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A Comparative Study: Intensity of Pakistan-China Inflation a Multi-Components Regime

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Abstract

The main portfolio of the study was to revamp and refurbish a result oriented stratagem to reevaluate all components linked directly or indirectly with inflation like consumer price index (CPI), currency, stock market, wages, population, unemployment, GDP, foreign exchange reserves, balance of trade, government debts, industrial production and retail sales may cause to inch up the rate of inflation in Pakistan. Periodical fluctuations and recent data of inflation were examined and compared with China to underpin real intensity of imperfections and the differences between both economies. The focus was to analyze the stream of inflation and suggest parameters for controlled and balanced position.

Key words: Economy, Examine, Inflation, Intensity, Increase, Measures, Rate.

INTRODUCTION:

Generally, the word inflation is termed as a rise in the price of goods and services. The central bank of the country tries to keep it sustain on minimum level. There are some multiple factors involved to raise average prices of goods or services.

Inflation is an upward movement in the average level of prices. Its opposite is <u>deflation</u>, a downward movement in the average level of prices. The boundary between inflation and deflation is price stability (by Parkin and Bade).

The history of inflation with reference to Pakistan economy is an interesting debate. The average rate of inflation was calculated 8.04% in last five decades while it was on highest level 37.81% in 1973 and documented at lower level -10.32% in 1959. These dramatic graphs of rates inflation were the results of ups and downs the country faced time to time in shape of political instability, three wars with neighbor country, separation of one hand Bangladesh, derailing democracy, soviet war in Afghanistan and law & order situation under the shadow of terrorism. These all manifestations badly suffered the economy of the country and made causes to create a gap between balance of payments, currency devaluation and heavy increased in foreign debts. In the other hand China's inflation rate was observed average 5.89% from 1986 to 2013 and was on peak 28.40% in 1989 and low -2.20 in 1999. While, the economy of China was observed through this study quit stable, persuasive and long-standing against Pakistan.

OBJECTIVE OF THE STUDY:

This working was conducted to know the intensity of increasing rate of inflation in country, factors & forces involved and intensive approaches to step down the inflation at appropriate level. Specially, in the era when Pakistani forces are busy to fight against the terrorism as part of allied forces parallel with economic fallout due to un-safety, insecurity and law & situation due to this finance department is bound to spare a big part of the budget for security & precautionary measures and provision of relief for affected. The study aim was to look out the chain of multiple factors having influences on economy of the country, consumer price index, monetary policy, foreign investment, stock exchange, capital gains and to earn confidence of business community.

- > To examine a time series analysis of inflation's existing pace
- > To know the intensity of inflation in the country
- > To examine the involved factors and forces
- > To draw a roadmap for stepping down the influences of unconventional chain of malevolence forces
- To submit the proposals

LITERATURE VIEW:

Latest data from different sources was collected to draw rational and meticulous results. In this connection the sites of all concerned departments were visited and result oriented information integrated month-on-month basis

with aim to table a comprehensive analysis of neighboring countries having wide-ranging share in world economy. A number of papers published by Australian, American and other developed countries experts/economists were consulted to evaluate the current country position and to offer a multi-dimensional stratagem to furnish a formal, concrete and materialistic theory. Informal debates and discussions were organized with entrepreneurs, stakeholders and business community to know their point of view regarding country GDP growth, fiscal deficit, consumer price index (CPI), Industrial production, terms of trade, balance of payment and foreign debts of the country.

METHODOLOGY AND DISCUSSION:

A rapid Increase in unemployment rate, un-elastic demand & supply relations, inflexible price rate of petroleum products, unscheduled power break-down, gap in balance of payment are the chain forces added their role to boost the inflation at peak stage. Dollar's increasing value and devalue of Pakistani currency, burden of foreign debts, Law & order situation, increasing fiscal deficit every year are the key factors damage the economy of the country.

With reference to the inflation point of view in this study we classified the countries into three categories first, second and third. The countries having most dangerous level of inflation like Iran 35%, Argentina 11.10%, Venezuela 22.18%, Nigeria 12.00%, Sudan 43%, Syria 48.10%, Belarus 21.79%, Serbia 12.20%, Ethiopia 12.50%, Mongolia 14.00%, Malawi 28.30%, Guiney 14.40%, Eritrea 13.50% and Bhutan 11.17% are falling in this critical regime.

Most of the countries i.e. India on 6.62%, Russia 7.10 %, Turkey 7.31%, South Africa 5.7%, Singapore 4.30%, Algeria 9.03%, Kazakhstan 6.60%, Vietnam 7.07%, Bangladesh 7.38%, Angola 8.90%, Uruguay 8.72%, Tunisia 6.00%, Lebanon 10.10%, Ghana 8.80%, Macao 5.83%, Yemen 6.47%, Panama 4.70%, Bolivia 4.91%, Tanzania 10.90%, Turkmenistan 5.80%, Trinidad and tobacco 7.17%, Nepal 9.95%, Zambia 7.00%, Botswana 7.50%, Uganda 4.90%, Ecuador 4.10%, Jamaica 8.02% are facing a negative economic fallout due to high inflation rate and tabled in second category. Pakistan is also placed in this category with 8.10% inflation according to the statistics of January 2013.

