial and they suffer from various forms of exploitations in different parts of the world.

A report by UNICEF (1977) on the state of the world's children, says that child labour use in hazardous occupation is a betrayal of every child's right as a human being and is an offence against civilization. The problem of the incidence of child labour is an important issue today not only for economic analysts, but also for government, social groups and concerned citizens of every nation.

This paper reviews the theoretical literature on child labour and analyses the effectiveness of different trade and non-trade policies in eradicating the incidence of child labour.

Keywords: Child Labour, General Equilibrium, Trade Policy.

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The term 'Child Labour' is often used as a synonym for 'employed child' or 'working child'. Although a precise definition of child labour is very difficult, it may be defined as that segment of the child population which participates in work, either paid or unpaid, working with the parents either inside family occupations or outside. Any work done by children that interferes with their full physical development, the opportunities for a desirable level of education and their needed recreation are called child labour.

Using this definition, we can distinguish between two types of child labour:

- · Those who assist their parents or family members in their works
- Those who work outside their family for remuneration, either in real terms or in cash, which help them to level up or supplement their family income.

The magnitude of child labour varies across countries and occupation, their working conditions are often highly unhygienic and uncongenial and they suffer from various forms of exploitation in different parts of the world. A report by UNICEF on the state of the world's children, says that child labour use in hazardous occupation is a betrayal of every child's right as a human being and is an offence against civilization. The problem of the incidence of child labour is an important issue today not only for economic analysts, but also for government, social groups and concerned citizens of every nation.