While a number of countries are falling in category facing acceptable, balanced and controlled inflation rates as compare to first and second categories like United State 1.70%, Euro Area 2.00%, China 2.00%, Japan 0.00%, Germany 1.88%, France 1.30%, United Kingdom 2.70%, Italy 2.20%, Canada 0.8.%, Australia 2.20%, South Korea 1.50% and Iraq 3.60%. Interestingly, some countries are bearing negative inflation rates that's are Japan with -0.10% inflation rate, Sweden -0.10%, Switzerland 0.30%, Ukraine -0.20%, Libya -3.10%, Georgia -1.60%, Somalia -15.35% and so on.



*Information collected from different sources

During this study it was observed that with the passage of time the stream of Pakistan inflation rate was stepping down with a gradual move every month from May-2012 to Nov-2012 while in December 2012 and January 2013 it was shown stepped up in a little move as compare to last phase. Comparing this time series trend with the stream of India it was observed inflation was quite stable verses Pakistan and showed the average rate 7.39% during last thirteen months. In the other side China inflation rate with the average 2.55% was shown the controlled and well-balanced picture.

The rate of inflation on the basis of economist opinion that 2.5 % inflation is acceptable, seven month inflation data of Pakistan and China was used to examine and evaluate the trend and reframe the strategy about all factors

& forces influenced that regime.



*Information collected from different sources

To determine intensity of country's inflation rate we used the method: Test of Hypotheses Concerning the Population Mean on the basis that most of the economists of the world say that the rate of inflation upto 2.5% is acceptable.

For Pakistan the required computations are given in the following table.

F/Y	July-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	
2012-13								
Х	9.6	9.06	8.79	7.66	6.93	7.9	8.10	$\Sigma X = 58.04$
X^2	92.16	82.08	77.26	58.67	48.02	62.41	65.61	$\Sigma X^2 = 486.21$

 H_0 : $\mu = 2.5$ (The country inflation rate is valid and acceptable)

 $H_1: \mu \neq 2.5$ (The country inflation rate is not valid and unacceptable)

Level of significance: $\alpha = 0.05$ (5%)

Critical region: t > 2.447 (*critical value of* $t_{0.025}$ *against* v = n - 1 = 6)

$$\bar{X} = \frac{\Sigma X}{n} = \frac{58.04}{7} = 8.29$$

$$s^{2} = \frac{1}{n-1} \left(\Sigma X^{2} - \frac{(\Sigma X)^{2}}{n} \right)$$

$$s^{2} = \frac{1}{7-1} \left(486.21 - \frac{(58.04)^{2}}{7} \right)$$

$$s^2 = .83$$

S= $\sqrt{s^2}$
While S = 0.91

 $t = \frac{\overline{X} - u_0}{\sqrt{2}}$

$$t = \frac{\frac{s}{\sqrt{n}}}{\frac{8.29 - 2.5}{0.91}}$$

t = 16.79

For China the required computations are given in the following table.

F/Y 2012-	July-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	
13								
Х	1.18	2.00	1.90	1.70	2.00	2.50	2.00	$\Sigma X = 13.28$
X^2	1.39	4.00	3.61	2.89	4.00	6.25	4.00	$\Sigma X^2 = 26.14$

 H_0 : $\mu = 2.5$ (The country inflation rate is valid and acceptable)

 $H_1: \mu \neq 2.5$ (The country inflation rate is not valid and unacceptable) Level of significance: $\alpha = 0.05$ (5%)

Critical region: t < -2.447 (*critical value of* $t_{0.025}$ *against* v = n - 1 = 6) $\bar{X} = \frac{\Sigma X}{n} = \frac{13.28}{7} = 1.89$ $s^2 = \frac{1}{n-1} \left(\Sigma X^2 - \frac{(\Sigma X)^2}{n} \right)$

$$s^{2} = \frac{1}{7 - 1} \left(26.14 - \frac{(13.28)^{2}}{7} \right)$$

$$S = \sqrt{s^{2}} = \sqrt{0.16}$$

$$S = 0.40$$

$$t = \frac{\overline{X} - u_{0}}{s/\sqrt{n}}$$

$$t = \frac{1.89 - 2.5}{0.40/\sqrt{7}}$$

$$t = -4.02$$

CONCLUSION:

For Pakistan the calculated value of t = 16.79 is greater than the critical value of $t_{0.025} = 2.447$ (i.e. t falls in the critical region), we reject the H_0 (Null Hypothesis: The country inflation rate is not valid and unacceptable) at 5% level of significance. We, therefore, conclude that the country inflation rate is in critical regime at the level of 8.07% which was last month on 7.9%. The acquired t value is also showing the influences of the factors & forces involved in stepping up the inflation, declining industrial the productivity and commercial activity and imbalance the import export ratio.

While for China the calculated value of t u= -4.02 is less than the critical value of $t_{0.025} = -2.447$ (i.e. t does not falls in the critical region), we accept the H_0 (Null Hypothesis: that the country inflation rate is valid and acceptable) at 5% level of significance. We, therefore, conclude that the country's inflation rate is not in critical regime at level of 2.00%. Further we can say that the China' economy is controlled, stable and balanced verses Pakistan in connection to all financial components.

SUGGESTIONS:

- Consumer Price Index based on food and non-alcoholic beverages, housing, electricity, water, gas, fuels, clothing, footwear, transport. Further includes furnishing & household equipment, education, communication, health, recreation & culture, restaurants & hotels, alcoholic beverages & tobacco and other goods & services. These all categories are linked directly or indirectly with each other's and may cause to inch up rate of inflation. If any component may out flow/affected the other would suffer automatically vice versa if any component may retreat or rectify the others automatically would get going. So the all components are needed to readdress and consider.
- Energy crises is also the main component of the negative economic fallout, unscheduled breakdown of power supply disturb the industrial production and may need to explore alternative resources like strategy about recovery of circular debts, eliminate line losses and capacity increase in hydro-generation electricity with construction of new dams.
- Fuel prices suffer the business market and industrial output and need to retreat the bi-monthly set-up of price fixing.
- Government dire need to legislate rules and regulations about money changers mafia and proper implementation and further to earn the confidence of overseas Pakistani they may transfer their earning through banks.
- Demand and supply also linked with the inflation rate and stable economy if the demand of commodities in the market fulfill through a sustainable supply by increasing industrial production inflation can be controlled and sustain on required level.
- Law & order situation perform vital role in country' economy and last decade it is observed that a large community have shifted their businesses out of country in Bangladesh and Sri Lanka. So there is a dire need to control the law & order situation and practice good governess to earn the confidence of business community.

REFERENCES:

- Bade, R. and M. Parking. 1984. Central Bank Laws and Monetary Policy. Department of Economics, University of Western Ontario, Canada.
- Finlay, R. and Wende, S. 2011, 'Estimating inflation expectations with a limited number of inflation-indexed bonds', *Research Discussion Paper*, Reserve Bank of Australia, March.
- Hurd, M. and Relleen, J. 2006, New information from inflation swaps and index-linked bonds, *Quarterly Bulletin*, Bank of England, Spring, p29.
- Kim DH and JH Wright (2005), 'An Arbitrage-Free Three-Factor Term Structure Model and the Recent Behavior of Long-Term Yields and Distant-Horizon Forward Rates', Federal Reserve Board Finance and Economics Discussion Series No 2005-33.

- Steele JM (2001), Stochastic Calculus and Financial Applications, Applications of Mathematics, Volume 45, Springer, New York.
- McCulloch JH and LA Kochin (1998), 'The Inflation Premium Implicit in the US Real and Nominal Term Structures of Interest Rates', Economics Department of Ohio State University Working Paper No 98-12.
- Adam, Klaus and Mario Padula (2003): Inflation Dynamics and Subjective Expectations in the United States, working paper.
- Atkeson, Andrew and Lee E. Ohanian (2001): Are Phillips Curves Useful for Forecasting Inflation?, Federal Reserve Bank of Minneapolis Quarterly Review, 25, pp.2-11.
- Bryan, Michael F. and Stephen G. Cecchetti (1994): Measuring Core Ination in \Monetary Policy" N. Gregory Mankiw (ed.), Chicago University Press, Chicago.
- Clements, Michael P. (2004): Evaluating the Bank of England Density Forecasts of Inflation, Economic Journal, 114, pp.855-877.
- Groen, Jan J.J., George Kapetanios and Simon Price (2009): A Real Time Evaluation of Bank of England Forecasts of Inflation and Growth, International Journal of Forecasting, 25, pp.74-80.
- Groen, Jan J.J., Richard Paap and Francesco Ravazzolo (2009): Real-Time Inflation Forecasting in a Changing World, Federal Reserve Bank of New York Sta Reports, 388.

Fuhrer, Je- and George Moore, "Inflation Persistence," Quarterly Journal of Economics, 1995, 110, 127-159.

- Rotemberg, Julio J., "Sticky Prices in the United States," Journal of Political Economy, 1982, 60, 1187-1211.
- Durham J.B. (2006), "An Estimate of the Inflation Risk Premium Using a Three-Factor Affine Term Structure Model", Federal Reserve Bank of Washington, Finance and Economics Discussion Series, 2006-42.
- Mamun, A. and Visaltanachoti, N. (2006b), "Inflation Expectation and Asset Allocation in the Presence of an Indexed Bond," available at SSRN: http://ssrn.com/abstract=907147.
- Shen, P. (2006), "Liquidity Risk Premiums and Breakeven Inflation Rates," Federal Reserve Bank of Kansas City, Economic review, Second Quarter 2006.
- McCulloch, J.H. and Kochin, L.A. (2000), "The Inflation Premium Implicit in the US Real and Nominal Term Structures of Interest Rates," Ohio State University Economics Dept. Working Paper, 98-12, revised in September 2000.

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